

The West Gate of Oxford Castle: Excavations at Boreham's Yard, Tidmarsh Lane, Oxford, 1994-1995

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SUMMARY

A programme of archaeological work in advance of redevelopment revealed a sequence of cobbled surfaces and other structural fragments probably of 12th- to 14th-century date outside the west gate of Oxford Castle. Part of the 13th-century curtain wall and the likely position of the gate itself were located. The external surfaces likely fronted onto the river channel (Castle Mill Stream) to the west, while a possible channel linking the river with the water-filled moat of the castle mound was located at the northern end of the site. Post-medieval developments included the establishment of a ditched boundary and successive realignments of the river channel before the construction of 18th- and 19th-century buildings, some of which still survived immediately prior to the redevelopment. The results of the excavation are integrated with documentary and cartographic evidence for the site to refine the understanding of the topography of this important part of Oxford Castle.

A small-scale archaeological evaluation and subsequent watching brief and excavation were undertaken by the Oxford Archaeological Unit (now Oxford Archaeology, hereafter OA) in 1994 and early 1995 in advance of the redevelopment of the site of Boreham's Yard, Tidmarsh Lane, Oxford, for student accommodation for St. Peter's College, University of Oxford. The site (centred at SP 5092 0615) lies immediately south-east of the junction of Tidmarsh Lane and Quaking Bridge and is bounded on the west by the present Castle Mill Stream and on the south by the late 18th-century wall of Oxford Prison. The motte of Oxford Castle lies slightly to the north-east, and St. George's Tower, the oldest extant building in this part of Oxford, just to the south.

The project was financed by St. Peter's College through the agency of TEAM management services. Unfortunately the bankruptcy of TEAM management services subsequent to the excavation delayed the post-excavation programme considerably; work on the report was effectively suspended in 1996, at which point it was well advanced. Completion of the publication report in 2003 was made possible by a grant from the Oxford Preservation Trust and provision of additional funding by St. Peter's College, while the publication costs were met by a grant from the Marc Fitch Fund. The present report consists largely of that prepared in 1996 and further updating of the text has been relatively limited. The project archive is deposited with the Oxfordshire Museums Service under the accession number 1994.49.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND BY JULIAN MUNBY

The site is within the historic bounds of Oxford Castle (Figs. 1 and 2), though outside the new prison built in the late 18th century.¹ It was thought to lie immediately outside the west gate of Oxford Castle, the location of which, while not precisely known, is indicated on a number of early maps. The west gate of the castle led to a barbican probably situated at the north end of

¹ A more detailed historical account with further references will be found in *Oxford Castle, a Heritage Survey* (1996), prepared for Oxfordshire County Council by OAU.

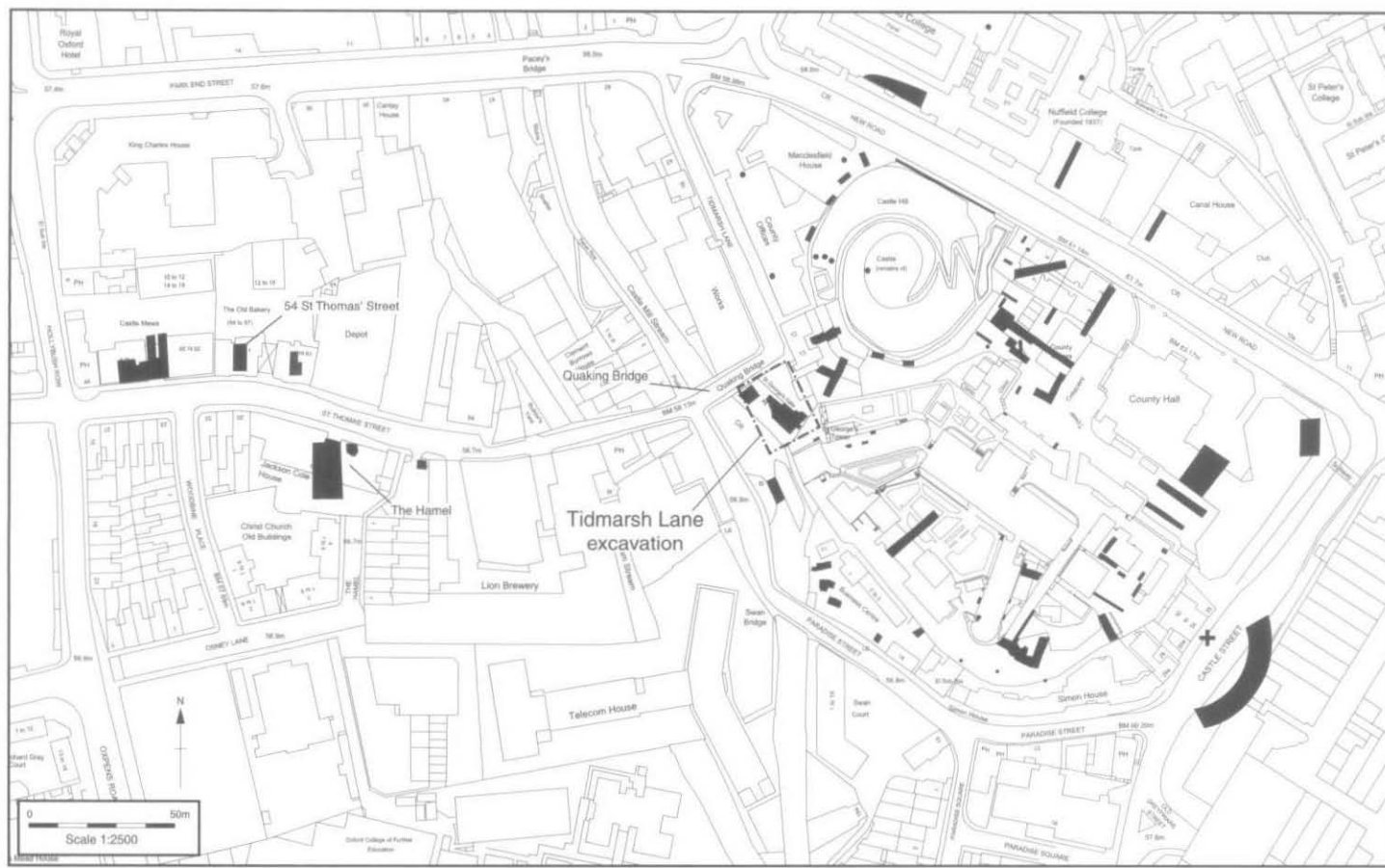


Fig. 1. Site location showing excavations in the vicinity of Oxford Castle.

Tidmarsh Lane, first recorded in the early 13th century. As the defensive aspects of the castle became less important, Tidmarsh Lane became an ordinary thoroughfare, with a row of houses on the west side, and a footbridge at the south end over to St. Thomas's High Street (Quaking Bridge). The castle was sold to Christ Church in 1613 and the site next to the river was built on in the mid 18th century. It was separately leased out and retained when the remainder of the castle was sold in 1785. The picturesque house by the river became a feature of views of the castle mill. It was sold by Christ Church in 1871 and the Oxford Battery Company occupied the premises during the 1920s. In 1930 the site was taken over by Boreham's Electrical, who vacated the premises to the Home Office in 1968. The premises have remained empty since that time.

BEFORE THE CASTLE

The castle lies at the west end of Saxon Oxford, in the area where the layout of the streets and defences is least well understood. Despite extensive archaeological work around the castle, there is still uncertainty as to the route of the western exit road from the town (New Road was constructed in 1769-70), and the line of Oxford's western defences has not been identified with certainty. Work by Jope in 1952 demonstrated that less than 40 m. to the east of the present site there was intensive late Saxon activity in the area later occupied by the castle mound.² It has been suggested that this may have lain on the north side of an east-west road of Saxon date leading from the (unlocated) west gate of the late Saxon defended town across the river, approximately along the line of the later (and present) St. Thomas's Street, the primary route to the west. The suggestion has recently been made that St. George's Tower in the castle may be of pre-Conquest origin, having functioned as a defended west gate.³ Whatever the case, it is likely that the riverside was colonised at an early date.

THE CASTLE

The castle was built in 1071 by Robert d'Oilli, according to the Oseney Chronicle,⁴ and this must refer to the creation of the motte-and-bailey castle: that is the existing mound and the earth ramparts that survived until the late 18th century. The church of St. George-in-the-Castle was founded in 1074 as a collegiate church for a small number of secular canons,⁵ and the fact that it was later a parochial church may suggest that it was founded in a church existing before the castle. Part of the crypt still survives, as does the 11th-century tower that seems to have served both as a bell tower and strongpoint guarding the western approach to the castle. A cemetery on the north side of the church continued to be used by the prison until modern times.

The castle twice played a role in national history, in 1142 during the Anarchy when the Empress Matilda was besieged in the castle and made her famous escape in mid-winter across the frozen Thames, and again, during the troubles of King John's reign, when the castle was attacked in 1216 by the baronial party, and defended for the crown by Fawkes de Breauté who built the eastern barbican that was excavated in the building of the Westgate Centre.⁶ The castle was made defensible during the baronial revolt of 1255-66, but saw no

² E.M. Jope, 'Late Saxon Pits under Oxford Castle Mound, Excavations in 1952', *Oxoniensia*, xvii/xviii (1952/3), 77-111.

³ Derek Renn pers. comm.

⁴ 'MLXXI. Eodem anno aedificatum est castellum Oxenefordense a Roberto primo': H.R. Luard (ed.), *Annales Monastici IV, De Oseneia, Chronicon Thomae Wykes, et de Wigornia* (Rolls Ser. 36, 1869), 9.

⁵ 'MLXXIV. Fundata est ecclesia Sancti Georgii in castello Oxenefordensi a Roberto de Oylly primo et Rogero de Iveri': *ibid.* 10.

⁶ T.G. Hassall, 'Excavations at Oxford Castle, 1965-1973', *Oxoniensia*, xli (1976), 232-308, see 250-4.

action. The castle was only rarely used by the king, who had more favoured residences at nearby Beaumont Palace (until 1318) and Woodstock. It became one of the many royal castles that had lost any role as a lodging for the king's household and came under the control of the sheriff or his appointed custodian, serving as a centre for the county administration.⁷

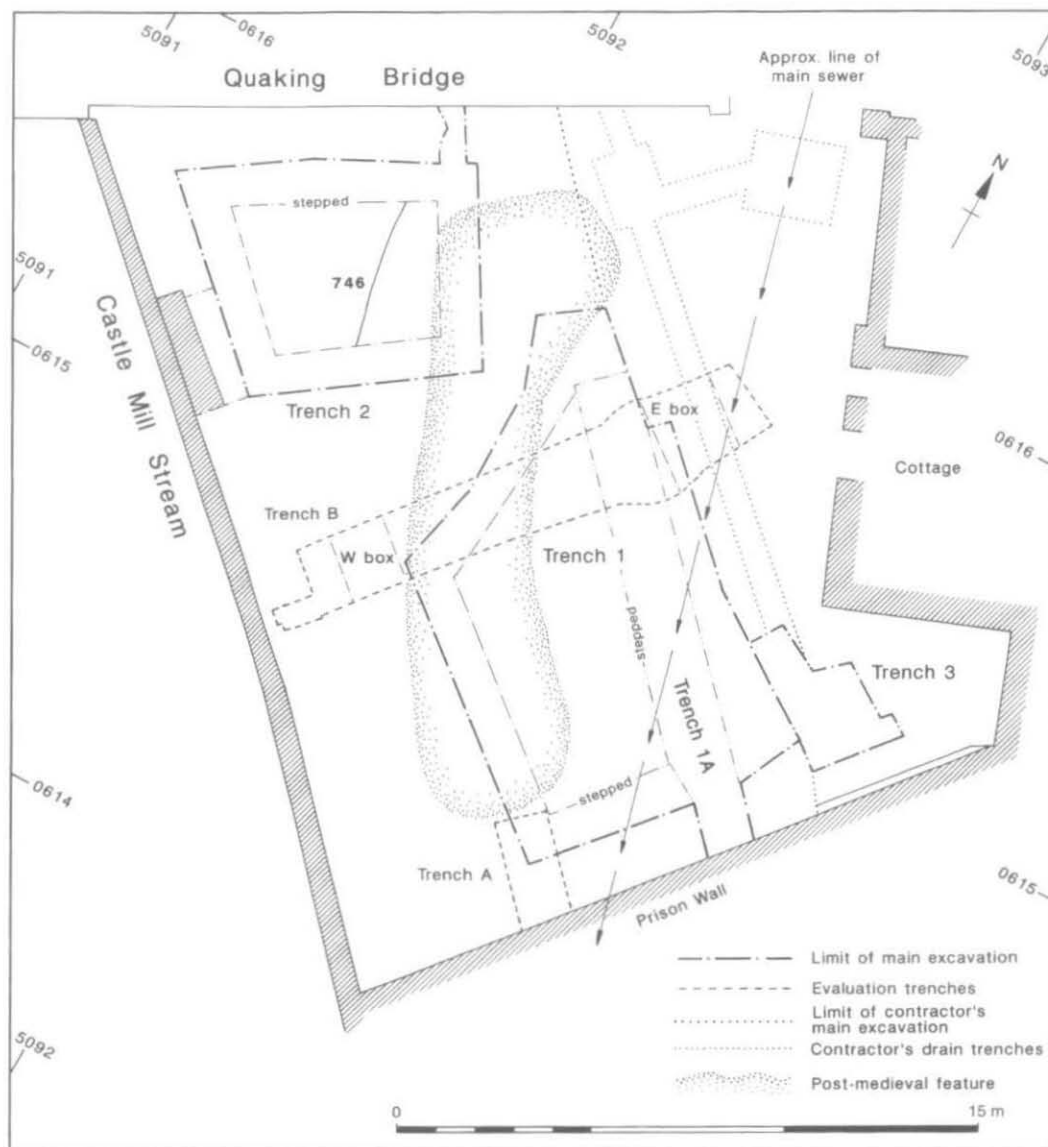


Fig. 2. Trench location plan.

⁷ For general accounts of the castle, see Brown and Colvin, *History of the King's Works*, i and ii, and *V.C.H. Oxon.* iv.

THE CASTLE BUILDINGS

As a royal castle, building work was recorded in the national records from the late 12th century and throughout the 13th, but repairs became less frequent during the 14th century. It is likely that many buildings fell into disrepair, with the exception of the shire hall and the prison. A listing of the buildings named in repair accounts and orders gives the following references to external parts of the castle:

- *Gate*: Henry III, 1312-17 (outer gate repairs)
- *Great gate*: 1327 (mantlet before gate needs repair)
- *West gate*: 1327 (ruinous), 1331 (broken)
- *Bridges*: Henry III, 1255 (decayed), 1256 (repairs)
- *East bridge*: 1266, 1331 (ruined)
- *West bridge*: 1324 (rebuilt)
- *Barbican*: 1216, 1226-7⁸

The references to a barbican may refer to the eastern barbican excavated under the Westgate Centre, but there is certain evidence for a second barbican on the west side of the castle, from descriptions in 13th-century property deeds (see below). This must have guarded the approach to the castle west gate and bridge.

Post-medieval history

The castle remained in use for the gaol, the Assize courts and Quarter Sessions long after its military importance had waned, and by Act of Parliament in 1531 the gaol was formally constituted as the common gaol of the county.⁹ The shire hall was used until 1577 when the 'Black Assize' carried off over 300 people with a sudden outbreak of gaol fever, and the courts transferred to the Oxford Guildhall. Of little use to the Crown, the site was sold in 1611, with the proviso that it should for ever be a lawful place of assembly for the courts and the county.¹⁰ The new purchasers sold it to Christ Church in 1613, which already had an interest in the site as inheritors of the Oseney property in the church of St. George, and was to remain as owner until 1785. The college leased out the castle, though the gaol remained in the buildings near St. George's chapel, and part of the site seems to have been used as a pleasure garden offering refreshments.¹¹ The long legal dispute (1615-22) between Christ Church and the city over the ownership of the outlying parts of the castle has preserved a detailed map of the castle, and a wealth of testimony as to its appearance (see further below).

The state of the castle was described in 1662 by Wood, who reported that the ruins of the towers had been pulled down by the Parliament forces in 1649 and replaced by new fortifications, themselves demolished in 1652.¹² The plan of the royalist defences drawn in 1645 by the military engineer Bernard de Gomme can be compared with Loggan's view of 1675, which suggests that the earthworks survived the building and removal of the Parliamentary 'bulwarks'. During the Civil War, the castle was used as a prison, and there began the first of the long catalogue of complaints of its unhealthy state.

⁸ Sources: Brown and Colvin, *History of the King's Works*; A. Wood, *City of Oxford*, ii, 265ff.; H.E. Salter (ed.), *Snape's Formulary* (O.H.S. lxxx, 1924), 292 (1331 inquisition); *V.C.H. Oxon.* iv, 297.

⁹ Gaol Act, 23 Hen. VIII, c.2.

¹⁰ *V.C.H. Oxon.* iv, 296.

¹¹ H.E. Salter (ed.), *Oseney Cartulary*, iii (O.H.S. xci, 1931), 15-22.

¹² Wood, *City of Oxford*, i, 276.

The appearance of the castle in the 18th century was well recorded on maps and a growing number of antiquarian drawings. The view taken by Burghers for Hearne in 1719 depicts the group of buildings around St. George's chapel, the derelict east gate and ruins of the shire hall, much as depicted in 1750 on Taylor's map of Oxford. These buildings were also shown in a view from the north by the Bucks. Several important drawings were made by Malchair in the late 18th century, recording the appearance of the castle in its last years. But greater changes were in hand, and according to an account written by the Rev. John Pridden in 1785, much of the castle remains were being removed for the new prison, the outer wall of which was being built.¹³

The prison

Complaints by the Grand Jury in 1784 led to the rebuilding of the gaol, one of 12 new prisons in this first era of reform.¹⁴ Initially the site was repurchased by the county, and in 1785 Christ Church sold it to 'the Justices of the County of Oxford for £331 10s., pursuant to the Act of Parliament for enlarging Gaols'.¹⁵ The new buildings were designed by William Blackburn (1750-90), a notable prison architect who also built Oxford's city gaol on Gloucester Green.¹⁶ Faden's map of Oxford in 1789 shows the new buildings (though the western wing was apparently not yet built), and also the surrounding wall and entrance lodge.

The Tidmarsh Lane site was left outside the new circuit of prison walls, and remained in the hands of Christ Church after the sale of 1785. The house shown in topographical views of the castle and mill from the north first appears on Taylor's map of 1750, and in 1829 was tenanted by one Henry Round in a yard containing a pigsty and stable.¹⁷ Christ Church sold the property to William Round, coal merchant, in 1871. At that time it was known as Castle House and consisted of a house with a cottage, stable and outbuilding. In 1884 his widow sold Castle House to Stephen Franklin, lime merchant, who transferred it in 1884 to his son Henry, another coal merchant, who seems to have been living there when he died in 1914. Henry Franklin's widow lived for a further 20 years, and it was her sons who sold the property to Frederick Boreham in 1936. Directories show that the premises were being used for electrical trades during the 1920s, and the Oxford Battery Company was in occupation in 1930 when it was taken over by Boreham's Car Electrical Service. They vacated the premises and leased it to the Home Office in 1968. It has remained empty since that time.¹⁸

A large sewer for the first main drainage scheme for Oxford, constructed in the later 19th century, ran on a north-south alignment tunnelling beneath the east part of the site. This was found, somewhat surprisingly, to run directly beneath St. George's Tower.¹⁹

SITE TOPOGRAPHY by JULIAN MUNBY

Castle topography

The principal, though unproved, assumption is that the ditch around the castle motte (independent of the main castle ditch) emptied into the Castle Mill Stream of the Thames river somewhere in the vicinity of the site. The motte ditch itself was partly excavated by

¹³ Bodl. MS. Top. Oxon. d.281, f. 111.

¹⁴ R. Evans, *The Fabrication of Virtue* (1982), 131ff.

¹⁵ Salter, *Oseney Cartulary*, iii, 22.

¹⁶ Blackburn's authorship is confirmed by Howard's observations in 1789, and the notices in *Jackson's Oxford Journal*; for Blackburn see Evans, op. cit. note 14, and H.M. Colvin, *A Biographical Dictionary of British Architects 1600-1840* (1978), 113-14; *V.C.H. Oxon.* iv also names George Money Penny.

¹⁷ Badcock survey in *Oseney Cartulary*, ii (O.H.S. xc, 1929), 601.

¹⁸ Information from Messrs Anthony and Martin Boreham, who kindly allowed examination of the deeds.

¹⁹ Oxford City Drainage Services, Sewer Connection Book No. 5.

Jope on the south side of the motte,²⁰ and was examined recently on the east side of the motte, where it was shown to be some 6.5 m. deep below modern ground level, and probably at least 15 m. wide.²¹ To the north-east, there was evidence that the curtain wall was arched across the motte ditch. Since the castle had a west gate, bridge and barbican, it is probable that the bridge was outside the gate and crossed the ditch where it exited into the Thames river. The west gate presumably stood in the length of curtain wall between St. George's Tower and the keep on top of the motte, and the barbican in Tidmarsh Lane. Depositions taken in a lawsuit in c. 1615 between the city and Christ Church described the appearance of the castle in some detail.²² From these it is clear that the curtain joined St. George's Tower to the tower on the motte: Roger Moore recalled 'that the Castle wall went from St. George's church to the tower on the round hill and so to St. George's church again round the Castle and that there was no way out of the wall towards Brokenhayes [Gloucester Green] but a hole where men might go into the Castle ditch'. But there is little certainty about precise locations beyond what can be found in post-medieval maps and views. This can best be seen in the context of a general account of the topography of the west side of the castle.

Passing down Castle Street, where houses were built up in the 16th century on the edge of the castle ditch, the road turns westward into Paradise Street. Here the city wall circuit met the castle at the city Westgate (demolished in 1610). The perimeter wall of the prison now runs down the mid-line of the former castle ditch, and excavations for the Simon Hostel revealed the ditch profile. The ditch exited into the Thames river adjacent to the present bridge, possibly with some arrangement of sluice gates to maintain the water level.²³

The present Castle Mill Bridge dates from 1865, but there was always a bridge there taking the road from the West Gate out to the suburb of St. Thomas's. This was the Waram Bank, which under its later name of Fisher Row was occupied by a row of houses demolished for slum clearance during the early part of the 20th century. Below St. George's Tower until 1930 was the Castle Mill. A favourite subject for Oxford artists, it stood partly in the roadway, and was removed to clear space for traffic. It was a working mill up to the time of its demolition, and may have been in continuous existence from at least the time of Domesday Book. Partial examination of the site in 1997 revealed a substantial timber and stone platform probably of 14th-century date.²⁴

The river is crossed again at Quaking Bridge, opposite the end of St. Thomas's High Street (once a busy suburban street), giving direct access to the north side of the town, and perhaps named after a flimsy precursor (Agas showed a timber bridge here in 1578). The layout of the castle at this point is not fully understood, but there was a western gate from the castle onto the strip of land between the castle ditch and the mill stream, roughly where the two houses now stand in the angle of Tidmarsh Lane. On the other side of the road was a converted malthouse, one of many buildings associated with brewing in this area. The present road must have been on the very edge of the castle ditch, for when the foundations of Macclesfield House were dug, it was found to be entirely sited on black mud.²⁵ The earlier County Office, built on the corner, also needed deep foundations to reach the bottom of

²⁰ Jope, *op. cit.* note 2.

²¹ 'Oxford Castle development, Phase 2 Archaeological Evaluation' (unpubl. OA report for Oxford Castle Ltd., 2002).

²² Salter, *Oseney Cartulary*, iii, 16-19, from Christ Church archives, MS. Est. 75.

²³ 'Traces of the probable post-medieval sluice house were encountered in recent work adjacent to the Castle Mill Stream frontage on the north side of Paradise Street: 'Paradise Street, Oxford, Archaeological Evaluation Report' (unpubl. OA report on behalf of Ambrosden Court Ltd., 2003).

²⁴ 'Castle Mill Stream, Oxford, Archaeological Watching Brief Report' (unpubl. OAU report, 1998).

²⁵ Hassall, *op. cit.* note 6, p. 242.

ditch fill. The ditch survived until the 18th century, when pictures show it silted up with trees growing in it. The Queen's Head public house (now Rosie O'Grady's) opposite the north corner belonged to Oriel College until New Road was built, when it was sold to the turnpike commissioners; the college had acquired it on its foundation along with St. Bartholomew's Hospital in Cowley. Their 13th-century title deeds refer to the site as being next to the 'outer drawbridge', and record Nicholas Franceis 'de la Barbekane' as the former owner;²⁶ so there seems to have been another barbican on the west side of the castle, though it was not accessible during recent excavations in the Worcester Street car park.

The site

While the castle stood, so much of the site as was not in the castle ditch must have been on dead space outside the castle walls. From the 17th century, the site seems to have become independent of the prison, and was a yard outside the precincts of the prison and its burial ground, with a house on the edge of the river. The site boundaries have changed somewhat with the building of the prison wall, the defining of the line of Tidmarsh Lane, and the widening of Quaking Bridge.

Agas's map of 1578 showed a gap between St. George's Tower and the river, some enclosure bounded by fence and a wooden bridge. The curtain wall was shown, but not the castle west gate, and the ditch appears to end without reaching the river. The plans produced for the city versus Christ Church lawsuit of c. 1615 showed a wall with a tower and archway, and a footbridge at Quaking Bridge. Part of the matter of the dispute was the cutting of a new millstream closer to the tower, which was unmistakably shown on the contemporary plan of Waram Bank;²⁷ this clearly implies that the earlier river bank was further west.

Hollar's map of 1643, not generally very reliable, showed a western gate tower between the motte and St. George's. The royalist survey of the Civil War earthworks by Bernard de Gomme (1645) appears to show a tower or gate in the western castle wall, though curiously for a military survey, it showed no water or ditches whatsoever. Loggan's bird's-eye view of 1675 was of prime importance for its accuracy, having been based on a cadastral survey, and showing a walled garden or churchyard north of St. George's Tower, but nothing between it and Quaking Bridge. It depicted an isolated building between St. George's Tower and the motte, perhaps the remains of the gate, with two curious attachments on the west side, almost like remains of a bridge abutment. This building may be shown on William William's 1733 map of Oxford (partly based on Loggan's survey), though here it was no longer isolated, but attached to the south end of the wall on the east side of Tidmarsh Lane. All subsequent maps show a building or group of buildings at this location, though it was hard to identify them on any of the views of the castle, as distinct from buildings on the west side of Tidmarsh Lane. Thus, neither the drawing by the Bucks (1729), nor that of Burghers (1719) were of much use in this respect, although one of Malchair's drawings of the castle from the north in 1787 does clearly show the house on the east side of Tidmarsh Lane, yet without any unusual features apparent that might relate to a bridge.²⁸ The 1729 'North View of Oxford Castle' by S. & N. Buck does however show the curtain wall of the castle extending northward from the north-west corner of St George's Tower (the present prison

²⁶ J. Munby and H. Walton, 'The Building of New Road', *Oxoniensia*, lv (1990), 127-8.

