Chapter 4: The Defences: Detailed Studies of Sites on the Defences of Late Saxon and Medieval Oxford

By Julian Munby and David R P Wilkinson with contributions by John Blair, Paul Booth and Brian Durham

SUMMARY

A series of excavations and building recording projects were carried out during the 1980s and 1990s at sites on the defensive circuit of the medieval town. Two excavations on the line of the walls (at St Michael's Street and at New College) recovered evidence for the form and development of Oxford's defences, from a primary timber-faced earthen rampart to the bastioned stone circuit of the 13th century. A detailed building survey of the 11th-century tower of St Michael at the Northgate reviewed the evidence for this gate-church's relationship to the town's defences. Small-scale trenching at the sites of two of the 13th-century bastions sought evidence for the development of the defensive circuit at points where its line appeared to diverge from the general alignment. An account is also presented of an important early excavation undertaken in 1899, that may relate to an original eastern defensive line of the late Saxon town. Five of these reports are published here for the first time. The reports are presented in order of site location, moving clockwise from the north-west walls, as follows: 24A St Michael Street, 1985; St Michael at the Northgate Tower Survey, 1985–6; Bastion 4, Broad Street, 1986; The Clarendon Quadrangle, 1899; The City Wall at New College, 1993 (a summary of the full report published in *Oxoniensia* lx for 1995); Bastion 21, Corpus Christi College, 1981.

INTRODUCTION (FIG. 4.1)

The location of the sites reported in this chapter is shown in Figure 4.1, in relation to the known and conjectured circuit of the medieval town walls.

The development of the defences of medieval Oxford is now understood to be a matter of some complexity, and this is considered in detail in Chapter 2 of this volume. In summary, it is currently believed that the late Saxon *burh* was defended by an earth rampart, known from excavation on the landward (north and east) sides of the town; it remains uncertain whether there was a rampart on the south and west sides of the town, where the channels of the Thames may have provided an alternative defence. The eastern half of the defended circuit may have been a later extension to a smaller primary circuit. At some point the rampart was reinforced with a stone facing. The defences were extensively rebuilt in stone during the first half of the 13th century, creating the bastioned wall that partially survives today. The line of the medieval wall on the north and east of the town is generally well understood, both from the evidence of upstanding remains and from early maps (see Fig. 4.2, detail from Agas' map of 1578 and Fig. 4.3, detail from Loggan's map of 1675). A number of excavations have shown that the medieval wall in this area is following the same line as the earlier earth rampart. There is much less evidence for the south and west part of the town. Only slight and much altered upstanding remains now survive of the south circuit of the medieval wall, although foundations (some more and some less certainly those of the town wall) have been observed in a number of excavations. The line of the wall around Christ Church remains particularly unclear. No certain evidence of the earth rampart has been found anywhere along the south circuit, and the location of the late Saxon defences in this part of the town is unknown. It is possible that none ever existed, and that the late Saxon town substantially relied on the river for its southern defences. The earthworks of Oxford Castle (built *c* 1071) have obscured the original line of the late Saxon western defences, which remain a matter of conjecture. The castle itself must have closed off the west side of the post-Conquest town, and this arrangement was perpetuated in the 13th century; the 13th-century wall on the north of the town appears to have terminated at the castle ditch and outer earthworks (and is shown thus by both Agas and Loggan), the line of which is today followed by Bulwark's Lane. On the south side, the line of the wall has been traced with more or less certainty as far the junction of Castle Street and Paradise Street, just south of the castle defences. The west gate of the medieval town stood at this point (see Agas, Fig. 4.2), giving onto a lane that led across the river at Castle Mill Bridge and into an area known as Waram Bank, skirting the west side of the castle defences and leading to the suburb of St Thomas's, and the suburban abbeys of Oseney and Rewley.

The development of study of the defences
by Julian Munby

The first serious compilation on the history of the wall was in a Millenary lecture given by Salter in 1912, and the topographical collections made by Minn in the early years of this century, although never published, are of continuing importance as the key to the very extensive materials in the Bodleian Library. The 1939 *Inventory* of the Royal Commission

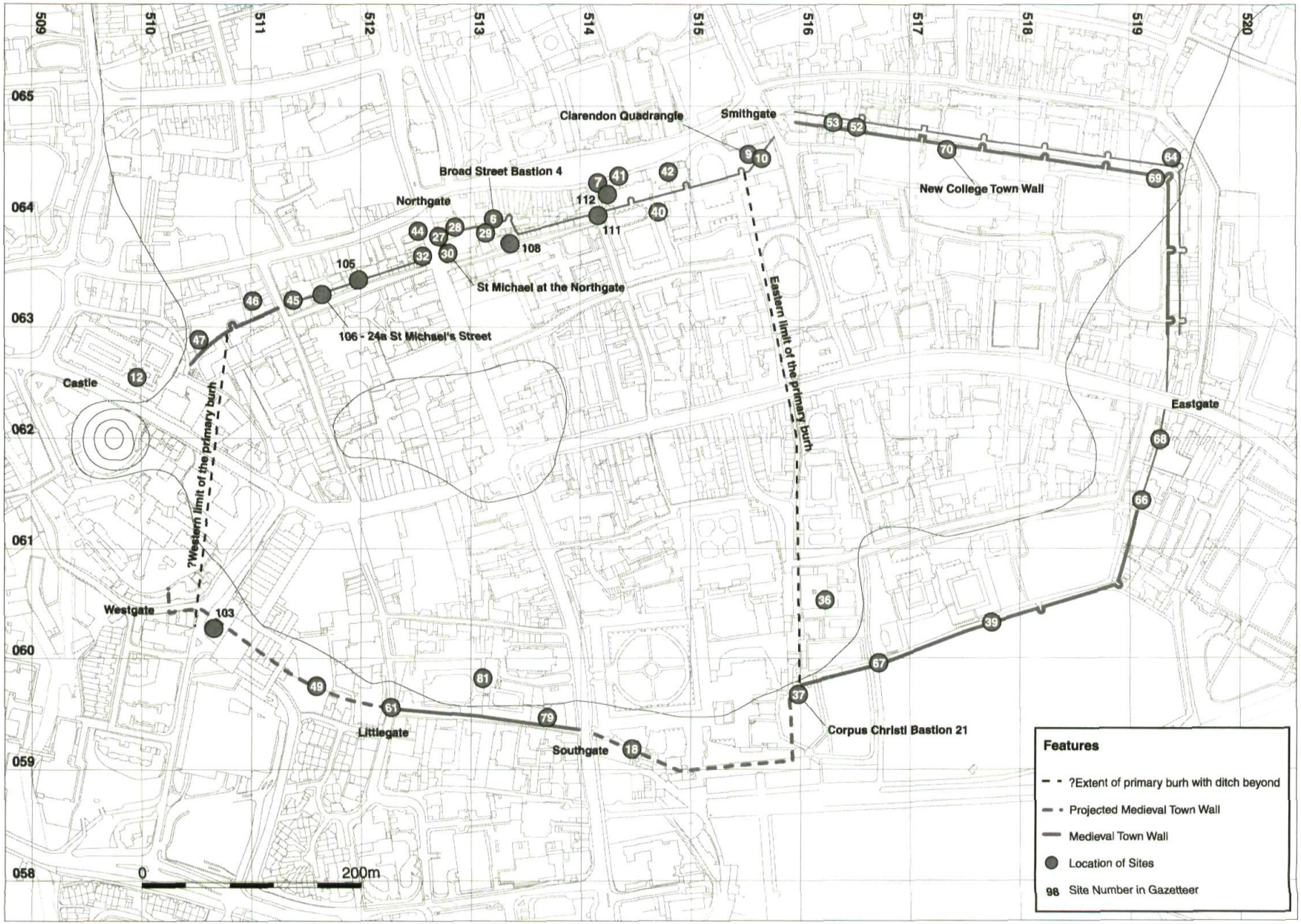


Figure 4.1 Location of sites reported in Chapter 4.

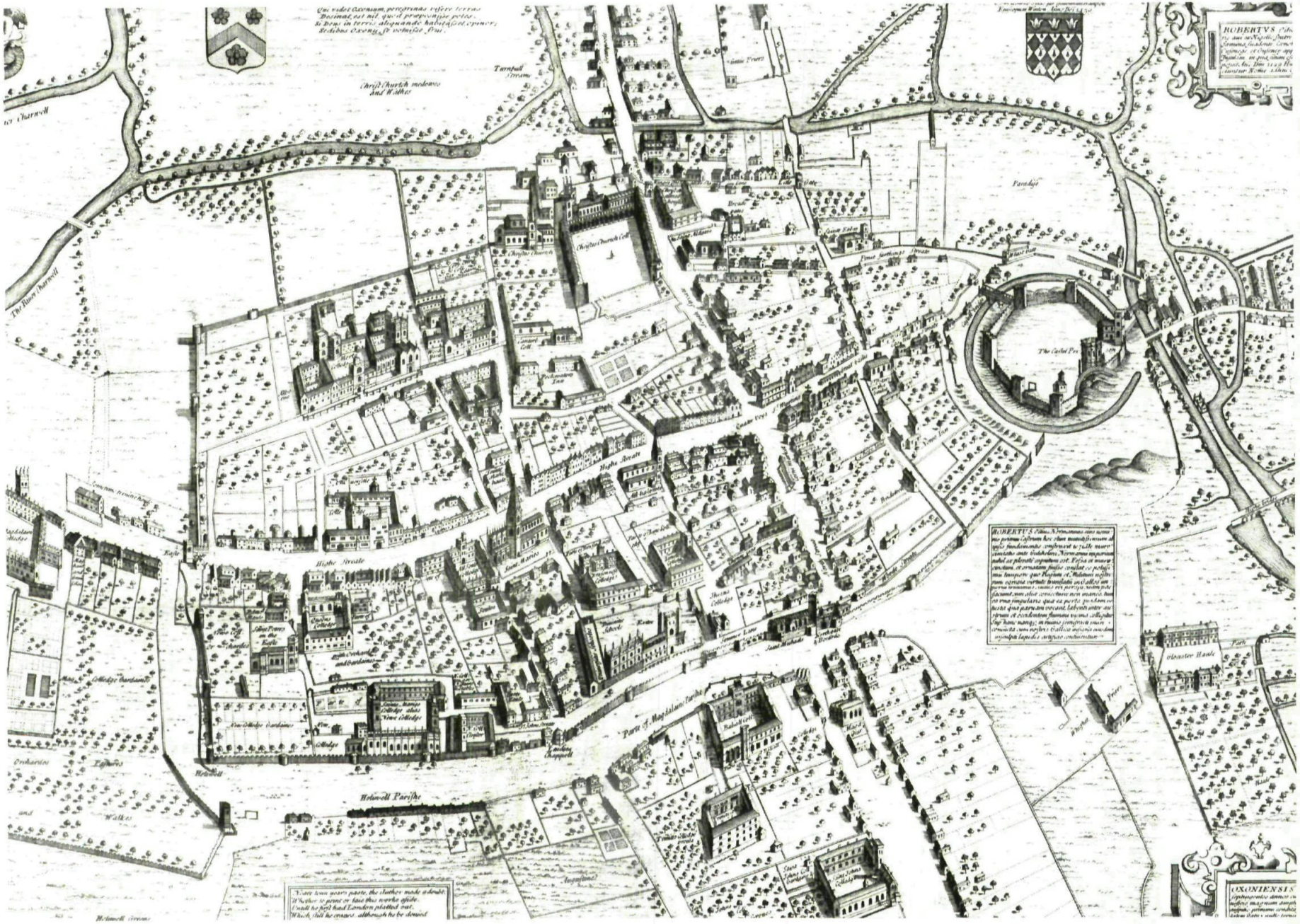


Figure 4.2 Detail of Agas's Map (1578) showing the castle and defences (looking south).

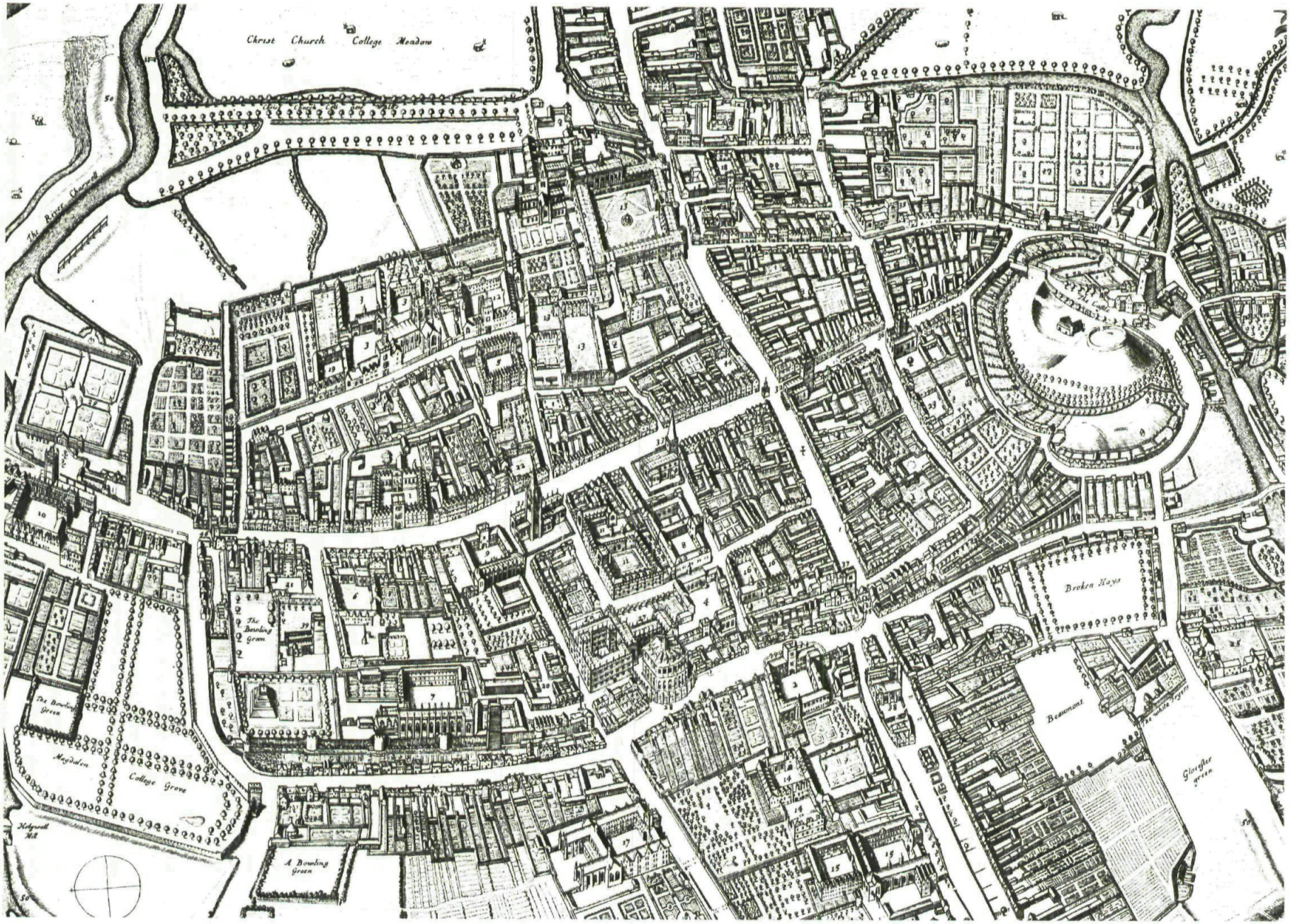


Figure 4.3 Loggan's bird's-eye view of Oxford, 1675 (detail); showing the castle and defences (looking south).

for Historical Monuments was the first systematic description of the defences (providing the bastion numeration now used), although only a short summary was published at the time. This remains to date the most detailed study of the upstanding remains of the wall. A comprehensive historical account of the wall was published by Hassall in 1979 in *VCH* iv.

With two exceptions (Gaz Nos 10 and 69), archaeological attention to the defences has been a feature of the second half of the 20th century, partly prompted by Jope's discoveries and writing (Gaz No. 12), and then by the rescue excavations following the development of the south-west quarter of Oxford in the 1960s undertaken by the Oxford Archaeological Excavation Committee under Tom Hassall. This coincided with major developments in late Saxon urban archaeology throughout the country, and a key stage for Oxford was Hill's reassessment of the Burghal Hidage (1969), which strongly suggested that the late Saxon defended circuit had been shorter than the medieval wall. Since the late 1960s, the defences have been investigated at almost all possible opportunities, and a series of purposive excavations and chance discoveries at most points on the circuit have provided much new evidence, which is incorporated in the Gazetteer and in the general discussion in Chapter 2. A summary of archaeological observations relating to the defences was published by Hassall (1971b, 46–8 and fig. 5) and a decade later a synthetic report on five new sites on the northern defences partially updated the record (Durham *et al.* 1983). The problems posed by the south-eastern and south-western defences were separately considered by Blair (1988a) and Hassall *et al.* (1989) respectively.

The projects reported in this chapter provide further evidence for the nature and development of the defences during the late Saxon period, and suggest that the primary rampart was faced with stone before being extended, although no evidence of a stone facing was recovered in the excavation of the rampart of the eastern extension, at New College (Gaz. No. 70; see below). The excavation at 24A St Michael's Street, carried out in 1985, provided the first full section across the late Saxon rampart at any point on the Oxford circuit. In the following year, two fieldwork projects were carried out to study the enigmatic Northgate enclosure, an outshot of the town wall which enclosed the tower and cemetery of St Michael's Church. The first of these projects was a comprehensive survey of the 11th-century church tower, and the second, at the site of the Oxford Story (a commercial historical presentation) in Broad Street, was a limited investigation of Bastion 4 on the town wall, and of medieval stone walls in a cellar to its south. The results were inconclusive, suggesting only a range of possible interpretations.

Excavations at the Clarendon Quadrangle took place in 1899, but have never before been fully reported; these excavations provide the best evidence yet found for an east wall belonging to the proposed primary late Saxon defended circuit, on a line parallel with Catte Street. The account that is published here has been compiled from the excavators' records and a contemporary newspaper report, and reproduces the original drawings. The excavation that took place at New College in 1993 is fully reported elsewhere (Booth 1995), but is summarised here since it recovered evidence of the rampart that formed the eastern defences of the late Saxon *burh*.

A single project is reported from the southern defences, the building survey and limited trenching carried out at Bastion 21 in Corpus Christi College in 1981. This bastion lies at a crucial point on the southern circuit, where the medieval wall must have turned south to enclose the buildings of St Frideswide's Priory (now Christ Church Cathedral), and this may have been the south-east corner of the primary late Saxon defended circuit. Unfortunately the fieldwork results were limited, and suggest only a range of possible interpretations of the complex topography of this site.

Historical sources
by Julian Munby

The building of the earliest earthen rampart and its reinforcement in stone is entirely undocumented. It can probably be assumed that Oxford was defended with a rampart by the time it is first mentioned in the Anglo-Saxon Chronicle for 911/912, but no deliberate act of creation or defence is recorded. The town is shown with a stone wall on the town seal of *c* 1190, and the late Saxon defences may largely have been rebuilt by then, but it was in the first half of the 13th century that the walls were extensively rebuilt in stone. A series of murage grants and gifts of materials from the Crown between 1226 and 1240 point to a major programme of work, and it seems likely that the bulk of the surviving masonry circuit belongs to that period (*VCH* iv, 301–2; RCHM 1939). The murage grant was essentially a licence to collect tolls on specified goods over a fixed period, and the text of a 14th-century list of such products survives, covering everything from firewood to salmon (*OCD* 304–6). But there are no details for town expenditure, apart from chance mentions in the 14th-century Chamberlain's Accounts (*MCO* 255ff), examples from which include repairs to the 'new gate' on Grandpont in 1310 (*MCO* 256; it was still 'new' a century later), and 'stone, sand and red earth bought for the repair of damage in the town wall next Little Gate' (*MCO* 258).

Whether the wall ever had any serious military function would be hard to say, though it clearly made the town more secure from wandering criminals. Nevertheless, concern continued to be raised about necessary access to the wall by the town in places where it was effectively enclosed in private property, as at Merton College. A curious and fortunate by-product of this concern was that the repair and maintenance of the wall round the near-derelict north-east corner of Oxford was entrusted

by Royal Licence to New College on its foundation, subject to triennial inspection by the Mayor and burgesses. Consequently, this is the only sector of wall that is preserved in its entirety (Ogle 1892, 77). Elsewhere the wall and its immediate environs provided a convenient resource of land for licensed squatting and building, from which the town drew a steady rent, totalling some £10 in 1387 (*OCD* 301–4). The gradual development of the intramural strip was matched in the 16th and 17th centuries by filling and building on the northern ditch in Holywell (owned by Merton College), and in Broad Street and George Street (owned by the town). Once the wall became part of a building it could easily be removed in subsequent rebuilding operations, and it was in this manner that the line of the wall gradually disappeared. In the south, the dissolution of the priories of St Frideswide and the Greyfriars led to the rapid disappearance of any remaining part of the defences.

EXCAVATION AND BUILDING SURVEY REPORTS

Excavations at 24A St Michael's Street 1985 *by David R P Wilkinson*

Introduction and background (Figs 4.1–4.3)

The site at 24A St Michael's Street, the auction rooms of Mallam, Payne and Dorn, became available for excavation in 1985 in advance of the construction of new, cellared premises. The site had long been thought promising, in that it contained only a light, single-storey structure; in the event, one cellar was found to exist but was not extensive. Opportunities to investigate the full defensive sequence have been, and always will be, very few, for although the intramural strip containing the rampart remained largely clear of building until the late 16th century (it is shown thus on Agas' map of 1578; Fig. 4.2), it was gradually infilled from the 17th century, often with cellared structures. The lack of extensive cellarage at 24A St Michael's St thus offered a very rare opportunity to examine the Saxon defences.

There were three bastions on the town wall between the Castle and the Northgate, and although at the time of Loggan's map of 1675 (Fig. 4.3) the wall was complete in this sector, it was gradually built over and disappeared as the houses extended northwards over the line of the wall. Bastion 1 still survives west of New Inn Hall Street, and in this area the wall and ditch were investigated between 1977 and 1982 (Gaz Nos 46 and 47). Until the 19th century New Inn Hall Street turned east, presumably following the inside of the first defences, and its continuation through to George Street is one of the few post-medieval breaks through the defences.

From Bastion 1, the wall followed an alignment close to St Michael's Street all the way to the Northgate, and while surviving partly in buildings or cellars, had virtually disappeared even as a property boundary by the 19th century. The current boundary between the City properties in St Michael's Street and George Street at no point follows the wall, but takes an irregular line along what could have been the south edge of the ditch. The second bastion, near New Inn Hall Street, is shown on a plan in the 'Vellum Book' of City properties (Vellum Book I, Nos 93–5) as 'Part of the City Fortification converted into a tenement' and is also marked on the OS plan. The third bastion, nearest the Northgate, is shown as a curved wall on the early 19th-century plan in the Vellum Book (Vellum Book I Nos 98–99), and was accurately shown on the OS 1:500 plan. Its foundations were dug up in 1870 when the Methodist Church (now the Northgate Hall) was built (Wood *City* i.255n.).

The site of 24A St Michael's Street is fortunately the one property in the street in which the line of the wall was not built over, and the plan in the Vellum Book shows it as garden adjoining the west side of a tenement, with a small surgery room next the road (Vellum Book I, No. 96A). The subsequent building was of too slight a construction to cause much damage to the archaeology. It has not been thought necessary to examine the city leases for this site, which in common with other properties on the intramural roads were omitted by Salter from his study of Oxford City Properties (*OCP*), chiefly because their recorded history is entirely post-medieval, and they were only fully built up in the 17th century.

Strategy

Excavations on the site were directed by Peter McKeague, and the following account has been prepared using his written report as well as the primary site records. Two small trial trenches (I and II) were excavated by machine, and Trench II was then extended to 9.5 × 5 m to form the main excavation area. A supplementary trench (III) was machine-excavated to the south, and further information was gained from a watching brief on a contractors' excavation to the west, and from a road drainage trench (IV) south of the site limit which had been excavated in 1976.

The excavations (Figs 4.4–4.9; Plates 4.1, 4.2)

Phase 1 — Prehistoric

The earliest feature found on the site was part of a Bronze Age ring ditch, 58, the centre of which is estimated to lie under St Michael's Street. This feature is illustrated in Figure 4.5, but is published in full elsewhere (Barclay and McKeague 1996).

Phase 2 — Roman to ?early 10th century

Above the fills, 58/1–58/8, of the Bronze Age ring ditch was a layer of red-brown silty loam, 48, which was only recorded within the confines of the ditch. It contained 3 sherds of Romano-British pottery, two of which are most likely to be 1st–2nd century, while

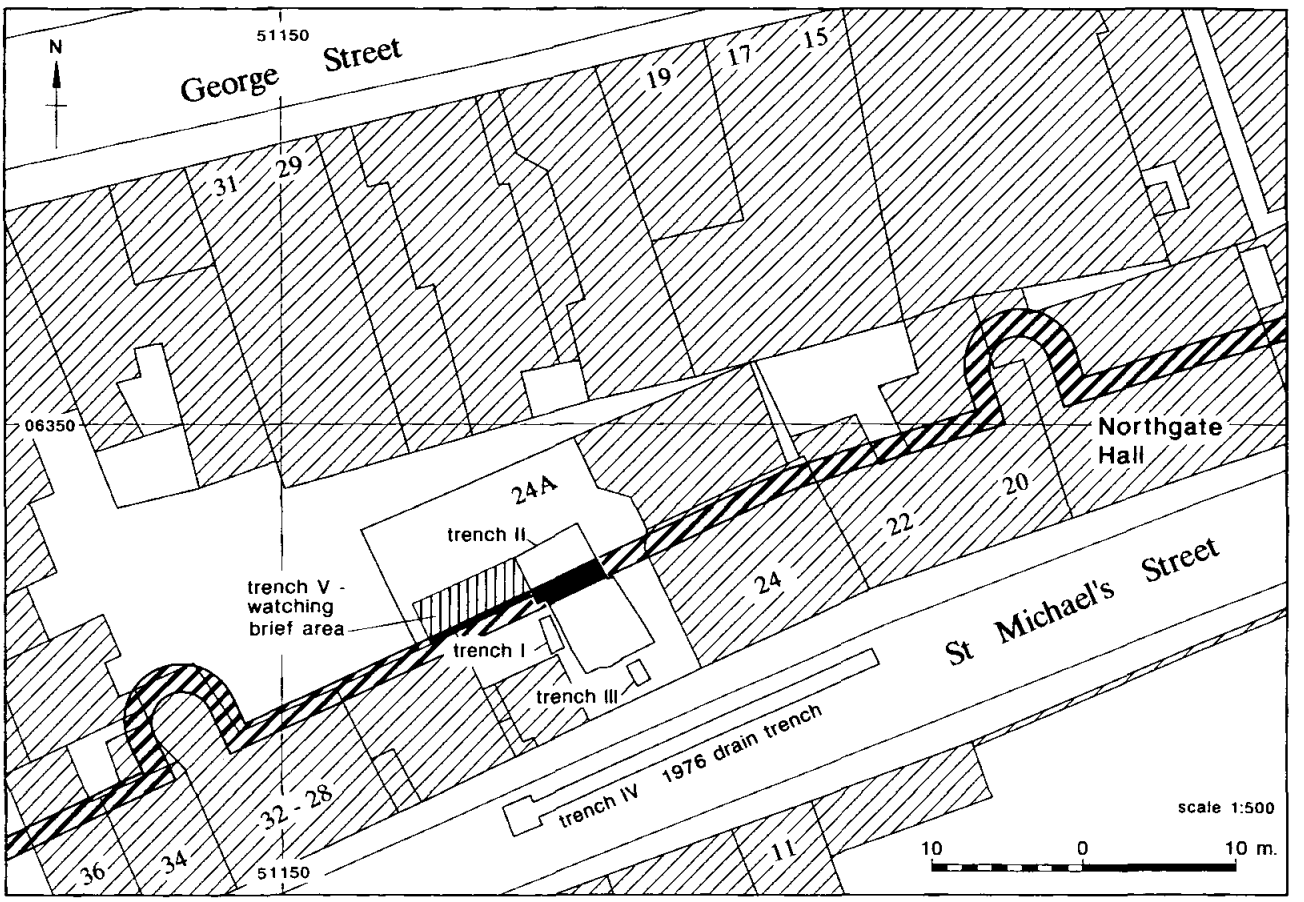


Figure 4.4 24A St Michael's St: trench location plan.

the third (Fabric R10) could be within the same date bracket, but could also be later. Layer 48 was originally interpreted by the excavator as a recut, but is now thought more likely to have been a slowly-accumulating deposit, perhaps a ploughsoil (Barclay and McKeague 1996). In this case 48 may have been part of the successive deposit, 46/2.

Layer 48 was overlain by 46, recorded as two separate contexts. The lower of these, 46/2, was a reddish loam up to 0.3 m deep and contained some gravel, while the upper deposit, 46/1, was a shallower, brown loam with considerably more gravel, and with shallow E-W undulations in its surface (Fig. 4.5–Phase 2; Fig. 4.8). Two sherds of Romano-British pottery from 46/1 are most likely to be 1st- to 2nd-century, although one sherd could again be later. Above 46/1 was a pale red-brown silty loam, 45, which was consistently 0.035 m deep; its surface rose gently from south to north. Molluscan analysis (Robinson, Chapter 7) has allowed this sequence to be interpreted as a ploughsoil succeeded by a short period of non-cultivation (see discussion).

Phase 3 — ?early 10th century

A small cut feature, 61, was observed in the west section of the machine-excavated Trench III. This may have been either a posthole or a gully, and in the latter case it would be tempting to see it as a marking-out feature for the rampart (see below). However, the feature had filled with brown gravelly loam before the rampart was constructed (Fig. 4.9) and in the absence of any dating evidence could be considerably earlier than the rampart, perhaps even Roman or prehistoric.

The structure which will now be described was identified as a rampart at an early stage of excavation, and given the overall number 42; the majority of its constituent contexts were then given sub-numbers or letters (eg 42/3, 42/G). The rampart ran east-west, was at least 7.65 m wide but must have extended beyond the southern limit of the trench (see also below). Beginning at the southern edge of the trench, the earliest deposit found was a clean yellow gravel, 42/27, which overlay the old ground surface, 45. It appears as a low narrow mound (Fig. 4.9); however, this shape may have been caused by the later feature 57, so that 42/27 could simply be the N end of a tip line. Further deposits of gravel and/or yellow sand succeeded 42/27, being 42/20, /22, /23, /25, /26, /O, /P, /Q, /R. These were of varying thickness, and all sloped from south to north at angles of 30–40 degrees from the horizontal; they become almost

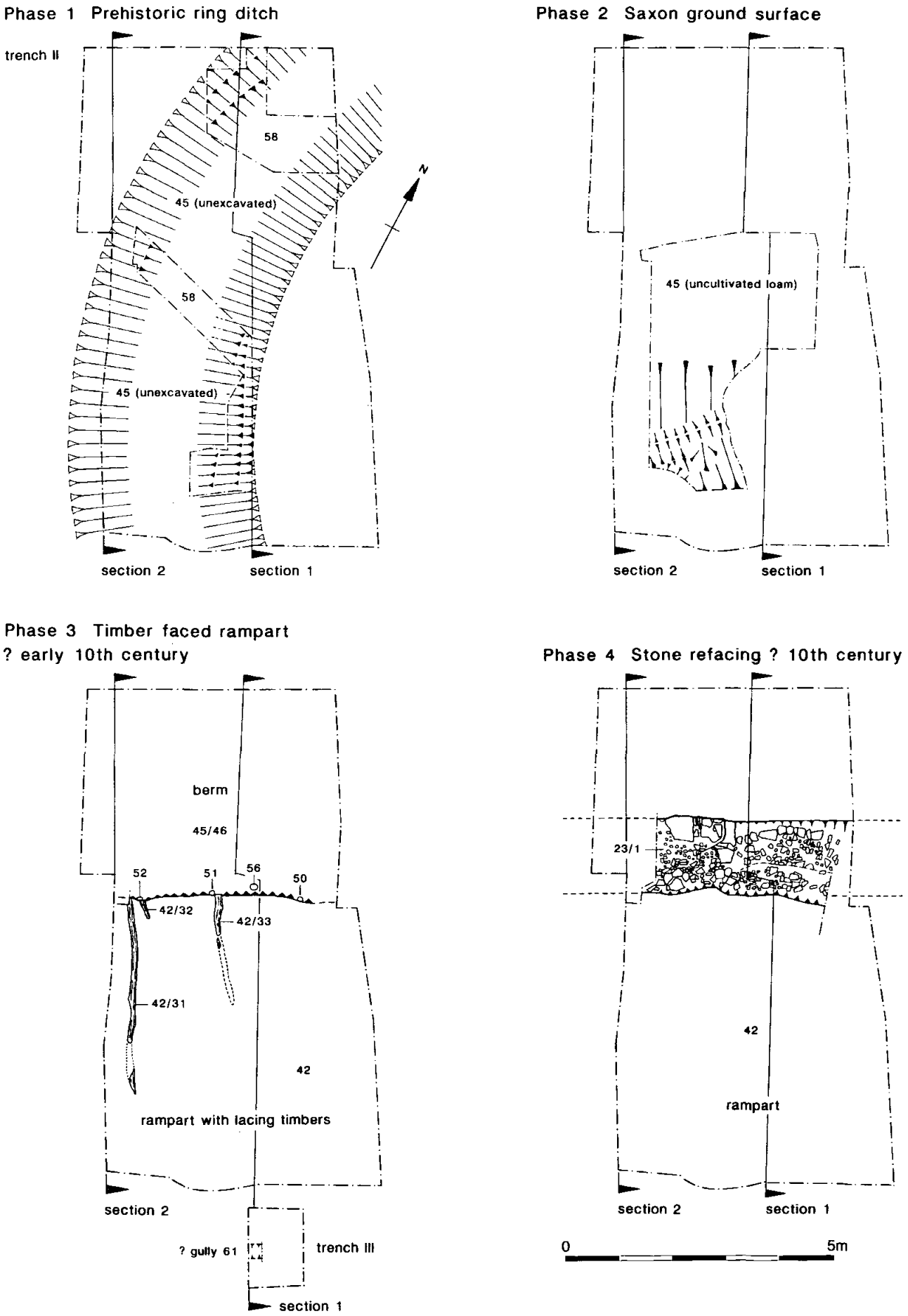


Figure 4.5 24A St Michael's St: plans, phases 1–4.

