

Medieval and Post-medieval Extra-mural Settlement on the Site of the Ashmolean Museum Forecourt, Beaumont Street, Oxford

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SUMMARY

An excavation in 1994 in the forecourt of the Ashmolean Museum, Beaumont Street, Oxford, produced evidence for a continuous sequence of extra-mural occupation beginning in the late 12th century. The excavation exposed yard areas in the rear of two properties, which contained a series of intercutting pits filled with domestic debris, and parts of two successive buildings of medieval and late medieval date. The earlier, 13th-century building was a sunken-floored structure, built in timber and stone, which may have been a detached 'cellar' behind buildings on the frontage. The latter, possibly of the 14th century, was part of a more substantial stone structure extending back from the street frontage, and was probably part of Batayl Hall, known from documentary sources. Two large 14th-century ovens in the adjacent property to the north were probably bread ovens. The paucity of 15th-century finds may reflect a decline, possibly even a hiatus, in occupation at this time, but large numbers of pits provide clear evidence for use of the site from the 16th century onwards. Notable finds include a unique assemblage of worked human bone from the 19th-century fill in a stone-lined pit, and a mammoth's tusk recovered from the Quaternary gravel during the watching brief.

INTRODUCTION (Fig. 1)

Project Background

In 1994 a programme of archaeological work was undertaken in the forecourt of the Ashmolean Museum, Beaumont Street, Oxford (SP 451180 206548) in advance of the construction of new basement visitor facilities. The proposed development covered an area of approximately 600 square metres, virtually the entire area of the Museum forecourt fronting Beaumont Street. The site, prior to development, was largely covered by a raised, lawned garden at a height of c. 65 m. OD. Beaumont Street immediately to the south is at c. 64 m. OD, and St. Giles', some 15 m. to the east, is at c. 64.40 m. OD. The surface of the natural drift deposits, comprising Quaternary river gravels overlain in places by a thin deposit of alluvium, is at c. 63 m. OD. The lawned garden was almost entirely surrounded on all but the east side by a series of disused brick cellars, with access to them at basement level. The cellar floors were at a height of 61.50 m. OD.

The development entailed the removal of all deposits within the Museum forecourt down

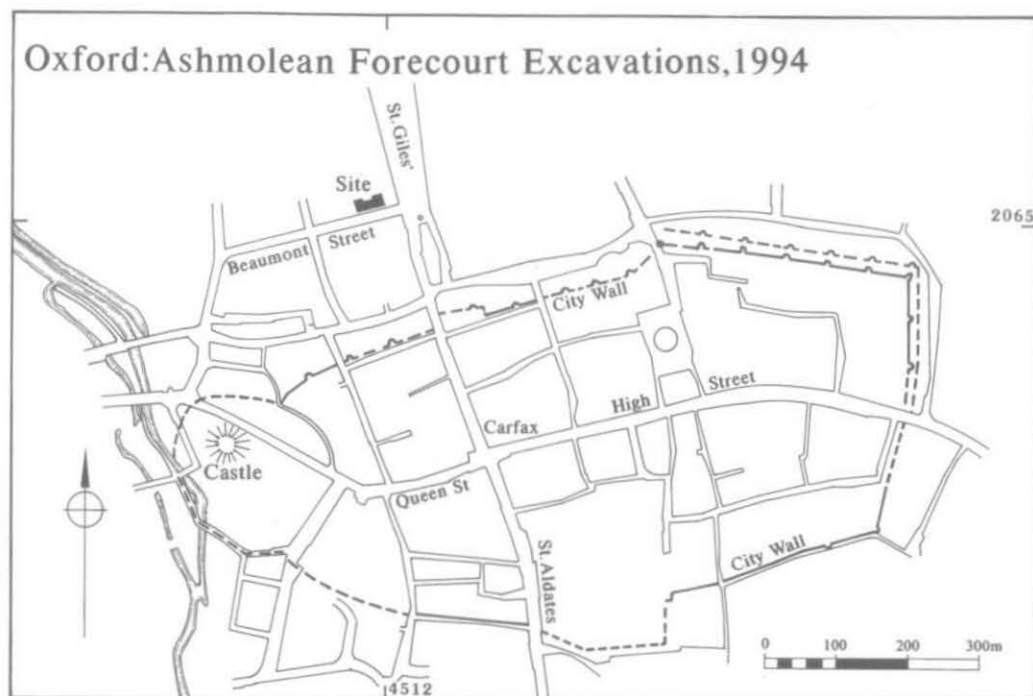


Fig. 1. Site location plan.

to a new building foundation level at 60.80 m. OD, with some deeper foundation and drainage works. All archaeological deposits and features extending to less than 2.2 m. below the surface of the gravel would thus be destroyed, and Oxford Archaeological Advisory Service therefore recommended that an archaeological evaluation be carried out as part of the consideration of the proposed development. Subsequently, in February 1994 the Oxford Archaeological Unit undertook a field evaluation which involved the excavation by machine of a 5 m. by 2 m. trench in the eastern lawn. This established the presence of buried archaeological remains of late medieval and post-medieval date.¹ The Oxford Archaeological Advisory Service subsequently advised the local planning authority that further archaeological investigation and recording was desirable prior to development of the site and issued a brief for this work.

