Medieval buildings and land reclamation at the former Lion Brewery, St Thomas’ Street, Oxford

By Helen Moore

with contributions from Paul Blinkhorn, Anne Davis, David Fellows, Jackie Kiely and Alan Pipe

SUMMARY

Excavation revealed the fragmentary remains of a 13th-century building aligned parallel with the south side of St Thomas’ Street in Oxford. Associated made ground layers were banked up between the walls and a garden lay to the rear of the property. The remains of other, probably equally early, structures were also recorded in the southern area of the site and on the opposite street frontage.

Archaeological investigations incorporating two phases of evaluation and a small excavation were undertaken by Thames Valley Archaeological Services during winter 1999 and summer 2002 on the site of the former Lion Brewery, St Thomas’ Street, Oxford (SP 50840 06100) (Fig. 1) in advance of the construction of new housing.

The site covered two plots of land on either side of St Thomas’ Street. A first phase of evaluation (November 1999) prior to demolition of the existing buildings was followed by a second phase in 2002 to investigate areas that were inaccessible during 1999, and an excavation was then carried out on a small area of the street frontage at the western side of the portion of the site on the south side of the street (June 2002).

DISCUSSION

Despite the limited nature and scope of the trenches, enough evidence was recorded to suggest a sequence of activity on the site from the late 11th century onwards.

Pre-building Activity

The site lies on the floodplain of the river Thames in an area occupied by braided river channels. The wetness of this setting in early medieval times is demonstrated both by the presence of alluvial silts and clays across the trenches here, and by environmental analysis elsewhere in the St Thomas’ Street area. However, this was not always the case, with early Bronze Age occupation recorded on The Hamel just to the west, which was dry land at that time. Streams still surround the triangular southern parcel of the site. The archaeological evidence suggests that these streams were once larger or more prone to flooding. Trench 10 on the eastern side of the site adjacent to the Backstream contained alluvial clay deposits 1.10 m. thick, indicating a substantial period of accumulation. Pottery dating from 13th to 16th centuries within it suggests that this clay began forming during the early Medieval period and that this area was wet at least seasonally during these centuries. Trenches 5, 7 and 8 also contained alluvial clays up to 1.60 m. thick, so it is likely that the southern zone of the site was flooded regularly over a considerable period of time. The water table is still very high, so that some trenches had to be constantly pumped.


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A gleyed alluvial clay deposit (269) suggests the possibility of an earlier channel carved into the natural gravels. The presence of late 11th-century pottery on the surface of this deposit suggests that the channel had silted up by this time. The top of the water table was at this level during excavation and seems to have been at this height during the 12th and 13th centuries when imported material was banked up to form made ground layers here and elsewhere on St Thomas’ Street.

**Occupation: 13th century**

Occupation probably did not commence on this site until the early 13th century. Fragmentary foundations of two east-west aligned walls, and possibly a third, are all that remain of a 13th-century building that stood parallel with the street frontage in the north-west corner of the site. The distinctly different deposits recorded to the north and south of wall 283 = 299 indicate that the walls (or foundations) were constructed first, and then layers of made ground were banked up between the walls to raise the interior above the water table. A soil then formed behind the south wall of the property, indicating a garden or yard area.

Wall cut 206 came to a rounded butt end on the eastern side of the excavation trench. This may indicate an entrance into the building, as robber trench 4 in Trench 3 suggests a continuation. The combined lengths of each stretch of robber trench/wall recorded are
approximately 8.25 m., and the two walls are approximately 4 m. apart. The building continues to the west under the adjacent site which is now a car park, and also originally extended further to the east beyond the evaluation trench. The front (northern) wall of the building was only observed in the excavation trench so it is unknown if this survives under the street frontage to the east.

There is little evidence of internal features within the building, and the only structural elements were randomly distributed stakeholes. Unless the sandy gravel of the made ground was a floor surface, which seems unlikely as no occupation debris was found, any occupation horizons have been truncated by later 19th–20th century activity. The 13th-century pits cut into the top of the made ground are the only early features observed apart from the burnt layers in the west baulk (Section 5). These layers suggest a hearth close to the northern wall. Hearths positioned against the walls of a mid 13th-century building were recorded in the Hamel excavations.

The north-south orientated wall in Trench 1 indicates the end of another building aligned parallel with St Thomas’ Street. The surviving height of the wall (0.80 m.) and the lack of robber cut, suggests that its foundations were not robbed. It is possible that this building may date from the 13th century (or earlier), as pottery recovered from layers later than the wall was in the 13th–14th century date range. Floor layers were undated, but it seems likely that the building was not in use for long, as a thick layer of silt accumulated above these layers in the 14th century.

**Disuse and post-medieval occupation**

There was then a hiatus in activity as 15th-century garden soil built up over part of the area. The pottery sequence also supports this break in activity, before the site suffered extensive 19th- and 20th-century truncation.

This sequence does seem to tie in with other investigations in the St Thomas’ Street area. A decline in activity is evident at 54–55 St Thomas’ Street from the 14th century, when a cob building was demolished and the land then lay undeveloped until the 17th century. It is known that the parish and Oxford as a whole went through a period of decline at this time.