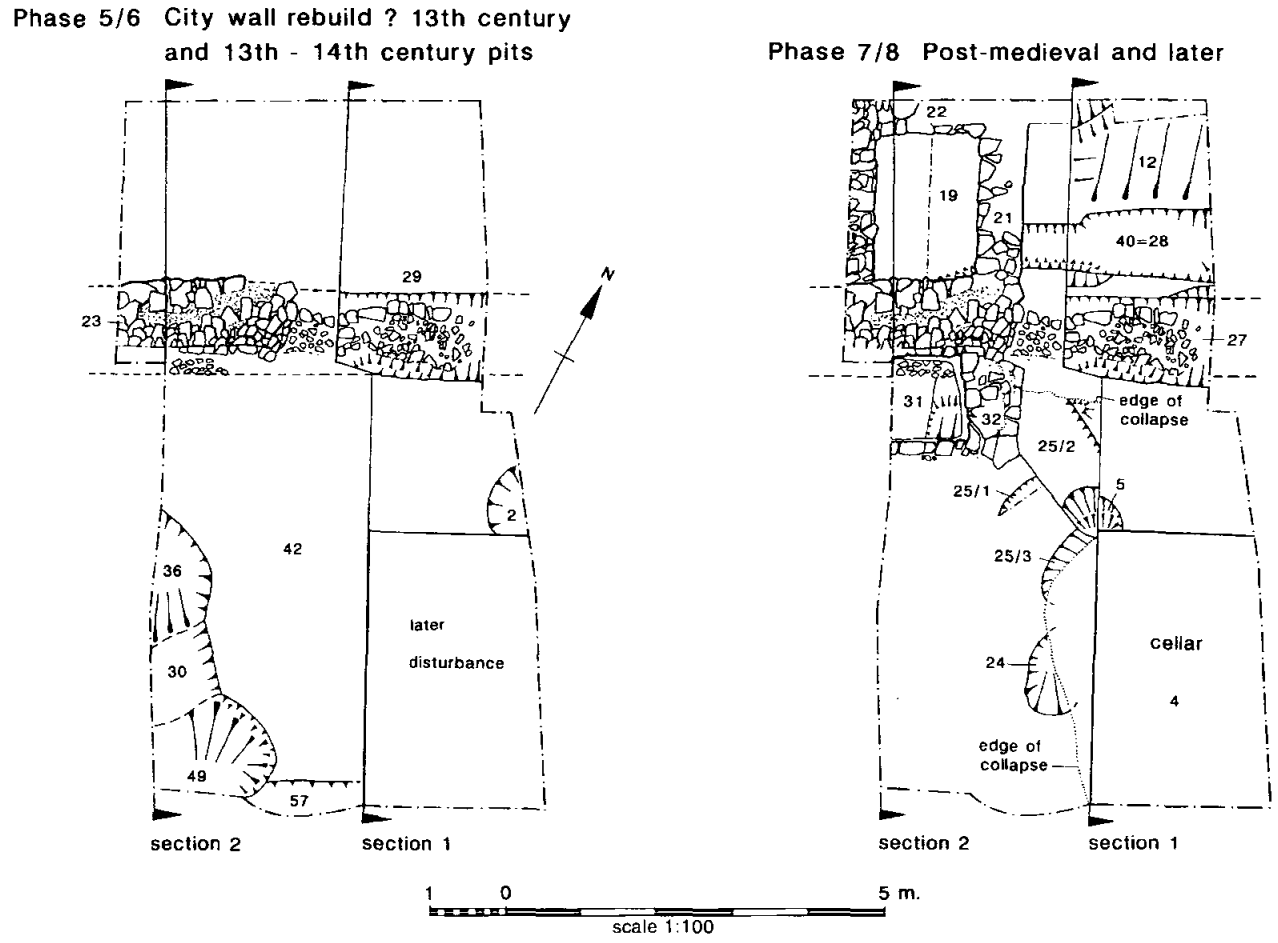


Figure 4.6 24A St Michael's St: plans, phases 5–8.

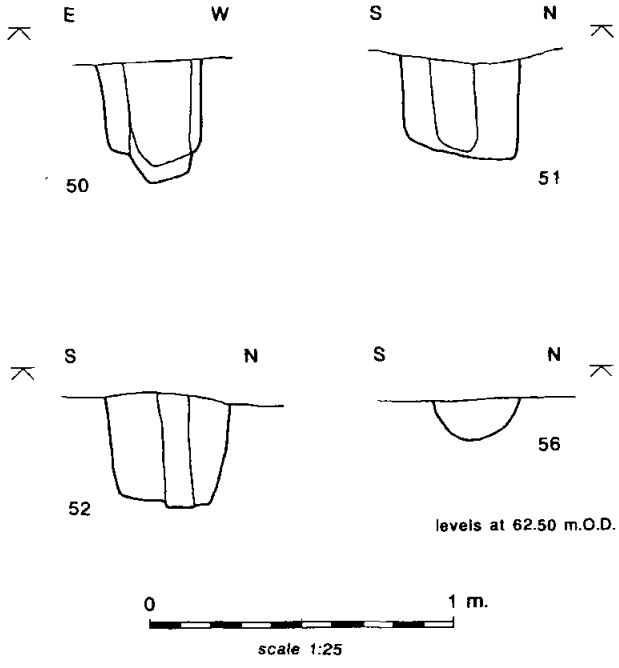


Figure 4.7 24A St Michael's St: posthole profiles.

indistinguishable from each other towards the southern limit of Section 1 (Fig. 4.9).

At the front (north end) of the rampart deposits an alignment of three postholes was revealed, 50, 51, 52, each of which was 0.4 m deep, and 0.3 to 0.4 m in diameter (Fig. 4.5). Narrow post-pipes filled with grey-green silt were visible in two of these, while the third (50) had a wider 'pipe' which could represent a recut—the same posthole had visible traces of decayed wood from the post. A sample from the post-pipe of 51 was examined by Mark Robinson (Chapter 7) who was able to confirm that the wood was oak. A fourth, and apparently less substantial posthole, 56, was found slightly to the north of the alignment just described—it had no separate post-pipe and was only 0.12 m deep, but had probably been truncated by the later foundation trench 47/1 (see Phase 4).

The material dumped at the front of the rampart consisted of buff silty clay, 42/4. The molluscs found in this deposit, identified by Mark Robinson (Chapter 7), confirm the visual impression that the clay had an alluvial origin, and must have come from the floodplain rather than the second terrace environs of this section of the rampart, perhaps being transported as turves. This point is considered

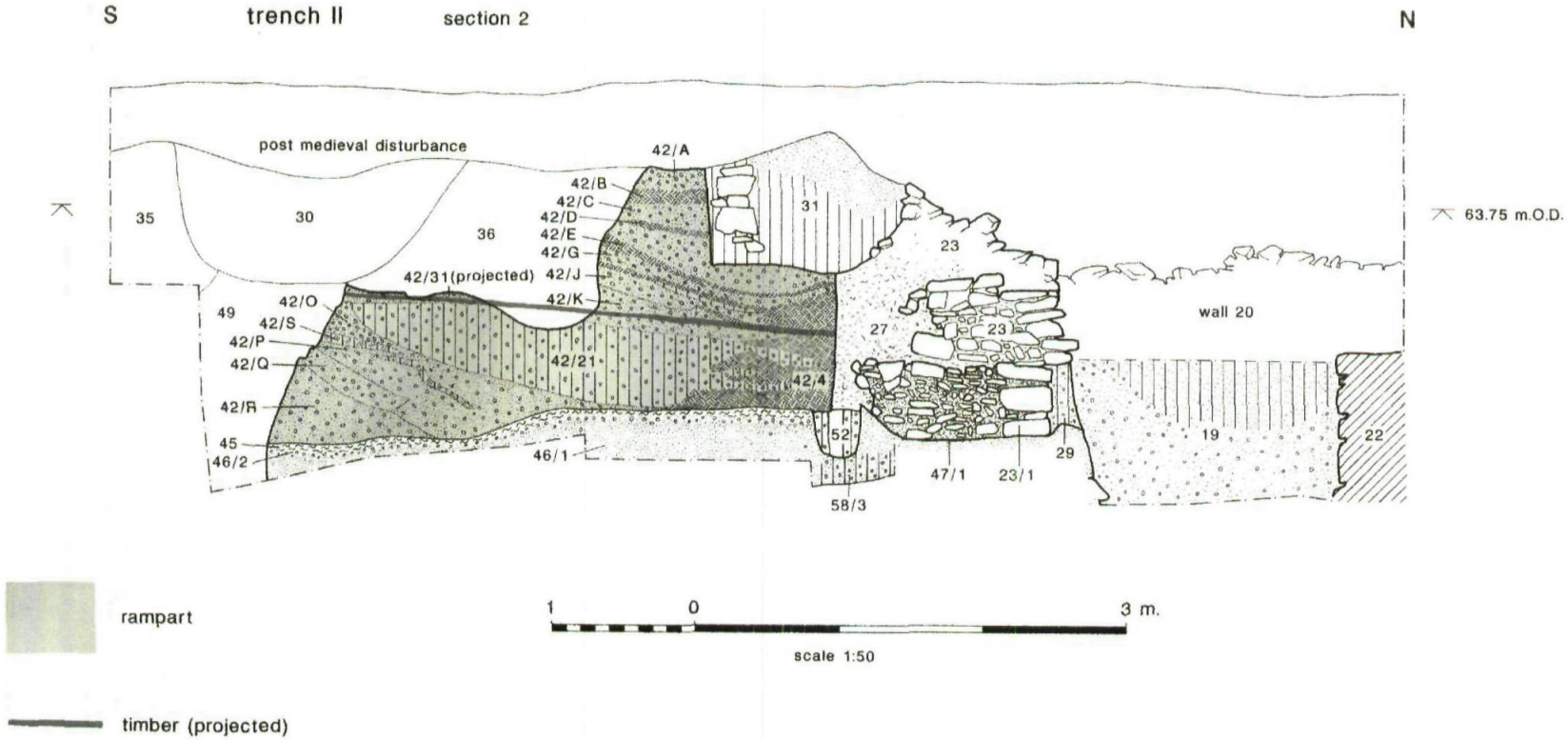


Figure 4.8 24A St Michael's St: trench II section 2.

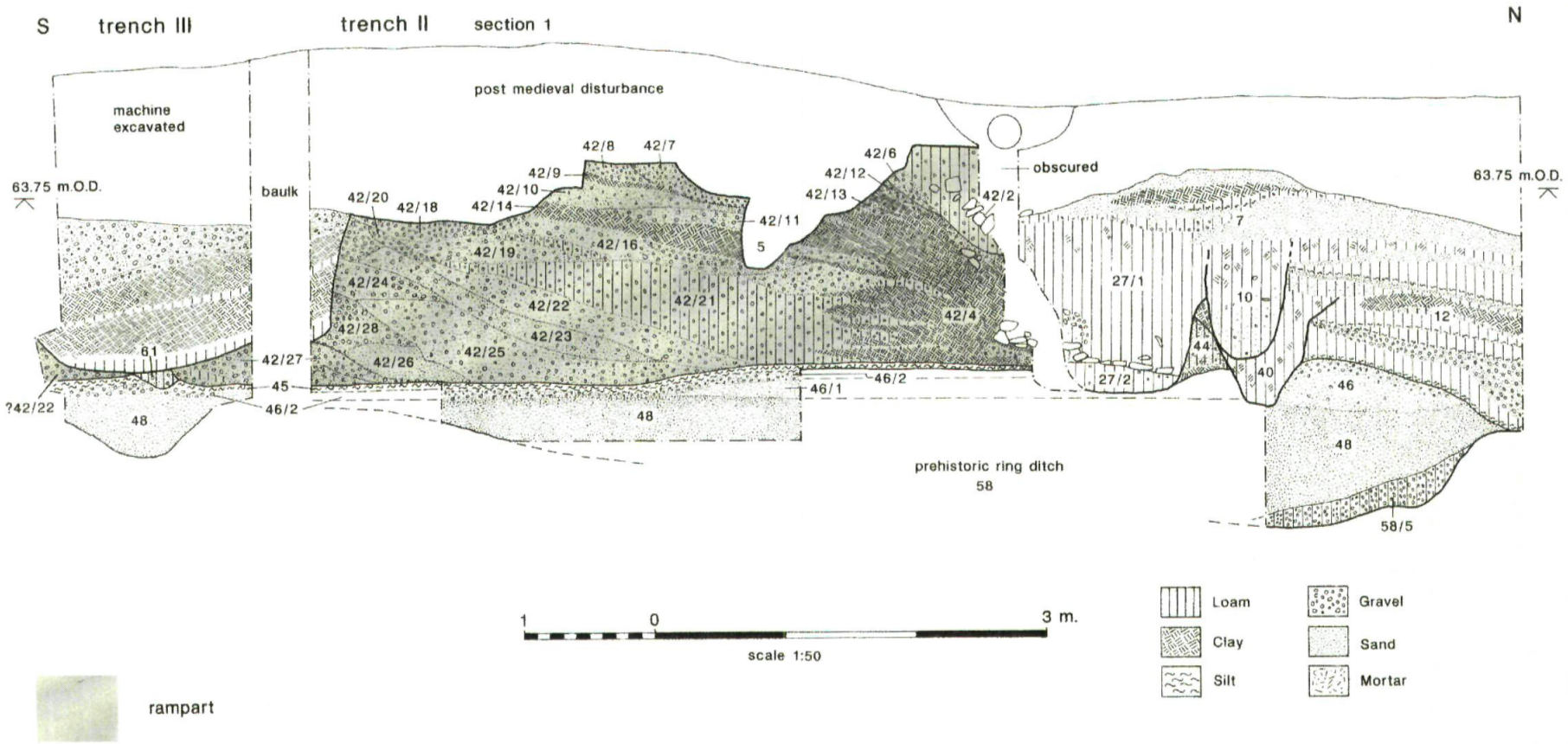


Figure 4.9 24A St Michael's St: trenches II and III section 1.

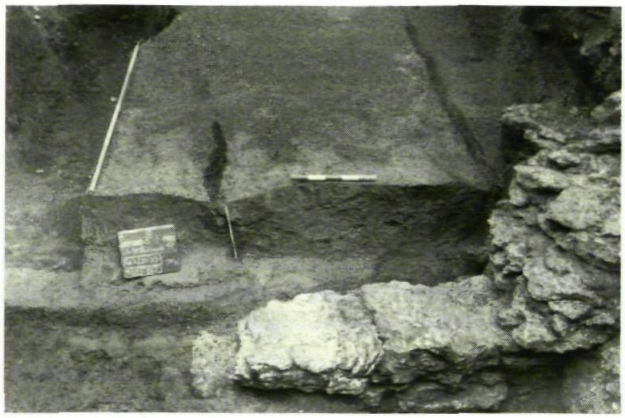


Plate 4.1 24A St Michael's St, Phase 3, the lacing timbers in the rampart.

further in the discussion. Whatever form the clay arrived in, it is assumed that it was built up behind a revetment of horizontal timbers which were fitted to or behind vertical posts in the postholes described above—the fact that the postholes as found were partly beneath the rampart must be because the rampart had shifted slightly forward, an indication of its latent instability. Possible traces of a horizontal revetting timber were observed in the face of the clay, just above posthole 52. The alluvial clay was clearly being dumped at the same time as a thick wedge of red-brown loam (42/21—up to 0.6 m deep) was being built up on the rampart. The two deposits interdigitate (Figs 4.8, 4.9) showing that alternate loads were being tipped of loam (from the north) and clay (from the south). The wedge of loam 42/21 also substantially corrects the south-north slope of the primary gravel deposits described above, creating an almost level surface. At this level in the rampart structure, *c* 0.6 m, three timbers were detected lying on the surface of layer 42/21, with their northern ends buried within the clay 42/4 (Fig. 4.5; Plate 4.1). The first of these, 42/31, was near the western edge of the trench and lay at right-angles to the front of the rampart. It was preserved as a black to dark-red stain, with some charred wood present at the north end, and was at least 3.5 m long; the timber was seen to taper towards the south, and was also twisted, indicating a branch rather than a shaped piece. The wood was identified as oak (Robinson, Chapter 7). The north end of the branch lay immediately west of posthole 52, while a second timber, 42/32, coincided with the eastern half of the same posthole. Timber 42/32 was at a slight angle to the front of the rampart, and only 0.4 m of its length survived as a black stain, all of which was within layer 42/4; the wood species could not be identified. The third horizontal timber originated at a point above the eastern edge of posthole 51, and ran back at right-angles to the rampart for at least 2 m. Some charred wood was present within the wood stain, and this was again identified as oak (Robinson, Chapter 7). None of the three timber stains was more than 0.15 m across, but decomposition, and particularly compression, may have reduced the wood from its original size. The three horizontal timbers can be interpreted with some confidence as lacing timbers which were tied into the vertical posts in the rampart breastwork—this is considered further in the discussion (below). A fragment of iron nail from the clay 42/4 (SF 24M.9 not illustrated) is the only evidence to suggest how the lacing timbers and vertical posts were held together.

Plate 4.2 24A St Michael's St, the stone facing of the rampart, and the rebuilt town wall, external (N) face.

At the front of the rampart more of the clay 42/4 was added over the lacing timbers, up to at least the maximum 1.6 m to which the rampart survived. South of this, and interleaved with the clay, were further bands of gravel (42/7,/8,/10,/11,/A,/G,/C,/J) which sloped slightly downwards from south to north. Sections 1 and 2 (Figs 4.8, 4.9) show how later features have cut deeply into the rampart, so that it is not possible to reconstruct its original profile.

Only Roman pottery was recovered from the rampart deposits, comprising a total of 15 sherds (Mellor, Chapter 6). The assemblage is consistent with a 4th-century date, so that there may be a gap between the earlier ploughsoil (1st- to 2nd-century material, Phase 2) and the pottery from the rampart. In the absence of any other evidence a date very early in the 10th century is most likely for the rampart construction since it is possible that the *burh* was fortified when taken by Edward the Elder, and it must have been fortified by the time of the Burghal Hidage (see general introduction to this chapter, above, and the discussion of 24A St Michael's Street, below).

The rampart produced other residual evidence in the shape of a number of mortar fragments from deposits 42/15, /21 and /22. These were analysed, and shown to be better and more technically-advanced mortars than those from the later Phase 4 and 6 walls (McKeague, Chapter 6). In the circumstances, it seems certain that the mortar fragments are from a Roman structure, and this is a notable addition to the growing body of evidence for Roman settlement under the medieval town.

Evidence of a road behind the line of the rampart came from the drainage trench (IV) in the centre of St Michael's St (Fig. 4.4). A hard-packed surface of small, rounded pebbles which probably overlay natural gravel, was seen at a depth of 2.3 m below modern street level (Gaz No. 107). There was no trace of any rampart deposits in the observed sections, and the rampart width must therefore be between 7.65 m (width to edge of Trench II) and 13 m, being the distance to Trench IV.

Phase 4 — ?10th century

The construction of a stone face to the rampart began with the excavation of a shallow construction cut, 47/1, which was 1.5 m wide. The northern edge of the trench cut into the Phase 2 loams 45, 46, while the profile of the southern edge of the trench (and of its stone infill at this point) suggests that a small amount of material had accumulated at the foot of the rampart. The stone wall within the construction trench had a coursed north face of large coral ragstone blocks, 23/1, measuring *c* 0.3 × 0.4 × 0.2 m, with small flat chips of stone used to fill in between the blocks. The yellow, sandy mortar used in this part of the wall was of poor quality, containing no lime and some earth. McKeague (Chapter 6) notes that this mortar shows significantly less technical understanding than the presumed Roman mortars found within the rampart (see Phase 3). Behind the face the stonework, 47, was uncoursed and generally consisted of smaller fragments of coral ragstone, although a few larger blocks were present—the excavator noted that this part of the wall had a 'dumped' appearance and was poorly bound together by a matrix of reddish sticky clay. Some of the stones had areas of yellow sandy mortar adhering to them, and could therefore have been re-used, but this may also have resulted from the contemporary construction of the wall face 23/1.

This first phase of stone wall was preserved to a height of three facing courses, 0.5 m, and was 1.3 to 1.4 m wide. The southern (back) edge of the wall finished some 0.1 to 0.15 m from the vertical front edge of the clay rampart deposit 42/4, suggesting that the timber revetment was left in position and sealed behind the stone wall. This can be seen in Section 2 (Fig. 4.8), but elsewhere later robbing had unfortunately removed the evidence (see Fig. 4.9, Section 1).

No dating evidence was recovered from the Phase 4 deposits described above, and the wall date can therefore only be defined as later than the rampart (assumed date of early 10th century) and earlier than the Phase 6 wall (?first half of 13th century or earlier). This is discussed further below (Watching Brief and discussion).

Phase 5 — Medieval

The only activity on the site which can definitely be dated to the medieval period consisted of six pits, four of them intercutting, which contained modest quantities of pottery (but see also Phase 6, below). Pit 60 was located in Trench III and is not illustrated. The fills of these features were generally a mixture of loam, clay and gravel, some of the clay clearly being redeposited from the Phase 3 rampart into which the pits were cut. The two latest pits in the intercutting sequence (pits 30 and 36) can be dated to the 14th century, while pits 49=35 and 2 are 13th-century or later. Pit 2 also contained a bone gaming piece (Fig. 6.16 No. 4). Only pits 57 and 60 could be as early as the 12th century, but this date is based on a small quantity of pottery (three sherds and nine sherds respectively), and may be misleading. Pit 60 also contained a residual Roman coin (SF24M.15 not illustrated). In general the evidence shows that by the 13th century at least, the rampart was not being carefully maintained. The same conclusion for the front part of the defences could also be drawn from the build-up of clayey-loam deposits 44, 53, 54, 29 against the front of the stone facing (Figs 4.8, 4.9); these deposits are most likely to be medieval (first half of the 13th century or earlier), although no direct dating evidence was recovered (see also Phase 6).

Within the drainage trench (IV) in St Michael's St the cobbled surface described in Phase 3 was overlain by (the following contexts are not illustrated) red-brown stony clay/loam, 0.12 m deep, which formed the make-up for another surface of larger limestone pieces, measuring *c* 0.1 × 0.15 ×0.6 m. The stones were blackened by a wet organic silt layer, 0.3 m deep, which overlay them; it contained wood and leather fragments, and a single sherd of Stamford-type pottery (mid 11th to 12th century). The two layers above this were a 0.4 m-deep red-brown gravelly clay, presumably further make-up, and a deposit of grey, stony loam, which may have included disturbed road surfaces. The latter context contained two sherds of 15th-century pottery.

Phase 6 — Rebuild of wall, ?first half of 13th century or before

This phase defines a rebuild, 23, of the Phase 4 wall 23/1 which fronted the rampart (Plate 4.2). The dating of this rebuild is problematic, and a discussion of this follows the description. The front face of wall 23 was of blocks of coral ragstone *c* 0.15 × 0.18 × 0.8 m in a hard, off-white fine grained mortar. It was notable that the blocks were not clearly coursed, like the earlier wall 23/1, and were in some cases pitched rather than laid flat. The wall face rested on layers 53, 29 (Phase 5) and at its base it projected 0.2 m forward from its predecessor, being battered back slightly from this point. Wall 23 survived to a maximum height of 0.6 m, and was presumably 1.6 to 1.8 m wide, measured from the face of the rampart, although some of this width had been robbed out (see Phase 7). Behind the wall face, the core, 43, was of small coral ragstone rubble in the same mortar.

Finds attributed to the wall core 43 were two sherds of 17th-century Surrey Hampshire Border ware and a clay pipe bowl of a type dated 1650–1690 (Mellor, Chapter 6). This originally led the excavator to suggest that wall 23 was a 17th-century rebuild, perhaps connected with the Civil War. There are, however, problems with this interpretation, not least the implied absence from the sequence of any trace of the 13th-century rebuild of the medieval town wall which should be on this alignment. In addition, the clay pipe does not fit easily with a date of 1646 (the siege of Oxford) or just before, and the mortar was not typical of the post-medieval period (McKeague, Chapter 6). The point is argued further in the discussion (below) but it is now felt more likely that wall 23 does, in fact, relate either to the 13th-century town defences, or to a building phase before this, and that the 17th-century pottery and clay pipe assigned to the wall were actually either from the fill of the robber trench 27 (Phase 7) or became incorporated in the wall during the construction of the stone-lined pit 19 (see Phase 7). It therefore follows that the Phase 6 wall could have been contemporary with some of the Phase 5 pit activity. Given the 'pitched' rather than coursed nature of the wall face it is more likely to have been foundation than free-standing wall (see also below, Watching Brief), but no trace of a foundation trench had survived the later cuts and robbing.

Phases 7–8 — Post-medieval and later

Part of a wide linear feature, 12, was excavated which ran east-west across the site, *c* 1 m in front of the Phase 6 stone wall, with upper fills which were rich in pottery dating to the mid to late 17th century; it was shown to continue to the west of the excavated area (see below, Watching Brief). The fills (12/1–12/8) of feature 12 were cut, on the south side of the feature, by a narrow east-west ditch 40=28—this produced a similar ceramic assemblage to that from the fills of 12. Above ditch 40=28 was a square, stone-lined pit which reused the Phase 6 wall (23). This wall was butted by the east and west walls of the pit, 20, 21, which stood 7 courses high, and were built of stone blocks (*c* 0.2 × 0.18 × 0.1 m) set in a yellow-brown sandy mortar; a similar wall, 22, formed the north edge. The pit was filled with grey-brown sandy loam, 19, the ceramic assemblage from which dates to the 18th century and was of considerable pretension (Mellor, Chapter 6).

A robber trench, 27, for wall 23 is the most difficult feature in this phase to place in sequence. In the eastern side of the site the trench removed it entirely together with some of the underlying wall 23/1, but further to the west wall 23 survived better, with only the back (southern) edge being robbed (Fig. 4.8). Stones 42/2 and 42/4 in the fill of the robber trench had mortar attached, and were clearly from wall 23, although one of these, according to the mortar analysis, may originally have come from a Roman structure (McKeague, Chapter 6). One possibility is that the robbing was contemporary with, and provided material for, the construction of the stone-lined pit 20, 21, 22 described above—this would certainly explain why part of wall 23 was left *in situ*. The pottery from robber trench 27 indicates an 18th-century date.

Immediately south of pit 20–22, and constructed against the town wall, was another stone-lined pit, 31, which lay only partly within the excavated area. Again the ceramics indicated a relatively wealthy lifestyle (Mellor, Chapter 6). Other pits and areas of late disturbance which were excavated at this stage were 24, 25/1, 25/3, 26 and 33, many of which were cut by a large cellar 4. The northern part of the trench was occupied by layers of mortary debris and build-up 7/1–7, 8, 15, 17, 18 which overlay pit 20–22. Pits 9, 10, 11 and 14 were interstratified with these layers.

Watching brief on cellar excavation

During the excavation for a new basement at the site, the contractors exposed a length of the north face of the city wall which stood just over 1 m in height. The two phases, 23/1 and 23 recognised in Trench II were again recognisable, but were topped by several courses of very large, roughly squared blocks (Plate 4.3) which may be the visible wall face of the 13th-century city wall, with 23 being the foundation (see Discussion). The area excavated for the new basement also extended in front of the town wall, where the ditch, 12, was shown to continue. As in the main excavation, only the upper fills were seen, and again dated to the mid to late 17th century.

Discussion

Although the main focus of the excavation at 24A St Michael's St was on the Saxon and medieval defences, the site proved to be a useful if tantalising window onto the prehistoric and Roman history of the area. Both the evidence for Roman cultivation (Phase 2), and for a Roman structure of stone and mortar somewhere nearby (see Phase 3), are welcome additions to the growing body of knowledge for Roman occupation at Oxford. Also notable was the occurrence of a Roman coin of the 3rd century AD in a medieval pit in Trench III (Phase 5). Although only a small area of the Saxon rampart was excavated, it contained 15 sherds of Roman pottery, which seems a considerable concentration, although it could be due in part to manuring of fields in the Roman period. The Bronze Age barrow (Phase 1; Barclay and McKeague 1996) can be linked with a possible headland over the barrow ditch (Phase 2—the old ground surface slopes upwards towards the north) to suggest that the landscape had long been marked in some way at this point. Indeed it may be reasonable to envisage a field ditch just north of the headland, forming a 'proto' bank and ditch on what became the line of the rampart. This is a useful reminder that what could be seen as an innovation

Plate 4.3 24A St Michael's St, the external (N) face of the town wall, seen in the contractors' trench.

might already have existed in the local landscape, and a hedge or fence with a headland built up against it would also illustrate how a bank could be revetted. The pre-existence of a field boundary may also be indicated by the flat, reversed 'S' shape formed by the town wall as shown on the Agas (1578) and Loggan (1675) maps (Figs 4.2, 4.3).

Little information has emerged about the early and mid-Saxon periods, although the very abraded state of even the latest Roman pottery in the rampart deposits shows that some cultivation took place. Cultivation ceased for approximately seven years prior to the rampart's construction, and similar findings (with an estimated fallow period of nine or ten years) came from the deposits under the rampart at New College, further to the east (this volume, below). The temptation to make too much of this needs, as yet, to be resisted, suggestive though such evidence could be of a period of unrest prior to the laying out of the town. More importantly, the defensive line examined at New College is normally considered to be part of an eastward extension to the original defended core of the town, perhaps datable to the early 11th century (see Chapter 2, above; also *VCH* iv, 301). The uncultivated horizon below both sections of rampart thus has to be explained as coincidental, or as a product of similar circumstances occurring perhaps a century apart. There is clearly room here for legitimate doubt; what has been taken as a later addition may, in whole or in part, have been part of the original plan.

The only dating evidence recovered from the rampart was, unfortunately, the residual collection of abraded Roman pottery, and this was also the case for the rampart at New College, where four sherds were recovered. At present, therefore, the date of the rampart's construction can only be assumed to lie in the late 9th or early 10th century. The town may have been defended when it was taken by Edward the Elder in 911/12, but a defensive circuit is certainly implied by the entry for Oxford in the Burghal Hidage, currently thought to date to 914 × 919.

Construction of the rampart (Phase 3) took place directly onto the surface of the uncultivated horizon discussed above. The earliest deposit, of clean yellow gravel, could have been laid as a marker, but this is not certain. A clean spill of gravel at the bottom of the rampart, interpreted by the excavator as a possible marking-out line, was also noted in the excavations at New College. Further gravel deposits, tipping from south to north, make up what is interpreted here as the core of the rampart; similar evidence at Hereford was interpreted as a first-phase rampart in its own right, but the argument is not particularly convincing (Shoesmith 1982, 76–77). Stratigraphically the gravel deposits at 24A St Michael's Street must have been laid down before the clay tips which formed the rampart face, 42/4.

Quite clearly, then, gravel was specifically selected for this part of the construction, and this was then overlaid by a thick wedge of red-brown loam 42/21, laid at the same time as the clay rampart front was being constructed. The loam infills the south-to-north slope created by the gravel, and, at the lower levels at least, could theoretically have been dumped from either the back or the front of the rampart, or even both. Loam was probably cleared to create a frontal ditch, but could also have been sourced from behind the rampart in preparation for the laying of a road surface, since cobbles which probably sat directly on the natural gravel were observed here (Phase 3, Trench IV). The upper part of the rampart body was made up of more gravel, so that in general the construction process which emerges is not a straightforward transfer of material from ditch to rampart, but a more complex sequence of operations where materials may have had to be stockpiled, and moved more than once.

The material used for the rampart face is enigmatic in that analysis of the molluscs (Robinson, Chapter 7) has confirmed the visual impression that the clay 42/4 was alluvial in origin, and must have come from the floodplain, not from the second terrace where this section of rampart lies. The form in which the clay was transported from the floodplain is not known, although it is possible, as was the case at Hereford (Shoesmith 1982, 77), that it was brought in the form of large turves. Individual turves could not be distinguished on site, although the thin tails of material running back from the face are suggestive of their use, as was the case at New College. The environmental evidence is not conclusive either way and Mark Robinson (pers. comm.) would not rule out the possibility that turf was used. Turf seems to have been the normal material for a rampart face, as at Hereford (Shoesmith 1982), Wallingford (Durham *et al.* 1972, 82) and Lydford (Wilson and Hurst 1966, 168), though in some cases its presence may have been assumed rather than observed, as at Cricklade (Radford 1972, 101) and elsewhere in Oxford (Durham *et al.* 1983, 14–15). It seems distinctly possible that the land where the rampart was built had not lain uncultivated long enough for suitable turf to form, so that it had to be sought elsewhere at considerable effort. In general, at least some variation is to be expected from one stretch of the defences to another, depending on factors such as availability of materials, and different construction gangs. The rampart at New College used bands of 'sandy clay', likely to have been the redeposited ploughsoil and probably interleaved with turf, while at St Michael at the Northgate, the rampart was built of layers of 'redeposited soil and gravel' (Durham *et al.* 1983, 14–15).

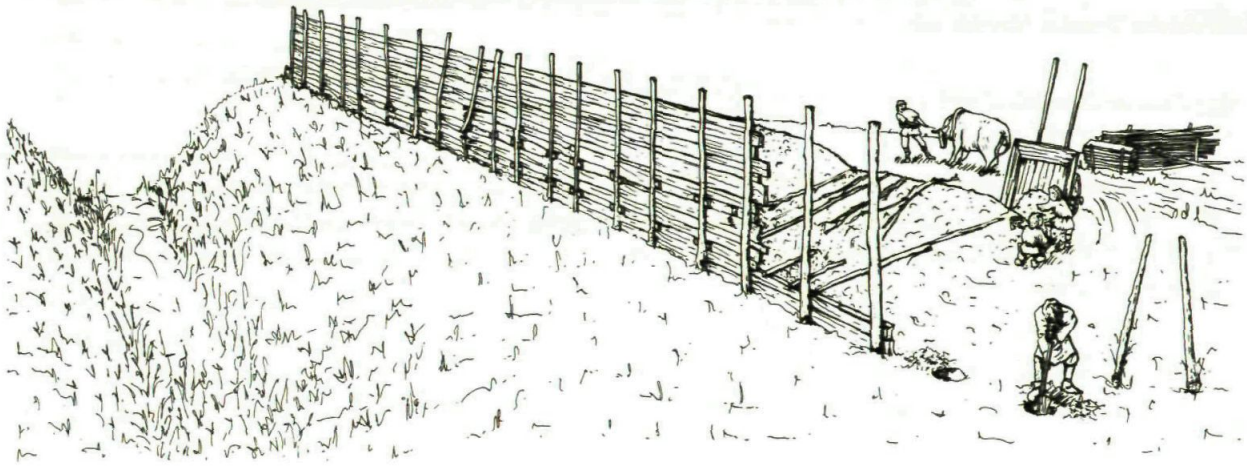
The use of timber in the rampart is illustrated in Figure 4.10. The vertical earthfast posts of the revetment were, on the evidence of the excavated post-pipes, from 0.08 m to 0.12 m in diameter (evidence of one wider pipe is not reliable) and such slender timbers suggest that the stability of the structure relied heavily on the horizontal lacing members. The obvious weak point would have been the joint between lacing timbers and posts. The lacing timbers were about 0.1 m in diameter, and were branches rather than shaped timbers; they may have been deliberately charred to prolong their life (Robinson, Chapter 7). St Michael's St has thus provided some of the best evidence for the arrangement of lacing timbers which has yet been recovered from a rampart of this period, and evidence from elsewhere should be reviewed. For example, it now seems possible that the less well-preserved timbers found at Hereford, and reconstructed as being independent of the revetment (Shoesmith 1982, fig. 133), were actually tied in to the vertical posts.