During September and October 1994 Wessex Archaeology undertook the excavation, in accordance with the brief, of two areas totalling 120 square metres. A further 480 square metres was recorded, and subject to limited excavation at this time, and during a subsequent watching brief from November 1994 to January 1995.

¹ Oxford Archaeological Unit, 'Ashmolean Museum Forecourt Oxford: Archaeological Field Evaluation' (March 1994).

Archaeological Background

Oxford's origins seem to be in the 7th or 8th century, but the extent of its development before the early 10th century remains obscure. The town's defences and early street grid are often attributed to this time.² The north-south street, which crossed the river and is now marked by St. Aldate's, Cornmarket and St. Giles', was to become a major route in late Saxon and medieval times, and would have provided a focus for occupation. Excavations at 79-80 St. Aldate's showed that a suburb to the south of the defences began to develop in the second quarter of the 10th century,³ and early suburban development might also be expected around St. Giles' to the north. However, no recent opportunity had arisen to test this archaeologically before the excavation in the forecourt of the Ashmolean Museum.

The site lies approximately 200 m. to the north of the medieval North Gate and some 15 m. to the west of the St. Giles' frontage which is recorded as being fully built up by the time of the 1279 Hundred Rolls survey. Beaumont Street to the south was not laid out until 1821 and thus the excavation was likely to fall within the backyards of medieval and later properties which fronted St. Giles'.

Salter's map of medieval Oxford shows three properties which formerly occupied the site of the Ashmolean Museum, of which the two most southerly were likely to be partly exposed within the excavated area.⁴ These are discussed further in the Historical Background to the site (Munby, below).

In 1992 the Oxford Archaeological Unit observed the digging of two geotechnical test pits in the brick cellars in the forecourt of the museum. These revealed a single, truncated late medieval pit.

The 1994 evaluation trench (see Fig. 2) exposed, at a depth of 2 m. below the lawned garden, two late medieval pits, three post-medieval pits, and a wall.⁵ The wall was interpreted as a remnant of tenements demolished in 1839 for the construction of the Ashmolean Museum, and the pits as evidence for the use of the rear yards of properties on St. Giles' as refuse disposal areas. The pits cut natural gravel and were sealed by deposits containing 19th- and 20th-century finds which were interpreted as disturbed or made-up ground associated with the construction of the Museum. No medieval features earlier than the 15th century were identified and the earliest finds comprised a few sherds of 11th- or 12th-century pottery. Most of the pottery was post-medieval (59 sherds), with a smaller late medieval component (21 sherds) occurring as residual finds in later contexts. Together, these factors were taken to indicate that there had been little medieval activity on the site.⁶

Historical Background, by JULIAN MUNBY

The site of the Ashmolean Museum was formerly three properties on the west side of St. Giles', acquired by the University in or before 1839 for the building of the Taylorian Institution and University Galleries; the Ashmolean Museum was transferred there from Broad Street in

² E.g. J. Blair, *Anglo-Saxon Oxfordshire* (1994), 146-7.

³ B. Durham, 'Archaeological Investigations in St. Aldates, Oxford', *Oxoniensia*, xlii (1977), 83-203.

⁴ H.E. Salter, *Map of Medieval Oxford* (1934).

⁵ Op. cit. note 1.

⁶ Ibid.

1894.⁷ A plan of the site was included in the specification for the new building issued by the University in 1839⁸ and there is a view of the houses on the site before their demolition (see Fig. 20).⁹ The site is on the corner of Beaumont Street, which was laid out in 1821, when the fields called Beaumont were developed and the frontage on St. Giles' was opened to create Beaumont and St. John Street.¹⁰ As early as 1803 Worcester College had been seeking land (including the site of the Ashmolean) in order to open 'a wide and handsome avenue from the front of the College to St. Giles' St', but nothing seems to have come of this beyond the initial purchase of the houses at each end of what became Beaumont Street.¹¹

Like other properties in St. Giles', the three tenements on the site of the Ashmolean Museum were long but varied in width and may have originated in the 12th century when the suburban churches of St. Mary Magdalen and St. Giles were built. The street was fully built up by the time of the 1279 Hundred Rolls survey and some of the occupiers may have farmed the open fields of north Oxford. From the 17th century the expanding population of the town found living space in the backs of the suburban tenements and many of the yards were built up with rows of cottages.

The southernmost property adjacent to Beaumont Street belonged to Exeter College from 1320 to 1803, when it was sold to Worcester. Known as Batayl Hall, it probably ceased to be an academic hall after the 14th century, and was instead rented or leased as a private house.¹² It is shown in the pre-demolition view as a pair of houses with a central chimney stack and a substantial back row, perhaps of 17th-century date. The 1839 plan shows the south side of the property truncated by Beaumont Street and a row of 'tenements' behind a small yard.