The stratigraphically late date of the robber trenches for the walls in the excavation area and Trench 3, supported by the pottery evidence, suggest that at least the foundations of the 13th-century building were still in existence, as late as the 19th century. Agas’s map of 1578 and Loggan’s of 1675 show a gabled house with the wing of the brewery building to its rear. Davies’ map of 1794 and Hoggar’s of 1850 show blocks of buildings that could include the 13th-century building, and it may even have survived to be recorded on the First Edition Ordnance Survey of 1876. A series of small properties seems to be marked on the street frontage on this map. It does not seem to have survived to the time of the Second Edition (1898), which portrays a different block of buildings, and it is known that the brewery had undergone extensive renovations and new building by this time.

Cartographic evidence for the 16th and 17th centuries depicts the northern street frontage occupied by what appears to be one large building with its long axis parallel with the street, a hedge or wall on its western side and gardens or orchards behind. The stratigraphy of the building in Trench 1 on the north side of the Street seems to indicate that this building, or at least its site, was re-used in the early post-medieval period, with a rubbish pit dug though the silt, and then a knuckle-bone floor laid above it. This floor is an interesting feature, and is a relatively rare occurrence with only 17 examples known

2 Ibid.

nationally in 1989.\textsuperscript{4} Ten of these are from Oxford itself and a further two from Oxfordshire, so it was a relatively localized trend. Floors of this type are generally found within a restricted time-frame in the 17th and 18th centuries, and it is likely that this floor also belongs in this date range as it lies late in the stratigraphic sequence. Armitage\textsuperscript{5} suggests that the geographic range of this type of floor is significant with a concentration in the heavily populated Midlands. The significant increase in population that towns and cities in this area experienced from the late 16th century onwards necessitated a great increase in the amount of meat consumed. Large quantities of animal bones were the by-product of this slaughter and metapodial bones would have been a cheap, if not free, building material. Hence the use of cattle and sheep bones in so-called “knuckle-bone floors”, particularly in Oxford,\textsuperscript{6} does not necessarily suggest any great status or wealth.

A limestone wall/surface in Trench 2 on the southern street frontage may be part of a medieval or post-medieval building, with possible medieval made ground layers or floors preceding it; however the small size of the trench hinders certain interpretation.

The fragmentary remains of east-west aligned walls in Trenches 6 and 9 in the southern area of the site unfortunately cannot be dated closely, and it is really only possible to say that they are likely to be earlier than the 18th century and may be earlier than the 16th. It is not even certain if they relate to one building. They may relate to early brewery buildings, or be the remains of medieval buildings, such as the horse-mill, dye works or forge mentioned in leases from the 13th century. In both of these trenches similar layered sterile yellow sands and clays to the south of the walls may be deliberate imports of material, as in other parts of the site, to raise the ground levels above the floods which appear to have been quite extensive in this southern area. Whatever the case, the structures and any contemporary features were severely truncated during the 19th century.

Trench 10 also contained the fragmentary remains of a wall that seems to have been considerably robbed. The wall was cut through the alluvial clay layers which contained material dating from the 13th to 16th centuries, so that this wall may have belonged to a 16th to 19th century structure associated with the brewery.

The prevalence of medieval buildings standing parallel to St Thomas’ Street is an indication that there was little pressure on space in the 13th to 14th centuries, unlike more commercial areas of towns where backlands are usually intensively developed and buildings stand at right angles to the street. Agas’s map of 1578 illustrates extensive gardens and orchards in the St Thomas’ Street area and the city would have seemed quite rural to modern eyes. Hedges seem to have existed on the northern portion of the site, and this is commonly observed in other cities like London during the early Medieval period.\textsuperscript{7} The thick deposit of garden soil across the southern part of the excavation area is testament to years of market garden or orchard use.

\textbf{HISTORICAL AND ARCHAEOLOGICAL BACKGROUND}

The site lies on the western side of Oxford within the parish of St Thomas, a medieval suburb on Oseney Island to the west of the castle. In recent years archaeological and historical work in the St Thomas’ Street area has afforded us a picture of the development

\textsuperscript{5} Ibid, 147–60.
\textsuperscript{6} Ibid.
of the suburb from the late Saxon period to the present day, much of it reported in these pages.\textsuperscript{8} The area is well documented in medieval deeds, modern leases and surveys which survive for the properties owned by Oseney Abbey and then Christchurch. A detailed account of the development of the parish has appeared in this journal.\textsuperscript{9}

The St Thomas’ street area may have been part of a deliberate development programme in the 12th century, influenced by Oseney Abbey.\textsuperscript{10} After the 13th century the area witnessed a decline along with the rest of Oxford, with revival coming in the 15th century. There was a period of rebuilding after the Civil War, with economic resurgence in the parish in the later part of the 17th century. The 18th century was again a period of stagnation, but rapid development occurred during the 19th century.

Oseney’s charter for the property on the south side of the street is discussed in an appendix. Leases from the 13th century for properties on the south side of the street make frequent but not exclusive reference to brewing: in 1619, for example, we find the tenement occupied by a bookseller, a carpenter, a tailor, a glover and a widow.

Ralph Agas’s map of 1578 shows the south street frontage occupied by a row of at least four small houses, the largest of these in the location of the main excavation trench. These buildings seem to have their long axis parallel to the street and have outhouses and workshops with yards located behind them. The later history of the site itself as a brewery has been documented by Allen.\textsuperscript{11} In 1563 Robert Linke took out a lease for a brewery on the site, which has been used intermittently since then for brewing and malting, most notably as Morrell’s Lion Brewery from 1798 onwards. The position of the brewhouse is shown as early as Loggan’s map of 1675 behind the buildings fronting St Thomas’ Street.