²⁷ T.W. Squires, *In West Oxford* (1928), Pls. xxxi (the Christ Church plan) and xcvi (Waram Bank); most other plans described below are illustrated by Squires.

²⁸ D.B. Brown, *Ashmolean Museum Oxford, Catalogue of the Collection of Drawings, IV, The Earlier British Drawings: British Artists and Foreigners working in Britain before c. 1775* (1982).

wall was attached to the north-east corner). It had a large arch with prominent voussoirs near to St. George's, and the wall ended with a marked rebate, and a broken top where an arch-springing may have existed.

The first significant post-medieval survey (as opposed to bird's-eye view) was Taylor's map of 1750, which showed the same wall striking north from St. George's Tower and returning toward the river, a building next the river and the row of buildings at the south-east corner of Tidmarsh Lane already described. This was the first appearance of the house on the river's edge, and it ended some way south of the narrow footbridge at Quaking Bridge. It was shown on all subsequent maps of the 18th and early 19th century, and on Badcock's survey of 1829, as well as all early views of the castle mill from the north. It had two storeys and attics and was apparently of stone construction with sash windows and attic dormers. A low extension joined it to the prison wall, and there was a gap at the north end between the house and Quaking Bridge (this narrowed after the bridge was rebuilt on a wider plan). The house seems to have survived until the beginning of the 20th century, being shown on a photograph from *c.* 1900.²⁹

In light of the historical data outlined above, the principal archaeological concerns in advance of the redevelopment of the site were the location of possible evidence for late Saxon activity and the clarification of the function of the site once the castle had been constructed, with special consideration given to questions relating to the location of a ditch linking the motte ditch and the Castle Mill Stream, the road out of the west gate of the castle and its crossing over the Castle Mill Stream, the western gate and barbican and a possible drawbridge channel associated with these. Clarification of the relationship between these features and successive lines of the Castle Mill Stream was also considered important. Further objectives of the work were to establish whether the churchyard known to lie on the north side of St. George's Tower extended into the site and to examine the north face of the prison wall foundations. This last was important because the prison wall is a Scheduled Ancient Monument and archaeological examination of the wall was a condition of Scheduled Monument Consent required before development adjacent to the wall could proceed.

THE EXCAVATION (Fig. 3)

The evaluation was carried out in April 1994 before the existing buildings on the site were demolished. Two trenches were excavated. Trench A, 2.5 m. x 1.5 m., within one of the buildings adjacent to the prison wall, was entirely hand excavated to a depth of 1.75 m. Trench B, 2.0 m. x 14 m., extended from the riverside wall NE. across the yard. This trench was machine excavated to a depth of approximately 1.0 m. (the first significant archaeological horizon) and further excavation, in two shored boxes, was carried out by hand down to the maximum depth of 2.10 m. The location of the boxes within the trench was dictated by safety considerations and the need to avoid areas where archaeological deposits had evidently been destroyed by modern disturbance. The depth of excavation in both trenches was constrained by the requirements of the proposed development. Both trenches produced a sequence of medieval deposits (complete only in the deep boxes in Trench B), on the basis of which areas for more extensive examination were proposed.

The main excavation, carried out from September-October 1994, was in two small areas, Trench 1 (*c.* 11.0 m. x 7.5 m.) to the south and Trench 2 (*c.* 6.0 m. x 7.5 m.) in the NW. corner of the site. Most of the area between the trenches was disturbed by a very large N.-S. aligned feature of 19th-century date identified in evaluation Trench B. Again the initial excavation was by machine, and again the depth of excavation was constrained by the design of the proposed building, with the result that the full sequence of deposits was only seen in a narrow N.-S. aligned strip (Trench 1A, Figs. 4 and 5) along the east edge of the excavation.

Subsequent to the main excavation, a watching brief was maintained on contractors' earth-moving operations. This added some detail to that already recorded in the main part of the site, but in the extreme SE. corner of the site a small extension of the main area to accommodate the base of a lift shaft revealed part

²⁹ Westgate Library, Centre for Oxfordshire Studies, O.C.L. 2220 (photograph of *c.* 1900).

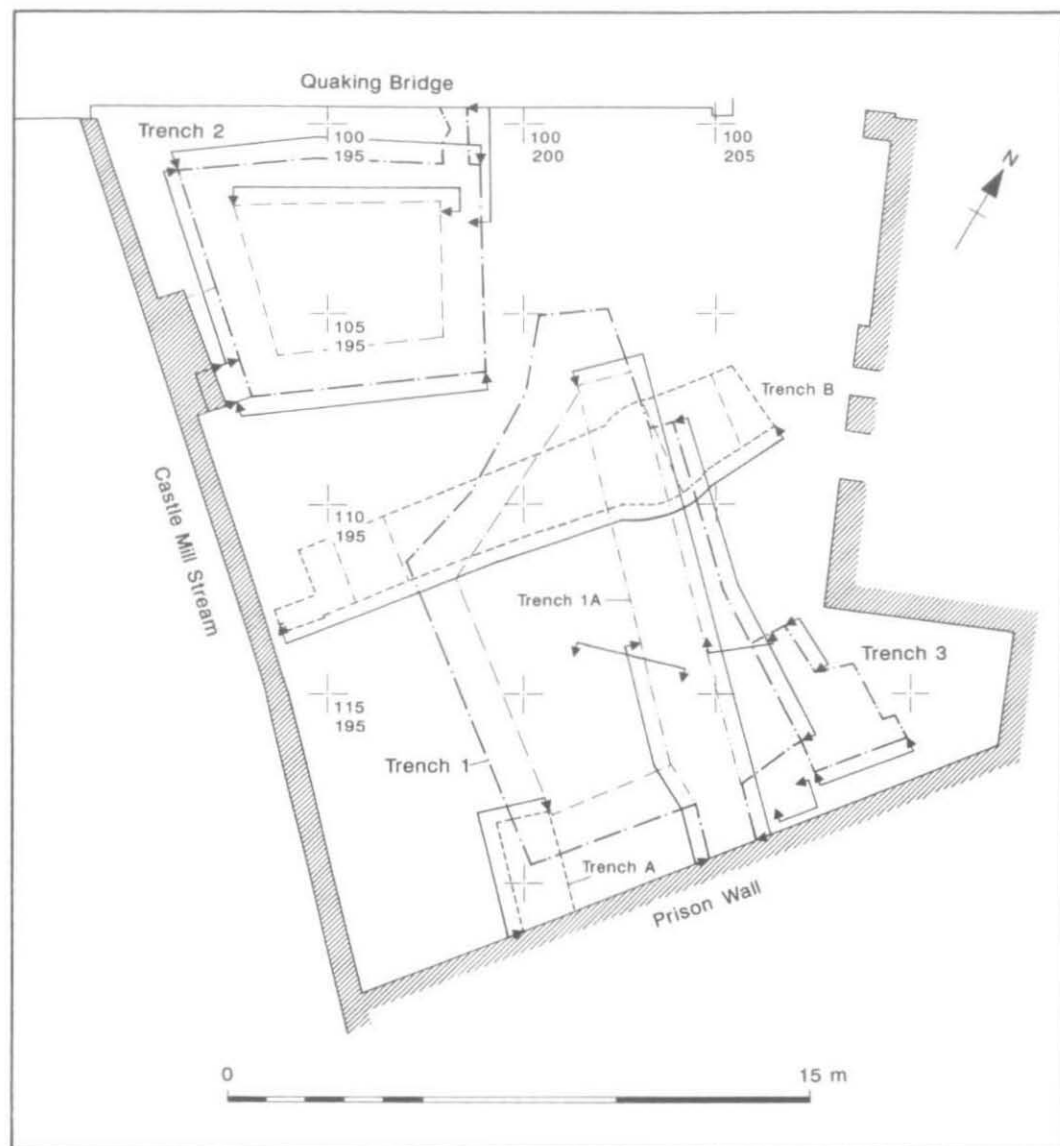


Fig. 3. Section and site grid location plan.

of the west face of the N.-S. aligned curtain wall of the castle, apparently with a NW corner. The potential importance of this discovery led to a further extremely limited excavation on the site of a proposed manhole immediately east of the new building (Trench 3). This, carried out entirely by hand in late February 1995, confirmed the probable location of the west gate of the castle. A final phase of watching brief followed, but added little information of substance.

It should be noted that conditions on the site were extremely wet, particularly at the north end of Trench 1A and in Trench 2, the deeper parts of which had to be regularly pumped out. Excavation here was below the water level in the adjacent Castle Mill Stream in places, so seepage as well as ground water was a problem. An additional problem affecting the definition of deposits and clarification of relationships, most particularly in the SW. corner of Trench 2, was intense disturbance caused by roots of trees growing along the present mill stream edge.

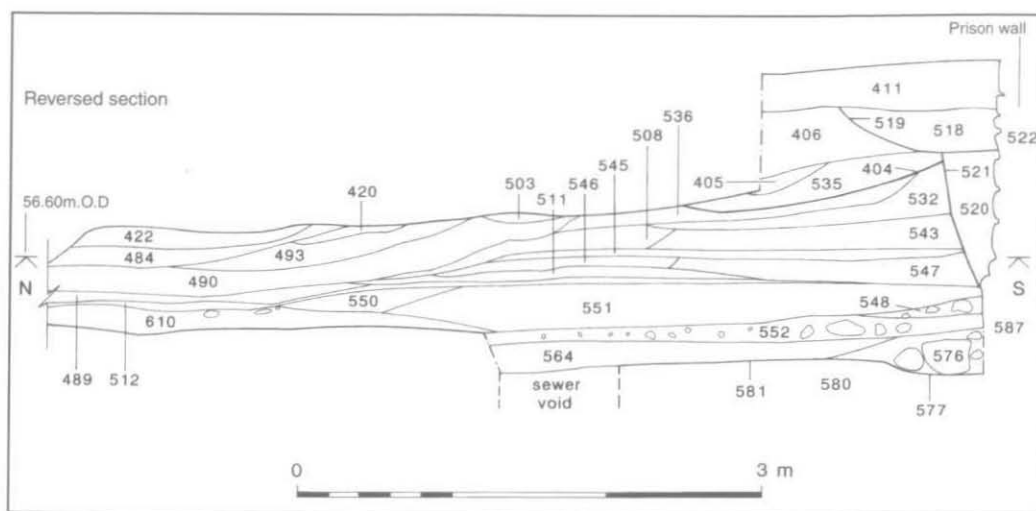


Fig. 4. Trench 1A long section, west face at the southern end.

THE ARCHAEOLOGICAL SEQUENCE

The excavated sequence on the site was divided into 11 phases, ranging from the period of the Norman conquest to recent times (the first two phases produced no datable material and their absolute chronology is therefore uncertain). The phasing of the medieval part of the sequence was based on three widespread cobbled surfaces, referred to for convenience as the first, second and third major surfaces (Phases 2, 4 and 6 respectively). These surfaces provided a framework for the main phases of activity within Trench 1 and where possible other features were assigned to phases on the basis of their relationships to these surfaces. This phasing scheme was then applied to the other excavated areas of the site. In some cases there were direct stratigraphic links between the sequences in these areas. In other cases the pottery dating evidence from deposits in these areas was compared with that from the more secure phases in Trench 1 to suggest likely phase equivalents, but in the absence of stratigraphic evidence such comparisons could not be precise, and some contexts were therefore given bracketed phase numbers (e.g. Phase 7-9) where greater certainty was not possible.

In the following site description the evidence of all the areas examined is integrated as far as possible, with the description of the evaluation trenches and the watching brief for the most part subsumed under that of Trench 1. Specific reference is made to the evaluation trenches only when they produced evidence supplementary to that of the main excavation. The deposits in Trench 2 were not easily related in detail to those seen elsewhere in the site, so the sequence there is described separately. Equivalencies between the sequences in Trenches 1 and 2 were drawn on the basis of ceramic dating, as already indicated, and also took into account similarities in the character of the features in both trenches. Such equivalencies cannot be regarded as conclusive, however.

Some layers and features were seen in more than one trench and therefore often have more than one context number. Numbers were assigned to trenches in blocks as follows:

- | | |
|----------------------|----------------|
| • Contexts 100-118 | Trench A |
| • Contexts 300-369 | Trench B |
| • Contexts 401-609 | Trench 1 |
| • Contexts 700-828 | Trench 2 |
| • Contexts 900-927 | Watching brief |
| • Contexts 1000-1041 | Trench 3 |

Site Description: Trench 1

Topsoil and superficial deposits were removed from the trench by machine, to a depth of c. 1 m. The deposits removed by machine were of post-medieval and modern date. The depth of subsequent excavation over most of the trench was constrained by the details of the construction programme and therefore the complete

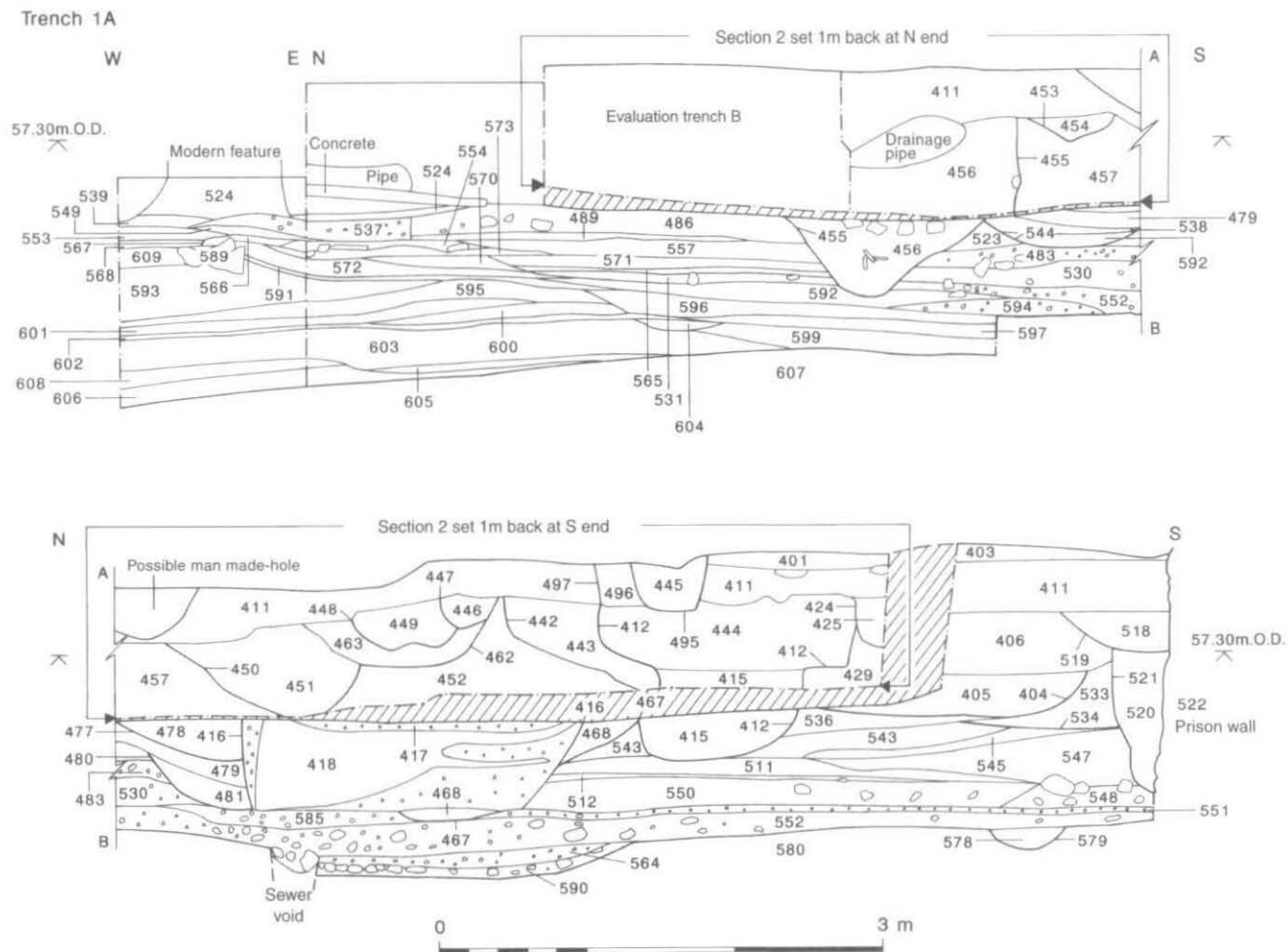


Fig. 5. Trench 1A long section, east face.

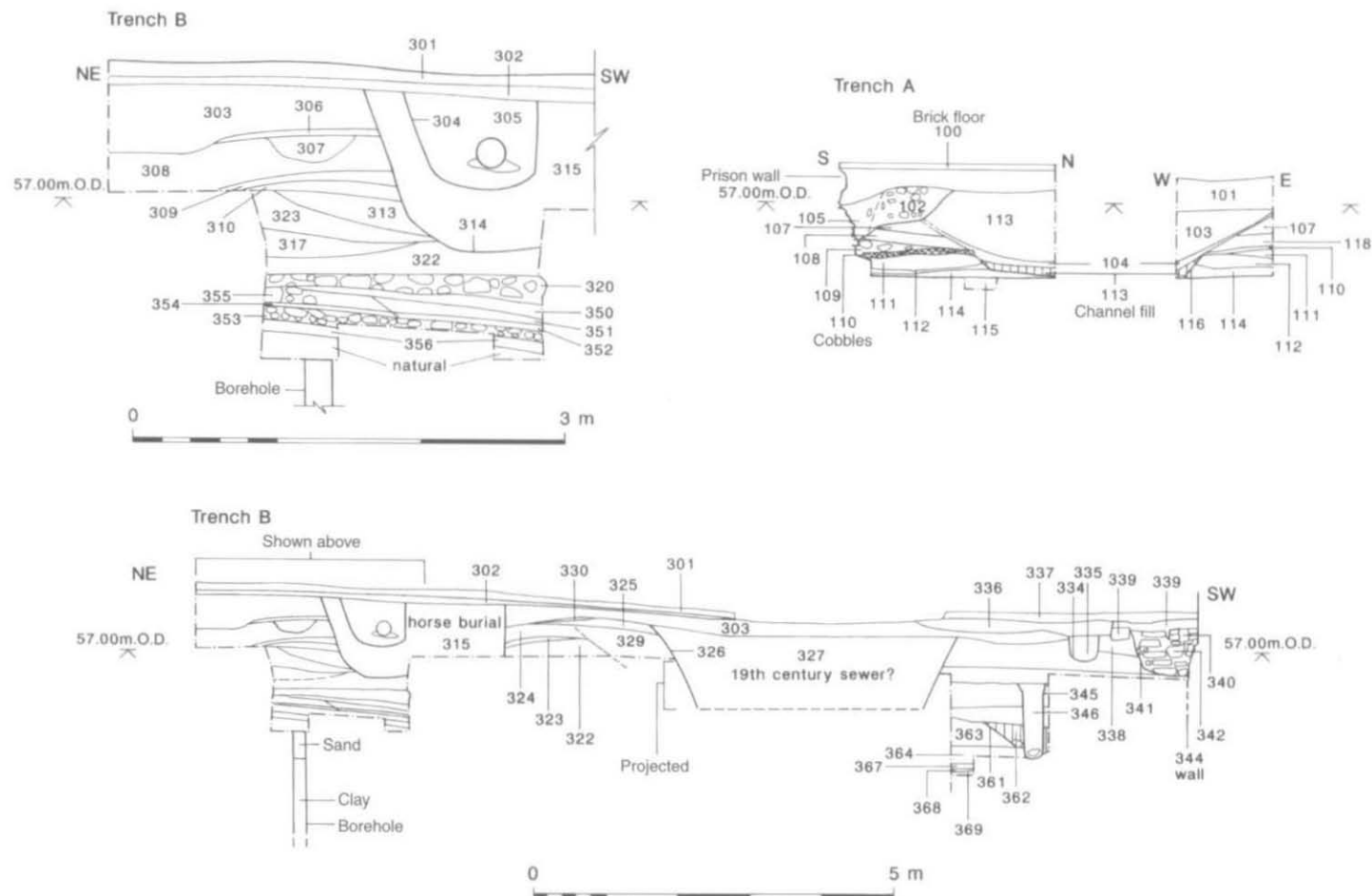


Fig. 6. Trench A and B sections.

sequence of deposits was not examined. However, in a deeper cut along the eastern side of the trench (Trench 1A), the location of a proposed deeper constructional feature, the excavation did reach the gravel subsoil, though not along the whole length of the trench. The north end of Trench 1A revealed a complex sequence of deposits in part related to successive medieval structural features. South of these deposits, and in part interleaved with them, were the three main cobbled surfaces and other deposits. As far as possible, description within each main phase proceeds from north to south.

Phase 1: Deposits predating the first major cobbled surface: The natural subsoil (580, 607) consisted of a compact yellowish brown gravel and sand, which in places in the SE. corner of the site was no more than c. 0.30 m. thick above greenish grey Oxford Clay. The level of the top of the subsoil in Trench 1A was variable. In general it sloped down from east to west and had a high point in the middle of the east side of the site. At its lowest, in a small sondage dug in the more westerly of the deep 'boxes' in Trench B, a coarse sand (369), probably the natural subsoil, was found at a level of 55.42 m. O.D. Two overlying deposits of sandy silt (368) and sand (367), together c. 0.13 m. thick, may also have been naturally deposited.

In the NW. corner of Trench 1A, the top of the subsoil (here gravel) was approximately 55.58 m. O.D., while in the SE. corner of this trench it was at c. 56.17 m. O.D. East of this point in the area recorded during the watching brief, the top of the gravel was locally as high as c. 56.45 m. The rise in gravel level from NW. to SE. was irregular. In the middle of Trench 1A the rise was interrupted by a slight dip to 55.85 m. before rising again toward the SE.

At the north end of Trench 1A, the primary deposit above the subsoil was a dark silty sand with charcoal flecks and waterlogged twig fragments (606) which was up to 0.12 m. thick. This was overlain by thin layers of brown silty sand with pebbles (605) and black sandy silt with charcoal staining (608), both of which lay beneath a more substantial light grey silty sand with gravel (603) containing waterlogged fragments of oak (including 2 timber fragments) and hazel/alder/willow stems from coppice stools or young trees, several of which had cut ends.³⁰ This layer was up to at least 0.20 m. thick. It was overlapped to the SE. by the edge of the first major cobbled surface.

At the south end of Trench 1A beyond the SE. edge of the first major cobbled surface were two possibly primary features cutting the gravel subsoil; a short length of NW.-SE. aligned gully c. 0.50 m. wide and 0.10 m. deep (579) and part of an irregular pit (577) containing a number of large limestone blocks (up to c. 0.40 m. x 0.40 m.). This feature lay in the extreme SW. corner of Trench 1A, partly beneath the baulk and partly beneath the later prison wall. Its character was therefore uncertain. The gully may have extended beneath the first major cobbled surface. However, at the point at which they met, the gully was almost completely eradicated, so this remains uncertain. No artefacts were recovered from deposits predating the first major cobbled surface.

Phase 2: The first major cobbled surface (Fig. 7): This compact and well-laid surface was located primarily in Trench 1A. The layer extended across the middle part of Trench 1A but did not reach either end. It formed the primary deposit in the dip in the subsoil in the middle part of Trench 1A and to the NE. and SE. To the east, the surface was seen in evaluation Trench B where it was layer 353. It was aligned roughly NE.-SW. with a defined edge on the NW. side toward the north end of Trench 1A and a fairly clearly defined SE. edge running along the alignment of the dip, located both within Trench 1A and during the watching brief recording to the east.

The surface was up to c. 0.12 m. thick. Near the NW. edge it consisted of rounded river cobbles with some limestone fragments and an occasional large flat limestone block (599). Further south, the surface was composed almost entirely of limestone cobbles (590 and 921 as seen to the east during the watching brief). There was no dating material directly associated with the surface.

Phase 3: Deposits overlying the first major cobbled surface (Figs. 8 and 9): At the north end of Trench 1A there was a shallow hollow at the edge of the Phase 2 cobbled surface (599) filled with silty sand (604). This was in turn overlain by 602, a thin layer of dark brown sandy silt with organic fragments, probably contemporary with the use of the cobbled surface. The stratigraphic equivalent of this layer to the south was 597/564, a dark brown to grey-black gritty clay with organic fragments which overlay the cobbles, extending as far as their SE. edge but not significantly beyond. This deposit may have accumulated over a considerable period of time in the slight hollow in the central part of Trench 1A. Meanwhile, to the north of the cobbles, layers of orange-brown gravel (600) and grey-brown silty sand (601) accumulated or were deposited above layer 602. These

³⁰ The author is grateful to Maisie Taylor for identification of the wood fragments from this deposit.

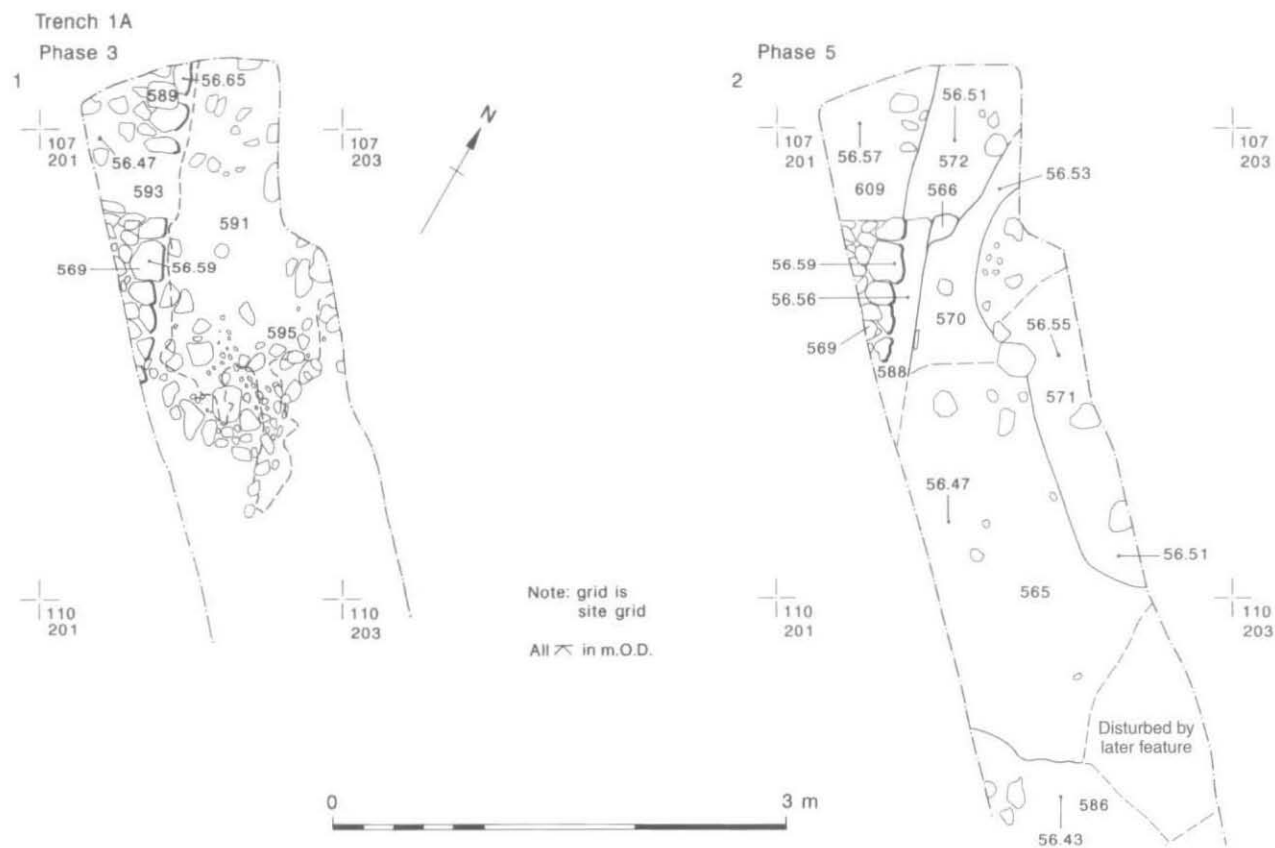


Fig. 8. Phase 3 and early Phase 5 features at northern end of Trench 1A plan.