The middle property is poorly documented, except from the deeds of its neighbours, but in 1279 it was occupied by the grandson of Philip de Bloby, and it later belonged to the chantry chapel of St. Mary's.¹³ Like the house adjoining to the south it is shown in the pre-demolition view as a two and a half storey house with a large gabled dormer overhanging an entrance passage; the 1839 plan shows much of the yard being open, behind the service areas ('offices') of the house.

The northern part of the site (which lay outside the excavated area) was a property of Balliol College and is well recorded in the college archives; it is mostly covered by the buildings of the Museum.¹⁴

Excavation Methods (Fig. 2)

The programme of archaeological fieldwork set out in the brief required three stages of recording action:¹⁵

⁷ R.F. Ovenall, *The Ashmolean Museum 1683-1894*, 261-4; *V.C.H. Oxon.* iii, 57.

⁸ Specification by Philip Bliss, Registrar, dated 10th June 1839: University Archives, NW 15/15 (formerly WP/5).

⁹ H.E. Salter (ed.), *Balliol Deeds* (O.H.S. lxiv, 1913), opp. p. 228.

¹⁰ A. Osmund, 'Building on the Beaumonts: An Example of Early 19th-Century Housing Development', *Oxonienia*, xlix (1984), 301-25.

¹¹ Salter, *Balliol Deeds*, 226-7.

¹² Salter, *Survey of Oxford*, ii, 218 N(101); C.W. Boase, *Registrum Collegii Exoniensis* (O.H.S. xxvii, 1894), p. xiv; Exeter College has some deeds of this property.

¹³ Salter, *Survey*, N (99).

¹⁴ Salter, *Balliol Deeds*, 219-28.

¹⁵ Oxford Archaeological Advisory Service, 'Ashmolean Museum Forecourt, Oxford. Brief for Archaeological Recording Action' (June 1994).

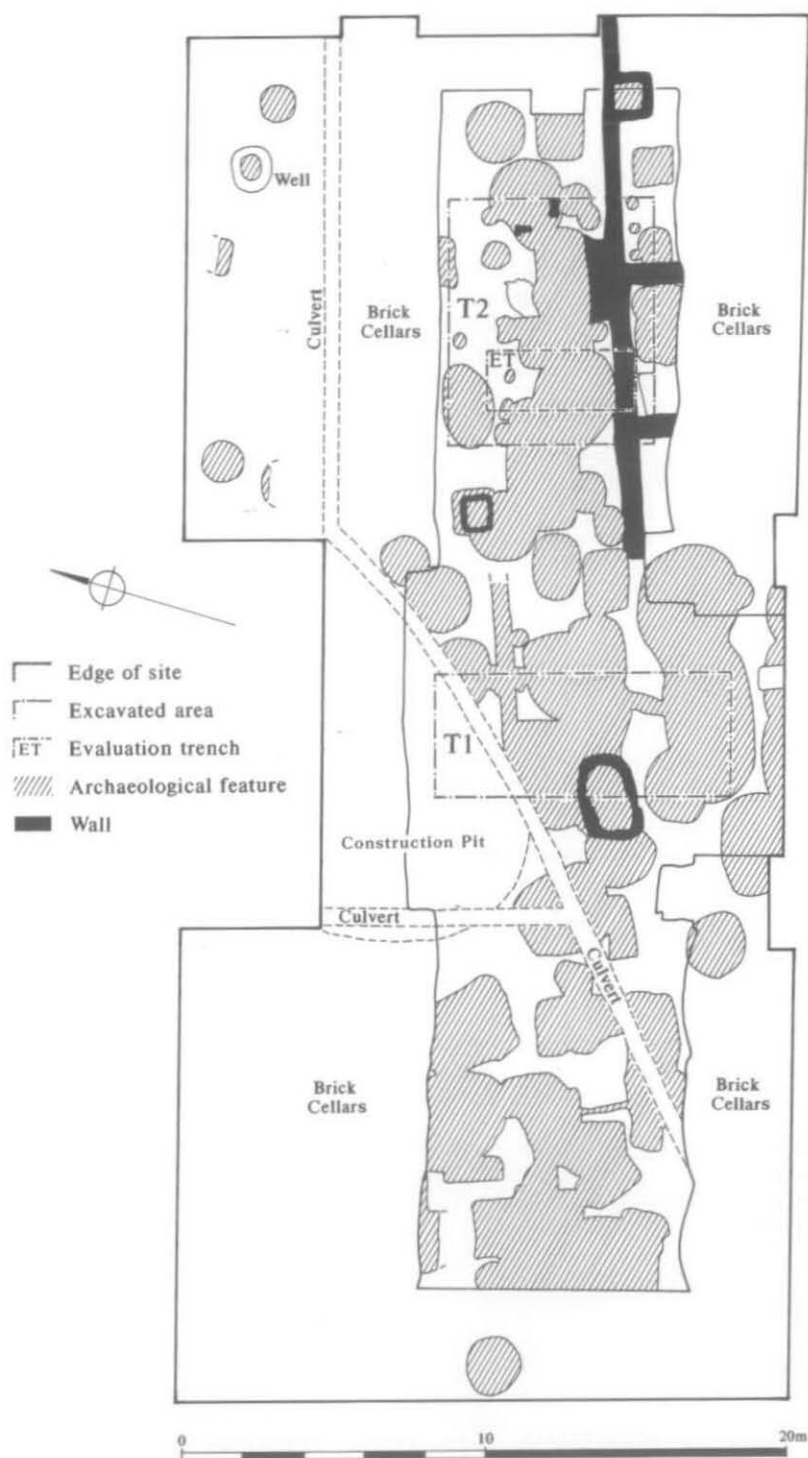


Fig. 2. Trench location plan showing all features recorded during the excavation and watching brief.