GEOLOGY

The site lies on the floodplain of the river Thames on alluvium overlying gravel,\textsuperscript{12} at a height of 55 m. AOD. The site was once surrounded by water courses on three sides: to the east, the Back Stream flowed under Bookbinder’s Bridge in St Thomas’ Street, and to the south and west a stream ran under Knowles’s Bridge also once in St Thomas’ Street, but non-existent by the time of Hoggar’s map of 1850.

THE EVALUATION (FIGS. 1, 2)

\textit{Trench 1 (Figs. 2a and 2c)}

This trench, to the north of St Thomas’ Street, was in an area subsequently excluded from the development plans and therefore not re-examined. Two unexcavated postholes or small pits 16 and 17 were covered by a thick layer of light brown silt (94=95). Pottery from this layer, and from the top of posthole 16, dated from the early 13th to early 14th centuries. As these features were below the water table, it is unknown whether they truncate natural alluvial layers or whether medieval made ground exists in this area as at the street frontage of the southern site.


\textsuperscript{9} Palmer, op. cit.

\textsuperscript{10} Hardy, op. cit; Palmer, op. cit.

\textsuperscript{11} B. Allen, \textit{Morrells of Oxford, the family and their brewery} (1994).

Truncating layer 94=95 was foundation cut 24, for limestone wall 19, orientated north-south at right angles to St Thomas' Street. It was 0.70 m. wide and survived to a height of 0.80 m., approximately 0.30 m. below the modern ground level. The limestones were bonded with a pale yellow lime mortar, and the surviving remnants of wall seemed to be its core, with the facing stones largely robbed away. The wall extended across the whole width of the trench (1.70 m.) and is likely to be from a building, possibly as early as the 13th century.

A series of laminated gravel and silt and charcoal layers (155–61) butted against the wall. These deposits are interpreted as floor and occupation layers associated with the 13th-century building. A thick deposit of light brown silt (90=91) up to 0.50 m. deep had formed above the floor layers, dating from the 13th to the early 14th century. This deposit may reflect a period of disuse of the building.

Truncating layer 90 was a rubbish pit (99) filled with charcoal and ashy deposits 0.30 m. deep and with a visible length of 1.30 m. This is turn was truncated by a narrow posthole (22) that tapered to a flat base. This posthole seems to demarcate the edge of a floor layer (18), formed of the distal ends of sheep/goat metapodial bones laid to create an attractive floor surface, visible for 0.32 m. by 0.92 m. The
decorative bone area was the centre-piece of the floor with a layer of dressed limestones 20 and 23, laid around the edge of it up to the side of the wall, c. 0.95 m. long by 1.70 m. wide. No dating evidence was recovered, but floors of this type in Oxford are generally c. 17th century in date. This floor may indicate re-building following 14th-century disuse.

Immediately above the bone floor along the full length of the trench was a levelling or demolition layer (151), 0.28–0.35 m. thick composed of limestone rubble.

_Trench 2_
Along the south frontage of the street was a grey-brown silt that was not bottomed. The lone sherd of late 11th-century pottery from this context may be residual judging by the sequence observed in other areas. Above this were a compacted orange gravel layer 0.08 m. thick, possibly a floor, then further grey-brown silts, containing occasional brick and tile fragments. A single layer of limestone blocks 0.28 m. thick and 0.25 m. wide above the silts may have been part of a surface or the base of a wall.

_Trench 3_
The results from Trench 3 led to the opening of the main excavation area and are discussed below.

_Trench 4_
This trench was positioned to explore the possibility that Osney Lane had continued through this area. The only archaeology was ditch 6, on an east-west alignment, 2.90 m. wide and 0.40 m. deep. Its fill contained pottery dating from the 16th to 17th centuries, and clay pipe fragments. This may be a roadside ditch for a continuation of Osney Lane, but there was no other evidence that the Lane continued and the ditch could be equally be associated with the early brewery.

_Trenches 5, 7, 8_
Alluvial clay 1.4–1.6 m. thick lay immediately above the natural gravel in these trenches. Within the alluvium in Trench 8 a vertical timber protruded from the south side of the trench and, with three other pieces of wood which appear to have been planks, may have been part of a water-side structure or revetment. One sherd of 13th-century pottery was recovered from the alluvial clay.

_Trenches 6 and 9 (Fig. 2b)_
The earliest archaeological activity observed in these trenches were the remains of walls 27=28 and 29=30 constructed of limestone blocks bonded with a yellow sandy mortar. They appear to be all part of the same wall. They varied in width between 0.55 m. and 0.90 m., and 0.10–0.15 m. deep. Deposits earlier than the wall cuts were not investigated, and it is uncertain what date to assign them; the overlying layers need not be any earlier than 18th century.

On the south side of the walls in each trench, a series of sterile clay and sand layers (190–194) up to 0.85 m. deep, post-dated the walls. These seem to be made ground layers similar to other areas on the St Thomas' Street frontage. A sequence of dumped layers containing very sparse finds from the 15th to 18th centuries, overlay the made ground in both trenches.

_Trench 10_
Trench 10 was located on the eastern side of the site adjacent to the Backstream to establish whether any waterside structures were present, particularly a postulated mill. Alluvial clay 351, 1.10 m. deep, overlay the gravel. Within this layer were 22 sherds of pottery with a date range of 13th to 16th centuries, suggesting a long period of accumulation. Iron shears and a large number of animal bones were also recovered from this deposit.

