

# Excavations at Upper Borough Walls, Bath, 1980

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*EXCAVATIONS took place on the northern city walls of Bath adjacent to the site of the North Gate. A 2nd-century rampart was later cut back to receive a perimeter wall, fronted by a newly-metalled berm. A wide ditch beyond this was probably of 4th-century date. The Roman wall survived into the late Saxon period when outworks were constructed on the revetted lip of the re-cut ditch. These outworks were rebuilt, probably in stone, at some time during the late Saxon or Norman periods. Of approximately the same period was a massive ditch re-cut, in which the stagnant water deposits of late medieval 'Frogmere' were to accumulate. The outworks were demolished in the 13th century but their alignment survived in the positions of boundary ditches.*

*A chronology is argued from stratigraphic, ceramic and documentary evidence. Reconstructions of the defences are attempted in plan and profile leading to a general discussion of the boundary and defensive aspects of the walled circuit.*

## INTRODUCTION, GEOLOGY AND LOCATION (Fig. 1; Pl. 1, A)

Ancient Bath is almost entirely sealed by buildings protected by legislation, so the opportunities to excavate are few. A block of Georgian and Victorian buildings at nos. 1-9 New Bond Street and nos. 1-9 Upper Borough Walls, Bath (Avon, formerly Somerset) were condemned as unsafe in 1937, but schemes to replace them were only put forward in earnest in the 1970s, when the Bath Archaeological Trust began negotiations with Bath City Council, the previous owners, for permission to excavate the site. Its archaeological potential had already been demonstrated by a tentatively dated but convincing sequence of Roman defences.<sup>1</sup>

The 1979 redevelopment was commenced by Haslemere Estates Ltd., acting in co-operation with Bath City Council. The scheme comprised the retention and refurbishing of the buildings of nos. 1-4 Upper Borough Walls and nos. 6-9 New Bond Street, and the demolition and reconstruction of the remainder of the site.

Following negotiations by the Trust, final arrangements were made by the writer with Alec French Partnership (architects), Ove Arup & Partners (engineers) and G. Percy Trentham Ltd (building contractors), leading to an excavation in May 1980. This was financed by Bath City Council aided by a grant from the Department of the Environment.

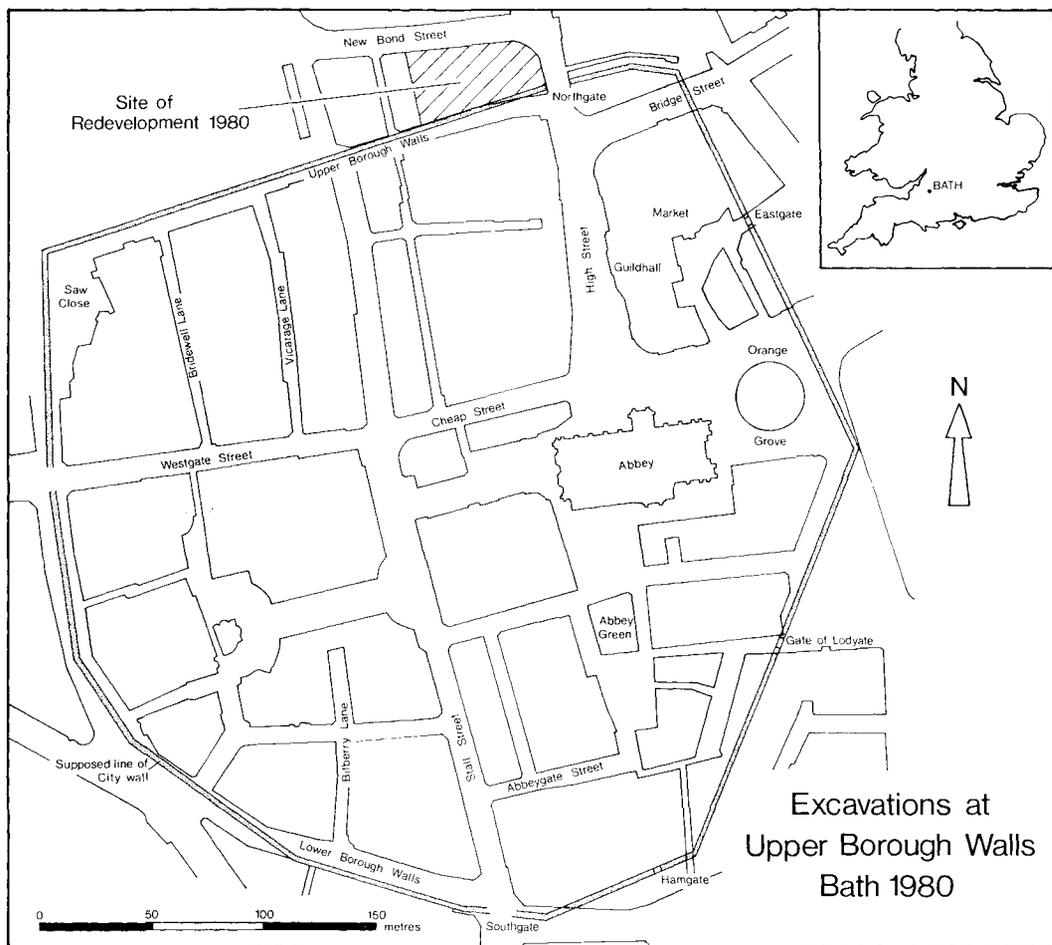


FIG. 1.  
Site location

The site (N.G.R. ST 751649) lies 50 m NW. of the Guildhall in the centre of the modern city. It is bounded to the N. by New Bond Street, to the S. by Upper Borough Walls, to the E. by Northgate Street, and to the W. by Georgian and Victorian buildings facing New Bond Street Place, which completes the insula.

The 1:63,360 Geology Map of Bath (Sheet 265) shows the site to be underlain by Jurassic Lower lias clay, the surface of which is generally brown and of a firm although occasionally soft or stiff consistency.

The map shows drift materials, about 100 m to the E. and 250 m to the S. of the site, where the lias is covered by soft alluvial clays and terrace gravels respectively. None is shown, however, in the area of the site itself. This would seem to be an error, for both in Cunliffe's excavation<sup>2</sup> and in those of 1980, a depth of river gravel was

found to overlie the blue lias clay: this was presumably part of the 100 ft. (30 m) terrace of the R. Avon.

As previously suggested<sup>3</sup> the original ground surface appeared to be level, although the modern streets drop sharply to E. and S. Cellars, built in relation to street level, had intruded to a much greater extent on the archaeological deposits in the E. of the site than on those in the W.

#### PRE-EXISTING EVIDENCE AND POSITION OF TRENCHES

The site plan summarizes the pre-existing evidence and shows how the 1980 West Trench was placed to overlap with trenches 3, 4 and 5 from Cunliffe's work of 1965,<sup>4</sup> which located the city wall and an earlier rampart. This evidence has been used in composite form in the reconstruction drawings (Fig. 2). Features numbered T1 etc., and BH4 etc., indicate trial pit and borehole evidence for the level of natural lias clay, in relation to ordnance datum. This, together with descriptions for fills above the clay, was gleaned from a geotechnical report prepared by Ove Arup & Partners, the site engineers.<sup>5</sup> Section drawings of most trial pits were included and after rigorous cross-checking a minimum level of archaeological reliability was established, allowing the outline of the city ditch to be projected as in Fig. 2. Whilst it is not possible to conjecture the precise shape of the eastern end of the ditch, there seems little doubt that it was rounded. The rise in level of the natural clay between T5 and T4 implies the edge of a ditch, which appears to have been bounded by a causeway because in pipe trenches further E., beneath modern Northgate Street, the clay was at a higher level still.

Documentary research<sup>6</sup> gave some suggestion of the development of the eastern end of the site from the late medieval period. The East Trench was therefore located as far E. on the site as was practically possible in an attempt to retrieve archaeological evidence for the documented development of the area outside the North Gate, as well as to give evidence of the city ditch itself. In the event it was able to elucidate the latter only, because of the effects of intrusive cellars.

#### OBJECTIVES, METHODS AND TECHNIQUE

The project was designed as an empirical study of the northern defences of Bath, with historical and architectural reconstruction being the objective to be reached by means of a stratigraphic sequence. Any evidence of Saxon defences would be of particular importance since so few remains of this period have been or are likely to be found within the walls.

Several categories of finds were to be retrieved by conventional hand-retrieval and through a controlled sieving experiment. Special attention was to be given to coins (for dating), and also to pottery and animal bone, both of which were to be studied together with assemblages from another recent excavation, in preparation for an integrated report.<sup>7</sup>

The size of trenches and the manner in which they were excavated were largely dictated by the fact that they were located on a busy building site on which heavy machines often had to move dangerously close to the excavated areas. The difficulty

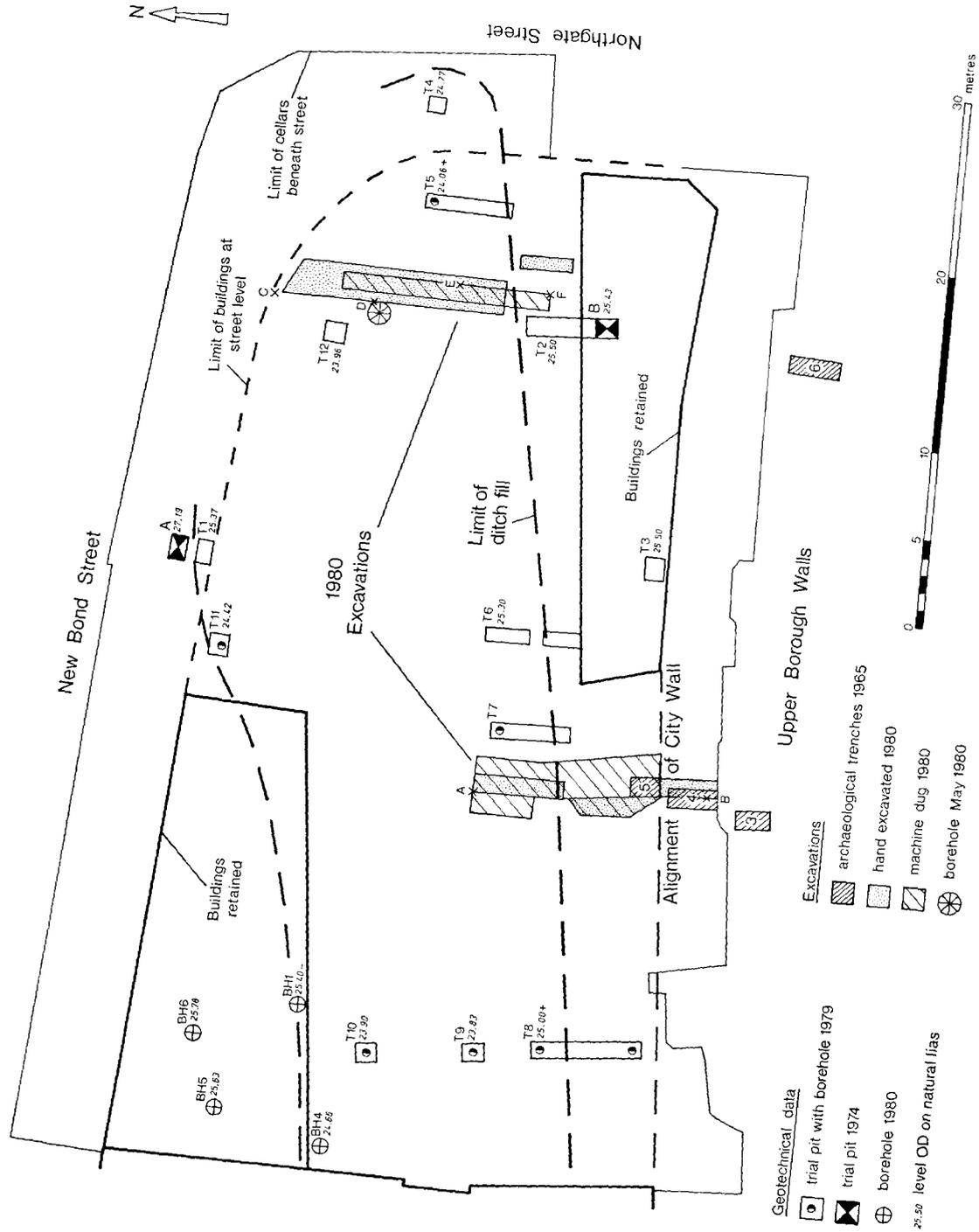


FIG. 2  
Plan of site

was compounded by the fact that the archaeological evidence lay at great depth, between 6 and 7 m below modern street level. Both East and West Trenches used, therefore, a combination of excavation by machine and by hand (the distinction is drawn in Fig. 2). The detailed sequence from the West Trench was derived in the following way: first, by digging a strip 1 m wide with a machine, right down to the natural clay; and secondly, with a basic understanding of the sequence thus gained, by hand-excavation of another 1 m strip. All stratigraphic units were interpreted in four dimensions, recorded individually and removed, as far as was practical, in reverse order to their deposition.