1. The archaeological supervision of topsoil and overburden stripping by machine to the level of significant archaeological deposits (i.e. to a depth of not less than 1.8 m. below ground surface) throughout the area of the forecourt, but excluding the brick cellars which were left upstanding.
2. The detailed investigation and recording of archaeological features within two trenches within the forecourt.
3. A watching brief during machine excavation for the new building formation level and for service trenches throughout the forecourt area.

Trench 1 was sited to coincide with at least one anticipated property boundary, but was not extended further to the west because the area immediately in front of the Museum portico had been destroyed by a large construction pit and, at the east end, a concrete apron had to be maintained adjacent to the site entrance on Beaumont Street. Trench 2 was placed as close as possible to the St. Giles' frontage in an undisturbed area where structural remains and stratified deposits could be seen to survive.

The entire site was then hand cleaned and features which lay outside Trenches 1 and 2 planned, recorded, and small samples excavated to obtain dating evidence. All pits, postholes, and other features within Trenches 1 and 2 were at least half excavated.

Subsequently, a watching brief was maintained during ground reduction to a new building formation level at 60.80 m. OD. This took place in several stages which enabled deeper archaeological features (comprising entirely pits and wells) to be recorded. Features truncated and sealed beneath the brick cellars, which were demolished during this stage of work, were also recorded. The digging of deeper drainage and foundation trenches was also monitored until it became clear that no further archaeological deposits were likely to be encountered.

SITE DESCRIPTION

Introduction (Figs. 2 and 3)

Most features on the site were pits of varying size (approximately 70 examples) with most more than 1 m. in diameter and 1 m. deep. They ranged in date from the 12th or 13th century up to the 19th century. There were also two post-medieval wells, a small number of postholes, and three small linear features. The remains of two successive phases of medieval structures were partly exposed – the later one was built substantially of stone, and so were two large ovens. No waterlogged deposits were encountered, and the water table currently lies at c. 58 m. OD.

All of the medieval and post-medieval features lay within the two long, narrow properties described above which extended back from the St. Giles' street frontage, the majority within the northern property, a greater area of which was exposed. The frontage itself lay approximately 15 m. to the east beneath standing buildings.

Modern disturbance, apart from the brick cellars around the site, was confined to a deep, brick-lined culvert, and a large pit against the brick foundations beneath the portico of the Ashmolean Museum. The pit was almost entirely filled with discarded stone off-cuts and would appear to have been associated with the construction of the museum portico.

The stratified deposits and large number of intercutting features allowed most contexts to be phased with reasonable certainty, with dating relying primarily on the pottery and to a lesser extent on the clay pipes for the post-medieval features; few other finds were recovered. Only five pits, all recorded during the watching brief, have not been phased.

Phase 0: Pre-medieval

During the watching brief, the digging of a hole to facilitate propping of the museum forecourt wall revealed a woolly mammoth's tusk at around 59.40 m. OD in the undisturbed gravel of the Summertown-Radley Formation (Fig. 4). The 1.95 m. long (along the outside curve) tusk was exposed in the bottom of the hole, lying flat in a lens of gravelly sand within the finely-bedded gravels. The tusk was cleaned and recorded, and then lifted by a team from the Oxford University Museum. It is large but incomplete at both ends. However, when allowance is made for the missing ends



Fig. 3. General shot of site following completion of excavation. Trench 1 lies towards the centre, Trench 2 towards the bottom left. Facing south-west.

this tusk is of comparable size to that of an average adult male mammoth, typically 2.4–2.7 m. along the outside curve.

Apart from the mammoth's tusk, the only pre-medieval finds were two sherds of Romano-British greyware recovered from pit 61, a Phase 1 feature. No pre-medieval features were certainly identified. However, a shallow gully, 164, aligned north–south may have been an early feature (see Fig. 5). This was 0.6 m. wide, though somewhat irregular in plan to the north, and was traced over a distance of at least 6 m. It was cut by several features, including a Phase 1 pit, and was filled with dark yellowish brown/reddish brown silty clay containing one small mammal bone. A single sherd of Early Medieval Oxford Ware (fabric Y), assigned a date from the late 11th up to the end of the 13th century, came from the surface of the fill. The fill of gully 164 was unlike that in any of the other features and most closely resembled the isolated deposits of alluvium noted on the site.



Fig. 4. Mammoth's tusk exposed in gravel at approximately 59.4 m. OD. Scales 0.5 m. and 2 m. Facing south-west.