Late 15th-century pit 221 truncated the alluvium, and a solitary timber pile was also recorded. A limestone wall foundation 222=350 was cut through the alluvium aligned roughly NW–SE. Two courses survived, the upper limestones bonded with a yellow sand mortar; the bottom course not mortared. No robber cut was apparent. It was 1 m. deep, 1.30 m. long and 0.50 m. wide, and curved slightly within the trench. This wall dates from somewhere between the 16th to 19th centuries but cannot be further interpreted.
THE EXCAVATION (FIGS. 3, 4)

The archaeology in evaluation Trench 3, suggesting medieval building remains, prompted a small open area excavation. An area 7.5 m. x 5.5 m. was machine-excavated under archaeological supervision, to the top of surviving archaeological deposits. The water table was reached at 55.19 m. AOD, the top of the natural gravel, and the trench had constantly to be pumped. A large proportion of the trench had been severely disturbed by a 20th-century vehicle inspection pit which had been dug to the depth of the natural gravel completely removing any archaeological features that might have survived. One piece of sculptured limestone was recovered from its backfill. The only intact stratigraphy left was a narrow strip approximately 1.40 m. wide on either side of this pit, and the evidence in the western section.

Pre-building activity: Possible palaeochannel and finds dating from the late 11th century

A natural blueish-black gleyed clay deposit (269) at the level of the water table seemed to be diving below the natural gravel. Dr Mark Robinson suggested that it may be evidence of a palaeochannel running through this area but this hypothesis could not be further explored. Five sherds of pottery of possible late 11th-century date were recovered from the surface of this layer, with a number of animal bones. No other features were associated with this deposit and it is likely that these finds were dumped into this wet area, so they do not necessarily indicate occupation this early.

Building: 13th century

The chief interest on the site lies in a structure defined by the limestone foundations of two east-west aligned walls approximately 4 m. apart, with contemporary made ground layers, pits and a series of stakeholes (Fig. 3).

The earliest archaeological activity in this area was the construction of a building represented by two walls 283=299 and 291, with limestone foundations surviving in a fragmentary condition. Wall 283=299 survived in a very fragmented state (even beyond its truncation by the vehicle inspection pit) with only the initial foundation course in situ, the rest robbed away. The surviving wall on the eastern side of the trench (283) had three limestones in place, their long edges orientated east-west, bonded with an orange clayey sand with grit, but higher courses of the wall may have been bonded with an orange silty clay, as the robber trench fill was mixed with this material. The fill of foundation cut 206 was very gravelly at the base, probably a deliberate deposit to provide a solid dry layer upon which to build the wall. The cut was 1.16 m. wide, with only a 0.50 m. length surviving. The cut here came to a rounded butt end: whether this was the end of the building or an entranceway is unclear. The latter is suggested by robber trench 4, in evaluation Trench 3, most likely robbing a continuation of this wall, although the alignment is slightly off.

The wall foundation 299, on the western side of the trench, had just two stones in situ, with no obvious bonding material. The wall on this side was in even worse condition: its robber trench (200) had removed the edges of the original cut 219. The wall foundation cut was 0.90 m. wide at this point, visible in section only (Fig. 4; section 5). The foundation cut a clean grey sandy clay layer 259 that seems to be a natural deposit, although it contained five sherds of 13th-century pottery. Below this layer, another naturally accumulated deposit, 260, of pale grey gleyed silty clay with iron pan covered the majority of the trench and contained numerous water snail shells.

Further north, the extensively robbed remnants of limestone wall 291 were observed only in section just below the modern pavement (Fig. 4, section 8). Most of the stones visible were part of the foundation core, facing stones having been removed. Five stones seemed to be in their original positions, laid horizontally with flat edges, and bonded with a yellow sandy lime mortar and occasional patches of orange-brown clay. Only 0.38 m. length of the wall survived. The two walls were approximately 4.10 m. apart, and most probably represent the front and rear of a building parallel to the street.

The remnants of a further probable wall 15, in construction cut 14, truncated the made ground layers in Trench 3 (Fig. 4, section 3). It was just 0.25 m. long, 0.30 m. wide, on an east-west orientation, constructed of limestone blocks 0.20 m. thick, bonded with an orange-brown clay. It lay below the 15th-century garden soils and so dates in a range from 13th to 15th centuries. This wall may be part of the same building as walls 283 and 291, but so little of it was viewed that it is impossible to be sure of its significance.
Made ground: 13th century

The deposits on either side of wall 283=299 are completely different and seem to respect the wall, indicating that they accumulated once the wall had been constructed.

Between walls 283=299 and 291 a sequence of interleaving banded layers were not distinct stratigraphic units but probably part of a single event. These layers (76–81, 83–6, 89, 271, 273–9), were composed of silty sands and sandy gravels (layer 86 alone was a greeny-grey clay) which totalled 0.40 m. in thickness across the whole area between the two walls (Fig. 4, sections 3, 4, 6, 7). Layer 277 contained water snail shells, and some of the deposits were waterlogged, but contained no organic material. Layers 273 and 277, and several of those from the evaluation trench, contained pottery dating from the late 11th century, while other layers contained 13th-century pottery. In the case of 273 the
Fig. 4. Selected sections

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11th-century pottery is clearly residual, and in the other cases presumed so. Although the layers in the evaluation trench did appear to follow a more straightforward sequence which might allow an 11th century date at the lower end and 13th century towards the top, the depositional complexity was probably not fully appreciated in the circumstances of evaluation: as seen in the excavation, these layers must post-date the walls. These layers have more of the appearance of dumped make up/reclamation layers rather than floors or occupation. Deposits south of the wall are interpreted as garden soil (below).