#### CONTENT OF THE REPORT

This is offered as a final report on work done to date, save that related to pottery and animal bone. A summary of the pottery study is given but, here, pottery is really only used as a dating agent. In contrast to the earlier sections of the report, the final section attempts to synthesise the evidence for the defences at a higher interpretative level.

Records of the excavation, finds from it, and records of low-level analysis of finds will be held in archive by Bath Museums Service.

## THE STRATIGRAPHIC SEQUENCE

### INTRODUCTION<sup>8</sup>

In a chronologically extended sequence, period interpretations are sometimes arguable. It is important, therefore, to understand how these were determined.

During the excavation all observable features were regarded, as far as possible, as equally significant, to help to keep the excavated evidence separate from its interpretation. Efforts were made to limit interpretations to those necessary to proceed with the excavation: for example, what were a layer's limits and what did it contain? Explanation of some of the excavated evidence stemmed from this procedure as a matter of course, but no definitive periodization was attempted. To do this on site is methodologically dangerous as it can easily be based on an incomplete assessment of all visible data: anything earlier than any particular exposed phase is obviously beyond understanding at that time, even though the earlier configuration may have generated the situation at the surface.

Instead, the level II data were grouped into phases after the excavation, by applying to the evidence considerations derived from the original research design. As we sought physical evidence for the defences, this meant straightforward structural considerations such as alignment.

The term 'phase' is used here in a minimal way and refers to layers grouped at level III on the basis of material similarity, stratigraphy or basic structural interpretation (e.g. 'these all appear to be fills of the same feature'). These phase groups should remain unaffected by any future reinterpretation of the major periods in the defensive sequence, and form the basis for analysis of the finds. Phases have been further grouped into periods which, in this case, involved the testing of the stratigraphic

### Sequence of Phases Grouped into Periods

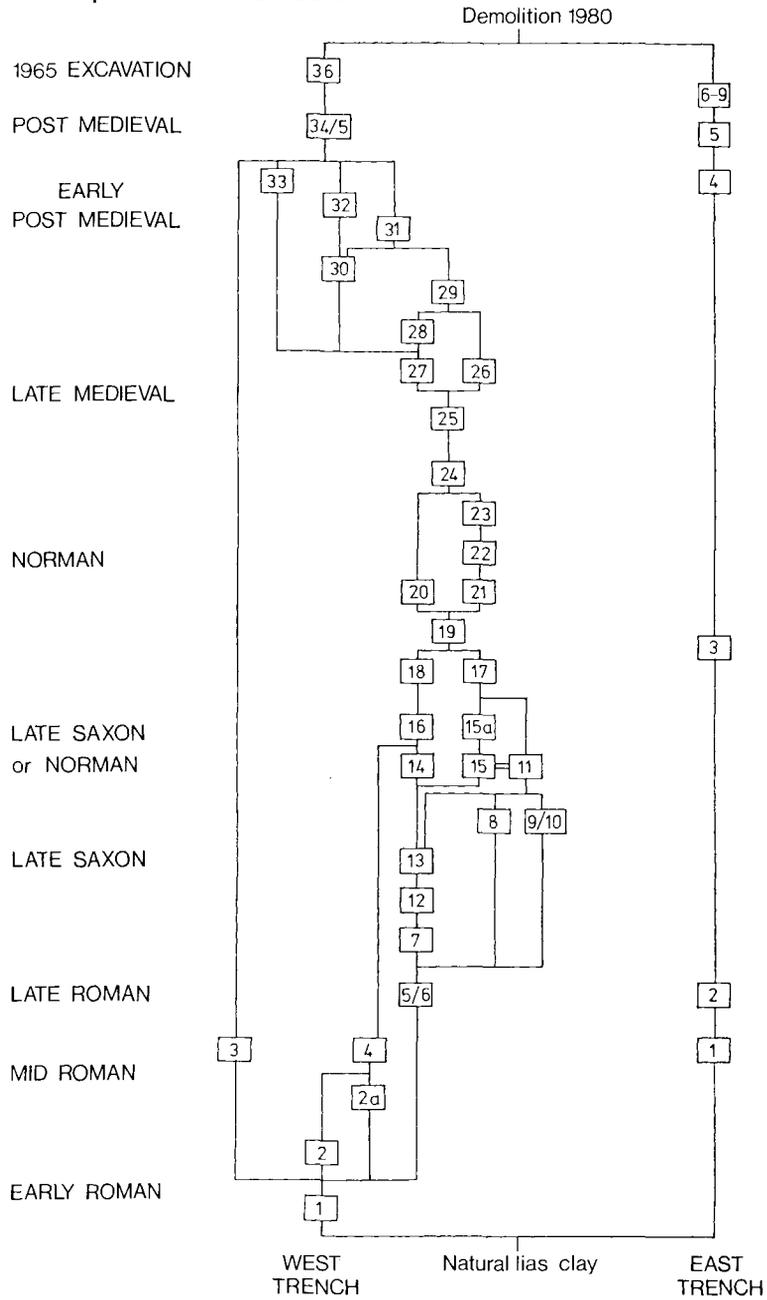


FIG. 3

evidence against several possible reconstructions of the defences. Those selected (Fig. 3) were ones that both made sense of an individual period and also preserved the integrity of the sequence as a whole. As a result, period groupings anticipate much of the argument relevant to the section on the reconstruction of the defences.

In the following sequences, phase numbers in the West Trench are prefixed with a 'W' and those in the East with an 'E'.

#### WEST TRENCH (Fig. 4)

##### Roman

*Phase W1: Rampart.* Lying immediately above undisturbed river terrace gravel, tips of gravel were interleaved with dumps of orange-brown clay like that of the weathered natural lias (described above) (615, 616, 618). This dump varied between 0.10 m and 0.5 m in depth and extended at least 5.2 m to the N. of the later city wall foundation (phase W3 below): it was sealed by the metalling (622) of phase W4. A small piece (712) of similar clay and gravel matrix was also exposed to the S. of the city wall foundation. This overlay river terrace gravel and was sealed by post-medieval fill. The similarity between deposits 712 and 615 etc., and the fact that they both capped exposed river terrace gravel, implied that, until cut by the city wall foundation, they had been one and the same. Detailed sediment descriptions were undertaken of 712 and two exposures of 615 etc., to ascertain whether or not this was so.<sup>9</sup> Little variation existed in terms of structure, consistency and particle-size distribution, thus reinforcing the hypothesis that the clay and gravel tips had once been continuous.

The West Trench had been placed to connect with Cunliffe's trench 5 of 1965 (Fig. 2):<sup>10</sup> what was recorded as unit 616 in 1980 was the same exposure of clay and gravel tips recorded as trench 5 layers 1-4 in 1965. The interpretation of the latter, though uncertain in 1965, is now apparent. Layer 712, lying 2.9 m S. of layer 616, must be stratigraphically earlier than trench 3 layer 7 of the 1965 section. Presumably, therefore, it was a tip in the sequence of clay layers 17, 18 and 22 of 1965 trench 1, recorded further to the S. This in turn would make 712 and 616 either part of what Cunliffe identified as a rampart of defensive type, or part of a berm contemporary with the rampart and laid immediately to the N.

*Phase W2A: Levelling down.* Each of the diagonally sloping clay and gravel tips described in phase W1 was of consistent thickness even if thicker or thinner than the adjacent tip. If the extant top of these deposits were to have represented the level from which the clay and gravel had been tipped, it would be expected that all the tips would have tapered upwards much more. That gravity had not had such an effect on these tips shows that they must have been dumped from a higher level, and subsequently planed off.

This hypothesis was tested on site by sediment analysis, which detected an absence of any ped structure in the upper part of the exposed clay and gravel (615 etc.), suggesting that truncation had taken place. This might imply that the rampart may have existed this far N., but it may only suggest that the surface of the possible berm of phase W1 was lowered at a later date.

*Phase W2: Pit.* Pit 623 cut the rampart tips of phase W1. As surviving it was 0.70 m in diameter and 0.45 m deep, though this may not represent its original depth. As it would have been physically impossible to dig such a narrow pit through the full depth of the rampart, the pit must either post-date any truncation of the rampart or, less controversially, have been cut into the berm suggested in phase W1. Leaving aside the inference to be

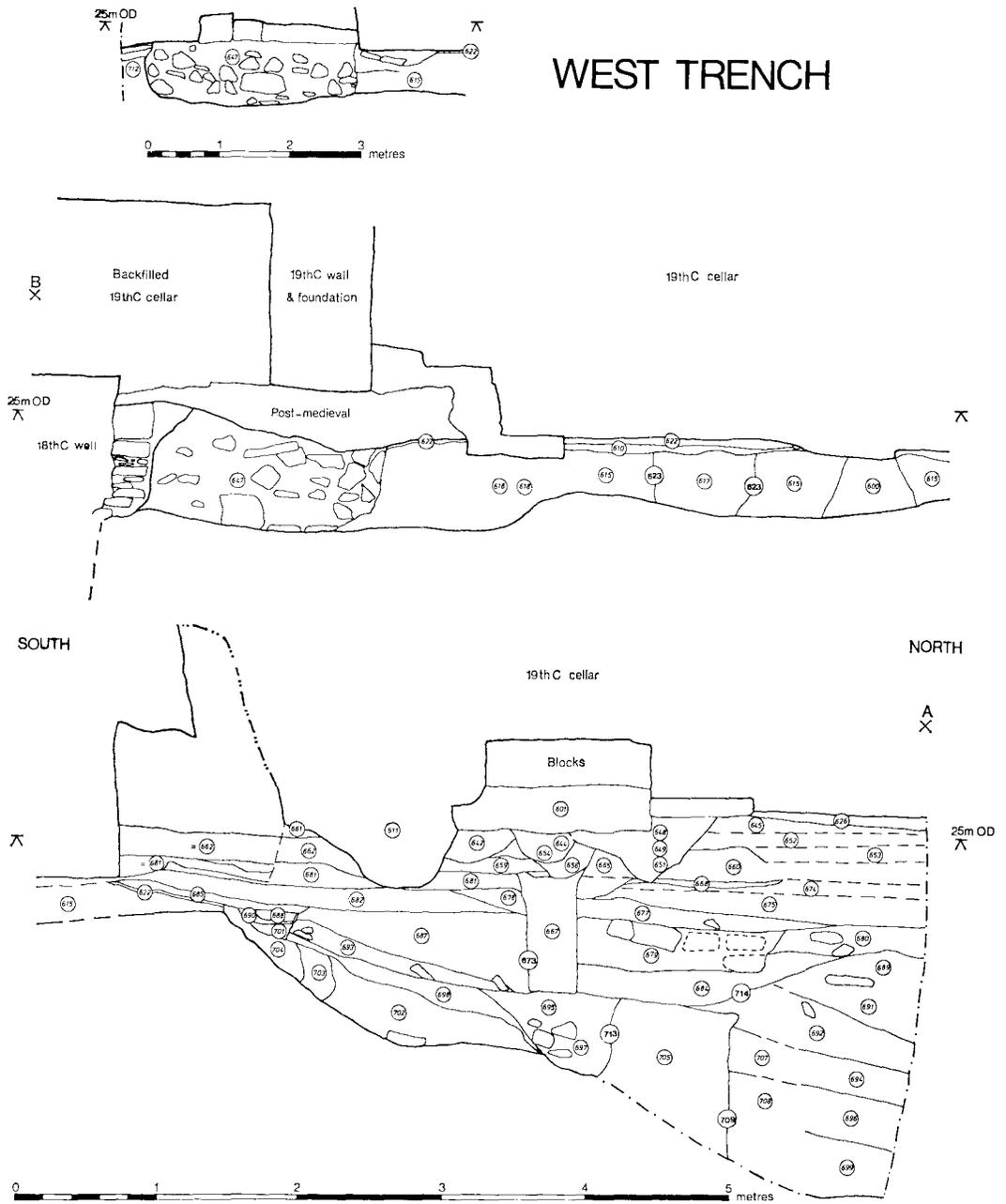


FIG. 4  
West Trench: Section

drawn in phase W<sub>1</sub>, from the existence of a large rampart and not a berm, the pit bore an ambiguous relationship to the truncation (phase W<sub>2A</sub>).