Phase 1: Late 12th to Mid 13th Century (Fig. 5)

No structural remains attributable to this phase lay within the excavated area, but at least 13 pits were identified. These were of varying shape in plan, but all were of comparatively large size with only one (pit 65) being less than 1 m. deep. The pits were fairly evenly distributed over the site with none intercutting, and no clear concentrations apparent. However, pits 51, 180, 192, 237, and 249 lay immediately to the south of the east-west property boundary apparent in later phases, with the remainder more scattered to the north. (If the property boundary existed in Phase 1, then it may have been defined, as in the later phases, by a narrow 'corridor' of ground where no features were dug. No evidence for a fence or hedge marking this boundary survived in this or any subsequent phase.)

The upper parts of pits 180 and 192 had been truncated by later features, but all of the pits appeared to contain fairly homogeneous fills of brown or dark yellowish brown loamy soils. Finds were relatively sparse and comprised almost entirely pottery and animal bone.

Pits 180 and 237 were notably square in plan, in excess of 2 m. deep, and had near-vertical sides suggesting that they may have been lined. Rectangular pits 72 and 251 appear to have been similar in the latter respect and both were skewed to the line of the postulated property boundary.

Little more can be said about the Phase 1 pits except that all appeared to contain domestic debris, with no evidence for any industrial or craft activities. They presumably lay in the backyards of buildings fronting St. Giles' to the east and their size and number might reflect already comparatively dense occupation along the street frontage. The pottery assemblages from pits 61, 164, and 171 (with greater proportions of fabrics AC and Y) suggest that these were dug slightly earlier than the others assigned to this phase, perhaps in the 12th rather than the 13th century. However, it has not otherwise been possible to distinguish any sequence in the digging of the remaining Phase 1 pits, or determine whether several were open at the same time and perhaps served different functions, such as for cess or rubbish disposal.

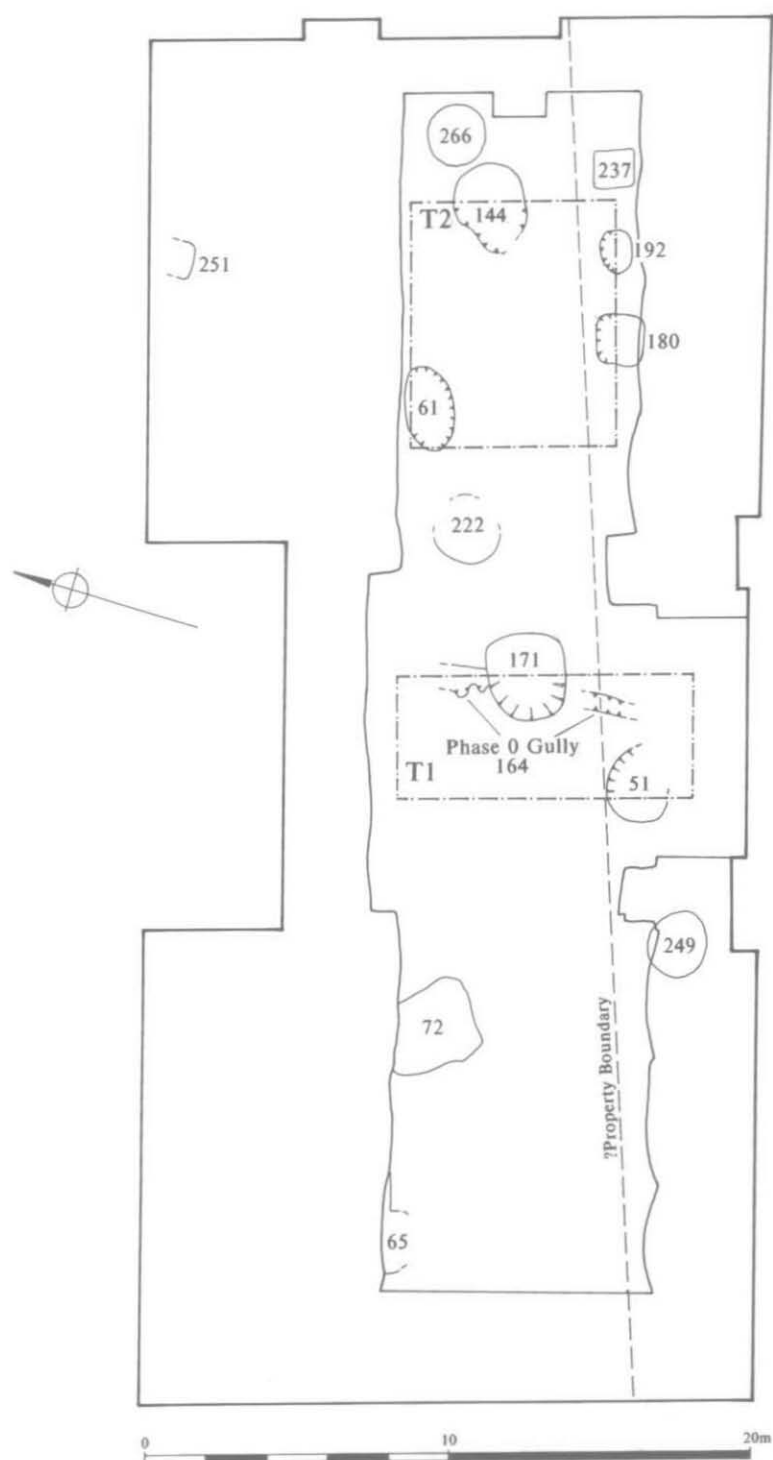


Fig. 5. Plan of Phase 0 and Phase 1 features.

