

Oxford's Northern Defences: Archaeological Studies 1971-1982

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SUMMARY

Five small projects on Oxford's north defensive line show how the vulnerable side of the town was secured from its Late Saxon foundation until the Civil War. The north defence of the Late Saxon burh is confirmed, and the western line is strongly indicated. A diversion of the defensive line around the North Gate church seems to predate the main free-standing stone walls of the 13th century. New dating evidence is furnished for the outer wall east of Smithgate, and the existence of bastions in it is confirmed. The medieval defences are shown to have been extensively refurbished in the Civil War.

INTRODUCTION

The excavations embodied in this report represent archaeological opportunities provided by normal commercial and University developments which shed light on various aspects of Oxford's northern defences. The initiative for the studies came in most cases from Tom Hassall, director successively of the Oxford Archaeological Excavation Committee and of the Oxfordshire Archaeological Unit, and the writers are duly grateful to him.

The first archaeological excavation of the northern defences was carried out in 1899 when a c.12m. length of the city wall in the Clarendon Quadrangle was exposed.¹ Part of this stretch was again revealed in 1938 when the Old and New Bodleian Libraries were linked by a tunnel, giving the first and only complete section through the medieval defence.²

In the late 1940s there was renewed interest, with the University Archaeological Society searching for a continuation of the Late Saxon defences on the Canal Wharf site before the building of Nuffield College, and A.G. Hunter and E.M. Jope excavating in New College four trenches which for the first time produced ceramic dating evidence for the stone wall.³ In the early 1960s David Sturdy's observation of a fragment of the northern rampart in Exeter College presaged the work in St Michael at the North Gate described below.⁴ More recently, Tom Hassall published details of a medieval bastion exposed at 37

¹ F.H. Penny, W.M. Merry, *Buried Oxford Unearthed* (1899).

² J. Daniell, 'The City Wall and Ditch in the Clarendon Quadrangle', *Oxoniensia*, iv (1939), 153-61.

³ E.M. Jope, 'Recent Medieval Finds in the Oxford Region', *Oxoniensia*, xiii (1948), 70-2; A.G. Hunter, E.M. Jope, 'Excavations on the City Defences in New College, Oxford, 1949', *Oxoniensia*, xvi (1951), 28-41.

⁴ D. Sturdy, H. Case 'Archaeological Notes 1962-63', *Oxoniensia*, xxviii (1963), 91.

George Street and Nicholas Palmer carried out the first really productive investigation of the outer wall in Hertford College.⁵

The 13th-century wall on the north of the town survives much as shown on the 1876 Ordnance Survey, and as a Scheduled Ancient Monument (No. 26K) its fabric and line are generally respected in new developments. The slightly later 'outer' city wall facing Holywell Street has been less respected, but its removal in the Hertford College area has provided invaluable evidence for its construction and date, and its line through New College survives as a clear reminder of its original conception. The overall line of the Late Saxon and earlier medieval defences is still in question, but the patient record of underpinning at St. Michael's church illustrates the profile to be expected. Furthermore, the fortuitous discovery of a ditch behind the new Social Studies Library in George Street gives the first clue to the line of a really substantial western defence, which has been so elusive in the south-west corner of the town. At the later end of Oxford's life as a fortress, there is confirmation of the resurrection of the medieval defences during the Civil War, which must qualify our reading of the city's overall topography in the mid 17th century.

Acknowledgement is made under the respective excavation reports to the co-operation received from Hertford College, New College, St. Peter's College, the vicar of St. Michael's at the North Gate, Oxford City Estates Department, the University Surveyor and J.T. Design and Build. We are particularly grateful to the numerous members of the Oxford University Archaeological Society who were involved at some stage in most of the projects, and to all the grant-giving bodies, notably the Department of the Environment, Oxford City Council, Oxford Preservation Trust and most of the Oxford Colleges, who have funded the professional input.

The excavations are described below in the sequence in which the projects were started.

ST. MICHAEL AT THE NORTH GATE: EXCAVATIONS 1972-3 (Figs. 1, 2 and 6A Pl.I)

An area on the north and east side of the church was investigated by the Oxford Archaeological Excavation Committee during the contractors' excavations for the basement of a new vestry and church centre.⁶ The general topography suggests that the tower of the church was a partly defensive structure in the line of the Late Saxon rampart and was bypassed when the stone wall was later built 14m. to the north. The object of the study was therefore to trace the old rampart line, and to gather dating evidence for the infilling of the early ditch and the building of the diverted wall. Most of the interior of the site had been heavily disturbed by burials and the archaeological evidence was mainly recovered from underpinning work around the perimeter and the church foundations.

Excavated evidence

Below the graveyard fill in the southernmost underpin of the east wall of the churchyard, a wedge of redeposited natural soil and gravel was revealed, (F3). The gravel formed bands c. 0.1m. thick and the feature appeared to be a turf bank surviving to a height of 1.45m. It

⁵ T.G. Hassall, 'Excavations at Oxford, 1972' *Oxoniensia* xxxviii (1973) 285-86; N. Palmer, 'Excavations on the Outer City Wall of Oxford', *Oxoniensia* xli (1976) 148-60.

⁶ We would like to thank the Vicar, Rev. N. MacDonald Ramm, G.R.S. Flavel (architect) and Messrs. Benfield and Loxley (contractors) for their enthusiastic co-operation during the recording work.

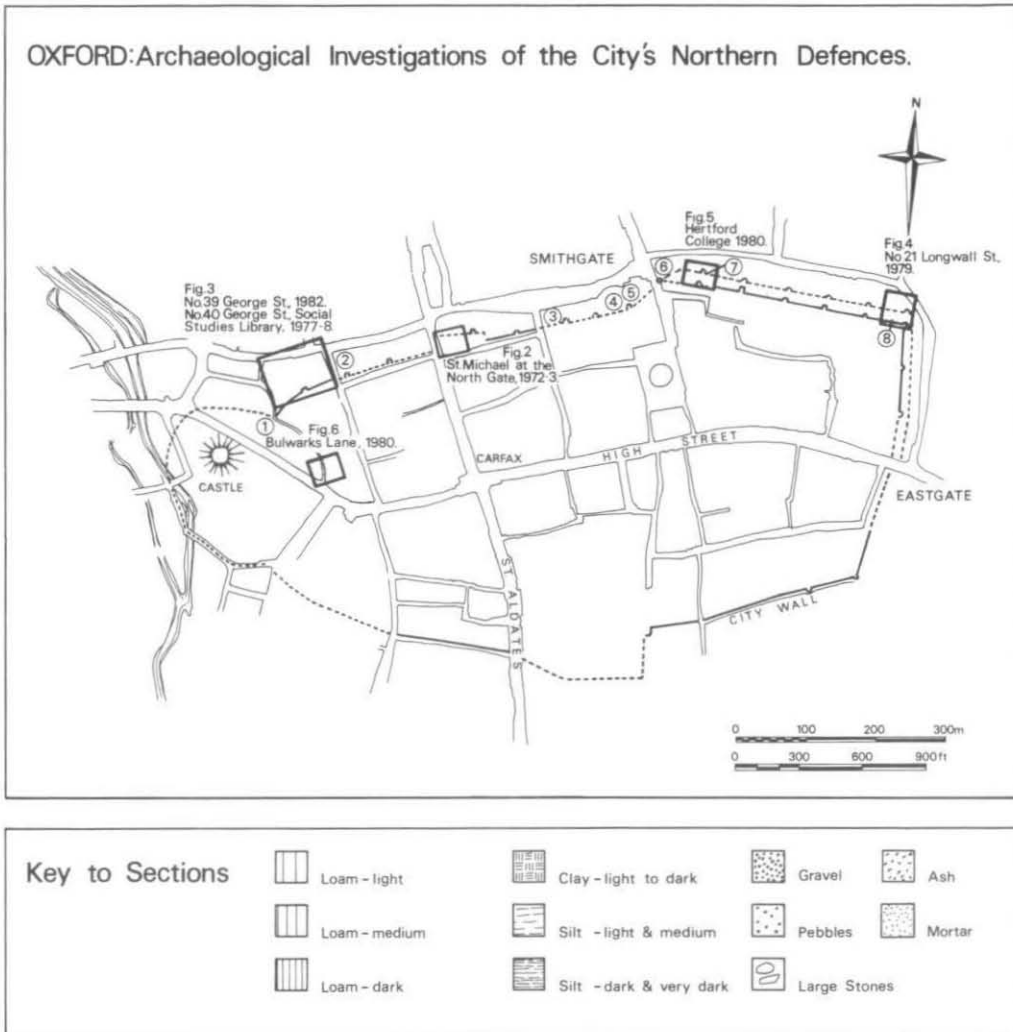


Fig. 1. The surviving medieval defensive circuit, showing areas covered by the individual site plans. Previous excavations circled: (1) Canal Wharf 1948; (2) 37 George Street 1972; (3) Exeter College 1962-63; (4) Bodleian Tunnel 1938; (5) Clarendon Quadrangle 1899; (6) City's search for foundation of the Town Wall, 1583; (7) St Helen's Passage 1974-75; (8) New College 1949.

rested on 0.25m. of undisturbed natural soil which in turn lay on natural gravel. No dating evidence was recovered, nor was there any disturbance by burials. The southern edge had been clipped by the footings of No.1 Ship Street and by services in the passage between the church and boundary wall of No. 1. The feature continued eastwards under this wall. To the west it had been cut away by the construction trench of the chancel wall. The northern side of the turf bank, F3, had been cut through or revetted by F4, a rubble wall packed with red natural soil. Large stone blocks formed its north face, but there was no face on the south side where it abutted the turf bank. It was built directly on the gravel and a layer of

OXFORD: St. Michael at the North Gate, 1972-3.