Only the faintest traces survived of the horizontal facing timbers inserted behind the vertical posts to create a face for the rampart. The form of these at Oxford could not be reconstructed; at Hereford they were split (half-round) timbers with the flat side placed against the rampart (Shoesmith 1982, 78).

The only evidence of any repair to the timberwork is the possible recut posthole, 50, and one very small posthole, 56, just in front of the rampart line. The latter feature is, however, so slight that it could be no more than the mark of a temporary prop or scaffolding from the construction period. In general, on the basis of the rampart as illustrated by Section 2 (Fig. 4.8), the timber revetment was replaced relatively quickly by a stone wall and a gap between the rampart front and the wall suggests that the timber was left *in situ*. The picture elsewhere, of course, may have been quite different since there was no gap between wall and rampart front at St Michael at the North Gate, some 150 m to the east (Durham *et al.* 1983, fig. 2).

As originally built, the timber-faced rampart was between 7.65 and 13 m wide, which is within the range of other examples such as Hereford (7.5 to 8.5 m; Shoesmith 1982, 76, fig. 133), Lydford (12.2 m; Wilson and Hurst 1966, 168) and Cricklade (9 m; Radford 1972, 96). The rampart at Hereford had an estimated original height of 2.5 m, while the rampart at St Michael's St was at least 1.6 m high and may, given the minimum width, have been of similar dimensions. The effective height of the defences, the face confronting an attacker, would have been greater with an external ditch, and if the presence of a timber breastwork is assumed, as shown in the reconstruction in Figure 4.10. No trace of a ditch was found at St Michael's St, but it was seen at the Northgate, where it was separated from the wall by a berm of some 6 m (Durham *et al.* 1983, fig. 2).

The addition of a stone revetting wall to early medieval defences is a relatively common feature, although it must be clearly distinguished from those examples, such as Wallingford and Wareham, where the wall was built on the crest of the rampart (Wilson and Hurst 1967, 262; RCHM 1959, 126). Revetting stone walls are known, for example, at Hereford, Cricklade and Lydford (Shoesmith 1982, 80; Radford 1972, 61; Wilson and Hurst 1966, 168), and in at



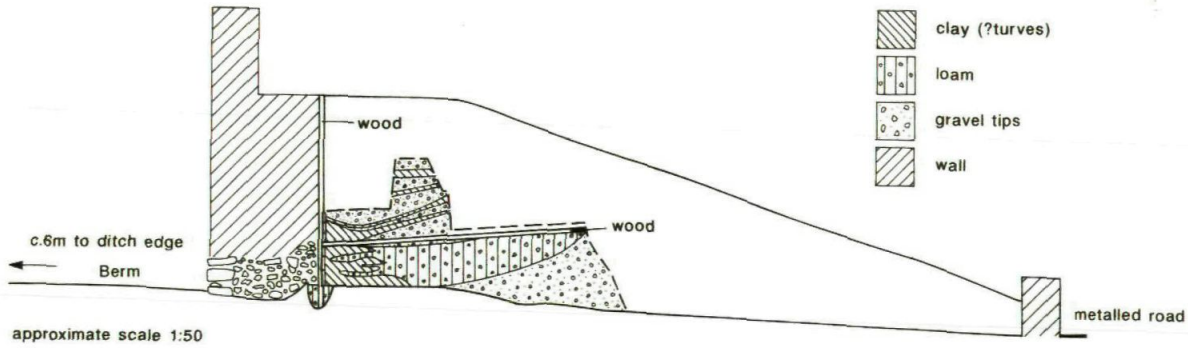


Figure 4.10 24A St Michael's St: reconstruction of rampart.

least one other place along the Oxford circuit, at St Michael at the Northgate (Durham *et al.* 1983, 15, fig. 2). There was no evidence of an early stone wall at New College, and if one existed, it must have been completely removed for the 13th-century construction phase. A shallow construction cut for the wall base was the only definite preparation found at St Michael's St, and the wall was built against the pre-existing timber face (see above), as it was at Hereford. The preparation at other sites (Cricklade, Lydford) was a sloping cut into the rampart face, possibly to remove slumped material from the previous phase. The width of the wall at St Michael's St, at 1.5 m, is similar to the wall at the Northgate, and to those at Lydford and Cricklade, while the Hereford example is wider, at nearly 2 m. The use of mortar is paralleled only at Hereford, while the 'dump' construction behind a more carefully constructed face is repeated at the Northgate and was also present at Hereford. At the latter site, a rebuilt timber breastwork was proposed contemporary with the stone wall; there was no evidence of this at Oxford, and a stone breastwork created by carrying the wall face up above the rampart is possible.

The Phase 5 rubbish pits cut into the rampart in the 13th and 14th centuries show that the rampart, at least, was not being carefully maintained by this time, while at the rampart tail there is evidence that the street surface was relaid at least once, perhaps as early as the 11th century. The wall itself is likely to have been rebuilt, probably with external bastions, in the first half of the 13th century; this is evidenced by a series of murage grants suggesting major works at this time (see general introduction to this chapter, above). It is suggested above that the rebuild of the wall is most likely to date from this time, and not, as was first suggested by the excavator, to the Civil War period; however, it must be admitted that the construction of roughly pitched rather than coursed stones cannot be paralleled elsewhere on the wall. Larger blocks seen above this in the watching brief (Plate 4.3) are similar to a wall seen at the Northgate (Durham *et al.* 1983, 17, F6) and dated there to the late 11th century or later. The courses of pitched stone may therefore just be a foundation, while the Northgate evidence also raises the possibility of an intervening construction phase or phases between the first (probably 10th-century) stone wall and the 13th-century work. Clearly the full story of the wall, both in terms of major rebuilds and of local repairs, is still to be elucidated.

For the Civil War period there is no documentary evidence of rebuilding (*VCH* iv, 303–4) and the wall

still stood to its full height in 1578, according to the Agas map (Fig. 4.2). Certainly some repairs may have been undertaken, but it seems unlikely that the wall at St Michael's St had been reduced to its foundations between 1578 and 1675 (when it is shown on Loggan's map, Fig. 4.3). The ditch outside the wall may be a different case; it appears to be open ground in 1578 (though it could be argued that Agas simply omits any detail for this area) but does have 17th-century fills at St Michael's St (Phase 7) and elsewhere (Durham *et al.* 1983, 39), suggesting that it had been recut. A narrow strip outside the wall was still open in 1675, while other areas had already been built over. The infilling of the areas both inside and outside the line of the town wall appears in the archaeological record at St Michael's St in the form of stone-lined pits with 18th-century fills.

St Michael at the Northgate Tower Survey 1985–6

Introduction *(Figs 4.1, 4.11; Plates 4.4, 4.5)*
by Brian Durham

St Michael at the Northgate is one of Oxford's most ancient parish churches, whose priests owned two houses at the time of Domesday. Only the tower survives of the late Saxon church, the remainder having been rebuilt in the medieval period (Plates 4.4, 4.5); the church tower is, however, among the most distinctive features of the Oxford street scene, a robust square Saxon structure in a largely Gothic city. During the 1980s the parish decided to make the tower accessible to the public, involving considerable reorganisation of the interior, including the removal or replacement of three timber floors, and the rehanging of the bells. Scaffolding erected round the tower for stonewashing and repointing provided unrivalled access to the external face. The OAU was accordingly commissioned to undertake recording of the structure as it was being modified. Detailed stonework recording was begun by Tim Morgan, with the internal faces completed in January 1986. Subsequently, a watching brief was maintained on the internal alterations, while the external stonework was recorded by Leigh Allen and Frances Peters. Philip Powell identified all the exotic stone (that is, all that was not coral ragstone rubble); John Blair and Stephen Heyward visited the project and advised. Philip Powell's stone identifications have been incorporated in the following descriptive

Plate 4.4 St Michael's Church Tower from Cornmarket, looking SE. Photo Mike Hallam.

Plate 4.5 St Michael's Church and graveyard from Ship St, looking NW. Photo Mike Hallam.

text and illustrations, and a full list is available in Chapter 6, Tables 6.4 and 6.5. John Blair has contributed a note on the dating of the tower, which follows the main description below.

Previous excavations at St Michael's (Gaz No. 29) had shown that the later medieval church was built across the line of the late Saxon rampart, and suggested that the outshot of the medieval town wall which came to enclose the church was of an early date. The excavations left unanswered the questions of when and why this enclosure was built. The building survey therefore presented an opportunity to study the distinctive architectural features of the tower in relation to the adjacent town defences, to elucidate their relationship and the possible role of the tower as a defensive structure in its own right.

The topography of the Northgate (Figs 4.2, 4.3, 4.11) by Julian Munby

Before discussing the tower, it may be helpful to review the evidence for the topography of the Northgate. The wall alignment west of the Northgate has been described in the preceding section (24A St Michael's St), as it approached the Northgate near its south-west corner. The alignment east of the gate will be discussed further in the following section, but it should be noted here that in its later medieval form the wall reached the north-east corner of the Northgate, since the wall enclosed both the church and churchyard.

Although the physical form of the Northgate is known from post-medieval maps and drawings, there is little medieval documentary evidence except for its use as a prison (known as the Bocardo), and its having a portcullis (eg *MCO* 262). Towers east and west of the Northgate were being rented out by the town in 1387 (*OCD* 301), and are shown on Agas' map of 1578 flanking the outer gate (Fig. 4.2). Shortly after that date a house was built outside the gate on the west (*OCP* 235), though it is possible that it incorporated part of the flanking tower, since the curved edge of the tower can be seen on plans and drawings of the gate before it was demolished in 1772. The tower east of the road was leased out from 1581 (*OCP* 246), and perhaps survived in the tall house shown on Malchair's view, but no longer having a curved front (*VCH* iv frontis.). Judging from Loggan's view and Gwynne's plan of the Northgate made in 1771–2, the gate seems to have taken the form of a two-storeyed gatehouse by the church tower, with an open barbican on the outside (the north front), and rounded towers projecting beyond that. After the Northgate was removed the road was widened, so that the site of the gate lies mostly beneath the present road.

Land immediately inside and outside the walls belonged to the town as waste, and was not generally developed for housing before the late 16th century. One exception was the forge inside the Northgate on the west side, conveniently placed for travellers and in existence as early as *c* 1220 (*CO* i.89). On the other side of the road was a curiously shaped property leased from the City in the 17th to 18th centuries, squeezed between the Northgate and the church tower (*OCP* 247–8). It is shown on Gwynne's plan of Northgate made shortly before its demolition in 1771–2 (published in *S&T*). At the south end it occupied the space from the corner of Ship Street as far as the south side of the church tower, but it continued as a narrow passage round the west side of the tower leading to its backyard on the north side of the tower (and the parish bakehouse against the north wall of the tower). It is instructive that this was a City rather than parish property, and that at this time the church tower projected westwards of the cemetery.

Another City property lay at the east end of the churchyard, presumably within the town wall. A dispute had arisen when a house had been built in the 14th century on part of the cemetery, and in 1415 the town successfully claimed land in the cemetery as being next the wall (Hurst 1899, 69). No more is heard of this, but there was a tenement and garden at the east end of the church leased to Alderman Flexney in 1546 and 1565 (*RCO* 179, 310), while a void ground 'within the wall eastward from St Michael's Church' was leased in 1556 (*RCO* 263). Flexney's house (which may have included the 'Martyrs' Bastion' discussed below) was the only house shown on Agas' map of 1578, but the remainder of Ship Street was built on in the next century, and is shown as mostly built on in Loggan's map of 1675 (Fig. 4.3), and also on Hollar's less reliable map of 1643. The same was the case with the strip of land inside the walls in St Michael's Street on the west side of the Northgate.

Early excavations near Northgate

The Northgate has long been of interest to Oxford topographers, and consequently careful observations were made during rebuilding in its vicinity, in addition to the many views of it made before its removal in 1772.

The demolition in 1906 of the Leopold Arms at 36 Cornmarket, opposite the tower of the church, revealed foundations in the cellar which were identified as being the south-west corner of the Bocardo, while the whole structure was shown to be constructed on the fill of the town ditch, the original edge of which was near the north wall of 37 Cornmarket on the corner of St Michael's Street (Salter 1912, 81; Allfrey plan and section, MS Top. Oxon. a.90; Manning plan, MS Top. Oxon. a.24). This observation located the town wall west of the Northgate as being within 20 feet of St Michael's Street, on the same alignment as it follows further west, and proved that there was no forward enclosure on that side as there was on the east.

The remains of the buildings found in 1906 cannot be fully described here, but clearly consisted of a tower or structure on the west side of the gate

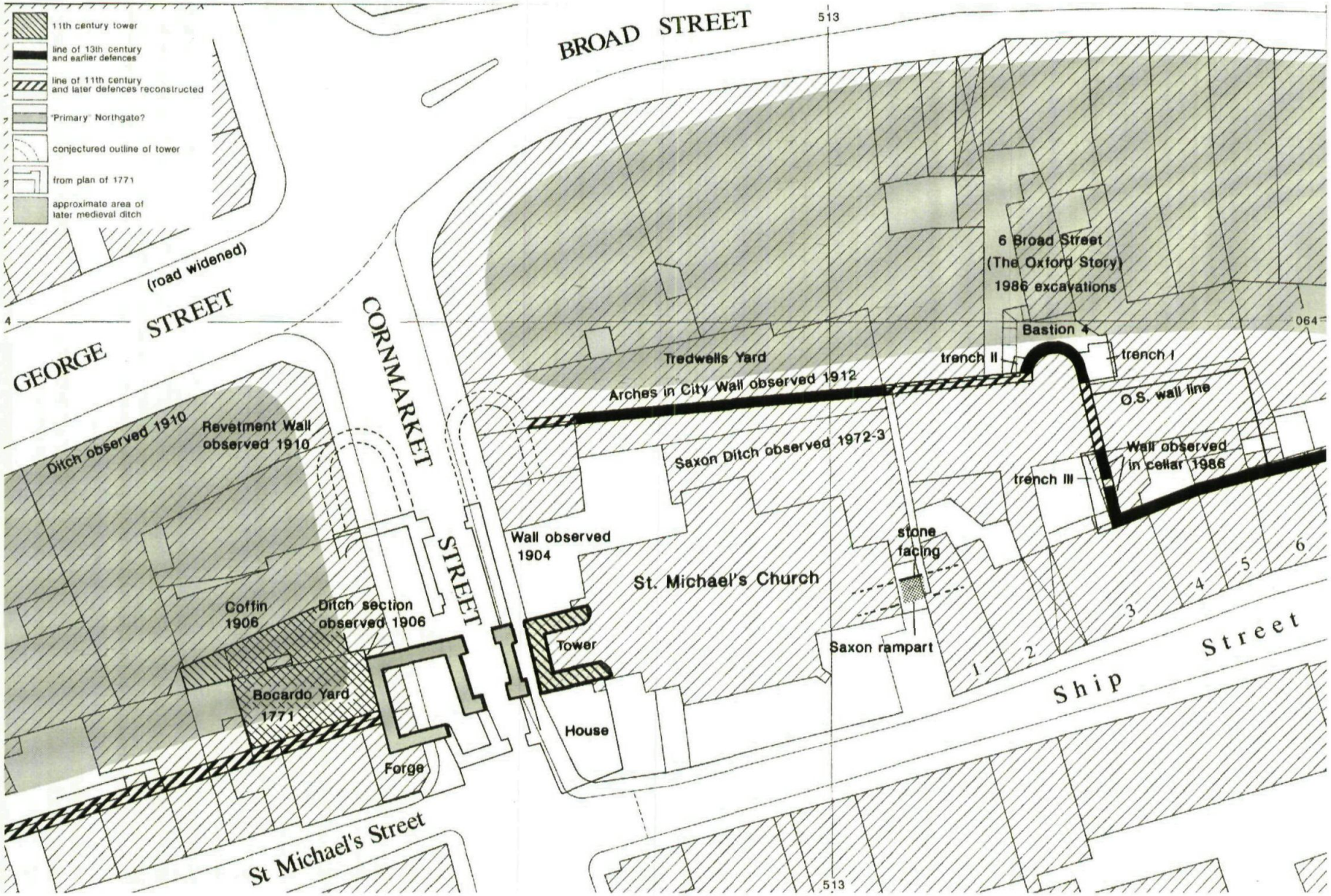


Figure 4.11 St Michael's Church Tower and 'The Oxford Story' No. 6 Broad Street: location of fieldwork, with location of earlier observations around the Northgate. Based on OS 1:500 Town Plan, 1878.

(and nearly opposite St Michael's Tower), to which another tower or structure had later been added on the north side. These were only traced as far as the pavement edge, but would seem to be equivalent to the two main parts of the gate shown on the 1772 plan. The plan and views prior to demolition show a further element on the south side of the gate, consisting of another arch with a room over it, while on the outside of the gate there were the two drum towers mentioned above. The east side of the gate consisted of a wall flanking the gate passage, with the narrow space previously described between it and the church tower.

Further north, outside the medieval gate, the rebuilding of the George Hotel on the south corner of George Street in 1910 led to further observations of the ditch, which reached almost to the edge of George Street; gravel was not encountered until a depth of 18–21 feet. On the east side next the pavement was found a battered stone revetment resting on gravel at 20 feet, which was interpreted as being the edge of the causeway leading to the Northgate. Again, the foundations of the projecting gate buildings were found to be built on the ditch fill (Salter 1912, 80–1).

On the east side of the road some deep foundations were noted when the house immediately north of the church tower was demolished in 1904, at the same time as blocked openings in the north wall of the tower were rediscovered. An east-west wall was encountered at 14–16 feet deep, some 20 feet north of the tower, presumably some part of the Northgate, though not shown on the 1772 plan (MS Top. Oxon. d.185 f.72–3). Subsequently, in 1912, Tredwell's Yard just outside the town wall was rebuilt for the Oxford Drug Company, and in the deep excavations the foundations of the town wall were found, built on a series of relieving arches, and these were carefully recorded by H Minn and P Manning (MSS Top. Oxon. d.495, f.97, and a.24, f.2–5). From their general character, and given the existence of relieving arches elsewhere on the circuit, this outer wall should probably be seen as belonging to the 13th-century phase of rebuilding. The easternmost of these arches was uncovered again in 1972–3 (Gaz No. 29), when the outer wall was found to have been preceded by an earlier wall, while the earlier line of the Saxon rampart was also recovered further to the south.

St Michael's Church

The history of the church has been fully described elsewhere (*VCH* iv, 394–7; Martin 1967), and only two matters need be discussed here. In Domesday Book the 'Priests of St Michael's' head the list of townsmen owning property with '2 mansions paying 52d.', and although little is certain about the Oxford Domesday text, it is not unlikely that these were 'mural mansions' owing duties of wall-repair (DB f.154). St Mary's and St Frideswide's are the only other Oxford churches mentioned in Domesday. Along with All Saints, St Michael's was one of the group of churches associated with St Frideswide's Priory from 1122 if not before, though from 1427 it passed to the new foundation of Lincoln College along with All Saints and its neighbour St Mildred's (*VCH* iv, 394).

The medieval parish of St Michael's included half of the properties on each side of Cornmarket (the other half were in St Martin's at Carfax) and the properties facing the north wall from the castle almost to Turl Street. If, as is possible, the parish originally comprised the whole of St Mildred's parish as well, then it would have included the whole of the north wall of the primary town defences.

Description of the tower (Figs 4.11–4.16) ***by Brian Durham***

The groundplan of the church and tower is shown in outline on Figure 4.11. The tower is roughly square in plan, 5.85–6.0 m, and stands 19.2 m high to the modern parapet. In 1986 the solid ground floor was at 0.2 m above the pavement of Cornmarket St, and there were timber floors at 3 m and 8.1 m. The wall thickness of 1.2 m at the base is maintained up to the second floor and thereafter thins evenly to 0.7 m at the top. The tower is joined to the 15th-century nave by a high two-centred arch of this date. Otherwise, apart from repairs, the tower is substantially of one build.

In the following description, and the accompanying illustrations, features are identified by the tower face (north, south, east and west) and storey in which they occur. The storeys are numbered from first to fifth; the first storey is the ground floor, the second is the first floor at 3 m above ground level, the third is the belfry floor at 8.1 m above the ground, and the fourth and fifth storeys are the lower and upper belfry windows respectively. Window S4, for example, is therefore the fourth-storey (lower belfry) window in the south face of the tower.

The oldest illustration of the tower is on Agas' map seen from the N in 1578 (Fig. 4.2), at which time both stages of belfry windows seem to be open, and there is a frieze of quatrefoils above the upper. Loggan's map shows it as similar in 1675 (Fig. 4.3), but possibly one stage of N belfry windows had already been blocked, and the quatrefoils are not shown. Three years later a cupola was added, but it was removed for the sake of safety after a further 12 years (*VCH* iv, 396). Taylor shows a S view in 1750 but with no detail of openings. Two views by Buckler around 1820 confirm that the lower stage of belfry windows had been blocked (S4 and W4), and also the 2nd storey W window (W2); by this time a house against the S side of the tower had been removed, revealing a blocked opening in the S wall at second floor level, which the survey showed to have been a doorway S2 (Bodl. MS. Don. a. 2. 31–2). This opening also appears on an early photograph (OCL 84/126), but in other early photographs it is concealed by ivy or a tree.

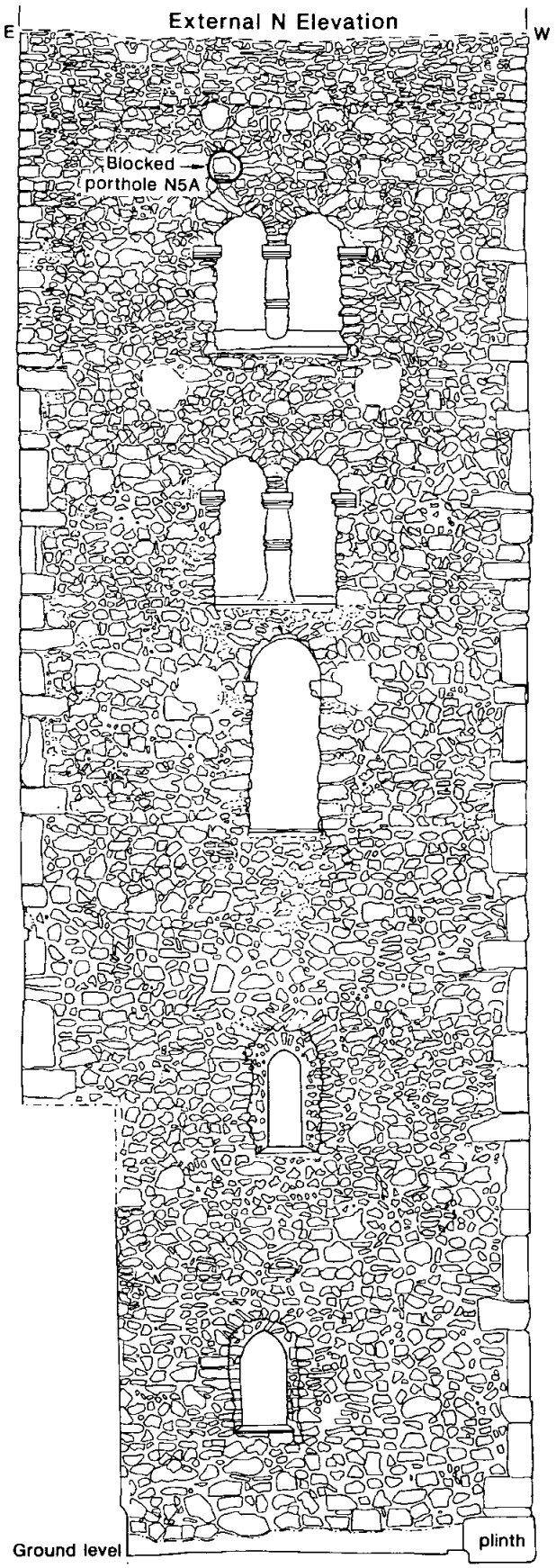


Figure 4.12 St Michael's Church Tower: elevation. Scale as Fig. 4.13.

The *VCH* records a major restoration of the church in 1853–4, although it is not clear how much this affected the tower. In 1875 three lower belfry windows were reopened (perhaps blocked before 1675, see above), while the N upper belfry window was also opened after perhaps a shorter period of blocking. Repairs have been carried out in each generation since this time. In 1904 the house in the churchyard on the N side of the tower was removed, and new buttresses added to the tower arch, with underpinning of the tower itself 'only where absolutely necessary' in 1908.

For recording of the interior as much as possible of the whitewash was removed, but since no repointing was proposed the joints were not raked out, and the stonework was found to be embedded in such thick mortar that it was impossible to see clear outlines of the stones. Some of this mortar was evidently from 19th-century restoration, but was indistinguishable from the original matrix. The drawing of the interior therefore stresses the shapes of stones which could be defined, but the impression of more mortar than stone is not representative of the overall construction. In no place was it possible to identify masonry lifts.

On the exterior walls some raking out of mortar joints was possible because the structure was to be repointed after washing, and in any case the weathering over the centuries had left the shape of the rubble very clearly outlined. Some areas were however never accessible for drawing.

First storey

Outside the tower was a plinth of freestone on the street (W) side only, which was possibly the same as the plinth shown by Buckler in *c* 1820 on the S side; this was lacking on the N side. The plinth is likely to have been an addition after the removal of the gatehouse in the late 18th century, because it ran across the line of the W doorway (W1), which is assumed to have been blocked at this time. This doorway had the non-radial voussoirs which were to become familiar from all the primary openings in the tower: it appears that these arches were constructed over round-headed centring by stacking rubble at *c* 45° from both imposts, and filling in at the crown of the arch. The impression which survives in many cases is of a slightly 'triangular' arch, and the presumed roundness of the original head must have been formed by the firm mortar in which the stones were set.

The true profile of the imposts of this W doorway (W1) is visible only on the inside face (Fig. 4.16), and matches those elsewhere in the tower. Below were the massive Taynton and Burford stone jambs of the door, clearly original, making this the only doorway in the tower to have freestone quoins. The S outer jamb is extensively rebuilt, but comparison of the opening width inside and out suggests there was no rebate, as with the high-level N doorway.

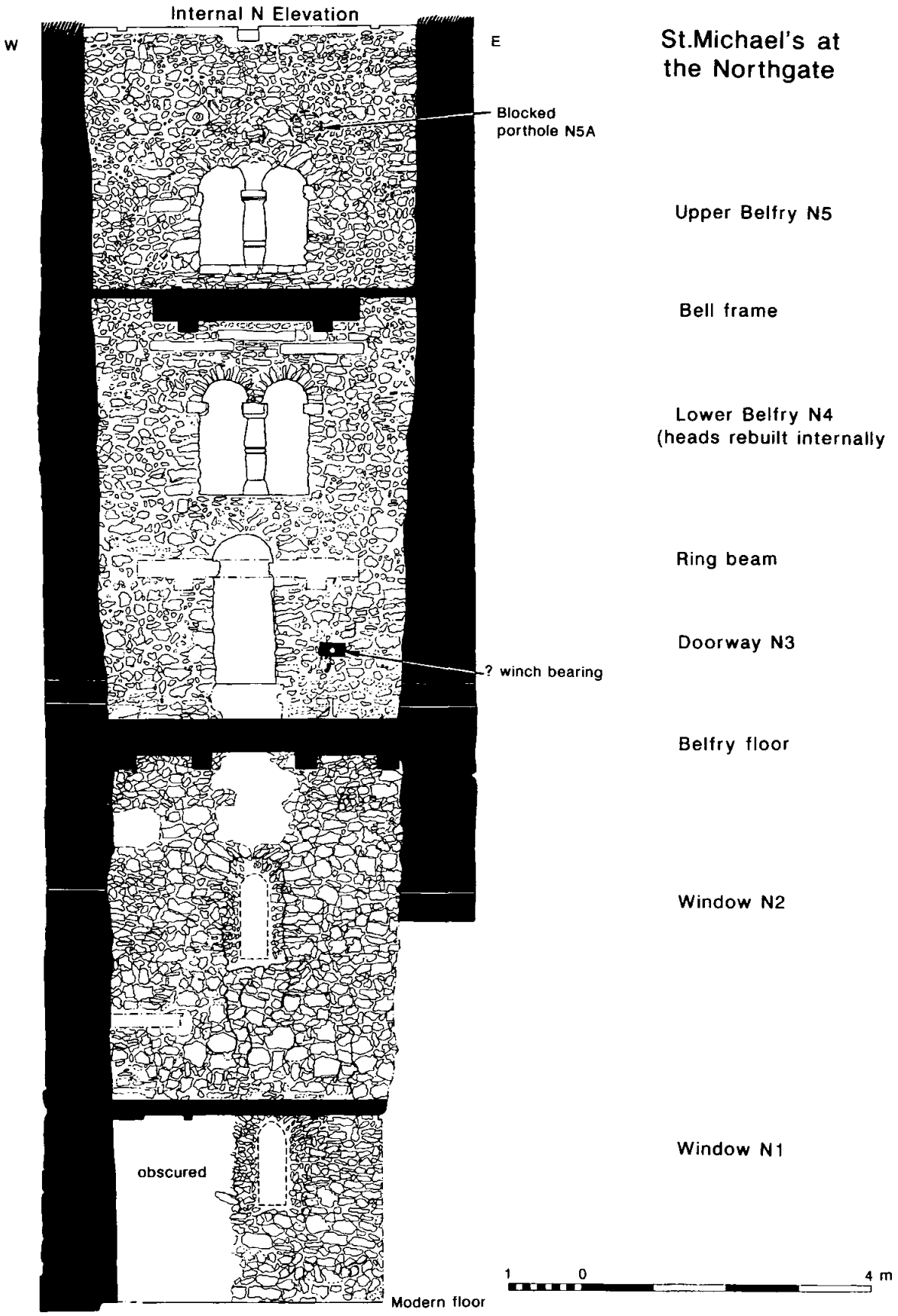


Figure 4.13 St Michael's Church Tower: elevation.

Figure 4.14 St Michael's Church Tower: north and west elevations showing detail of stone. Scale as Fig. 4.15.

Finally there was the outer splay of the double-splayed N window (N1) with its sill at 1.5 m above street level.

The internal elevation of the first storey showed evidence of a fire place in the SW corner and a disturbed area above it which was presumably from the chimney. This disturbance may have partly accounted for the weakness of this side of the tower, which had led to its refacing in the early part of this century, perhaps 1904 or 1908. Philip Powell notes

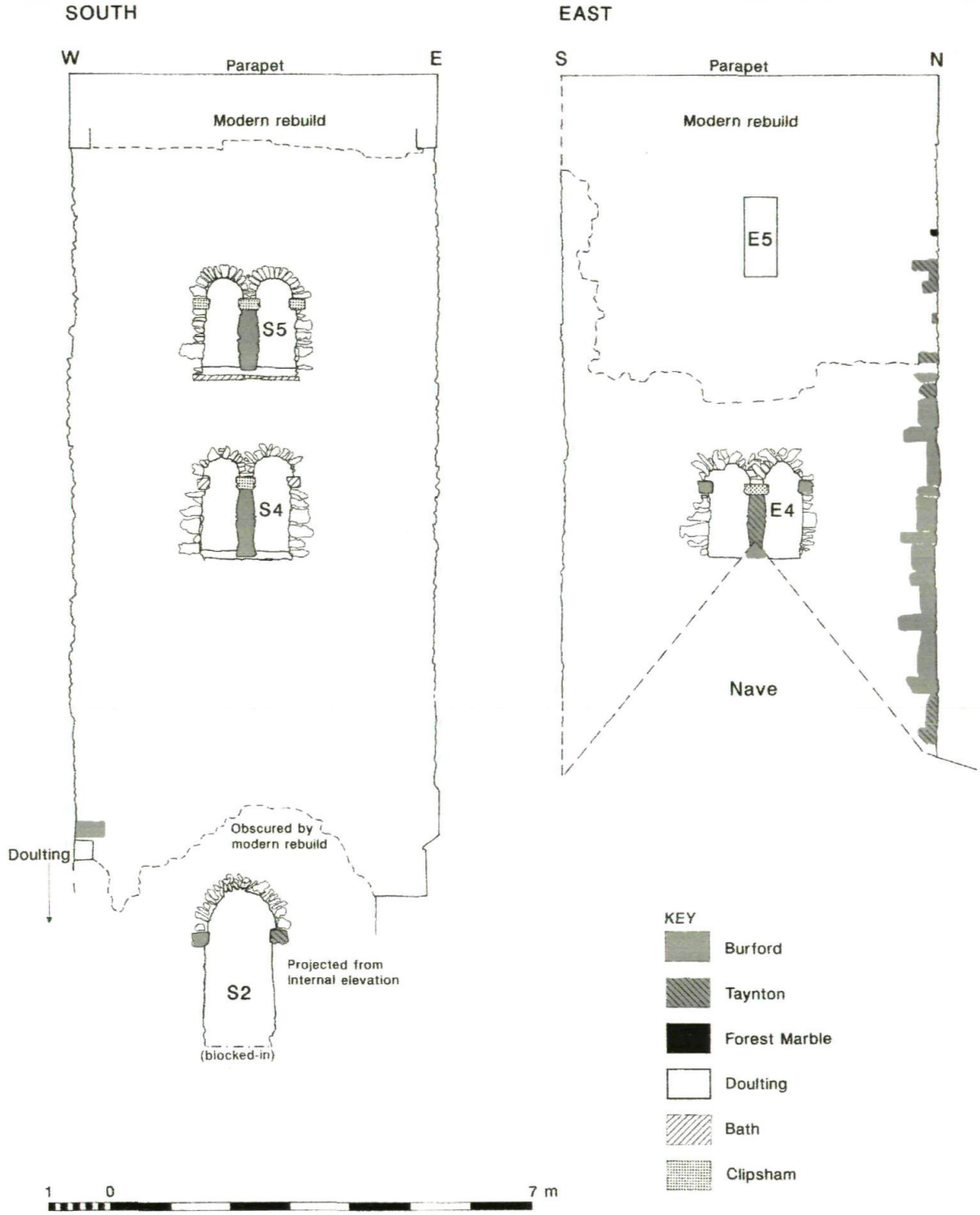


Figure 4.15 St Michael's Church Tower: south and east elevations showing detail of stone.

that the new SW quoins used in this work were of Doulting stone.