*Phase W<sub>4</sub>: First berm metalling.* Above pit 623 (phase W<sub>2A</sub>) was a band of yellow clay (610), 0.05 m thick, sealed by a thin but very firmly compacted metalling of gravel and pebbles (622). Within the West Trench, very little of this had survived the construction of cellars, but what little was visible suggested that the surface may have been cambered. Whatever the case, this metalling was the first clearly-defined berm surface. Stratigraphically, the metalling succeeded the pit of phase W<sub>2</sub>, but sedimentology shows that it must also have been laid soon after the truncation of phase W<sub>2A</sub>: the absence of a developed soil formation in the clay and gravel tips has been used above (see phase W<sub>2A</sub>) to support the argument for truncation. To remain consistent with this, the clay and gravel tips must have been sealed soon after truncation, and a compact layer like the first metalling (622) could easily have prevented a ped structure from developing in the tips beneath.<sup>11</sup> Through this argument, therefore, the truncation (phase W<sub>2A</sub>), the building of the wall (phase W<sub>3</sub>), and the laying of the first berm surface (phase W<sub>4</sub>) can all be seen as part of the same building programme.

*Phase W<sub>3</sub>: City wall foundation.* Cutting the clay and gravel tips 616 and 712 was an almost vertically-sided trench 0.7–0.8 m deep and 2.9 m wide. Only one narrow strip *c.* 0.8 m wide was exposed in plan. The trench was packed with large undressed pieces of oolitic limestone randomly laid in green and yellow clays mixed with a little gravel (647). This was sealed by post-medieval deposits. Given the existence of the earlier rampart and the later adjacent ditches, together with the considerable width of this foundation, it is taken to be the city wall foundation (Pl. I, B).

Its stratigraphic relationship with the truncation of phase W<sub>2A</sub> and with the first berm metalling (phase W<sub>4</sub>) was ambiguous, but, presumably, the building of the wall was preceded by the truncation to create space for a new berm and to avoid an unnecessarily deep foundation. Truncation before the building of the wall can be explained in terms of the conventional development of Roman town defences in which an early rampart is later cut back to receive a perimeter wall.

*Phases W<sub>5</sub>, 6: Earliest detected ditch and fills.* The northern edge of the truncated rampart was removed by a cut which penetrated the natural lias clay to a maximum depth of *c.* 1.5 m. The side of the cut had an average slope of *c.* 40° though it was quite irregular. It ran for at least 3.5 m to the N. of the truncated rampart to a point where it had been cut by the Saxon ditch 709 (phase W<sub>7</sub>).

The earliest fills comprised various clays (698, 702, 703, 704, 705) almost certainly derived from the gradual erosion of the berm and sides of the ditch. It was uncertain whether the curved profiles of layers 703 and 704 were formed by slumping or merely by the effects of root action. Root action was in evidence in both these layers and in layer 702, becoming much more dense in layers 703 and 704 towards the edge of the ditch. Fill 705 was not excavated with the care given to the other fills of this phase, but whereas root action was difficult to detect, there was no doubt about the abrupt northern end of fill 705, which, apart from a piece at the top, was entirely vertical, marking the place where it had been cut by the Saxon ditch (phase W<sub>7</sub>). Interpretation of information from the geo-technical report (Fig. 2)<sup>12</sup> suggests a northern limit for the ditch fills as a whole.

It is argued below that these fills are late Roman, and assuming therefore that they are roughly contemporary with West Trench fills 703, an overall width for the phase W<sub>5/6</sub> ditch is arrived at: it was a minimum of 14 m wide towards the W. of the site and up to 18 m wide nearer the E., where, on the basis of site evidence, a bulbous and rounded end to the ditch can be postulated, presumably at the point where it flanked the causeway to the North Gate.

## Saxon

*Phases W7, 8, 9, 10, 12, 13: Ditch re-cut and fills; breastwork.* The vertical edge (709) of ditch fill 705 was a maximum of 1.25 m deep, and represented a re-cut of a ditch that had gradually silted up. Complementing the phase W7 re-cut, 0.80 m to the S., was another almost vertical edge (713) which formed the northern side of a pit, much more gradually sloped on its southern side. It was filled with two mixed rubble layers (695, 697), the southern part of the latter having a concentration of stones. In fact both layers contained less rubble towards the N., and this change may mark a separate feature. A quantity of fine brown silty loam was found mixed with the finer rubble at the northern side of the pit, particularly towards the bottom. If this is taken to be the remains of a timber (as it has been in the reconstruction below), then the stone-free finer rubble in the N. of layers 695 and 697 might be seen as elements of packing that had fallen into the void formed by the decaying stub of an upright. The dumped rubble of phase W13 (below) must have had some retaining structure and an upright founded in pit 710/713 would have served this purpose well. The southern face of any such post must have lain against the stones in fill 697 and it is significant that the configuration of the later outworks includes a feature (cut 673), the northern edge of which would extend this vertical face precisely upwards.

Two layers of clay, silt, sand, mortar and rubble (693, 687, phase 13) overlay the southern edge of the pit described above, and are thought to relate to it, although earlier uncertainty led to their being phased separately for the purposes of artefact analysis. These obviously dumped layers levelled up the southern edge of the ditch with the berm, which was thus extended by *c.* 2 m. They were defined in the N. by cut 673. Excavated layers further to the N. on the same absolute level were of markedly different character, and in any case were much later than the ditch fills within the phase W7 re-cut. Dumps 693 and 687, on the other hand, resembled and immediately overlay the fills (695, 697) of a cut that was stratigraphically contemporary with the phase W7 ditch re-cut. At the time 693 and 687 were dumped, therefore, it is unlikely that any of the ditch fills, from 699 upwards, had accumulated. On this basis the dumps must have been retained at their northern end, a fact encouraging the interpretation of soil variations in fills 695 and 697 as marking the former position of a timber upright which could have performed this function.

The new re-cut itself filled up with a sequence of clayey deposits (689, 691, 692, 694, 696, 699, 707, 708). These usually contained about 20% silty loam and sometimes 5% sand. Three phases (8, 9, 10) were ascribed to the ditch fills, because they were excavated in three separate stages in a confined area and in atrocious weather conditions at the end of the excavation. To control any possible contamination between fills, they were treated individually for the purposes of analysis of pottery, etc.

Right at the top of layer 689 (phase W10) was a line of four upright stakes, alternately round (*c.* 0.05 m diam.) and rectangular (*c.* 0.04 m × 0.025 m) spaced evenly 0.3 m apart. Between 0.1 and 0.15 m was all that remained of each stake because they had been chopped off at ground level. Each was pointed and had originally been driven into the ground. It is difficult to interpret this alignment, but, as it existed at a time when the ditch had silted up, and towards the end of the life of the first outworks (phase 7 etc.) a defensive interpretation may be appropriate. The stakes may therefore have been part of a fence that was cut down when the defensive function of the area was reasserted in phase W11 (N.B. cut 714 of that phase).

## Late Saxon or Norman

*Phases W11 = 15, 14: Features cutting phase W13 dumps, etc.* Cutting the southern end of dump 687 was a feature up to 0.25 m deep with a steep slope on the northern side and a shallow one on the S. This comprised phase W14. In plan, although only 1 m of it was exposed, it was clearly not quite parallel with the edge of the ditch, or any of the other major E.-W. features. It was filled with clay (690, 701) and pebbly, sandy gravel (688),

and was sealed by the second berm metalling, 685. Two interpretations are possible: it may be a gully in which the clays represent gradual silting-up, the gravel having subsided from the base of the superposed metalling as organic material in the silt began to decay, or, preferably, the feature should be seen as the rear part of the structure used to retain the phase 13 dumps 687 and 693. The materials in all three layers 688, 690 and 701 occur locally at the surface of geological strata and it is just possible that these layers represent turves. If this were the case, they could have been built directly against the unstable southern edge of dump 687. Seen in either way the feature marks apart the phase W13 berm extension from the original area of the berm as defined by the first metalling (phase W4).

Phase W11 = 15 has been inferred in the following way. The phase 18 metalling above the phase 14 gully was clearly different from the layers N. of cut 673, in which some sort of wall must therefore have existed. The fill of cut 673 was definitely redeposited but the symmetrical cut cannot itself have been that of a robber trench. (Such accuracy in a robber trench would surely be unique.) The cut must therefore represent the form of the feature actually robbed. Given this, together with the fact that at the same absolute level all layers to the S. of the cut were earlier than it, and all layers to the N. were later, the only way this feature could have been built was before any of the later layers were formed. To the N., therefore, where ditch fill 689 was clearly truncated by cut 714, an explanation is available, for this cut, which was continuous with the base of cut 673, would have removed the stake-holes (phase W10) and ditch fills that had accumulated at the foot of the phase W13 dumps 687 etc., thus creating the space for a wall to be built against the face of the dumps. If the argument for a post in phase W12 is accepted, cut 714 implies its removal and, probably, its immediate replacement by a new wall. Given the width of cut 673, this wall is unlikely to have been of timber. Whatever the fabric used, it would have found a solid foundation in the phase W12 rubble packing 695 on which the wall seems to have rested. The fill of cut 714 was a mixed but firmly compacted clay, loam and sand (684) between 0.15 m and 0.2 m thick. This levelled off the area immediately to the N. of the new wall.

*Phases W15A, 16, 17, 18: Accumulations, 2nd and 3rd berm metallings.* Sealing the phase 14 gully was a compacted layer of pebbles in a little clay between 0.04 and 0.06 m thick (685, phase W16). This second berm metalling was traced for a distance of *c.* 1.4 m only, but it was impossible to tell whether this was its original length or whether it was the result of the erosion of a larger surface. Certainly there was no chance of finding it further S., where the post-medieval cellars had intruded. Above this a third and much more substantial berm metalling (682: phase W18) had definitely been chopped away on this southern edge by Georgian cellars. This was *c.* 0.15 m thick and formed of a pebble and clayey loam matrix capped by pebbles and flat-laid stones up to 0.1 m across (Pl. 1, c). Though more substantial than the second metalling, this surface used larger stones and pebbles and was neither as well-made nor as compacted as the second berm metalling. This extended the berm surface right up to cut 673 and gave it a width, from this point to the city wall, of 7.2 m.

North of cut 673 a silty clay accumulation (680: phase 15A) had sealed the backfilled cut 714 of phase 11 = 15. This was cut by a flat-bottomed, steep-sided pit 1 m square and 0.3 m deep. Into this, blocks of oolitic limestone between 0.3 and 0.5 m square had been set in dense blue-grey clay (679: phase W17). Those at the northern edge were roughly dressed, in contrast to the rest, laid four abreast in two superimposed rows. Behind this facing or revetment the stones were undressed, flat-laid and scattered rather haphazardly. Although only a single 1 m strip was exposed, this feature was quite definitely not linear and lay within a pit. The edges of this were completely exposed on the N. and E. while the western edge lay just behind the face of the section drawn in Fig. 4. The stone within 679, drawn in the section in heavy line, penetrated it by only a few centimetres, while those stones shown in dotted line had lain flush with the drawn face.

*Phase W19: Mortar layers 677, 678.* These two units occurred on either side of cut 673 and were of identical mixtures of fine sand, grit and pebbles, and fine clay. Some of the sand and grit held together in small fragments of no more than 0.01 m across, and these constituents had clearly once been mortar, out of which the cement element had leached almost entirely. Unit 678 overlay the northern edge of the third berm metalling, and 677 completely sealed the buttress 679, which must therefore have been out of use.

It is impossible to be certain whether these two deposits indicate the same activity on both sides of the wall in cut 673 or whether they had once been one and the same deposit sealing a disused feature. The former interpretation is preferred, however, because until the time cut 673 occurs, implying the removal of the inferred boundary, layers continue to be different on either side of it. The layers above were completely different in composition and compaction (681 phase 20 and 675 phase 21). It is assumed, therefore, that these two layers represent the same activity either side of the division.