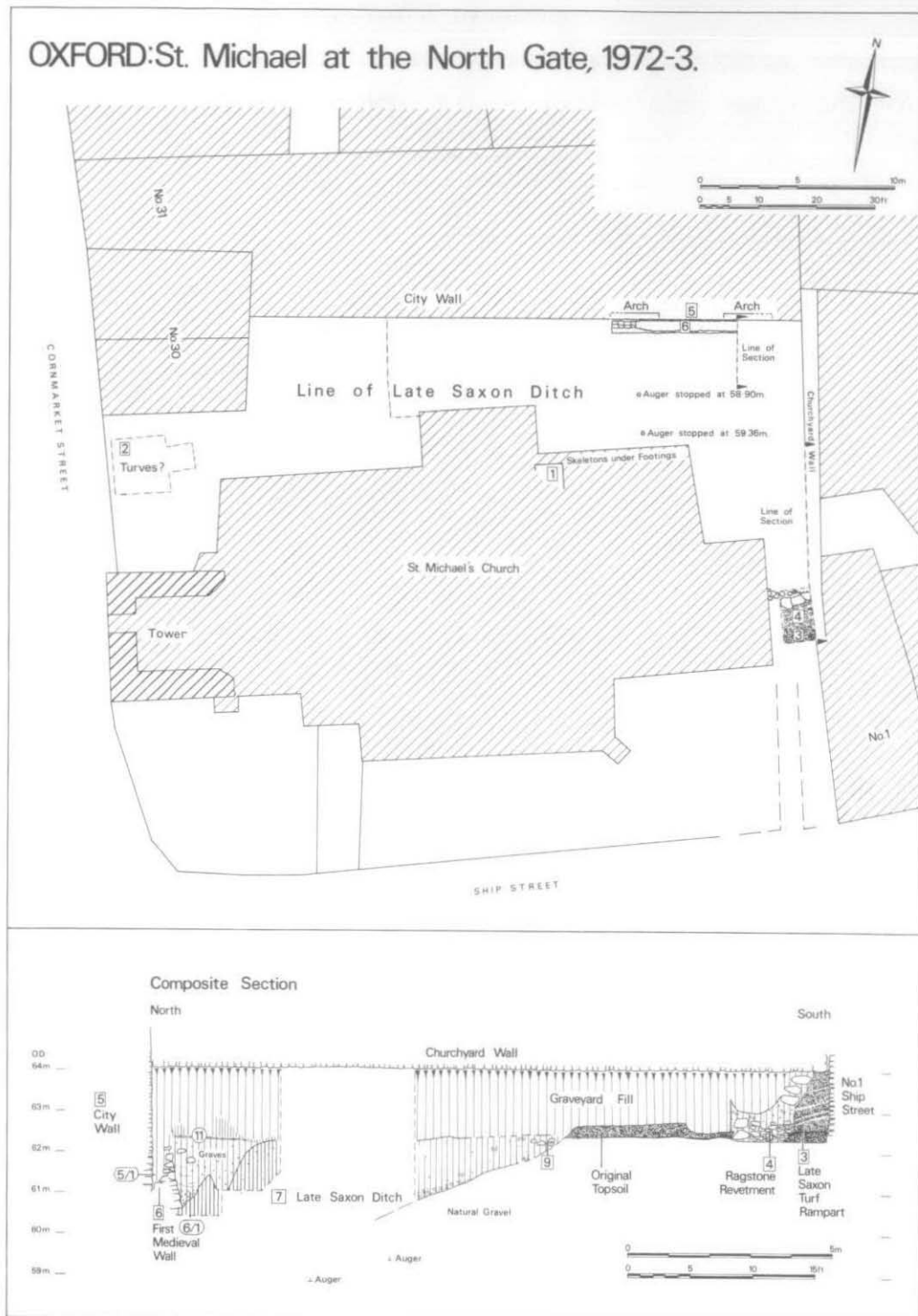


Fig. 2. St Michael's at the North Gate, plan and section; the late Saxon masonry of the west tower is shown in heavy hatching.

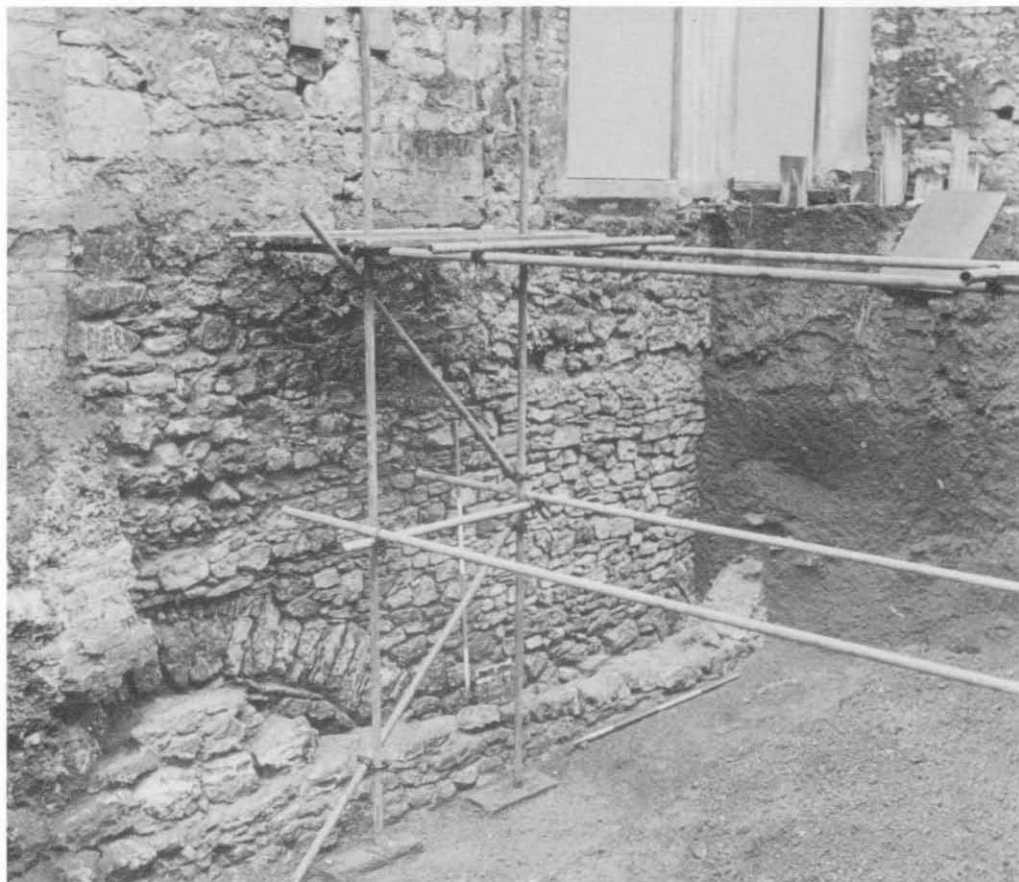


Plate 1. The City wall at St Michael's at the North Gate from SW, showing fragments of two foundation arches in the later phase.

concretion had formed at the intersection. The western part had clearly been disturbed, but the fallen stones on the outside face may have represented an original collapse.

Features 3 and 4 are interpreted as being the Late Saxon turf rampart with ragstone revetment. The inner lip and upper edges of the associated ditch (F7) were recorded 3.8m. to the north. Its fill consisted of mixed brown loam and gravel becoming siltier lower down and finally black at c.59.3m. O.D (auger point). A rubble-filled feature (F9), which cut the inner edge of the ditch, yielded a single 12th-century sherd and can be interpreted as either a pit or a well.

Two phases of walling were built on the backfill of the ditch. The first (F6) was of rough ragstones, some large, and all but the lower three courses packed with hard cream-coloured mortar. The wall appeared to be leaning northwards at an angle of 5° to vertical, presumably subsiding into the ditch fill. The bottom course had a narrow construction trench filled with gravel and above this there appeared to be a broad construction trench filled with red-brown clay loam and gravel, (F6/1). A single sherd of Fabric AC shows that it was unlikely to have been built earlier than the mid 11th century. It was interpreted at the time of excavation as a retaining wall against which material from

the rampart was piled when the site was levelled for an extension to the churchyard. Although it seems scarcely strong enough, it must also have functioned as a replacement defence. Two 12th-century sherds were recovered from ditch fill to the north (L10 not shown on the section), and within the extended churchyard a grave was recorded contemporary with the wall (sealed by L11).

The second medieval wall, the city wall, was constructed mostly of good coral rag with loose gravelly mortar or clay-gravel packing (F5). It was carried on massive stone arches only the tops of which were visible, (the remains of three foundation arches along this section of the city wall were discovered in 1906.⁷ The stone arches recorded here appeared to be of approximately 2.5m. span and rested on 2.0m. piers. All the visible wall was well-faced. The construction trench of this wall, which produced four 12th-century sherds, had partly cut away the leaning north face of its predecessor F6. To the west the wall had been removed by the basement of Boswells Department Store (Nos. 1-5 Broad St.). The existing wall on this line appears to be a reconstruction above ground level.⁸

Layer 10 consisted of a green-brown sticky loam lying under the more westerly arch in the city wall footing. It appeared to have been undisturbed in the construction of the wall, and hence may be part of the infill of the Late Saxon ditch. Two 12th-century sherds were recovered from this layer.

An extensive spread (L11) of ash and burnt clay overlay the backfill of the ditch (F7). It sealed many graves and also the construction trench (F6/1) of the first wall, but was cut by that of the later wall (F5/1).

A trench for a manhole at the western end of the graveyard nearest Cornmarket Street was dug through a modern basement full of early 20th-century material (slates, bottles etc.). This basement extended into the street and obliterated any trace of the North Gate. Immediately below the basement floor the ground was undisturbed by burials and was found to consist of a mixture of redeposited natural soil and a little gravel, (F2). As with the rampart material, the gravel gave a banded effect and appeared to be a stack of turves. These 'turves' were resting on the gravel and not on a deposit of natural soil as one might have expected. Lying too far forward to be part of the Late Saxon rampart, it is suggested that these turves may have formed part of a contemporary causeway, although a single sherd of fabric *BF* shows it is unlikely to have been earlier than the 11th century.

During the underpinning of the church walls a number of features which relate to the earlier phases of the church building were revealed. A stone footing (F1) seen beneath a foundation arch of the 14th-century north chapel displayed a definite end and is therefore likely to be a corner (unless it is part of an earlier construction arch, but no other footings were seen to support this interpretation). Feature 8, not shown on the plan, is the footing of the north chapel. It was built on construction arches like the city wall. Finally, skeletons were dug up by the contractors under the north wall of the north chapel between the abutments of the construction arches.

NO. 40 GEORGE STREET, SOCIAL STUDIES LIBRARY: EXCAVATIONS 1977-8
(Figs. 1, 3a and 3b)

During landscaping work at the former City of Oxford Boys School, now the Oxford University Social Studies Library, three trenches were excavated on the north side of the

⁷ H.E. Salter, 'Lecture on the Town Walls of Oxford', *Records of Medieval Oxford* (1912), 76-84.

⁸ R.C.H.M., *City of Oxford* (1939), 160.

city wall, on either side of Bastion 1.⁹ The work was done by the Oxford University Archaeological Society, Jane Fox supervising the digging of Trench I, and Tony Dixon Trenches II and III. This north-west section of the city wall has been much altered, but c.46m. of the lower part of the wall to the west of the bastion appears to be medieval and the walling is of large coursed rubble. The lower part of Bastion 1 is also medieval.¹⁰

Trench I

The majority of features and layers recorded within Trench I were post-medieval, dating from the 18th and 19th centuries. The most useful archaeological record was a profile of the northern face of the city wall which is published here with sections from the 39 George Street site (1982), (Fig. 3b).

Trenches II and III

Trench II was dug in hope of recovering a section of the defences with less post-medieval disturbance than Trench I. It soon became obvious that the situation was exceptional, that beneath the superficial post-medieval buildup there was a body of gravelly loam fill at least 2m. thick over the entire area of the trench and beneath the footings of the city wall. A total of c.100 sherds of late 12th- or early 13th-century pottery (Layers 8, 10, 11, 12) confirmed that this feature predated the stone defences, which are dated on documentary evidence to 1226 onwards. The scale of the infill suggested this must be an early town ditch running roughly north-south and at least 12m. wide, but the proximity of buildings and services meant that it could not be properly investigated. Trench III was dug to locate the eastern edge, which proved to slope just as would be expected of a large defensive ditch (see profile, Fig. 3b).¹¹

NO.39 GEORGE STREET: EXCAVATIONS 1982 (Figs. 1, 3a and 3b)

Archaeological coverage of the redevelopment of properties at No.39 George Street and Nos.27 and 29 New Inn Hall Street was conducted by Brian Durham from February to May 1982.