Second storey

It has been noted above that the S side of the tower had been refaced in the early years of this century, and the extent can be judged by the conspicuous area of repointing on the W face in a photograph of *c* 1906 (OCL 22111). On the S side this work had the effect of removing all external trace of the S doorway S2, which now survives only on the interior. Here its head showed non-radial voussoirs rising from

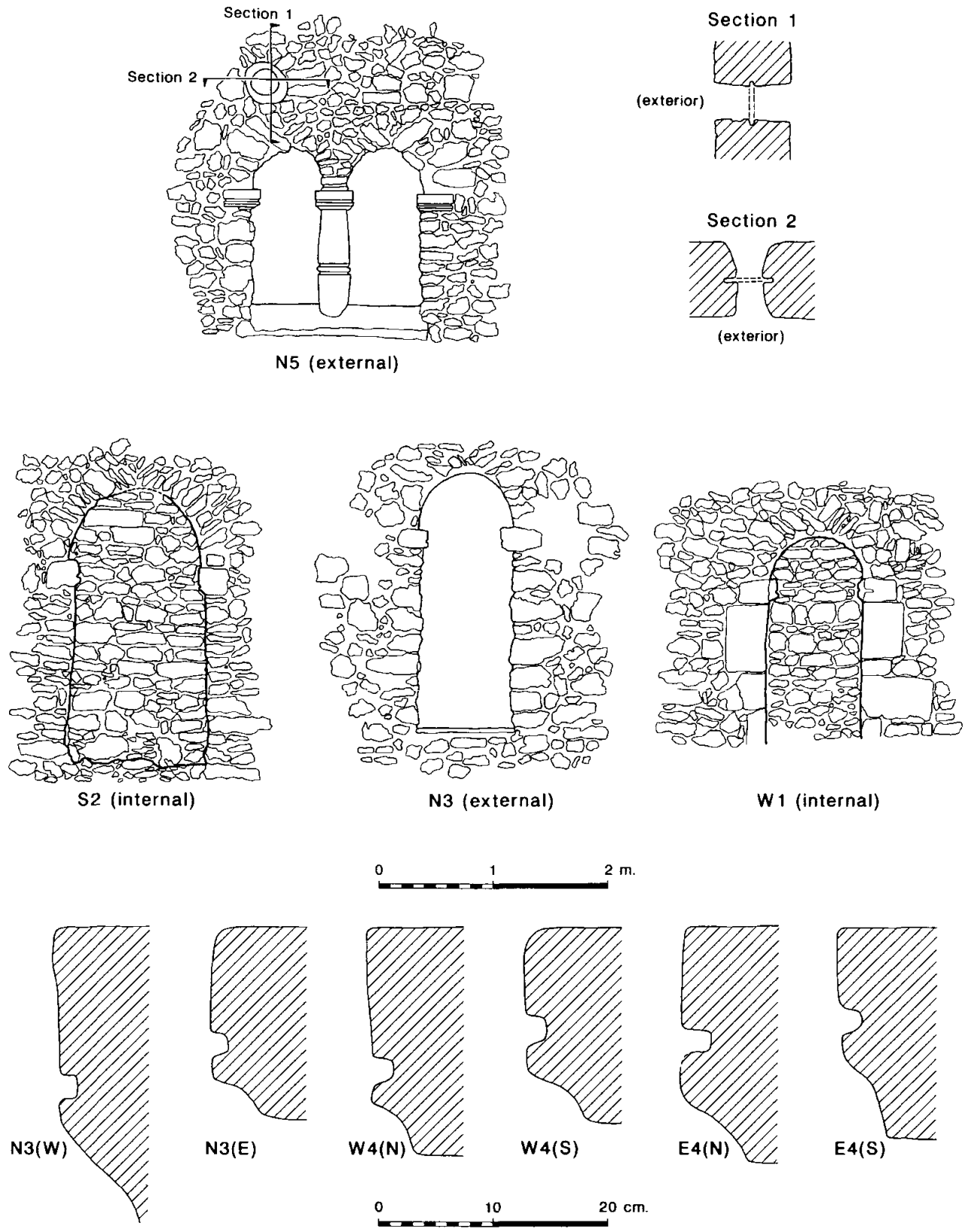


Figure 4.16 St Michael's Church Tower: detail of belfry openings.

Burford stone imposts, the E being identified as from the Taynton quarry. Below were jambs of ragstone rubble; this made it difficult to determine the threshold level precisely, but it was at least 1.95 m below top of impost (like the N doorway N3, see below), and may have related to a floor at the same level as that surviving at the time of survey. At around 1.2 m wide the doorway was substantially

wider than doorway N3 above and doorway W1 below, both 0.85 m wide.

In the W wall is a double-splayed window W2 with its sill at least 1.5 m above floor, and evidence of massive cracking above and below. The N window of this storey (N2) is higher above the floor than W2 (1.85 m), but smaller overall, and virtually identical to N1 below it. Again it had evidence of splitting both above and below. The tower arch to the nave had replaced most of the E wall, and above it was coursed rubble infilling (reused ragstone) in an inverted V-shape to a height of 1.5 m at least.

The external surfaces of both the second and third storeys were inspected closely for evidence of creasing from roofs but none was found. Most significant would have been a horizontal creasing if the tower had been built against the nave of a previous church to the S, but if this ever existed it must have been lost in the refacing of *c* 1904, which extended to 1.2 m above the head of doorway S2. For the W side, John Gwynne's map of the Northgate in 1771–2 before demolition implies that the gate structure was independent of the tower and would therefore have left no creasing. An earlier map marks the intervening space as a passage leading from Mr Cozen's house (S of tower) to a backyard N of the tower with the parish bakehouse (see Introduction, above). So any creasing on the W and N sides might be confined to the parish bakehouse or the 3-storey building erected after 1771, and clearly these had minimal impact on the structure of the tower.

It should be noted that the sheil-na-gig (an erotic female figure) which is now preserved in the church treasury was taken out of the exterior stonework of the second storey W face, near the SW quoin (information Revd N M Ramm). Assuming that this was its original location, and it would be typical for such a carving, it seems unlikely that the figure could have been seen during the later life of the tower, because from all but the closest viewpoint it would have been obscured by the roofs of the Bocardo prison. It may therefore be an early feature of the tower.

Third storey, the belfry floor

Openings at this level are numbered as if the belfry floor was the 3rd storey and the lower and upper belfry openings were respectively the 4th and 5th storeys.

The belfry floor, at a height of 8.1 m, was carried on four N-S beams supported by eight massive corbels of dressed coral ragstone. Evidence of infilling above the corbels suggested that the beams had been reset after their ends had rotted; the timbers failed to date by dendrochronology, but gave moderate t-values in the 13th century and lower t-values in the 17th century. The latest came from a timber which was clearly reused, with elaborate chamfer stops, and on balance it seems likely that this was a structure of the 17th century. This date was corroborated by the discovery of a small straw-covered glass flask from beneath the floorboards. In the centre of the floor was an opening for a bell-hatch.

On the inside face at this level were several long pieces of York Stone let in horizontally as if to stitch the fabric together, and these probably belong to the restoration of 1875. The N doorway N3 has been unblocked, and shows the standard grooved and chamfered imposts, non-radial voussoirs, rubble jambs and no rebate. The external stonework was examined for evidence of support for a catwalk or hourde; a group of four stones below the E jamb may have been infilling the socket of a horizontal timber, but there was no sign of sockets for supporting brackets, handrails or staircase supports. In fairness however, the coursing of the ragstone was so random that any blocking of timber sockets would simply be lost in the irregularity.

On the inside face of the N wall was a wooden block with the bearing for a horizontal axle, perhaps related to a bell winch. The top of the doorway (N3) is now obstructed on the inside by a timber ring beam inserted in one of the restorations (?1875), tied into the walls with disc-shaped tie plates on the outside which have been retained (as opposed to the floriate crosses of the later ties, ?1908, which have been taken away). Also on the inside of this and the higher storeys were many strip-shaped pieces of York Stone let into the walls at the corners or beneath windows, presumably 'stitching' for weak points.

Belfry levels ('storeys' 4 and 5)

The lower belfry windows were the most complete of all, perhaps as a result of having been blocked for a longer period. In all three surviving openings of the N and E walls (windows N4, N5 and E4) the baluster shafts were of Taynton stone, the others of Burford except for W5, where the baluster was identified as Bath Box Ground stone. All four balusters in storey 4 stood on a cushion stone of Burford; each of the surviving three upper balusters stood on a sill of a single stone, suggested as Bath. It was noted that the sill of N3 was *c* 0.1 m higher than its neighbours, as if respecting the arch of doorway N3 only 0.54 m beneath it.

Above the balusters, all the through-stone lintels had been renewed in Clipsham stone, with mouldings approximately matching what survived of the original imposts. The original imposts survived complete only in E4, where the outer stones were Burford, the inner Taynton. Elsewhere only the inner stones of the imposts survived; they were of Taynton stone in seven cases, Burford in three, all three being on the S openings. Replacement of the outer stones of the imposts had been done in Bath stone in each case, evidently with a second repair in Clipsham on both E and W imposts of S5.

The jambs of all the bell openings were in Coral Rag rubble. The ragstone arches above the openings were original in four cases so far as could be told (N4 and 5, E4 and S4), all exhibiting the non-radial

construction described above for N1. Two exceptions were S5 and W4, where ragstone was again used but in a tidy radial form, with neatly coursed infill above; in W5 the arches had the appearance of triangularity as with the non-radial arches, but the top of the triangle was formed in a radial way, and the neatly coursed stonework above suggests that this too was a repair. It is perhaps unfortunate that it was one of these radial arches which was selected for illustration by Taylor and Taylor (1965, 481).

Opening E5 is rectangular, housing a small bell and frame. It is in an area of extensive rebuilding affecting most of the E wall of the 5th storey, including both quoins. The ragstone has been reused, but coursed. Blocking visible on the outside below this rebuild may relate to an original Romanesque opening here. The use of long strips of York Stone on the inside face might suggest that this was work of the 1875 restoration, but the rectangular opening was already in existence *c* 1820 (Buckler, MS Don a.2.32), and it is likely that the history of this wall is complicated.

The porthole window N5a

Above the upper level of bell openings on the remaining three sides (ie S, W and N) the original ragstone rubble survived to 1.5 m, apart from infill above rebuilt arches. On the N side an area of infilling was detected above the E edge of N5 on both the outer and inner faces, and this was investigated by agreement with the church. It proved to be the blocking of a porthole window N5a, the mortar lining retaining the impressions of basketwork centring, splaying slightly both sides of a window groove. Among the infill stones was a piece of filletted roll moulding, showing that the opening was retained until the 14th century at least.

Following the discovery of the porthole, it was recognised that there was an arrangement of radial stones on the outer face symmetrically opposite it above the W arch of N5; on the inside face, directly opposite this feature, was a single stone identified by Powell as the weathered remains of a fossil ammonite. It was therefore assumed to be the symmetrical counterpart of porthole N5a, and an attempt was made to reopen it from the outside. It proved however that the stones behind it were coherent wall structure, and that there had never been an opening here. The superficial features are therefore seen as an attempt by the original masons to create the semblance of symmetry both inside and out, when in fact only one was a genuine opening.

Careful inspection of the upper levels of the W side of the tower failed to show evidence of any porthole, and the same for the S side, although here it was obscured by the clock fixings which were left in place. However it was noted that the pattern of infilling above the rebuilt W head of belfry opening S5 suggested that there had been a void here in the same relationship to the window as N5a had to N5 on the N face. As with the N face, this would have been above the left-hand jamb of the window, ie the W jamb here, as opposed to the E jamb on the N.

Date and context
by John Blair

As an Anglo-Saxon structure the tower of St Michael at the Northgate is late: the Taylors placed it in their category 'C3', potentially no earlier than *c* 1100 (Taylor and Taylor 1965, 481–2). During the last ten years churches in this group have been subjected to close scrutiny, the result of which has been to place most of them after the Conquest, in an 'overlap' period spanning *c* 1060–1120 when English masons were gradually adopting the mouldings and the technology of Norman Romanesque (Gem 1988, 21–30; Blair 1988b; Fernie 1983 162–73). Given that the full repertoire of late Anglo-Saxon traits remained in use for some decades after the Conquest, it is never possible to be completely certain that a 'C3' church, even if 'pure Anglo-Saxon', was built before 1066; whereas traces of Romanesque influence would provide strong grounds for thinking that it was built later. The best we can do is to examine St Michael's tower for such traces, and to compare it with 'overlap' churches in the region.

The technology of the tower is overwhelmingly Anglo-Saxon: double-splayed windows, long-and-short quoins and baluster shafts were not used by Norman masons, and were abandoned by English masons when they came heavily under Norman influence. On the other hand, the use of long-and-short suggests a date of *c* 1000 or later: no English church likely to be earlier than the late 10th century has them, and it has been suggested that the technique was introduced from Germany at about that time (Fernie 1983, 145). The obvious analogies and models are the sumptuous towers at Barnack and Earls Barton, with their lavish use of ashlar including long-and-short quoins, and current opinion would largely agree in placing these in the very late 10th or first half of the 11th century.

Only two features of the tower might suggest Romanesque influence, and both are far from conclusive. One is that the walls are well over three feet thick, standard in Norman buildings but unusual in Anglo-Saxon ones. But some Anglo-Saxon towers do have thick walls—notably Earls Barton, which like St Michael's may have been built with defensive needs in mind. The second is the moulding used on the belfry imposts (Fig. 4.16), a crude hollow-chamfer below a quirk. This is a version of one of the commonest Norman impost types, and it is only very late, if at all, in the pre-Conquest period that it joins the Anglo-Saxon repertoire of mainly stepped and half-round mouldings (Baldwin Brown 1925, 404–7; Fernie 1983, 151, 159, 163). The parallel may be misleading, however. The standard Norman version has a

sharp V-sectioned quirk immediately above the hollow, whereas St Michael's has a square-sectioned channel recalling slab-like configurations such as the arch imposts at Barnack. Anglo-Saxon buildings do occasionally use hollow-chamfers, the abaci of the crypt capitals at Repton being a particularly obvious case (Baldwin Brown 1925, 404–7).

The local context and analogies also weigh in favour of a pre-Conquest date. There are 'overlap' towers at North Leigh and Langford, and it is significant that both show very much clearer signs of Romanesque influence (Taylor and Taylor 1965, 367–72, 464–5). Langford has continuous round mouldings, while North Leigh (like most of the 'overlap' towers in Lincolnshire and Yorkshire) has shafts with capitals and bases. Compared with these two rural churches, the balusters at the prominent urban church of St Michael's would have looked very old-fashioned by 1080. In addition to these stylistic considerations is a historical one: the 1070s and 1080s are an unlikely time for the rulers of Oxford to have been building an imposing tower at St Michael's, when the town was decaying and Robert d'Oilly was pouring his money into the large (and unequivocally Romanesque) collegiate church in the castle. Although it is impossible to be certain, the evidence points persuasively to the decades between the 1010s and the 1060s, when Oxford was booming commercially and prominent in national events.

The particular interest and puzzle of the tower is its relationship to the Northgate and to the enclosure projecting outwards from the town wall. It has been suggested (see Discussion) that the enclosure and the tower were created contemporaneously, and that, as well as a belfry, the tower served as a guard-room, a look-out point and a means of access to the wall-walk. If this is so, there is a strong implication here that the church as well as the gate was in the hands of whoever had charge of Oxford, presumably an official of the king or of the earl of Mercia; Godwine 'portreeve of Oxford' witnesses a deed of 1050–2 together with Wulfwine 'the earl's reeve' (newly discovered St Alban's text, *ex inf.* Simon Keynes). Gate-churches were of course common in late Anglo-Saxon towns, but St Michael's seems unusual both in the scale and complexity of its structures and in the fact that it had an independent community of clergy, the *presbiteri Sancti Michaelis* who held two houses in the town in 1086 (DB, f. 154b). One possible context is the 11th-century fashion, in both England and Normandy, for collegiate churches at fortified aristocratic residences, a particularly relevant example of which is St George's college in Oxford Castle (Blair 1985, 124, 132–5; Cooper 1976, 306–8). Could there then have been some kind of official residence near the Northgate? The puzzle of St Michael's may have as much to do with the rulers of late Anglo-Saxon Oxford as with its parochial system or defences.

Discussion
edited by Anne Dodd

The Tower survey reported above was carried out a decade after excavations in the churchyard had revealed important evidence of a sequence of fortifications. A summary of the results of those excavations can be found in the Gazetteer (Gaz No. 29).

The tower and the church

The 1972–3 excavations did not reveal any new evidence of the late Saxon church to which the tower presumably belonged, and the site of this church remains unknown. The present church is of a later build, and the insertion of the large 15th-century tower arch has obliterated any evidence for a ground floor or first floor opening on the east face of the tower that might have led into a nave or chancel.

Several possibilities were reviewed in the report on the 1972–3 excavations, including the proposal that the tower had been built primarily as a defensive structure associated with the Northgate, and that its association with the church had been a later development. While this remains a possibility, it is now considered unlikely since the architecture of the tower is so typical of church belfries of its period. It was also suggested that the church might itself have been accommodated within the tower, either from its construction, or after a period of secular use.

Alternatively, if the tower was an addition to a pre-existing church, there remained the problem of how this church could have been sited in relation to the rampart. If the tower had been built onto the west end of the church, then that church would have been standing across the line of the north face of the rampart. This implies that the rampart must have been removed from the site of the church itself, and the church would have been left standing outside the defences.

The third possibility considered in the 1983 report was that the church and tower were not contiguous, but that the church stood a little way to the south-east, inside the rampart along the line of the intramural road (now Ship St).

However, the evidence of the Tower survey suggests a new model, which is that the tower was added to the west end of the church's north wall. The blocked doorway S2, seen on the south face of the tower at first floor level, could very well have led from the tower into a gallery at the west end of the church. The use of such galleries in late Saxon liturgy is well attested, and it is notable that door S2 is rather larger than the other doors in the tower, which might support an argument that it had been an internal opening. In addition, a very conspicuous aspect of the tower which has received little attention is the distribution of the distinctive long-and-short quoin stones, which are confined to the north-west and north-east corners. On the south side, the quoins are of architecturally inferior ragstone, and it may be that this derives from the prior existence of a church

building on the south side, which would obscure the view.

On the basis of the survey evidence, it is therefore possible to propose that the tower could have been attached to the north-west corner of a church that was itself terraced into the back of the rampart.

The tower and the defences

The survey revealed a number of features that suggest that the tower may have formed part of a complex defensive arrangement associated with the creation of the forward enclosure.

The excavations in 1972–3 had suggested only a tentative dating of the forward enclosure, to some decades before *c* 1100, but not earlier than the mid 11th century. The relationship of the tower to the town defences remained unclear, and both reconstructions proposed in the 1983 report show the tower integrated into the line of the defences (Durham *et al.* 1983, fig. 6a). However, the evidence of the survey suggests alternative explanations. The survey showed sufficient of the constructional detail of the tower to allow a confident conclusion that its large ground floor north window (N1) was part of the original structure. It has been argued that the existence of this large window low down on the outward-looking face of the tower makes it most unlikely that the tower would have been on an exposed part of the defensive line, but rather implies that the tower was built to stand inside the defended area. The tower may therefore have been built to stand within the forward enclosure seen in the 1972–3 excavations. Blair (see above) dates the tower to between the 1010s and the 1060s; at its latest this is close to the *terminus post quem* for the construction of the first forward enclosure wall (after the mid 11th century, albeit on the most minimal of ceramic evidence). This dating would allow for the possibility that the tower and the enclosure were constructed in a single campaign that provided the church with an extended graveyard, all enclosed by a new defensive wall. It follows from this that the rampart would have been levelled within the area of the extended graveyard, and it may have been this early clearance that allowed the church to be relocated on its later medieval (and current) axis. The date when this might have occurred is not known, but must predate the standing 13th-century fabric in the chancel.

The north wall of the enclosure excavated in 1972–3 appeared to have been inadequately founded, and it is unclear how long it lasted. Superficially, however, it may have looked sufficiently impressive; it is likely to have been built to match the height of the revetted rampart along the other stretches of the northern defences.

A number of other features may hint at the tower's place in the defensive arrangements. It is possible that there was at some time a functional relationship between the gate and the tower. The tower has a blocked doorway on the ground floor of the west face (door W1), but no corresponding ground floor doors on the south or the north. The evidence for the east side does not survive. However, it was suggested above that the tower could have been built onto the north-west corner of the late Saxon church. With no corresponding ground floor door in the south face of the tower, the west door could hardly have functioned as an entry to the church, and the tower's position against the Northgate of the town makes it impossible that the west door led into a further ecclesiastical building such as a baptistry or a west sanctuary. The doorway might instead simply have been a means of access to the tower, and to the room above, which it is argued led into a gallery at the west end of an early nave. Alternatively, the evidence of later maps suggests the possibility that the ground floor of the tower may have been related in some way to the gate itself. Gwynne's map shows that the tower was independent of the structure of the gate, but another map of church property records a blocked doorway in the tunnel of the gate opposite the ground floor doorway of the tower. Although the gate structure recorded on these maps shows Romanesque arches, and is therefore not the original late Saxon structure, it may preserve earlier arrangements. The possibility exists that this well-lit ground floor room was somehow related to the control of the gate, and might possibly have served as a room for the gate keeper.

At a height of 8.5 m in the north face of the tower is a third doorway (N3) of identical shape to that facing the gatehouse, and better preserved. The local explanation for this well-known feature is that it led onto a timber platform used to repel attackers. However, the survey found no evidence of timber supports for such a structure, and if the forward enclosure already existed when the tower was built there would have been no need for it. It is equally difficult to support a liturgical explanation; elsewhere upper doorways may have been used for the display of relics, but the upper door of St Michael's faces in the wrong direction, out of the town. It seems more likely therefore that this upper doorway would have functioned as an access between the tower and the wall walk of the gate and the perimeter wall. The upper windows of the tower would have provided an excellent viewpoint, overlooking both the town and the external approaches.

Excavations, survey and watching brief at the 'Oxford Story', Broad St (Bastion 4) 1986
by David R P Wilkinson

Introduction and background *(Figs 4.1, 4.2, 4.3, 4.11; Plates 4.6, 4.7)*

The site was investigated in 1986 when the former Bakers Warehouse building was converted into a commercial historical display, 'The Oxford Story'. The area investigated included Bastion 4 (following

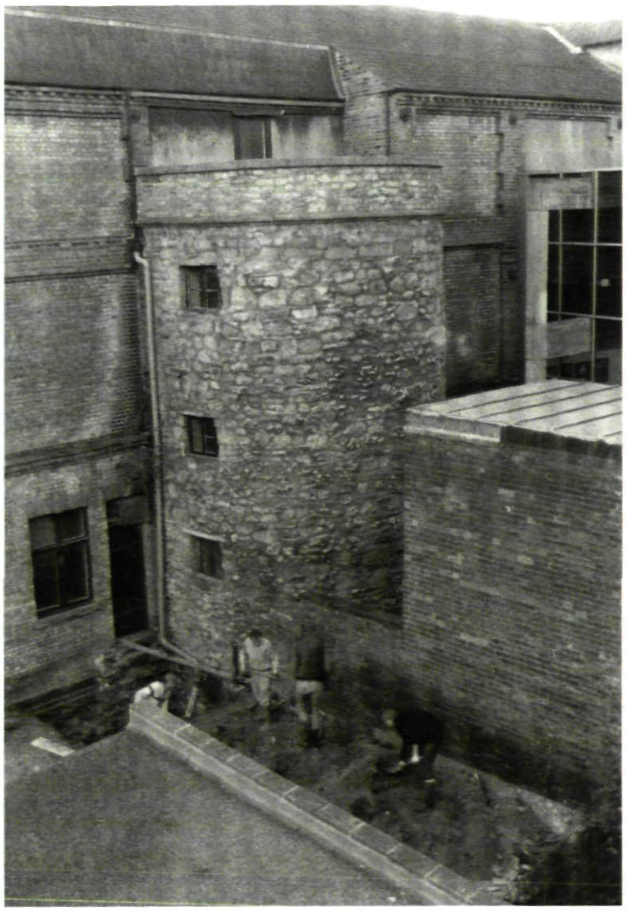


Plate 4.6 'The Oxford Story', No. 6 Broad St, Bastion 4, external trenches, looking SW.

the RCHM enumeration) on the town wall circuit, and medieval stone walls in a cellar south of the bastion were also investigated.

Bastion 4 (Plate 4.6), like the bastion investigated at Corpus Christi College (see below), occupies a potentially critical point for the understanding of the defences. Excavations in 1972–3 at St Michael at the Northgate (Gaz No. 29) located a stone-revetted rampart which almost certainly represents the original line of the late Saxon defences, although no dating evidence was recovered. The later (13th-century) town wall, stone-built and freestanding, was found on a line further north which corresponds to Bastion 4, forming an outshot around St Michael's Church and cemetery. The location of the south return of the outshot wall remained unknown, however, and the investigations at 'The Oxford Story' afforded an opportunity to confirm whether Bastion 4 marked the re-entrant angle.

Topographical and documentary evidence for the line of the wall by Julian Munby

Although Bastion 4 is clearly on the forward alignment of the outshot around St Michael's Church, the next (Bastion 5 behind Nos 19–20 Broad Street) is on the original line nearer to Ship Street. The problem of how these two alignments meet is not easily solved by topographical or documentary evidence. While Loggan in 1675 (Fig. 4.3) shows a straight line of uncrenellated wall between the two bastions (and this was followed by Salter's *Map*), the earlier map of Agas in 1578 (Fig. 4.2) shows the wall turning south just east of St Michael's Church (but confuses the issue by omitting Bastion 4). The wall itself, as in St Michael's Street, had probably disappeared, and the property boundaries again do not necessarily reflect the wall alignment. Thus Taylor's map of 1750, while not a very accurate survey, shows a straight line of wall, but the 1876 OS plan shows the wall stepping back some 50 ft east of Bastion 4 (see Fig. 4.11). It is possible that the medieval wall was stepped out, but that post-medieval property boundaries were later mistakenly assumed to be remains of a defence. The solution to the problem can only be archaeological, and is discussed further below.

Bastion 4 (Plate 4.7)

The 16th-century house of Alderman Flexney east of St Michael's Church in Ship Street (then Laurence Hall Lane) has already been mentioned above in the discussion of the Northgate. Its exact location is not known, but it is likely to have been outside the churchyard and within the area of the walled enclosure. Since most of the bastions on the wall were leased out by the 17th century if not before, the house may have incorporated the first bastion east of the church. This is often known as the Martyrs' Bastion, from the (incorrect) assumption that it was the place from where Cranmer in 1555 watched his companions Latimer and Ridley being burnt at the stake in Broad Street. The houses at the west end of the street had become the Ship Inn by 1679, which led to the renaming of the street (Wood *L&T* ii.433). It was recalled as having been 'a great coaching and waggon office' in the first half of the 19th century, and is shown on the contemporary plan in the City Vellum Book as having a yard with stables in the bottom of the bastion (*Collectanea* iv, 269; Vellum Book I 111–16). This plan also shows the eastern wall of the bastion returning to the south rather than continuing eastwards. Considerable building works were carried out in the 1790s at the instigation of the City following dilapidations, and much of the present buildings on Ship Street may date from that time (*OCA* 231, 253, 254, 260, 268).

The earliest views of the bastion show it much as it appears now, with a renewed parapet, a chimney at the north end and an elevated roof at the south end, and three two-light windows on its east face with a second row of single light windows immediately to their south (Malchair and others in the Bodleian Library). The empty interior of the bastion was photographed by Taunt in the 1880s (Plate 4.7), presumably at the time of the building

Plate 4.7 Bastion 4, internal view c 1880 (Oxfordshire County Council Photographic Archive, OCL 2246).

of the warehouse next to it on the south. Although in ruins, there are large floor joists on two floors running east-west across the bastion, plain fireplaces in the north wall on the ground and two upper storeys, and pairs of windows in the east wall. The interior is plastered, so few masonry details are exposed, but the plan profile appears to be square in the north-east corner rather than rounded. Evidently it had been in human occupation on all floors before it became a stable.

Strategy (Fig. 4.17)

Two trenches (I and II) were excavated on the east and west sides of the bastion structure where it was butted by a warehouse wall built in 1881. The stonework of the bastion stood 9.5 m high, although part of this was definitely Victorian, and other parts were suspected to have been rebuilt or refaced. Details of the external face of the bastion structure were recorded during conservation work, and the areas of bastion elevation revealed by the trenches were drawn stone-by-stone (Fig. 4.18).

Cellars south of the bastion were converted to a boiler room and storage area, which involved considerable structural work. A further trench (III) was dug in the western of the two cellars, and a number of elevations were recorded (Figs 4.19–4.20).

The fieldwork: description (Figs 4.17–4.20)

Trenches I and II (Figs 4.17, 4.18)

Trench I was situated on the east side of the bastion, in the corner created by the bastion and the warehouse wall; it was originally intended to measure 2.7 m N-S by 3 m E-W, but the discovery of a brick-built cistern, 4, meant that the trench was reduced to a N-S width of 1.5 m. The earliest feature revealed in Trench I was the bastion wall itself, 10, and much of the stonework below the existing ground level was clearly medieval. The construction was predominantly of Burford Stone limestone rubble in which only the most rudimentary coursing is occasionally visible. Pieces of coral ragstone and Taynton Stone occur very sparsely. The trench was excavated to 3.2 m (61.21 m OD) at which depth there was no sign of any offset foundation or difference in build. It was notable, however, that the bastion did not join the warehouse wall at right-angles, but continued its curve round to the SSW. A single window measuring 0.4 m wide by 0.8 m high was revealed just below ground level, with jambs of Taynton Stone. The window does not seem tall enough to have been cut back from a pre-existing arrowslit; it could not be further investigated due to the later brick blocking.

Trench II, on the west side of the bastion (and again in the corner created by the warehouse and bastion walls) measured 1.8 m by 0.9 m and was 1.3 m deep. The earliest feature was the bastion wall which was reasonably similar to the wall in Trench I, although showing signs of slightly more regular construction. This apparent difference may be a result of the relatively small samples of the wall which were seen. A window was found at the same height as, and of similar dimensions to, the Trench I window; it differed only in having a chamfered sill of Taynton Stone. The curve of the bastion met the warehouse wall at a slight angle, the bastion apparently curving back towards the south-east. No trace of the town wall was found in either of the trenches.

The above-ground structure of the bastion continues in uncoursed rubble masonry but shows clear signs of extensive changes. There are two vertical lines of three windows each, one to the east and one to the west; their position is consistent with some of them having been converted from arrow slits, of which no trace can be seen. The windows are clearly of a different character to those found below ground, and all have timber lintels. The insertion of windows in the bastion presumably relates to its conversion into living accommodation in the 18th century or earlier (see Plate 4.7) and a number of timbers inserted into the masonry may also have been added at this time. Further evidence of restructuring of the bastion comes from the increased use of Taynton Stone in the upper part of the elevation, and it was also clear that much rebuilding had taken place in order to create clean butt joints between the bastion and the warehouse wall. Finally, the slenderness of the walls in plan indicates that some hollowing out of the bastion interior has taken place, again, probably to facilitate its use for accommodation.

The fills of both Trenches I and II consisted of loam and rubble layers; these were 2, 3, 5, 6/1, 8/1, 8/2, 9, 13, 14 (Trench I) and 201, 202 (Trench II). The majority of these deposits were 18th- and 19th-century, and none was earlier than the 17th century. The lack of any medieval levels, even 3 m below the 20th-century ground level, can be explained by the presence of the town ditch in front of the bastion, causing the ground to fall away steeply. Augering from the bottom of the trench showed that soft deposits continued for at least another 1.75 m (59.46 m OD).

Trench III and cellar survey (Figs 4.17–4.20)

The two rectangular cellars, both originally with entrances from the south, were linked by a break in the central wall. The southern doorway in the east cellar had been converted to a coal or goods chute, and then blocked completely.

Beginning with the east cellar (Fig. 4.19), the east wall was of large ashlar block construction and was continuous with the ashlar barrel vault, 307, which covered the cellar. This east wall had subsided, distorting and destabilising the vault which has now been replaced with a flat ceiling. On the west side of the cellar, the ashlar vault rested on wall 305, which is faced with rubble masonry, has a core of smaller, loose rubble, and is bonded to the similarly-constructed south wall of the cellar. At a point 1.5 m north of the south-west corner a blocked opening spanned by a double arch, 306, was visible

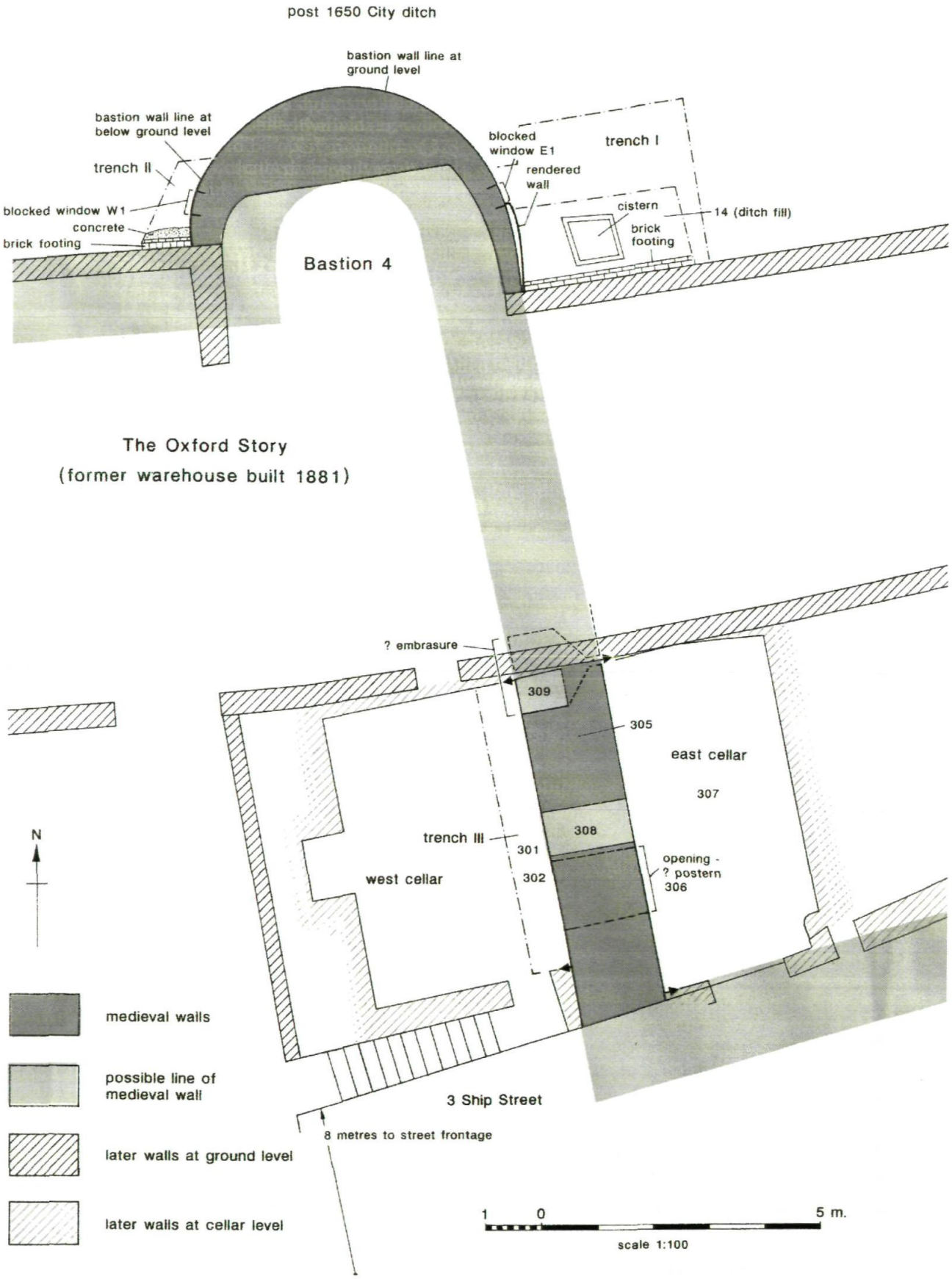


Figure 4.17 'The Oxford Story' No 6 Broad Street: trench location plan with detail of principal features recorded.