Occupation: 13th century

The earliest features cutting this made ground were a series of small stakeholes, all approximately 0.14 m. deep and 0.12 m. in diameter (204, 212–17; not shown on plan). Spatially they do not form an obvious structure, and are difficult to interpret. Immediately above the stakeholes was a sequence of small shallow pits, all intercut in one discrete area in what must have been the interior of the building. The earliest pit (211) was rectangular in plan with a shallow profile and uneven base, 0.50 m. wide, 1.20 m. long (truncated) and 0.18 m. deep. The fill contained burnt and unburnt animal bone, a glass bead, a number of iron nails, and 21 sherds of pottery dating to the 13th century. This pit was sampled for environmental analysis as quantities of burnt organic material were observed (see below). The four other pits in this sequence (207–10) also contained pottery dating from the 13th century.

At the southern end of evaluation Trench 3, the earliest archaeology encountered was another intercut series of pits 3, 7, 8, 9, 12, also likely to date from the 13th to 14th centuries.

The stratigraphy on the western margins of the trench differed from that to the east. None of the deposits could be recorded in plan. Above the blanket alluvial layer (259) containing 13th-century pottery, a series of layers (262–6), up to 0.14 m. thick, formed on the northern side of wall cut 219, in what must have been the interior of the building (Fig. 4, section 5). They are also likely to represent 13th- to early 14th-century dumping. Layer 265 contained three sherds of pottery dating from the early 13th to early 14th century and the latest layer (262) a black, charcoal-rich clayey sand material, had two sherds of the same date. These thin bands of sandy material may reflect the presence of a nearby hearth.

Garden soil: 15th century

The area on the south side of the building was distinctly different from the archaeology between the two walls. A garden type soil (251, 255, 272) composed of a dark grey-brown silty sand 0.50 m. thick covered this area, and there were no bands of made ground here (Fig. 4 sections 5, 7). This soil contained pottery of mixed dates, the majority from the 15th century. Occasional tree boles were found within this soil, which was well sorted and is likely to have formed over a considerable period of time.

A compacted soil 252 which had formed above the pits within the walls of the building, to a thickness of 0.20 m., suggests that the building had fallen out of use by this time. Above the garden soil 252 was an ashy layer 296 containing pottery and animal bone that seemed to be a dump from elsewhere, containing residual (13th-century) pottery.

Robber trenches and demolition: 19th century

The 13th-century building walls 283/299 and 291 were not finally robbed until the 19th century. The last activity was the laying of a brick surface on top of layer 296, above which was modern made ground (253).

THE FINDS

POTTERY by Paul Blinkhorn

The pottery assemblage comprised 790 sherds with a total weight of 17,285 g. Around three-quarters of the assemblage (by weight) was of post-medieval date, with around 70% of the material occurring in 19th-century contexts. The range of earlier pottery types indicates that activity at the site started soon after the Norman Conquest, but that there were low levels of pottery deposition after the 14th century. The range of vessel and ware types is typical of Oxford and its hinterland, although the generally fragmented nature of the medieval assemblage offers little opportunity for anything other than a general understanding of the pottery.

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The material from each context was recorded by number and weight of sherds per fabric type. Featured sherds such as rims, bases and lugs and decorated sherds were individually recorded. In the case of the rimsherds, the form, diameter and the percentage remaining of the original complete circumference were all recorded. The terminology and methods used are those defined by MPRG and statistical analyses were carried out to the minimum standards suggested by Orton.\textsuperscript{13}

**Fabrics**

The pottery was recorded utilizing the coding system and chronology of the Oxfordshire County typeseries,\textsuperscript{14} as follows:

OXAC: Cotswold-type ware, AD975–1350. 22 sherds, 175 g.

OXBF: North-East Wiltshire Ware, AD1050–1400. 33 sherds, 254 g.

OXY: Medieval Oxford ware, AD1075–1350. 63 sherds, 461 g.

OXAM: Shelly Coarseware, AD1100–1400. 3 sherds, 14 g.

OXCL: Cistercian ware, 1475–1700. 5 sherds. 30 g.

OXST: Frechen Stoneware, AD1550–1700. 31 sherds, 798 g.

OXDR: Red Earthenwares, 1550+. 62 sherds, 3557 g.

OXFH: Border wares, 1550–1700. 10 sherds, 331 g.

OXCE: Tin-glazed Earthenware, 1613–1800. 1 sherd, 10 g.

Each stratified pottery assemblage was given a seriated date based on the type range of wares and forms present, as shown in Table 1, and adjusted with reference to the stratigraphy (unstratified pottery excluded from the table).

**TABLE 1: CERAMIC PHASING SCHEME, AND POTTERY OCCURRENCE PER PHASE, ALL FABRICS**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Date (century AD)</th>
<th>Defining Wares</th>
<th>Sherd No.</th>
<th>Sherd Wt. (g)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Late 11th–Early 13th</td>
<td>OXAC, OXBF, OXY</td>
<td>30</td>
<td>280</td>
</tr>
<tr>
<td>2</td>
<td>Early 13th–Early 14th</td>
<td>OXAM*</td>
<td>148</td>
<td>1,034</td>
</tr>
<tr>
<td>3</td>
<td>14th</td>
<td>OXAM*</td>
<td>43</td>
<td>1,331</td>
</tr>
<tr>
<td>4</td>
<td>Late 14th–Late 15th</td>
<td>OXBN</td>
<td>48</td>
<td>401</td>
</tr>
<tr>
<td>5</td>
<td>Late 15th–Mid 16th</td>
<td>OXCL, OXAM*</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>Mid 16th–17th</td>
<td>OXDR, OXST, OXFH</td>
<td>54</td>
<td>1,441</td>
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<tr>
<td>7</td>
<td>17th</td>
<td>OXCE, slipped OXDR</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>18th</td>
<td>OXFM, CRM</td>
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<td>0</td>
</tr>
<tr>
<td>9</td>
<td>19th</td>
<td>WHEW</td>
<td>418</td>
<td>12,039</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>745</td>
<td>16,563</td>
</tr>
</tbody>
</table>