The properties lie forward of the city wall east of Bastion 1, i.e. over the city ditch. The wall on this side is largely reconstructed but the original masonry survives to a height of c.1m.¹² as the footing of the Wesley Memorial Church Hall. The objectives of the archaeological work were to recover dating evidence for the infilling of the ditch, and a profile to supplement information from excavations at No.21 Longwall Street and at Hertford College, and confirm the suggestion that the ditch at George Street is much narrower than at these north eastern sites.¹³

⁹ The bastion numbering follows that of the R.C.H.M. We would like to thank Oxford City Council Estates Department and the University Surveyor for permission to dig trenches on the Social Sciences Library site, and Messrs. J.T. Design and Build for their co-operation during the recording at 39 George Street.

¹⁰ R.C.H.M., *Oxford*, 159.

¹¹ B. Durham, 'Oxford, Former Boys High School/New Social Sciences Library, George Street', *C.B.A., Group 9, Newsletter*, ix (1979), 130, 132-3.

¹² R.C.H.M., *Oxford*, 159.

¹³ T.G. Hassall, 'The Reform Club, No. 37 George Street', *Oxoniensia*, xxxviii (1973), 286.

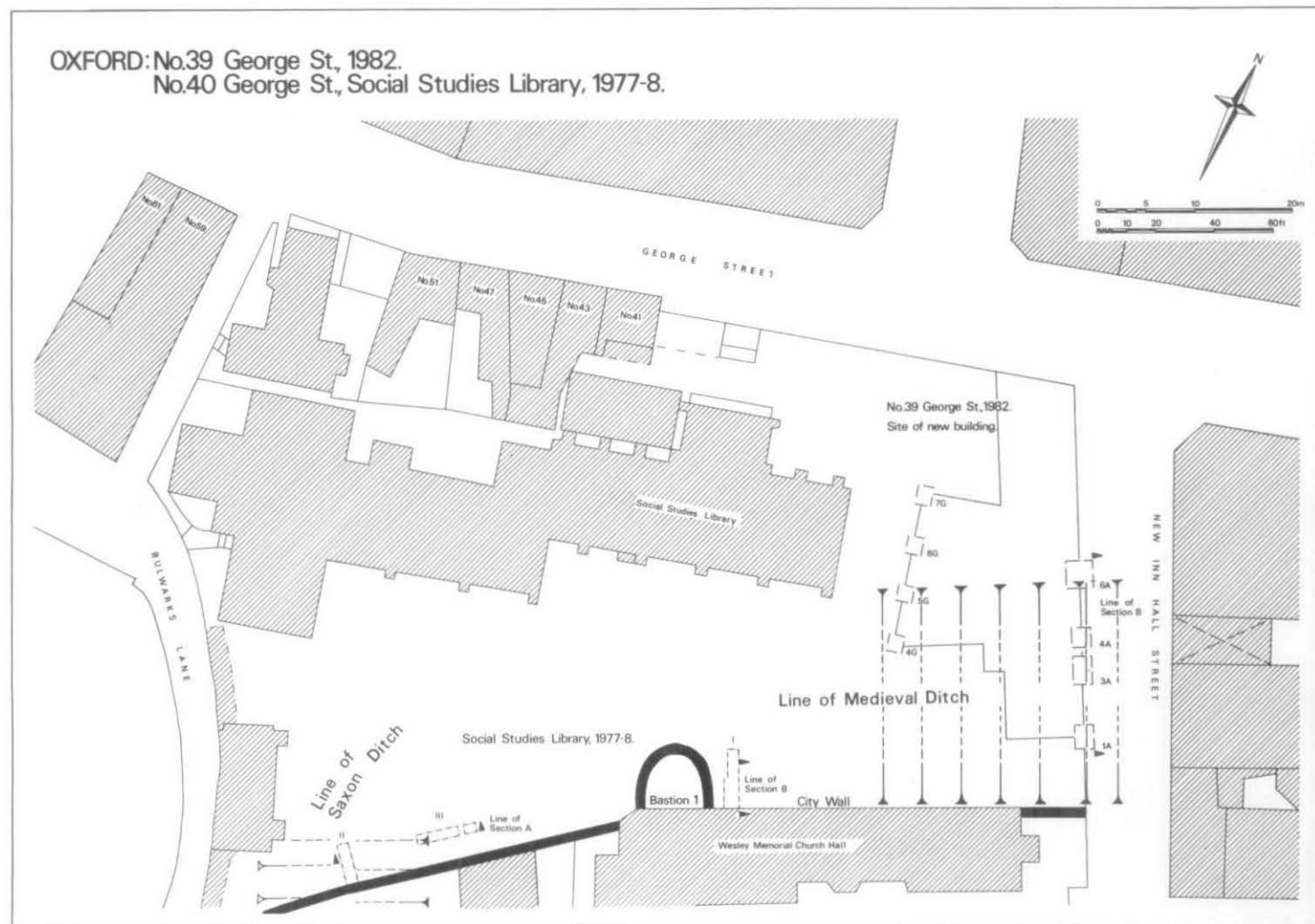
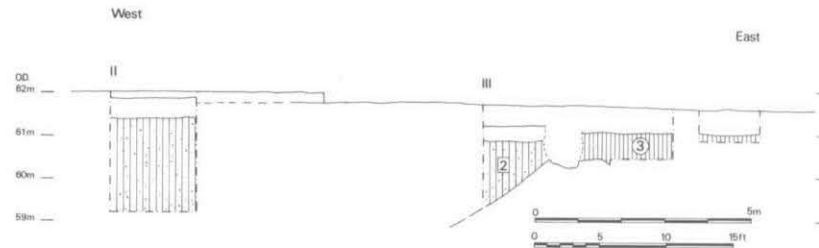


Fig. 3a. George Street 1978-82; plan of excavations, indicating approximate line of the late Saxon west ditch in relation to the north ditch.

Composite Section A
No.40 George St, Social Studies Library, 1977-8.



Composite Section B
No.39 George St., 1982.

No.40 George St, Social Studies Library, 1977-8.

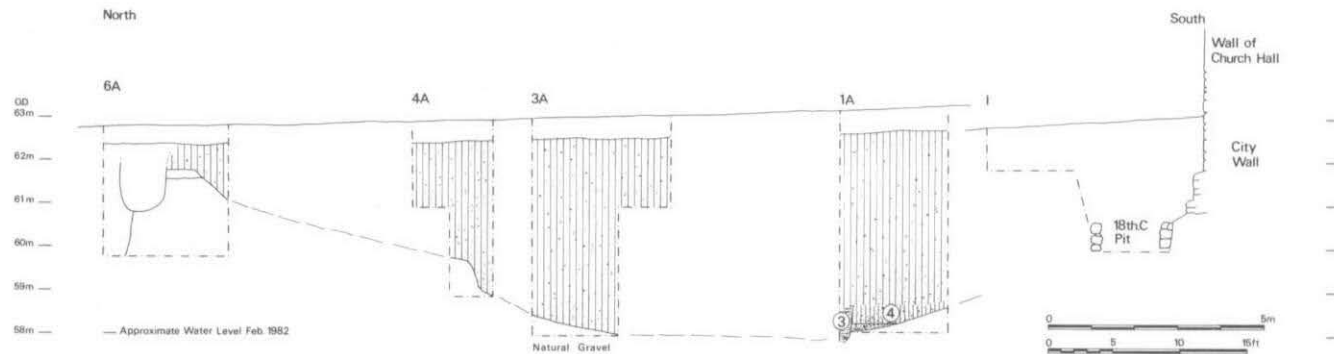


Fig. 3b. George Street 1978-82; composite sections illustrating the profiles of the late Saxon west ditch (above) and the north ditch (below).

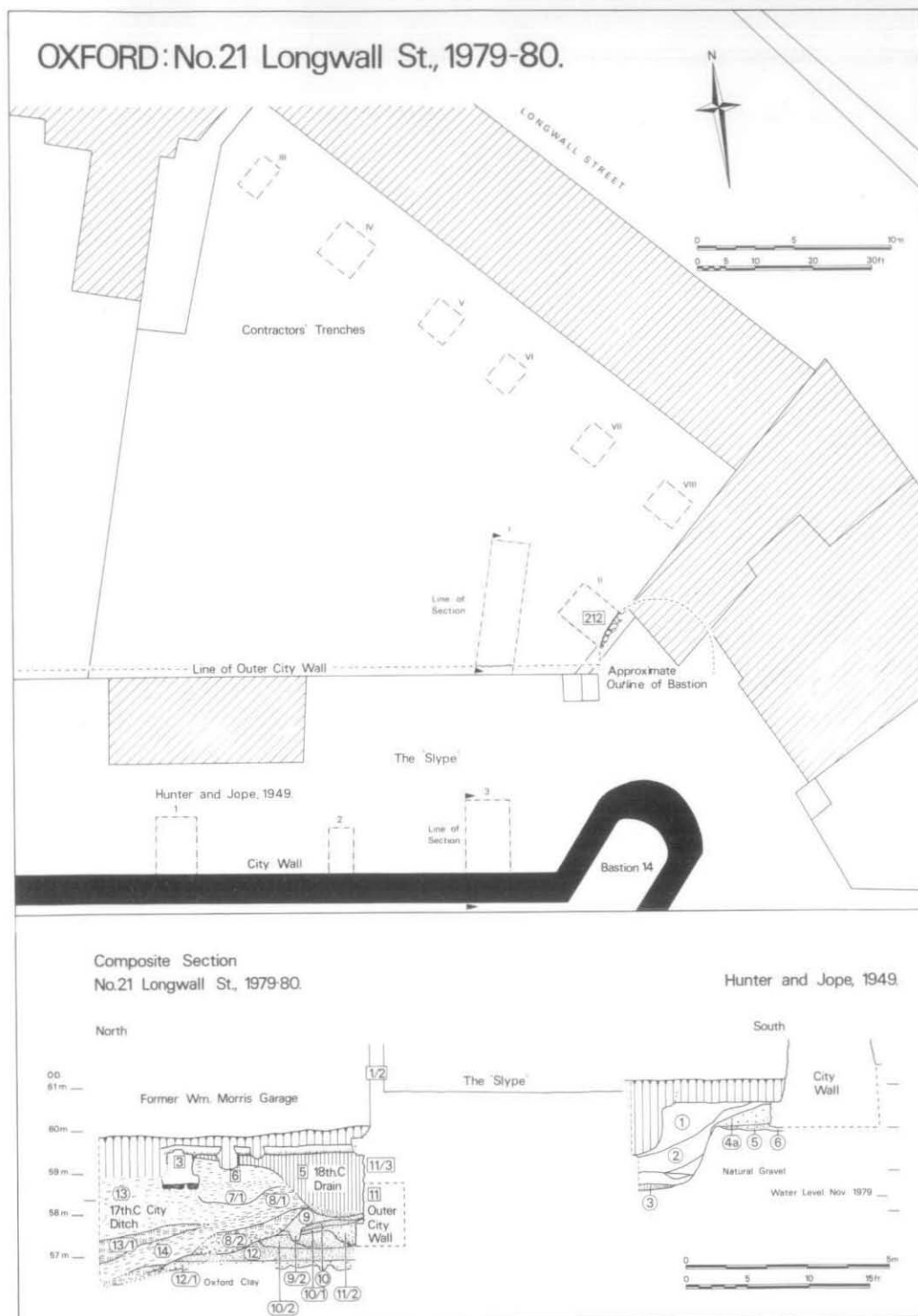


Fig. 4. Longwall Street 1979-80, plan and sections. The 1949 section is after Hunter and Jope, 'Excavations in New College', *Oxoniensia* xvi, Fig 13. Both section drawings have been reversed to aid comparison with Figs. 2, 3b and 5.