Two groups of stones (569 and 589) were partly set into and situated partly above surface 593, although there was no clear sign that they were placed in construction cuts. The better defined of these (569) was of two layers of irregular unmortared limestone blocks with a total height of 0.28 m. It had a well-defined edge to the east, was 1.20 m. long, with apparently well-defined NE. and SE. corners. Feature 589 lay north of feature 569 and was separated from it by a gap of approximately 0.40 m. Although less well preserved (and lying largely beyond the northern end of Trench 1A), it lay on the same alignment as feature 569. Running SE. from the SE. edges of features 569 and 589, across the top of surface 595 and over the edge of layer 596 was a thin layer of charcoal (591). This and a mixed gravel and limestone layer to the south (594) were both overlain by a grey-brown silty clay (592) and then by a very dark greyish brown clay loam (572 and probably 588) which ran up to the east faces of features 569 and 589, before being sealed by the second (Phase 4) major cobbled surface (531/552).

In the extreme SE. corner of the site, an undated feature only partly seen beneath the Phase 5 castle wall and the later prison wall may have represented Phase 3. This was a roughly vertical-sided cut (925) up to 0.50 m. deep and at least 0.85 m. across, filled with dark brown peaty and loamy clays (926 and 927). East of this feature a deposit of grey-brown clay silt (1029) lay underneath the castle wall and was tentatively assigned to this phase. It contained a single pottery sherd of fabric OXY (see below).

There was relatively sparse dating material from the Phase 3 sequence, and the earliest stratified pottery was from layer 596, post-dating the minor paved surface 595 (i.e. from well above the first major cobbled surface). Most of the pottery in this phase (55 out of 58 sherds) represented the sandy fabric OXY, dated to the late 11th-13th centuries. The earliest stratified pieces, however (in fills 593 and 596), were of types dated to the later 12th century. Overall, the dated parts of this phase may be assigned with some confidence to the late 12th-early 13th centuries.

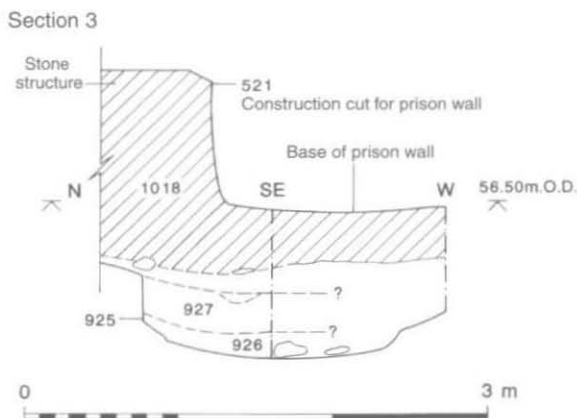


Fig. 9. Section of Phase 3 pit 925.

Phase 3-5: Deposits W. of Trench 1A (Fig. 10): Approximately 6 m. west of the deposits at the northern end of Trench 1, a sequence of deposits was excavated in the western sondage in evaluation Trench B. Two undated layers of silty sand and limestone rubble (364 and 363) overlay the possible natural deposits 369 and 367 (see Phase 1 above). These layers, with a maximum total thickness of 0.60 m., may have represented Phase 3. They were cut by a sloping-sided feature at least 0.35 m. deep (361), only the easternmost edge of which was located in the sondage. Feature 361 was filled by 362, a very dark grey sandy silt with occasional stones and a high organic content, including some fragments of oak. Above this fill was a layer of grey-brown sandy silt (349), up to 0.20 m. deep. None of these deposits produced any datable material and they were assigned to a broader Phase 3-5 range on this basis since subsequent layers were thought to correlate with the Phase 5 deposits further east. None of these associations was absolutely certain, however.

Phase 4: The second major cobbled surface (Fig. 10): The second major surface (531/552) was found across the entirety of Trench 1A except at the extreme northern end. At this end of the trench the cobbles sloped up slightly to their highest point (at about 56.46 m. O.D.) and they extended eastward at about this level through evaluation Trench B (layer 320). In the centre of Trench 1A the increased thickness of the layer reduced but did not remove completely the original hollow in the subsoil there. The upper surface of 531/552 was fairly

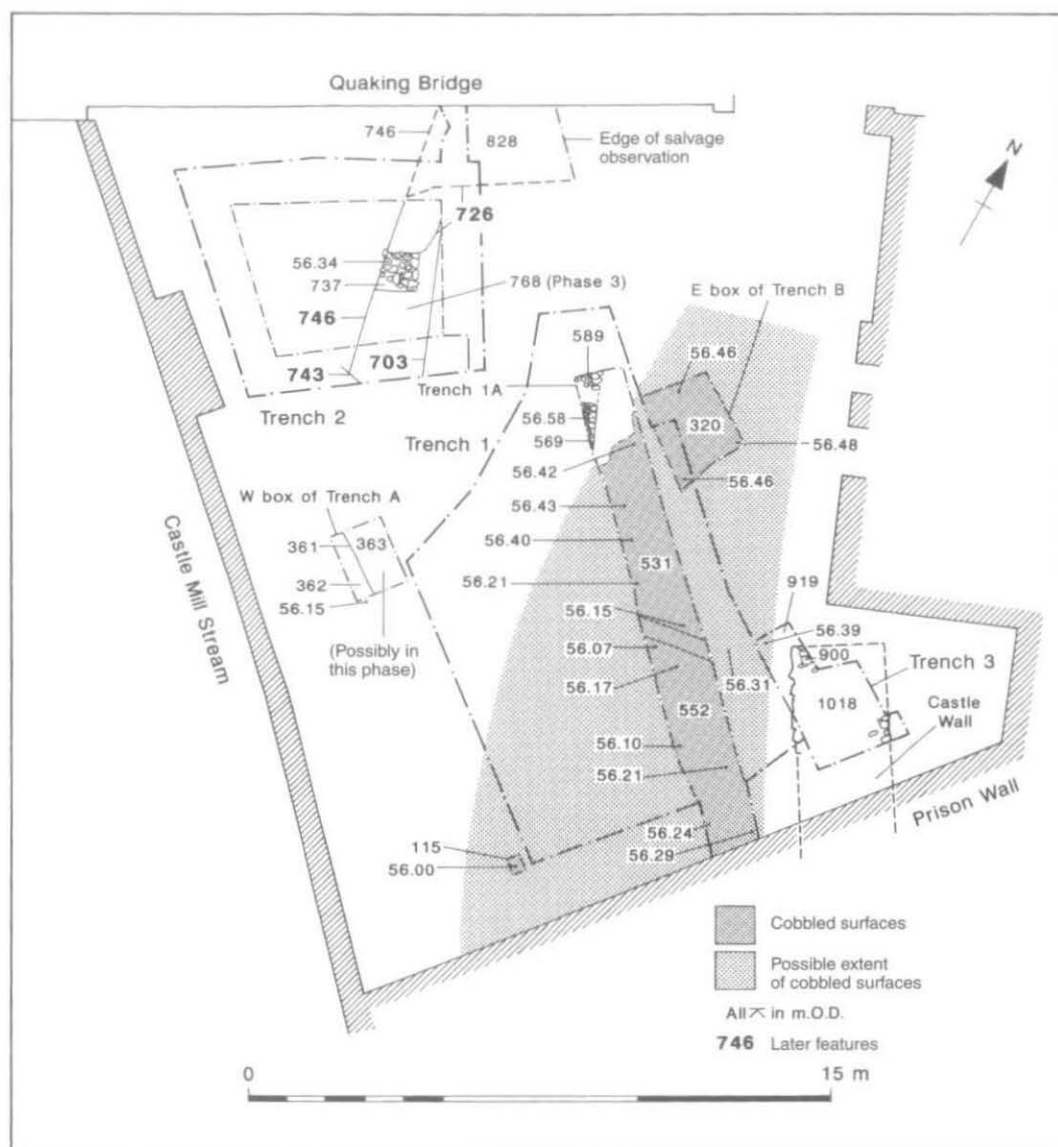


Fig. 10. Phase 4 surfaces and Phase 5 features plan.

level (between 56.10 m.-56.20 m.) in the southern part of Trench 1A, where it was the first layer above the gravel subsoil, sealing the early cut features 579 and 577, and a further small feature (575) which cut the fill of 577. In the area to the east between Trenches 1 and 3, recorded during the watching brief, the surface (layer 918/919) sloped up to approximately 56.39 m. O.D., where it had an edge some 2 m. east of Trench 1A, stopping barely 0.50 m. short of the line of the later castle wall.

There was no evidence for the extent of the surface to the NW. It was apparently absent from the westerly sondage in Trench B, where there were no cobbled layers of any kind. In Trench A, however, the lowest excavated deposit (115) probably formed a part of this surface. Layer 115 was a hard-packed, level surface of small cobbles at almost exactly 56.00 m. O.D. It was thus some 0.10-0.20 m. below the potentially equivalent layer 552 (c. 5 m. to the east), a difference easily accounted for by the natural downward slope of the site to the west. The difference in level (c. 0.35-0.40 m.) between 115 and a later cobbled layer in the same sequence (110) which

was convincingly equated with the Phase 6 cobbled surface, was almost exactly the same as that observed between the Phase 4 and Phase 6 surfaces in Trench 1A. On this basis, the identification of 115 as the Phase 4 cobbled surface seems highly likely. Its extent to the west and south of Trench A remains unknown.

The surface varied in its construction. At the northern end of Trench 1A, layer 531 consisted of small sub-angular limestone cobbles in a layer only 0.05 m. thick. Layer 320, immediately to the east in Trench B, was thicker and included gravel as well as limestone. Further south, fill 552 consisted of rounded cobbles ranging in size from 0.03-0.15 m. To the west, layer 115 contained cobbles at the small end of this size range in addition to gravel. It was at least 0.20 m. thick. Only four sherds of pottery, all representative of the 11th-13th century fabric OXY, were recovered from component contexts of the Phase 4 surface.

Phase 5: Deposits above the second major cobbled surface (Fig. 11): Surface 531/552 was overlaid (particularly in the northern end of the trench) by a complex sequence of deposits before the third major cobbled layer (482, 512, see below) was laid down. At the northern end of Trench 1A, these deposits related to the continuation of a structure on or above the Phase 3 features 569 and 589, and surfaces perhaps associated with this structure and lying SE. of it.

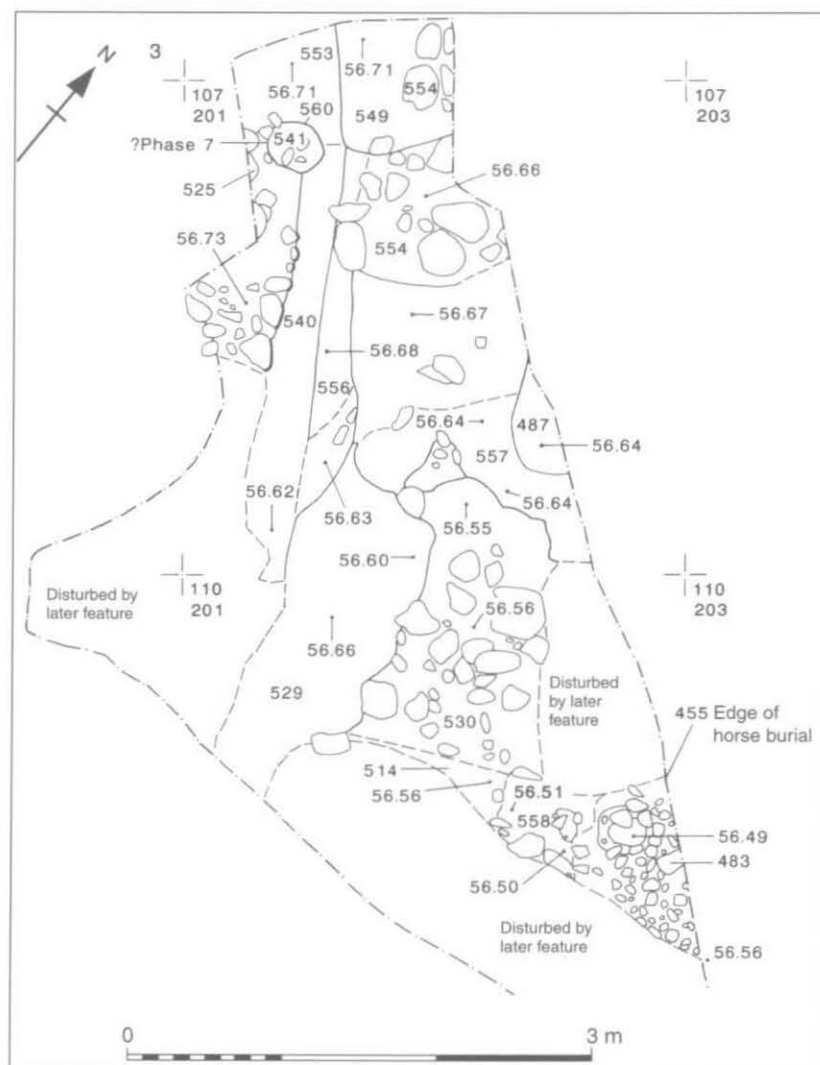


Fig. 11. Later Phase 5 features at northern end of Trench 1A plan.

Part of feature 589 may have been removed and replaced with a deposit (609) which had a straight SE. edge running between features 569 and 589. The interpretation of this deposit remains uncertain, however, it may have been the fill of a cut removing part of feature 589. If this was the case, it clearly truncated layer 572 (see above) against the stones of feature 589. Deposit 609 was overlain by a localised layer of mixed stony clay (566), in part disturbed by a shallow cut (567). It is possible that a horizontal timber may have lain against the east face of features 569 and 589 since layer 570 (above 588/572) terminated with a clear NW. edge approximately 0.10-0.14 m. east of feature 569. This edge appeared to have no depth, however, so its nature remained uncertain.

Further south, a layer of grey clayey sand containing a significant quantity of tile fragments (583, 322 in Trench B) overlay the cobbles 531 of the second major surface and was itself overlain by a number of deposits (565, 582, 585 and 586). Of these, 565 was an extensive layer of brown-grey clay loam overlain by 571, a mixed red-brown clayey sand and gravel beneath a buff-brown sandy clay (573), both overlain by a mid brown clay loam (557). Further south and west, deposit 565 was overlain by a compact reddish brown sand and gravel (529), in part sealed beneath an irregular surface of well worn limestone blocks (530). Deposit 530 was probably equivalent to another layer of worn limestone blocks (554) which was situated in the NE. corner of the trench and above layer 573. This layer appeared to respect the east edge of a slot (561) for a horizontal timber (540) laid above the stones (569) and therefore replacing the possible slot indicated by the edge in layer 570 (see above). Its western edge was indicated by further stones (possibly 525, see below) also overlying 569. The slot was 0.22-0.25 m. wide and approximately 2.70 m. long. It appeared to terminate to the north at a point just beyond the original NE. corner of 569. To the south, the extent of the slot beneath a later layer (491) was unknown because the latter lay outside the confines of Trench 1A and remained unexcavated. The structure represented by this slot and the associated stones clearly predated the third major cobbled surface (483/512) which partly overlay the worn stones (530).

In the southern end of Trench 1A, the sequence of deposits was more straightforward. On top of the second major cobbled surface (552) at the extreme southern end of Trench 1A, there was a pile of limestone blocks (548) overlain by a layer of loose grey gravel (551). In the east section of Trench 1A, deposit 551 was a thin layer. However, to the west it increased up to 0.30 m. in depth, where it sealed a further deposit (610). These deposits were overlain by a compact layer of reddish brown gravel (550) up to 0.35 m. deep in some places, mainly found toward the east side of Trench 1A. Deposits 550 and 551 together formed a well defined mass of material with a marked slope down to the NW. Deposit 550 may have been equivalent to layer 916 (seen to the east during the watching brief) which overlay 909, a layer of grey gravel and sand on which was placed the major N.-S. aligned wall (900/1018).

The Castle Wall (Figs. 12 and 13): Wall 900/1018, presumably the curtain wall of the castle, was initially observed during the watching brief and further examined in a small excavation (Trench 3). Its survival was irregular, because much of the structure had been cut away by post-medieval pits. However, parts of both east and west 'faces' were observed, as well as a corner indicating an opening in the wall. The wall was c. 2.40-2.50 m. wide. It had no construction trench, but appeared to be set on or in a layer of gravel (layer 909 above, equivalent to layer 1041 in Trench 3), supplemented with limestone fragments on the east side of the wall (1028) where the layer rested on a deposit (1029) tentatively assigned to Phase 3. Elsewhere, the foundation deposit appeared to rest directly on the gravel subsoil, which dipped considerably to the south in the SE. corner of the site. This dip resulted in the survival of a 2.70 m. length of the basal course of the west face of the wall which followed the natural contour of the gravel downward. It also resulted in a substantial difference in the level of the inner (east) and outer (west) faces of the wall. At a point just over 3 m. south of the opening in the wall, the base of the east face was at c. 56.75 m. O.D., whereas the base of the almost exactly corresponding west face was at c. 56.15 m. O.D. Just to the south of the latter point, a stone immediately beneath the construction trench for the prison wall, at 56.10 m. O.D., was likely also part of the basal course of the west wall face.

The wall was constructed of irregular limestone (Corallian ragstone) blocks up to 0.40 m. x 0.25 m. x 0.25 m. in size but generally smaller and bonded with a coarse, gravelly, orange-brown mortar. A maximum of four courses (0.63 m. in height) survived at the SW. corner of the opening. Elsewhere only the basal course survived on the west face, and up to three courses (approximately 0.30 m. in height) of small irregular rubble on the east face. It is likely that these were never exposed as they were partly set in layer 1028 and had further sand, gravel and rubble layers (1024-1027), probably intended as levelling deposits, laid against them. The precise phase of contexts 1024-1026 was uncertain and it is possible that they were later in date, belonging to Phase 7. The core of the wall, of irregular mortared rubble, survived to a height of some 1.40 m. on the south side of Trench 3, immediately north of the point at which the wall was truncated by the construction trench for the prison wall.

The wall face was best preserved at the NW. corner. Even here, at the putative jamb of the opening, there was no elaboration of the stonework or use of different material. Some of the stones at the corner were rounded by weathering or wear. The north face of the wall, forming the south side of the entrance passage, was traced some 0.48 m. from the corner, beyond which point further examination was impossible. It is therefore unknown if there was any rebate or similar feature within the entrance passage.

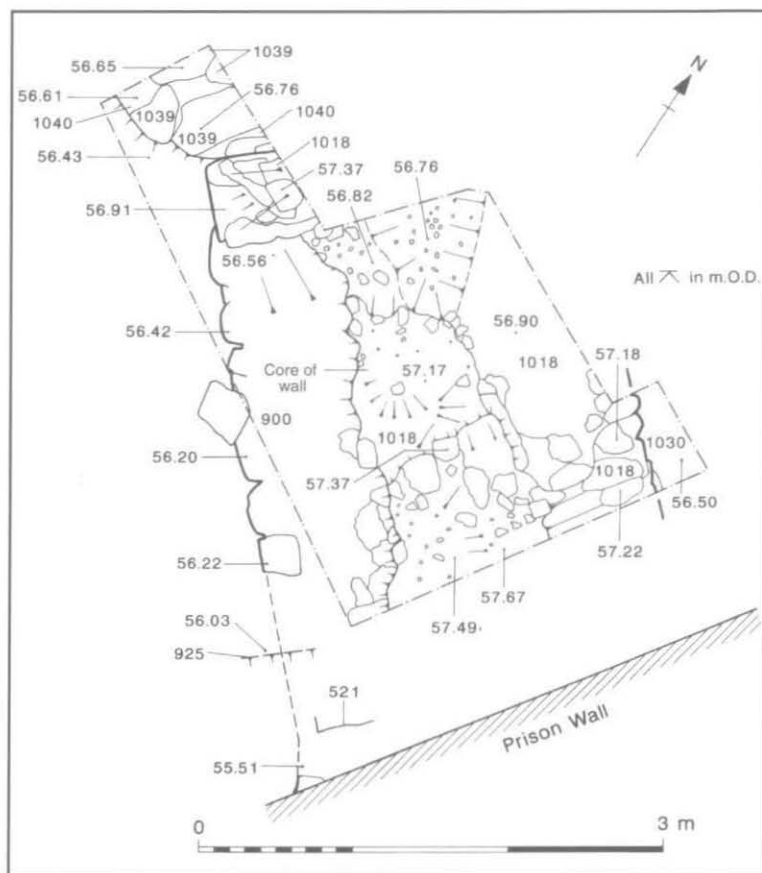


Fig. 12. Trench 3 plan, Phase 5 castle wall plan.

Other deposits: Excavation within the main part of the site to the west of Trench 1A terminated at approximately the level of the gravel and stone layers 550 and 551. The lowest deposits recorded in the south of the main part of the trench were a reddish brown gravel (559) beneath a loose grey sandy silt (517). These layers were overlain by 516, a mixed grey and brown slightly gravelly sandy silt which also overlay 550. Most of these deposits seem to have been makeup layers for the third major cobbled surface (512).

To the NW, in the western sondage of Trench B, a further gravel deposit (332), a composite layer of compacted gravel surfaces with a total depth of 0.30 m., roughly similar to 322 further NE., likely belonged to Phase 5. Associated pottery of 11th- to 13th-century date was consistent with this suggestion, but the level of the deposit, at approximately 56.60 m. O.D., was rather higher than that of potentially contemporary deposits to the south, although comparable with those to the west. Cut through layer 332, there was a vertical posthole (345), 1.00 m. deep x 0.40 m. in diameter which contained limestone packing in its upper fill. Its precise phase was uncertain.

The chronology of this phase is less clear cut than that of the preceding one. The pottery was still dominated by the late 11th- to 13th-century fabric OXY, but several Brill/Boarstall (fabric OXAM) sherds were

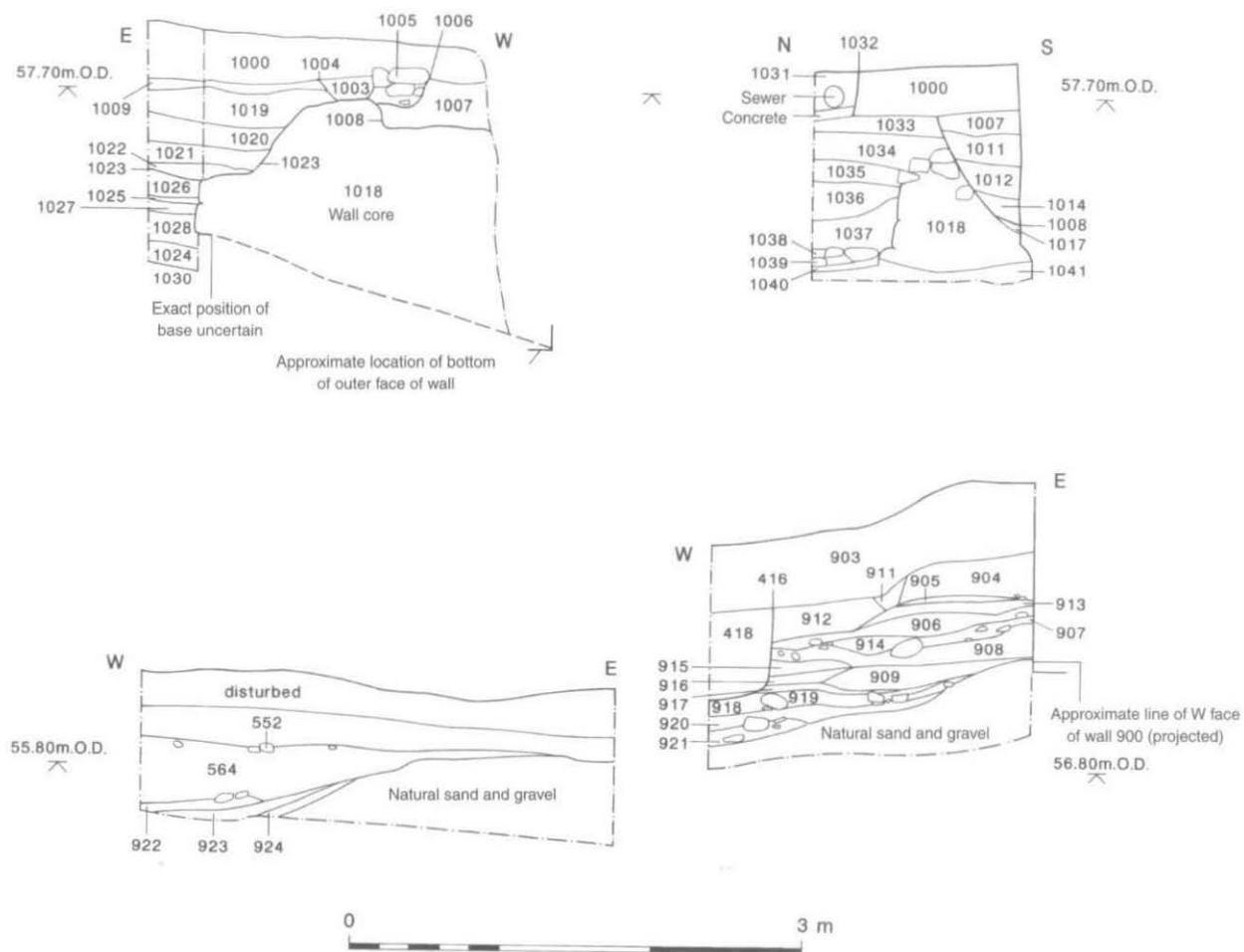


Fig. 13. Trench 3 sections and composite east-west section west of castle wall.

also found. Layer 516, beneath the third major cobbled surface, contained pottery sherds in fabric OXAM as well as in fabric OXAW, the latter assigned to the mid 13th century or later. The earliest appearance of Brill/Boarstall wares could have been slightly earlier than the mid 13th century, however, fabric OXY would not have been common after the middle of the 13th century. A date range covering the early to mid 13th century and broadly similar to Phase 3 seems likely, with the possibility that the later contexts in Phase 5 should be dated after the middle of the century. The contents of contexts in Trench B assigned to a slighter wider Phase 5-6 range were also dominated by fabric OXY and contained no datable material later than the late 12th century.