\* defined by vessel and fabric sub-types

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The data in Table 1 show that most of the stratified pottery from this site dates to the post-medieval period, although there was some activity before that time, particularly during the 13th–14th centuries. Apart from a brief period of pottery deposition during the later part of the 16th century however, there was then very little activity at the site until the 19th century. This is slightly unusual for Oxford and a combination of factors may explain the pattern. In some trenches, there were no archaeological remains, while in others, 19th-century activity had all but destroyed earlier strata. However, the data in Table 2 show that there was very little residual medieval pottery amongst the 19th-century groups, and so it would appear that the area was somewhat marginal during the medieval period. The situation is perhaps exacerbated by the fact that some probable medieval pits (e.g. in Trench 3) were not excavated. Table 2 shows the occurrence of each of the major fabric types throughout the medieval and early post-medieval periods. More detailed data by context are held in archive.

**TABLE 2: POTTERY OCCURRENCE PER CERAMIC PHASE, MAJOR FABRICS ONLY, AS A PERCENTAGE OF THE PHASE TOTAL BY WEIGHT**

<table>
<thead>
<tr>
<th>Ceramic Phase</th>
<th>OXAC</th>
<th>OXBF</th>
<th>OXY</th>
<th>OXAM</th>
<th>OXST</th>
<th>OXCL</th>
<th>OXDR</th>
<th>19th C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20.4%</td>
<td>7.1%</td>
<td>72.5%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>6.6%</td>
<td>18.1%</td>
<td>11.0%</td>
<td>62.7%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3</td>
<td>0.4%</td>
<td>0.8%</td>
<td>1.1%</td>
<td>97.7%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>4</td>
<td>–</td>
<td>7.5%</td>
<td>13.0%</td>
<td>26.4%</td>
<td>52.6%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>5</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>45.9%</td>
<td>–</td>
<td>54.1%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>6</td>
<td>0.7%</td>
<td>–</td>
<td>1.2%</td>
<td>15.1%</td>
<td>23.3%</td>
<td>10.0%</td>
<td>50.7%</td>
<td>–</td>
</tr>
<tr>
<td>9</td>
<td>0.04%</td>
<td>0.03%</td>
<td>0.4%</td>
<td>1.0%</td>
<td>1.5%</td>
<td>–</td>
<td>23.0%</td>
<td>71.7%</td>
</tr>
</tbody>
</table>

The pattern of pottery consumption shown in Table 2 is typical of sites in Oxford. The earliest medieval phase is dominated by OXY, until the 13th century, when OXAM becomes the major ware. The relatively high proportion of OXST in ceramic phase 4 is unusual, but may be due to the small assemblage size in this phase. Such pottery was largely used for vessels associated with the storage, serving and consumption of drink, but the phase group is so small that it is difficult to see any significance in the data. The same comments apply with even more force to the high proportion of OXCL in ceramic phase 5. This is again a ware associated with the consumption of drink, but as the entire phase assemblage consists of four sherds, it is unlikely to be significant.

The data for the post-medieval contexts are very much what would be expected, although the proportion of OXDR appears rather high, suggesting that it is contemporary, rather than redeposited, particularly as very little other potentially broadly contemporary early post-medieval pottery is present in groups of that date. The large sherd size of the OXDR (58.9 g avg.) in the 19th-century groups (compared with 56.2 g in the CP6 groups) further suggests that it was still in use at that time.

The entire assemblage was examined for cross-fits, but none were made.

**Illustrations**

Fig. 5.1 LB1: Trench 3, context 53, CP3. Full profile of OXAM jug. Orange red fabric with orange, sparsely copper-spotted glaze on the upper body.

Fig. 5.2 LB2: Trench 3, context 52, CP6. Upper body and rim of OXST mug. Grey fabric with honey-brown wash on both surfaces, clear salt glaze.

Fig. 5.3 LB3: Trench 3, context 52, CP6. Base of OXDR chafing dish. Brick-red fabric with purplish surfaces, green glaze on inner surface of dish.
THE ANIMAL BONES by ALAN PIPE

This site produced a small assemblage (212 fragments, 2.685 kg.) of moderately well preserved animal bone, all hand-collected. Details of methodology and full quantified and metrical data are held in the site archive.

This material derived almost entirely from the major mammalian domesticates, ox (Bos taurus) and sheep/goat (Ovis aries/Capra hircus), probably mainly sheep, with smaller components of pig (Sus scrofa), horse (Equus caballus) and rabbit (Oryctolagus cuniculus). Birds were represented by chicken (Gallus gallus), pigeon (Columba sp.) and goose (cf. Anser sp.). The very small group of fish derived from salmon family (Salmonidae) and cod family (Gadidae).

Bone floor 18 yielded a small group of sheep/goat metacarpal (fore-foot) and metatarsal (hind-foot) bones mainly derived from the distal end of the bone and including the distal articulation. All the distal epiphyses were fully fused indicating animals in at least the second year of life. The distal surfaces of the articulations were worn flat suggesting abrasion with the proximal ends of the bone impressed into the floor layer and the distal aspects exposed to wear as the floor surface.