The Evidence from the Watching Brief

The archaeological coverage consisted of the examination of the contractors' foundation trenches. Those from which archaeological material was derived are marked on the site plan (Fig. 3a). The most useful, though discontinuous, section lay on the frontage of New Inn Hall Street and is published here (Fig 3b). A profile of the city wall obtained in Trench I of excavations behind the Social Studies Library in 1977 has been added to show the relative position of the city wall and ditch. Within the George Street/New Inn Hall Street site information from four builders' trenches (1A, 3A, 4A and 6A) was used to compile the section.

Below the modern fill in Trenches 1A, 3A and 4A up to 3.5m. depth of uniform brown gravelly loam was recorded. This was clearly the infill of the city ditch, and pottery from these layers dates to the mid 17th century. The ditch was bottomed in all three trenches, the maximum depth recorded (in Trench 3A) being 4.5m. below the uppermost line of fill. Within Trench 6A the outer lip of the ditch was seen at a distance of 23.5m. from the city wall. At the bottom of Trench 1A a possible recut (L3) was seen. The fill of this layer consisted of black organic silt with stones above. It cut L4, compacted coarse gravel, and both yielded medieval pottery and tile. It may be therefore that L4 represents medieval silting and L3 an early recut of the city ditch.

NO. 21 LONGWALL STREET: EXCAVATIONS 1979-80 (Figs. 1 and 4)

The conversion of William Morris's garage of 1910 into residential accommodation for New College allowed examination of the outer defences close to the north-east corner of the city. The governing body of New College kindly arranged for early demolition of the former assembly shop to allow archaeological investigations. Excavations in November and December of 1979 and watching briefs in July of 1980 were undertaken by Brian Durham on behalf of the Oxford Archaeological Unit and Nicholas Palmer for the Oxford University Archaeological Society.

Trench I (Pl. 2)

The trench was dug on the same alignment as Hunter and Jope's Trench III of 1949, so that the sections could be combined (Fig. 4).¹⁴ Beneath the debris of the garage was a stone wall, F3, set on elaborate timber piling presumably to resist subsidence in the ditch fill.¹⁵ No floors were found, but assuming this was the building shown on the Ordnance Survey Map of 1875, it would have extended over the mid 18th-century fill of a drainage gulley, F5, against the outer city wall.¹⁶ The wall line here was a post-medieval rebuild, F11/3, which had itself been cut by the concrete arches of the garage foundation F1/2. The uppermost fill of the main city ditch was excavated in spits, L6/1 - L6/3, the last sealing a small well, F7 (not fully apparent on the section). A plated iron watering can rose suggested the well was used by a gardener in the late 17th or early 18th century.

¹⁴ A.G. Hunter and E.M. Jope, 'Excavations on the City Defences in New College, Oxford, 1949', *Oxoniensia*, xvi (1951), 32-4.

¹⁵ From the clearance level came an imitation sterling of Count William of Namur, Mayhew Type 361, struck c. 1348, identified by Nicholas Mayhew.

¹⁶ cf. Hunter and Jope, *Oxoniensia*, xvi. 34-5; Hertford College, 1980, below.



Plate 2. Longwall Street, Trench I from NE on completion of the hand-digging. The offset foundation of the outer city wall stands on silts of the early ditch.

The deeper layers now sloped markedly to the north, brown clay loam L8 and silt, L13, overlying a thick lens of blue clay, L13/1, further layers of loam and silt, L8/1, L14, and a last thick lens of clay with gravel, L8/2. These layers produced 17th-century pottery and are interpreted as the bulk fill of the ditch after the Civil War.¹⁷

The Longwall trench proved to be the only place in Oxford where a sequence of medieval city ditch silting has been accessible for controlled excavation. The wedge of strata had been truncated by the later cuts, but L9 (14th-century) survived, sealing a small diagonal gully L9/1. The gully was cut into earlier silts, L10, L10/1, which sealed what appeared to be a construction trench, F11/2, for the outer city wall footing, F11/1.

The outer wall had been set into the silts of an earlier ditch profile, L10/2, L10/3, with 13th-century pottery. The deepest level was a grey clay-silt with sand lenses L12, which extended beneath the wall but, like the underlying yellow gravel and broken clay surface, it produced no artifacts. It can only be described as 'probably early ditch silting' instead of a

¹⁷ See below, pp. 31, 39–40.



Plate 3. Longwall street Trench II from NW showing the curved face of the outer bastion.

geological horizon, although Mark Robinson's identification of the bivalve *Corbicula fluminalis* from L12 should be noted. This mollusc is typical of a warm interglacial phase of the gravel terrace, and is now extinct in Europe.

Trench II (Pl. 3)

Trench II was excavated by Nicholas Palmer and the Oxford University Archaeological Society in an attempt to locate the bastion shown on early maps in front of the main wall bastion 14.

The trench was originally 1.5m. \times 1.5m. As in Trench I the upper levels (contexts 201–208) consisted of building remains associated with 19th-century material. Below, c.1.5m. below ground level, was an early to mid 18th-century layer, 0.3–0.5m. thick, of dark brown silty loam (L209), which seemed to form part of the upper city ditch fill and would correspond to Layers 6–6/3 in Trench I. Below Layer 209 were layers of gravelly loam (L210), silty gravel (L211) and grey silt (L213); the last of these was only partially removed. Layers 211 and 213, which contained medieval and later pottery, abutted the wall of a bastion (F212) on the outer city wall. This wall, whose top was 1.65m. below the ground surface, was made of thin, c.0.1m., coursed limestone rubble, bonded with yellow-brown mortar. The bottom of the wall was not excavated but six courses were revealed, standing 0.7m. high. At the north end of the trench it curved slightly to the east and had a pronounced batter. This batter was only very slight at the south end of the trench (see Pl. 3).

The original trench was extended southwards by machine, revealing more of the curve of the bastion. The junction between the outer wall and bastion was, however, obscured by a later footing and it was not possible to see whether the bastion and wall were contemporary although their construction was very similar.

Trenches III–VIII

The contractors' foundation holes amounted to a staggered section right across the site, and Brian Durham's records have been combined to give a composite section extending 39m. out from the main city wall (not illustrated).

Trenches III and IV exposed floors and deep stone foundations of a building aligned on Holywell Street, perhaps one of those described by Wood as built about the mid 17th century.¹⁸ This date is supported by three sherds from the underlying silt, which was seen in Trench III to extend to a depth of c.3m. The remaining trenches showed a variety of fills extending to similar depths, indeed to at least 4m. (56.4m. O.D.) in Trench VIII. Seventeenth-century pottery was recovered from c.58.50m O.D. in Trenches IV and VII and a welshed shoe of mid 17th-century type from 1m. deeper in Trench VIII.¹⁹ The provenance of the shoe therefore compares with L13/1 on Fig. 4, and if projected would be only about 3m. further out across the profile of the ditch. These observations tend to support the view that the bulk infilling occurred in the mid 17th century. No natural gravel was seen to indicate where the north edge of the ditch lay, but the deep rounded profile suggests the 17th-century ditch was no more than about 20m. wide from the outer city wall. What then was the deeper fill beneath the wall footings in Trench IV? If this was a previously reclaimed part of the medieval ditch, then this must have been flat bottomed and at least 30m. wide, wider than anywhere else in the city. This unusual width may be related to the medieval spring called Crowell.²⁰

Excavations at New College by Hunter and Jope in 1949 – a Reassessment

In Fig 4 the composite Longwall section includes the west face of Trench 1 excavated in 1949 against the main city wall.²¹ In this trench the wall was found to partially overlie what is described as a 'deep gully' which was filled by layers 2 and 3.²² It should be noted that this west section wrongly shows Layer 2 as stratigraphically later than the wall, because the excavators' description and the east section have it firmly as earlier.²³ As the 'gully' is 2.1m. (7ft.) deep and over 3m. (10ft.) wide it is better described as a ditch, and given its position might well represent part of the Late Saxon defences. The original excavators do not seem to have considered this possibility as they believed the Saxon rampart covered the area on both sides of the wall.²⁴ The ditch did not appear in the 1949 Trenches 2 and 3, but it could easily have gone further north or been removed by later

¹⁸ Antony Wood writing 1661–6 records that houses on the south side of Holywell excepting those at Smithgate had been built in the last thirty years. *Wood's City of Oxford*, i (O.H.S. xv, 1889), 383.

¹⁹ This shoe combines the features illustrated in T.G. Hassall, 'Excavations at Oxford Castle, 1965–1973', *Oxoniensia*, xli (1976), Figs 22–24, Nos. 23, 32, 48.

²⁰ *V.C.H. Oxon.* iv, 91, 272, 354.

²¹ Hunter and Jope, *Oxoniensia*, xvi, 28–41.

²² *Ibid.* 34.

²³ *Ibid.* 32–34, Fig 13.

²⁴ *Ibid.* 30.

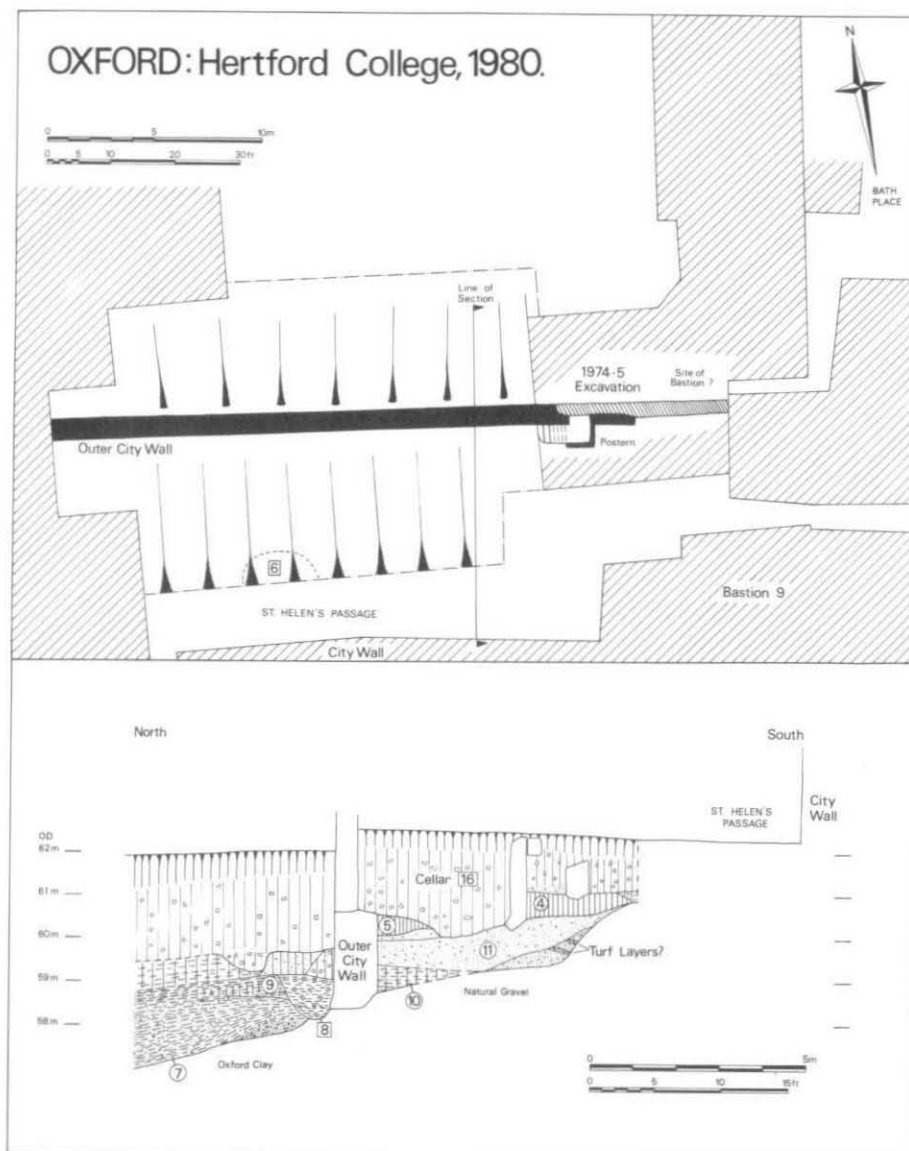


Fig. 5. Hertford College 1980, plan and section of salvage excavations, also showing the outer wall postern excavated in 1974-75.

disturbance. Its irregular stepped profile in the east face of Trench 1 may be due to overdigging or to activity when the ditch was infilled. It does not therefore seem too implausible to suggest that this does represent the late Saxon ditch, which was infilled in the early 13th century when the stone city wall was constructed. If so, it would mean that the stone wall did not follow the line of the earlier rampart exactly, but projected slightly over the former ditch at the north east corner of the town.