Given their mortar content it seems fair to see them as deriving from the boundary feature itself. If this is so they might mark any decay, demolition or construction process. Since mortar like that in layers 677 and 678 was not found in layers above or below them, and the decay of a wall is a gradual process, decay is discounted. Mortar of distinctive type at one level implies a single event, but of the two remaining possible explanations demolition can also be discounted on the argument put forward immediately above, that the boundary feature remained until the time of cut 673. Further, as the feature must already have been standing to have divided layers in preceding phases, mortar layers 677 and 678 are taken to infer repairs to a pre-existing feature rather than construction *de novo*.

*Phases W20, 21, 22, 23: soil accumulations.* To the S. of cut 673, above the phase 19 mortar 678, was a compacted loam with some sand and clay (655, 674, 675). None of the accumulations above these needs to have been deposited till after cut 673. Between spits 674 and 660 of what was otherwise an homogeneous accumulation was a band of dense charcoal (668).

*Phase W24: Robber trench 673.* Cutting the deposits described in phases W20–23 was the top of cut 673. In discussion above (phase 11 = 15) it has been suggested that the lower part of this cut, comprising the vertical sides and flat bottom, was formed by the feature which had stood in the trench, the robbing having preserved the interface between the robbed feature and contiguous stratification. In the upper part of this cut, however, where it leaves the vertical, one may speak of a true robber trench edge. That this was a robbed feature was clear from the redeposited loamy clay (667) which entirely filled the feature. In this, there was no sign of rapid silting or gradual accumulation of any kind, and the feature must have been immediately filled in.

### Late Medieval

*Phases W25–33: Boundary ditches 1–5 and soil accumulation.* The phase W24 robber trench marked the end of any defensive or arguably defensive arrangement on the N. side of the berm. The trench was sealed by a clayey loam (659) which was similar to, and on the same absolute level as, two separate layers 660 and 662. From these accumulations upwards to the level of the Georgian cellars the development of the site concerned a sequence of ditches, all running E.–W., cut from different levels in a virtually homogeneous soil accumulation (spits 660, 653, 652, 695, 626, 672, 661). They were: ditch 1 = 656; ditch 2 = 641; ditch 3 = 644, 654, 655; ditch 4 = 648–651 inc.; ditch 5 = 611. The profiles were all roughly V-shaped and their varying sizes are visible in the drawn section. Their fills comprised matrices of silt, clay and sand, often with some rubble lenses. Ditch 5 apart, perhaps, the ditches were too small to have been for anything other than drainage, although the fact that all lie on or about the same E.–W. alignment also infers a boundary function. This becomes more significant when the underlying configuration is considered, because the ditches also repeat the alignment of the phases W7 and 11 = 15 defensive features at

the N. edge of the berm. Georgian cellars had removed all trace of the berm in the late medieval period but 'a way by the walls' is known to have existed. The ditches may therefore divide this public thoroughfare from the land to the N., above the backfilled city ditch, which the city gradually sold into private hands throughout the late medieval period.

*Phases W<sub>34-36</sub>: Post-medieval cellar.* These are of little import to the present report; anything of significance will be dealt with elsewhere.

EAST TRENCH (Fig. 5)

The East Trench was generally less informative than the West. The Roman and possible Saxon layers add little to what is suggested by the sequence established above, and emphasis here is therefore given to the medieval period. Where accessible,

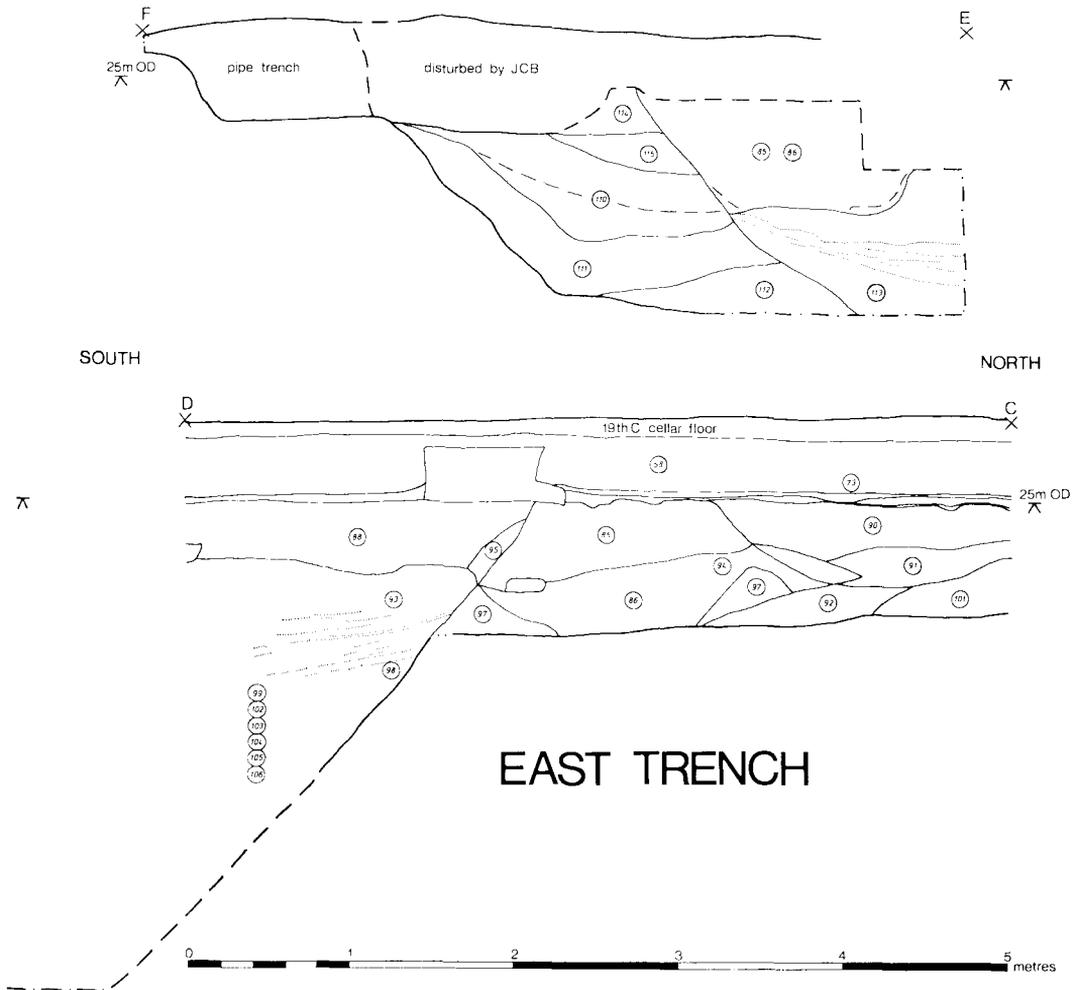


FIG. 5  
East Trench: Section

the area of the berm had been truncated by Georgian buildings in this part of the site, and the excavation dealt with a sequence of ditch fills only.

### Roman and Possible Saxon

*Phases E1 and 2.* The natural lias clay was cut into to a depth of at least *c.* 1.15 m by a cut, the S. side of which bore a similar profile to the earliest cut in the West Trench. The extent to which this was an undisturbed ditch profile is open to question, because the upper profile of the primary fill of sandy clay (112) sloped downwards from N. to S., suggesting that it had been cut (116). If this is a re-cut then the extant southern edge of the ditch may be a function of this and not something earlier. The fill within this cut (64) had an upper profile which mirrored its lower one at the interface with primary fill 112. One might therefore suggest another re-cut, but in fact the case for both re-cuts rests uneasily, although the first is more easily supported. Neither cut has silt of any kind, and both layers 51 and 64, although different, were mixed in character and almost certainly dumped. If these V-shaped profiles do not represent re-cuts then the surfaces of fill 112 and 64 cannot have remained open to the elements for long, otherwise gravity would have re-established a curved profile, like that which eventually formed on the surface of fill 51.

At the N. end of the section the extant ditch fill was shallower than in the S., but although the bottom was at 24.20 OD. as opposed to 23.62 OD. in the S., there was no way of telling whether or not this end had originally been any less deep, for the northern side of the ditch was not excavated. Observation of builders' trenches in the cellars to the N. showed that the edge of the ditch was no more than 5 m away at the very most. This part of the drawn section is difficult to interpret but the lowest fills (92, 97, 100) were probably late Roman.

*Phase E4.* A flat V-shaped cut through layers 92 and 97 was filled with a mass of oolitic limestone boulders lying in uncompacted clayey silt (86): large stones featured in a similar though more mixed layer immediately above 85. Layer 85 was cut on the S. by the phase E3 ditch re-cut (below) and on the N. by the post-medieval cut of phase 5.

The phase E4 dumps cannot be interpreted with confidence, but the manner in which the stones in them were deposited gives the impression of an attempt to reconstitute muddy ground. If this part of the extant ditch is truly representative of its ancient depth it may be that layers 85 and 86 are the remains of a small causeway built across the northern reaches of the ditch possibly in the Norman period.

### Medieval

*Phase E3: 'Frogmere'.* Cutting fill 114 (phase E2) on the S. and fill 85 (phase E4) on the N. was a massive re-cut (108) of the city ditch. Its side sloped steeply at an angle of nearly 70° to an excavated depth of *c.* 1.75 m, but a hand auger borehole (Fig. 2) through the distinctive fills of this feature established that originally it had been at least 3 m deep. Although the feature was not defined in plan, its fills (Pl. 1, D) were sufficiently diagnostic for its limits to be established with some accuracy. North and S. limits were established by excavation which therefore afforded a good test of the quality of recording in the site engineer's geotechnical report (Fig. 2), which recorded changes consonant with the presence of the re-cut. It was with some confidence, therefore, that the recorded absence of ditch fill of any kind only *c.* 7 m to the E. of our East Trench was taken to mark the furthest possible eastern limit of the re-cut. The re-cut did not appear in our West Trench but that is not conclusive. More significant was the absence of the diagnostic ditch fill in piling trenches 12 m to the W. of our East Trench. (These were done at random by site contractors during our excavation and are not marked on Fig. 2.) On the basis of the distribution of the diagnostic fill a minimum area *c.* 22 m × 8.5 m can be reconstructed. It should be stressed that this is the

area of the *fill only*, which was deposited as a result of a change in the natural drainage conditions and formed where conditions were wet, possibly at one end of a much larger feature. On the other hand, it does not *have* to be seen as part of a larger feature because a short length of deep, wide ditch would not be surprising alongside the important and vulnerable North Gate, particularly if the rest of the ditch circuit had silted up.

The earliest fill at the southern end of the cut was a blue-grey silt with small stones (I12), lacking the striations of the rest of the fill. These were examined in consultation with a specialist.

*Frogmere sediments* (Pl. I, D), *by* MARTIN JONES. 'The fine particle size and gleyed profile exposed in the section of layers 93, 96 and 98 and spits 99, 102, 103, 104, 105 and 106 indicate that these sediments were laid down under water. In addition, the absence of the kind of macroscopic plant debris, leaves, stems, roots etc., that could have been preserved in these conditions suggests that it was stagnant water. An examination of the profile reveals that although particle size is consistent, the sediment colour is variable, comprising intercalating bands of grey and black. It is suggested that this reflects seasonal variation, the black layers being formed during the summer months and being due to the increased microbial activity associated with warmer conditions and less frequent precipitation. The distance between consecutive black bands varies between 0.6 and 2.5 cm, but is on average just above 1 cm. This would suggest that the 3 m of deposits in Frogmere accumulated over some 300 years.

The olive green colouration in the upper part of the section (layer 88) is the result of oxidation of the sediments and would suggest that Frogmere was beginning to dry up at this stage, and that soil formation had been initiated. However, the absence of any ped structure in the upper part of the profile suggests that the soil surface itself had been truncated.'

During the formation of these sediments the feature must have been a stinking black morass and it was with absolute confidence that it was identified as medieval 'Frogmere', an evocative label derived from Vroggmere Lane, which lay beneath modern New Bond Street to the N. of the site and was referred to as early as 1326.<sup>13</sup>

### Post-Medieval

*Phases E5-10.* At the extreme northern end of the section the ditch fill was cut by a shallow feature of unclear function, filled with layers 90 and 91. Phases 6-10 all related to buildings of the 18th century or later and will not be discussed here. The cellars in the earliest of these buildings appeared to have truncated the uppermost levels of Frogmere and city ditch fill (see sedimentological evidence presented in phase E3 above).