Mixed medieval garden soil deposit 59 produced a sawn and drilled ox-sized longbone fragment, the only fragment of worked bone.

Evidence for modification was slight with occasional butchery marks suggesting splitting of major limb bones for marrow extraction, and disarticulation at major joints. There was very limited evidence for gnawing by dogs and only occasional burnt fragments. There was no evidence for pathological change. The major domesticates were represented by carcase parts of poor, moderate and good meat-bearing quality implying that the waste derived from a considerable component of primary processing as well as consumption refuse. The bulk of the medieval and post-medieval ox, sheep/goat and pig material derived from at least young adult animals indicating preparation and consumption of beef, mutton and pork.
<table>
<thead>
<tr>
<th>Ceramic phase</th>
<th>century</th>
<th>sheep/goat</th>
<th>sheep-sized</th>
<th>ox</th>
<th>ox-sized</th>
<th>pig</th>
<th>horse</th>
<th>rabbit</th>
<th>chicken</th>
<th>other bird</th>
<th>fish</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11th-13th</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>13th-14th</td>
<td>21</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>3, 4</td>
<td>14th-15th</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>15th-16th</td>
<td>12</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>16th-17th</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>17th</td>
<td>6</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>18th</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>19th</td>
<td>12</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>38</td>
</tr>
<tr>
<td>u/s</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>57</td>
<td>41</td>
<td>27</td>
<td>46</td>
<td>18</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

'Sheep/goat' includes 5 positively identified as sheep
'Other bird' includes one pigeon, one goose-sized

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METALWORK AND GLASS by Jackie Keily

All of the metalwork is iron and it is all in a very corroded, fragmentary state. All has been X-rayed. The majority of the metal finds are iron nails (details in archive). For the remainder, 13th-century pit 3 produced a small rivet or tack possibly used in the decoration of a box or casket. Alluvial clay layer 351 from Trench 10 produced a flat iron strip, possibly part of a mount (Fig. 6: 1), and one arm from a pair of shears (Fig. 6: 2). The only object of personal adornment is a small glass bead from 13th-century pit 211 (Fig. 6: 3). Its surface is now decomposed to an opaque white, the original colour probably greenish.

CERAMIC BUILDING MATERIAL by David Fellows

Eight fragments of brick (250 g.) were recovered, all from either 19th-century or unstratified deposits. The hand-made nature of the bricks, the texture and uneven surface finish suggest they date from the 16th to 18th centuries. Of the 47 fragments (3,783 g.) of ceramic roof tile recorded, only one can be identified as being a peg-tile though it seems likely the other fragments are also from peg tiles. No floor tiles were identified. The tile fragments were recovered from both medieval and later contexts.
ARCHITECTURAL AND OTHER STONE by DAVID FELLOWS

Two pieces of architectural stonework were retained. The first was a limestone block recovered from modern overburden; the second a re-used fragment of marble from Trench 4.

The limestone block (Fig. 6: 4) was probably quarried locally from the Great Oolite limestone beds and originally it would have formed part of a fairly substantial moulded decorative door jamb. The beak and roll moulding dates from as early as the 11th century, although it remained in use until after the 14th century. It is possible that the block came from an early ecclesiastical or manorial building in the vicinity, possibly Osney Abbey. The block had been re-used at a later date, presumably as a facing stone in a wall. This had been painted with a dark green paint, traces of which survived on the upper surface of the block, and on the upper edges of the two decorated faces.

The other fragment was a single cylindrical column piece of white marble from trench 4. It had been carved on its upper surface to form a conical depression 31 mm. deep. It is likely that this piece had been re-used and may originally have formed part of a column or monumental sculpture, the tapering form possibly resulting from the use of convex carving or entasis to correct the optical illusion that makes parallel-sided columns appear concave. Residues around the top of the piece (post-dating the carving of the conical depression) were analysed using mass spectrometry as calcium sulphate (gypsum), which may have been used to bond the marble to another object - beyond that its secondary use remains uncertain.

A single piece of sandstone from 13th-century pit 208 had three grooves worn into its upper surface, the result of use as a sharpening stone. The grooves ran the length of the stone (up to 120 mm. in length), were 8 mm. wide and 10 mm. deep.

CHARRED PLANT REMAINS by ANNE DAVIS

A small assemblage of plant remains was recovered from flotation of a sample from 13th-century pit 211 (286). Preservation was quite poor, and several of the cereal grains were distorted and/or fragmented.

The majority of the cereal grains belonged to free-threshing wheat species. These include the hexaploid bread wheat (*Triticum aestivum* sp.), as well as the tetraploid rivet and durum wheats (*T. turgidum*/durum). Two grains resembled the glume wheat spelt (*Triticum cf. spelta*), although again this identification is uncertain. Five grains of probable barley (cf. *Hordeum sativum*) were rather distorted and vesicular as a result of burning, so it was not possible to determine whether it was two-row or six-row barley, although the grains appeared to be from a hulled variety. Two grains of oats could have grown as weeds in other cereals, rather than as a separate crop.