HERTFORD COLLEGE (51-55 HOLYWELL STREET/ST. HELEN'S PASSAGE): EXCAVATIONS 1980 (Figs. 1 and 5)

In July 1980 the second phase of building work on Hertford College's new quadrangle behind 51-55 Holywell Street permitted an examination of the outer city defences immediately to the west of the length of outer city wall excavated in 1974.²⁵ The excavation of a basement for the new building, spanning the north side of St. Helen's Passage and the south part of 51-55 Holywell Street, exposed a length of outer wall and allowed the recording by Nicholas Palmer and Brian Durham of a section across the outer wall into the south side of the city ditch.²⁶

The earliest feature recorded was a large ditch, cut into natural gravel, whose southern lip was 3.75m. from the main wall. This ditch sloped fairly steeply for c.1.5m. and then more gently to a point 3.75m. below ground level (58.8m. O.D.), 9.5m. out from the main wall, where it had been truncated by later features. Against its south side was a layer of coarse gravel with bands of brown silt, which perhaps represented a turf revetment against the side of the ditch. There were no finds from this layer nor was there any primary silt from which dating material could be recovered, so it was not possible to say whether the ditch was constructed contemporaneously with the stone wall or predated it.

The outer city wall was found to have been built in the bottom of this ditch, c.10m. in front of the inner wall. A 22m. length of outer wall was exposed and partly removed by the contractors. This was 1.05m. thick composed of coursed limestone rubble, set on a rough slightly expanded footing 0.3m. deep. In places the wall survived to a height of 1.75m. From a layer of silt beneath the wall (L13, not on the section) came 2 sherds of mid 13th-century pottery, and from a layer of silty loam with spreads of mortar (L10) behind the wall, which was probably contemporary with its construction, came a further 8 mid 13th-century sherds. Layer 10 was overlaid by layers of gravel (L11 and L2, not on the section) and brown loam (L4 and L5) which represent make-up to raise the ground level of the slype behind the outer wall. They were probably also deposited when the outer wall was built; Layer 4 contained 4 more 13th-century sherds. A final medieval feature in the slype was a pit (F6), 3.5m. in diameter, cut into the natural gravel and containing 15th-century material. Above were various fragments of post-medieval buildings, associated pits and a well, cut by the cellars (F16) of the late 18th-century cottages that occupied St. Helen's Passage into this century.

In front of the outer wall the city ditch fell sharply away; in places cleaning out of the ditch had even exposed the wall footings. At a point 15.5m. out from the main wall the ditch was 5m. below the modern ground surface (56.85m. O.D.) and still getting deeper. In some places the bottom layers of ditch fill contained 14th- to 15th-century material (L14), in others 17th-century, suggesting that the ditch had been recut or kept clean up to this period.²⁷ The middle layers of fill (L9, 12 and 15, not on the section) also contained 17th-century material indicating that the infilling of the ditch occurred rapidly in this period. In the mid - late 17th century a ditch (F8) was cut against the outer wall, presumably as a drain like those noted elsewhere.²⁸ Sealing the ditch were further layers of make-up and garden soil cut by pits and the remains of out-buildings behind the Holywell Street houses.

²⁵ Palmer, *Oxoniensia*, xli. 148-60.

²⁶ We would like to thank Hertford College, Stoneshire Construction Ltd. and Peter Dann and Partners for their co-operation in providing plans and permitting archaeological recording of their work.

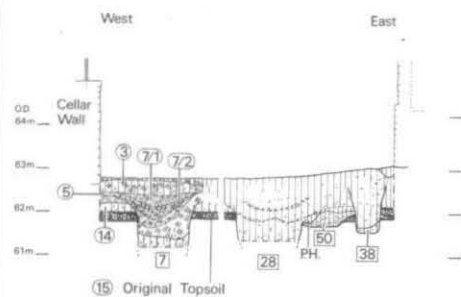
²⁷ Probably it had been recut, since in 1583 the outer wall had to be searched for to settle a property dispute: *Records of the City of Oxford*, ed. W.H. Turner (1880), 433.

²⁸ A.G. Hunter and E.M. Jope, *Oxoniensia*, xvi. 35, Fig. 13.

OXFORD: Bulwarks Lane, 1980.



Composite Section



Plan of Excavated Area

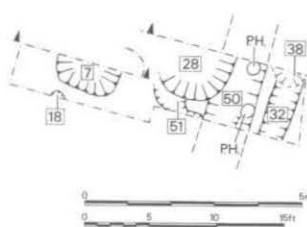


Fig. 6. Bulwarks Lane 1980, plans and section.

BULWARKS LANE: EXCAVATIONS 1980 (Figs. 1 and 6)

St. Peter's College has prepared a major scheme for residential accommodation along its south boundary. The proposed buildings will span an area where traces of the early north-west defences might be expected and with the kind co-operation of the Master, Professor G.E. Aylmer, a trial trench was excavated in 1980.²⁹ The work was done by the Oxford University Archaeological Society under Ian Williams, and the chosen location was the cellar of the former cottage No.4 Bulwarks Lane. This lies on a strip of waste, owned by the town since the 13th century, which Joep assumed was the site of an earthen rampart facing the castle, and it is also close to the line of the putative burghal defences predicted above from the George Street Social Studies Library II and III 1978 trenches.³⁰

The 2.2m. depth of the cellar took the excavation straight to a late 12th-century horizon with two pits F7, F28 and a ditch F32. There was some suggestion of occupation to the west (L1-3, L5, L7/1, L8, L10) subsiding into a pit, F7, of c.1100, but the available area was too restricted to substantiate this. Beneath this horizon were 11th-century levels L14 and L15, with a post hole F18 cut into the original topsoil, and at the east end an irregular gully F51 and a broad post-in-trench feature F50 running parallel to Bulwarks Lane. This last structure yielded two sherds of Fabric B which is typical of 9th- to 10th-century assemblages in Oxford. It also acted as a demarcation between a full soil profile to the east, and an area of apparent turf-stripping to the west.

At precisely the period when one should expect a defensive rampart line, i.e. from the founding of the *burh* to 1225, there is evidence of occupation. Admittedly it becomes more intense after the Conquest when the presence of the castle might make the area more attractive to settlement, but there is just sufficient Late Saxon evidence to make it improbable that the burghal rampart was exactly on this line, and it must be sought either to the east or west. If it was strictly parallel to New Inn Hall Street, then its outer face should lie about 7m. west of the Bulwarks Lane site, and though it could have survived the building of the castle it would probably have been dug away in any enlargement of the castle ditch. The 11th- and 12th-century activity in the excavated area might therefore be associated with an intramural street like St Michael's Street and Ship Street on the north, and the eastern arm of Merton Street.

CERAMIC DATING by MAUREEN MELLOR and BRIAN DURHAM

All the pottery, clay pipes and roof tiles from the above five sites have been recorded and the archive, including illustrations, will be deposited with the Oxfordshire Department of Museum Services, Woodstock. The following report is intended to highlight some aspects of more general interest with respect to the northern defences.

No useful pottery was recovered from the Late Saxon features at St Michael at the North Gate, and Oxford's primary defences can still only be dated on historical grounds. The search for a west defensive line at Bulwarks Lane has produced only one Late Saxon feature (2 sherds, Fabric B), but by implication the large ditch at 40 George Street II and III shows this to be a promising alignment. Having established this as a likely limit to the Late Saxon town, it can be seen that Joep's reasons for revising the dating of pit Nu 1 on the

²⁹ We would also like to thank Mr Frank Woods of Messrs. Chamberlin, Powell and Bon for his help.

³⁰ E.M. Joep, 'Saxon Oxford and its Region', *Dark Age Britain*, ed. D.B. Harden (1956), 243.

Canal Wharf site are no longer applicable. Although the pottery is not available for study, the published profiles suggest that the original dating was satisfactory (see below p. 34).

The ditch at 40 George Street produced one of the largest assemblages of pottery from Oxford which can be shown to be sealed by the stone defences of c.1226–40. Comparable groups come from the Littlegate 1971 site,³¹ and Hunter and Jope published pottery sealed by the wall at New College and also discussed the material from a pit at the Bodleian Tunnel 1938.³² In the course of the present work the Bodleian material has been reviewed and appears to be rather later than previously thought, indeed entirely comparable with the George Street and Littlegate groups. The appearance of small percentages of Brill products (Fabric AM) in each case reflects the growth of this new industry, and the proportions of fabrics generally agree so well that it must imply very similar dating in the second quarter of the 13th century for the stone wall on all sides of the town (with the possible exception of New College).

21 Longwall Street I was the only site in the present study which produced significant assemblages from the medieval silting of the main ditch.³³ Dates quoted in the text come from comparison of fabric proportions etc. with those of dated domestic sequences elsewhere in the city. Only one of the Hertford College groups (1980, L14), and only the lowest fill at 39 George Street (F3 and L4) were exclusively medieval, although there were no more than about 3 sherds recovered in each of these salvage operations. Nevertheless they are similar to what Daniell reported for the lowest 2ft. of fill at the Bodleian Tunnel, although his 'surprisingly large' assemblage is not traceable amongst the Ashmolean Reserve Collection.³⁴

A major objective of this brief study was to test the excavator's hypothesis that the bulk infilling of the city ditch occurred soon after the general slighting of the city's defences in August 1651.³⁵ Again, the sherd numbers from stratified contexts were very small, but comparison with locally and nationally dated groups from the St. Ebbe's area allows some progress.³⁶ The bulk fills at 39 George Street 1982 (L1 and L2) and 21 Longwall Street 1979 (I L8, L8/1, L13 and III L301) are consistent with the period 1620–1640 or slightly later, i.e. Surrey White Wares with clear lead glazes, local red earthenware tygs with black glaze and Rhenish stonewares (cf. St. Ebbe's B III F4 L2, clay pipe dating). These regional and continental wares were not reaching Oxford in any quantity much before 1635, when improvements to the locks on the River Thames made Oxford more accessible by river.