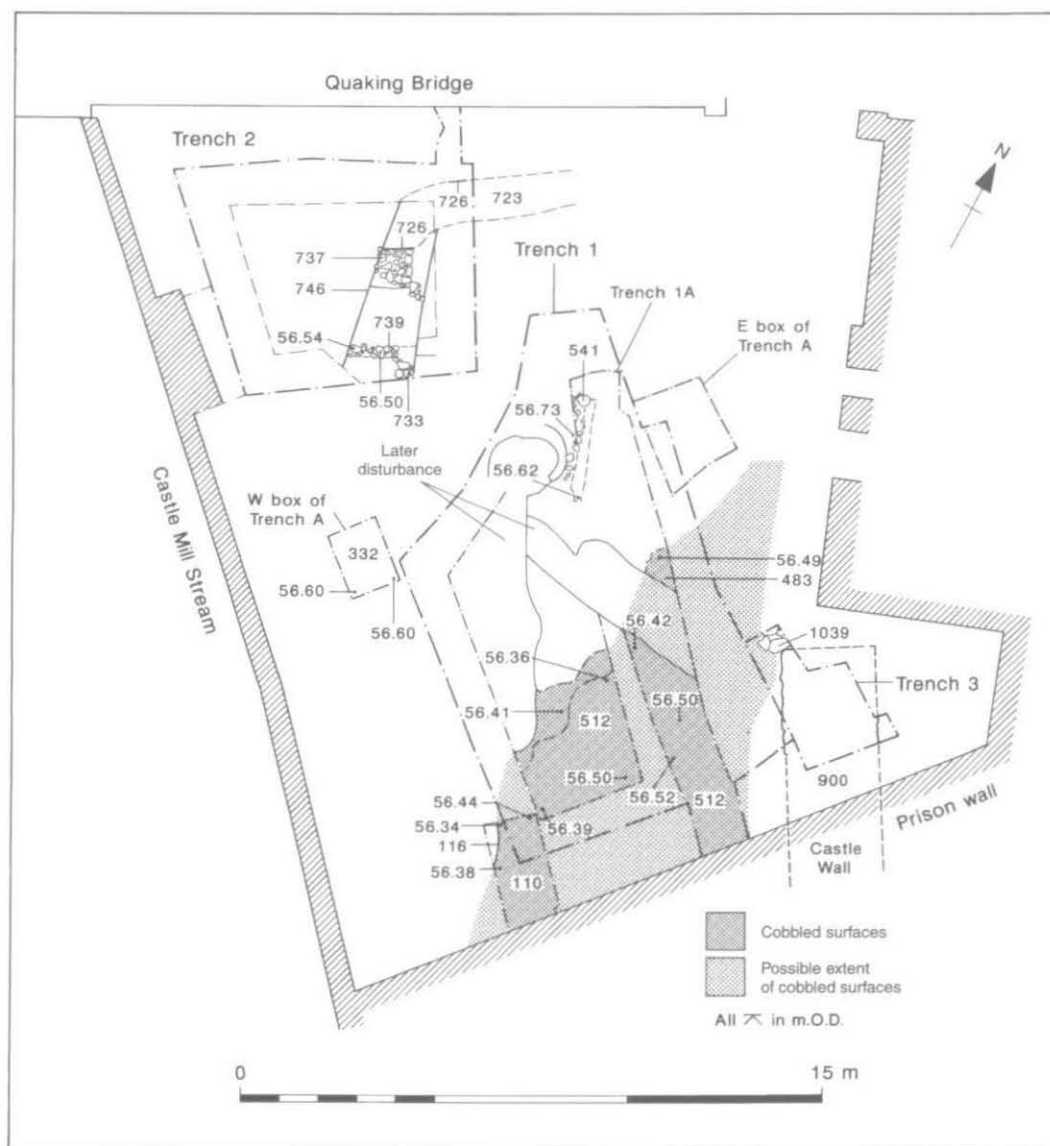


Fig. 14. Phase 6 surfaces and other Phase 6-7 features plan.

Phase 6: The third major cobbled surface (Fig. 14): This surface was largely confined to the SE. corner of Trench 1 and extended slightly north of the NW-SE. aligned Phase 8 (post-medieval) ditches which cut away all relationships between the sequences in the two halves of Trench 1A from above the top of the Phase 4 major cobbled surface. Like the layers 550 and 551 below it, the third surface (512/483) had a slightly irregular but clearly defined NW. edge, running from the SW. corner of Trench 1 to a point about two thirds of the way along Trench 1A toward its northern end. The easterly extension of this surface was probably indicated by a grey sandy gravel layer (908) which ran up to the opening in the castle wall, at which point it incorporated several substantial rounded limestone blocks with well-worn upper surfaces (910). The eastward continuation of this layer along the north face of wall 1018 (i.e. into the entrance way) was numbered 1039 in Trench 3. Here the worn stones were up to 0.30 m. x 0.25 m. in size and of varying thickness up to 0.20 m. Some seem to have been laid with their longer axis aligned E.-W., however, the area examined was extremely limited so this premise remains uncertain. The highest point of the stones in the entrance way was 56.74 m. O.D. Although layer 1039 was not removed, it is clear that there were further stones below it. These may either have been part of the same deposit or of earlier surfaces.

To the west, the cobbled surface was encountered in Trench A, layer 110. In the NW. corner of this trench layer 110 stopped cleanly along the edge of a well-defined feature (116) aligned roughly N.-S. There appeared to be a concentration of larger cobbles along the edge of the feature suggesting that the edge of layer 110 was constructed up to an already-existing feature rather than being cut by it (116). The excavated part of feature 116, 0.30 m. in depth, had sloping sides and a fairly flat base. The primary fill of feature 116 was a dark grey sandy silt with some organic content up to 0.12 m. deep (113), and probably representative of the edge of the river channel in this phase.

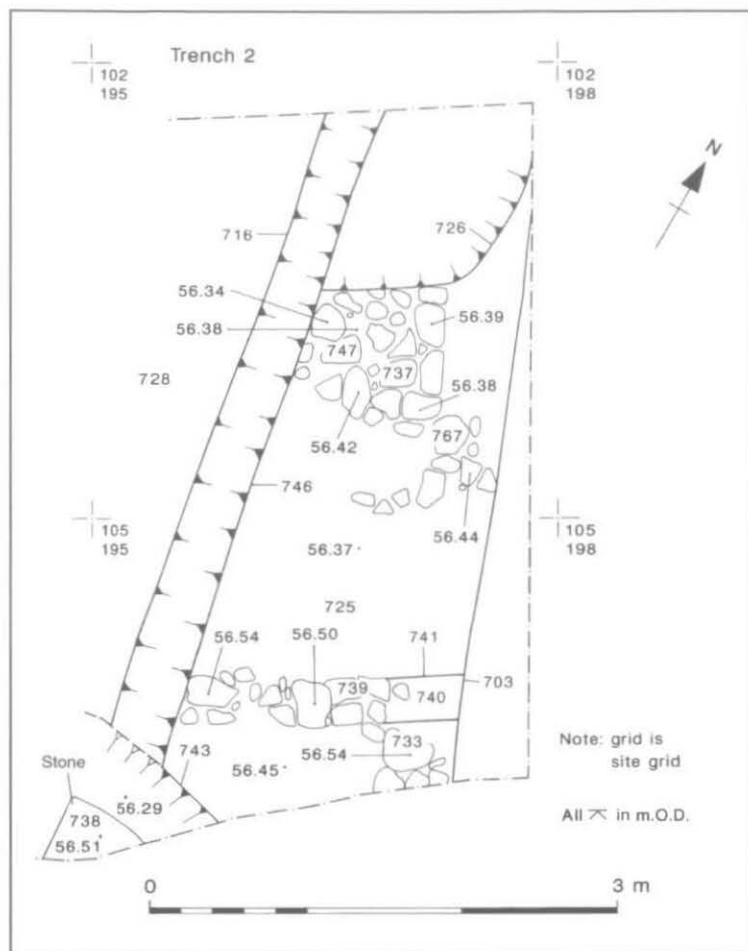
Toward the northern end of Trench 1A, a layer of worn limestone blocks (515) overlay the similar worn surface 554. On the basis that 530, a further stone surface probably the same as 554, was sealed by the cobbles 483, the stones 515 may be seen as roughly contemporary with the Phase 6 cobbled surface. These stones did not extend right to the northern end of the trench, however, this position was occupied by a stratigraphically similar deposit of grey silty loam (549).

Only six sherds of pottery were recovered from the Phase 6 surfaces. A sherd of a bowl in fabric OXAQ was datable broadly to the late 12th to 15th centuries. The remaining sherds were again representative of fabric OXY.

Phase 7: Deposits above the third major cobbled surface (Figs. 15 and 16): At the northern end of Trench 1A, the stone surface 515 and layer 549 were overlain by sand and gravel layers (537 and 528), while a further layer, of sandy silt but still with a significant gravel component (486) accumulated in the eastern part of the trench. Further east at the end of evaluation Trench B, a succession of thin gravel and silty clay deposits (323, 324, 313, 310, 309 and 308) overlay the Phase 5 layers 317 and 322. These deposits were not closely dated and may have belonged to any phase between 7-9, although it is most likely that they belonged to Phase 7. At the west end of Trench B, layers of sandy silt (331) and silty clay (333) were comparable to these deposits in their relative stratigraphic position and likely phase.

The latest form of the structure in the NW. corner of Trench 1A was similar to that which had preceded it (561 and 525). The stone surface 515 seemed to define the eastern edge of another horizontal timber position above fill 540 of the earlier slot 561. This was a linear band c. 0.12-0.20 m. wide filled with grey-brown clayey sand (526), the east edge of which lay slightly further east than that of fill 540. Its west side was clearly defined by stones (525) which may have been the same as those on the west side of 540. Part of deposit 525 appeared to have been replaced by further stones (527) in a very distinct matrix of brown sandy loam with lumps of blue-grey clay. These may have been the fill of a cut feature (555), though if this was the case, its eastern edge precisely followed the alignment of deposit 525. To the east of slot 526, the stone surface 515 was partly overlain by further stones (524). These were comparable to the stones of deposit 525 in that they were relatively small and unworn. Both existed in a matrix of grey-brown clay loam. The stones (524) extended into the extreme NE. corner of Trench 1A suggesting that the northern end of slot 526 lay beyond the northern end of the trench. At this point, however, stones 525 to the west of the slot were absent, probably having been cut away by a later feature. At its extant NE. corner, deposit 525 was cut in part by a small posthole (560, fill 541). The southern extent of the slot was unclear, as with its predecessor (561), and its relationship with the unexcavated deposit 491 to the SW. was unknown.

To the south of these features and north of the post-medieval ditch, the first significant deposit overlying the third major cobbled surface was a layer of reddish brown clay sand which produced a fragment of human bone (514). This was overlain by a gravel patch (558) and a sandy clay layer (523) cut by a shallow pit (544) which was filled with clay loam (542) and sandy silt (538). To the west of pit 544, a further shallow cut (507) filled with sticky grey clay (502) cut layer 514 and was probably broadly contemporary. These fills were overlain by a grey-brown clay silt layer (488) which was likely the same as the latest extant layer (422) to the south of the ditch cuts. To the north, these layers and fills were disturbed by a post-medieval horse burial (cut 455), so their relationship with contexts in the northern end of the trench remained unclear.



13th-century character, and while some sherds fell within a broad 12th- to 15th-century range, there was very little material which could have been later than the 13th or 14th centuries at the latest. A single small sherd of Tudor Green ware was found in layer 510. It is unclear if this apparently anomalous sherd dates the later part of the Phase 7 sequence, or if it was intrusive. The pottery assemblage from the less closely phased (Phase 7-9) deposits in Trench B was also still principally 13th-century in date.

Phase 8: Early post-medieval features (Figs. 17 and 18): A complex sequence of NW-SE. aligned ditches ran across the entirety of Trench 1 and cut the sequence of medieval deposits down to the level of the Phase 4 cobbled surface. The alignment of the ditches ran toward the south side of the opening in the castle wall. The combined width of the successive cuts was between 1.50 m. and 2.00 m. Not all the cuts appeared to be simple linear features, some were apparently localised. The relationships of these features were recorded in section in a baulk across them. This, however, provided conflicting evidence in its two faces.

The earliest of these features was a localised cut (480) with fills of limestone fragments (482) and clayey sand (481). The former of these contained a sherd of 17th-century or later pottery. Fill 481 was overlain by a possible layer (479) not clearly contained within a cut and was also cut by 473, a V-shaped ditch located at the SW. edge of the complex. This feature was then recut by feature 475 and the fill of the recut (476) and the possible layer 479 were both truncated by 506, a shallow, relatively flat-bottomed feature towards the NE. edge of the complex. The fill of 506 (505) was in turn cut by 477, a further wide, shallow feature with two fills.

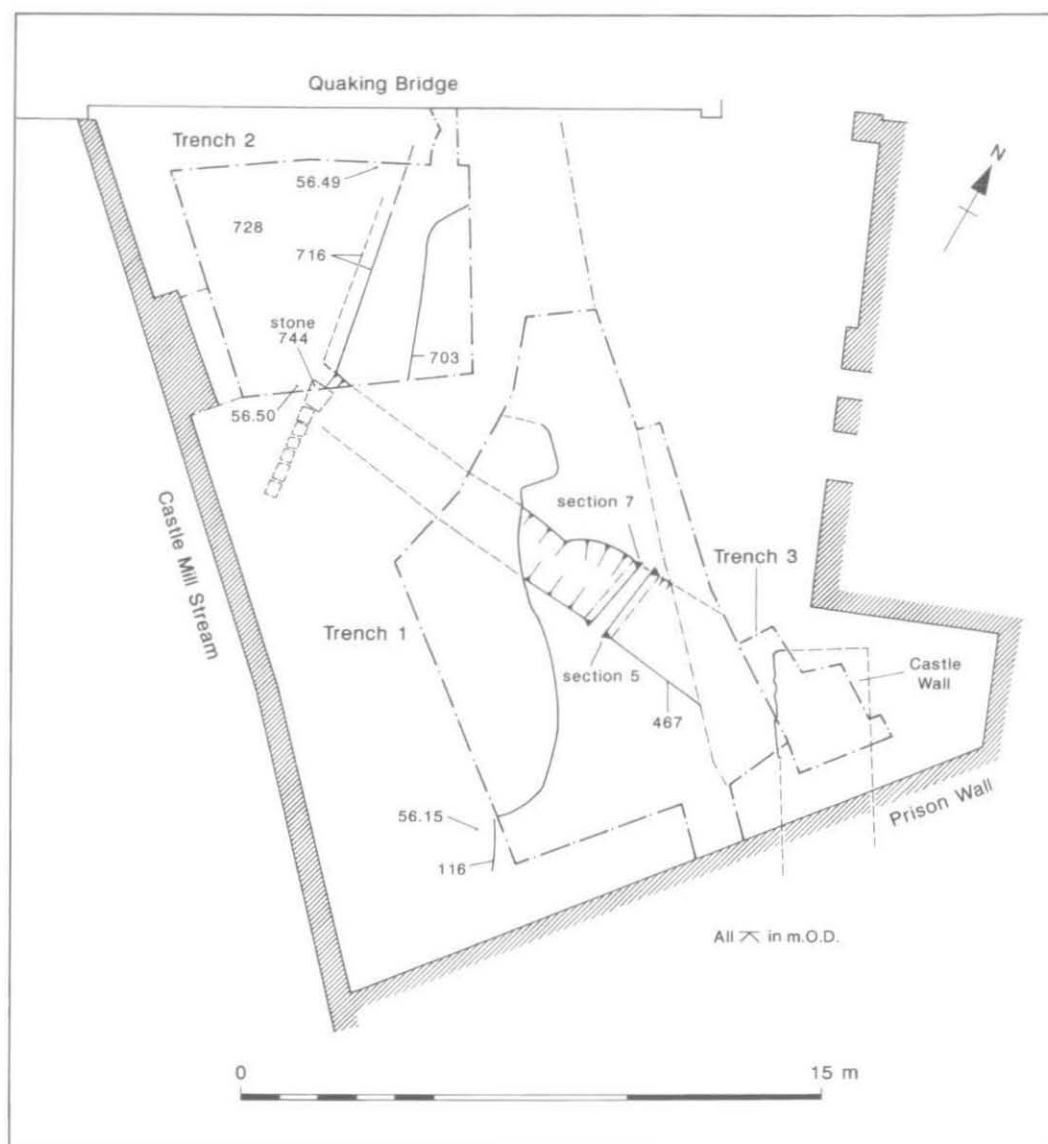


Fig. 17. Phase 8 features plan.

gritty clays 504 and 478, which were cut by the latest feature in the sequence, 467. In the east face of the baulk this was another V-shaped ditch, 1.10 m. wide and 0.42 m. deep, however, in the west face it was shallower and much more rounded in profile. This feature may have terminated slightly further to the NW., in line with the apparent end of its wider predecessors (particularly cut 477) on the NE. side of the complex, some 1.60 m. NW. of the baulk. The edge which extended NW. beyond this point was possibly that of cut 475.

The ditches were not conclusively observed adjacent to the opening in the castle wall during the watching brief, but layer 912, which terminated approximately 1 m. to the west of the wall face, may have been the same deposit as 468, the fill of the last ditch cut 467. Both fill 468 and layer 912 were cut by a straight-sided and flat-bottomed rectangular feature (416), c. 3.05 x 1.05 x 0.60 m., mostly filled with black ash. The feature was aligned approximately on the axis of the ditches. It produced no datable material and may have belonged to Phase 9.

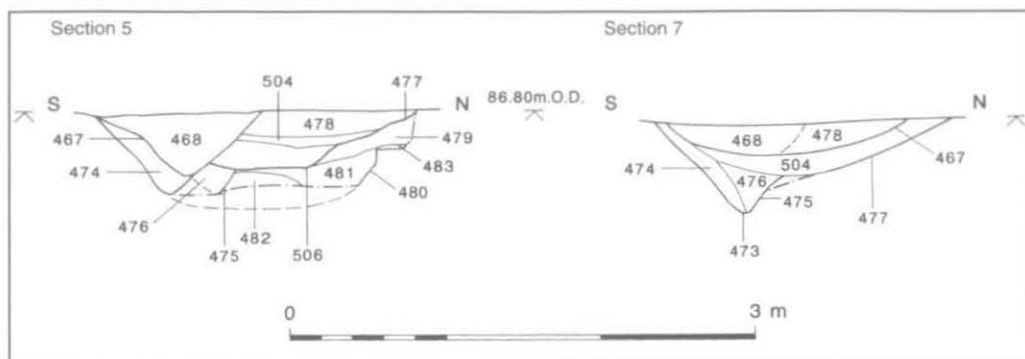


Fig. 18. Sections of Phase 8 ditches, Trench 1.

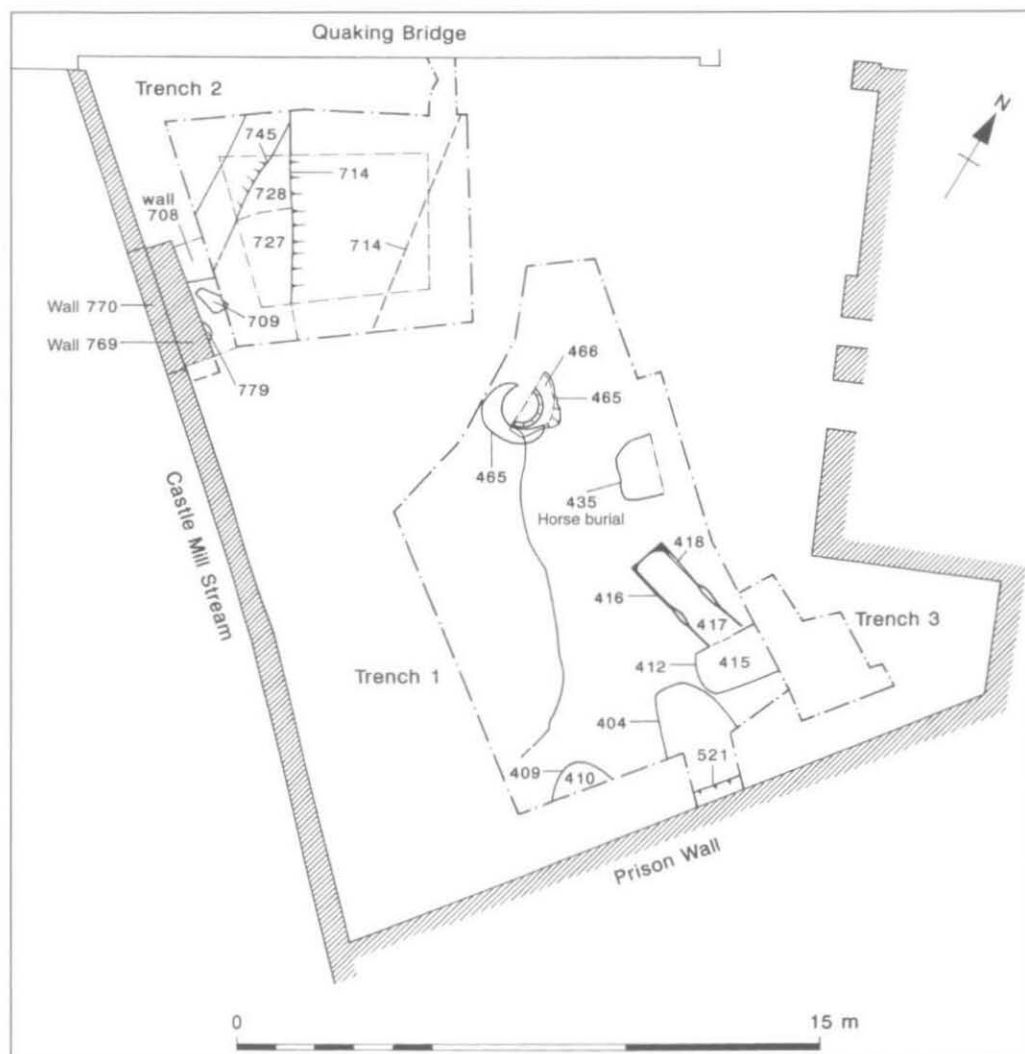


Fig. 19. Principal Phase 9 and later features plan.

The date of Phase 8 rests on a small number of pottery sherds from an assemblage still containing substantial quantities of 11th- to 13th-century material. Sherds from a range of sources, including Raeren and Frechen stonewares, indicate a broad 16th- to 17th-century date for this phase.

Phase 9 (Fig. 19): The assignment of features to Phase 9 was in many cases uncertain, because many of the later features at the site were largely removed by machine and most of those observed in section did not produce datable material. Several features cut by the construction trench of the prison wall (Phase 10) certainly belonged to this phase. One of the most important of these was a large pit (404), up to 3.60 m. E.-W. and 0.70 m. deep. The fills of pit 404, which were partly removed by the machine stripping of the site, contained 17th- to 18th-century pottery and a large quantity of clay pipe fragments. The latter were generally dated c. 1650-1670 and probably indicated a late 17th-century, rather than later, date for the fill of the feature.

One significant deposit which may have belonged to this phase was encountered in the NW. part of evaluation Trench A. This was a mixed sandy silt and gravel layer (103) up to 0.90 m. deep, which overlay the possible channel fill 104 assigned to Phase 7. The depth of layer 103 suggests that it represented a major levelling event in the SW. part of the site. It contained medieval ceramics as well as one late 15th- to mid 16th-century pottery sherd and two mid 16th- to 18th-century pottery sherds. This date range may indicate that layer 103 belonged to Phase 8 rather than later. It was cut by the Phase 10 construction trench for the prison wall.

Phase 10: The prison wall: In trench 1A, the trench (521) cut for the construction of the prison wall was a steep-sided feature dug some 1.40 m. below the contemporary ground surface, and continuing down to the top of the Phase 4 cobbled surface 552 or the immediately underlying gravel subsoil. Further SW. in evaluation Trench A, the construction cut (118) was much less regular in profile, up to 1.58 m. wide and only 0.72 m. deep with a fairly gently sloping side. At this point the base of the prison wall was laid on the Phase 6 gravel surface (110). The construction cut was backfilled with dumped layers 102 and 105.

Observation of the site during the construction programme, when a c. 12 m. length of the prison wall was exposed, showed that there were irregularly shaped transverse voids approximately 0.30 m. wide and up to 0.25 m. high at the base of the wall at intervals of 1.20-1.30 m. (centre to centre). These all contained small quantities of loose black material suggestive of the decay of *in situ* timbers placed transversely in the bottom of the construction trench.

In the base of the foundation trench was a layer 0.20 m. thick of roughly rounded limestone in sandy clay and gravel (587). The lower part of the wall itself (522) was of roughly coursed limestone blocks ranging from 0.50 x 0.30 m. to 0.15 x 0.10 m. in size, bonded with a grey gravelly mortar. The outer face of this feature was considerably less vertical in Trench A than in Trench 1A. No significant dating evidence was recovered from the features associated with the prison wall, but its construction was dated by documentary sources to between 1785-1789.

Phase 11: 19th-20th century deposits: Limited post-medieval or modern disturbance was identified at the extreme northern end of Trench 1A, but these features were neither examined in detail nor did they contain datable material. They were typically cut from above the level exposed by the machine excavation of the site and included a modern service pipe trench.

Slightly further south, the earlier medieval sequence was extensively disturbed by the cut for a horse burial (455). This feature was up to 0.50 m. deep below the machined level. Partly examined in evaluation Trench B (314), its dimensions were at least 2.00 x 1.60 m. The latest pottery from the fill was dated to the 17th century, but bricks apparently placed in the top of the fill were probably of 19th-century date.

Many other deposits in the upper part of Trench 1, both layers and cut features, were substantially removed in the machine stripping of the site. Most, if not all, of these were likely to have belonged to Phases 9-11, though few produced dating evidence. Meaningful description, based entirely on the sections of the south and east baulks of the trench, would be extremely difficult and is therefore not attempted here. The full records of these features may be found in the project archive.

The principal modern feature in Trench 1 was the very substantial N.-S. aligned cut 464 (cut 703 in Trench 2). Overall, this was 16 m. long, 3 m. wide and at least 1.60 m. deep. The brown gravelly fill (427) was cut by the construction cut for a brick-lined well (465) which lay in the centre of the site. Feature 464/703 may represent an abortive attempt to construct the 19th-century main sewer using a cut and cover technique. Eventual construction of the sewer tunnelled beneath the site, causing minimal disturbance to the lowest archaeological deposits in the southern part of the site, where the level of the top of the tunnel was slightly above that of the gravel subsoil. Modern buildings located in the southern part of the site against the prison wall were represented by walls 402 and 445 in construction trenches 492 and 495.