### THE POTTERY. *By* JEREMY EVANS *and* MARTIN MILLETT

The pottery from the Upper Borough Walls site has been studied in conjunction with that from the Orange Grove.<sup>14</sup> This report is only a general summary of the nature of work on the Upper Borough Walls assemblage. Emphasis is given to the pottery chronology as it is the only means of absolute dating available on this site. All the pottery, irrespective of date, was classified according to fabric, which was defined visually with the aid of a hand lens. The occurrence of each fabric in each layer was recorded, and each fabric was compared with other pottery from Bath. This was made possible by the co-operation of other specialists who kindly made their work available.<sup>15</sup>

Forms were identified and drawn within each fabric, and the evidence of both fabric and form provided the basis for the dating given below. Quantitative examination of fabrics through time was possible, but there were too few of most of the forms to make this particularly worthwhile.

Layers were initially grouped into the excavator's phases. These have, in turn, been grouped into broader time periods, determined in conjunction with the excavator, to

increase the sample size and to make groups more reliable, and to enable us to make direct comparisons between the two sites. The following aspects of the pottery have been considered:

1. The technology of the pottery through time.
2. The surface treatment of the pottery through time.
3. The quantity of pottery-per-unit-volume through time.
4. The quantity of each shape category of vessel through time.
5. The amount of residual pottery through time.
6. The quantity of pottery versus glass through time.

This analysis provides an anatomy of pottery supply to the city in the medieval period and of the major changes between the Roman, medieval and post-medieval periods. In this way an attempt has been made to put the pottery into a general archaeological context.

*Pottery chronology for Upper Borough Walls.* The dating below was only made possible by a study of the whole pottery assemblage. Had the study been confined to rims alone the dates would have been biased towards residual material and in many cases dating would not have been possible.

#### WEST TRENCH

*Phases W1-2.* The samian is consistent with a mid 2nd-century date and the coarse wares do not conflict with this.

*Phases W3-6.* Probably all residual. The samian does not post-date the mid 2nd century and the amount of samian in relation to coarse wares is excessive (although it does represent several different vessels), suggesting the erratic behaviour of residual material. The coarse wares would not be out of place in a 2nd-century deposit.

*Phases W7-10, 12, 13.* Overwhelmingly residual, with a single sherd of Vince fabric B (Bath fabric MAA)<sup>16</sup> in the upper fill of phase 10. This may date between the 10th and 12th centuries if it is not intrusive. In consequence the deposit may date to any period between the end of the 4th century and the 11th.

*Phases W11, 14-24.* All material is consistent with the period 10th/12th centuries, although mid 11th/12th centuries is probably more likely. No material provides any closer dating within this period.

*Phases W25, 26.* Phase W25 post-dates W24 and contains fabric MAD, for which Vince suggests a 13th-century date, and also much fabric MAC which clearly continues into the 17th century at Citizen House. It precedes phase W27 which seems unlikely to be later than the 14th century. A 13th-century date is therefore suggested. No reasonable evidence is available for W26 and it is therefore grouped with the preceding phase.

*Phases W27, 28.* In phase W27, the early medieval fabrics MAA and MAC are declining rapidly and are perhaps residual. A 13th-/14th-century date is therefore suggested. W28 contains insufficient material and is grouped with the preceding phase.

*Phases W29-31.* In W29 fabrics appear similar to those in W27. Fabric MAC has declined substantially, although it is still a major fabric component in the later Citizen House pits<sup>17</sup> which are dated as 13th century. Although fabrics MAD and MAB might appear earlier, it seems unlikely that fabric PAB is pre-15th century.

Phase W<sub>30</sub> contains insufficient material and is placed in the same group as W<sub>29</sub>. Phase W<sub>31</sub> includes fabric MAG (14th/15th century)<sup>18</sup> and fabric MAH (up to the late 14th century).<sup>19</sup> It shows considerable similarities to Orange Grove phase 2 which is 15th century and also includes fabric PAB which seems unlikely to be pre-15th century. A 15th-century date is therefore suggested.

*Phase W<sub>33</sub>.* Fabrics are comparable with Orange Grove phases 7 and 8 (16th century) and include fabric MAJ which is unlikely to pre-date the 16th century in this part of the country.

*Phase W<sub>34</sub>.* This phase contains one sherd of fabric PBI which is unlikely to pre-date the 18th century.

*Phase W<sub>35</sub>.* Victorian and later.

#### EAST TRENCH

*Phase E<sub>2</sub>.* The material is consistent with a later 4th-century date, the Oxfordshire wares (Fabric RAJ) in particular suggesting a date in the second half of that century. The absence of samian and of other fabrics which are necessarily earlier suggests a good contemporary group with little, if any, residual material.

*Phase E<sub>5</sub>.* Contains one sherd of fabric PAF which is unlikely to precede the 17th century.

*Phases E<sub>6-9</sub>.* E<sub>6</sub> contains a number of fabrics, apparently residual of the 18th century. There is also a little material which is definitely Victorian (PAY) suggesting an early Victorian date. E<sub>9</sub> is Victorian or later.

#### CONCLUSIONS

The study shows the following points:

1. Fabric figures show clearly the pattern of pottery supply through time. Too little pottery was present for the study of form through time to be developed significantly.
2. The pottery falls into three major periods on the basis of the fabrics, with major changes in the 4th-9th centuries and the 16th century. Most evidence is available for the latter.
3. The 16th-century ceramic revolution is marked by an increase in ceramic variability, with a change from a jar-pitcher to a dish-bowl-jar assemblage, and an increase in the number of fabrics. Changes in surface treatment and technique of manufacture also occur during the same period.
4. The 19th century shows another major change, towards a plate-dominated assemblage.
5. The first steps are taken towards an understanding of residuality, which is shown to be influenced by complex factors.
6. Sieving made little impact on the figures, and therefore does not seem particularly valuable from a ceramic point of view.

#### HISTORICAL EVIDENCE

Augmenting the stratigraphy and pottery dating, the third and final type of evidence available for this site is the historical. This falls into four categories: (1) References to the town defences; (2) References to the site; (3) An Old English poem; (4) References to political and military events evoking Bath's strategic location.

1A. The town is included in the *Burghal Hidage*, a list of fortified settlements compiled between 911 and 919.<sup>20</sup> From this, an estimate can be made of the length of the manned defences.

1B. During the civil war, in A.D. 1138, King Stephen made Bath his base for an attack on Bristol. The *Gesta Stephani*<sup>21</sup> contain four relevant references:

... this town, then, because it was easy to fortify.<sup>22</sup>

... having brought scaling-ladders and other devices for climbing a wall.<sup>23</sup>

... The King after inspecting the circuit of the town and going all around it found it to be an impregnable position and admirably suited to resistance, and therefore he gave orders for the walls to be raised higher, the battlements made steeper and a close and careful watch kept, with the assistance of a numerous garrison, to restrain the people of Bristol.<sup>24</sup>

... So the soldiers whom the King had left in the town of Bath to attack the people of Bristol behaved with resolution and energy, strengthened wall and mounds impreguably by every device for resistance, kept armed watch in turn around the walls through the dead of night and sometimes in that very silence of night went out of the walls and prepared ambushes in suitable spots.<sup>25</sup>

1C. There are references to stone being robbed from the walls in the 13th century.<sup>26</sup> Bath's earliest recorded murage grant is of 1369.<sup>27</sup>

2A. As early as 1326 buildings appeared along 'Vroggmere Lane', 20–25 m N. of the city wall.<sup>28</sup>

2B. In 1615 Richard Swallow built on 'wasteground'.<sup>29</sup> From the relative locations of surrounding properties it can be shown that Swallow was building on top of the defunct city ditch.

3A. An Old English poem called 'The Ruin'<sup>30</sup> describes a crumbling edifice often thought to be the baths and temple complex in decay.

4A. King Offa of Mercia laid claim to Bath at the synod of Brentford in 781.<sup>31</sup>

4B. Edgar was crowned King of England at Bath in 973.<sup>32</sup>

4C. The western thegns came to Bath in A.D. 1013 to submit to the Danish King Swein.<sup>33</sup>

4D. Bath was occupied by both forces in the Civil War of the 17th century. Walls were strengthened and some earthworks constructed.<sup>34</sup>

## CHRONOLOGY AND RECONSTRUCTION

### EARLY ROMAN: RAMPART

*Chronology.* Truncated remains of a rampart were exposed to the N. of an undamaged part of the same feature as was excavated in 1965.<sup>35</sup> The samian and coarse wares within the rampart were consistent with a mid 2nd-century date.

*Reconstruction* (Figs. 6 and 7). Discussion of the early phases of the West Trench has shown that although truncation took place (phase W2a), there is no way of saying exactly what was being truncated. It could have been one huge rampart, subsequently cut back by 6.5 m to receive the city wall, or it could have been an early berm,

slightly levelled down at the time the wall was added. The latter (Fig. 7) is perhaps the least controversial interpretation, implying the need for much less labour at the time of the rampart's construction, because with a base *c.* 12 m wide, as opposed to one of *c.* 17 m, the building material for the defences would not have required the digging of an inordinately large ditch. This interpretation also implies the need for less labour at the time the city wall was built against the front of the rampart. This is nothing more than a preferred alternative and both interpretations are offered in the reconstruction drawing (Fig. 6). The angle of slope at the front of the rampart has been constructed at *c.* 65° which would have required turves to maintain it, and is taken as a compromise between a timber revetted rampart and one of simple dump construction.

There is no evidence for an early Roman ditch, but for either interpretation it is quite conceivable that any such feature would have been entirely removed by a large late Roman replacement. Certainly, the only place an early ditch could have existed without being detected was on the same line as the later feature. The small V-shaped ditch conjectured in Fig. 6 may well be too small and is merely a conventional representation of a ditch fronting an early Roman rampart. Disregarding such typological restriction there is no reason why the early ditch should not have been almost as big as the later one. Indeed, if the ditch is to be taken as the source of the material forming the rampart, this ought to be so.

#### LATE ROMAN: WALL, BERM AND DITCH

*Chronology.* Previously, it could be said that 'at some unspecified date in the Roman or medieval period, the city wall was inserted into the rampart. If the layer of stone chippings lying on the rampart . . . belongs to the construction period of the wall, the wall can be dated to some time in the 3rd or early 4th centuries, but since there is no proof of this relationship, the question of date must remain open'.<sup>36</sup> This argument can now be developed, but in the absence of finds from phases W2A, W3 and W4, the dating depends on parallels with defences at other sites.

It has been argued above that the truncation of the rampart (phase W2A), the building of the city wall (phase W3), and the laying of the first berm surface (phase W4) were parts of the same building programme (Pl. I, B). The key to their dating by archaeology, however, is the city ditch. The deep, wide feature (equated in phases E2 and W5) cut the edge of the rampart (phase W1) and was presumably in use with the earlier berm (phase W4), thus implying a city wall S. of this space (Fig. 7). This is a common late Roman defensive arrangement and some ditch fills (51, 64 of phase E2) contained good later 4th-century groups.