Charred seeds of wild plants outnumbered the cereal grains. The majority were from weeds of cultivated ground and other disturbed habitats. Sedges, spike-rush and bulrush are generally found in damp habitats and streamside. These are all found commonly in association with charred cereals, and it can be assumed that the majority are from wild plants growing in and around arable fields, and harvested with the crops. An unusual feature is the presence of two grains that appear to be spelt wheat. This was the dominant wheat during the Roman period, but was largely replaced by free-threshing wheats during the Saxon period. Occasional grains occurring in medieval deposits could result from mixing with underlying Roman deposits, but this does not seem to be the case here. Occasional finds of glume wheats, including spelt, have been made from medieval sites however, suggesting that it may have been grown as a minority crop in some areas.
TABLE 4: ENVIRONMENTAL SAMPLE FROM MEDIEVAL PIT 211

<table>
<thead>
<tr>
<th>Cereals</th>
<th>Context</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triticum cf. spelta</td>
<td>spelt wheat</td>
<td>2</td>
</tr>
<tr>
<td>Triticum cf. aestivum s.l.</td>
<td>bread/club wheat</td>
<td>10</td>
</tr>
<tr>
<td>Triticum sp.</td>
<td>wheat</td>
<td>3</td>
</tr>
<tr>
<td>cf. Hordeum sativum</td>
<td>barley</td>
<td>5</td>
</tr>
<tr>
<td>Avena spp.</td>
<td>oat</td>
<td>1</td>
</tr>
<tr>
<td>cf. Avena sp.</td>
<td>oat</td>
<td>1</td>
</tr>
<tr>
<td>Cereals</td>
<td>indet. cereal</td>
<td>4</td>
</tr>
</tbody>
</table>

| other plants | | |
| Chenopodium sp. | goosefoots etc. | 2 |
| Atriplex sp. | orache | 3 |
| cf. Melilotus/Medicago sp. | medick/clover | 3 |
| Potentilla anserina L. | silverweed | 1 |
| Rumex acetosella agg. | sheep’s sorrel | 1 |
| Rumex spp. | docks | 3 |
| Plantago major L. | great plantain | 1 |
| Anthemis cotula L. | stinking mayweed | 4 |
| Eleocharis palustris/uniglumis | spike-rush | 1 |
| Schoenoplectus lacustris (L.) Palla | bulrush | 1 |
| Carex spp. | sedges | 5 |
| Bromus spp. | bromes | 1 |
| Poaceae indet. | grasses | 7 |
| indeterminate | seed | 3 |
| indeterminate | wood | +++ |

APPENDIX: HOSAR’S TENEMENT

The Osney Cartulary\textsuperscript{15} records a grant in free alms by William Hosar to the church of St Mary of Osney of several tenements including his tenement in the parish of St George cum molendino chevaleraz and all other appurtenances. The original deed survives (St Thom 61.2) and from the witnesses Salter dates the grant to around 1210. From the rentals it is clear that the tenement in question lay to the south of St Thomas’ Street between the Backstream and the Western backstream.

\textsuperscript{15} Cartulary of Osney Abbey, ed. H. E. Salter (1929-1931) O994.

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Wood\textsuperscript{16} read \textit{moleninum chevaleraz} as a mill \textit{des Chevaliers} and decided that this must be the site of the mill in Oxford granted to the Templars by Maud the wife of King Stephen. Such was Wood's authority with later authors that the Chevalier Mill occurs on Hurst's largely fanciful map of West Oxford and even in so reputable an authority as Squires.\textsuperscript{17}

Though it is hard to suggest what word the scribe intended to write, it can scarcely be doubted that the mill referred to is a horse mill; there was one across the road at Bookbinders' too. The property of the Templars in Oxford passed to the Hospitalers and is reasonably well documented; it is hard to see how such a mill could have changed hands without generating the mountain of ecclesiastical litigation that almost every transaction between houses of different orders regularly generated.

Wood, in whose time there was here 'a little old building of stone', also has this to say:

'Herin, in the windows, as I have in my discourse of St Frideswyde's Priory shewed were the armes of Robert Doilly and of Osney Abbey, with several monkish rebuses, as also venerable reliques of the effigies of King Divan, Queen Safrida his wife, and S. Frideswyde their daughter; but being taken away, with leave from the tenant, by Bishop Bancroft for the great respect he bore to them about the year 1637 and set up in his new hall or chapel at Cudesden, did when that new house was burned downe in the beginning of the late war, then perish.'\textsuperscript{18}

\textbf{ACKNOWLEDGEMENTS}

The investigations and publication of this report were funded by Kingerlee Ltd, who had been granted planning permission by Oxford City Council for the construction of new housing and the conversion of existing buildings on the site subject to a condition relating to archaeology. All the archaeological work was carried out to a specification approved by Mr Brian Durham, Oxford City Council Archaeologist, and monitored by him. The site code was LBO99/73 and the archive will be deposited with Oxfordshire Museums Service (acn. no. OXCMS:2000.40). The evaluation during 1999 was supervised by Graham Hull with the assistance of Kate Taylor. The evaluation in 2002 was supervised by Jo Pine, with the assistance of Lisa-Marie Hardy. The excavation of Trench 10 was supervised by Sarah Coles with the assistance of Pamela Jenkins, Andy Mundin and Danielle Collins. The excavation was directed by the author with the assistance of Pamela Jenkins. The text was edited by Steve Preston and Steve Ford. The finds illustrations are by Sarah Coles and David Fellows. Thanks are also due to Dr Mark Robinson for his advice on site.

\textsuperscript{16} Wood, \textit{City of Oxford}, i (1889), 403.
\textsuperscript{17} Squires, \textit{In West Oxford} (1928).
\textsuperscript{18} Wood, op. cit. 316.