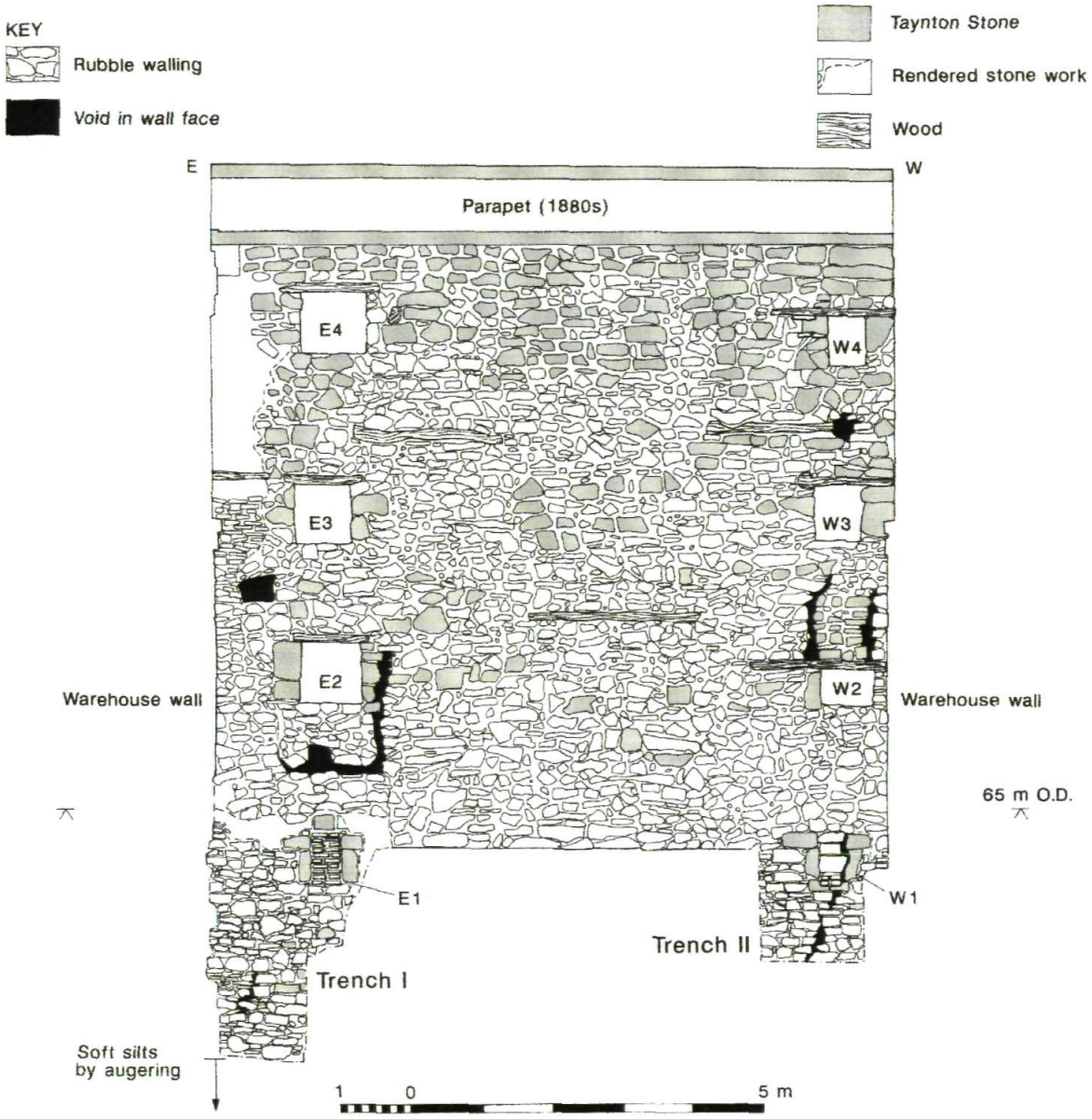


Figure 4.18 Bastion RCHM No 4, external elevation.

in the east elevation of the western wall. A number of larger stones just south of the arch, and a change in mortar, could suggest that the opening was a later insertion. The north side of the arch had been cut away by the passage joining the two cellars, which was therefore clearly later. At its north end wall 305 was butted by the north cellar wall, and at this point the southern ends of a vertical line of larger stones were visible, suggesting that an opening or corner in the western wall lies concealed just north of the north wall.

Moving through the passage, 308, between the two cellars, there was no sign in the elevations of the passage that the wall had ever been thickened. In the west cellar (Fig. 4.20), although much of the central wall had been rendered, enough could be seen to show that there was no trace at ground level of the double arch or opening, and the wall must therefore have been refaced on its west side—certainly the construction of roughly-squared stone blocks (visible north of the passage 308) was different to that seen in the east cellar. There was a partially-blocked alcove (309) at the north end of the east wall, but no other notable details.

A single narrow trench (Trench III) was excavated in the west cellar, parallel to and against the dividing wall, to a depth of 0.8 m (61.82 m OD). The lowest layer excavated was a dark loam (302) containing one very large fragment of ragstone, above which was a friable loam (301) containing an extensive spread of mortar. Other finds from the contractor's excavations in the rest of the cellar were numbered as 304. Layer 302 dated to the 15th to 16th centuries; all of the deposits contained some residual medieval pottery. Below ground level in the cellar the other side of opening 306 was found, and it was shown to

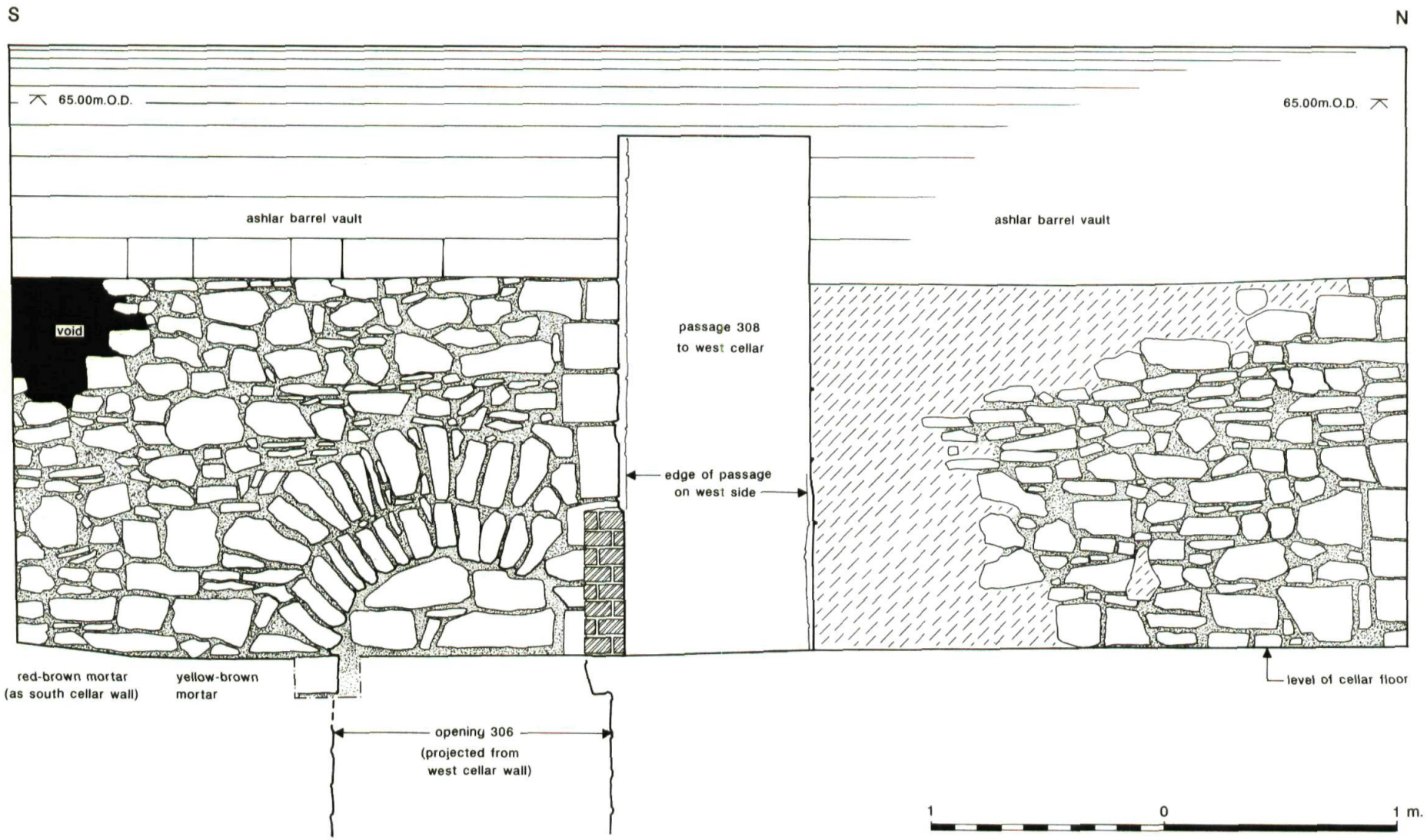


Figure 4.19 'The Oxford Story' No 6 Broad Street; east cellar, elevation of wall 305.

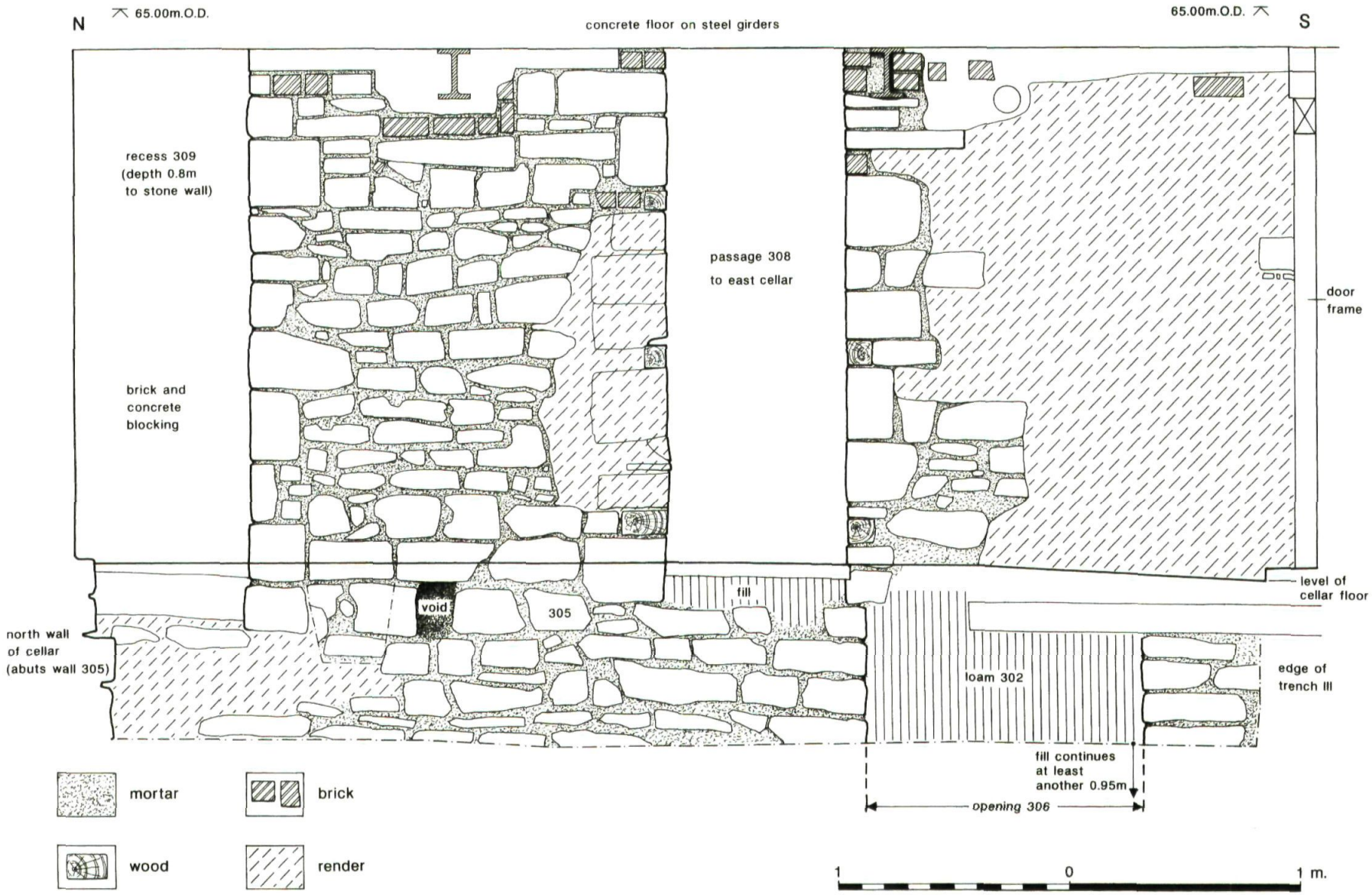


Figure 4.20 'The Oxford Story' No 6 Broad Street; west cellar, elevation of wall 305.

have been 1.2 m wide. It was filled with loam continuous with layer 302 and augering within the opening showed that this loam was at least 1.7 m deep from cellar floor level, making the arched opening at least 2.1 m high—no threshold was found by the augering. The wall, 305, was shown to be continuous below both the later passage (308), and the blocked opening at the north end of the wall—the latter was at least 2.4 m high.

Discussion

From the excavated evidence, it would seem that the most likely line for the town wall is that shown on Figures 4.11 and 4.17: that is, with the wall running westwards from the bastion to join with the stretch of wall observed in 1912 and again in 1972–3, complete with its foundation arches. From the east side of the bastion Figure 4.17 shows the proposed line running southwards to join with the cellar wall 305, then turning eastwards to run along the back of the Ship St properties. Observations of the back cellar walls at No. 6 Ship St and in houses to the east suggest that this could be the town wall (RCHM 1939: 159).

In favour of this configuration, it can be pointed out that the width of wall 305, at 1.5 m, is close to the width of the standing town wall in New College (see below). Furthermore, a return in the wall is what Agas appears to show on his map of 1578, albeit much closer to the east end of St Michael's Church. It would be reasonable to see the opening in wall 305 as a postern gate leading down to the town ditch, and an embrasure 309 defending the postern can perhaps be suggested further north, though the evidence is limited (Fig. 4.17).

This reconstruction is, however, not without problems. The excavated line of the eastern bastion face does not match well with the reconstructed wall alignment, as it seems to be curving back towards the SSW. Moreover, this reconstruction suggests that the bastion was set at right-angles to the wall, whereas it might have been expected to be set at an angle so as to command the corner in the wall to the south.

Unfortunately, therefore, the results have not proved conclusive. At least one other wall alignment must still be regarded as possible, namely that shown on early editions of the Ordnance Survey maps, where the wall runs east from the bastion for another 15 m before turning south towards No 6 Ship St (Fig. 4.11). Acceptance of this alignment would mean that the walls observed immediately south of the bastion in 1986 are related to medieval undercrofts, and not to the defences.

Excavations on the line of the city wall in the Clarendon Quadrangle 1899
by Julian Munby

***Introduction** (Fig. 4.21; Plate 4.8)*

The excavation reported here, which took place in 1899, has never been fully published. It was nevertheless of great significance for the understanding of Oxford's defences, uncovering the walls of Bastion 8 and the diagonal line of the wall towards the north-east, while a discovery of enormous importance was an earlier wall found turning southwards from the east side of the bastion. Part of these remains were again uncovered in 1938 when the tunnel to the New Bodleian was dug (Gaz No. 10; see also this report, below).

The Clarendon Quadrangle excavation may be called the first modern archaeological excavation in Oxford, conducted in 1899 by an Excavation Committee of the Oxford Architectural and Historical Society, between the Bodleian Library and the Clarendon Building (Plate 4.8). The excavations are best known from the illustrated pamphlet published soon after their completion by Fraser Penny and Mansell Merry (1899). While this is a faintly amusing period piece, it hardly serves as a fair account of what was, for its day, a reasonably careful excavation that was recorded in plans and photographs. The original minutes of the Excavation Committee, and the site plan, have been preserved in the Society's collections, and numerous photographs of the excavation also exist, while finds from the site are preserved in the Ashmolean Museum. Detailed reports of the discoveries were made by Herbert Hurst, some of them being swiftly published in the columns of the *Oxford Times*, at a level of detail that would now be inconceivable in any newspaper.

The defences from Turl Street to Catte Street

The excavations on the line of the wall have been noted above in the general introduction to this chapter. The alignment of the wall through from Turl Street is well established (and can be followed on Agas's and Loggan's maps, Figs 4.2 and 4.3). Turl Gate was a small postern at the north end of St Mildred's Lane, now Turl Street, and was mentioned in a lease of 1551 as a 'hole in the wall' (*RCO*, 203, 210). Exeter College was originally located on the south side of the intramural road, and the surviving 'Palmer's Tower' was the north gate of the college, opening onto that road. In time the college took over the two bastions (Nos 6 & 7) across the road to the north (Holland's and Almond's towers), the new chapel of 1623–4 was built out into the road, and Rector Prideaux built a fine house across the line of the wall in 1636, next to the back gate of the college onto Broad Street (*OCP*, 272–3, 281). Outside the wall immediately to the east of the back gate was the college 'bogg house' with a large subterranean cess pit, the location of which was carefully noted by Prideaux in 1631 'to be taken notice of by Posterity that may have occasion to empt them' (Boase 1894, 313). His foresight was unfortunately of no avail to the men digging the foundations of the Old Ashmolean Museum in 1679, when the cess pit burst into the excavation and they barely escaped with their lives (Ovenell 1986, 16–17). The same deposit has been more recently encountered (Gaz No. 42).

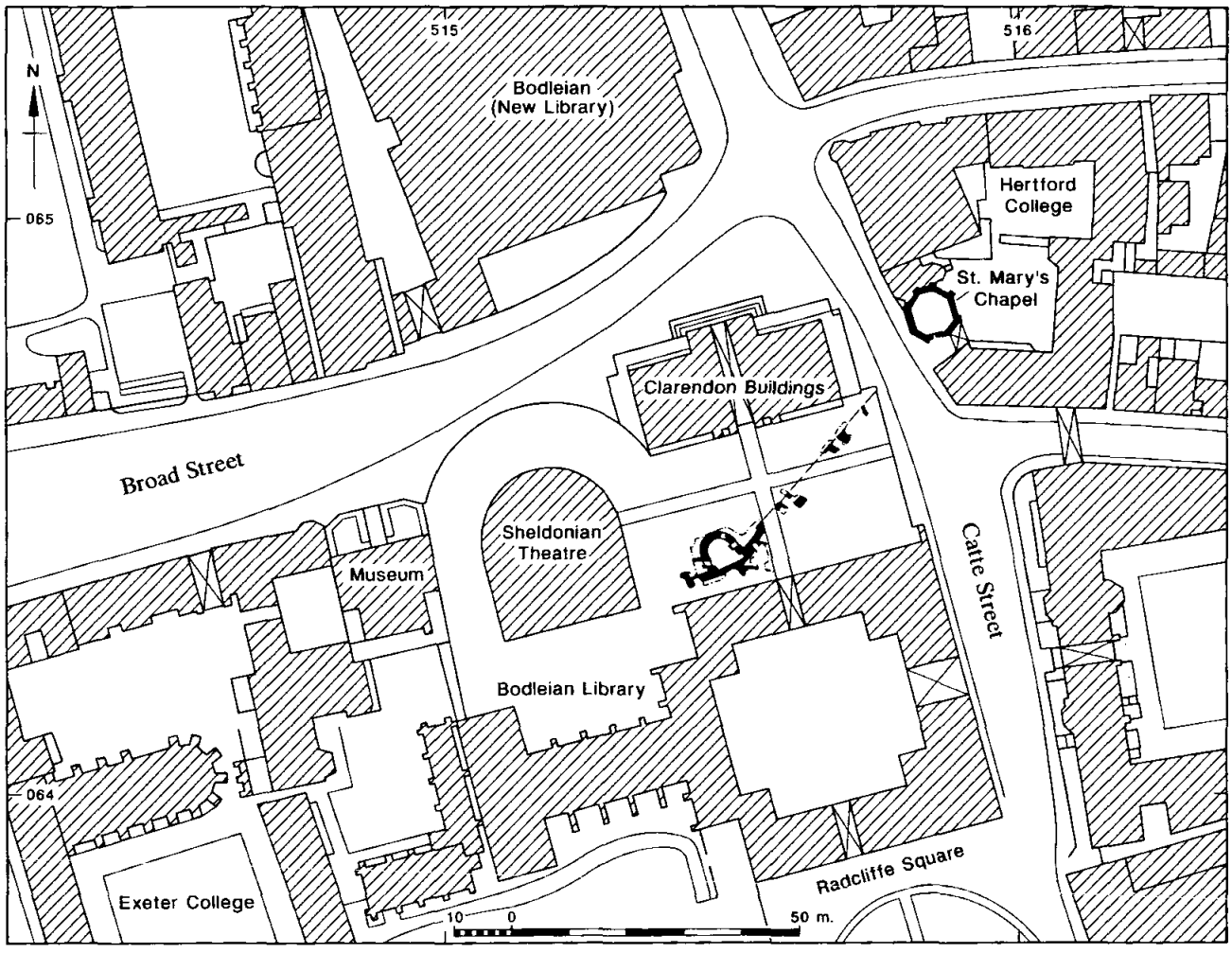


Figure 4.21 Clarendon Quadrangle: trench location plan.

The court wall on the south side of the Old Ashmolean Museum marks the line of the town wall, which is then followed by the south wall of the Sheldonian Theatre (Fig. 4.21). Repairs to one of the basement piers in about 1880 revealed that the ground below the basement was 'pond mud' (Hurst 1899, 125). To the east of the Sheldonian was Bastion 8 (RCHM enumeration), and then the wall crossed the Clarendon Quadrangle in a north-easterly direction, towards St Mary's Chapel at Smithgate, across the north end of Catte Street. The Quadrangle was the site of the excavations in 1899.

Background to the 1899 excavations

The whole area around the town wall north of the Bodleian Library changed after the ditch was filled up in the 17th century, and apart from Bastion 8 at the north-west corner of the Bodleian, the medieval wall had vanished by the time the site was surveyed by Benjamin Cole in 1713 for clearance prior to the erection of the Printing House, now known as the Clarendon Building (Daniell 1939, pl.XVI). Bastion 8 was leased out by the City from the late 16th century as part of a larger holding, and became a small house. The 1615 lease notes that the tower was used as a stable, and that 3 yards had been reserved for making a cartway against the newly erected Schools (ie the Bodleian Library). Between 1640 and 1660 the tower was tenanted by Thomas Ayres, a victualler, and was known to Anthony Wood as 'Tom Pun's House' (*OCP*, 293ff). After the site of the Sheldonian Theatre was acquired by the University in 1663 it was surrounded by a large wall, and the bastion came into the possession of the University in 1669. On the north and west sides of the bastion a printing house was erected, as part of the University Press in the Theatre, and this survived until it was demolished in 1713 (*OCP* 285, 294; Leeds in Daniell 1939, 159ff).

By the late 19th century the line of the wall had become a matter of some controversy, perhaps fuelled by the 1875 depiction by Colonel Ferrier on the large-scale OS plan (see below), which showed a more gentle diagonal line and a northward turn to reach Smithgate (ie following Cole's map of 1713

Plate 4.8 Excavations in the Clarendon Quadrangle, 1899, looking east (Henry Taunt; reproduced by courtesy of OAHS).

rather than Agas in 1578). The chance discovery in 1898 of a foundation on a more direct line between Bastion 8 and Smithgate threw the whole matter open to question, and the excavation was planned to determine the line with more certainty and put an end to the controversy.

The OAHS City Wall Excavations Committee *(Plate 4.9)*

Some account of the Committee proceedings may be of interest before the findings are discussed, as an insight into the conduct of the whole investigation. The minutes survive in both rough and final form, and happily are laboriously exact on the details of discussion (Bodleian Library Dep. c.586). The Excavations Sub-Committee first met on 19 August 1899, and on that occasion consisted of Falconer Madan, Herbert Hurst and James Parker. Madan was at this date OAHS President, and Sub-Librarian of the Bodleian Library, while Hurst was an indefatigable antiquary of all Oxford matters, whose collections in the Bodleian are full of careful archaeological observations of Oxford sites and buildings, the quality of which is not really reflected in his general published account, *Oxford Topography* (1899). James Parker (1833–1912) was the son of John Henry Parker, Gothic Scholar and Keeper of the Ashmolean Museum; between 1854 and 1898 James was successively Librarian, Secretary, Treasurer and President of the OAHS, wrote a judicious account of the early history of Oxford 727–1100 (1885), and had a special interest in the town wall.

It was decided to open a trench some 30 ft east of the Sheldonian railings (which then still surrounded the Theatre) on the east side of the bastion shown on Cole's plan, and so follow the direction taken by the wall. Two of Mr Axtell's men would begin work at 9 o'clock on the Monday morning [21 August] and those present would take it in turns to superintend the workmen, with the Revd F H Penny of St John's College being invited to assist as a volunteer.

On 4 September the second meeting considered the results of the first two weeks' excavations 'on Mr Parker's plan'. The bastion had been uncovered

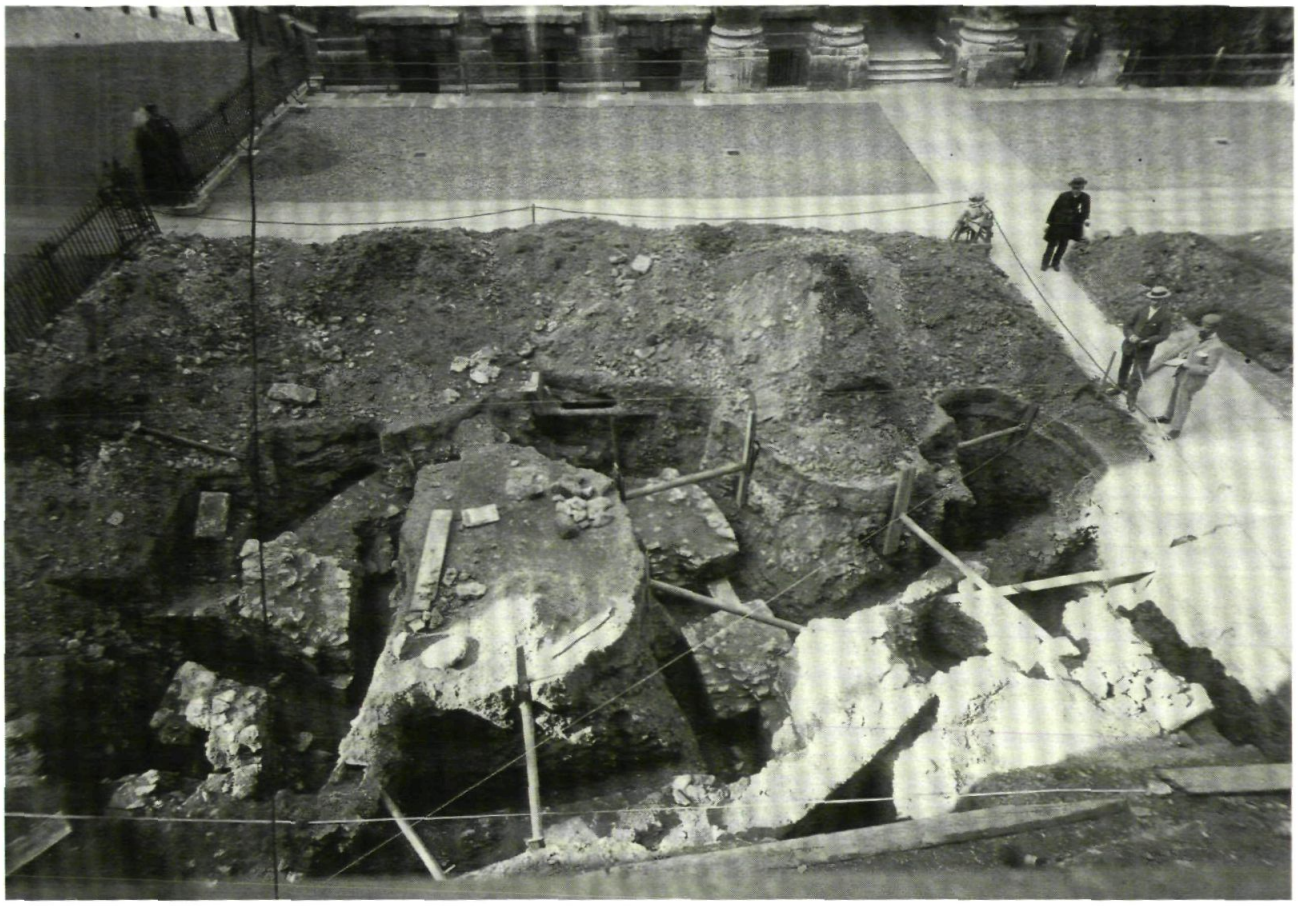


Plate 4.9 Bastion 8 in the City Wall, as excavated in 1899, looking north (Henry Taunt; reproduced by courtesy of OAHS).

(Plate 4.9), but the wall to its east still required elucidation. It was agreed that further funds, beyond the £10 voted by the OAHS, should be raised to continue the work, and that the Ashmolean Museum was to be asked to select what it wanted from the finds of glass and pottery. The number of volunteers was increased by the addition of the Revd W M Merry, Rector of Lincoln College, and Mr C E Cope of Wadham.

At the third meeting on 9 September it was reported that 12 guineas had been raised with a promise of a further 5 guineas, so that work could continue on clearing the bastion, and tracing the walls on the back of the bastion on each side. It was agreed that some money would be held back to mark out the discoveries with limestone edging or a cobbled surface.

The fourth meeting on 16 September heard that £13 had been received, and £6 promised, bringing the total funds to £29. This would pay for the four weeks digging and a further week for infilling. Mr [Mardon] Mowbray was to be asked to undertake a survey for a guinea, and Mr Taunt to take photographs from the Bodleian and Clarendon windows, being offered one guinea for 'one or more photographs'. The remaining week's excavation was intended to investigate (a) the western junction of the bastion with the main wall, (b) the junction on the east side if not destroyed, and (c) the line of the wall to the north-east adjoining the part found in the previous year. After this the final week could be devoted to filling in.

On 29 September the fifth meeting heard that the excavation was practically completed. 'The last portion examined at the S.E. corner of the quarter containing the Bastion shewed the thick older wall at the back (attributed to D'Oilgi *sic*) to turn suddenly at an angle southward beneath the Bodleian. It had been excavated as far as possible in that direction.' The Taunt photographs were examined, together with others by Merry, Mrs Hore and Mr Bonell; Mowbray's survey had been made, but not completed. If the work could be left open for two days it might then be backfilled, and it was agreed to pay the two workmen 10s each as they had been 'most careful in their work and very obliging'. The City Engineer had offered to supply cobbles to mark out their discoveries, but the Vice-Chancellor had written requesting a formal application for this to Hebdomadal Council, warning that there could be no certainty of meeting the expenses for it. He also put the pottery and finds at the disposal of the Committee after the Ashmolean had made their

choice. As there remained 'a large amount of fragments of pottery &c' a further meeting was agreed upon 'to determine the allocation of the objects to the Committee or to others'. The disposal of bones (including portions of at least one human skeleton) was then discussed at length, and it was decided carefully to rebury them 'as close as possible to the spot where they were found in presence of members of the Committee'. This was done immediately after the meeting adjourned by Madan, Parker and Hurst, accompanied by Merry.

The sixth meeting on 14 October considered the accounts. Mr Axtell's bill came to £18 5s 2d, and other fees and gratuities came to £4 9s 6d, out of actual or promised subscriptions totalling £31 2s. It was agreed to open an 'excavation fund' at the Old Bank for this and for 'any other special excavations' undertaken in the future. The question of marking out the discoveries was postponed until a later date, though notification had been received that application should now be made to the Curators of the University Chest rather than Council. The finds of pottery had been arranged on 24 cards and it was agreed that the Ashmolean should mark its selection, followed by the three members of the sub-committee, and the three 'volunteers', and that Mr Taphouse should be 'invited to see the objects & select such as he thought the City might accept for their local collection in the New Town Hall'. This last was the ill-fated and abortive town museum, which consisted of a collection of materials in the Town Hall basement, including a large collection of architectural fragments, all of which appear to have been thrown away in later times, despite being catalogued and photographed around 1900 (Cat. in the OAHS library). It was agreed that all the finds on the cards would be displayed at the next meeting on 9 November, 'and that a good selection of the remainder should be put in trays on another table from which members present should be invited to take away what they pleased'.

The next recorded meeting took place on 12 May 1900, when Mr Mowbray's plans were exhibited, 'which all agreed were very admirably executed'. An inconclusive discussion followed on the marking out of the discoveries, which reveals a divergence of opinion regarding what had been found, with Parker proposing that rather than marking the entire wall uniformly, the earlier work should be distinguished from the later. The meeting was adjourned without resolution of the question, to the next and final meeting on 18 May 1900. It is unfortunate that Hurst was present at neither of these meetings, as his views would have been of more value than other members given his detailed notes on the discoveries and his greater archaeological experience. A lengthy discussion is minuted, with various propositions being argued and voted on, essentially in accordance with Parker's interpretation of the remains. A sketch plan accompanies the discussion and throws valuable light on the different interpretations. The results of this fascinating exercise in interpretation by committee will be described more fully below in the discussion of the discoveries. It was agreed not to mark the wall east of the bastion until further investigations had been made. While it was accepted that further excavation in the immediate area would be unlikely to be approved by the University, it was agreed to approach the Principal of Hertford 'asking for formal permission for the members of the Excavation Committee to view from time to time any of the work which may be going on when the foundations are dug, which may assist in determining the lines and character of the City Wall and Bastion in this direction'. As there are no further minutes, it is uncertain whether the new building at Hertford was in fact investigated. The outlines in the gravel surface of the quadrangle seem not in the event to have been made, though a parallel pair of lines was marked across the east-west line of paving on the east side of the quadrangle.