This argument alone is enough to dispel doubts about the Roman origin of the city wall in Bath,<sup>37</sup> but one can venture further. Unlike the truncated remains uncovered in 1980, the previously recorded section of rampart had at no stage been levelled. Indeed, it had been added to, although it makes no difference to the present argument whether or not this happened at the time the city wall was built, because the basic form of the rampart was unchanged by the addition.<sup>38</sup> Walls with internal banks are said to date to the late 3rd century.<sup>39</sup>

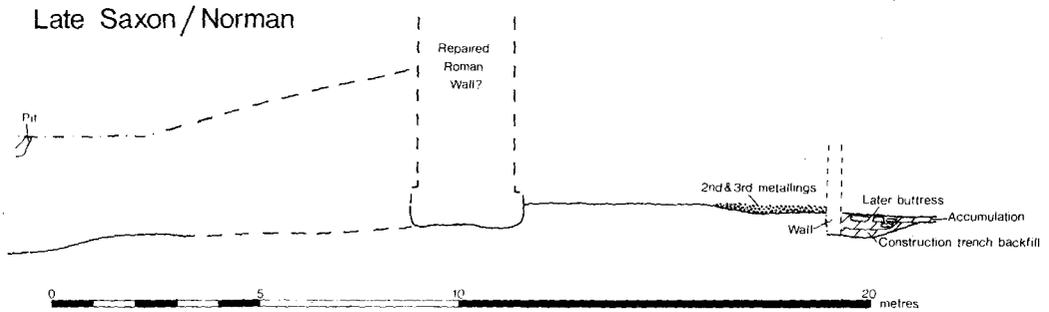
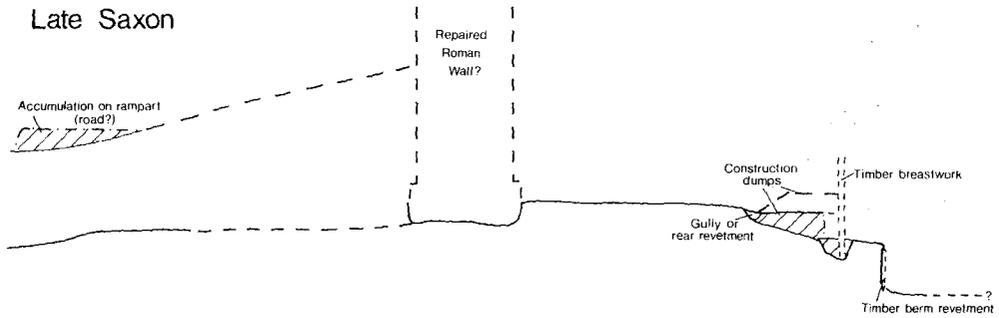
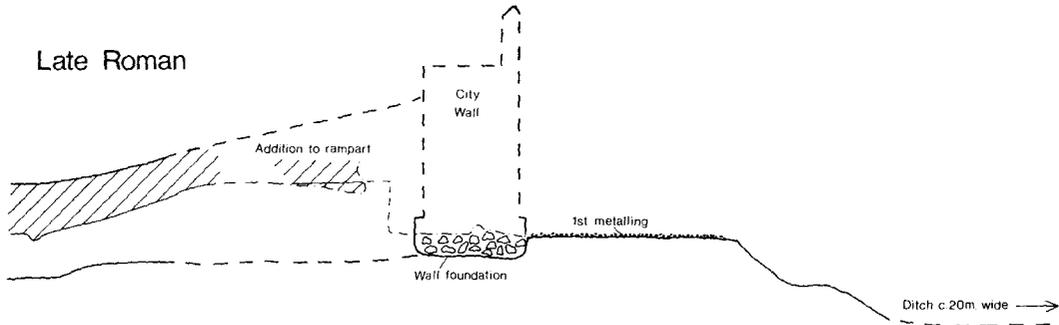
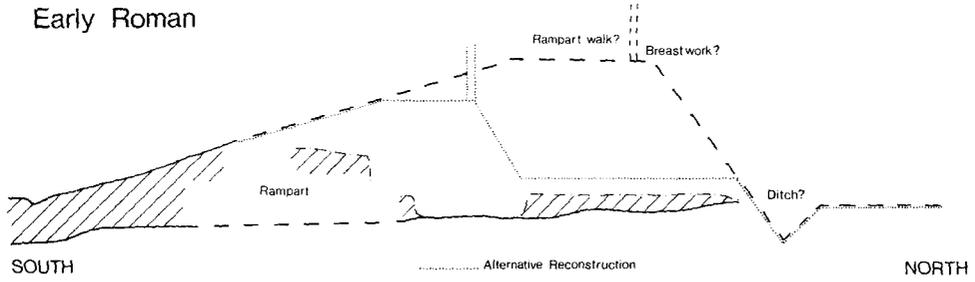


FIG. 6  
Reconstructed profiles of the defences

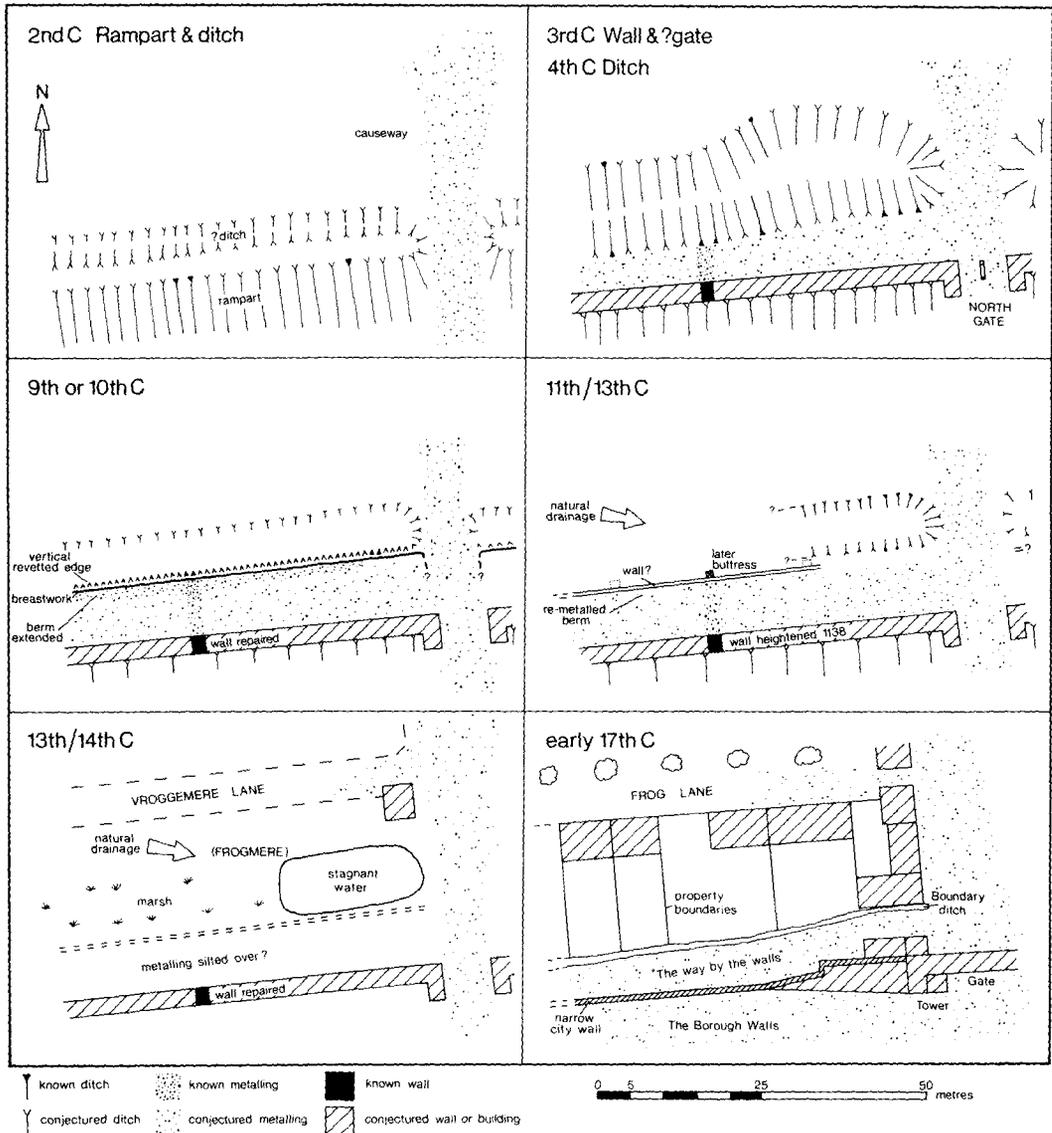


FIG. 7  
Reconstructed plans of the site

The date of the wall can tentatively be refined a little further. On the basis of the documented decay of post-medieval turf-revetted ramparts, it has been suggested that Roman equivalents would have had a lifetime of no more than 50–75 years,<sup>40</sup> like some fort ramparts which survived from the Flavian period to the middle of the 2nd century.<sup>41</sup> If it is assumed that the wall was only built when the rampart was in

decay, and acknowledging the fact that the rampart may post-date the mid 2nd-century pottery within it by some time, one is left with an early 3rd-century date as being most likely for the wall. A ditch (phase E1) may have accompanied it, only to be replaced by a larger ditch (phase E2, W5), sometime in the 4th century.

*Reconstruction* (Figs. 6 and 7) The foundations were of average width (2.9 m) for a town wall and would have been quite capable of carrying a wall of 6–7 m. A minimum possible height is given by the fact that a wall at least 5 m high is required to climb above the addition to the rampart,<sup>42</sup> and yet also include *c.* 2 m to cover the patrolling sentries. Only one offset is shown but there could have been several.

Beyond the metallated berm, the reconstruction shows the excavated part of a wide ditch of typical late Roman defensive type, usually thought to have accompanied the addition of bastions to a defensive circuit as a strategic response to the improved technology of siege warfare.

#### SAXON: FIRST OUTWORKS AND RE-CUT DITCH

*Chronology.* Given the depth of ditch fill in the West Trench (phases W5, 6, equated with the later 4th-century fill of phase E2), a long time must have elapsed before the ditch was re-cut (phase W7). The ditch is, therefore, probably Saxon. This date is supported by the fact that the outworks thought to be contemporary with the re-cut (phases W12, 13) cannot be reconstructed in a known Roman fashion. The pottery is not at all helpful, allowing any date between the end of the 4th century and the 11th.

One argument suggests that the first outworks may be those of the *Burghal Hidage*. For this, the original defensive circuit must be established. The burgeoning development of Georgian Bath led to the rapid demolition of the city walls but their alignment survived in the new street pattern (Figs. 1 and 8F). With the help of Speed's map of 1610, these alignments can be used to suggest the position of the medieval *enceinte* which had an estimated length of 1,250 yards.<sup>43</sup> In the *Burghal Hidage* Bath was assessed at 1000 hides. On the basis of each *burh* being manned by one man per hide and with four men for each perch of rampart, the Bath *enceinte* should have been about 1,375 yards long (Fig. 1). The small discrepancy in length need no longer be made good by adding the extra piece of wall at the SW. corner of the city shown in Stukeley's map,<sup>44</sup> since that is not of proven Saxon origin.<sup>45</sup> Instead it may be suggested that the *Burghal Hidage* assessment was being made for the perimeter of the outworks, since their circumference, as opposed to that of the surviving Roman wall, approximates closely to the 1,375 yards of the *Burghal Hidage*.

The *Burghal Hidage* reference to Bath implies the existence of serviceable defences early in the 10th century but these need not have been newly built. An approximate date for their construction is suggested by the explanation of why it was necessary to have outworks at all, when, together with the berm, they imply the continued presence of the Roman city wall. As at least six Saxon towns with Roman walls had fallen to the Danes by 877,<sup>46</sup> it would appear that, by themselves, the walls were inadequate. Thus, if the outworks represent an attempt to compensate for such vulnerability they are to be dated to the late 9th century at the earliest.

*Reconstruction* (Figs. 6 and 7). The argument for the configuration of the outworks shown in this reconstruction has, of necessity, largely been given above. The vertical ditch re-cut must have been revetted, because the fills adjacent to it were silts that only accumulated gradually, by which time the ditch edge would long since have crumbled without support. The small northward protrusion at the top of the ditch re-cut might be the impression of the top of a pointed revetting timber, but turves could have fulfilled the same function.

The construction dumps must have been retained (see above) by a timber standing to ground level at least, but with the revetment at the edge of the ditch already, a second one less than one metre behind makes little sense unless it also performs another function. A timber breastwork is therefore conjectured. The construction dumps behind it are shown rising well above ground level, as a necessary reinforcement to the breastwork and also to respect more stratigraphic inferences than would otherwise be the case. It makes sense of the phase W<sub>14</sub> feature as a rear revetment and suggests that, in the interval between this set of outworks and the next, the dump and timber breastwork gradually fell into decay, leaving a mound that sloped from the top of the dumps to the top of ditch fill 692. This layer closely resembled dumps 687 and may have been formed by the erosion of the first outworks prior to truncation by the construction cut (714) for the second outworks (phase W<sub>11</sub> = 15).

The speculative element in any reconstruction may be made to seem the greater here by the fact that no parallel exists for a Roman walled Saxon town with outworks. As there has not, apparently, been another excavation trench similarly placed across similar features and in which evidence for outworks was being sought, the absence of parallels is not very significant. Precise knowledge of the form of the outworks awaits better data, but some idea is to be gained by ignoring the defensive complex of wall and outworks as a whole and considering the outworks alone. When this is done, similarities are apparent with other late Saxon defences, like those at Cricklade<sup>47</sup> for example, of which the Bath outworks may be seen as a miniature version.