The bulk infill at St. Helen's Passage 1980 (L7, F8/2, F8/3, L9, L12, L15) yielded largely 17th-century pottery and Layer 9 contained 3 sherds of English stoneware suggesting a date c.1660 (cf. St. Ebbe's BIV F13, 1660–1670 clay pipe dating).³⁷ Similar infill in the 1974 trench II (L9, L10, L13 and L15) included another sherd of English stoneware together with certain red earthenwares not noted amongst the 1620–1640 assemblages at St. Ebbe's but which were present amongst 1660–1680 assemblages. So although there are no comparative assemblages from St. Ebbe's which can be dated with certainty to the 1640–1660 period, the general conclusion suggests a date range of c.1620–1680 for the bulk infilling, which may possibly be revised to c.1635–c.1660.

³¹ 'Oxford, St Ebbes Survey: The Greyfriars', forthcoming.

³² Hunter and Jope, *Oxoniensia*, xvi. 35–9.

³³ The pottery from 21 Longwall Street was recorded by Sheila Girardon.

³⁴ J. Daniell, 'The City Wall and Ditch in the Clarendon Quadrangle', *Oxoniensia*, iv (1939), 159; Ashmolean Accession No. 1968, 764–74.

³⁵ *V.C.H. Oxon.* iv. 84.

³⁶ 'Oxford, St. Ebbe's Survey', forthcoming.

³⁷ *Ibid.*

These dates accord with the pottery from the City Ditch at the Bodleian Tunnel, now housed in the Ashmolean Museum. The material falls into two categories, that labelled 'City Ditch' and that with no separate identification. The latter probably comes from the top 15 ft. Vessels in the 'City Ditch' group agree well with those described by Daniell from the 9 ft. of 'black compressed mud' which he labels 'City Ditch' on section C-D, Fig. 28.³⁸ He dated them to the period 1550-1650, but the majority appear to date to c.1640-70. They include local red earthenwares with slip decoration (cf. St Ebbe's BIV F13),³⁹ and the Surrey white wares include some decorated with dark green glaze and vessel walls rather thicker than the Surrey-types of the c.1620-1640 period. The remainder of the 1938 material was of a similar date, presumably all predating the Sheldonian Theatre of 1664-9. It therefore affords one of the largest mid 17th-century assemblages from Oxford, comparable in size to that from the infill of Oxford Castle Moat.⁴⁰ The castle defences were also slighted in 1651 and the mid 17th-century material may be derived from the St. Ebbe's area, where a lack of assemblages dating to this period had already been noted.

Nicholas Mayhew of The Heberden Coin Room has kindly reviewed the jettons from these excavations. Two were of 14th- to 15th-century date (Barnard 120/61; 187/1), 4 were Nuremberg tokens dating to 1580-1600 and 1580-1610 (Hans Krauwinkel I, Hans Krauwinkel II and Hans Krauwinkel III) and the fourth dated 1618-60 (Wulf Laufer). He considers that all these items may have been still in circulation in the mid 17th century.

DISCUSSION

The defences of Oxford date from the late 9th or early 10th century when the town formed part of the West Saxon system of *burhs*. The original defences were c. $\frac{1}{2}$ mile shorter than the later medieval walls and the plan of the town may have resembled closely the rectangular plan of the two other major Thameside *burhs*, Wallingford and Cricklade.⁴¹ The defences were later enlarged both eastwards and perhaps westwards, possibly in the early 11th century as a response to Danish raids. The main effect of the Norman Conquest was the building of the castle on the west side of the town c. 1071. During the 13th century the defences of earth were replaced by a free-standing stone wall. Between Smithgate and East Gate the wall was double, a feature unique in England.⁴² Much of the inner or main city wall in this north-east section is preserved in New College,⁴³ but the outer wall has been destroyed above ground. However, between Smithgate and the north-east corner of the defences its course is largely traceable by following the line of the parish boundary.⁴⁴ From the north-east corner to East Gate even the line has disappeared, probably as a result of property division.⁴⁵

³⁸ Daniell, *Oxoniensia*, iv, Fig. 28.

³⁹ 'Oxford, St Ebbe's Survey, Post-Medieval', forthcoming.

⁴⁰ M. Mellor, 'The Pottery' in T.G. Hassall, *Oxoniensia*, xli (1976), 263.

⁴¹ T.G. Hassall, 'The Topography of Pre-university Oxford', *Oxford and its Region*, eds. C.G. Smith and P.I. Scargill (1975), 31.

⁴² For a discussion of this unique feature in English town wall building and related documentary evidence see Palmer, *Oxoniensia*, xli, 148-53.

⁴³ R.C.H.M. *Oxford*, 160.

⁴⁴ Palmer, *Oxoniensia*, xli, 152-53.

⁴⁵ For an historical discussion see Hassall, *Oxford and its Region*, 29-35 and *V.C.H. Oxon*, iv, 300-4. For the archaeological evidence see T.G. Hassall, 'Previous Excavations on the City Wall and Ditch', *Oxoniensia*, xxxvi (1971), 46-8.

The Late Saxon Defences

Clearly there is some difficulty in locating the earliest defences due to the loss of archaeological evidence in building operations, not least the medieval defensive works. The problem was lessened at St. Michael at the North Gate where the later defensive line had been diverted 14m. to the north to create a churchyard above the old ditch (Fig. 6A). Only the front face of the rampart survived, and only to a height of 1.45m. but the distinctive pattern of turf construction could be discerned. The thick ragstone facing was presumably a later strengthening: the few sherds of stratified pottery from elsewhere on the site suggest that the rampart was not replaced until the early 12th century, by which time it would have been 200 years old and long due for refacing.

The date of the defensive diversion cannot be established on the evidence of the single sherd from the first construction trench (F6/1). If, however, it is accepted that this wall, standing on 2m. of ditch silt, was too thin and unstable to survive more than a decade (see Fig. 2), six further sherds from the replacement wall can be used to give a *terminus post quem* of c. 1100 (F5/11, L10). In 1086 Domesday book recorded two houses belonging to the priests of St Michael's, one of only three property-holding churches in Oxford.⁴⁶ This suggests that the church was already an established and prosperous institution at a time when much of the North Gate site must still have been occupied by the earth rampart. The only part of the fabric which survives from this period is the tower (Fig. 2), generally assumed to have been built in the mid 11th century.⁴⁷ It would have stood in the line of the rampart, possibly even jutting forward of it. In these circumstances it is difficult to see it having been directly joined to a church. Possibly the church was elsewhere in the parish, but the evidence of a grave inserted during the interval between the building of the two stone walls F6 and F5 implies that burying in the new area was immediate, and hence that the defensive diversion was undertaken as a deliberate enlargement of a pre-existing churchyard. The church itself may have been accommodated within the tower,⁴⁸ alternatively it may have replaced part of the rampart immediately adjoining the tower, or thirdly it may have occupied the space between the rampart and Ship Street to the south (Fig. 6A). The present investigation provides no new evidence on this question, and serves only to indicate future avenues of study.

The writers are grateful to David Parsons for a valuable contribution to understanding the original role of the tower. Working from the premise that it was originally defensive and not directly connected to a church, he reasoned that the off-centre blocked west door was likely to belong to this pre-church phase, when it would have lain outside the defensive line. Logically it must therefore have functioned as a pedestrian gate, ancillary to a vehicular gate on the line of the modern street. In order to substantiate this he studied the south wall for evidence of a townward doorway, which would provide a defensively secure dog-leg route for pedestrians through the ground floor of the tower, on a line with the eastern side of Late Saxon Cornmarket Street as suggested by Sturdy.^{48A} He has produced possible evidence for such an opening in the apparently discontinuous plinth stones, but since this course is now almost completely buried it is difficult to be certain. If the defensive role were proved, Mr Parsons suggests that this would be an urban example of a *burhgeat*, the Anglo-Saxon secular tower which could develop through the stage of a 'turiform nave' into

⁴⁶ J. Morris, ed., *Domesday Book, Oxfordshire* (1978), 154b.

⁴⁷ '1050-1100', H.M. Taylor and J. Taylor, *Anglo-Saxon Architecture*, i (1965), 481-2; 'first half of the eleventh century', J. Sherwood and N. Pevsner, *Oxfordshire* (1974), 19, 294.

⁴⁸ The writers are grateful to David Parsons for this suggestion.

^{48A} D. Sturdy and H. Case, 'Archaeological Notes', *Oxoniensia*, xxvi-xxvii (1961-2), 338.

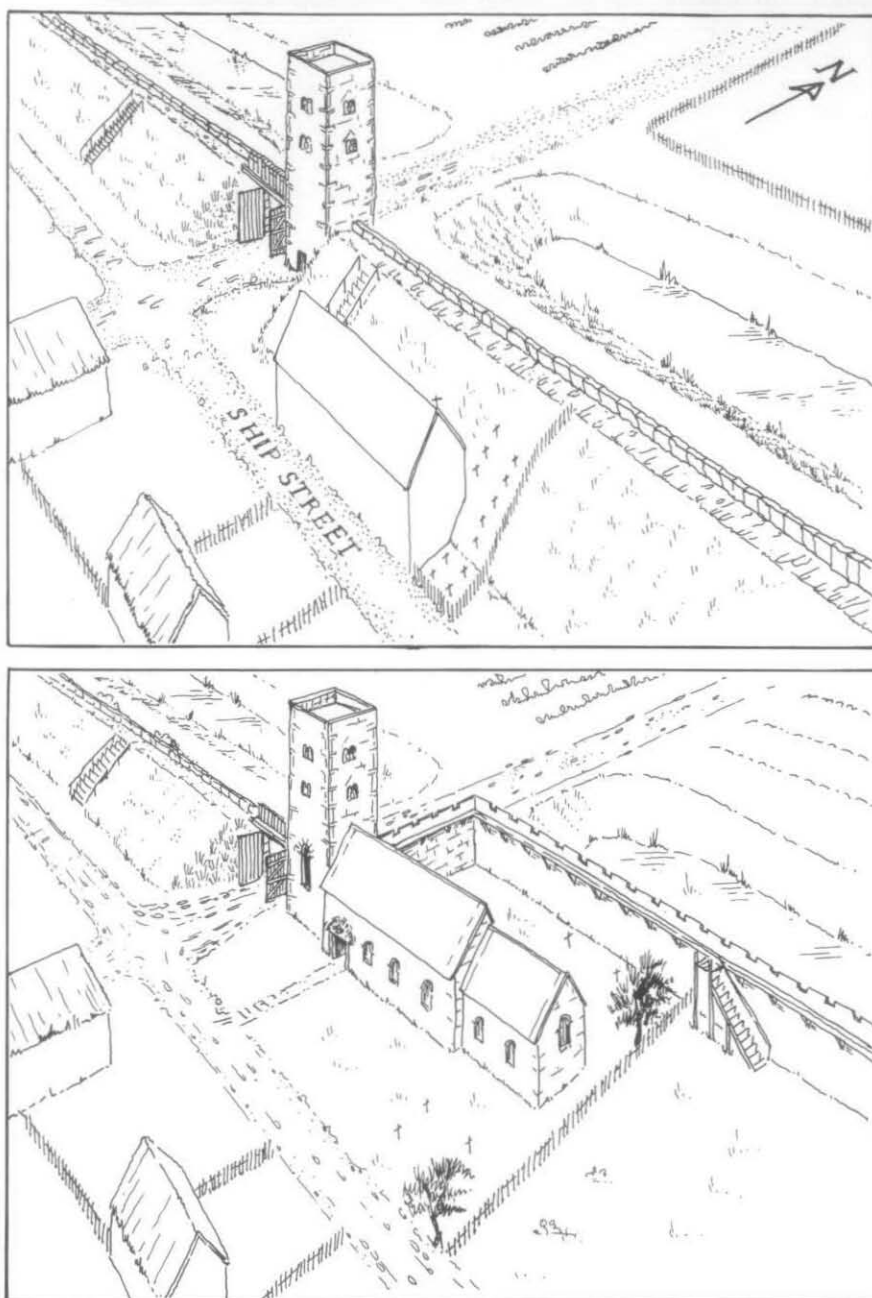


Fig. 6A. Reconstructed views of the North Gate: *above*, c. 1086 with St. Michael's church conjectured along Ship Street; *below*, the early 12th-century church built against the gate tower, occupying an enlarged churchyard created by the defensive diversion.