The results of the excavation (Plates 4.10, 4.11)

The discoveries are partly described by Penny and Merry (1899) though the inadequate account given there mainly conveys the sense of occasion and describes the post-medieval finds, while the only part relevant to the archaeology of the wall is a short summary of Herbert Hurst's notes. However, the full text of these survives in his collections, and were evidently used as the basis for a long and valuable article in the *Oxford Times*, the first part of which is here reproduced in full, with the addition of some words omitted from the printed version, and a few editorial notes (MS Top. Oxon. c.189 p. 190; *Oxford Times* 18 November 1899, 3rd edn, p. 10). Mardon Mowbray's plan is here reproduced (Figs 4.22–4.24), and whilst somewhat schematic, at least allows the features described to be located (Bodleian Library Dep. b.138).

TWO OLD CITY WALLS

Our readers will recollect that during the past vacation a series of excavations have been made in the quadrangle of the Old Clarendon Building, with the object of clearing up the dispute as to the course taken by the city wall from the Sheldonian Theatre to Smith Gate. The result, and the interesting discoveries made, are summed up by Mr H Hurst as follows.

There has been discovered a second city wall, a bastion has been developed [revealed], apparently built against the wall which was discovered in the August of last year, running almost diagonally across the quadrangle. It may be that it was a practice in medieval times [MS: of the age of Henry III] not to bond parts of an erection together unless it was easier to do so, and proofs of this have been found in the towers of St Peter-in-the-East and St Martin's Carfax. The wall running diagonally, as if aiming exactly for the modern chimney of our Lady's Chapel, has now

Plate 4.10 The doorway in the west side of Bastion 8, as excavated in 1899, looking west (Henry Taunt; reproduced by courtesy of OAHS).

been traced within a few feet of the N E angle of that enclosure; it was 6 ft. to 7 ft. 8 in. in thickness, the bastion about 5 ft. thick; a room was found on each side of the bastion, exterior to the city, an arrangement quite peculiar and occurring in no other example of 13th century fortification [MS: not quoted in Viollet le Duc]. As the walls of these chambers were thin, they were perhaps a later addition. The one to the west had its walls stained black, perhaps by dirt which exuded from the neighbouring ditch or pond. The other chamber had a little plastering in its south-west angle, which was rather acute, and seemed to be in connection with a convenience [MS: privy] worked at some uncertain date through the east flank of the bastion. This chamber might have proved interesting, but as no demolition [MS: destruction of drains or demolition of walls] was allowed its full proportions could not be ascertained. The doorway and passage into the western chamber were clearly a modification of older work [this volume, Plate 4.10], additions in one part, hacking away in another and then rebuilding: here again was no attempt at bonding, and the whiter tone of the more modern mortar was easily seen. The opening into the bastion was but 25 inches in width, but the indentations for two pintles, gudgeons or door-hooks were very plain, so that double doors were used, probably to give security. There were bits of good ashlar framing to it [MS: Early Decorated perhaps]; the floor of the passage was also blackened, its depth [MS: six feet or so... and it was the only one distinctly marked] looked considerably below the level of the soil, but very careful levelling proved that it was about level with the present Broad-street, and, allowance being made for the usual rise of thoroughfares in old towns, it may be that it was about three feet above the ancient level of that street. There was a thin wall, or a thick one reduced to about three feet, on the south side of the bastion shutting it of from the south or city side; this is a feature absent in every other bastion round Oxford, and would seem to be coeval with the bastion itself. Within the bastion was a rather modern fireplace, at least it was built of bricks, which were considered too thick for the Tudor era. A side of one crenelle only had been left

Plate 4.11 The early wall turning south from the City Wall, as excavated in 1899, looking west (Henry Taunt; reproduced by courtesy of OAHS).

untouched [MS: the sills of these would serve as a level at which to stop the demolition], but these would perhaps have been at a higher level than the present remains, and their walls would have been swept away to serve as building material.

Throughout the area explored, namely, the south-west quarter of the quadrangle [MS: and especially east of the bastion], there were many house and garden walls standing in the way, and the ancient walls [MS: the original wall] had been pulled and thinned down in many places. Near to the north and south paving [i.e. the existing paved path across the quadrangle] a second fire-place had been wrought on the north face of the younger city wall [MS: some shed or house had apparently been located outside the wall, and the old fortification used to form the sides of a chimney carried up within it]. There were near the bastion, at about four feet east and eight feet west of it, parts of a wall apparently of Norman or some early character, the walls being filled in with bits of stone picked off the land, combined with a plentiful amount of the red, clayey loam known to Oxford people: these seemed more of the nature of portions shifted from an older foundation than of a continuous wall. Another portion of a wall of peculiar character [this volume, Plate 4.11], worked, that is, upon a base of large stones thrown in herring-bone fashion branches off south of the main wall [MS: commences south of the main wall] at a short distance from the east flank of the bastion, and runs in the direction of Hertford College [MS: Gateway]. This on being followed out seems to turn round on a curve to the south-east [MS: first of all seemed to curve gently towards the south and was afterwards found to bend more rapidly in the direction of the north entrance to the Schools], and consequently out of the region allowed to the excavators. There is little doubt that we have about here

A DOUBLE WALL TO THE CITY

It is not clear whether either of them is of the same age as the wall in New College garden. The one nearest to the Old Schools, beside having its face very much sloped, has its south side left in a very jagged [MS: rough] state, as if

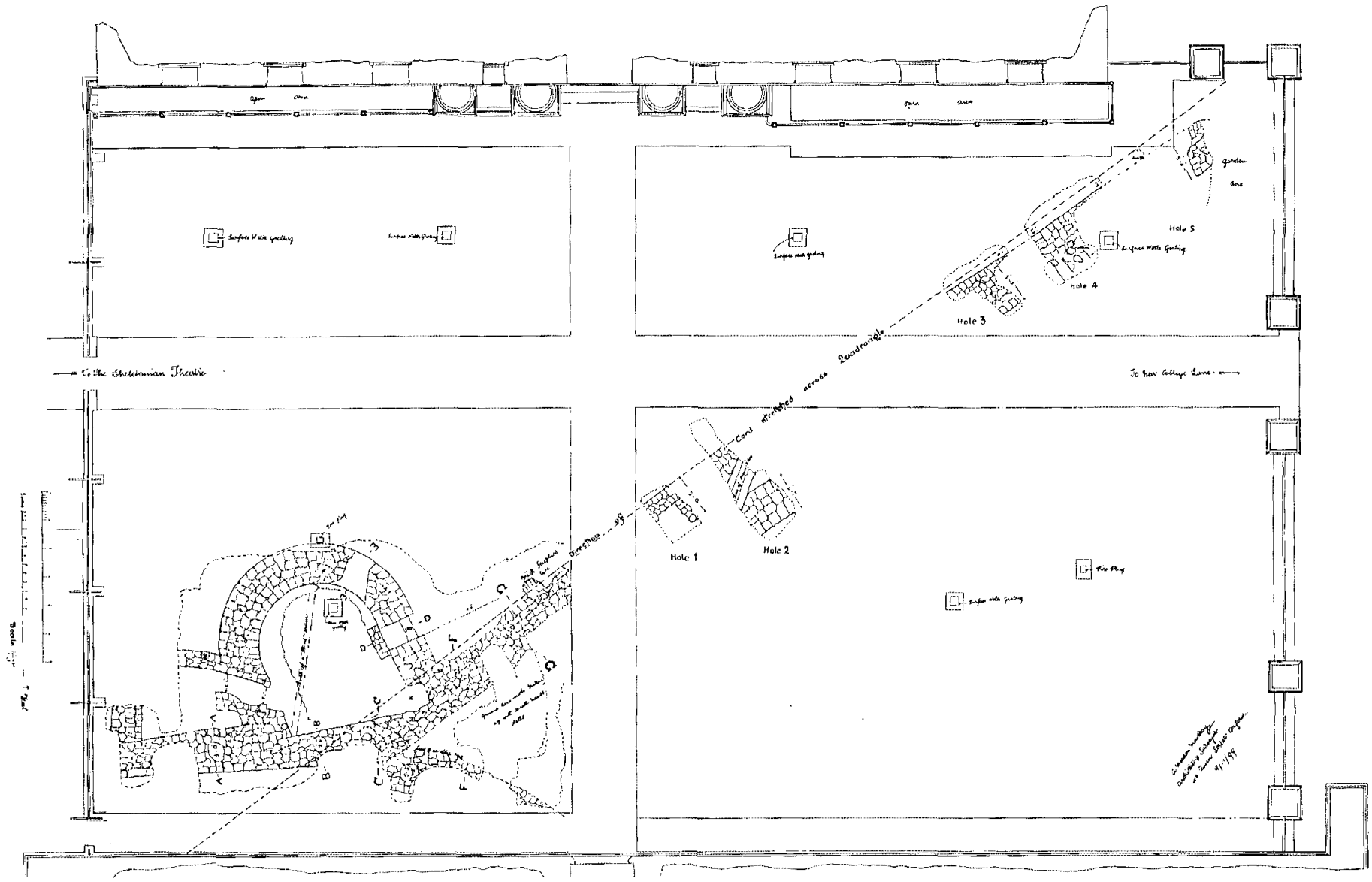


Figure 4.22 Clarendon Quadrangle: plan of excavated features.

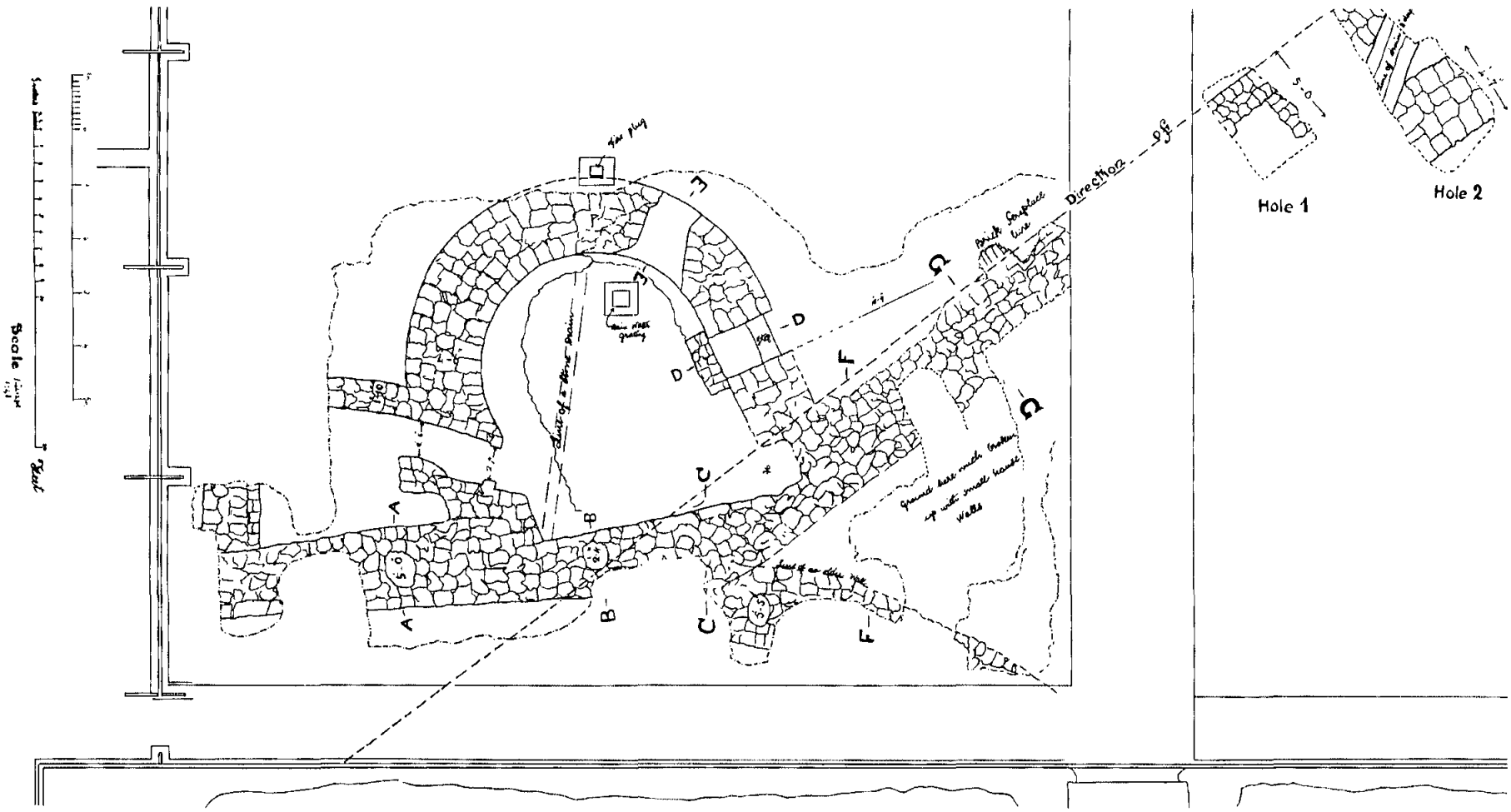


Figure 4.23 Clarendon Quadrangle: detail plan.

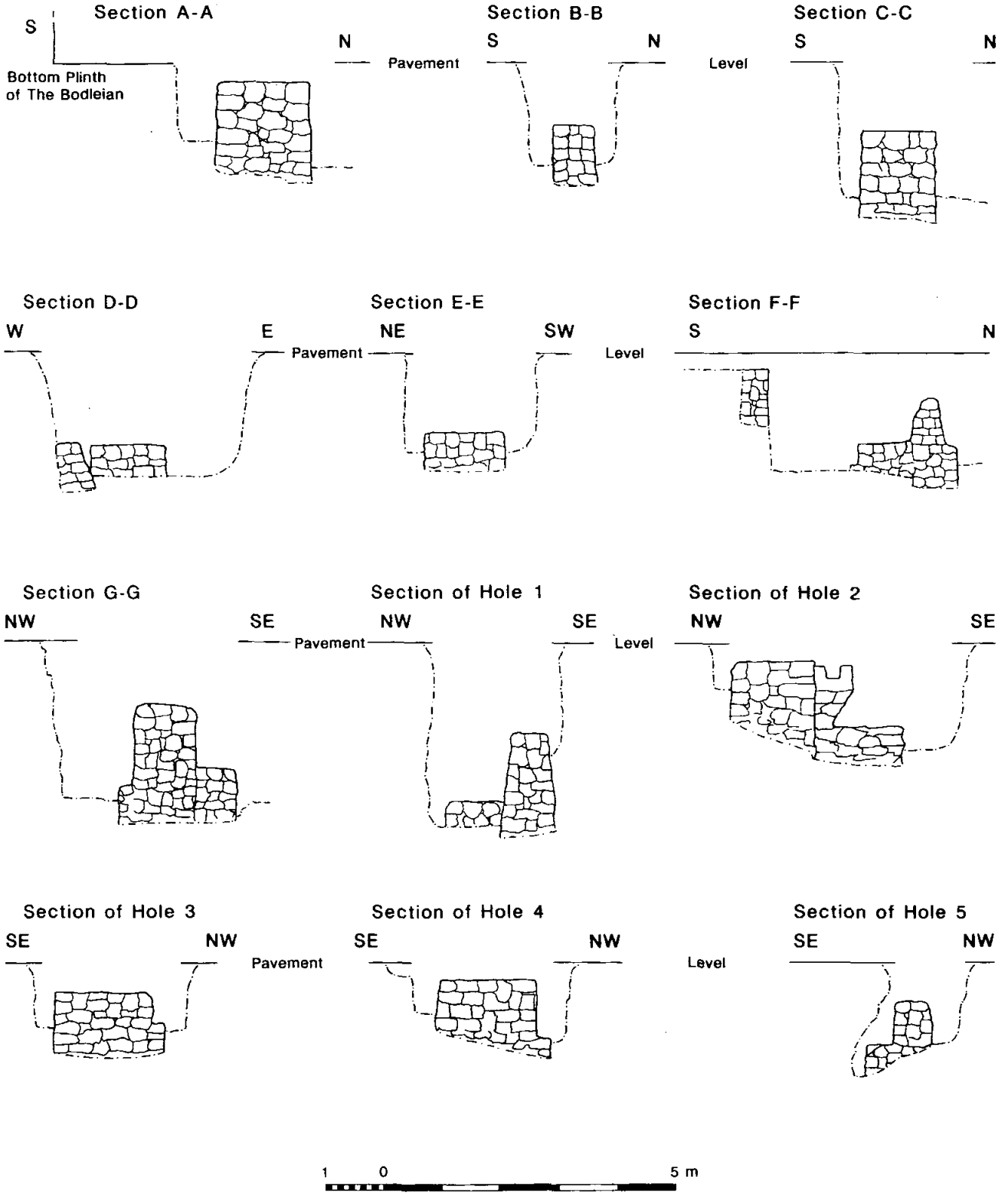


Figure 4.24 Clarendon Quadrangle: sections.

built against a mound of earth, and the existence of a second wall near Exeter chapel was almost proved when that building was commenced. As far as is at present known, the later city wall was exterior to that which it may be convenient to call "D'Oyley's," and of which several feet have now been laid bare for us. The wall diagonally across the quadrangle is of too good

[MS: regular] workmanship on both faces to match the walling usually ascribed to Henry III's time. It has also in some parts a considerable set-off on the north side, which New College wall nowhere has. The unexpected direction of the newly-found wall may hereafter account for two things: the first, for the city's being in possession of so wide a space of ground near Smith Gate; the second, for the levels of the ground at the south entrance of St. Helen's passage. The depth to which the younger wall was traced was nowhere in excess of the ten feet (with probing of 2 ft. 6 in extra) which Mr Axtell dug out last year when the first traces of it were found, but whereas in 1898 only one foot of soil had to be removed, on the present occasion it was often necessary to clear away to a depth of five to nine feet [MS: from 3 to 10 feet] before the same wall could be found.

WHY THE INVESTIGATION WAS MADE

Many particulars and interesting notices of the wall and of the octagonal chapel have been communicated to the "Oxford Times", and the editor deserves the best thanks of all antiquaries for admitting so much information which would perhaps be not much appreciated by general readers; but the reason why the investigation took place has generally been lost sight of. [Here follows a long discussion, summarised above, of the findings in relation to the controversy about the alignment of the wall.]

Our illustration [a line drawing after a photograph] is a view from an elevation and looking towards the Theatre. The deflection in the line of the wall is clearly shown, and by it the bit first found of D'Oyley's wall, as well as the curtain wall at the rear of the bastion, narrower than the main wall.

Mr Taunt has taken several photographs showing details of the investigations and forming a complete record of the work done.

The Oxford Architectural Society deserves thanks for doing so much as it has, and it is a further pleasure to remember that it purposes next year, if authorized, when the ground has settled firmly down, to reproduce the plan of the early work—omitting later house and garden walls—in pebbles upon the gravel surface of the quadrangle. It is not too much to hope that an equally active spirit of enquiry will be manifest when Hertford College commences its new buildings.

This account, and Mowbray's plan, constitutes as good a description as might be expected for the period, given that there was little stratigraphical control over the excavation, the possibility of some of the walls being post-medieval was scarcely entertained, and the existence of the outer ditch was ignored. But before the results are discussed, one later investigation of the site must be considered.

The 1938 Excavation for the Bodleian Tunnel

In 1938 the tunnel connecting the old and new Bodleian was excavated, and the opportunity was taken of locating the wall and bastion in addition to the profile of the ditch. While the west side of the bastion was uncovered and recorded

> the City Wall, where it ran across the tunnel-trench, was rather disappointing. The line was clear enough, but it had been extensively robbed, so that little more than rubble and loose stones was left.

It was unclear whether this was on account of destruction in 1899 or earlier, but there appeared to be less remaining than was shown in Taunt's photographs. Almost the only addition to the earlier discoveries was of a well 7 ft from the west wall of the bastion, probably a part of the 'tenement in the round tower on the city wall' shown in Cole's 1713 plan. The bulk of the report is taken up with a consideration of the character of the ditch, and the date of its infilling in the early 17th century (Daniell 1939).

Discussion

The shortcomings of the 1899 excavation are obvious but the essential information was uncovered: the discovery of an earlier wall curving away to the south-east, and a bastion covering the angle of the later wall leading off to the north-east. However, experience elsewhere would suggest a series of at least four possible events: (i) a primary earth rampart (ii) later revetted in stone, (iii) the defences extended to include the eastern half of the town, and (iv) the walls rebuilt in stone, with bastions. A comparison of the plan, Hurst's description, and the deliberations of the Committee, would suggest the following interpretation of the discoveries.

The early wall was the stone revetment of an earth rampart approaching from the west through the back of the bastion and turning in a south-easterly direction. The excavators were in little doubt that the wall was built against an earth bank; its rear face had a ragged edge rather than a proper facing, and the section (F-F) shows it to have been of no great width (although described as 'thick' in the 29 September minutes). This is wholly consistent with similar discoveries elsewhere, that have been discussed above. The naming of it as 'D'Oyley's' wall is a reference to the Norman Constable of Oxford, and the supposition that this may have been a Norman refacing of a pre-Conquest rampart. Hurst mentions two other lengths of wall, 4 ft east and 8 ft west of the bastion, which were also thought from their composition to be 'early', though this is not apparent on the plan or sections. However, when the Committee came to discuss the marking out of the walls, it was agreed that this western portion should be marked with a single line of stones as it represented the 'facing of an earthen bank rather than a solid wall', ie the same as the early wall to the south-east.

The later wall leaves the east side of the bastion on a new alignment towards Smithgate, its junction being marked by a straight joint which was shown on Mowbray's plan, and it was accepted by the whole committee in its deliberations that the wall east of the bastion was of a different character. Both here and immediately to the east (sections F-F, G-G, holes 1 & 2) the wall appears to have had an outer and inner part of different heights and varied widths. It would be impossible to determine whether these represented two medieval walls, or post-medieval building along the line of the wall. Only in holes 2 to 4 is the main wall shown as being over 4 ft thick, though further east in hole 5 it is narrower again. At several points there is an offset at the base on the outer (north) side. As shown on the plan, the wall was laid out on a straight alignment, which would suggest that it was of one period. No observation was made of any earth rampart on the inside of the wall, such as has recently been found in New College. On the west of the bastion the wall at A-A is shown as 5 ft thick, more consistent with the later wall to the north-east than the earlier wall of which it was held to be a part.

The bastion was a regular D-shaped bastion with walls 4 ft 6 ins thick, partly cut away by later work, but preserving the side of one embrasure on the north-east side. The Committee held that the bastion, its openings on each side, and the rear wall were all medieval work, though this is fairly improbable since no other existing Oxford bastions have rear walls or postern gates (though there are posterns elsewhere in the walls).

Post-medieval alterations included the construction of a entrance passage on the west side of the bastion with door jambs, a rear wall between 2 ft 4 ins and 3 ft 11 ins thick, and a passage through the bastion on the east side with a step but no door. Outside the bastion to the east a brick fireplace had been built against the outside of the wall, and another brick fireplace was found inside the bastion (not shown on the plan). Hurst describes the addition on the east side as being a chamber, with some traces of plaster on the wall in the south-west angle, though no other walls are shown on the plan. The east door should have a door jamb if it had been a defensive postern. The west door, which does have jambs, is clearly a late- or post-medieval addition, and may be associated with the short section of north-south wall uncovered at the west end of the excavation. The rear wall is very unlikely to be medieval, though it was believed by the Committee to be so, but it was in any case agreed to be an addition.

Interpretation

This excavation provided the best physical evidence yet found for a primary east wall of Oxford on a line between Schools Street and Catte Street, but it has perhaps not been realised before how carefully this discovery was observed and recorded. The stone revetment of an earth rampart is precisely in accordance with the section recorded at the east end of St Michael's Church, where both phases were believed to be pre-Conquest (see above). The divergent line of the later stone wall to the north-east, with the bastion on the re-entrant, must belong to the early 13th century, though not enough was recorded of the different sections of wall to be able to describe its original form. As is now known from the excavation in New College in 1993 (see below), the eastern extension of the defences was also in the form of an earth rampart in its first phase. The bastion would appear to be of regular type, and the doors and walls are most likely post-medieval additions. The excavation did not reveal the means by which the medieval line of the wall was lost and came to follow the gentler diagonal shown on Cole's plan of 1713.

Excavations on the line of the city wall at New College 1993
by Paul Booth

Note

This account is a summary of the full report, which is published in *Oxoniensia* (Booth 1995). It has been included in this volume because of its importance to the understanding of Oxford's late Saxon defences.

Introduction (Fig. 4.25; Plate 4.12)

Small scale excavations were carried out by the Oxford Archaeological Unit in August 1993 in advance of ground works for the installation of ducting and electrical cables. The work was located adjacent to the standing 13th-century town wall, and ducts and cables were to be routed through the line of the wall at three points. Since the wall is a Scheduled Ancient Monument, provision for archaeological excavation of the necessary holes adjacent to the wall was made a condition of the Scheduled Monument Consent necessary for works affecting the wall. The work was commissioned by Peter Lawson-Smith Associates Ltd, acting on behalf of New College. Their assistance with this project, together with that of the groundworks contractor (Ashlar Construction Ltd), the main contractor (Darke & Taylor Ltd), David Rolfe (Clerk of Works to the college) and Graham Weeks of Rodney Melville & Partners (architects to the college) is gratefully acknowledged.

The excavation (Figs 4.25, 4.26)

Four small trenches, typically *c* 2 m × 3.5 m, were dug against the line of the city wall; Trenches 1 and 2 against the N (outer) face between the Bell Tower and Bastion 11 (numbering of bastions as RCHM 1939, 160), Trench 3 against the W face of Bastion 12, and Trench 4 against the S face in the narrow yard between the Antechapel and the E side of the Cloister.

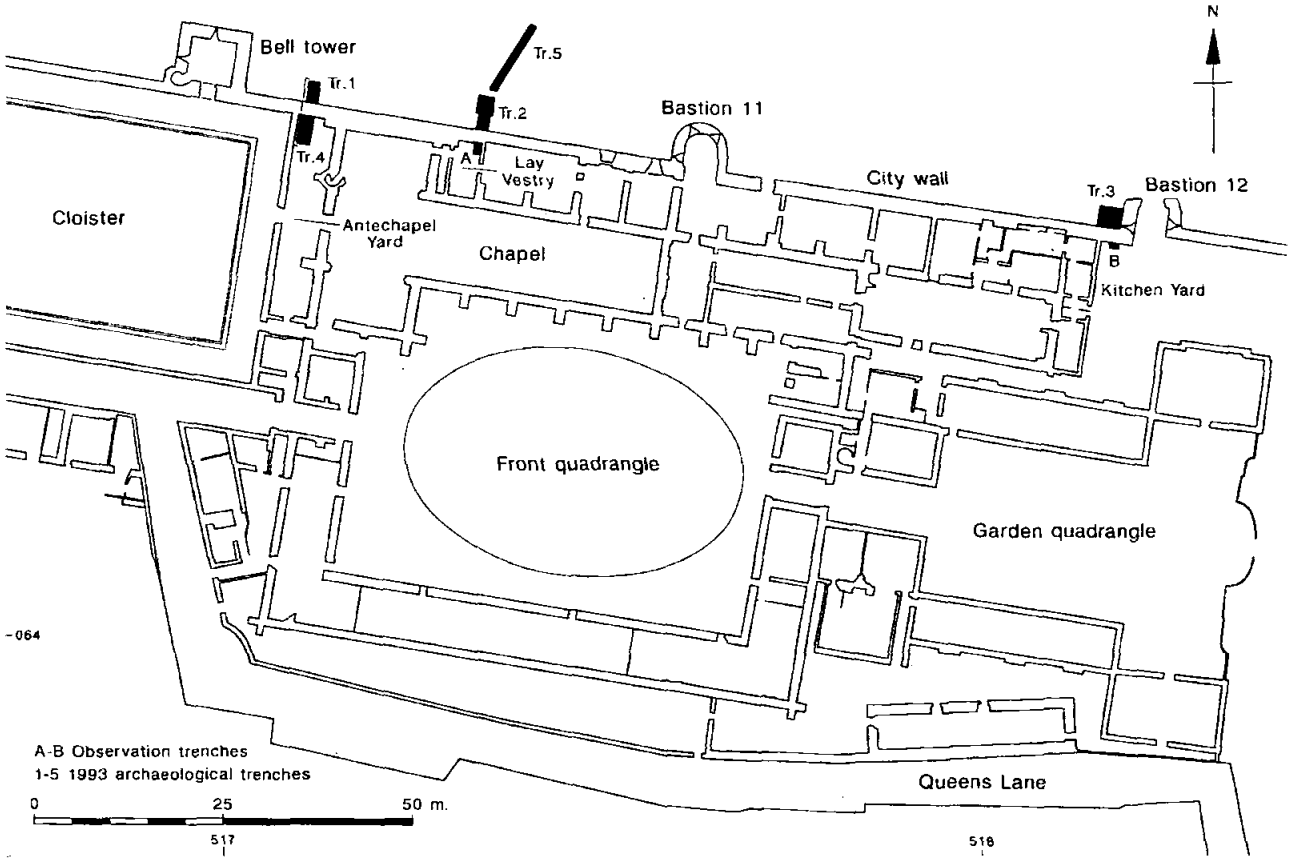


Figure 4.25 New College 1993: trench location plan (first published in P M Booth 'Excavations on the line of the city defences at New College, Oxford, 1993', Oxoniensia 60 (1995), fig. 1).

These trenches were intended to examine and record in advance of their destruction the character of any archaeological deposits and their relation to the city wall, and to see if these shed any new light on the sequence and chronology of the defences. A further trench (5), NE of trench 2, was intended to examine the line of the outer city wall, thought to lie beneath the N retaining wall of the Slipe, some 10 m N of the extant (inner) city wall (cf Durham *et al.* 1983). Two small additional observations in the Kitchen Yard and the Lay Vestry are noted, as they tended to confirm the important findings in Trench 4.

Summary of results (Figs 4.25, 4.26)

The most significant discoveries were in Trench 4. Here a ploughsoil above the sand and gravel subsoil had formed a worm-sorted horizon indicative of a period of disuse of some 9–10 years before the accumulation of later deposits. Above this lay an E-W aligned rampart of sandy clay incorporating grey clay bands which indicate the use of turves or organic clays in the construction. A thin layer of redeposited natural sand and gravel at the base of the rampart may have been thrown up from a marking out trench or a palisade trench. The rampart survived to a maximum height of *c* 0.82 m, and observation of a trench cut by the contractors to the S of Trench 4 showed that it was at least 4.8 m wide. Observation of contractors' excavations against the S face of the city wall in the Kitchen Yard and in the Lay Vestry showed that a comparable earth bank survived in part in each location. A number of possible postholes in Trench 3 appear to have predated the city wall. These may possibly have been associated with the rampart, but this is uncertain.

The only dating evidence from the rampart was a single flint and three Roman sherds providing a *terminus post quem* of the late 3rd to 4th century. A gully cut into the top of the rampart contained pottery dating to the late 13th century at the earliest. More significantly, the rampart was clearly cut by the city wall. The wall was examined in each of Trenches 1–4. It was set in a straight sided and (probably) flat bottomed construction trench dug exactly to the top of the sand and gravel subsoil. The stones of the lower part of the wall were set against the edges of this trench, leaving no clear trace of the cut. Against the cutback face of the earlier rampart, the lowest stones of the wall were irregular in shape and unfaced. Only above the top of the rampart were the blocks faced.

In Trench 4 an E-W slot had been cut against the S face of the wall, removing part of the earlier bank.

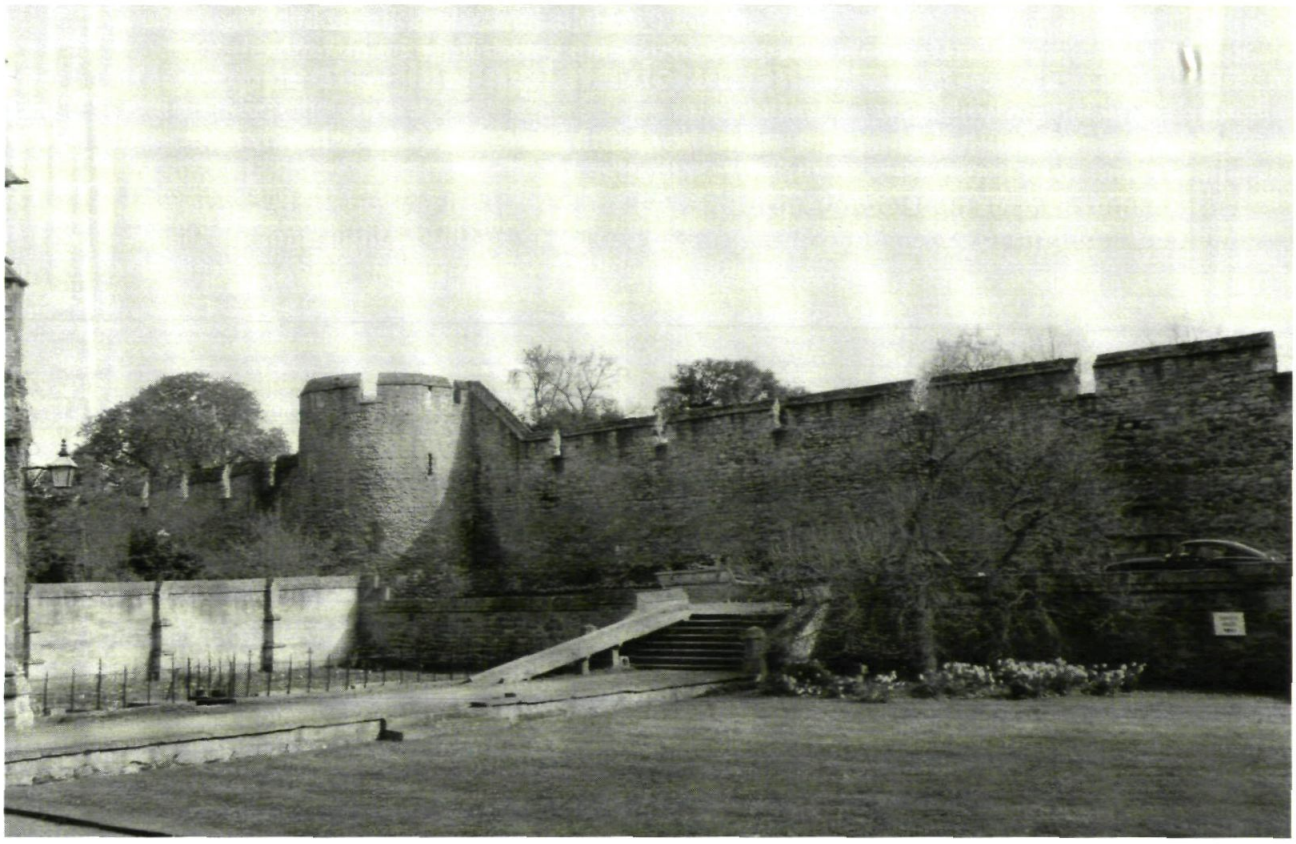


Plate 4.12 The town wall in New College (external face). Photo Mike Hallam.