Phase 2: Mid 13th to 14th Century (Figs. 6, 7, 8, and 9)

Part of a structure (structure A), two gullies, and at least 11 pits have been assigned to this phase. Structure A lay within the southernmost property, all the gullies and pits lay in the property to the north.

Structure A (Figs. 7, 8, and 9). Only a relatively small area of this was exposed in the south-east corner of Trench 2, representing what appears to have been part of a sunken-floored structure set back from the St. Giles' frontage. It comprised a sub-rectangular cut (129), approximately 0.5 m. deep, which had been lined or revetted along the north edge with irregular-sized pieces of limestone (128). These were uncoursed, unmortared, and formed a rough face on the inner (south facing) side. No evidence survived for any stone lining along the west side, but most of this had been removed by a later pit. Five substantial postholes (138, 186, 188, 190, and 194) lay in a line along the bottom of the north side of cut 129, within 0.5 m. of stone-lining 128, and were generally spaced at intervals of 0.9 m. (centre to centre); 188 and 190 were closer at 0.5 m. These postholes were sub-circular, up to 0.4 m. in diameter, and both 138 and 186 contained limestone packing. No post-impressions were present, but there was slight evidence for post-ghosts in layer 136 above. Hearth 137 lay just inside the line of postholes, and comprised a thin, oval patch of clay burnt to a dull red colour.

Hearth 137 directly overlay natural gravel, but no trace of any contemporaneous floor surface survived in the bottom of cut 129, either in the form of a deliberately laid surface or as a trampled layer over natural. Nor was there any certain evidence for an occupation build-up; layer 136 might be interpreted as such, though it might equally have been a later fill post-dating the use of structure A. It was a layer of dark greyish brown silty clay loam up to 0.15 m. thick which covered the entire exposed area across the bottom of cut 129. Layer 136 sealed hearth 137, but there was slight evidence to suggest that it had accumulated against posts standing in the postholes along the north side of cut 129. However, there was generally no clear difference between layer 136 and the fills of the postholes.

Less than 2 m. to the west of cut 129 was a stone-lined drain (207) which appears to have been associated with structure A. This was aligned north-east to south-west, at a skewed angle to structure A. Only 1.5 m. of this drain lay within the excavated area, but this was sufficient to show that it was well constructed, comprising a 0.3 m. wide, 0.45 m. deep trench lined along the sides and bottom with flat pieces of limestone. The top would probably also have been covered, but this may have been removed during the building of structure B which overlay the drain. The bottom fill, 212, was overlain by 211, a layer of fine grit which appears to have been washed in, with 210 above this possibly representing deliberate infilling of the drain prior to the building of structure B.

Gullies and pits. Gullies 22 and 121 (Fig. 6) may have defined two sides of a small plot or enclosure within the northern property, although no similar feature marked the property boundary itself. Gully 121 was relatively straight (at least 5 m. long), broad (0.5 m. wide), and shallow (0.1 m. deep), with vertical sides and a flat bottom, whereas gully 22 was smaller and more irregular and it is not certain that the two were associated. Conceivably, gully 121 may have been a structural feature, possibly holding a timber ground beam, but there was no certain evidence for this. Whatever its function, gully 121 rapidly fell into disuse for it was cut by pit 100 also assigned to Phase 2.

The pits were more varied in shape and size than in Phase 1, with the majority of the larger examples concentrated towards the middle of the site, and only two small pits at the west end. The majority were circular or sub-circular, but there were two square or rectangular examples, 100 and 154, which may have been lined. Pit 100 was comparatively shallow (0.45 m. deep), with a flat bottom, and may have served a specialised function.

Phase 3: ?Late 14th to 15th Century (Figs. 10, 11, 12, and 13)

In the southern property, structure A was replaced by structure B. In the northern property, two substantial ovens were constructed, one replacing the other, in what appears to have remained as an open yard area behind buildings on the street frontage.