To the east in Trench 3, a rough limestone wall foundation c. 0.50 m. wide (1005) was aligned roughly NNW.-SSE. and ran from the SW. corner of the extant cottage. It overlay fills of pits assigned to Phase 9 and was cut by modern drainpipe trenches.

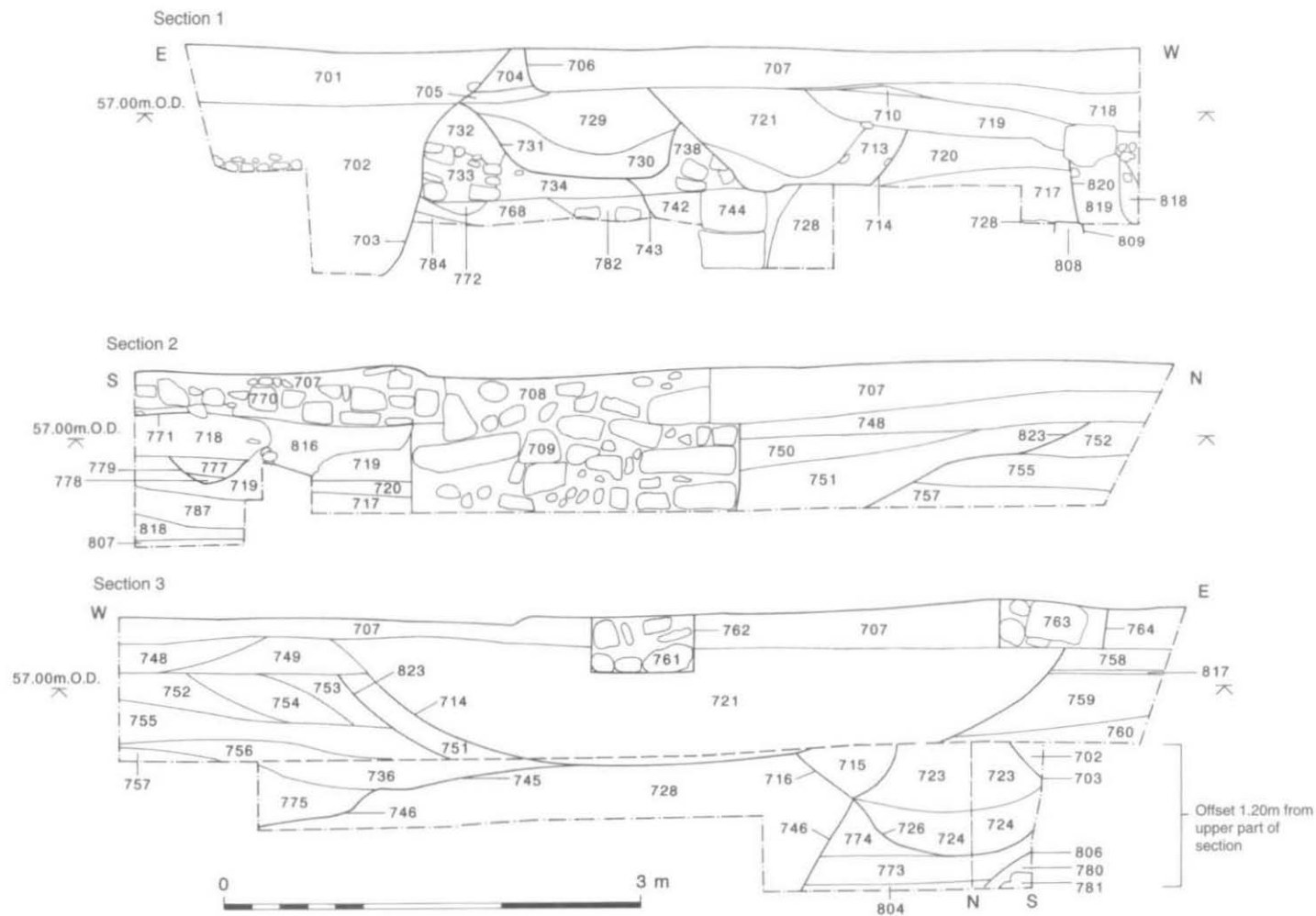


Fig. 20. Trench 2 main sections.

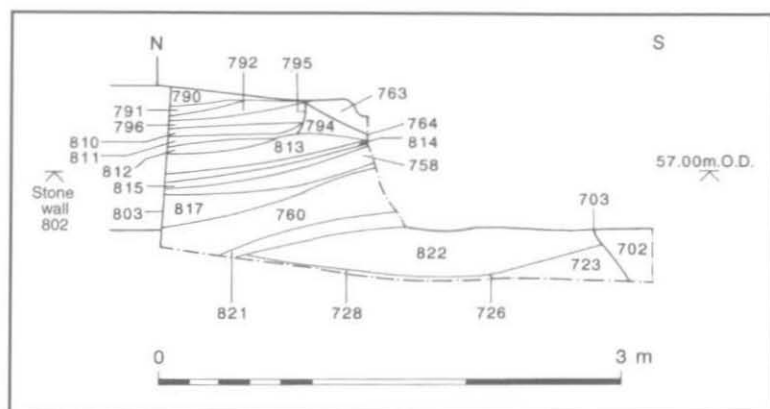


Fig. 21. Trench 2 north-south section at north-east corner.

Site Description: Trench 2 (Figs. 20 and 21)

The uppermost deposits in Trench 2 were removed to a depth of 0.90-1.00 m. by machine. The depth of excavation in this trench was constrained by the requirements of the development and at no point was the natural subsoil exposed. Medieval deposits were confined to a relatively narrow strip within the eastern half of the trench between a large modern feature (703) to the east and a substantial cut (746), probably for a river channel of post-medieval date, to the west. Machine removal of the extensive disturbance caused by post-medieval and modern features may possibly have resulted in truncation of the top of the surviving medieval deposits, but if so this was minimal.

For the most part the medieval deposits consisted of fragments of stone structures and other features interleaved between layers of gravel. In the extreme NE. corner of the main part of the trench a steep sided E.-W. aligned cut, encountered in a narrow slot excavated to a lower level than the rest of the trench, was also presumably of medieval date, but the relationship between this feature and the other medieval deposits was completely removed by a later feature and therefore remains unknown.

The sequence of description below is predicated on an important point of interpretation. This is that a widespread very dark grey clay deposit (728), initially identified as the fill of the post-medieval (Phase 8) channel (746) was not, as assumed at the time of the excavation, a single deposit, but probably represented two different (but in appearance identical) channel fills, of which the later (728) had a straight N.-S. aligned edge which cut the earlier deposit (renumbered 828), best seen as the fill of an earlier E.-W. channel.

Medieval deposits: Phases 1-3: The earliest deposit in the deep slot in the NE. corner of the trench was a compacted layer of limestone lumps and gravel (781), the top of which was at approximately 55.70 m. O.D., encountered in the southern side of the slot (Fig. 7). This may have been a wall but was more likely part of a surface. It was overlain by a layer of decayed organic material (780) up to 0.15 m. thick which was cut by the southern edge of an E.-W. aligned feature (806). The lowest observed fill of this feature was a black peaty clay (805) at least 0.11 m. thick observed to a depth of 55.57 m. O.D. (the deepest point of excavation). This was overlain by a sticky pale grey clay 0.10 m. thick (804), in turn sealed by a further black silty clay with organic fragments (773) some 0.18 m. thick. Fill 773 was overlain by another sticky medium grey clay layer (774) up to 0.40 m. thick. This deposit was only seen in section, however, and it is not certain that it was a fill of feature 806. Its top was at approximately 56.20 m. O.D. Layer 774 was cut by feature 726, which also cut layer 828. The latter was an extensive layer of very dark grey sticky clay, the top of which coincided with the approximate maximum depth of excavation over most of Trench 2. Located in the NE. corner of the trench and also observed during the watching brief, it extended beyond the northern limit of the site. Its southern edge was not certainly located, but was apparently truncated by feature 726. Layer 828 may be seen as the upper fill of a roughly E.-W. aligned feature, perpetuating the earlier E.-W. alignment of feature 806, or may possibly represent the upper fill of that feature.

South of the later (possibly Phase 7) feature (726), the earliest excavated deposits were localised patches of charcoal and clay (783 and 785 respectively) overlain by lenses of gravel (784 and 786). All these deposits were sealed by a layer of grey silty clay with a high gravel content (768) from 0.10-0.20 m. in thickness. Features later than this deposit were tentatively assigned to Phase 5.

Unfortunately there was extremely limited dating evidence for features assigned to these phases. The features in the slot in the NE. corner of the trench produced no dating material whatsoever. Based on their absolute level, they were presumably early in the overall sequence of activity on the site, but the bottom of that sequence was not reached anywhere. Only layer 768 contained a small group of pottery which, dominated by fabric OXY, had a probable date range from the late 12th to early 13th centuries. It included four sherds of a fabric OXAG with a date range from the late 11th to early 15th centuries, but it is most unlikely that these sherds represent the later end of that range.

Phase 5: The Phase 4 cobbled surface did not extend as far west as Trench 2 and there were no deposits clearly comparable to it. At the northern end of the small block of medieval stratigraphy surviving between cuts 703 and 746, the Phase 3 gravel layer (768) was cut by feature 766, a 0.25 m. deep, flat-bottomed construction cut for structure 737, a stone foundation with minimum dimensions of 0.95 m. E.-W. and 0.90 m. N.-S. The foundation was of two courses of rough stones up to c. 0.35 m. high and was truncated to north and west by later features.

A fragmentary stone structure 767 abutted the SE. corner of structure 737 and was overlain by a gravel layer (735). To the south, a further gravel layer (782) overlay the earlier deposit 768. It lay a shallow N.-S. aligned cut which projected some 1.50 m. north from the south baulk of the trench and also contained three limestone blocks with smooth upper surfaces. The interpretation of this deposit was uncertain.

It is possible that 735 was a component lens in a more extensive layer of gravel (725) which extended up to structure 737 but not over it, and deposits 772 and 782 may also have been broadly comparable to deposit 725. The latter deposit was, however, assigned to Phase 7 (or later) on the basis of the pottery contained within it.

The dating of this sequence was entirely dependent on pottery evidence. The deposits in the main area of medieval stratigraphy produced a much smaller assemblage than the Phase 5 group from Trench 1, and one less clearly dominated by fabric OXY; nevertheless the date range was similar. Most sherds from the deposits described above could in fact have been consistent with a late 12th- to early 13th-century date, i.e. perhaps of Phase 3, but the logic of this part of the sequence (particularly the very strong probability that the immediately overlying deposit 725 was of Phase 7) suggests an equivalence with deposits of Phase 5 in Trench 1.

Phase 7: The square stone foundation (737) and subsequent layers at the northern end of the area of medieval stratigraphy were cut by feature 726 (Figs. 14 and 16). This was almost certainly an E.-W. aligned linear feature at least 1.50 m. wide and 0.80 m. deep which may have terminated to the west close to the edge of the later feature 746 (which most likely cut its fills, however this relationship was removed by feature 716) and extended at least 5 m. to the eastern site baulk. Feature 726 was initially filled with a sticky light grey clay (724), which was overlain by a distinctive mid brown silty clay (723). These fills contained late 12th- to 13th-century dating evidence. In the NE. corner of the site, fill 723 was overlain by a layer of green-grey silt (822), which in turn lay beneath deposits of stone and sand (821) and more silt (760). Fill 780 contained a pottery sherd dated to the mid 13th to 15th centuries.

At the south side of Trench 2 the probable Phase 5 gravel layer (735) lay beneath a further gravel layer (725) which extended as far north as the foundation (737) but not over it. Layer 725 and the possibly comparable deposit 782 (described in Phase 5 above) lay beneath the corner of a structure which projected up to 1 m. from the southern baulk of the trench. This consisted of an E.-W. aligned stone wall foundation (739) truncated by later features to the west and perhaps also to the east, which appears to have formed a corner with a fragment of N.-S. wall 733 (on gravel foundation deposit 772). The junction itself was removed by subsequent robbing (cut 741 filled by 740). It remains unclear whether (a) wall 739 originally extended further east than the apparent corner, though the appearance of the robber trench cut by the modern feature 703 to the east might suggest that it had, or (b) whether wall 733 was an integral structure with 739 or was simply abutting it, perhaps being structurally (if not chronologically) subsequent. Wall 739 was of a single course of unmortared stone no more than 0.33 m. wide. In some cases a single stone formed the entire width of the wall. There was no evidence for a construction cut. The N.-S. wall (733) was more substantial, approximately 0.54 m. wide, consisting of up to three irregular courses of stone *in situ*. The wall was unmortared; the stones were in a matrix of orange-brown clay sand. There was again no evidence for a construction cut; a layer of loose mid grey silty loam up to c. 0.20 m. deep (734) appeared to have been deposited against the west face of wall 733 rather than cut by a foundation trench.

The remains of a hearth (722) overlay the line of wall 739, but the relationship between this feature and layer 734 remains unknown. The significance of a brown sandy loam deposit (732) which overlay the top of wall 733 was also unclear. Deposits at this level were removed during the initial machine stripping of the trench and were only observed in section.

Dating was again based entirely on pottery evidence. Layer 725 contained pottery including three Brill/Boarstall sherds dated to the late 13th to 14th centuries. These provided a *terminus post quem* for the structure based on walls 733 and 739, which was thus probably later than the stone base (737) which was

tentatively assigned to Phase 5 and may be seen as roughly contemporary with deposits above the Phase 6 major cobbled surface in Trench 1. The remaining limited pottery from the sequence was not necessarily as chronologically specific, but equally did not contradict this conclusion.

Phase 8: Channel 746: Much of Trench 2 lay within the area occupied by a large linear cut (746), the eastern edge of which was located within the trench. West of this edge there were either no surviving medieval deposits whatsoever, or at best such deposits lay below the lowest level of excavation in the trench. Unfortunately, the exact relationship of the feature with the deposits described above remained unclear because it was completely removed by a later gully (716) which redefined the edge of feature 746 after it had been filled. Nevertheless, it seems almost certain that feature 746 must have cut all the medieval layers, probably from a level very close to that at which the hand excavation of the trench commenced.

Cut 746 was aligned almost exactly N.-S. Generally only the top of its latest fill (728) was observed, however, in a narrow slot cut toward the northern edge of the trench, the feature was observed as at least 0.95 m. deep, with a steeply sloping eastern edge. The feature was at least 4 m. wide and if, as seems likely, it had extended across the whole trench, it would have been at least 5.50 m. wide. No sign of a western edge was observed.

At a late stage in the excavation a limited investigation in the NE. corner of the trench was intended to examine the relationship of cut 746 to an adjacent feature (726) which was assigned to Phase 7. Investigation showed that at this point the fill (728) of 746 did not have a clearly defined eastern edge as seen elsewhere (although it was redefined by gully 716) but instead appeared to extend to the east, where it was clearly cut by feature 726. The likelihood that feature 726 was a medieval feature, and the certainty that cut 746 was filled during the 17th century or later, indicates that material (828) east of the eastern edge of 746 should be seen as distinct from the fill (728) of cut 746. The edge of cut 746 through the northern part of the site on the plan (Fig. 17) is therefore projected from its well-defined alignment in the centre of Trench 2. It is emphasised, however, that in the very wet conditions on the site, this edge was not positively identified on the ground.

Fill 728 consisted of a very dark grey silty clay with sparse gravel and occasional larger pieces of limestone in the upper part. It contained waterlogged organic material such as small wood and leather fragments and objects including clay pipe fragments, post-medieval pottery and a token of Hans Krauwinkel II, most probably indicating a date in the 17th century for at least the upper part of the fill of cut 746.

Later features: All subsequent features in the trench post-dated fill 728, the fill of feature 746, although the exact sequence in which they did so remains uncertain. The eastern edge of feature 746 was redefined by a roughly U-shaped gully (716). This was c. 0.40-0.60 m. wide and 0.30-0.40 m. deep, and was filled with a light brown silty clay and gravel (715) containing 16th- to 18th-century pottery. Fill 715, in turn, was cut at the southern end of Trench 2 by feature 743, a steep sided feature aligned E.-W. which extended only slightly into the trench. The full depth of this feature was uncertain, but was at least 0.60 m. It appeared to contain at least two courses of substantial squared limestone blocks up to 0.40 x 0.40 x 0.25 m. (744). These may have formed a wall or structural base, but since the north edge of feature 743 lined up with the NW. end of a series of ditches excavated in Trench 1 and assigned to Phase 8, it is possible that the stones formed a structure or revetment of the side of an open cut feature. Information from the contractors, however, indicated that the stone alignment continued in a southerly direction for at least a further 2 m. This suggests that feature 743 lined cut 746 south of the point at which this met the ditches.

Phase 9: Other post-medieval features: A complex sequence, principally of shallow ditches aligned roughly N.-S., post-dated the probable channel (746). Most of the evidence for these features was recovered in section as they were largely removed during the machine excavation of the upper part of the trench. Equally, therefore, there was little close dating evidence for these features.

In the SW. corner of Trench 2, the first feature identified as later than 728 was feature 809, a probable cut for a N.-S. alignment of irregular stones (808). The stones were 0.20 x 0.20 x 0.10 m. on average, and were observed in the bottom of a small slot dug in the extreme SW. corner of the trench. Their interpretation was uncertain, however, they presumably constituted some kind of wall or revetment. Abutting the stones to the west was a mid brown sand (807), largely unexcavated. Both this and the stones were overlain by fill 717, a greyish brown sandy loam layer up to 0.35 m. deep incorporating moderate quantities of small limestone rubble and 17th-century or later pottery. Adjacent to layer 717 to the north was fill 727, a light brown silty clay incorporating some gravel and shell fragments. Both of these deposits were overlain by fill 720, a brown sand layer with occasional gravel. Fill 720 thickened from west to east to a maximum of approximately 0.30 m. in depth. Fill 720 appeared to be cut by feature 820, the eastern edge of a vertical sided cut up to 0.44 m. deep and of unknown width. Feature 820 was filled by fill 819, a mid brown sandy loam, on top of which rested a large limestone block. It is uncertain whether this block was part of the feature or an incidental later occurrence, however, the former seems more likely. The function of cut 820 remains unknown, but it perpetuated the line of the outer west face of the earlier stones (808), though this may have been coincidence.

Fill 819, in turn, was truncated by another possible vertical sided cut, observed only in the extreme SW. corner of the trench in difficult conditions. The deposits in question, a yellowish brown sand loam with stones (818) and a brownish grey, but otherwise similar, fill (787) were observed as part of a re-cut of cut 820, a possible pit.

In the NW. corner of Trench 2, fill 728 of feature 746 was truncated by a shallow cut (776) containing a reddish brown silty clay (775), possibly the same as fill 757 recorded in an adjacent section. A further shallow feature (745) cut the top of fill 775. This was observed in plan as a ditch running in a NNE. to SSW. direction across the NW. corner of the trench. It was also filled with reddish brown silty clay with noticeable iron panning (736). Above this were layers which may have represented dumping or levelling events, with a combined depth of c. 0.60 m. These were (in sequence) a dark brown silty loam (756), a grey brown sandy silt (755), a light brown sandy clay (752), a yellowish brown sandy silt (754) and a light grey sand and gravel (753). Most of these deposits incorporated small limestone fragments. They were cut by feature 823, the edge of which sloped down gently from west to east. A corresponding east side must have been removed by later features, therefore the extent of the feature was unknown. It was likely roughly 0.60 m. deep and at least 1.50 m. across, though possibly considerably wider. The principal surviving fill of feature 823 was fill 751, a light brown silty sand, overlain by a similar but much more gravelly deposit (750).

In the NE. corner of Trench 2 a slot excavated up to the modern boundary wall with Tidmarsh Lane showed a complete sequence through the deposits post-dating the possibly medieval E.-W. channel fill (828) of feature 746. The first of these was the fill (723) of the possible medieval ditch (726) described above. This was overlain by 822, a greenish-grey silt layer up to 0.32 m. thick, beneath fill 821, a distinctive layer of loose orange sand and limestone fragments, which was in turn overlain by fill 760, a grey brown clayey silt up to 0.28 m. deep. These layers sloped down to the north and west and may have been of medieval date. Above fill 760, a mid brown sandy silt up to 0.45 m. thick (759) had a level upper surface observed in the north baulk of the trench. It is possible that this deposit was the same as the fill (751) of cut 823 to the west, both were noted as containing small amounts of charcoal and tile flecks. However, a thin layer of black ash and charcoal (817) seen running horizontally above fill 759 in the northern baulk overlay fill 760 in the slot extending the eastern baulk to the north. Both sloped down and increased in thickness to the north. Most of the deposits in this section sloped down to the north, perhaps toward or into a substantial cut feature lying beneath the present Tidmarsh Lane.

Layer 817 was sealed by layer 758, a mid brown clayey silt up to 0.18 m. thick. Like the other deposits in the NE. corner of the trench, this sloped down to the north, but levelled out further west. It was stratigraphically equivalent to, and quite probably the same as, layer 749 on the west side of the later ditch 714. Layer 749 was partially overlain by a similar deposit (748). The generally even upper surface of these layers suggested that they may have been laid as part of a deliberate levelling process, perhaps involving the truncation of the tops of earlier deposits. The evidence for this process is confined to the northern part of the trench.

Layers 758 and 749 were cut by a substantial ditch (714). This was c. 0.70-0.80 m. deep and ran the length of Trench 2 from north to south, but narrowed considerably toward the south where it was only 1.90 m. across as opposed to 5.30 m. in the north. The sides sloped very gently in the north becoming steeper to the S. In the south baulk, ditch 714 cut feature 731, another possible N.-S. ditch approximately 1.50 m. wide and 0.60 m. deep, with steeply sloping sides and a flat bottom. This feature was not seen in plan and may thus have represented an isolated pit. Its primary fill (730) was a dark greenish brown sandy loam, beneath a dark brownish grey silt loam (729).

The fills of ditch 714 were 713 and 721, a mid brown gravelly loam and a similar but more silty loam, respectively. Fill 721 was overlain to the west by fill 719, a dark brownish grey silt loam up to 0.28 m. thick, which also overlay fill 720 and the fills of feature 820 as it sloped down to the west. Fill 719 was observed in a shallow cut which truncated the fills of ditch 714. It was cut by a small feature, possibly a pit (779), before being overlain by a mid brown silt loam (718) 0.20 m. deep. These layers were stratigraphically equivalent to those of ditch 748 further north, and like ditch 748, they were cut for the construction of stone features adjacent to the edge of the Castle Mill Stream. It is possible that features and deposits post-dating the fills of ditch 714 (i.e. layer 719, feature 820 and layers 718 and 748) were of a later phase, however, the dating evidence was fairly consistent in suggesting that these features should be grouped with the underlying deposits.

The dating evidence from all these features was relatively scarce because many of them were removed by machine. The material which was recovered, however, was consistent with a 17th-century (or in some cases late 16th-century) *terminus post quem*. Only fill 718 contained pottery, the two latest pieces of which were of 16th- to 18th-century date.

Phase 11: structures against the Castle Mill Stream: The stone features adjacent to the Castle Mill Stream (709 and 770) which lay against the Mill Stream wall (769) were placed in cuts 771, 711 and 706. These, although variously numbered, were indistinguishable and were amongst the latest features in this part of the site. The exact sequence of the stonework was less certain. Wall 769, the Mill Stream wall, may have been the earliest (and perhaps belonged to Phase 9), however, it was impossible to examine this in section. Immediately east of wall 769, parallel to it and probably built up against it, was 770, of limited extent with a total length of some

3.75-4.00 m. This wall was up to 0.75 m. thick and had a maximum of three courses of variously sized and crudely squared limestone blocks forming two faces with a rubble core in places, all roughly bonded with a loose dark grey loamy mortar. There was no separate foundation deposit, the base of wall (770) rested on a thin mixed layer (816) in the foundation cut (771). The total surviving depth of the wall was 0.38 m. A similar but separate wall fragment (342) abutted the riverside wall and was observed in the south face of Trench B.

Immediately to the east of wall 770 and abutting it was a further block of stonework (708), 1.80 x 0.70 m. and up to 0.40 m. deep, set directly on a longer and deeper mass of irregular stones (709). This incorporated extremely large blocks up to 0.70 x 0.70 x 0.30 m. which were placed in the vertical sided cut (711). The east face of feature 709 was not parallel to the face of wall 770. Feature 709 was partly overlain, features 708 and 770 abutted a mixed mortar layer (707) which filled cut 706. This contained pottery dated to the 17th to 18th centuries or perhaps later.

In the slot dug in the NE. corner of Trench 2, the latest deposits (above layer 758) consisted of further layers which sloped down steeply to the north (815, 814, 813, 812 and 794) and were then disturbed by a number of cut features including 795, a straight-sided feature incorporating a well laid cobbled surface (796) within its fill, 764, 801 and 803. The last of these was the construction cut for the stone wall (802) which formed the northern boundary of the site. It was not clear precisely where this wall was cut, however, it seems to have disturbed the fills of pit 795, leaving a jagged edge through the cobbles 796. Another cut (798) truncated the fill (800) of feature 801. None of these features produced dating evidence, but all were likely to have been of 18th- to 19th-century date. A superficial deposit (790) overlaid all the upper fills and butted up to the base of the modern brick boundary wall which was slightly offset on the stone wall (802). Some 1.20 m. south of this sequence of deposits was the northern edge of feature 703, the extremely large N.-S. linear feature which cut away all the deposits in the central part of the site. Feature 703 was cut from the top of the sequence; like the construction cut 706 for the riverside stone features, the top of its fill lay at modern ground level. The fill of cut 706 (707) was cut only by two N.-S. aligned walls (761 and 763) which formed part of the recently demolished building located in the NW. corner of the site.

THE FINDS

SMALL FINDS by LEIGH ALLEN

The excavations at Tidmarsh Lane produced a total of 79 small finds. The assemblage comprised the following material categories with the number of objects in each category noted in brackets: brass (1), copper alloy (9), iron (59, of which 35 were nails), lead (8) and bone (2). Twenty objects (1 copper alloy, 1 bone, 3 lead and the rest iron) and 22 nails came from medieval contexts, however, only one object was identifiable. This was a horseshoe arm with lobate profile and rectangular nail holes, dated to the 11th to 13th centuries³¹ and recovered from a late medieval context. The remaining 22 objects and 13 nails were derived from post-medieval and modern contexts. Ten of these objects were identifiable. These included: a brass token of Hans Krauwinckel II dated to 1586-1685; 5 copper alloy objects including a lace tag (SF6) of a type in use during the 14th century but more common during the 16th to 17th centuries,³² two drawn wire pins (SF5 and SF19), known to have been in use as early as the medieval period, though smaller finer examples such as these are more commonly representative of the 16th to 17th centuries,³³ a thimble (SF16) similar to an example recovered from Winchester and dated to the 17th century,³⁴ and a larger pin with a globular head (SF4) decorated with fine vertical incised lines irregularly spaced around the head. This pin was recovered from a modern context, but a similar example recovered from The Hamel was dated to the mid to late 15th century.³⁵ The identifiable iron objects comprised three knives and part of a rowel spur. The knives were a whittle tang knife (SF1) with a decorated bone handle and two scale tang knives, one with undecorated bone scales. A similar example from Winchester was dated to the 16th century.³⁶ There is also a lead musket ball (SF18) dated to the 18th century.³⁷ A summary catalogue of the small finds is given below. Full details of all the finds may be found in the project archive.