This feature was not carried down to the base of the wall, though two postholes which penetrated the gravel subsoil may have been cut from its base.

Extensive post-medieval disturbance in Trenches 1 and 2 had removed any traces of medieval features apart from the wall itself and none of the trenches extended far enough to the N to locate the inner edge of the city ditch. In Trench 3, however, probable medieval features included a length of a N-S wall at right angles to the city wall and apparently aligned on a partial rebuild of its lower part starting *c* 1.5 m W of bastion 12. This must represent a structure built up against the face of the wall, but its date is uncertain. Later features included a pit which extended beneath the W wall of Bastion 12. Fills of this feature produced finds of post-medieval date which give a *terminus post quem* for the bastion wall.

No trace was found of the outer city wall, thought to have been built in the late 13th century (Palmer 1976, 158–159), probably because the excavation in Trench 5 (determined by the requirements of the contractors) was of insufficient depth to locate any surviving medieval structure. Walls on the postulated medieval line were of post-medieval and recent date.

Discussion

The rampart located in Trench 4 and elsewhere along the S side of the city wall cannot be closely dated, but is most likely to represent the postulated eastward extension of the Saxon defences of Oxford. These defences may have been erected in the early part of the 11th century. The developed worm-sorted horizon beneath the rampart suggests that this part of the town had lain fallow for some little time before the defences were built, a situation paralleled at 24A St Michael's Street. There is no evidence for the character of the outer face of the rampart or for a contemporary ditch, but cores drilled through the base of the city wall between Trench 2 and the Lay Vestry indicate that there was no variation in the masonry or mortar of the wall. It is thus unlikely that the 13th-century wall incorporated an earlier stone facing of the Saxon rampart. Either such a facing was never provided in this part of the circuit (in contrast to the situation near St Michael at the Northgate (Durham *et al.* 1983, 15–17)), or it was removed in the course of constructing the 13th-century wall.

No significant new light has been shed on the construction of the city wall itself, except for small details. There is no evidence to confirm or contradict an early 13th-century date for this event. The slot against the rear face of the wall located in Trench 4, initially thought to be a construction trench for the wall, seems very likely to have been associated with a partial rebuilding of it in the late 14th century. This took place in conjunction with the building of the

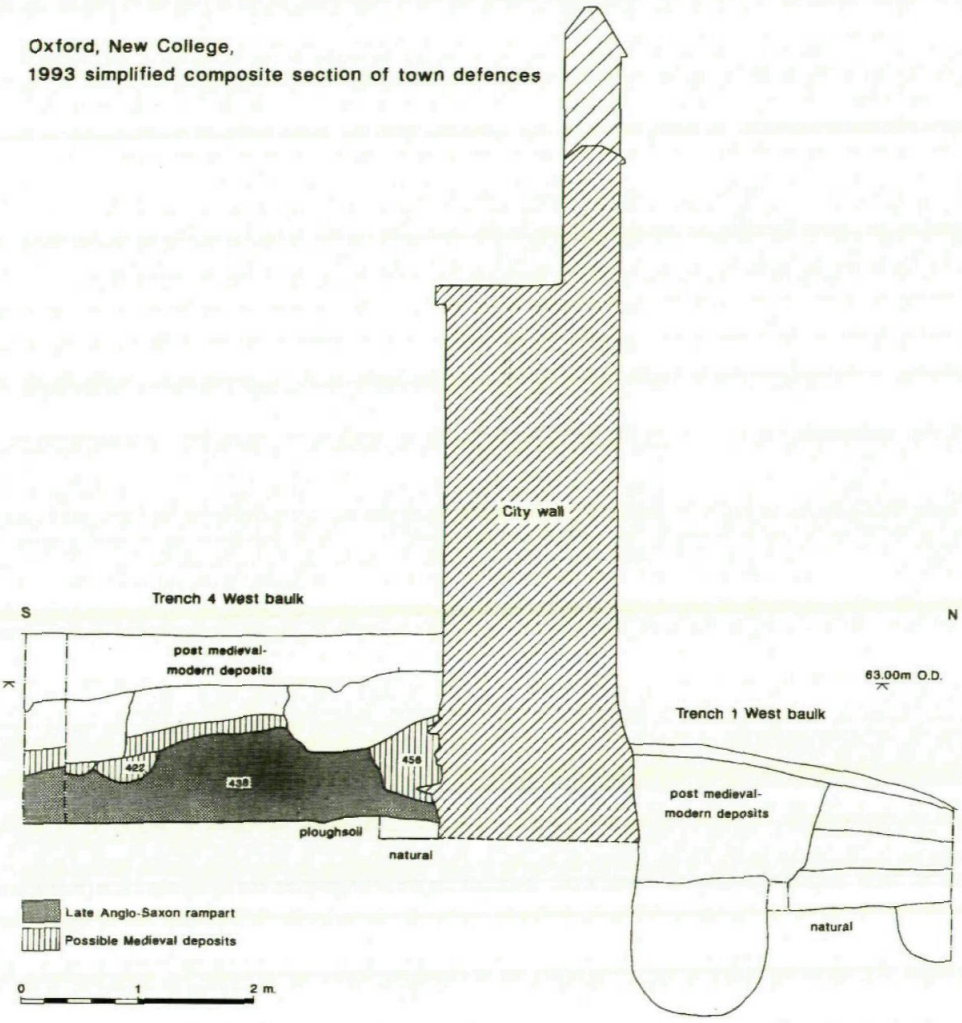


Figure 4.26 New College 1993: simplified composite section of the town defences (first published in P M Booth 'Excavations on the line of the city defences at New College, Oxford, 1993', Oxoniensia 60 (1995), fig. 9).

Antechapel, the NW buttress of which was bonded into the city wall. The postholes located beneath the slot were probably for scaffolding against the wall face.

Outside the city wall, medieval activity was confined to the angle between it and the W side of Bastion 12. Here a structure, probably of late medieval date, but of uncertain size and function, seems to have butted up against the wall. A structure in a comparable position on the E side of the bastion is shown on Loggan's map of 1675. Further post-medieval activity in the vicinity of the bastion is indicated by features extending beneath its W wall. This suggests that when the front of the bastion was removed for the insertion of the present gate *c* 1700 the whole of its W wall (at least) was rebuilt. This suggestion is corroborated by the variety of types of building stone (probably reused) incorporated in this wall, which contrasts markedly with the construction of the outer bastions and of the city wall itself.

Excavation and survey at Bastion 21, Corpus Christi College, 1981
by David R P Wilkinson

Introduction *(Fig. 4.1; Plates 4.13, 4.14)*

The basis of much of the following account was provided by fieldwork carried out by Eleanor Forfang in 1981, as part of the In-Service Diploma in Archaeology. In addition to the original field records, an archive report written by Ms Forfang was drawn on extensively in the preparation of this report. The results of a 1986 watching brief have been incorporated, and a trench excavated in 1963 by Mr D Sturdy is described. The OAU is grateful to Mr Sturdy for permission to use the data.

Bastion No. 21 (RCHM enumeration) lies in the south-west corner of the Corpus Christi Fellows' Garden on the southern defensive wall of the medieval town (Plates 4.13, 4.14). The opportunity to carry out limited excavations here in 1981 was particularly welcome in that the bastion lies at a

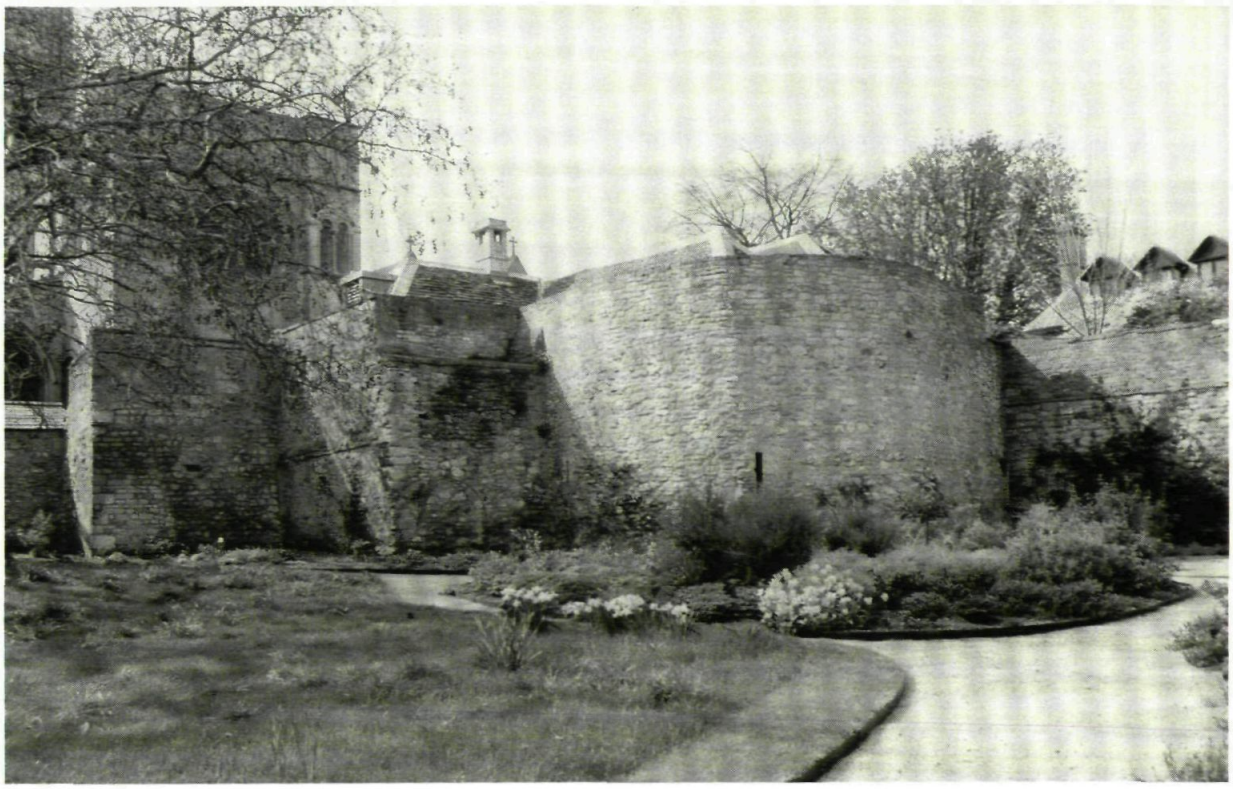


Plate 4.13 Corpus Christi College Bastion 21 from the SE, with Oxford Cathedral (Christ Church) behind. Photo Mike Hallam.

Plate 4.14 Corpus Christi College Bastion 21 from the SE. Photo Mike Hallam.

crucial point for the understanding of Oxford's defences. The medieval line of the former Shidyerd St (now Oriel St) to the north indicates that a gate probably existed at some point in the area now occupied by the bastion, and the name Shidyerd may refer to a palisade along the eastern side of the original Anglo-Saxon *burh*, which was later extended to the east (Blair 1994, 149). The bastion site may thus be at, or close to, the south-eastern corner of the earliest town. East of the bastion is the line of the 13th-century town wall around the eastern suburb (still clearly visible along the north edge of Christ Church Meadow) and 20 m to the west lies the east end of the cathedral, formerly the Priory Church of St Frideswide's. In all probability, then, the bastion marks a re-entrant point in the wall where it turns south to avoid the cathedral and priory; this latter point is of crucial importance to understanding the topography of the area, and is taken up again in the descriptions and discussion which follow.

Historical sources and the topography of the study area (Figs 3.13, 4.27, 4.28)
by Julian Munby

The town wall

The south-east quadrant of the defences between the Southgate and Merton College is a major area of uncertainty, and some background discussion of the topography is given here in advance of the archaeological discoveries.

The Southgate was next the south-west tower of Christ Church, and although partially demolished in Wolsey's building works, something of it survived as late as 1613 on the east side of the road, where a tower had previously been, and towers on both sides of the gate were being rented out by the town in the late 14th century (*Survey* SE(144); OCP, 110; OCD, 302).

The town wall east of Southgate on its late medieval alignment probably followed the line of the Canonry garden wall, as found in excavation by David Sturdy in 1954–5, sloping diagonally to the south-east (Gaz No. 18). This alignment survived for a short distance alongside the garden and as the south wall of a brewery, and is also parallel to the suggested line of the lane at Shelvingstole. Beyond this point as far as the Corpus Christi bastion the line of the wall is not known. The original line of the wall was probably incorporated into the new priory buildings after refoundation in *c* 1122, when the priory was permitted to occupy the road beneath the wall and the wall itself (*CSF* i.11, 373; Blair 1988, 236–7); subsequent recognition of their rights to a gate in the wall, and an easement to build upon it, also suggest that the existing alignment remained (*CSF* i.17). When the town walls were rebuilt in stone after 1226 it is possible that a new defensive wall was made, though if this was done it was later modified, as is shown by an indictment before the Justices in

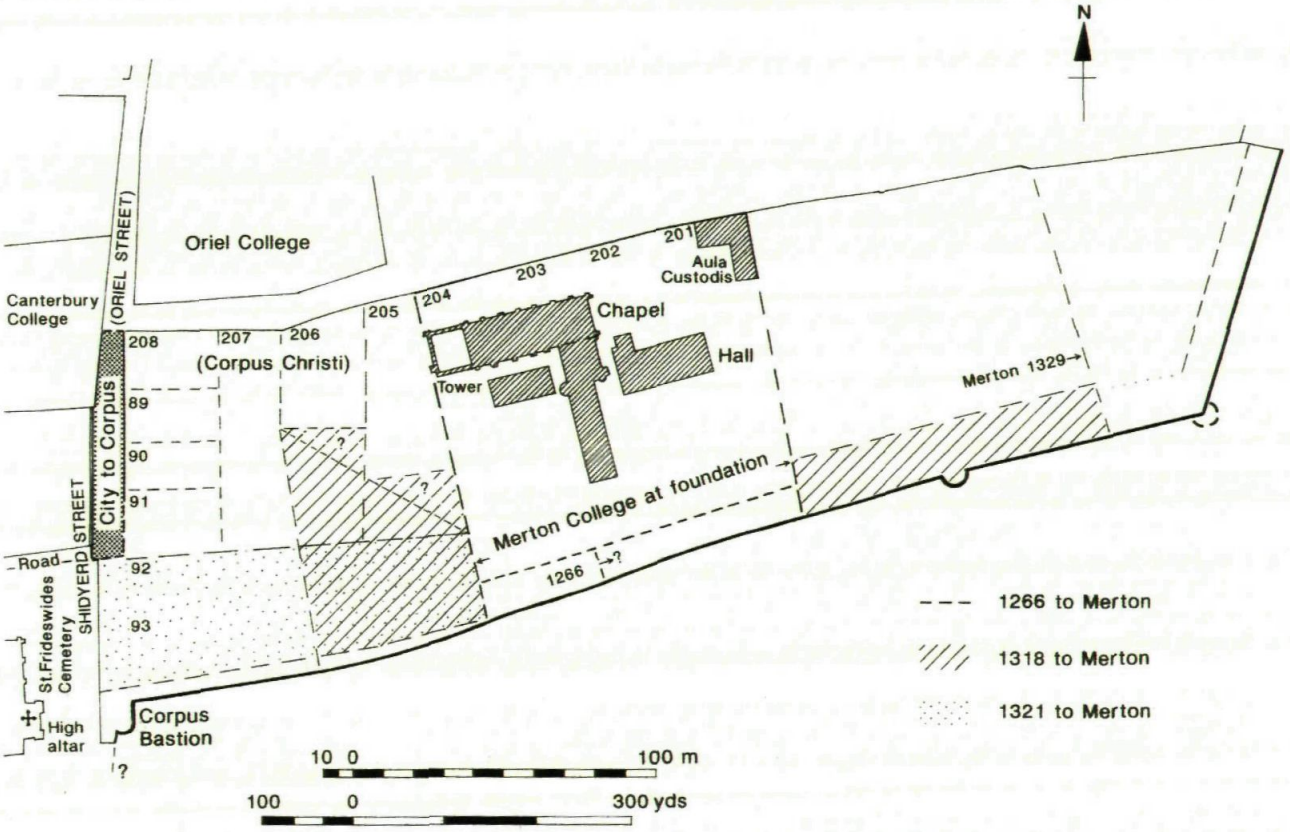


Figure 4.27 Corpus Christi College, Bastion RCHM No. 21: medieval landholding (after Salter).

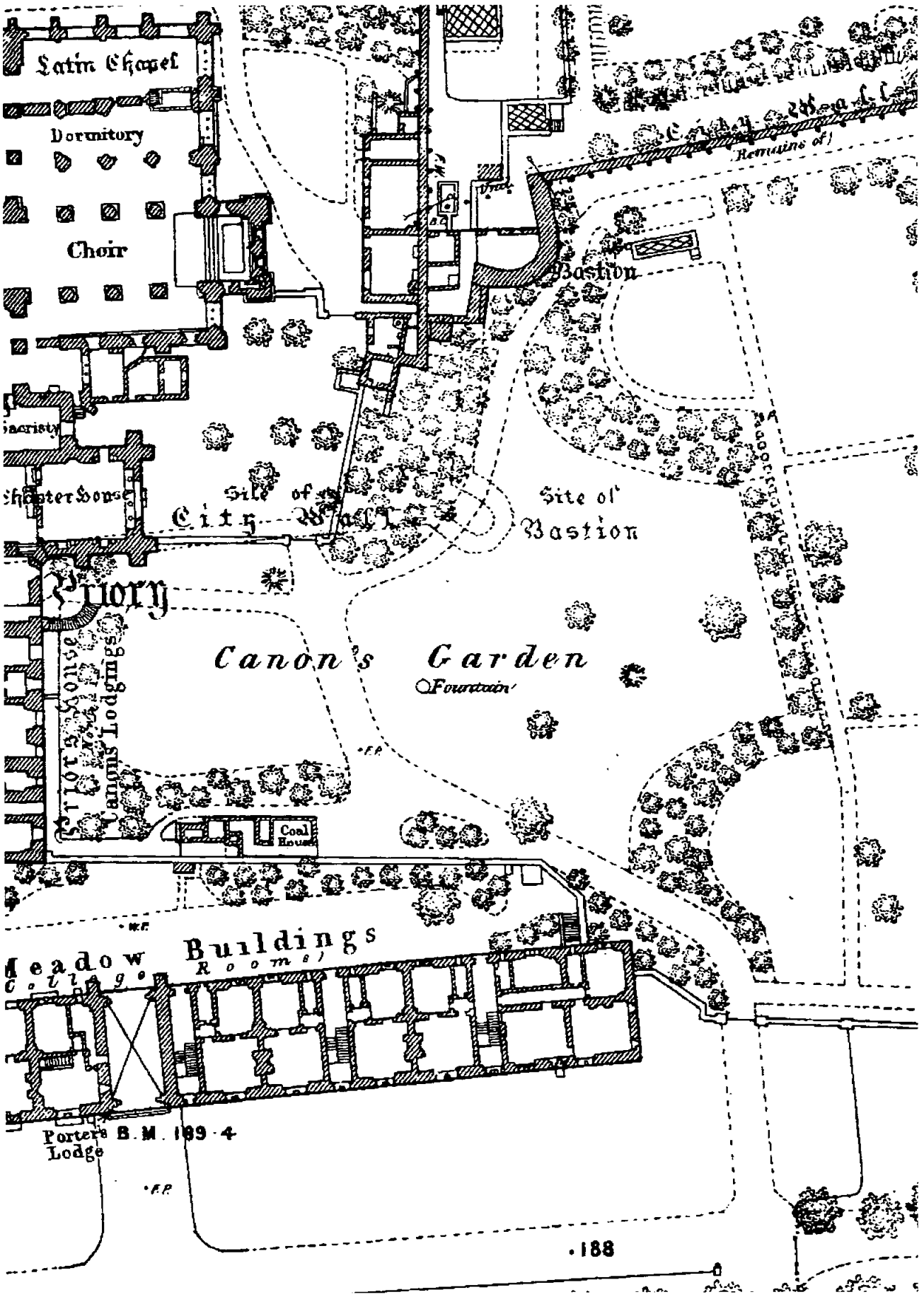


Figure 4.28 Corpus Christi College; the setting of Bastion RCHM No. 21 (based on Ordnance Survey 1:500 plan, 1878).

Eyre in 1285. It was then claimed that the Prior had removed the battlements (*quarnellos muri*) on the wall extending through the middle of the court of St Frideswide 'on which the men would go to defend the town in time of war', and had built a straight wall (*murum directum*) so that none could go onto the wall for defence (*OCD*, 205). One possible fragment of this outer wall has been found on the south side of the monastic dormitory (Blair 1988a, fig. 92). The maximum area likely to have been enclosed by the late medieval precinct is that occupied by the later buildings of Christ Church as shown on Loggan's map, following the south wall of the former Chaplain's Quadrangle (under the present Meadow Buildings), as shown on Williams' plan of 1733, then returning along one of the garden walls to meet the bastion at the south-west corner of Corpus Christi College on the main southern alignment of the town wall.

Intramural topography

Inside the Southgate was probably the church of St Michael at the Southgate (see Fig. 3.13), though its position has never satisfactorily been identified, and properties both inside and outside the wall were described as being next to it. It was certainly not over the gate, but may have been built against the wall on the inside (*Survey* SE(144); *VCH* iv, 397). North of the church any map must be schematic, with the western extent of the precinct of St Frideswide's being unknown and even the roads on the north of the precinct being of uncertain location, though the eastern end of the road probably lay beneath the north wall of the Cathedral cemetery, where road surfaces have been found in excavation (Gaz No. 19). The uncertainty about this area arises from the ownership of the entire block from here to Blue Boar Street by Christ Church, and the former ownership of much of it by the Priory. Even the extent of the precinct of St Frideswide's is not known, and both the lack of adequate late medieval priory records, and the means employed by Wolsey to obtain land for his foundation of Cardinal College (now Christ Church) leave little from which to establish any firm lines (Pantin 1964a). However, the one certain boundary is that on the east, where the cemetery wall of St Frideswide's and the later boundary of Canterbury College and Christ Church seem to have remained constant.

The site of Corpus Christi College

The bastion in the south-west corner of the Fellows' Garden at Corpus marks the west end of the existing line of the southern town wall (see Figs 4.27, 4.28). It occupies a curious position, in what must have been a re-entrant in the defensive line, and at the south end of one of the medieval streets. Oriel Street was formerly known as Shidyerd Street, the name probably referring to a palisade (*P N Oxon*, 41), and on reaching the corner of Merton Street it continued southwards to meet the town wall, and what may be presumed at one time to have been a gate in the wall.

When the house at the south-east end of the street was sold by Adam Mare, mason in 1246/7 it was described as being a house and garden 'between the house of Simon le Feyrs and the wall of Oxford'. Subsequent deeds similarly mention the town wall (but no gate) down to 1321 when it was granted to Merton College; in 1272/3 it was also 'in the corner of Shidyerd Street', and in 1299 'opposite the high altar of St Frideswide' (*Survey* SE(93); *CHSJ* ii.128; Highfield 1964, app.). In the 1293 rental of St John's Hospital it was 'opposite the corner of the cemetery' (*CHSJ* iii.42). Merton College obtained a licence from the crown under the Statute of Mortmain to acquire the land next the wall in 1321, when it was 20 perches long by 7 perches at the west and 5 perches at the east (MM(179)). Calculated with a perch of $16\frac{1}{2}$ ft (as specified in a 1465 Oseney deed: *CO* ii.444), this gives 330 ft by $115\frac{1}{2}$ and $82\frac{1}{2}$ ft, precisely the length from the cemetery of St Frideswide to the presumed edge of the original precinct of Merton, and including the width of the lower end of Shidyerd Street on the west. The actual grant to Merton a fortnight after the licence gives the bounds as the cemetery on the west, a property of St Frideswide on the north, and a 'place' of Merton on the south (MM(191)); it would seem that Merton already had a strip of land next the wall here. This had perhaps been obtained in 1318 when Edward II had granted to Merton two pieces of land next the town wall east and west of the college:

> with licence to enclose the same, provided that they do not dig in the said places near the wall, nor plant trees nor build houses nor do anything else whereby the wall may be weakened and that they make sufficient gateways between the said places and the said wall with the advice of the Mayor and Bailiffs of Oxford, whereby the townsfolk may freely go and return to supervise the repair of the wall, and that the keys of the said gates shall be in the care of the Mayor if it be necessary to put the town in a state of defence by reason of any disturbance (MM(180)).

The measurements of the western piece of land are irregular, 9 perches long by 13 perches at the west and 5 perches at the east; it may represent the outline measurements of the back of two properties on Merton Street (*Survey* SE(205–6)), and would seem to include part of the land that was later granted in 1321, but is less than half its length (9 as against 20 perches). There is no obvious explanation for this inconsistency. The site became part of the college garden, and was the 'Bachelers Garden' when sold to Bishop Fox on the foundation of Corpus Christi College in 1515; a reserved rent of £4 6s 8d per

annum was paid by the Rector of Witney from 1515 to 1981 and is now paid directly by Corpus to Merton (MM(122); Allen and Garrod 1928 no.xx).

Whereas Merton enclosed the southern end of Shidyerd Street in 1321, which passed to Corpus in 1515, the next length to the north was leased only in 1621 from the City by Corpus, having been avoided by the main college buildings. It was 200 ft long by 29 ft wide, and included part of the President's Lodgings which had recently been built on it, and was finally sold to the college in 1878 (*OCP* 118; Vellum Book (41)). The City still retained an interest in the upkeep of the wall, for in 1596 it was concerned about the 'mound made in the College adjoining the Town wall, which will be an injury to the wall and an annoyance to Christ Church'. Evidently the present build-up of soil had already taken place, but apparently connected with the digging of cellars in the previous year rather than the creation of a formal garden (*OCP* 118).

It is likely that there was a road inside the wall all along this south-eastern sector, but there is no specific reference to a road in any of the deeds about Adam Mare's house, nor need there have been, if the way was regarded as being part of the wall. The absence of any reference to a gate is more telling. Further east the existence of a waste strip within the walls is more explicitly documented, for in addition to the grant of 1318 described above, when Merton College was founded a licence had been obtained from the king in 1266 to enclose the site of the college on each side as far as the town wall on the south, provided that a postern was made at each end of the new wall to allow access in time of hostility to defend the town (MM(195); Allen and Garrod 1928 no.iiib). The length of this land is uncertain, as Merton only had one property at that date. The licence was produced before the Justices in Eyre in 1285 when the college was indicted for obstructing half an acre of road (*quendam vicum*) used for getting to the wall in time of war, while the jury pronounced the posterns to be present (*OCD* 206). This road must have extended westwards, or the provisions of 1266 and 1318 would have been meaningless.

Bastion 21

Bastion 21 was described by RCHM as similar to Bastion 20 to the east but rather larger. It was not recognised as being an incomplete curve, nor as being on a reentrant, perhaps because of the way it was encrusted with other buildings. Early maps of Oxford are viewed from the north, so it is not depicted as a tower on either Agas's plan (1578) or Loggan's map (1675), although both show a summerhouse which presumably obscured it, while Loggan's view of Corpus shows the roof of the garden shed behind the summerhouse. Hollar's not very reliable map of 1643 actually shows a postern in the wall at the south end of the enclosed street, but no other evidence for this is known.

Later maps have no reliable depiction of the building, until the appearance of the tower on the large scale OS plan of 1876 (Fig. 4.28), a very accurate plan which shows a building in the curve of the bastion (until recently the gardener's shed); as elsewhere in Oxford the missing line of the wall is shown by the cartographer, and is here projected south from a 7 o'clock position on the bastion to enclose the buildings of the medieval Priory.

Interestingly this map follows after a fulsome manuscript account of the bastion by J C Buckler, dated perhaps between 1864 and 1874, and presumably based on the same evidence we have before us today. He noted that the tower had 'adjuncts' which he attributed to its position in an angle. He also notes that

> .. ye curtain and the bastion were connected by a large mass of wall projecting 5' (feet) beyond the face of the former, which was here as in other places 8' in thickness. The length of this prominence cannot be ascertained, its height was commensurate with that of the bastion.

He also appears to note 'a departure from uniformity in the junction of the wall with the bastion', the 'curtain' being 13' thick for an unknown distance along the wall, evidently with hollows for archers on a level with those of the bastion, the implication being that this was the surviving length of city wall east of Bastion 21.

> The gaps in the Town wall, and the sharp angle... occasioned by its abrupt contact with the conventual enclosure, together with the necessity for crossing the public road at this place... are noted as uncommon circumstances in the history of fortification, the Engineer had peculiar difficulty to contend with, and it is hard to say what other course could have been taken, the plan not embracing a Gatehouse across the road at this position... The fortification struck at right angles the East wall of the (St Frideswide's) Enclosure and there ended with a bastion. Doubtless recommencing on the other side of the highway with the same characteristic feature of defence (Buckler British Library MSS 27765, ff 29–33).

The building

Although the building has undergone a vigorous reconstruction, some part of the post-medieval roof survives. Two roof trusses span the bastion for an east-west roof with a hipped east end; they have queen struts and clasped purlins, and are probably of 16th- or early 17th-century date. On the west side a similar roof of two trusses covers the southward return of the building, with a hipped roof at the south end, this is contemporary with or secondary to the bastion roof. The roof would imply that the walls

of the bastion and its return were all present by the time of Loggan's view of the college (1675). He shows a roof which may be that over the bastion, but only extending part of the way across the end of the roadway (ie Shidyerd St), with plain wall continuing to the west boundary. If the other roof did exist at this date then it may have been omitted by Loggan, and the roof shown may be another one in front of the bastion.

The fieldwork (Figs 4.29–4.33; Plates 4.13–14)

The fieldwork campaign in 1981 included a measured survey of the bastion in plan, with the surrounding structures into which the bastion had become incorporated. The results of this survey appear on Figure 4.29. At the same time, measured drawings of most of the elevations were made (Figs 4.31 and 4.32), the exception being the external elevation of the curved bastion face which is represented in Plates 4.13 and 4.14. During the watching brief in 1986 (see below) the removal of rubble and of some internal walls meant that further detail could be added to the internal elevations. The southern part of the bastion and the adjoining structure previously known as the 'President's Shed' (now known as the Green Room) are covered by a 16th-century timber-framed roof. An outline record of this was made during a site visit in November 1995, and it is described briefly above. Structural details recorded in the plan and elevations are discussed further both in the context of the excavations (below) and the discussion of the site.

Strategy

Trenches I and II were excavated within the bastion, in advance of conservation work on the structure. Trench II was simply a westwards extension of Trench I, and the two are reported on here as a single trench, referred to as Trench I (Fig. 4.29). The trench was situated against the blocking of Embrasure 1 and the surrounding bastion structure, and was intended to relieve the pressure of banked-up soil which was damaging the blocking wall. It was also hoped to investigate internal floors or other medieval levels relating to the bastion, and possibly furnish some dating evidence.

Given the probability that the bastion marked a re-entrant on the wall circuit (see above), the opportunity was also taken in 1981 to excavate two trenches (III, IV; Fig. 4.29) in the Christ Church Canon's Garden. The specific aim of these trenches was to look for a continuation of the City wall to the south, and also to clarify the status of the various walls lying south and west of the bastion. The size of the trenches was constrained by existing planting.

Trench I

The south-east side of this trench was formed by the curved inner face of the bastion, with the north and west sides converging at a right angle; the trench area was *c* 2.6 sq m. The inner face of the main bastion structure, as revealed around and below Embrasure 1, was of rough limestone rubble masonry, with the stones used showing little evidence of shaping, and varying greatly in size. Coursing was barely visible, with the exception of levelling-up courses at key points in the elevation, such as the base of the embrasures (Fig. 4.31). Judging from excavation into the floor of the embrasure (see below) the wall core, at least, was bonded with a coarse, yellow sandy mortar. This was not apparent at the wall face, where there were, however, some patches of rendering in a similar mortar. A narrow (*c* 0.1 m) offset was revealed at a point 0.8 m below the floor of the embrasures, continuing down for at least 0.85 m to a depth of 58.02 m OD, where excavation ceased for reasons of safety.

The deepest excavation (to 58.2 m OD) took place only in a small area immediately SW of Embrasure 1, within and below the later stone feature 20 (Fig. 4.29, see below). The lowest excavated layer here consisted of ash, 16, and contained 18th-century pottery and clay pipe. It clearly underlay, and therefore predated, 20.

Embrasure 1 had a much broken-up flooring of small limestone pieces set in coarse yellow mortar and brown sand. Against the NE wall was a line of mortared blocks, 22, with a roughly level top surface. A single block survived at the same level against the SW wall. Between the two features, layer 5 contained a few blocks at the same level, but many others in haphazard positions. It seems likely that 22 is the original floor level of the embrasure; it produced a single sherd of medieval pottery (fabric *AC*) but two fragments of clay pipe stem were also attributed to the context. Excavation of the embrasure took place behind part of its internal blocking wall, in cramped conditions and very poor light. Under such circumstances, not too much should be made of finds from what was clearly a disturbed context, although the pot sherd would be perfectly in keeping with the accepted 13th-century date for the town walls.

The blocking wall 21 of Embrasure 1 was of stone varying considerably in size, but including some clearly reused square blocks. It was bonded in yellow-brown clay and was only one stone wide, leaving a hollow chamber behind. At the bottom of this chamber, lying on the floor (5, 22) of the embrasure, was a layer of dark soil, 4, containing some stone. This layer had probably filtered in when the embrasure blocking began to give way under pressure from soil built up inside the bastion. The dark soil was overlain by a layer of collapse from the blocking wall, 3, from which clay pipe dating to AD 1610–40 was recovered. This was below a deep fill of very late rubbish, 2, including coal, bone, slate and glass.