Structure B (Fig. 11). Only the northern half of what was a substantial, stone-built structure was exposed in the south-east corner of the site. This apparently belonged to a range of buildings extending back from the St. Giles' street frontage. The north wall, 205, which followed the line of the property boundary, had been extensively robbed (robber trench 130), probably in the 19th century, but sufficient survived to show that this was at least 18 m. long and up to 0.7 m. wide. It was built of irregular-sized lumps of limestone, with a rubble core, and was roughly-coursed but unmortared. A maximum of two courses of footings survived, set either within a shallow foundation trench, or directly on lining/revetment 128 belonging to structure A. Wall 205 'faded out' at the west end (Fig. 10), but probably originally did not extend much further, and at the east end continued beyond the limit of excavation. A stone-lined pit, 240, lay to the south, bonded to wall 205. Pit 240 was approximately 1 m. square internally, 3.30 m. deep, and would have lain within structure B. The primary fill was a 0.2 m. thick layer of dark greyish brown clay loam with much charcoal

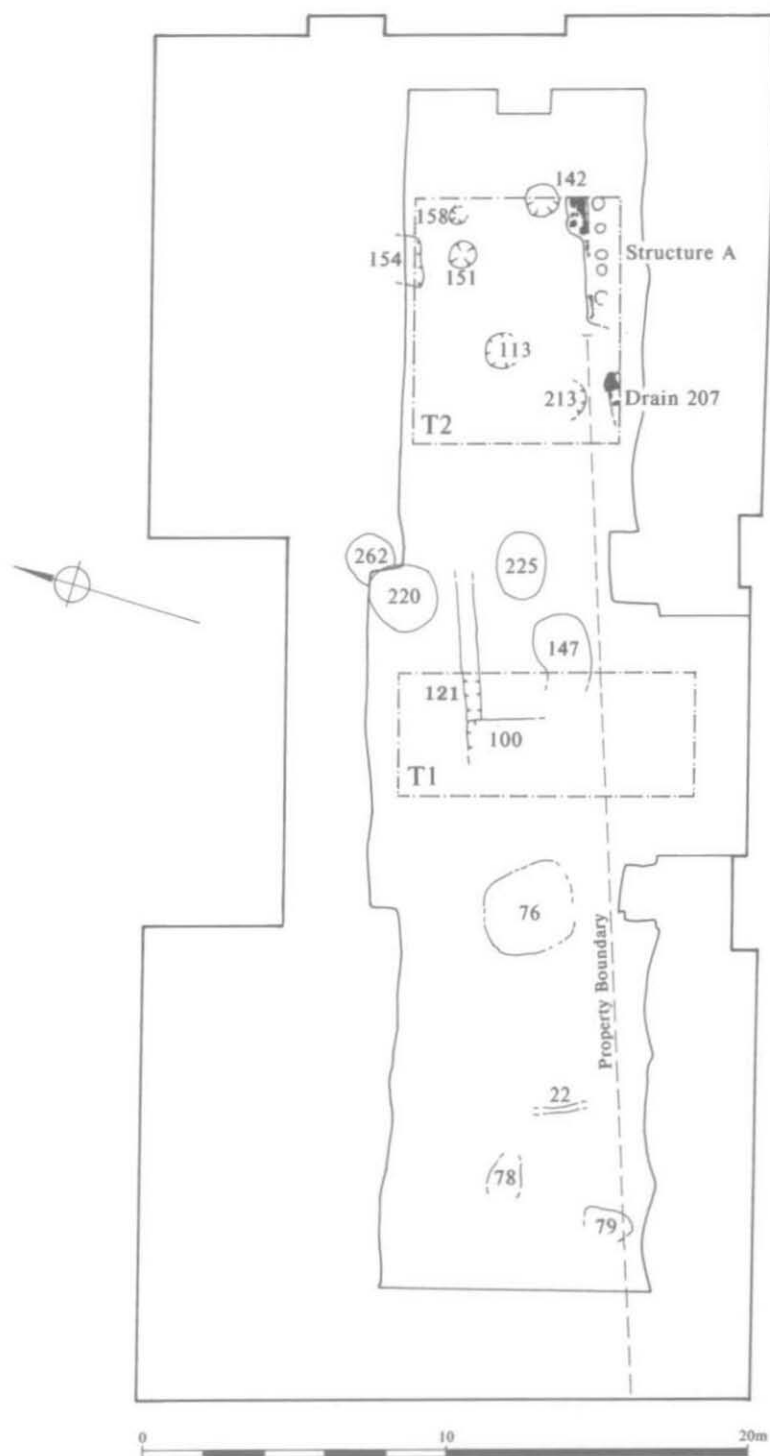


Fig. 6. Plan of Phase 2 features.