³¹ I.H. Goodall, 'Horseshoes', in M. Biddle, *Object and Economy in Medieval Winchester* (1990), 1055.

³² M. Biddle and D.A. Hinton, 'Points', in Biddle, *op. cit.* note 31, pp. 581-9.

³³ M. Biddle and K. Barclay, 'Sewing pins', in Biddle, *op. cit.* note 31, pp. 560-1.

³⁴ M. Biddle and L. Elmhurst, 'Sewing equipment', in Biddle, *op. cit.* note 31, pp. 805-11, Fig. 235, No. 2489.

³⁵ A.R. Goodall, 'The copper alloy objects', in N. Palmer, 'A Beaker Burial and Medieval Tenements in The Hamel, Oxford', *Oxonienia*, xlv (1980), Fiche 2 CO3.

³⁶ D.A. Hinton, 'Handles', in Biddle, *op. cit.* note 31, p. 867.

³⁷ M. Biddle, 'Pistol balls', in Biddle, *op. cit.* note 31, p. 1070.

Catalogue

Abbreviations in the catalogue include D = diameter, H = height, L = length, SF = small find number. None of the objects were illustrated.

COPPER ALLOY

Token

1. Token, brass, complete.

Complete token struck by Hans Krauwinckel II, 1586-1685.³⁸ D: 21.5 mm. Context 728, Phase 8, SF17.

Personal items

2. Ring, copper alloy, complete. Plain ring with a D-shaped section. D: 24 mm. Context 769, Phase 9.

3. Livery or blazer button, copper alloy and non-ferrous plating, complete. Plain thin disc slightly chamfered around the edge, non ferrous plating on the front and back. Integral copper alloy loop attachment. Dated late 18th-mid 19th century at Winchester.³⁹ D: 16 mm. Context 427, Phase 11, SF11.

4. Lace tag, copper alloy, complete. Lace tag tapering slightly and with the edges overlapping along the length. Lace tags were in use from the 14th century but were much more common in the 16th to 17th century.⁴⁰ L: 31.5 mm. Context 325, Phase 11, SF6.

5. Pin, copper alloy and non-ferrous plating, complete. Drawn wire pin with wound wire spherical head, traces of non-ferrous plating on the shaft. Drawn pins are known as early as the medieval period, however smaller finer examples such as these are more common in the 16th and 17th century.⁴¹ L: 23 mm. Context 728, Phase 8, SF19.

6. Pin, copper alloy, complete. Drawn wire pin with wound wire spherical head (see above). L: 39 mm. Context 325, Phase 11, SF5.

7. Pin, copper alloy, complete. Large pin with globular head, decorated with faint vertical grooves irregularly spaced around the circumference of the head.⁴² L: 47 mm. Context 325, Phase 11, SF4.

Domestic items

8. Thimble, copper alloy, complete. Cast thimble, straight sided, slightly domed. The body of the thimble is covered with regularly applied indentations and there is a plain band at the base above a flanged rim. A similar example was dated to the 17th century at Winchester.⁴³ H: 19 mm. Context 473, Phase 8, SF16.

Unidentified objects

9. Strip, copper alloy, incomplete. Thin rectangular strip bent at 90 degrees two thirds along the length. L: 95 mm. Context 516, Phase 5, SF23.

10. Sheet, copper alloy and non-ferrous plating, incomplete. Irregularly shaped fragments of thin copper alloy sheet with patches of non-ferrous plating in places. L: 39 mm. Context 728, Phase 8.

IRON

Knives

11. Whittle tang knife, iron and bone, incomplete. Bone handled whittle tang knife. Very little of the blade remains, the handle has a circular section, expands towards the butt end and is decorated with incised lines in a herring bone pattern. L: 104 mm. Context 300 (topsoil), SF1.

12. Scale tang knife, iron, incomplete. The blade is complete and rises up to the tip. Its back is in line with the tang, which is incomplete and tapers very slightly out from the shoulder; one rivet hole remains. L: 151 mm. Context 728, Phase 8.

13. Scale tang knife, iron and bone, incomplete. The blade is broken at the shoulder. The scale tang has two tapering bone scales expanding very slightly to a spur at the butt end. They are secured by three iron rivets. Undecorated.⁴⁴ L: 118 mm. Context 405, Phase 9.

³⁸ Identified by Dr. N. Mayhew of the Ashmolean Museum.

³⁹ M. Biddle and L. Cook, 'Buttons', in Biddle, op. cit. note 31, pp. 571-8, Fig. 115, No. 1756.

⁴⁰ Biddle and Hinton, op. cit. note 32.

⁴¹ Biddle and Barclay, op. cit. note 33.

⁴² Goodall, op. cit. note 35, Fiche 2 C03, Fig. 26, No. 93.

⁴³ Biddle and Elmhurst, op. cit. note 34.

⁴⁴ Cf. Hinton, op. cit. note 36, p. 867, Fig. 261, No. 2899 (dated early to mid 16th-century).

Horsegear

14. Horseshoe, iron, incomplete. One arm from an iron horseshoe. Narrow web with lobate profile, three large rectangular holes and heavy calkin. A fiddle key nail is present in one of the holes. This type can be dated to the 11th-13th centuries.⁴⁵ L: 103 mm. Context 109, Phase 7.

15. Rowel spur, iron, fragment by Blanche M.A. Ellis. The fragment is so severely rusted that it has coalesced with accretions of soil and is only identifiable in X-ray as the neck of a spur with stumps of its broken sides. The neck is very short and is divided for about half of its length by the rowel box, the ends of which are compressed together possibly retaining the rowel pin. Under high magnification the X-ray reveals a pattern of lozenge shapes between double lines, possibly cusped in low relief between the rowel box and the junction of the neck with the sides. Double vertical lines appear on one side of the rowel box adjacent to its rowel boss and, although it is less clear, one similar line can be seen on the opposite side. There are slight traces of non-ferrous plating on these lines and also within the rowel box. The rowel appears to be missing, although the uncertain and faint suggestion of part of a star shape within the accretions near the spur neck on the X-ray might be a fragment of a very small rowel which has become detached. In its present condition it is impossible to date the spur typologically. Rowel spurs first appeared in the 13th century and were common from the 14th century to the present day. Small spurs with short necks were fashionable in the late 17th and 18th centuries, but were not exclusive to that period. L: 60 mm. Context 405, Phase 9.

Structural fittings

16. Hook, iron, incomplete. Rectangular strip with rectangular section curved to form a hook shape. L: 87 mm. Context 516, Phase 5.

17. Ring/link, iron, incomplete. Strip with a sub-rectangular section forming an oval ring with ends that do not meet. L: 85 mm. Context 822, Phase 7, SF22.

Nails

The following 5 nail types were represented:

19. Nails with circular flanged heads (12 medieval, 5 post-medieval)

20. Nails with expanded heads (3 medieval, 3 post-medieval)

21. Nails with diamond shaped heads (1 post-medieval)

22. Nails with inverted L-shaped heads (1 medieval)

23. Fiddle key nails (3 medieval)

24. Indeterminate fragments (3 medieval, 4 post-medieval)

Unidentified objects

25. There were 16 incomplete miscellaneous/unidentified objects, 13 from medieval contexts. These included fragments of sheet and strip, points and uncertain objects.

LEAD*Musket ball*

26. Musket ball, lead, complete. Evidence of the faint casting line around the greatest circumference resulting from the use of a two piece bullet mould. Weight 31 g. Examples of similar diameter and weight have been recovered from 18th-century contexts at Winchester.⁴⁶ D:17 mm. Context 728, Phase 8, SF18.

Miscellaneous

27. Seven fragments of strip, sheet and waste were found, 3 from medieval contexts.

BONE*Handle*

28. Handle fragment, bone, incomplete. Polished handle fragment from a whittle tanged implement. The butt end expands and has a slight spur; the socket is longitudinal. L: 36 mm. Context 405, Phase 9.

Object

29. Bone object, incomplete. Large animal bone, highly polished and the section squared off with four chamfered corners. The bone has been cut straight at one end and is broken at the other. There are two circular perforations drilled through the bone 53 mm. apart. L: 121 mm. Context 592, Phase 3.

⁴⁵ Goodall, op. cit. note 31.

⁴⁶ Biddle, op. cit. note 37.

CLAY

Clay Pipes

30. The excavations produced a total of 490 fragments of clay pipe, which were briefly scanned but not recorded in detail. Most of the datable fragments appeared to be of 17th-century rather than later date. The majority of the material came from a single pit fill (context 405, assigned to Phase 9), which produced 325 stem and 83 bowl fragments. Eighty of these bowl fragments were assignable to general types; ten were spurred bases, broadly of Oswald's type 17 dated c. 1640-1670⁴⁷ and the remainder were assignable to types 5 and 6,⁴⁸ the former approximately equivalent to Local Type A dated by Oswald c. 1630-1655.⁴⁹ Three of these bowls were stamped, one with an uncertain motif (the only pipe in the group not to have a rouletted rim) and two by Jeffry Hunt, dated c. 1650-1670, examples of which have been found at St. Ebbe's.⁵⁰ This is his most widely distributed stamp,⁵¹ probably originating from Bristol.⁵² A *terminus post quem* of c. 1650-1670 seems likely for this group of pipes. All but one of the other context groups contained less than ten fragments of pipe. The seven bowl fragments from these groups were comparable with those from the large assemblage in 405 and a similar date is likely for these pieces.

POTTERY by LUCY WHITTINGHAM (Figs. 22, 23, 24, and 25; Tables 1 and 2)

A total assemblage of 1384 sherds (18 kg.) of pottery was recovered from three stages of archaeological investigation at Tidmarsh Lane. The main excavation produced 1124 sherds (16 kg.), identified by Cathy Underwood-Keever and the evaluation trenches and Trench 3 produced 227 (2 kg.) and 33 (0.2 kg.) sherds respectively. These were identified by Lucy Whittingham.

Although the assemblage contained a broad date range of fabrics comprised of 0.4% early-middle and late Saxon material, 71% early medieval (11th to early 13th centuries), 6% medieval (mid 13th to 15th centuries) and 22.6% post-medieval material, the majority of the sherds were from well-stratified late 11th- or 12th- to mid 13th-century contexts.

The pottery was recorded by context, noting sherd number, weight and the presence of rim forms. All fabrics were compared and classified with reference to the Oxford fabric type series.⁵³ Quantification by fabric is given in Table 1. The pottery is discussed in chronological order.

*Pottery Fabric Catalogue**Early to mid-Saxon*

OXCN: One small non-diagnostic sherd in this limestone and quartz-tempered fabric of 6th- to 8th-century date was the only early-middle Saxon pottery present at Tidmarsh Lane. A second, probably Saxon, sherd was too small to be identified satisfactorily; it weighed less than 2 g.

Late Saxon

OXR St. Neots-type: Four non-diagnostic sherds of 10th- to 11th-century St. Neots-type Ware cannot be assigned to any particular form.

Early medieval

OXBF: 15 body sherds and one rim occur in OXBF, a coarse flint-tempered fabric found in Oxford between the 10th and 12th centuries. These sherds are from hand built cooking pots, which by comparison with St. Aldates,⁵⁴ are mid to late 11th-century forms.

⁴⁷ A. Oswald, *Clay Pipes for the Archaeologist* (BAR 14, 1975), 40-1.

⁴⁸ Ibid. 37-9.

⁴⁹ A. Oswald, 'Clay pipes', in T.G. Hassall, C.E. Halpin and M. Mellor, 'Excavations in St. Ebbe's, Oxford, 1967-1976: Part II: Post-medieval domestic tenements and the post-dissolution site of the Greyfriars', *Oxoniensia*, xlix (1984), 251-2.

⁵⁰ Ibid. 252-3.

⁵¹ D.R. Atkinson, 'Jeffry Hunt pipes', *Wilts. Archaeol. Mag.* 66 (1971), 160.

⁵² Ibid. 159. The attribution of Jeffry Hunt to Marlborough (e.g. Oswald, op. cit. note 47, p. 253) was originally proposed by Atkinson ('Clay Tobacco Pipes and Pipemakers of Marlborough', *Wilts. Archaeol. Mag.* 60 (1965), 86) but later rejected by him.

⁵³ M. Mellor and R. Haldon, 'Late Saxon and Medieval Pottery', in B. Durham, 'Archaeological Investigations in St. Aldate's, Oxford', *Oxoniensia*, lii (1977), 111-39; M. Mellor, 'A Synthesis of Middle and Late Saxon, Medieval and Early Post-medieval Pottery in the Oxford Region', *Oxoniensia*, lix (1994), 17-217.

⁵⁴ Mellor and Haldon, op. cit. note 53, pp. 125, 132-3.

TABLE 1. SUMMARY OF POTTERY FABRIC TYPES BY SHERD NUMBER AND PHASE

FABRIC	PHASE										TOTAL	%
	3	4	5	6	7	7/9	8	9	10 & 11	U/S		
OXCN									1		1	0.1
SAX?					1						1	0.1
OXR					2				2		4	0.3
OXBF	2			3	4	1	3		3		16	1.2
OXAC	2		14	1	10	3	4	51	19		105	7.6
OXY	81	4	172	54	193	25	32	11	30	4	606	43.8
OXAQ	21		13	4	18	3	11		2		72	5.2
OXBK			2	7	1					3	13	0.9
OXAG	9		10		67		4		4	1	95	6.9
OXAH	10		69		1						80	5.8
OXAM	2		10		13		7	11	10	2	55	4.0
OXAW			1		6	1	4	3	7		22	1.6
OXAX								7			7	0.5
TUDG					1			15	2		18	1.3
RAER							4	1	1		6	0.4
FREC							9	26	1		36	2.6
GREW			1				15	74	27		114	8.2
OXDG							2	15	29		46	3.3
PMBL							1	10	1		12	0.9
BORD								11	13	5	29	1.9
TGW								8			8	0.6
CREA								7	4		11	0.8
PEAR								6	1		7	0.5
ENST								4			4	0.3
NOTS								2	2		4	0.3
SLIP									11		11	0.8
TPW									1		1	0.1
TOTAL	127	4	292	69	318	33	96	262	168	15	1384	

OXAC: Oxford Early Medieval Ware: Fabric OXAC is an oolitic limestone-tempered ware commonly found in Oxford from the mid 11th to late 12th centuries. 105 sherds occur at Tidmarsh Lane of which 11 cooking pot rims and four bowls can be dated by comparison with St Aldate's as late 12th-century.⁵⁵

OXY: Oxford Medieval Ware: The predominant early medieval ware in Oxford, OXY, is also the predominant ware in the Tidmarsh Lane assemblage from the late 11th to mid 13th centuries. Cooking pots are by far the most common form in this coarse, quartz-tempered fabric, though some glazed tripod pitchers are also found

⁵⁵ Ibid. 126, 133.

in the same contexts at Tidmarsh Lane. The majority of the 606 sherds are from cooking vessels, of which 60 cooking pot rims can be dated to the first half of the 12th century or late 12th- to early 13th-century on the basis of comparisons with material from St. Aldates⁵⁶ and St. Ebbes.⁵⁷ Twelve 12th-century tripod pitchers are represented by rim fragments and various other diagnostic sherds including tripod bases, decorated strap handles and glazed sherds.

OXAQ: East Wiltshire Ware: 72 sherds have the characteristic poorly sorted inclusions of limestone, flint and angular quartz associated with this fabric type, produced between the late 12th and 15th centuries. Five cooking pots and two bowls are represented by eight rim fragments. The cooking pots are wheel thrown and decorated with curvilinear bands of combed incised lines, typical of this ware type. Both rolled and thickened rim forms are present, but neither are indicative of a particular date. The two bowls are open, shallow forms with inturned rims.

OSBK: 13 sherds in Fabric BK, of the late 12th to 14th century, are all non-diagnostic.

OXAG: Abingdon type A: 95 sherds belong to this quartz-tempered fabric which is the predominant supplier of pitchers in Abingdon between the late 11th to 15th centuries. One cooking pot and three tripod pitchers are represented by rim fragments at Tidmarsh Lane. The three pitchers are highly decorated with horizontal lines and rows of dots painted in white slip.

OXAH: Banbury/Brackley Ware: Of the 80 sherds found in this fabric type 66 are from one jug (context 551, Phase 5) and the remaining 14 from a further six highly decorated jugs. The single vessel in context 551 is a tall, straight-sided jug with strap handle, glazed in a continuous pale yellow lead glaze and decorated with incised parallel lines around the body. A further six vessels are represented by groups of sherds each of which are decorated with a distinctive pattern of applied vertical red clay strips. Fabric OXAH is a regional import into Oxford city from the Banbury/Brackley area of North Oxfordshire. It is usually found between the late 12th and second half of the 13th century.

Medieval

OXAM and OXAW: Brill/Boarstall: 22 sherds of OXAW and 55 of OXAM are present in this assemblage. These two fabrics are the products of the Brill/Boarstall pottery industry in Buckinghamshire and are always the principal fabric on sites of a mid 13th- to 15th-century date in Oxford. OXAW is the coarser of the two fabric types and usually associated with cooking vessel forms. There are no rim fragments present at Tidmarsh Lane but recognisable forms include late 12th- to early 13th-century baluster jugs, two highly decorated jugs; one with applied white clay pellet decoration, and one with iron stained strips and a 'wheel' stamped motif and a bowl/porringer. Of the 50 sherds in OXAM only three vessels are represented by rims; two jugs and one bowl/porringer. The majority of the sherds are, however, glazed in either a yellow lead glaze or a speckled copper green glaze and are therefore assumed to be from jugs, but of indeterminate date. Occasional sherds have painted red slip decoration.

Late medieval/early post-medieval

OXAX: Late medieval red earthenware: Seven sherds in a late medieval/early post medieval earthenware are from a single vessel, either a jug or straight-sided tankard. This fabric is usually found in the 15th century in Oxford.

TUDG: Tudor Green Ware: 18 sherds from a small jug and a porringer are typical products of the late 14th to mid 16th-century Tudor Green, Surrey/Hampshire industry.

Early post-medieval

RAER: Raeren Stoneware: Seven sherds from three drinking jugs are standard late 14th- to 15th-century stoneware forms.

FREC: Cologne/Frechen Stonewares: 36 sherds from both Bellarmines and drinking jugs are typical post-medieval imports of the late 16th to late 17th centuries.

GREW and OXDG: Glazed Red Earthenwares: 171 sherds of various types of glazed red earthenware include 39 sherds of the local Brill/Boarstall (OXDG) post-medieval industry. Within the Brill/Boarstall material two rims from large open dishes are present. Ten rim fragments, in the remaining non-provenanced material, are from cooking pots, chamber pots, pancheons/dairying bowls and a shallow slip decorated dish typical of the 17th and early 18th centuries.

⁵⁶ Ibid. 126-8, 133-4.

⁵⁷ M. Mellor, 'Medieval Pottery' in T.G. Hassall, C.E. Halpin and M. Mellor, 'Excavations in St. Ebbe's, Oxford, 1967-1976: Part I: Late Saxon and Medieval Domestic Occupation and Tenements, and the Medieval Greyfriars', *Oxoniensia*, liv (1989), 212.

PMBL: Post-medieval Blackware: 12 sherds from four typical 17th-century tankards are tall, narrow vessels with pronounced ridged sides, and either a black or dark green continuous glaze.

BORD: Surrey/Hampshire Borderwares: 29 sherds in all three glaze types (green, yellow and brown) are present in this assemblage. Two deep bowls, one candlestick and a porringer, typical mid 17th- to early 18th-century Borderware forms, are represented by rim fragments.

TGW: Tin Glazed Earthenware: Eight sherds from a variety of vessels include a manganese speckled jug and a large dish/charger and drug jars decorated in cobalt blue. These products are likely to be 17th-century in date.

Late post-medieval

A variety of late 18th- to 19th-century post-medieval wares include 11 sherds of Creamware (CREA), eight sherds of Pearlware (PEARL), four sherds of English Stoneware (ENST), and four sherds of Nottingham Stoneware (NOTS).

Discussion

The small amount of early/middle and late Saxon ceramics were residual in this assemblage during Phases 7, 10 and 11. The Tidmarsh Lane pottery assemblage was predominantly an early medieval one comprised of a number of 'local' and regionally imported wares which were dated by association to the 12th to mid 13th centuries. Amongst the local wares (OXAC, OXBK and OXY), fabric OXY dominated the assemblage with a range of forms typical of the 12th and late 12th to early 13th centuries and was the primary source of pottery from Phases 3-7. The regionally imported wares (OXBF, OXAQ, OXAG and OXAH) also occurred predominantly during Phases 3-7 and were therefore considered contemporary with fabric OXY which occurred between the 12th and mid 13th centuries.

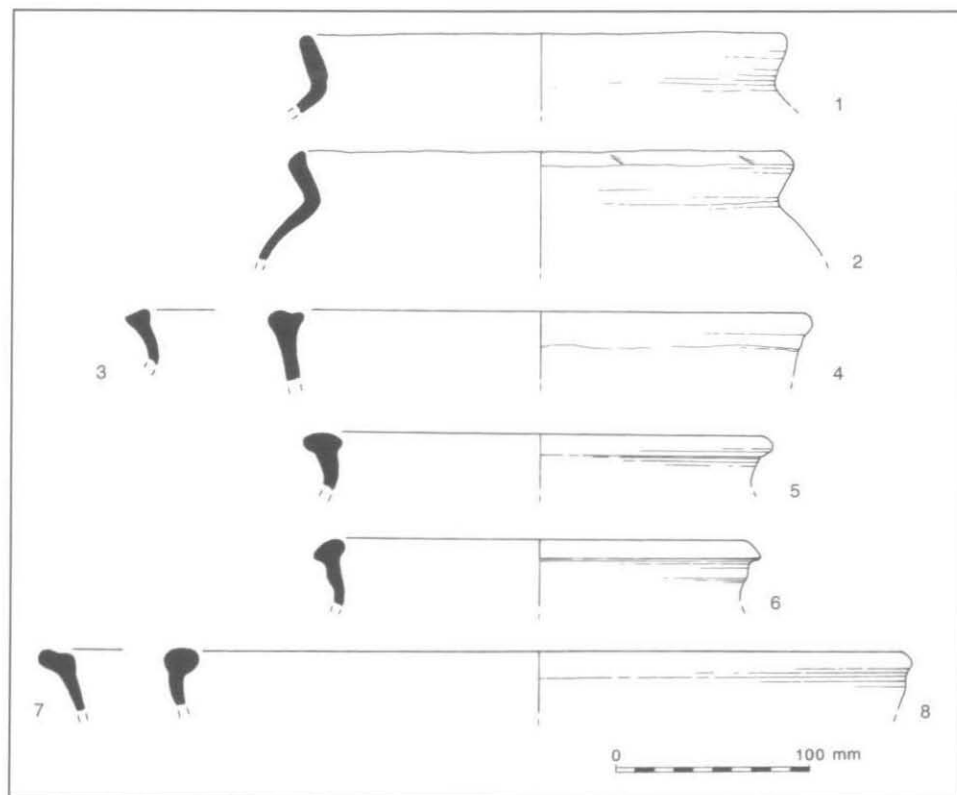


Fig. 22. Medieval pottery nos. 1-8.

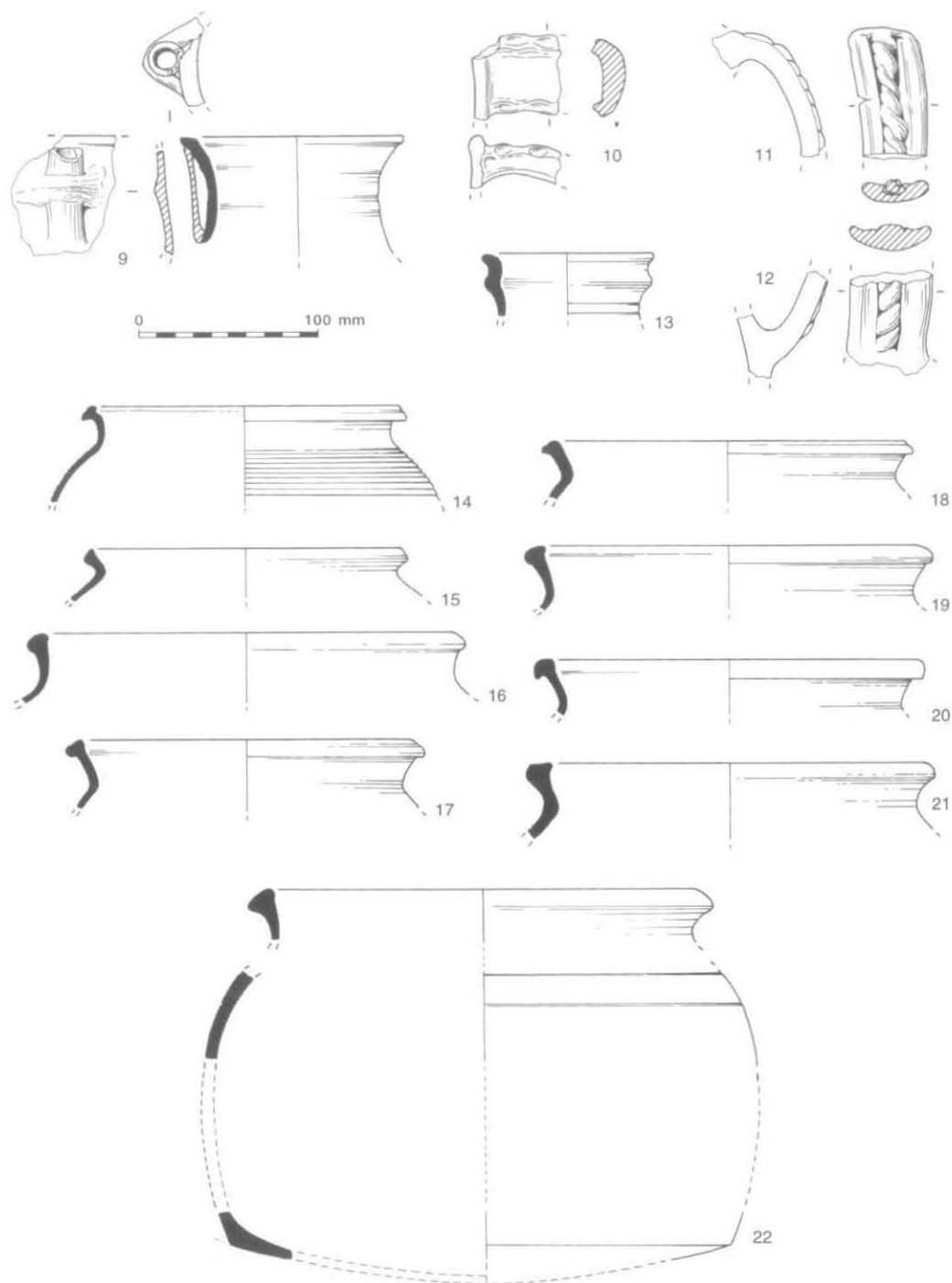


Fig. 23. Medieval pottery nos. 9-22.