#### LATE SAXON OR NORMAN: SECOND OUTWORKS (Pl. I, c)

*Chronology.* A lapse of time between the first and second outworks is implied by fill over one metre deep (phases W<sub>8</sub>, 9, 10) which accumulated in this ditch before any alteration was made. A single 10th-/12th-century sherd in the top of this fill (phase W<sub>10</sub>) is not enough to provide a secure *terminus post quem* for the rebuilding of the outworks in phases 11 = 15, though these themselves contained mid 11th-/12th-century pottery as did the associated, slightly later, second berm metalling (phase W<sub>16</sub>). A short time lapse is then implied by a soil accumulation (phase W<sub>15A</sub>), before the addition of a buttress (phase W<sub>17</sub>) to the phase W<sub>11</sub> outworks wall. A longer period of time then elapsed before this wall was comprehensively robbed, probably in the 13th century. On the basis of the depth of ditch fills<sup>48</sup> the inferred lapse of time between the first and second outworks is roughly half that between the second outworks and their robbing in the early 13th century (phase W<sub>24</sub>). If the first outworks were to be late 9th century, as suggested above, then a crude division

of the period prior to phase W24 would place the second outworks in the late 11th or early 12th century.

A similar argument suggests a date for the wide ditch re-cut which was to become Frogmere (phase E3). The re-cut almost certainly went with the second outworks, the effectiveness of which could have been greatly reduced without a ditch. This feature cut the fills of the Roman ditch but contained only residual Roman pottery and two 4th-century coins. Any argument for the date of this re-cut has to work backwards from the date of the feature's disuse. By 1615, it must long since have silted up and consolidated (Pl. 1, D), for in that year one Richard Swallow built a temporary structure on 'wasteground'.<sup>49</sup>

In the 13th century it was still in use, because buildings appeared along 'Vroggemere Lane' 20–25 m N. of the wall,<sup>50</sup> a position presumably determined by the existence of the re-cut. Analysis of the stagnant sediments that accumulated in this re-cut (Frogmere; phase E3) suggests a lifetime of about 300 years after its actual use as a defensive feature. To this, time must be added to allow for the formation of a stable soil horizon (layer 88 and truncated soils above it: phase E3). These calculations give a late 11th-/12th-century date for the phase E3 re-cut.

The size and profile of the re-cut also suggests a 12th-century date for at that time very wide ditches were dug at Kenilworth and the Tower of London.<sup>51</sup> These 12th-century dates raise the possibility that they were built by Stephen when he made Bath a campaign base in 1138. Wide ditches of the Norman and Plantagenet periods went together with the heightening of banks and walls in response to improved siege techniques. If Stephen were to have built outworks anywhere on the circuit, the areas flanking the North Gate would almost certainly have been given highest priority. In any defended place the gates are always the weakest points. At Bath the main route through the town ran N.–S. The southern and western sides were to a certain extent protected by the R. Avon, while those on the W. and N. lay most exposed. So, if the description in the *Gesta Stephani* is accurate, one would certainly expect outworks adjacent to the North Gate.

*Reconstruction* (Figs. 6 and 7) The precise form of the second outworks is difficult to reconstruct. The laying of the second and third berm metallings right up against the southern side of the inferred stone wall implies that it had no miniature rampart of any permanent dumped kind, although a timber-framed walkway would not necessarily have been detected in an excavation of this size. To the N. of the inferred wall the addition of a stone buttress reinforces the original inference that the building material in the wall was stone, but exactly what it supported and how it did this is more than conjecture can answer.

#### LATE MEDIEVAL: OUTWORKS DEMOLISHED (Fig. 7)

The robber trench of phase W24 precedes phase W25, which is possibly 13th century on pottery evidence. Such comprehensive robbing of a stone wall (see phase E24 for the basis for this statement) implies great value in the material robbed, and slighting of defences for political reasons would not demand such thoroughness.

There are references to stone being robbed from the walls in the 13th century,<sup>52</sup> and having lost their defensive significance, the outworks would have been an obvious source of stone. Bath's earliest known murage grant of 1369<sup>53</sup> may, like others, have been dissipated on repairs,<sup>54</sup> and it is quite possible that the robber trench marks the occasion of an earlier repair drawing on stone from a redundant wall.

The boundary ditches (phases W26-32) which tend to repeat the alignment of the outworks occur in a reasonably dated sequence: ditches 1 and 2 = 14th century; ditch 3 = possibly 15th century; ditch 4 = 15th century, and ditch 5 = 16th century. There were no 17th-century deposits on the site, these having been removed by the intrusive late 18th-century cellars.

### THE CITY WALLS AND THE SETTLEMENT OF BATH

The significance of the city wall can be assessed by juxtaposing the evidence for it with that for the site of Bath. On Fig. 8, which summarizes the changing topography, the existence of all features shown can be either proven, or, through archaeological and/or documentary argument, claimed with some confidence. Nevertheless, presenting the evidence in six period plans is unavoidably interpretative, the mere date and title of each plan revealing a certain amount of historical bias.

*The defensive circuit.* The length and course of the wall have already been discussed using Speed's map of 1610 and the *Burghal Hidage* assessment.

Excavations at Upper Borough Walls show one defensive alignment to have been retained through the alterations of several periods. Continuity of the Roman alignment into the medieval period has been suggested elsewhere in the circuit.<sup>55</sup> For the purposes of the rest of this section one defensive circuit will be assumed for all periods.

*The walls as defences.* The simple dump construction of a rampart of defensive type which only enclosed a small area may be explained by hasty fortification<sup>56</sup> or by the rampart having replaced an earlier boundary to the baths and temple precinct built in a conventional military form. In this way all Roman town defences could be seen as the product of civic pride and economic surplus, but, if true, this would be impossible to test archaeologically. It is debatable whether late Roman defences like the wall, berm and ditch at Upper Borough Walls really do reflect tactical improvements, but their existence implies that the town was responsible for its own defence.<sup>57</sup> When the preclusive defensive strategy of the early Empire had broken down, good town defences were needed in the gap 'between hostile penetration and successful interception'.<sup>58</sup>

It is not certain that the defences were used again until the late Saxon period, but there is good reason for thinking that they might have been repaired as early as the 8th century, since the strategic significance of Bath can be inferred from Offa's negotiations at the synod of Brentford in 781.<sup>59</sup> Offa laid claim to Bath, but also asserted that other properties belonging to Bishop Heathored (Stratford,

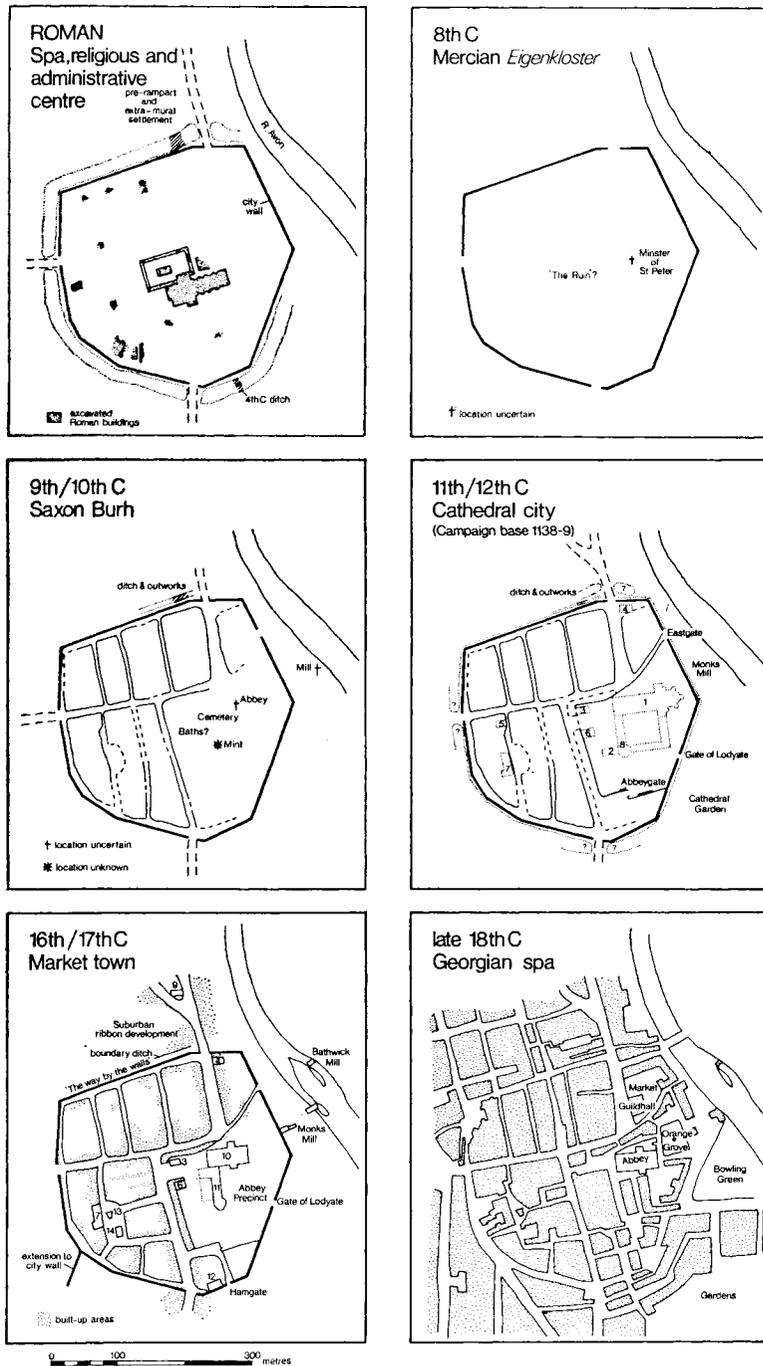


FIG. 8

The city walls and the settlement of Bath. Key: 1, Cathedral of St Peter and St Paul; 2, St James (earlier site); 3, St Mary de Stalls; 4, St Mary intra muros; 5, St Michael intra muros; 6, King's Bath; 7, St John's Hospital; 8, Bishop's Palace; 9, St Michael extra muros; 10, Abbey of St Peter and St Paul; 11, Abbey House; 12, St James (later site); 13, Cross Bath; 14, Lazarus Bath

Kidderminster, and the lands of Bredon, Homtun and Stour) belonged to him as the inheritance of King Ethelbald. Offa had no legitimate claim to anywhere other than Bath, but he compelled Bishop Heathored to give up Bath as a condition of having the remaining lands confirmed to him. Bath became a royal *Eigenkloster*,<sup>60</sup> but its location on the Wessex frontier of the Mercian hegemony gives a special significance to Offa's desire for jurisdiction over it.<sup>61</sup> If the famous poem 'The Ruin' is of 8th-century date and really does refer to Bath,<sup>62</sup> it suggests that much of the walled area apart from the minster may have been uninhabitable. The surviving Roman walls may still, however, have encouraged the use of the site as a stronghold. If Offa's concern for Bath was more than ecclesiastical, as it surely must have been, the advantage offered by a key frontier site would have been greatly reduced if it had had no potential or functioning defences.

The date of Bath's transfer from Mercia to Wessex is uncertain, but, whenever, the political and military advantage gained by Wessex is obvious. As a Saxon *burh*, Bath was part of a chain of fortified settlements; its defences and the new rectilinear street grid which they enclosed<sup>63</sup> were manifestations of a royal policy intended to provide a high level of security for the kingdom as a whole. Bath's importance can be inferred from the record in the *Anglo-Saxon Chronicle* of the death, in 906, of its reeve, who was clearly a man of note.<sup>64</sup>

At Upper Borough Walls the defences were still standing in the 10th century, although in what condition is not known. Temporarily Bath was a place of national importance. The choice of the town, on the border of Wessex and Mercia, as the place of Edgar's coronation in 973, may well have been a political expedient designed to stress his hegemony.<sup>65</sup> It should be noted that only forty years later the western thegns came to Bath to submit to the Danish King Swein. How better for an invader to symbolize his success than by receiving the submission of his enemies in a place which had so recently been the symbol of national unity?