the tower of a church as at Earls Barton in Northants. It is hoped that a future investigation will confirm or refute this suggestion and it has been decided to defer full publication of Mr Parsons' work for the time being.⁴⁹

The present work adds nothing to the debate on the eastern defences of the *burh*, but the equally elusive west defences are slightly illuminated.⁵⁰ The surviving straight alignment west from the north gate veers southwards at Bastion 1, and Trench II at George Street Social Studies Library was designed to look for a rampart continuing the straight line. No rampart was found, but there was a ditch, large enough to be a town defence, which turned south and over which the stone wall had been built. The ceramic date for the ditch fill coincides so closely with the construction of Oxford's free-standing stone defences that there can be no doubt this realignment occurred c.1226–40.⁵¹ The ditch would therefore belong to the west defence of the 12th-century town, if not of the *burh*, and could be expected to have a berm and rampart as at St Michael's. Unfortunately the relevant area is totally covered by 20th-century buildings of St Peter's College, and so yet another opportunity of investigating the burghal defences has been lost.

The Besse building of St. Peter's College extends south along the putative rampart line for 100m. Beyond are the levelled sites of four cottages on Bulwarks Lane, and on the last of these the basement was never infilled. The trial trench at Bulwarks Lane 1980 was dug to look for the defensive line, and the fact that no rampart was found seems relevant nonetheless. A rampart line about 7m. to the west would be consistent with the general topography, the archaeological evidence of Late Saxon turf stripping, and the subsequent habitation, but the case is weakened by the absence of either the tail of the rampart or the metalling of an intramural street.⁵²

The more general significance of the ditch found at George Street Social Studies Library II and III is that the extensive Late Saxon settlement in the castle area can now be seen to have been separated from the town by a large ditch and was perhaps therefore an undefended suburb.⁵³ The displaced inhabitants must have gone somewhere in 1071, and if some moved northwards it would account for the existence of Pit Nu. 1 on the Canal Wharf site. Jope revised the dating of this pit apparently because he felt it should predate the castle, but it can now be seen in an early-12th-century context as north of the castle and west of the town.⁵⁴

The medieval defences

Documentary and archaeological evidence suggests that the replacement of the rampart with stone walls and semi-circular bastions was largely completed between 1226 and 1240,⁵⁵

⁴⁹ D. Parsons's typescript including a discussion of urban and rural comparanda is available at the Oxford Archaeological Unit.

⁵⁰ *V.C.H. Oxon.* iv. 300–1.

⁵¹ *Ibid.* 301.

⁵² Primary metalling has now been seen on 8 streets of the original town plan, including the 'intramural' St. Michael's Street. For the index plan see the O.A.U. Archive, 'Oxford High Street, 1981'. However, recent excavations on the south defences of Wallingford have cast doubts on the intramural street as a principle of burghal planning: *C.B.A., Group 9, Newsletter*, xiii (1983) forthcoming.

⁵³ See Hassall, *Oxoniensia*, xli. 254.

⁵⁴ E.M. Jope, 'Recent medieval finds in the Oxford Region', *Oxoniensia*, xiii (1948), 70–2; E.M. Jope, 'Late Saxon Pits under Oxford Castle Mound', *Oxoniensia*, xvii–xviii (1952–53), 79, Note 2, Fig. 39. See also 'Ceramic Dating' above.

⁵⁵ *V.C.H. Oxon.* iv. 301.

although there is a reference to bastions being built in 1257.⁵⁶ Excavations by Hunter and Jope on the wall at New College indicated that this section of the wall was built shortly after c.1200, and this evidence concurs with that from the architectural survey of the walls.⁵⁷

Oxford's new medieval walls were free-standing: there is no reason to think that the ramparts survived anywhere, and their removal is in strong contrast to the contemporary rewalling of Hereford.⁵⁸ There the ramparts were retained, and a 'straightened-up' stone defence was put in front. Where the line diverged, either across the berm or partially into the ditch, the space was infilled, as at Cantilupe Street, so that the extended rampart effectively formed the wall-walk to the stone defence.⁵⁹ Oxford perhaps had the advantage that the burghal defences were relatively straight so that enfiling cover could be achieved with a modest number of bastions. This meant that the stone defence could follow the outer line of the rampart, thus perpetuating the town boundary. The exception seems to be at New College, where a reassessment of the 1949 evidence suggests that the corner bastion 14 juts out over the fill of a gently curving ditch forming the north-west angle of the eastern defence (see pp. 26-7). The subsequent general removal of the earth banks from behind the new wall would have released a large stock of land, but there is no evidence that it was used for building purposes for several centuries.⁶⁰

The profiles of the various ditch sections are not easily compared because of the destruction of the evidence by post-medieval activity. Moreover the surviving profiles mostly represent the shape of the ditch at the end of the medieval period after many recuttings and clearings. At Hertford College, however, some indication of the original shape survived, preserved by the construction of the outer wall. The south side of the ditch, which showed signs of an original turf revetment, sloped fairly steeply before flattening out to a more gentle angle. It reached a depth of c.2.75m. below the top of the footings of the main wall, although this was not its deepest point. At 21 Longwall Street the ditch was flat bottomed under the outer wall and c.3.75m. deep.

The late medieval profiles can be compared with that recorded in 1939, when a tunnel was dug between the Old and New Bodleian Libraries.⁶¹ Here the ditch was just over 18m. broad, 3.3m. deep and flat bottomed for c.7.6m., sloping quite steeply on the south side, but more gradually on the north.⁶² The incomplete profile seen at 39 George Street accords well with this, although slightly deeper (c.4m.). At 21 Longwall Street, however, the medieval ditch appears to have been wider and shallower, being perhaps 30m. wide from the outer wall. The unusual width may be related to the medieval spring known as Crowell, which appears to have been at this corner of the city ditch.⁶³ The width of the berm appears also to have varied, from 7-8m. at the Bodleian tunnel, to 3.75m. before the building of the outer wall at Hertford College.

In confirmation of the many documentary references to the maintenance of the defences,⁶⁴ the excavations demonstrated that the ditch continued to be cleaned out until the end of the Middle Ages. At George Street there was evidence of recutting, and at Hertford College scouring of the ditch had in places exposed even the footings of the outer

⁵⁶ H.E. Salter, *Records of Medieval Oxford*, 76-84.

⁵⁷ R.C.H.M. *Oxford*, 159-61.

⁵⁸ R. Shoesmith, 'Excavations on and close to the Defences', *Hereford City Excavations*, 2 (C.B.A. Research Report, 46), 85-6.

⁵⁹ *Ibid.* Fig. 130.

⁶⁰ Jope, in *Dark Age Britain*, ed. Harden, 243; H.E. Salter *Survey of Oxford*, (O.H.S. N.S. xiv, xx).

⁶¹ J. Daniell, *Oxoniensia*, iv, 153-61.

⁶² *Ibid.* 158.

⁶³ *V.C.H. Oxon.* iv, 91, 272, 354.

⁶⁴ *Ibid.* 301-3.

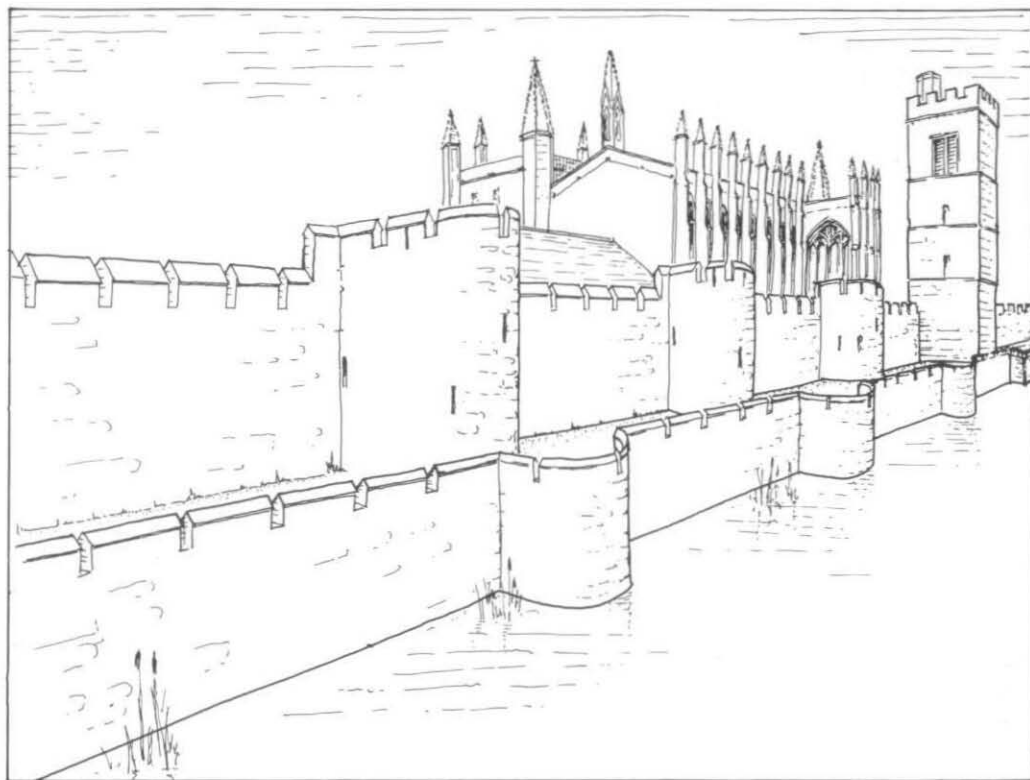


Fig. 7. Oxford's north-western defences: a reconstruction of the double wall line with New College chapel and the Bell Tower, c.1400.

wall. Also at Hertford College, 3 sherds of 14th- and 15th-century pottery came from a layer in the very bottom of the ditch, and the Bodleian tunnel excavation also recorded pottery dating to the late medieval period from the lowest part of the ditch fill.⁶⁵

The Outer City Wall(Fig. 7)

The defences between Smithgate and East Gate were provided with an outer wall some 10m. forward of the main city wall. It presumably supported a crenellated parapet, but at only c.1m. thick⁶⁶ it is not substantial enough to have had a wall walk.

The excavations at 21 Longwall Street and Hertford College have provided further archaeological evidence about the outer city wall. They show that it was built in the bottom of the existing ditch and that the ditch was then infilled behind. Perhaps the most significant new evidence, however, relates to its date of construction. By analogy with concentric castle architecture, Nicholas Palmer dated it to the period between 1280 and

⁶⁵ Daniell, *Oxoniensia*, iv. 159.