In the area east of 20, a series of layers butted the blocking wall 21 across the embrasure. The lowest, 10, was a yellow-brown sand with pottery of the mid 17th century or later, overlain by 11, grey gritty material with clay pipe dating to AD 1630–55. Clay

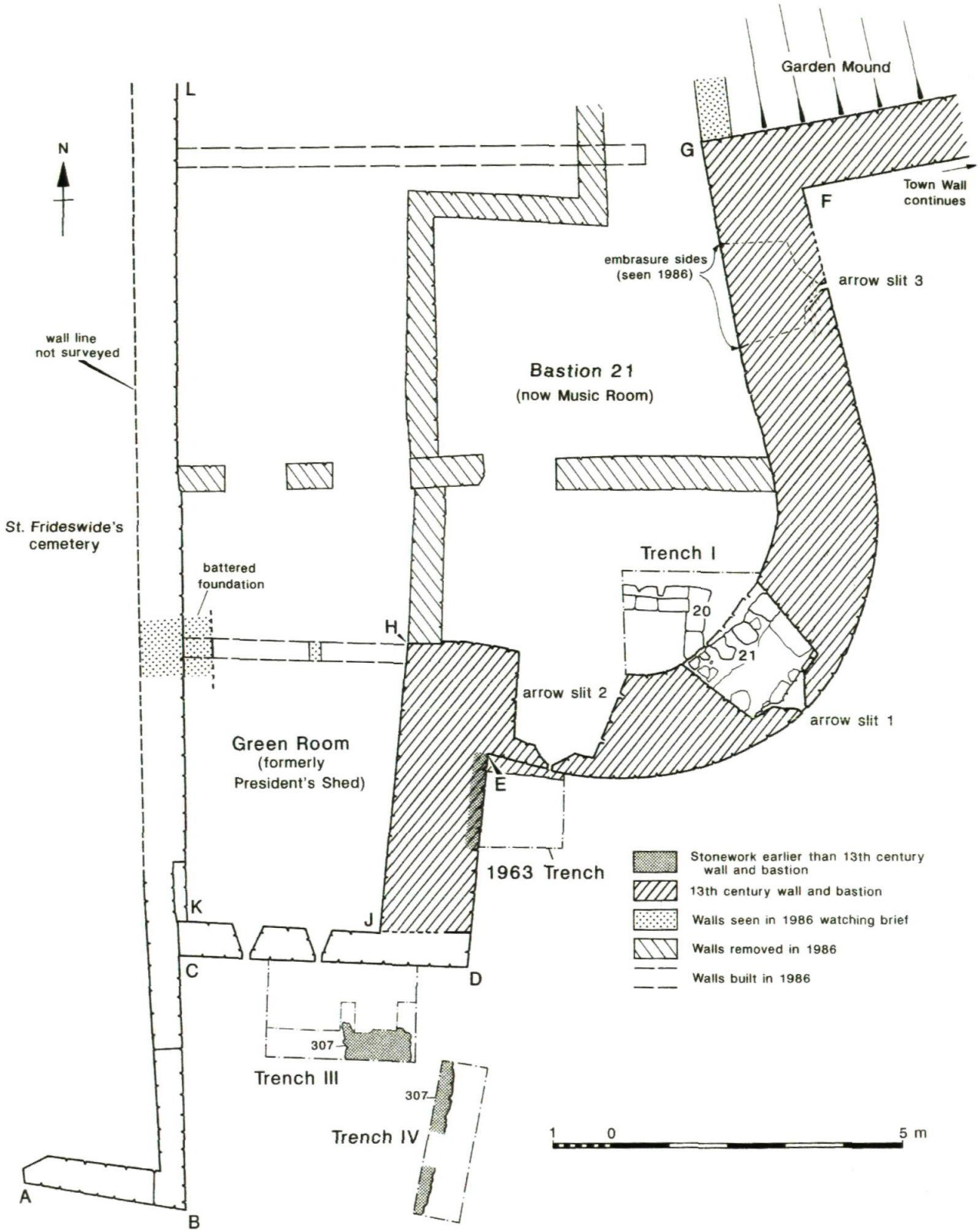


Figure 4.29 Corpus Christi College, Bastion RCHM No. 21: trench location plan showing main excavated features.

pipe (of 17th- to 18th-century date) was also recovered from a narrow vertical band of grey soil, 9, which had fallen into the gap against the blocking wall when the wall moved under pressure. Layers 9 and 11 were covered by a layer of mortar, 8, which had a curved and upswept edge, as if filling a round, shallow cut. Only a very small area of this layer was seen, but it is possible that it represents a mortar

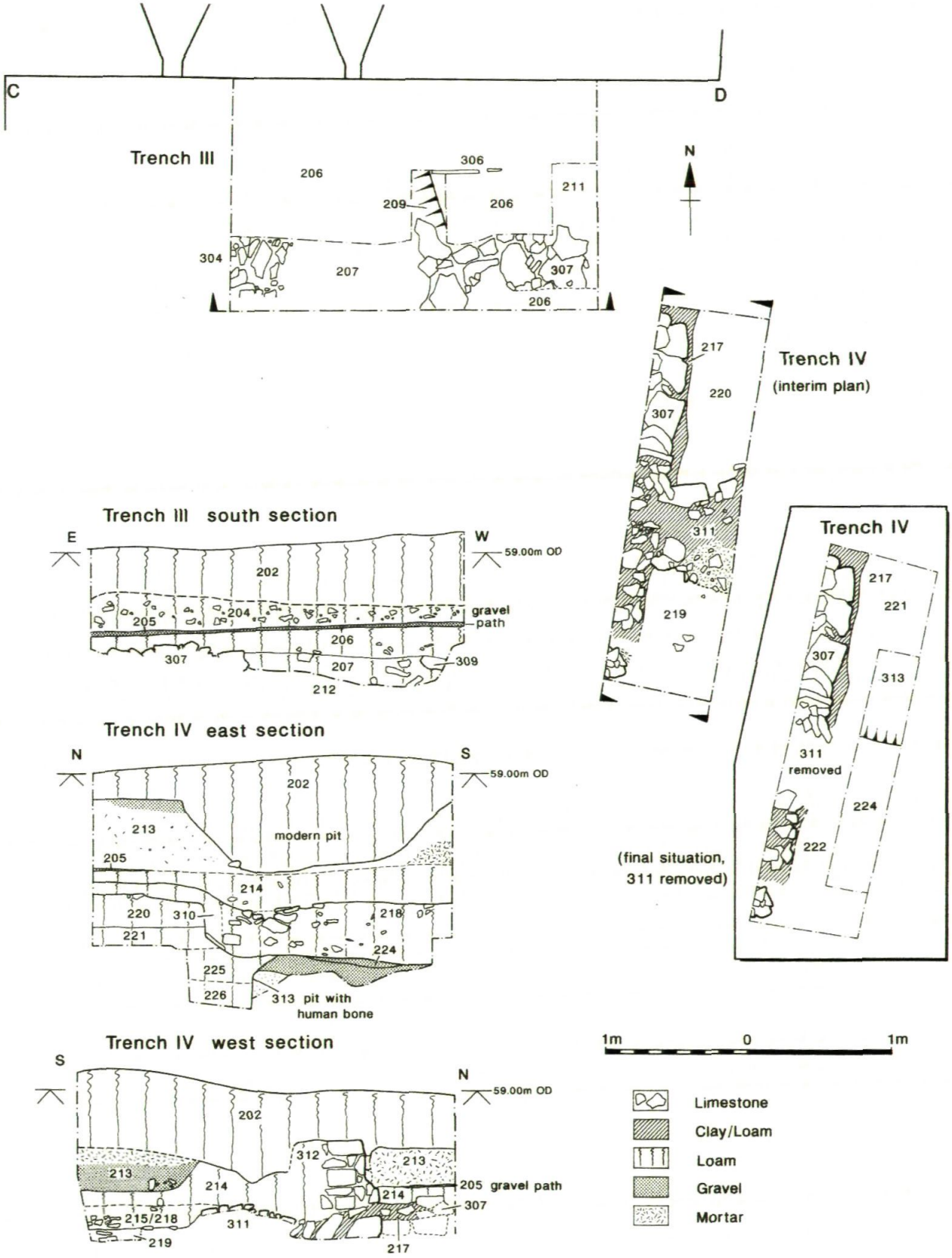


Figure 4.30 Corpus Christi College, Bastion RCHM No. 21: plan and sections.

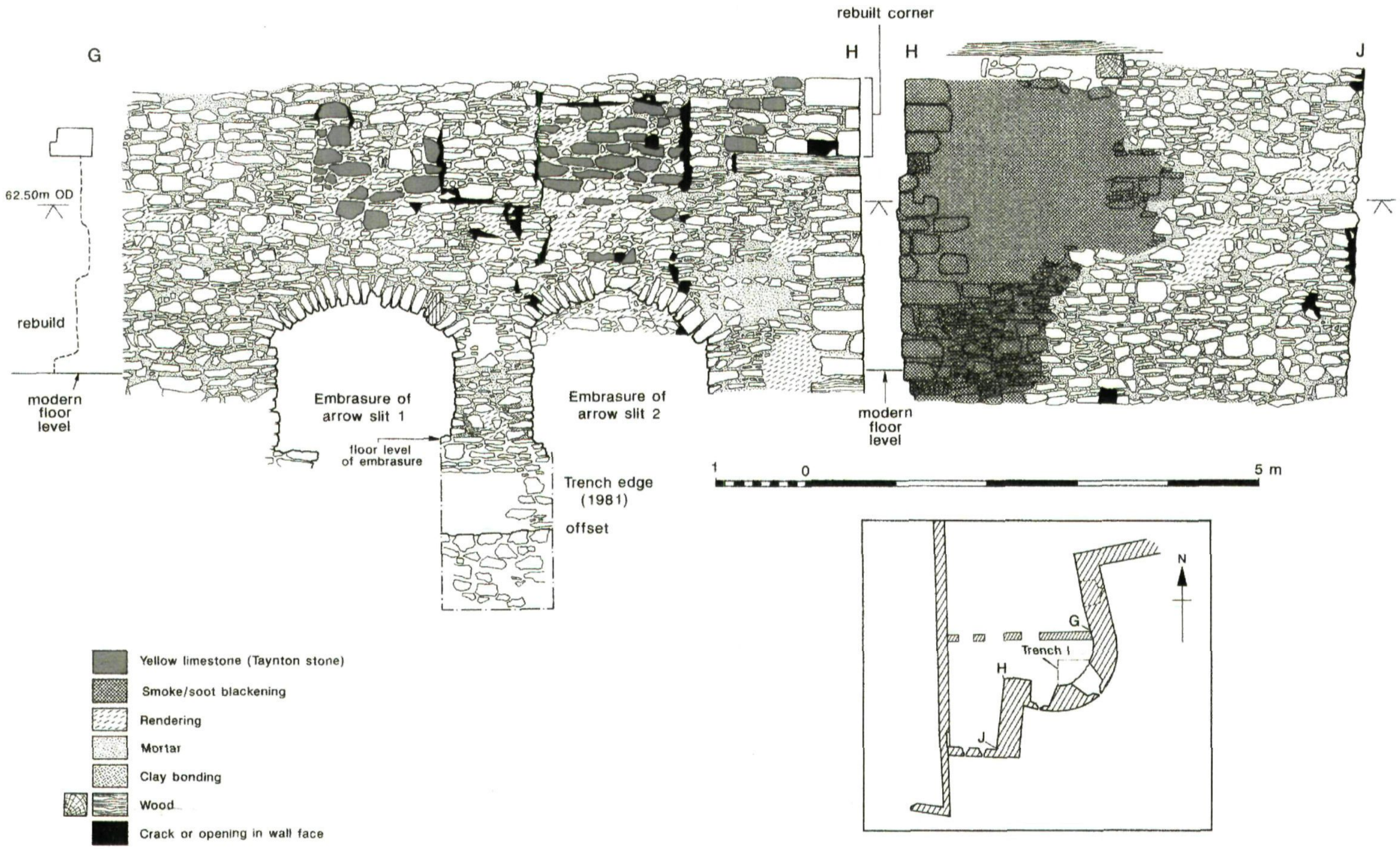


Figure 4.31 Corpus Christi College, Bastion RCHM No. 21: internal elevation.

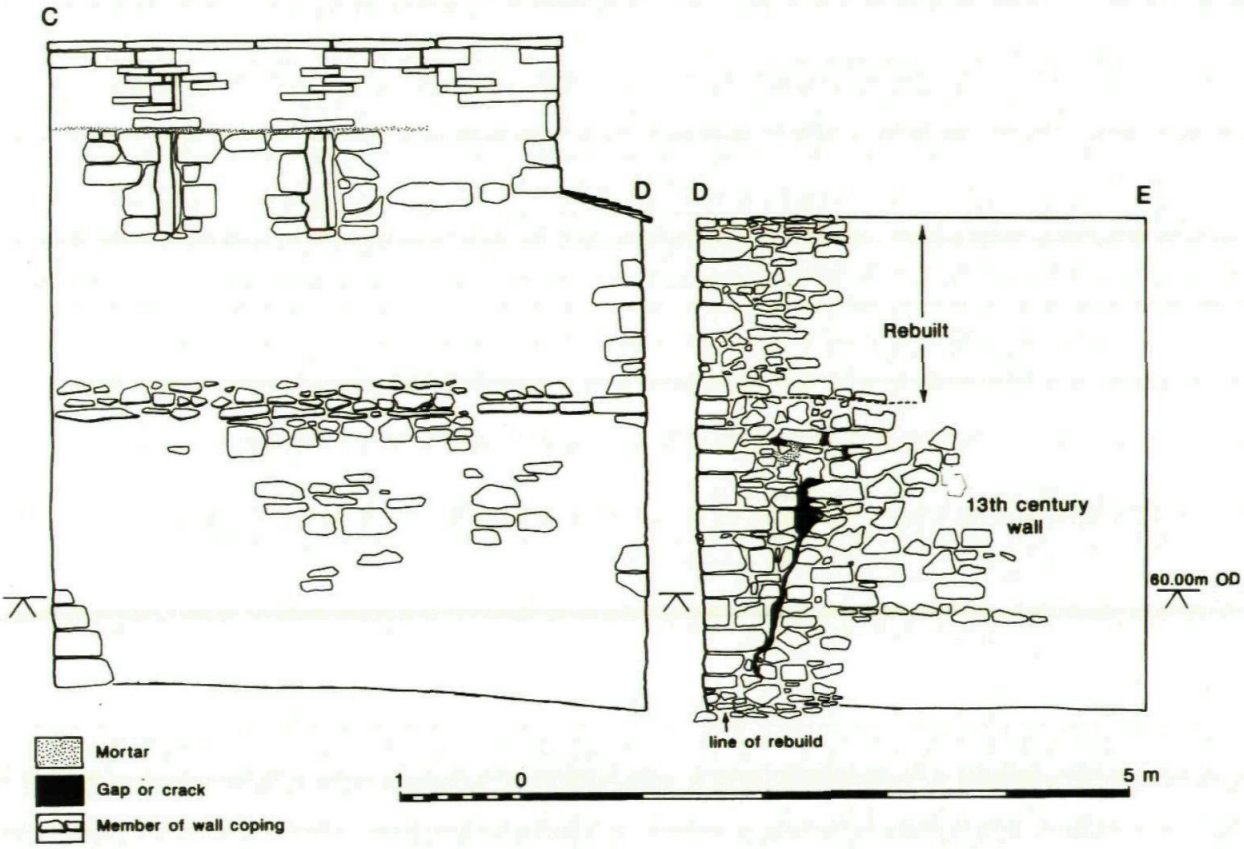


Figure 4.32 Corpus Christi College, Bastion RCHM No. 21: external elevation.

mixing area. Clay pipe dating from AD 1700–20 was found in layer 8.

Given that the main structure of the bastion is medieval (see discussion), the lack of any medieval deposits in the trench calls for some explanation. Layer 16, which was 18th-century or later (see above), was at a level which should be well below the medieval floor level of the bastion. The implication must be that either a wooden floor over a void originally existed, or that medieval deposits were removed at an earlier date, perhaps by a large later feature whose edges lay outside the trench.

All of the layers butting the inside of the blocking wall were cut for the insertion of a stone-lined feature, 20, which was 1.6 m deep. The fills of this feature (12–15, in reverse order of deposition) dated to the mid to late 18th century or later and were mainly of rubble. Feature 20 is likely to have been a stone-lined garderobe pit, probably emptied of waste before being backfilled with rubble. Above the upper fill and walls of 20 was a layer of dark, granular soil, 6, covered by a layer of roofing slates 1=1/1.

Trenches III and IV

The two external trenches (Figs 4.29, 4.30) are described together, as some contexts appear to be common to both. The earliest deposits were encountered in a narrow slot dug against the east baulk of Trench IV, and consisted of gravel and fine sand. It is likely that this was natural gravel. The sand and gravel was cut by a feature, 313, the south edge of which ran E-W across the excavated slot. No other edges were identified, so that the shape of the feature, which was at least 0.35 m deep, could not be ascertained. Within the lowest excavated loam fill, 226, were 11 sherds of pottery from which a suggested early 12th-century date is derived—a number of human skeletal fragments were also found, representing more than one individual; bones from both children and adults were present (Harman, below). Fragments of human bone were found in a number of other contexts throughout the sequence, and this is probably due to the proximity of St Fridewide's cemetery and its disturbance by both building works and grave digging over the years. The upper fill of cut 313 was a gravelly spread, 225, which spread beyond the confines of the cut to blend into other similar layers, 223, 224. In the northern part of the excavated slot layer 225 was below a deposit of loam, 221, beneath loam and pebbles, 220. Pottery from all these five layers (a total of 31 sherds) indicates an early to mid 12th-century date for their deposition, and together they may represent a levelling up and raising of the area, perhaps for the stone construction work described below.

Layer 220 was cut by a possible N-S foundation trench in which was found the stone feature 307.

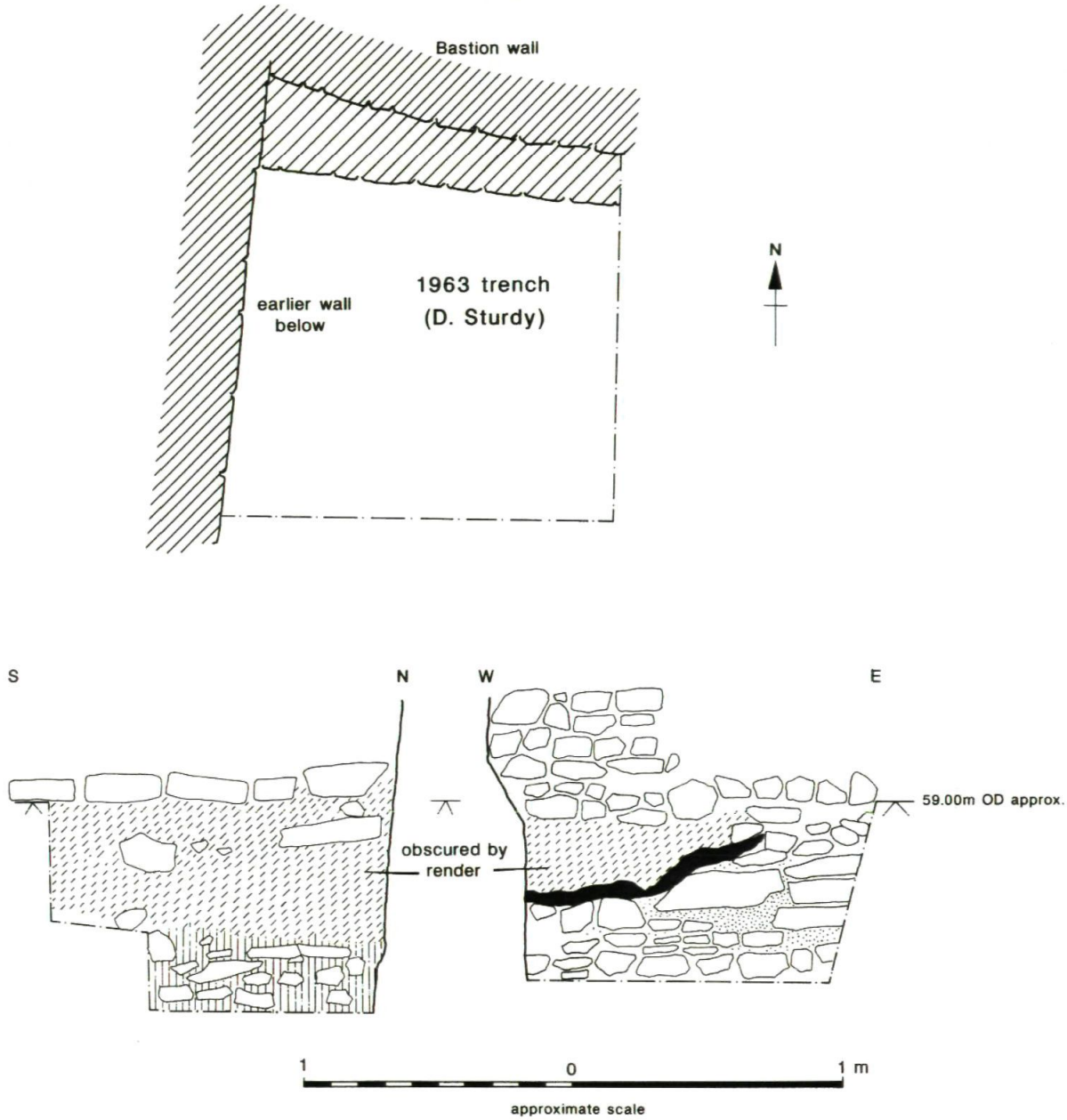


Figure 4.33 Corpus Christi College, Bastion RCHM No. 21: plan of D Sturdy's 1963 trench, with elevations of excavated walls.

Feature 307 consisted of a number of large unshaped limestone pieces, with a few smaller stones packed between them. In Trench IV it had a fairly clear N-S edge (the possible foundation trench) and the stones were in a matrix of light-coloured clayey loam, 217. It was not clear whether this was a deliberate binding material. The feature could not be clearly traced to the south, although stone was visible in the SW corner of the trench. In Trench III the stonework was of similar nature (also numbered 307), but the clayey-loam was not present; here the feature had edges to the north and west which appeared less regular than in Trench IV to the east. Five sherds of pottery were found amongst the stones of 307, suggesting a date somewhere in the 12th century or later.

The stone feature 307 may represent a continuation of the town wall south of the bastion, being clearly aligned with the upstanding section of the north-south wall ED, and it is discussed further below.

Above layer 223, in the south half of Trench IV, was another loam layer, 222. The presence of pottery fabric *AM* indicates a date from *c* AD 1250 onwards, while one sherd could be as late as the 15th century. A 14th-century rowel spur was also found in layer 222 (Ellis, this volume, Fig. 6.16 no 2). Layer 222 lay below loam 219 which contained 17th-century pottery in addition to medieval material. It was not

clear whether layer 219 was cut by, or lay in the bottom of, a shallow, steep-sided E-W cut, 310. Within this cut was a considerable quantity of limestone fragments, of varying size, 311, intermixed with a deposit of loam and pebbles, 218, and overlying part of 307. Context 218 contained more 17th-century pottery. The function of feature 310/311 is far from clear; it is possible that it represents the robbing of an E-W wall, but this cannot be confirmed from such a small area of excavation.

In Trench III, a further concentration of limestone, 309, lay at the western end. Between this and 307, and either butting or underlying both stone features (in neither case were the lowest stones definitely seen) were the layers 212 (fine gravel), 209 (loam) and 211 (loam/gravel). Context 212 contained 8 sherds of pottery which suggest a mid 13th-century date. A small exploratory slot in the centre of the trench showed the eastern edge of a cut running NNW/SSE, and cutting layer 209.

In the area between 307 and 309 layer 212 was overlain by clayey loam, 207=211 (with 2 sherds of fabric *AC*), while in the small, central exploratory slot a thin gravel deposit, 208, covered the cut into layer 209. On the east side of the trench context 211 was covered by gravelly loam, 210, which contained a single sherd of late 14th- to 15th-century pottery (fabric *BG*). All of these deposits butted against either 307 or 309, which suggests that 309, too, was a medieval feature, though whether it was part of a wall, or is simply a jumble of stone, cannot be determined (see discussion).

The stratification just described for both trenches was covered by several quite deep loam layers, being 206 in Trench III and 216, 215, 214 in Trench IV. Pottery of 16th- to 17th-century date was found in these deposits, as well as residual medieval material. The south wall CD of the President's shed had very shallow footings which either cut or were directly associated with layer 206, thus confirming that the wall was not part of the 13th-century defensive circuit (see discussion below). The deposits above 206 included a gravel path, 205, running E-W; such a path is shown on Hoggar's (1850) map and on the First Edition OS Map 1876 (Fig. 4.28). The path was covered in both trenches by a spread of rubble and mortar, 204, 214; the pottery recovered included some 19th-century. Layer 214 was cut by a stone soakaway, 312, seen in the west section of Trench IV.

The remaining deposits in Trenches III and IV were 202, 203 (topsoil) and the floor, 200, of a lean-to shed which had stood against the south wall of the President's shed.

Excavations in 1963 (Plate 4.15)

Mr D Sturdy's 1963 trench was situated in the angle formed by the external face of the bastion and the wall running southwards (Figs 4.29, 4.33). The trench was taken down 1.6 m below ground level, at which point an offset stone course was seen below the bastion wall. This course ran across the E-W width

Plate 4.15 Corpus Christi College Bastion 21, D Sturdy's 1963 trench. Photo D Sturdy.

(1.35 m) of the trench, diverging from the curving bastion face by up to 0.18 m. A similar foundation was excavated beneath a late 13th-century wall tower at St Nicholas's Almshouses, Bristol (Barton 1964). The bastion and the wall ED running southwards appeared to be contemporary and were bonded together, as is the case above ground; however, the wall clearly has no offset foundation to match that of the bastion, being built over stonework on the same line but of a very different character, being loosely bonded, probably in clay or earth (Plate 4.15; Sturdy, pers. comm.). Three courses of this stonework, butted by the lower part of the bastion wall and its offset, were revealed; the similarity to the stone feature 307 in Trench IV is striking, and this point is taken up again in the discussion (see below).

The 1986 watching brief

In 1986 contractors cleared much rubble from the inside of the bastion and the President's Shed; they also excavated a wall foundation trench across the north end of the shed, constructing a partition wall which created what is now known as the Green Room - the foundation trench is shown on Figure 4.29. All of the deposits cut through were post-medieval in date, adding little information to that already gained from excavation. However, the west wall KL of the President's Shed was shown to have a battered footing which was offset by 0.26 m at the top (Fig. 4.29). The base of the footing was not reached, but it was at least 0.8 m high; such a substantial foundation is perhaps to be expected along a wall alignment which defines the cemetery of St Frideswide's and dates to at least the 16th century (it is shown on Agas's map of 1578, but could date to the construction of the 12th-century cathedral or even earlier). In the centre of the watching brief trench was a N-S wall or footing of loosely-built limestone masonry. The date of the wall is unknown, and little can be added except to note that it did not extend into Trench III to the south.

Within the bastion itself, clearance of rubble revealed more of the internal offset to the bastion

wall HG, previously observed in Trench I (above). Two straight joints probably give the position of a blocked embrasure for the arrowslit or window 3 (Fig. 4.29). These straight joints were visible only through four courses in the lower part of the wall, the upper part having been rebuilt, as was also observed in the external elevation (see discussion). A short length of wall *c* 0.8 m wide was observed butting and running north from the junction (G) of the town wall and bastion. The wall was of rubble and re-used ashlar, bonded with orange clay/loam. It may have been constructed to revet the west end of the garden mound constructed in the late 16th or early 17th century (see discussion) but no independent dating evidence was recovered. Also, the wall was faced on its east (mound) side, suggesting a different original purpose.

Discussion of the archaeology and standing structures

Layers of gravel and sand were identified in Trench IV at a depth of 2.7 m below ground level (57.52 m OD). Their identification as the natural Thames gravel of the second terrace is reasonably certain, even given the small size of the excavation. The line of the town defences at this point thus lies on the Second Gravel Terrace, and can be reasonably supposed to be close to the terrace edge.

The earliest evidence of activity from the excavations consisted of disarticulated human bone found within a cut in the gravel in Trench IV, and associated with early 12th-century pottery. Later disturbance makes it likely that the feature was actually cut from somewhere above the gravel surface, and indeed the general lack of any pre-12th-century levels suggests that considerable truncation took place. The bone itself probably derives from disturbance of the nearby cemetery of St Frideswide's. The subsequent gravel and loam deposits may have been intended to raise and level the area for building, and the reburial of human bone certainly suggests that this was not previously an organised or well-frequented area.

The character of the stone structure, 307 (Trench IV), marks it out as an earlier feature and not just a foundation for the later wall; a construction of rubble set in clay/loam, which has a straight edge on the east side where it is within a foundation cut, and which disappears under the foundation of the later bastion (Figs 4.29, 4.33; Plate 4.15). The date of the construction should lie between the mid 12th century (judging from pottery within and below 307) and the 13th-century building of the later wall and bastion. At least two possible interpretations can be put forward, the first being that 307 was a N-S wall foundation for a town wall aligned with the east side of the former Shidyerd St to the north. As was noted in the introduction, the line of the street indicates that there was probably once a gate through the town wall at this point. If this was so, then the line of the western side of the gate would presumably be that preserved by the cemetery wall of St Frideswide's. The line of 307 further north is unknown, but it would be logical to imagine it joining with the wall which ran around the eastern suburb of Oxford. We should note, however, that no wall of similar date or character was found in trenches along the later wall line to the east, either by Sturdy working against and outside the south wall of Merton College in 1995 (Sturdy, pers. comm.), or by the Oxford Archaeological Excavation Committee working inside the college wall (Gaz No. 67).

The second possible interpretation is suggested by Sturdy (pers. comm.) from the observation in Trench III that the stones making up 307 had no clearly-defined western edge. The width of the feature, at least 2 m, is ample for the foundation of a large wall, but if it were originally wider still (perhaps including the stones 309 to the west) and has since been robbed, then it could be seen as the base for a road. This is certainly an attractive theory in view of the possible gate discussed above; the lack of any obvious flat surface to 307 may mitigate against the idea, but this could just be because no surface has survived.

Whatever the true function of 307, it was succeeded by the construction of the bastion and the wall ED running southwards from the bastion, which follows the east edge of 307. The masonry is of uncoursed limestone rubble, set in very coarse mortar and sometimes rendered, and can be traced around the external face EF of the bastion to the town wall, including arrow slits 1 and 2. Near the town wall is the south half of an arrow slit (no 3) and only the masonry below this is original and can be seen to be bonded to the town wall at the corner, F. Above and to the right of the arrowslit the wall has been rebuilt, probably more than once, and this is also the case above arrow slits 2 and 3. West of arrow slit 1 the bastion wall is bonded at the corner, E, to the wall ED running southwards, and the uncoursed rubble masonry continues along part of wall ED to a diagonal rebuild line (Fig. 4.32). Inside the bastion the original structure clearly includes the two embrasures behind arrow slits 1 and 2, but the north end of the wall again shows rebuilding (south of corner G, see Fig. 4.31), proving that it concerned the whole wall and was not just superficial work on the outside face. No sign of an embrasure behind arrow slit 3 can now be seen, and traces of it were found only in the lowest part of the wall (see above, watching brief). At the internal corner, H, the bastion (as on the exterior) is clearly bonded to the wall HJ, using large, roughly-squared quoins. As with the exterior of the bastion, there is much evidence of rebuilding in the upper parts of the wall (ie above the embrasures), and this includes two blocked openings.

The bastion thus seems to be contemporary with the town wall to the east and with the wall ED running to the south. Architecturally, a 13th-century date for this construction work is most likely, and the second quarter of the 13th century is the accepted date for the main construction period of the stone

town walls (see general introduction to this chapter). A date in the 13th century was also proposed by Hassall for the wall footing excavated at Merton College (Gaz No. 67), and the surviving wall in the grounds of New College includes substantial quantities of similar masonry to that which makes up the Corpus Christi bastion. This masonry is used at New College for both the wall and bastions, and the detail of arrow slits and embrasures is also the same as those surviving at Bastion 21.

A far more complex question is posed by the existence of a bastion which apparently curves across a re-entrant angle in the wall, a situation unparalleled in medieval British town plans, for which no easy explanation can be offered. The plan of the bastion is atypical both for Oxford and for bastions in general, protruding much further from the wall than is usual. It is quite possible, as suggested above, that the bastion was actually a gate tower which guarded one side of a gateway with the continuation of Shidyerd St passing through on a north-south alignment; in this situation the wall ED continuing to the south would have to form part of a gatehouse or barbican of unknown length. There is, however, no trace of any matching tower on the west side of the road alignment, and it is difficult to argue that one ever existed. Perhaps the best explanation (though hardly satisfactory) is that the single bastion-cum-gate tower in a re-entrant angle was seen as the best way of coping with the existing north-south alignment (probably already with a precinct wall for St Frideswide's along the line of the former defences), while providing a defended gateway with a guard-chamber. If there were no gate, and simply a change of direction in the wall, the bastion would make no defensive sense as the field of fire from the arrow slits duplicates that which could be obtained from the wall itself. An unresolved problem, however, is the apparent lack of road surfaces in Trenches III and IV - some form of hard surface would be expected if this was a gate of any consequence.

The line of the 13th-century wall also remains problematic to the south of the bastion. The short length of wall ED is unlikely to have continued very far if the proposed gate did exist, and indeed there was no evidence for its existence in Trenches III and IV. In this case, the town wall may well have continued south on the line of the existing cemetery (and precinct) wall of St Frideswide's, and it is this wall which is shown to continue on Agas' map of 1578.

The space between wall ED and St Frideswide's cemetery wall was blocked by the 16th century, as is demonstrated by the stratigraphy around the shallow foundations of wall CD; there is also no sign of a gate on Agas's map of 1578. This phase of rebuilding is partly visible near the base of wall ED (Fig. 4.32). There may also have been a slightly later phase of building in wall CD (see Fig. 4.32), and either phase could be associated with the construction of a 16th- or early 17th-century hipped roof over the Green Room and the southern part of the bastion (see above). This roofed building is visible on Loggan's map of 1675, probably forming a summerhouse/ garden shed of two storeys, with at least one privy in the lower part of the building (stone-lined pit 20, Trench I). The construction of this building may have been associated with the throwing up of a garden mound against the inside of the town wall in Corpus Christi College. In 1596 the City was concerned that the mound 'will be an injury to the wall' (*OCP* 118), a prediction which had certainly come true by 1981, and was to lead the fieldwork reported on here.

Note on the human bone
by Mary Harman

The bones retrieved from fill 226 within cut 313 comprise three skull vault fragments, two vertebrae, one clavicle and parts of two humeri, one pelvis, one femur, two tibiae, two fibulae, one calcaneus and one phalanx. One humerus shaft is from a child aged two to four years; one femur shaft from a child aged seven to ten years; both age assesssments are based on the diaphyseal length. The rest of the bones are from adults; since there is duplication of skull fragments, two or more people must be represented, so this group of bones is derived from at least four people, two of them the young children already noted.

Further human bones occurred, redeposited in later contexts; these include skull fragments, part of a mandible, and parts of a clavicle, two radii, a femur, two fibulae and a calcaneum. All are from adults or well-grown adolescents except for the mandible fragment, which is from a child aged about six years. None of the redeposited bones fits or pairs with bones from the charnel deposit, but since most of the pieces are fragmentary, this does not preclude their being from the same deposit.