The 12th-century defences contrast strongly with their predecessors: the walls and outworks, possibly of Stephen's time, represent a fighting line in the manner of medieval castle walls. Just as Stephen's civil war campaign lacked any long-term strategy, so his defences at Bath, carefully recorded in the *Gesta Stephani*, had no purpose other than to turn the town into a temporary siege castle. The *Gesta Stephani* stress how Bath was ideally suited to defence.<sup>66</sup>

*The Walls as boundaries.* If Bath gained its walls in the Roman period for defensive purposes they may also have had a secondary function as a boundary. The perimeter is much shorter than most and encloses what appears to be a combination of élite residential and civic architecture.<sup>67</sup> Yet in the early Roman period at least, the density of buildings in this area seems to have been low<sup>68</sup> while outside the walls to the N. there is plentiful evidence of early occupation.<sup>69</sup> The walls encircled a large fixed investment at the expense of the extra-mural areas, which, with the decline of the empire, would have been most prone to abandonment. The walled area was thus a place marked apart; a place of refuge.<sup>70</sup> Similar use of *Burghal Hidage* forts also suggests that it may have been convenient for Saxon kings to encourage a dispersed pattern of rural settlement even in the face of military hostility.<sup>71</sup>

In the 10th and 11th centuries the defences encouraged trade which in turn stimulated urban growth.<sup>72</sup> This economic development gradually enhanced political stability on a national scale. In the later medieval period city walls were a significant legal boundary within which certain privileges existed. Even the crumbling walls that required the murage grants of the 13th and 14th centuries would have been an adequate barrier to protect the town's rights, to police it and to collect tolls. In contemporary art it was the walls of a city which identified it<sup>73</sup> while at the same time not completely delimiting it.<sup>74</sup>

By the end of the medieval period Bath's expansion was characterized by subdivisions of burgage plots, growth of extra-mural streets and to some extent by colonization of the wall itself, especially near the gates. In the Stuart period the social structure was changing: the poor were increasingly segregated from the rich. The poor were ousted from the prestigious and economically profitable arterial roads, thus fostering the growth of suburban nuclei, usually outside the busiest gates. Those living outside the North Gate in 17th-century Bath were minor tradesmen such as bakers, tanners and smiths. It was their properties which were vulnerable to the ravages of the Civil War, when Bath was occupied by forces of both sides.<sup>75</sup> Unlike many continental *faubourgs*, extra-mural Bath was tiny and the city could not contemplate the crippling cost of building another circuit.<sup>76</sup>

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Our month at Upper Borough Walls in May 1980 would not have been nearly so enjoyable, nor half as profitable, without the willingness of the contractors on the site, who all acted in a genuine spirit of co-operation. Thanks are due to representatives of Haslemere Estates, Ove Arup and Partners, and in particular to Mrs E. C. Nash of Alec French Partnership. Above all, though, we are indebted to the site agent Mr John White of G. Percy Trentham Ltd.

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The excavation was carried out by Dick Bluer, Nic Cooper and Steve Flitton, inspired by the temporary help of Steve Roskams. Annie Upson visited the site to draw the sections and also produced the published illustrations. Anna Eden conducted the sieving experiment under the supervision of Sebastian Payne. The sedimentology incorporated in this report is the result of consultation with Martin Jones.

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#### NOTES

<sup>1</sup> B. Cunliffe, *Roman Bath* (Report of the Research Committee of the Society of Antiquaries of London, No. XXIV, 1969), 165-73.

<sup>2</sup> *Ibid.*, 166.

<sup>3</sup> *Ibid.*, 166.

- <sup>4</sup> *Ibid.*, 166–68.
- <sup>5</sup> Ove Arup & Partners, Geotechnical Report (1979). Report Serial No. 79/294.
- <sup>6</sup> Initially by Christopher Lindsay and Giovanna Vitelli. Subsequent work on the development of the site between the Tudor and Victorian periods was carried out by Jenny Argyraki, Elizabeth Holland and Marta Oliver. The results of this will be dealt with elsewhere.
- <sup>7</sup> T. J. O'Leary, *Excavations at Orange Grove, Bath, 1979* (C.R.A.A.G.S. Excavation Report, forthcoming 1982).
- <sup>8</sup> This introduction is the result of discussions with S. P. Roskams. An article by T. J. O'Leary and S. P. Roskams on some aspects of stratigraphic excavation is in preparation.
- <sup>9</sup> By Martin Jones, School of Botany, Oxford University.
- <sup>10</sup> Cunliffe, *op. cit.* in note 1, fig. 63.
- <sup>11</sup> Advice from M. Jones, see note 9.
- <sup>12</sup> *Op. cit.* in note 5.
- <sup>13</sup> W. Shickle, *Ancient Deeds of Bath*, IV.
- <sup>14</sup> An integrated pottery report is to be published in *op. cit.* in note 7.
- <sup>15</sup> D. Dawson, M. Ponsford and S. Hunt. Particular thanks are due to A. Vince.
- <sup>16</sup> A. Vince, 'The Pottery', in P. Greene, 'Citizen House 1970', in B. Cunliffe (ed.), *Excavations at Bath 1950–75* (Bristol, 1979) 1–70.
- <sup>17</sup> *Ibid.*
- <sup>18</sup> K. J. Barton, *Trans. Bristol Glos. Archeol. Soc.*, 82 (1963), 95–126 and 86 (1967), 201–02.
- <sup>19</sup> J. Musty, *Wilt. Archaeol. Mag.*, 66 (1971), 179–81.
- <sup>20</sup> D. Hill, 'The Burghal Hidage: the establishment of a text', *Medieval Archaeol.*, XIII (1969), 84–92.
- <sup>21</sup> *Gesta Stephani Regis Anglorum*, ed. R. Howlett (Rolls Series, 82, iii, 1886), 45.
- <sup>22</sup> *The Deeds of Stephen*, trans. K. R. Potter (London, 1955), 39.
- <sup>23</sup> *Ibid.*, 39.
- <sup>24</sup> *Ibid.*, 43.
- <sup>25</sup> *Ibid.*, 33.
- <sup>26</sup> *Calendar of Patent Rolls (1891–1916)*, 277, quoted in H. L. Turner, *Town Defences of England and Wales* (London, 1971), 190.
- <sup>27</sup> *Rotuli Hundredorum (1812–1818)*, II, 123, 132, quoted *ibid.*, 190.
- <sup>28</sup> Shickle, *op. cit.* in note 13.
- <sup>29</sup> *Lease Firman No. 34*, Bath Records Office.
- <sup>30</sup> N. Kershaw, *Anglo-Saxon and Norse Poems* (Cambridge, 1922), 51–57.
- <sup>31</sup> W. Stubbs, 'The cathedral diocese and monasteries of Worcester in the eighth century', *Archaeol. J.*, 19 (1862), 250.
- <sup>32</sup> P. H. Sawyer, *From Roman Britain to Norman England* (London, 1978), 184–87.
- <sup>33</sup> D. J. V. Fisher, *The Anglo-Saxon Age* (London, 1973), 315.
- <sup>34</sup> J. Wroughton, *The Civil War in Bath and North Somerset* (1976).
- <sup>35</sup> Cunliffe, *op. cit.* in note 1, 168.
- <sup>36</sup> *Ibid.*, 168.
- <sup>37</sup> P. Greening, 'The origins of the historic town plan of Bath', *A Second North Somerset Miscellany* (Bath, 1971) suggested that the early rampart was of the late Saxon *Burghal Hidage* period. Such postulations need be made no more.
- <sup>38</sup> Cunliffe, *op. cit.* in note 1, 168.
- <sup>39</sup> S. S. Frere, *Britannia* (London, 1974), 286.
- <sup>40</sup> M. Biddle, 'Excavations at Winchester: Tenth and Final Interim Report: Part 1', *Antiq. J.*, LV (1975), 112.
- <sup>41</sup> M. J. Jones, *Roman Fort Defences to A.D. 117* (British Archaeological Reports No. 21, Oxford, 1975), 97.
- <sup>42</sup> Cunliffe, *op. cit.* in note 1, fig. 63.
- <sup>43</sup> *V. C. H. Somerset*, I, 227.
- <sup>44</sup> W. Stukeley, *Itinerarium Curiosum*, 2nd ed. (London, 1976), pl. 70 opp. p. 146, quoted in L. V. Grinsell, *The Bath Mint* (London, 1973), 44, n. 19.
- <sup>45</sup> Hill, *op. cit.* in note 20.
- <sup>46</sup> F. M. Stenton, *Anglo-Saxon England* (Oxford, 1971), 264, n. 2: Canterbury and London in 851, Winchester in 860, York in 866, London in 871–72, Exeter 876, Gloucester 877. The first *civitas* known to have been held effectively is Rochester in 884–85.
- <sup>47</sup> C. A. R. Radford, 'Excavations at Cricklade: 1948–1963', *Wiltshire Archaeol. Mag.*, LXVII (1972), 61–111; M. Biddle, 'Towns', in D. M. Wilson, (ed.), *The Archaeology of Anglo-Saxon England* (London, 1976), 128–29, points to the uncertainty of this reconstruction.
- <sup>48</sup> Perhaps not the most sound of arguments but one which is admitted to the discussion on the basis that the archaeological and documentary dates for the life of 'Frogmere' correlated closely with those implied by sedimentology (see report by M. Jones, above). Further, in a ditch filled by natural agencies it is not unreasonable to assume that absolute depth is a good indication of age and that between the two absolute depths the ditch sediment represents a time continuum.
- <sup>49</sup> *Loc. cit.* in note 29.
- <sup>50</sup> Shickle, *op. cit.* in note 13.
- <sup>51</sup> D. Renn, *Norman Castles in Britain* (London, 1973), 73. Improvements in siege techniques were probably the cause.

<sup>52</sup> Loc. cit. in note 26.

<sup>53</sup> Loc. cit. in note 27.

<sup>54</sup> C. Platt, *The English Medieval Town* (London, 1979), 54.

<sup>55</sup> Cunliffe, op. cit. in note 1, 165–75; W. Wedlake, 'The City Walls of Bath, the Church of St James, South Gate, and the area to the east of the Church of St James', *Proc. Somersetshire Archaeol. Nat. Hist. Soc.*, 110 (1966), 85–107, especially pl. x and fig. 5.

<sup>56</sup> Reminiscent of the drastically reduced defended areas of 3rd-century Paris and Perigueux where no more than 20 acres lay within the walls: R. M. Butler, 'Late Roman town walls in Gaul', *Archaeol. J.*, 116 (1959), 40.

<sup>57</sup> E. Luttwak, *The Grand Strategy of the Roman Empire* (Baltimore, 1976), 135.

<sup>58</sup> *Ibid.*, 168.

<sup>59</sup> Stubbs, op. cit. in note 31, 250.

<sup>60</sup> P. Sims-Williams, 'Continental influence at Bath monastery in the seventh century', *Anglo-Saxon England*, 4 (1975), 9.

<sup>61</sup> C. S. Taylor, 'Bath, Mercian and West Saxon', *Trans. Bristol Gloucestershire Archaeol. Soc.*, 23 (1900), 135–36. See also D. Whitelock, (ed.), *English Historical Documents 500–1042* (Oxford, 1955), 466.

<sup>62</sup> Kershaw, loc. cit. in note 30.

<sup>63</sup> M. Biddle and D. Hill, 'Late Saxon Planned Towns', *Antiq. J.*, LI (1971), 70–85.

<sup>64</sup> Whitelock (ed.), op. cit. in note 61, 60.

<sup>65</sup> Sawyer, loc. cit. in note 32.

<sup>66</sup> Loc. cit. in note 22.

<sup>67</sup> Cunliffe, op. cit. in note 1.

<sup>68</sup> *Ibid.*, 165; P. Greene, 'Bath and other small western towns', in W. Rodwell and T. Rowley (eds.), *The 'Small Towns' of Roman Britain* (British Archaeological Reports No. 15, Oxford, 1975), 134.

<sup>69</sup> B. Cunliffe, *Roman Bath Discovered* (London, 1977).

<sup>70</sup> Thus having some of the same functions as Maori *pas* and some Mayan settlements: P. Bellwood, 'Fortification and prehistoric economy in New Zealand', *Proc. Prehistoric Soc.*, 37 (i) (1971), 56–95; D. Webster 'Spatial bounding and settlement history at three walled northern Maya centres', *American Antiquity*, 45, no. 4 (1980), 834–44.

<sup>71</sup> Webster, op. cit. in note 70, 843.

<sup>72</sup> H. Darby, 'The Anglo-Scandinavian Foundations', in H. Darby (ed.), *A New Historical Geography of England before 1600* (London, 1976), 37.

<sup>73</sup> Platt, op. cit. in note 54.

<sup>74</sup> S. Reynolds, *An Introduction to the History of Medieval Towns* (Oxford, 1977), x.

<sup>75</sup> Wroughton, loc. cit. in note 34.

<sup>76</sup> H. Saalman, *Medieval Cities* (New York, 1968), 23.

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