⁶⁶ Observations made in 1910 suggest that the outer wall was only 2ft. (0.61m.) thick, compared with 1.05m. recorded at Hertford College in 1980, although this could refer to the post-medieval rebuild (F11/3) of the medieval wall: H.E. Salter, *Records of Medieval Oxford*, (1912), 83.

1300, perhaps the years after 1285 when there is documentary evidence of wall building activity.⁶⁷ The discovery of mid 13th-century pottery in layers sealed by the outer wall's construction confirms this hypothesis. It clearly precludes an alternative suggestion that the two walls were contemporary and that the outer wall simply acted as a revetment to the old rampart material dumped in the ditch.⁶⁸

The Longwall Street excavations have also provided the first archaeological confirmation of the existence of bastions on the outer wall, in front of those on the main wall. These are shown on early maps, but it had been suggested that the only one to survive (in front of Bastion 13) was a post-medieval structure.⁶⁹ The 1974–5 excavation at Hertford College failed to locate an outer bastion in front of Bastion 9, but it now seems likely that one did exist, but had been cut back and replaced by a narrower straight wall.⁷⁰

It is noticeable that the narrowing of the wall occurs exactly where the bastion might have been expected (Fig. 5). It was not possible to demonstrate that the outer bastions were of the same build as the medieval wall, but the masonry of both was very similar, and it seems likely that they were original features.

The position of the Longwall bastion does, however, raise problems about the defensive arrangements on the north-east corner. The early maps (Merton, 1660 and Loggan, 1675) show the outer bastion projecting northwards only and not going right around the corner to project eastwards as well. The Merton map seems to suggest a further stretch of wall to the east and a right-angled corner. The angle of the excavated bastion appears to confirm the evidence of the maps. This arrangement might be acceptable if the outer wall ended at the north-east corner, but given the documentary evidence of its continuation to the East Gate,⁷¹ it seems both inelegant and militarily unsatisfactory.

A valuable contribution to the general picture of the double defence has been made by Derek Renn, who noted that the double lobe to the oilet on some of the arrowslits of the New College main wall bastions could be paralleled at Caernarvon castle, begun in 1283. The implication is that these towers were built or rebuilt rather later than the main stone defences, possibly therefore at the same time as the outer wall. If so, the lower embrasures would have been placed to see over the outer wall, and this gives an estimate of the height of the outer wall which is in keeping with that deduced from its modest breadth. Whilst presenting a face c.5m. high to the ditch, from the town side it would have appeared as a crenellated parapet along the edge of the slype.

One aspect of the interpretation of the outer wall does require amendment. The postern gateway excavated at Hertford College in 1974–5 was said to be part of the original scheme and pottery associated with it to be "not inconsistent" with a late 13th-century date.⁷² It now appears that this pottery should be regarded as 15th-century,⁷³ but the postern did appear to be an original feature, so it may well be that the layers from which the pottery came represent a remodelling of the original stairwell.

⁶⁷ Palmer, *Oxoniensia*, xli. 158.

⁶⁸ B. Durham, '21 Longwall Street, the Outer Town Wall', *C.B.A., Group 9 Newsletter*, x (1980), 157.

⁶⁹ Hunter and Jope, *Oxoniensia*, xvi. 35.

⁷⁰ Palmer, *Oxoniensia*, xli. 158.

⁷¹ A lease of 1336 of land between the two stone walls north of East Gate to Joan Levett: H.E. Salter, *Oxford City Properties*, (O.H.S. lxxxiii, 1926) 368, Appendix, pp. ix, 1.

⁷² Palmer, *Oxoniensia*, xli. 156, 159.

⁷³ Pottery from Trench III Layers L18 (1 sherd, Fabric BG) and L14 (1 sherd, Fabric AQ; 6 sherds, Fabric AM; 3 sherds, Fabric BG; 1 sherd, Fabric ZZ).

The Defences in the Sixteenth and Seventeenth Centuries

At the end of the medieval period the defences ceased to be maintained.⁷⁴ Agas' map of the city in 1578 shows only the main wall, while the area of the ditch is represented as vacant land. Once the defences had fallen into disuse the increase of population in the city and the scarcity of building land led to the use of the area for building purposes.⁷⁵ However, excavations at 39 George Street, Hertford College, Longwall Street, and those prior to the building of the Bodleian Tunnel, produced consistent evidence for a deep post-medieval recut of the city ditch. Also the outer wall reappears on maps of 1660 and 1675.⁷⁶ It is suggested therefore that the entire northern defences were resurrected during the Civil War.⁷⁷ It is known that during the Royalist occupation of the city in 1642–6 an ambitious scheme of defences was embarked upon and largely completed,⁷⁸ but it has always been assumed that this referred to the elaborate outer *enceinte* of artillery bulwarks depicted by the king's engineer Sir Bernard de Gomme.⁷⁹ De Gomme shows the old north wall only from Smith Gate to East Gate, but it can be inferred from Loggan's map that in 1675 the medieval line was still substantially complete. The only major break was the 160m. length westwards from Smith Gate, and it is possible that a major change in land ownership in this area between 1640 and 1649 resulted from the dismantling of the city wall at the end of the Civil War.⁸⁰

A sturdy and substantially complete medieval wall would clearly have been of value to an engineer concerned with the security of the royalist capital. In writing the history of the siege, F.J. Varley was impressed by reports of disaffection when the people of Oxford and the surrounding area were required to help construct the forward works around St. Giles and in the New Parks in late 1642.⁸¹ He went on to suggest that the Parliamentary Council of War was indulging in deliberate overstatement when it reported that the defences were incomparably more strong than ever by May 1646, on the assumption that Fairfax had no stomach for a long siege and would prefer to fight the Royalist army in the field.⁸² There are very few useful reports of defensive engineering between these dates. The archaeological evidence is particularly significant therefore, because if substantial resources were being devoted to redigging the medieval ditch and repairing the outer wall as at Hertford College, it implies that the documented outer works were equally impressive if not more so.⁸³ The ceramic dating for the final infilling of the ditch during the mid 17th century clearly supports these arguments.⁸⁴ Similar material recovered from the bulk infill of the townward facing ditch of Oxford Castle in 1973 shows that the Commonwealth citadel of 1649 was similarly defended, although it does not conclusively prove that the castle was separately fortified during the previous Royalist occupation.⁸⁵

⁷⁴ *V.C.H. Oxon.* iv. 301–3; Palmer, *Oxoniensia*, xli. 150–1.

⁷⁵ Palmer, *Oxoniensia*, xli. 150.

⁷⁶ A map of Holywell Parish preserved in Merton College Library, 1660, and Loggan's Map, 1675.

⁷⁷ Durham, *C.B.A. Group 9 Newsletter*, ix. 157.

⁷⁸ For a description of the Civil War defences see *V.C.H. Oxon.* iv. 303–4, and Note 89.

⁷⁹ R.T. Lattey, E.J.S. Parsons and I.G. Philip 'A Contemporary map of the defences of Oxford in 1644, *Oxoniensia*, i (1936), 161–72; ii (1937), 207–8.

⁸⁰ E.T. Leeds, in Daniell, *Oxoniensia*, iv. 159–60.

⁸¹ F.J. Varley, *The Siege of Oxford*, (1932), 107–8.

⁸² *Ibid.* 114–16.

⁸³ A. Kemp, 'The fortification of Oxford during the Civil War', *Oxoniensia*, xlii (1977), 237–46.

⁸⁴ The upper 9ft. (2.74m.) of ditch fill recorded prior to the building of the Bodleian Tunnel is re-dated to the second half of the seventeenth century, not the early seventeenth century as published by Daniell, *Oxoniensia*, iv. 158–9.

⁸⁵ Hassall, *Oxoniensia*, xli. 254.

The resurrection of the northern medieval defences in the Civil War has considerable significance for Oxford's topography. The *V.C.H.* accepts the evidence of Hollar's map and other sources for houses backing onto the north ditch in 1643.⁸⁶ The easternmost group opposite New College chapel are convincingly drawn veering back over the ditch, and it must be assumed that these were dismantled before the siege. The remaining properties must have lost their backyards and outbuildings, but perhaps the houses themselves were reprieved. Loggan's map shows clearly that the ditch was totally dry and rehabilitated by 1675, but in studying his drawing we must in future take account of engineering on an enormous scale in the 32 years since Hollar. This may indeed cast light on some of the discrepancies which have tended to discredit Hollar's work.⁸⁷

The ditches as excavated at the Bodleian Tunnel in 1938 and the castle in 1975 produced large quantities of finds and were clearly used as repositories for domestic rubbish.⁸⁸ The relatively clean fill at 39 George Street and 21 Longwall Street may reflect the greater distance from a city gate in each case, but it is not clear where the material in fact came from. It was apparently not from the outer ramparts which are at some distance and in any case are relatively intact in these areas on Loggan's map.⁸⁹ The George Street fill may have come from Pelham's Mount or Jews Mount which was removed at this time, although Wood records that this material was used to improve the ramparts of the castle citadel.⁹⁰ It is further possible that L13/1 at Longwall Street was Oxford Clay cast up from the ditch and piled in the slype to protect the lower part of the medieval wall from artillery damage, but this is only conjecture. The most important fact is that in these areas the ditch was still clean when the bulk infilling occurred, which supports the archaeological, historical and topographical evidence that in c. 1651 Oxford's seven-hundred year tradition as a fortress was ended at a stroke.

When the ditch finally went out of use the area was again used for the building of tenements and the laying out of gardens. Anthony Wood, writing between 1661 and 1666, records that the houses on the south side of Holywell Street, except those at Smithgate, had been built within the last thirty years.⁹¹ Archaeological evidence relating to these houses was recorded within the contractors' trenches during excavations at 21 Longwall Street. Presumably once the houses along Holywell were built the process of infilling the ditch was quickened to provide them with gardens. Vivid evidence for the deliberate infilling of the ditch to enable building work to take place is seen in the oak platform, interpreted as a rubbish tipping platform, found in 1938 near the outer lip of the ditch during excavations below the south-west corner of the Clarendon Building.⁹² This is particularly interesting, as within twenty years of the Royalist surrender, Christopher Wren was building the Sheldonian Theatre here. It must be assumed that his foundations reach the full depth of the ditch (22ft., 6.7m.) or the building would surely have been damaged by subsidence.

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⁸⁶ *V.C.H. Oxon.* iv. 89, 91.

⁸⁷ *Ibid.*

⁸⁸ Daniell, *Oxoniensia* iv, 158-9.

⁸⁹ Observations during the building of a squash court for Keble College, off St. Cross Road in 1981 showed that the existing 2m. high break of slope is a 19th-century rubbish dump. If the property boundary above it represents a Civil War defensive line shown by Loggan, it can only be the mid-line of the ditch (SP 51890675). Similarly, the bank at Rhodes House was shown in 1979 to be no earlier than the mid 18th century, although it is possible that the observed 3m. length was the infilling of an opening cut through the bank. Neither of these banks conforms closely with the inner line on De Gomme's plan (R.C.H.M. *Oxford*, 161).

⁹⁰ *Wood's City of Oxford*, i. 217.

⁹¹ *Ibid.* 383.

⁹² Daniell, *Oxoniensia*, iv. 159.