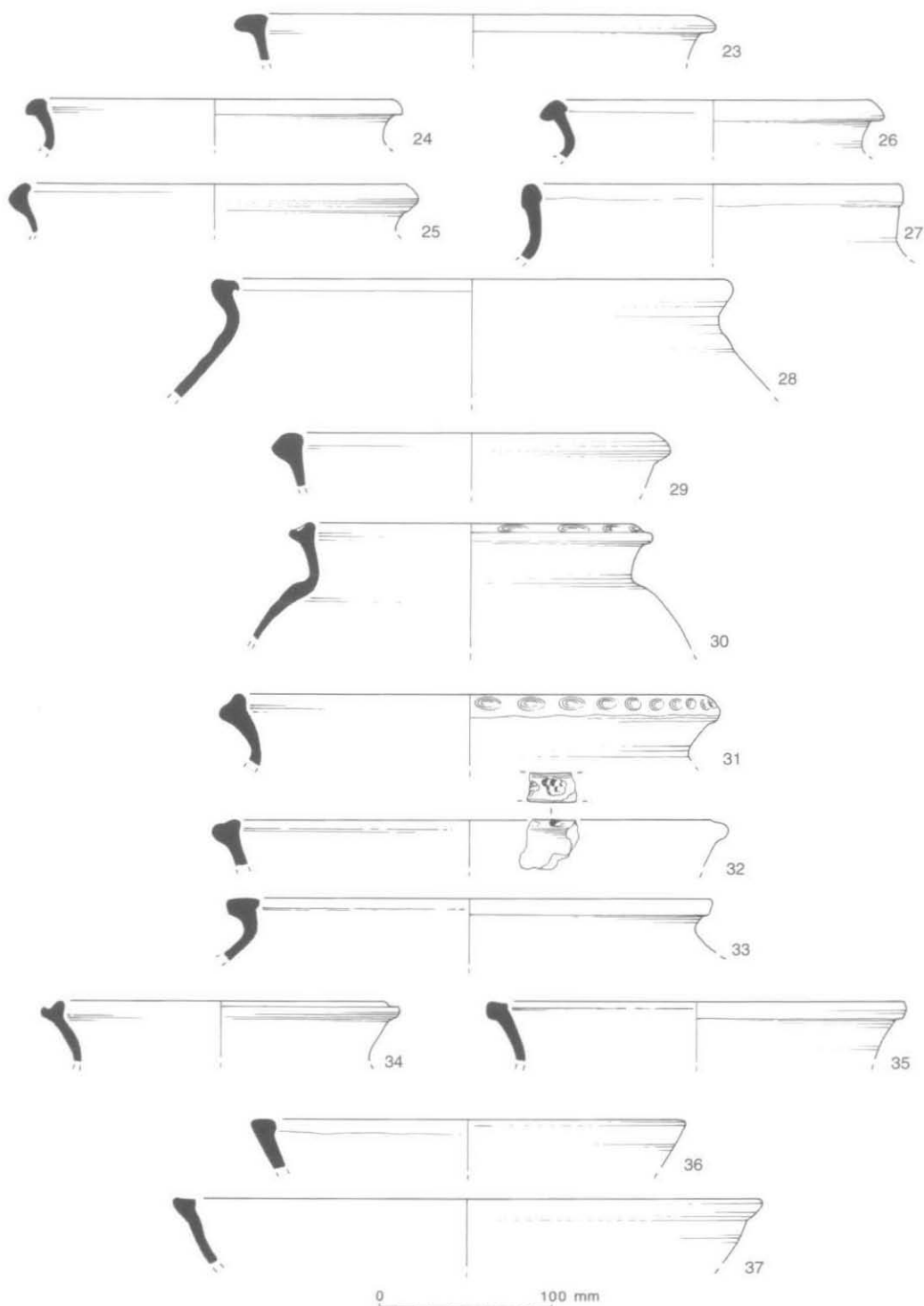


Fig. 24. Medieval pottery nos. 23-37.

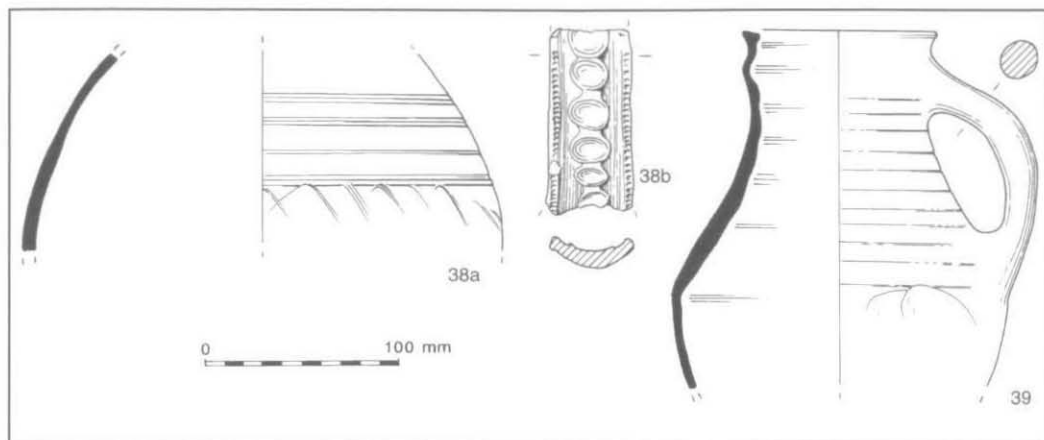


Fig. 25. Medieval pottery nos. 38-39.

The distribution of OXAH supports an earlier 13th-century date for Phase 5 and a mid 13th-century date for Phase 7. This industry, which was known in north Oxfordshire from the late 12th century to the second half of the 13th century, had all but disappeared by Phase 7 of the Tidmarsh Lane sequence. The two industries of fabrics OXAQ and OXAG, which continued beyond the mid 13th century until the 15th century in the Oxfordshire region, were also observed in abundance in Phase 7, continuing into Phases 7/9, 8 and 10/11 at Tidmarsh Lane, though they must have been residual by Phase 10/11.

The range of vessel forms indicates that during the early medieval period, the industries of fabrics OXAC and OXY were supplying cooking vessels and the occasional jug, whereas the more highly decorated jugs and pitchers were imported from the regional industries of Abingdon (OXAG) and Banbury/Brackley (OXAH). These decorated jugs would appear to have been a specific regional import supplying the site at Tidmarsh Lane prior to the arrival of Brill/Boarstall products during the mid 13th century.

A significant factor in determining the date of the ceramic assemblages found in Phases 3-7 as representative of the late 11th to mid 13th centuries was not only the lack of either the Brill/Boarstall fabrics OXAW or OXAM during these early phases, but also a near absence of Brill/Boarstall highly decorated vessels which usually dominated the Oxford ceramic sequence from the late 13th to early 14th centuries. The lack of fabric OXAW found in Phases 3-7 is significant because the appearance of fabric OXAW in Oxford typically marks the demise of fabric OXY during the mid 13th century. The lack of highly decorated Brill/Boarstall vessels or other 14th- to 15th-century wares in this assemblage suggests that there was little occupation at Tidmarsh Lane during this period, or that such occupation was truncated by later activity.

Early post-medieval activity began at Tidmarsh Lane during Phase 8 with the presence of imported Rhinish Stoneware, Surrey/Hampshire Borderware, Tin Glazed Earthenwares and local Glazed Red Earthenwares and Blackwares, indicative of a late 16th- to 17th-century date. The later post-medieval wares of the late 18th to 19th centuries occurred in Phases 9 and 11.

Pottery Catalogue

A representative range of the medieval pottery from the site is illustrated in Figs. 22, 23, 24 and 25. The vessels are arranged in fabric sequence because there were few significant context groups which could be shown in sequence.

Fabric OXAC

1. Cooking pot. 103, Phase 8/9 fill.
2. Cooking pot. 548, Phase 5 layer.
3. Bowl. 570, Phase 5 layer.
4. Cooking pot. 484, Phase 7 layer.
5. Cooking pot. 300, unstratified, Trench B.

Fabric OXAQ

6. Cooking pot. 513, Phase 7 layer.
7. Cooking pot. 542, Phase 7 ?gully fill.
8. Bowl. 512, Phase 6 cobbled surface.

Fabric OXY

9. Tripod pitcher. 570, Phase 5 layer.
10. Tripod pitcher. 513, Phase 7 layer.
11. Tripod pitcher. 735, Phase 5 layer.
12. Tripod pitcher. 461, Phase 11 posthole fill.
13. Jug. 512, Phase 6 cobbled surface.
14. Bowl. 316, Phase 7/9 layer.
15. Cooking pot. 551, Phase 5 layer.
16. Cooking pot. 512, Phase 6 cobbled surface.
17. Cooking pot. 331, Phase 7/9 layer.
18. Cooking pot. 772, Phase ?7 layer.
19. Cooking pot. 300, unstratified Trench B.
20. Cooking pot. 530, Phase 5 layer.
21. Cooking pot. 530, Phase 5 layer.
22. Cooking pot. 565, Phase 5 layer.
23. Cooking pot. 723, Phase 7 ?ditch fill.
24. Cooking pot. 583, Phase 5 layer.
25. Cooking pot. 734, Phase 7 layer.
26. Cooking pot. 108, Phase 7 layer.
27. Cooking pot. 319, Phase 5 layer.
28. Cooking pot. 109, Phase 7 layer.
29. Cooking pot. 104, Phase 7 fill.
30. Cooking pot. 596, Phase 3 layer.
31. Cooking pot. 550, Phase 5 layer.
32. Cooking pot. 768, Phase 3 layer.
33. Cooking pot. 316, Phase 7/9 layer.
34. Cooking pot. 350, Phase 3 layer.
35. Cooking pot. 593, Phase 3 layer.
36. Cooking pot. 715, Phase 8 gully fill.
37. Bowl. 768, Phase 3 layer.

Fabric OXAG Abingdon type A

- 38a and b. Jug/pitcher. 735, Phase 5 layer.

Fabric OXAH

39. Jug/pitcher. 551, Phase 5 layer.

Fabric OXAW

40. Bowl. 516, Phase 5 layer.

TILE by PAUL BOOTH

Some 40 kg. of ceramic building material was recovered from the site during the evaluation and excavation. The great majority of this was roof tile, with a little brick and floor tile occurring in post-medieval contexts. A single fragment of Roman tile was found in a Phase 5 context. The material was examined very rapidly. For the medieval phases of the site it was quantified by fragment count and weight in relation to fabric. Details of tile thickness and other typological characteristics were also noted. This level of recording was applied to material from all phases up to and including Phase 8, probably of 17th-century date, in order to examine changes in the character of the building material range from the late medieval to early post-medieval periods. Material from subsequent phases was simply counted and weighed to establish comparative quantities, but was not recorded by fabric. As far as possible the definition of fabrics used the fabric series already established for tiles from Oxford excavations.⁵⁸ In some cases a close match could not be obtained with these fabrics and new codes were introduced (see fabrics 'B' and 'C' below). Summary descriptions of the fabrics identified, based largely upon earlier work, are as follows:

⁵⁸ E.g. S. Robinson, 'Tiles', in Palmer (1980), op. cit. note 35, Fiche 2 D09; S. Robinson, 'Tile', in Hassall et al. (1984), op. cit. note 49, Fiche V D1-D2.

Fabric III: Little or no quartz sand and no other inclusions.

Fabric IIIA: Abundant pink quartz sand (equivalent to Brill/Boarstall pottery fabric OXAM).

Fabric IIIB: Abundant pink and white quartz sand, rare iron (equivalent to pottery fabric OXAG), probably from the Abingdon area.⁵⁹

Fabric IIID: Moderate grey quartz, rare iron and mica.

Fabric IVA: Abundant grey and white quartz sand, some grog and iron, the same as fabric IV at The Hamel.⁶⁰

Fabric VIIA: Limestone, moderate white quartz inclusions and voids, (off) white in colour.

Fabric VIIB: As VIIA but with more iron.

Fabric 'B': As VIIB but the white limestone inclusions are sparse and the sand moderate to abundant.

Fabric 'C': Moderate to abundant rounded pink and white quartz sand, moderate rounded grey calcareous inclusions. This fabric has some similarities with IB, but the ratio of sand to calcareous inclusions is reversed. The single fragment of this fabric was oxidised throughout.

TABLE 2. QUANTIFICATION OF TILE FABRICS BY PHASE

<i>Tile Fabric</i>											% % Wt		
<i>Phase</i>	III	IIIA	IIIB	IIID	IVa	VIIA	VIIB	'B'	'C'	N/R	TOTAL Frags		
1/3							2 19				2 19	0.3	+
4							3 115				3 115	0.5	0.3
5	7 532	4 479	1 58			2 198	225 13070	85 3553			324 17890	48.7	44.4
5/6 & 6							16 1318	3 84			19 1402	2.9	3.4
7	1 64		1 30	1 30	16 484		35 1857	9 242		2 18	65 2725	9.8	6.8
7/9							5 206	4 452			9 658	1.4	1.6
8			6 421		41 3852		17 807	7 378	1 260		72 5718	10.8	14.3
8/9 & 9					2 127		2 415			127 8687	131 9229	19.7	22.9
11			1 143				5 588	2 135		33 1637	41 2503	6.2	6.2
TOTAL	8 596	4 479	652	1 30	59 4463	2 198	309 18220	110 4834	1 260	162 10072		665 40259	
% Frags	1.2	0.6	1.4	0.2	8.9	0.3	46.5	16.5	0.2	24.3			
% Wt	1.5	1.2	1.6	0.1	11.1	0.5	45.8	12.0	0.7	25.2			

Measures are fragment count/weight (g).

N/R = fabric not known or not recorded.

⁵⁹ Mellor (1984), op. cit. note 53, pp. 78-9.

⁶⁰ Robinson (1980), op. cit. note 58. See also G. Lambrick and M. Mellor, 'The Tiles', in G. Lambrick, 'Further Excavations on the Second Site of the Dominican Priory, Oxford', *Oxoniensia*, 1 (1985), 178.

The quantification of these fabrics by phase is shown in Table 2. The assemblage was dominated by fabric VIIIB, which amounted to almost half the total ceramic building material recovered, and by the closely related fabric B, distinguished from fabric VIIIB in that it contained fewer white (possibly) limestone inclusions. A characteristic reduced core was present in many examples in these fabrics and in a few cases, fragments of fabric VIIIB were clearly overfired. Such pieces were very heavily reduced and in one instance fragments of a second tile were stuck to the upper surface of another tile with glaze. The two fabrics may represent opposite ends of the range of definition of a single product. Together they amounted to 91.5% (by both fragment count and weight) of all tile from the medieval phases (1-7) at Tidmarsh Lane. Tiles in the fabric III group were always scarce, and the identification of fragments in fabric IIIA during Phase 5 was in any case uncertain. These pieces had several characteristics in common with fabric B, including the reduced core.

Sand and grog-tempered fabrics were in some cases lumped together, as some difficulty was experienced in differentiating between them. Consequently, the fabric IVA category may have included pieces attributable to fabrics IVB and IVC, though no examples of these were conclusively noted. Fabric IVA first appeared during Phase 7 and was dominant in Phase 8 and later (though not separated in the recording beyond Phase 8).

Types and decoration

The material from the medieval phases of the site consisted almost entirely of flat roof tile. The scarcity of definite floor tiles helped to conclude with near certainty that the small fragments were largely, if not entirely, from flat roof tiles. Only single fragments of floor tile and brick, the latter probably intrusive, occurred in later medieval contexts (Phases 6 and 7 respectively). Despite the occurrence of relatively large numbers of fragments, particularly in Phase 5, no dimensions for complete tiles were recovered. The thickness of the tiles varied considerably, ranging from 9-10 mm. to c. 18-19 mm. Most tiles, however, fell within the range of 12-16 mm., with greater thickness recorded only at the edges of the tiles. A number of fragments contained peg or nail holes, generally two to a tile where present. These presumably occurred on all the tiles. In a number of cases, however, these holes were not pushed completely through the tile. No nibbed tiles were recorded. Glaze was noted on 23.1% of fragments of tile in fabric VIIIB and 10.3% of fabric B fragments occurring in Phases 1-7. This was typically thin and patchy, with occasional instances of a relatively thick, dark brown glaze. Its occurrence at Tidmarsh Lane contrasts with the situation at The Hamel, where glaze was very scarce on roof tiles.⁶¹

Only two possible medieval ridge tile fragments were noted. Both were in fabric IIIB, with an overall brown glaze, and were recovered from Phase 8 contexts. There were six floor tile fragments, one plain glazed piece in fabric VIIIB from Phase 6 and the remainder in fabric IIIB, all but one of which were from Phase 8 contexts. Of these, three were plain glazed (two yellow, one brown) and two had inlaid decoration, too fragmentary to allow confident identification of type.

Discussion

The source of fabric VIIIB and the likely related fabric B remains unknown, although a local origin has been suggested.⁶² The former was present on the site in very limited quantities before Phase 5. Thereafter, the medieval tile assemblage, which consisted almost entirely of flat roof tiles, was dominated by these fabrics. There was a particularly heavy concentration of material in the contexts of Phase 5, dated to the early to mid 13th century, which may have related to a building or re-building operation on or close to the site. A small number of overfired fragments hint at manufacture in the vicinity, or at least at the use of imperfect tiles, but these pieces were neither large nor numerous enough to be demonstrably derived from production waste. It may be relevant that a large dump of tile from outside the site was noted at The Hamel in the mid 13th-century phase B10b,⁶³ at approximately the same time as the Phase 5 deposits from Tidmarsh Lane, some 150 m. to the east.

During the later medieval period (Phase 7) fabric IVA, from a source south-east of Oxford, possibly Nettlebed,⁶⁴ began to appear, though fabric VIIIB was still dominant at that time. It remains unclear at what point in the sequence fabric VIIIB became residual; at St. Ebbe's it was most common during the 17th century⁶⁵ and one example of fabric VIIA was recorded with tin glazed decoration.⁶⁶ Nevertheless it seems

⁶¹ Robinson (1980), *op. cit.* note 58, Fiche 2 D09.

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ Lambrick and Mellor, *op. cit.* note 60, p. 186.

⁶⁵ Robinson (1984), *op. cit.* note 58, Fiche V D3-D4.

⁶⁶ *Ibid.*, Fiche V D8.

most likely that VIIA and VIIB were entirely medieval fabrics⁶⁷ and the present assemblage remains indicative of production from at least as early as the beginning of the 13th century. Fabric IVA dominated the 16th- to 17th-century Phase 8 assemblage, in which brick as well as roof tile was present. Residual medieval material in this phase included very small quantities of ridge and floor tile fragments in the sandy Abingdon-type fabric IIIB. Ceramic building material was present in some quantity subsequent to this, but was not analysed in detail.

HUMAN BONE by ANGELA BOYLE

A single fragment of ulna mid-shaft was recovered from the Phase 7 (late medieval) context 514, and was likely representative of an adult. The surface of the bone was slightly polished in appearance, with wear visible on one broken edge.

ANIMAL BONE by BOB WILSON

with bird bone identification by Alison Locker

The bones from the Tidmarsh Lane site were examined and recorded as in previous reports on bones from excavations in Oxford,⁶⁸ but not all bone data are reported here. In particular, some bones from post-medieval and often small context groups have been omitted from consideration. The structural and functional interpretation of the later site contexts is less well understood; dating evidence for these small bone groups was limited and complicated by redeposited debris. For these reasons, certain normally collected data such as bone measurements pertaining to post-medieval animal studies were not collected. However, evidence of species and their skeletal element distribution was noted where it was relevant to assessing site taphonomy, for example in terms of the detection of any change of site function, such as the industrial processing of bones.

TABLE 3. ANIMAL BONE FRAGMENT NUMBER FREQUENCY

Phase	1 and 2		3 and 4		5 and 6		7		8 and 9	
Century	?11th-12th	late 12th-early 13th	early 13th-late 13th	late 13th-15/16th	?16th-18th					
	f	f	%	f	%	f	%	f	%	
Cattle	2	48	32	89	35	78	31	120	49	
Sheep/goat	1	68	46	91	36	105	42	112	45	
Pig		20	13	68	27	63	25	12	5	
Horse	1	2	1.3	2	0.8	3	1.2	2	0.8	
Dog								1	0.4	
Red deer		3	2.0	1 + A	0.4 +	1	0.4			
Fallow deer		3	2.0	1	0.4	1	0.4			
Roe deer		2	1.3	1	0.4					
Hare		3	2.0	1	0.4	1	0.4			
Identified bones	4	149		254 + A		252		247		
Unidentified	1	163		363		371		180		
TOTAL	5	312		617		623		427		
Domestic fowl		4		16		10				
Domestic goose		3		4		4				
Burnt bones								1		

A = Antler fragment

⁶⁷ Cf. M. Mellor, 'Tiles', in B.G. Durham, 'The Thames Crossing at Oxford: Archaeological studies 1979-82', *Oxoniensia*, xlix (1983), Fiche E12.

⁶⁸ R. Wilson, 'Animal Bone and Shell', in Palmer (1980), op. cit. note 35, p. 198, Fiche E04-F11; R. Wilson, 'Medieval Animal Bones and Marine Shells from Church Street and other sites in St. Ebbe's, Oxford', in Hassall et al. (1989), op. cit. note 57, pp. 258-68, Fiche MV A7-MVI C11.

Table 3 shows the overall evidence of bone fragment numbers from the site grouped according to phases of site occupation. Since sample sizes were small, results from phases were amalgamated. However, the Phase 8 and 9 group consists only of data from the three largest contexts with post-medieval bones: channel fill 728 (Phase 8), pit fill 406 (Phase 9) and gully fill 736 (Phase 9). Other problematic context groups were disregarded except to note the presence of cat (fill 468 Phase 8; fill 1007 Phase 9), polecat/ferret (fill 408 Phase 11), part of a horse skeleton (fill 456 Phase 11) and possible teal (*Anas crecca*) bones (fill 476, Phase 8). No bones of fish or rabbit were recorded. There was one burnt bone recovered.

The main trend of interest portrayed in Table 3 is the diminution of the percentage of the three deer species and hare from a high point during Phases 3 and 4 to a lower point during the later phases. This trend is paralleled elsewhere at Oxford sites as the medieval period develops, except that fallow deer was often represented in later medieval and post-medieval groups.⁶⁹ The trend appears to relate to the availability of game animals in woodlands and parks of the region. However, the percentages of these were higher than usual in large samples from Oxford and appear to have been related to the elevated status of the castle residents as opposed to other social entities in Oxford.

Abundant pig bones were also indicative of high status groups, particularly at castles.⁷⁰ Evidence of the consumption of pig at Oxford Castle was slightly ambivalent, it was less clearly associated with the relatively abundant deer bones of Phases 3 and 4 than with those of Phases 5-7, and pig was not noticeably more abundant at Oxford Castle than in the rest of the urban sites in the region.⁷¹

Thus some but not all of the castle inhabitants or visitors may have been of high status and therefore dined well on a variety of meats during the 13th century, but less so during later times. The venison was likely received as gifts from hunts elsewhere. Alternatively, the castle inhabitants or visitors may have hunted the game themselves. Some of the venison evident from the later phases may have been redistributed as gifts to the wealthy or high status individuals, bones of the head and foot tend to be those identified.

TABLE 4. SKELETAL ELEMENT GROUPINGS OF CATTLE AND SHEEP BONES

	1-6	7	8-9
Century	11th-13th	13th-16th	16th-18th
Sheep Sample	160	105	112
Head	19%	19%	30%
Foot	12%	21%	12%
Body	69%	60%	58%
Cattle Sample	139	78	120
Head	16%	18%	38%
Foot	24%	29%	14%
Body	60%	53%	48%

Skeletal element analysis of sheep and cattle also contributed information regarding site activities. In Table 4, percentages of bones from the main meat carcasses of sheep and cattle predominate, albeit decreasingly so from Phase 1-9. Percentages of the head and feet vary more, but are not abundant enough to suggest on-site butchery of whole carcasses nor industrial consumption of foot elements for tallow or glue, particularly during the post-medieval period when such activities occurred elsewhere.⁷² Inspection of the frequencies of cattle horns revealed too few to be evidence of trade or industry.

⁶⁹ Wilson (1980), op. cit. note 68; R. Wilson, 'Medieval and Post-medieval Animal Bones and Marine Shells', in Hassall et al. (1984), op. cit. note 58, pp. 265-8, Fiche MIV A4-MVI D3; Wilson (1989), op. cit. note 68.

⁷⁰ A. Grant, 'Animal Resources', in G. Astill and A. Grant (eds.), *The Countryside of Medieval England* (1988), 159.

⁷¹ M. Robinson and R. Wilson, 'A Survey of Environmental Archaeology in the South Midlands', in H. Keeley (ed.), *Environmental Archaeology: a regional overview* (Hist. Bldgs. and Monuments Comm. for Eng. Occ. Paper no. 1), II, Table 9.

⁷² R. Wilson, 'Trade, Industrial and Domestic Activity at the Old Clothing Factory Site, Abingdon', *Oxoniensia*, liv (1989), 279-86.

The late 12th- and 13th-century bones appear related to castle dietary consumption and were mainly domestic rubbish dumped close to the west gate. Later bones indicated either a lesser association with castle practices, possibly a cessation of them and inputs of bone from elsewhere, or a continuation of castle provisioning with a decline in the status and variety of food as time went on.

The part horse skeleton belonged to the last phase of site occupation (Phase 11) and may therefore represent a modern horse, however dating evidence is lacking. Much of the front half of the animal was recovered, except for most of the head. Four limb bone measurements indicated that the horse stood approximately 15 hands high. Somewhat contradictory tooth evidence indicated that the animal died between 5-8 years of age. There were no butchery marks and little evidence from other bones to indicate that the animal was slaughtered in a knacker's yard. It is possible that the animal died in and was buried close to one of the stables known to have been on the site during the later occupation.

ORGANIC MATERIAL by MARK ROBINSON

A single organic sample believed to be of reed peat recovered from a Phase 1/3 deposit (780) in Trench 2 and relating to the possible east-west channel at the northern end of the site was briefly examined. The sample of waterlogged deposit 780 consisted mostly of plant tissue of laminated decayed herbaceous plant remains. These were possibly straw or reeds but preservation was poor. The deposit seems to have formed in a relatively damp nutrient-rich waste ground; the preserved seeds include those of thistle (*Carduus/Cirsium* sp.), dock (*Rumex* sp.), small nettle (*Urtica urens*), creeping buttercup (*Ranunculus* cf. *repens*) and black nightshade (*Solanum* cf. *nigrum*). Wet ground nearby may be indicated by a single seed of water ragwort (*Senecio* cf. *aquatica*). It is not clear if the seeds arrived with the organic matter which then decayed, or if they were growing on the decaying vegetation. The decaying plant tissue may have been a breeding-ground for flies, or may possibly have contained some animal dung; fly puparia were present but could not be identified to genus.

Deposit 780 appears to have been foul organic matter deposited near the water table and containing or supporting plants typical of waste ground in or near human settlement. This material was buried and compressed which resulted in the development of anaerobic conditions in which the deposit was preserved. Conditions suitable for preservation were maintained by a subsequent rise in the water table. Similar deposits have been observed on yard surfaces or road edges of medieval date. It is clear that this material does not derive from an immediately adjacent waterlogged channel.

SYNTHESIS AND DISCUSSION (Fig. 26)

GEOLOGICAL BACKGROUND AND PHASE 1

The natural contour of the gravel subsoil of the site sloped relatively steeply down to the west and south-west from a high point on the eastern side; from the position of the entrance in the castle wall, the gradient of the top of the gravel westwards over a distance of c. 4.50 m. was almost 1:4. This indicates that the site lay at the western extremity of the spur of first and second terrace gravel upon which the centre of Oxford is located. At its highest observed point, the gravel was at approximately 56.50 m. O.D. The top of the underlying Oxford Clay was seen locally at c. 55.45 m., whereas in the Castle Mill Stream just to the south, the Oxford Clay was located at c. 53.96 m., overlain by up to 0.75 m. of gravel in the east side of the main Castle Mill Weir.⁷³ At The Hamel, some 150 m. to the west, the top of the alluvial clay silt subsoil (above the first terrace gravel) lay at c. 55.40 m. O.D.⁷⁴ and at nearby 54 St. Thomas's Street, the alluvium was at approximately 55.60 m. above gravel at 55.10 m.⁷⁵ At both these sites, therefore, the top of the subsoil, which was roughly level across the sites, was similar to the lowest level of the gravel recorded in Trench 1A at Tidmarsh Lane. The rather greater depths of both gravel and Oxford Clay at the adjacent Castle Mill site are of course consistent

⁷³ OAU report, op. cit. note 24.

⁷⁴ Palmer, op. cit. note 35, p. 128.

⁷⁵ A. Hardy, 'Archaeological Excavations at 54-55 St. Thomas's Street, Oxford', *Oxoniensia*, lxi (1996), 240.

with the location of the watercourse at this point. At Tidmarsh Lane, the action of the watercourse could have been responsible, in part, for the slope of the gravel as recorded and the concretion of its upper surface in places. The date of formation of such a watercourse is unknown and deposits directly related to it would presumably have lain west of the fully-excavated sequences at Tidmarsh Lane. There is no suggestion, however, that the observed profile of the gravel subsoil at Tidmarsh Lane resulted from human interference. While it may be assumed that the straight course of the Castle Mill Stream resulted from its artificial character, the configuration of the Oxford Clay and overlying gravel at the Castle Mill Weir is more suggestive of a pre-existing natural watercourse. This could have been straightened locally in association with the construction of the mill.

Phase 1 deposits above the gravel subsoil, seen only at the north end of Trench 1A, were silty sands possibly with charcoal flecks containing fragments of wood including a few cut pieces, but no other artefactual material. The origin and chronology of these deposits remains uncertain. They may represent fills at the edge of the former watercourse, accumulated after it had retreated some distance to the west.

Evidence for Saxon activity was confined to five sherds of pottery (two possibly of early to middle Saxon date, three of St. Neots-type 10th- to 11th-century wares), all from 13th-century or later contexts. While Saxon features were located only 40 m. to the east, their apparent absence may be explained by the topography of the site, initially on too steep a slope, and perhaps also by the proximity of possible mill-related features, if it is assumed that the documented Domesday mill was of Saxon origin and on or near the later site of the castle mill.

PHASES 2-7

The cobbled surfaces

The three principal cobbled layers (Phases 2, 4 and 6) represented successive attempts at surfacing a strip of ground close to, but not necessarily immediately at, the water's edge. While the earliest surface was not dated, it was similar in character to its successors, both of which may be assigned with some confidence to the 13th century; it is therefore unlikely to have been very significantly earlier than them. In view of the relative scarcity of late Saxon material from the site (and its total absence from well-stratified deposits), a post-Conquest date may be considered most likely for the entire sequence, at least from Phase 2 onward.

The surfaces, particularly the earliest, gave the impression of having a roughly north-south alignment. The Phase 2 surface had a quite well-defined eastern edge, suggesting a band of cobbles some 4-5 m. wide. The alignment of its western edge was less clear, but there is no doubt about its location in Trench 1A. In view of this, the significance of the cobbled layer (781) in Trench 2 remains unclear. Its level and placement at the bottom of the sequence in Trench 2 suggest that it could have been broadly contemporary to the Phase 2 surface in Trench 1, although in this case, why the two were not physically connected is unknown. This surface had a northern edge relating to an east-west aligned feature.

The Phase 4 surface in Trench 1 extended further east and west than the Phase 2 surface. In the southern part of the site it was at least 8 m. across and its western limit was not observed, while at the north end of Trench 1A its western edge lay only very slightly beyond the limit of the earlier cobbled surface. In Phase 6, however, the surface may have run up to the edge of a channel in the south-western part of the site. To the east it was contiguous with the surfaces in the castle gateway, but to the north it extended less far than the earlier surfaces. The approximate north-south orientation, evident in its western limit, seems to have been maintained.

The apparent alignment of the surfaces suggests a concern with north-south movement, or with a localised access to the edge of the Castle Mill Stream. If all the surfaces are assigned

a post-Conquest date, it is most likely that their alignment reflects the position of the western defences of the bailey of the castle, presumably established in or soon after 1071, which must have lain immediately to the east. The form of these is unknown, but an earthwork rampart is likely in the first instance, with the adjacent river line serving instead of a moat. The cobbled surfaces would then have been situated on the berm between rampart and river edge, perhaps serving as a hard standing or even a landing area beside the latter, and possibly also as a means of access to the putative mill from the north. Such an access implies the presence of a gateway somewhere in the bailey defences, and this is also required by the interpretation of the urban topography which sees St. Thomas's Street as the continuation of an east-west route of Saxon origin running through the castle from the town. There are very few places where such a gateway could have existed, particularly if there was an east-west channel at the north end of the present site. It is most economical to assume that it occupied the approximate position of the later gate, probably lying just slightly to the east and therefore beyond the limit of excavation. The hints from the animal bone evidence that some high status domestic waste (indicated by relatively high representations of deer bones), presumably derived from within the castle, was being dumped in the area in Phases 3 and 4 would also be consistent with the presence of an access here at this time.

Watercourses

In its earliest form, the river channel later known as the Castle Mill Stream lay immediately against the edge of the gravel terrace identified within the site. By the time the Phase 2 cobbled surface was laid, this channel had moved or been moved an unspecified distance to the west. The grey-black clay above this surface included waterlogged material, however; both this and the character of the soil imply wet conditions, though not necessarily the immediate proximity of a channel.

The only surface with a defined margin probably of this date was deposit 781 in Trench 2. This was either cut by or set up to the southern edge of a linear feature, of which the steep sided feature (806) was probably a re-cut, since it truncated a 'peaty' deposit above it and spilled over the edge of it down to deposit 781. The lowest observed fill of 806, a black peaty clay analogous to a widespread deposit (828) seen in the north-east corner of the site, was consistent with its interpretation as a possible east-west aligned channel. If deposit 828 was correctly interpreted as a fill of this channel, the latter was at least 2.70 m. wide from north to south. The 'peaty' deposit laying on the edge of deposit 781 and cut by feature 806 consisted of material which was deposited during dry conditions and was preserved by compression and later waterlogging. Originally thought to be a fill of the east-west feature, the 'peaty' deposit was clearly marginal to the feature and does not affect the interpretation of this feature as a possible channel.

The only likely function for an east-west channel in this location would have been to form a link between the moat surrounding the castle motte and the Castle Mill Stream to the west, thereby completing the system of water defences on the west side of the castle. While this explanation is preferred, it presents some problems of interpretation for the structural features in Trench 2 and at the north end of Trench 1. It is emphasised that the investigation of the putative channel was on a very limited scale and the interpretation cannot be regarded as entirely certain. The existence of an east-west channel in this vicinity, postulated before the excavation took place, remains likely on *a priori* grounds, however.

How long the possible channel remained in use is uncertain, but the fill of its southern side was cut by a Phase 7 (possibly late medieval) ditch (726) in such a way as to suggest that the channel was substantially in-filled at this time. The earliest pictorial representation of the area, by Agas, does not show the moat as a water-filled feature at this time, and the moat on

the south side of the motte was in-filled by the late medieval period.⁷⁶ Later, Loggan shows part of the motte moat still water-filled (on the west side, approximately in the location now occupied by Macclesfield House), but without the connecting east-west channel. The channel would have discharged into the Castle Mill Stream, but at what point is unknown because the eastern side of the latter was never seen in Trench 2, having been completely truncated by a later channel cut.

There is no clear evidence for the location of the Castle Mill Stream edge in relation to the Phase 4 cobbled surface. It is possible that a gravel and stone layer seen only in the western sondage in Trench B was part of a surface (though it was initially identified as a 'dump') contemporary with the Phase 4 cobbles to the east (the levels indicate that this could have been the case). This was cut by a dark silty sand filled feature (361), thought at the time of the evaluation to represent a channel edge. If correctly identified, however, this feature was of short duration as it was soon overlaid by layers of different character. It was perhaps more likely a pit.

Further south, a probable channel edge of much longer duration was definitely associated with the Phase 6 cobbles in Trench A. There was insufficient evidence to permit projection of the alignment of any of these edges, and in any case there was no reason to suppose that they would have been straight. There can be little doubt, however, that the Phase 6 channel edge seen at the southern end of the site was a long-lived feature which must have curved north-westward to run beyond the end of Trench B, beyond which point its line was entirely speculative. The date of its demise is uncertain; the principal fill indicated disuse during Phase 8 or 9, so this edge may indicate the location of the channel at this point, almost beneath St. George's Tower, throughout the later medieval period. Radical realignment was to follow.

In general it is likely that some watercourse edges were defined by being cut through adjacent cobbled surfaces or, more likely, by the surfaces having been laid up to the watercourse edges. Otherwise there was no evidence that these edges were revetted or specially constructed in any way.

The castle wall

The identification of the 2.40 m.-thick wall located in Trench 3 as the curtain wall of the castle seems fairly certain. Although poorly preserved, the surviving portion was sufficient to allow establishment of its alignment and of the location of an opening in it. The wall must have run from the north-east corner of St. George's Tower, and the south side of the opening in the wall was some 16 m. north-north-west of the tower. The pictorial evidence was consistent with this. The most detailed drawings, relating to the Christ Church boundary dispute of c. 1620, showed a small door or gateway immediately adjacent to the north-east corner of St. George's Tower. This location was confirmed by later views, including that of the Bucks looking west from within the castle in which the arch was shown as round-headed. There was a larger gateway, surmounted by a tower slightly further to the north, from the north-east side of which the curtain wall runs away in the direction of the motte as would be expected. There was no indication of how the wall crossed the motte moat, which by the time of the illustrations appears to have been filled up at this point. The implication of the drawings is that the larger gate stood at, or itself formed, the angle in the curtain alignment.

The logical conclusion from this evidence is that the excavated opening in the castle wall corresponded to the south jamb of the main west gate of the castle, while the smaller

⁷⁶ Jope, *op. cit.* note 2, p. 83.

opening to the south lay within the present prison and only gave access to the graveyard of St. George's church, known to have lain on the north side of St. George's Tower. It should be noted that the excavation encountered no trace of this graveyard beyond the presence of a single human bone fragment recovered from a Phase 7 deposit.

The physical character of the wall has been described above. It was based on the sloping gravel subsoil, with no evidence for a formal foundation trench. In this respect it was very similar to the roughly contemporary town wall as seen in the north-east part of its circuit at New College.⁷⁷ There was no apparent elaboration of the structure at the jamb of the gateway. The gate passage was, however, well-paved with large (if irregular) limestone blocks. The south side of the gate passage was at right angles to the wall face, giving no indication that the access road passed through the wall at an angle. In order to reach the position of Quaking Bridge, however, the line of the road must have turned quite sharply to the north-west immediately on exit through the gate, and in order to reach any possible western barbican (assuming that the location of the latter was roughly along the line of Tidmarsh Lane), the line of the road must have turned even more sharply to the north.

The chronology of the wall is reasonably clear. It may be assigned with some confidence to Phase 5 in the site sequence on the basis of its relationships to the Phase 4 cobbled surface, which stopped short of it, and the Phase 6 cobbled surface, which was contiguous with the paving of the gate passage. It is possible that the wall may have been standing when the Phase 4 surface was laid, however, this seems less likely. The pottery evidence from the site indicated a date range of early to mid 13th century for Phase 5. Greater precision was impossible. This does, however, compare quite well with the hints provided by the building records for the castle contained within the Pipe Rolls. 'Walls', or work on them, were referred to (*inter alia*) from 1228-9, 1245 (collapsed), 1255 (needs repair) and 1272-3. It is likely that these references were to the curtain wall of the castle, though there is no indication of the exact location of any of these works. Construction in the first half of the 13th century seems to be implied and would fit with the archaeological evidence from Tidmarsh Lane. It may be noted that Phase 5 deposits outside the castle gate, particularly in the northern part of Trench 1A, contained large quantities of roof tile. This material was unlikely to have derived from a building immediately outside the gate at this time, and it may have been brought from within the castle in material dumped either to level the area or simply to dispose of it. This material could have derived from buildings either being constructed or perhaps more likely under repair at this time.

There was little certain archaeological evidence for the date of disuse of the wall and in particular of the gate. While documentary references indicate that it was in poor condition in the 14th century, there was no indication of this from the excavation. Phase 8 ditches seemed to respect the position of the latter and can probably be equated with features on one of the 17th-century drawings, implying that the gate was still in use at that time. Large parts of the wall structure were removed by features of 18th- to 20th-century date. These activities did not necessarily involve deliberate dismantling, but the almost total absence of facing stone, except curiously from the gate jamb itself, suggests that this was preferentially removed, something which could perhaps have happened at any date from the late medieval period onward.

⁷⁷ P.M. Booth, 'Excavations on the Line of the City Defences at New College, Oxford, 1993', *Oxoniensia*, lx (1995), 207, 209.

External structures

The questions of the directions of access to and from the castle west gate and the nature of any channel crossings are intimately linked to the understanding of a number of partly stone-built structures which stood immediately outside the gate, and their associations with the major surfaces. Unfortunately, all these structures were extremely fragmentary, owing in part to their location beyond the limits of the excavation, and in particular to truncation by later activity.

The structural features fall into three groups:

- A. At the north end of Trench 1, two stone bases (or possibly a single continuous feature) were perhaps fronted on the east by a north-south horizontal timber possibly from Phase 3 (and certainly from Phase 5). This structure evolved through the medieval period with the timber remaining a consistent feature.
- B. In the north-east corner of Trench 2 a possibly square stone base perhaps of Phase 5 (but possibly earlier) had a subsidiary stone feature added to its south-east corner.
- C. South of structure B, poorly preserved conventional stone walls indicated the north-east corner of a building of Phase 7, lying mostly to the south of Trench 2. There was no evidence for this structure in Trench B, but the relevant level was only reached in the western sondage within this trench. If genuinely absent here, the building would have had a maximum north-south dimension of 4 m.

The orientation of structure A was almost exactly north-south, while structures B and C were aligned very slightly more north-north-west to south-south-east. While the alignment of structures B and C was identical, they were not constructed at the same time, though it is possible that a timber structure resting on base B could have remained standing into Phase 7 when structure C was built, and it may also have been respected by the Phase 7 ditch 726.

There were considerable similarities between structures A and B. In its initial form, structure A may have consisted of two similar blocks of masonry of which the better preserved (569) was *c.* 1.20 m. north-south and of two courses up to 0.28 m. high. Structure B was at least 0.90 m. north-south and 0.95 m. east-west and also had two courses of rough stones up to *c.* 0.35 m. high. The top of structure A was only approximately 0.15 m. above that of structure B.

These similarities suggest that at least initially the two structures could be seen as part of the same larger edifice. The interpretation of this edifice is, however, very uncertain. It is perhaps most likely that the features were bases for a timber superstructure. The likely necessity for one or more bridges in this area makes it possible that the bases related to a bridge structure, though for such a scenario, the presence of further (missing) bases would be required. In any case, it was impossible for any structure on these bases to have been aligned north-west to south-east. In the absence of evidence for the location of the bank of the contemporary Castle Mill Stream (except to say that this must have lain rather further west than structure B), it was more likely that if the bases related to a bridge, this bridge was aligned north-south across the channel linking the mill stream and the moat.

The principal problem with this interpretation, apart from its implications for the detail of the bridge construction, is that the end of the bridge would have been immediately opposite the castle gate (both in its 13th-century stone form and perhaps in previous manifestations) and could only have been reached by turning through 90° approximately 6-7 m. outside the castle gate. If this is accepted, it follows that the bridge would have been effectively impassable for wheeled traffic and could only have been a footbridge. One

advantage of a footbridge interpretation, however, is that it explains the complete absence of paved surfaces in the excavated medieval sequence of Trench 2 and adjacent to structure A before Phase 7; none would have been necessary.

The possible bridge may have been rebuilt more than once. Again the structural role fulfilled by the horizontal timbers laid on the east side of structure A (and eventually partly above it) was unclear, but it suggested a change in structural detail. This might in any case be implied by the location of structure C which would have impinged on the west side of a north-south construction using structure B and extending southward from it. The west side of the possible bridge may have been realigned further east within the area of the site destroyed by later features, because its survival into Phase 7 was implied by the structure A sequence in Trench 1A.

The principal function of the putative bridge would have been to give access to the western barbican of the castle. While the likely location of this feature seems fairly clear, its form and chronology are speculative, although a 13th-century date for its construction is most likely. There was equally no evidence for the physical characteristics of the eastern barbican whose ditch was located in 1969.⁷⁸ Building records indicate work on the barbican in 1216 and 1227, but it is unclear which barbican is meant. The eastern barbican remained in use for perhaps 200-250 years; its ditch filled and it formed part of the 'new market' by the 15th century.⁷⁹ The western barbican may have had an even shorter life. The west gate of the castle was described as 'ruinous' in 1327 and in 1331, when many other buildings within the castle were recorded as ruinous, it was 'broken'. This may have prevented access to the barbican, and it may be no coincidence that the ceramic evidence indicates almost no medieval activity on the site after the 13th century.

Structure C, as already noted, appears to have been a conventional foundation for a small building of late 13th-century or later date. Its function and period of use are unknown, but the absence of late medieval pottery may indicate that the latter was relatively short-lived.

PHASES 8-11

After an apparently extended period of little or no significant use, the area outside the castle wall saw renewed activity in the early post-medieval period. In Phase 8 a series of ditches running north-west to south-east aligned exactly with the south jamb of the castle gate. These ditches corresponded precisely to lines on one of the early 17th-century drawings which indicate a trackway running from the gate across the position of the former east-west channel to Quaking Bridge. This demonstrates the revival of a thoroughfare through the castle, which also linked with the trackway surface noted by Jope in the top of the south motte ditch and dated by him to the 17th century.⁸⁰

There was no definite indication of surfaces associated with the ditches, nor of the corresponding features which might have been expected on the north-east side of the trackway. The latter would have laid almost entirely beyond the limits of excavation, except in the east end of Trench B. The latter lay very close to the line of the castle wall. It is clear that the ditches on the south-west side of the trackway became very shallow as they approached the wall. The apparent absence of comparable ditches from Trench B was therefore unsurprising.

⁷⁸ Hassall, *op. cit.* note 6, pp. 250-4.

⁷⁹ *Ibid.* 245.

⁸⁰ Jope, *op. cit.* note 2, p. 83. This feature was also noted in the 2003 evaluation (OA report, *op. cit.* note 21).

The Phase 8 track side ditches were apparently cut by a very substantial feature (746) of roughly similar date which can only have been another river channel. The alignment of this feature was, however, somewhat unexpected. Its eastern side, which was quite straight over the distance of some 7-8 m. where observed at the site, was aligned nearly north-south. At the northern boundary of the site, the projection of this line would have been *c.* 9 m. east of the east abutment of the present Quaking Bridge. This edge was therefore considerably further east than any of its medieval predecessors, because it actually removed medieval stratigraphy with the exception of Phase 1 when the location of the river margin was quite unknown. Further south, however, the projected channel edge would have lain considerably further west than its Phase 6 predecessor, even if its alignment then bent back to the south-east.

One of the problems with the understanding of this channel was the determination of the exact level from which it was cut. The top of its fill was never seen above approximately 56.50 m. O.D. and the tops of the large stones noted at its edge during the watching brief were at roughly the same level. Despite disturbance by later features, this may thus have been its highest point. A further problem relates to the filling of the channel, which seems to have taken place during the 17th century (the earliest fills were not seen and their date was therefore unknown). How did the fills relate to a successor channel? It is not logical for the channel to have been completely infilled before being replaced. Perhaps it did not serve as the main stream at this point; indeed its alignment would make that rather difficult. It was noted above that part of the early 17th-century dispute between Christ Church and the city related to the cutting of a new millstream closer to St. George's Tower. The alignment of the recorded feature, the dating of which seems to offer much the 'best fit' as a 17th-century channel, tends in the opposite direction, however. As seen in the excavation, the channel edge closest to St. George's Tower was the channel edge in Trench A (116) assigned to Phase 6 on the basis of its apparently secure association with the surface of that date.

It is possible that channel 116 was later in date than thought, i.e. that it cut the Phase 6 cobbles rather than having been defined by them, in which case it could perhaps have been the channel of the 17th-century dispute. The place of channel 746 in the sequence would then be uncertain. In any case, its alignment was problematic, and it may be best to see it as a very localised feature, perhaps a re-working of what remained of the junction between the main stream and the east-west channel linking the main stream to the castle moat. One effect of this feature may have been to cut off access to Quaking Bridge, evidently in place by 1578, when it appears on Agas's map. It was also shown in the early 17th-century drawings, and the Phase 8 trackway ditches do seem to have been cut by the channel. The relationship was, however, only observed in the south baulk of Trench 2 and may not have been correctly understood. Access to Quaking Bridge from the north down the line of Tidmarsh Lane would not have been affected, however, and in any case 746 may have been bridged, though there is no indication of this from our pictorial sources. It is also possible that channel 746 was a relatively short-lived feature which should be dated rather later than the events under discussion, perhaps to the late 17th to early 18th centuries. The finds from the top of the main fill (728) could support such a date.

The resolution of the early 17th-century dispute about the re-cut millstream is unknown. The next major development after this, and after the filling of channel 746, must have been the construction of some form of riverside wall, probably on its present alignment. This must have been at least partly in place by 1750, when the house by the river appeared on Taylor's map. All subsequent views from the north showed the house and riverside wall as continuous, though one 18th-century view appears to show a sloping bank north of the

house, implying the presence of a ford immediately downstream of Quaking Bridge⁸¹ (although it is possible that this was artistic license). The principal consequence of this formalisation of the river edge was that the site was levelled and it is assumed, though it cannot be proven, that most of the Trench 2 deposits above the fills of channel 746 post-dated this event. The significance of the fact that these deposits apparently included cut features aligned roughly parallel to the river edge is unknown. These must have predated the possible mid 18th-century house. Substantial levelling was evidently complete by the time the prison wall was built in the late 1780s, if not earlier.

The excavation shed little light upon the riverside house itself, except to identify the level from which it was constructed. Its remains were extensively disturbed by more recent features on the site which were amongst those removed by machine during the early stages of the excavation.

Post-medieval disturbance, the recent development and preceding excavation removed medieval deposits across much of the site, but early medieval deposits and part of the post-medieval channel 746 should survive towards its west margin beneath the level of the basement of the new building, disturbed only by piles. It is possible that medieval waterfront features remain to be located in this area. Medieval deposits should also survive in the east part of the site under the yard of the new development. Importantly, evidence for the gate structure may still be preserved in the vicinity of, and beneath, the 'cottage' building.

SUMMARY AND CONCLUSIONS

The site lay at the very edge of the second gravel terrace in a location which was exploited by the builders of Oxford Castle for defensive purposes, but was too close to the floodplain to have been used in the late Saxon period. After the construction of the earthwork castle in 1071, a series of cobbled surfaces was laid between the bailey rampart and successive edges of the Castle Mill Stream. These surfaces may have served as a landing or fording point at the river's edge, and perhaps also as an access to the Castle Mill itself, which may have lain immediately south of the site in the position occupied by its recent successors. The surfaces may also have provided access to a timber bridge across an east-west channel linking the castle moat with the Castle Mill Stream. It is emphasised that the evidence for this bridge is not conclusive. An entrance in the earthwork bailey defences in the vicinity was implied. There was no evidence for the graveyard associated with St. George's church known to have been situated north of St. George's Tower. This was either very slight in extent or had been completely disturbed by later features.

In the first half of the 13th century, a stone curtain wall was built. On the west side of the castle this linked St. George's Tower with the motte. A gateway partly encountered within the excavations stood at the angle of north-south and north-east to south-west aligned sections of this wall and presumably replaced an earlier gate on much the same site (it lies almost exactly beneath the 18th- to 19th-century 'cottage' retained on the site as part of the recent redevelopment). Dumped building material in this phase was consistent with documentary evidence which implied considerable building work within the castle at this time. The construction of a western barbican to the castle, probably along the line of Tidmarsh Lane, may have happened at about the same time. This was presumably reached by the north-south timber bridge, the alignment of which in relation to the castle gateway probably precluded its use by wheeled traffic. This, in conjunction with the absence of clear evidence

⁸¹ Bodl., Minn Coll. 11/14. The author is grateful to Prof. Barron for this reference.

for a medieval predecessor in the position of Quaking Bridge or to the south, implies that the principal westbound exit from the town was through the Westgate south of the castle and then turned north-west up Waram Bank to the line of St. Thomas's (High) Street. It is possible that the mill stream continued to be forded from in front of the castle west gate.

Documentary evidence indicates that the castle gate was in poor condition during the first half of the 14th century, and there was almost no activity on the site firmly dated to the late medieval period. Little more than low-level access through the site was implied at this time. A general decline in the condition of the castle during the late medieval period may perhaps be inferred from the animal bone evidence, which hints at a reduction in the status of the assemblages deposited in the excavated area in comparison with their 12th- to early 13th-century character.

The river was bridged in the location of Quaking Bridge at least as early as the late 16th century, by which time the east-west channel linking river and castle moat was substantially infilled and the western barbican had completely disappeared. A defined trackway from the castle gate to this bridge was identified in both the archaeological and pictorial record. A recut of the mill stream, subject of legal disputes during the early 17th century, may have been located within the site, but this is uncertain. A well-defined but oddly-aligned channel in the north-west corner of the site may have been of later 17th-century origin. It was perhaps of limited extent and duration since it would otherwise have seriously disrupted access to Quaking Bridge from the south-east, though such access ceased to be important with the building of New Road *c.* 1770 and the reconstruction of the prison in the late 1780s. By this time the riverside house, the nucleus of later developments on the site, was already in place.

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