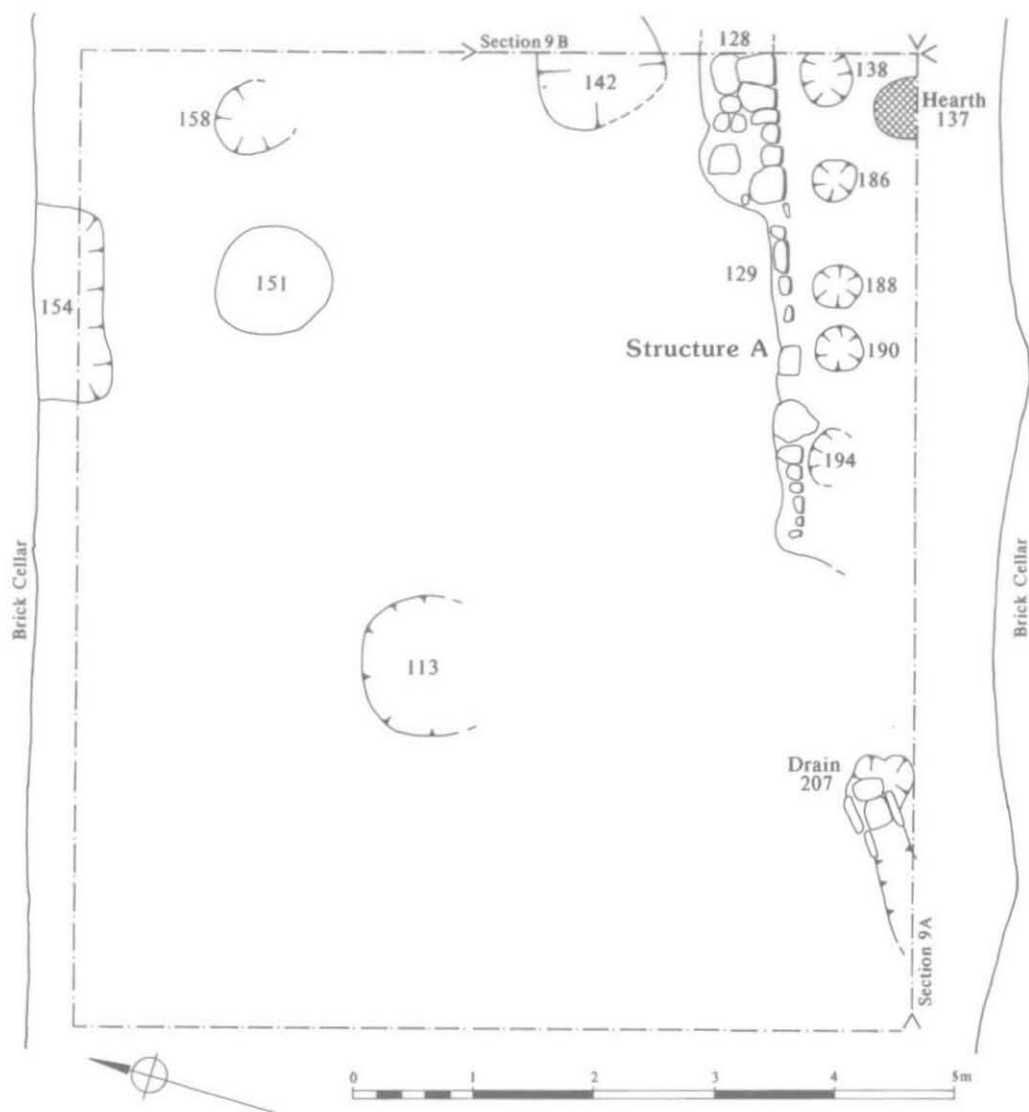


Fig. 7. Plan of Trench 2. Phase 2 features including Structure A.

flecking; this produced a single sherd of 13th-century pottery likely to have been residual. Above this was a thick layer of stone rubble which may have been demolition debris, or deliberate infill of an abandoned pit.

There were two east-west walls, both roughly coursed and unmortared, but neither had been robbed like wall 205. Wall 203 was bonded to wall 205, and wall 200 seemed to abut it, although the relationship was unclear. These walls lay 5 m. apart, were 0.7 m. wide, and differed in several respects. Wall 200 was set in a 0.5 m. deep foundation trench, on natural gravel rather than the softer fill of sunken-floored structure A. Wall 203 was not built within a foundation trench, but was constructed of larger lumps of stone than wall 200, and there was a 0.1 m. offset at the bottom on the west side (see Fig. 9). The more substantial nature of wall 203 suggests that this may have formed



Fig. 8. Trench 2. Structure A in foreground. Scale 2 m. Facing north-west.

the west end to the range of buildings, with wall 200 representing an internal partition, and the continuation of wall 205 further to the west possibly either a yard wall or part of an ancillary structure.

Several layers, including possibly two floor levels, survived in the area between walls 200 and 205, and were probably contemporary with structure B (see Fig. 9). A possible hearth, 204, comprising a lightly burnt patch of clay, lay in the north-west corner and perhaps marked the level of the earliest floor level, though none was identified. Layer 135 and 202 above this comprised sandy loams, generally 0.1 m. thick. These were sealed by a roughly laid floor surface of reused roof tiles (134), with a square, stone-lined posthole set in the corner at the junction of walls 203 and 205. The irregular nature of floor surface 134 suggests that this did not lie within the main domestic quarters of the building and the posthole may have contained a post which supported the floor to an upper storey. Floor surface 134 was in turn sealed by a layer of clay loam (133) containing a considerable quantity of fragmentary ceramic roof tile, and three sherds of 14th- or 15th-century pottery.

No floor surfaces survived in the area to the west enclosed by walls 200, 203, and 205, and earlier drain 207 was sealed by a 0.15 m. thick deposit of sandy loam containing 13th- or 14th-century pottery. This deposit, layer 185, also produced two copper alloy objects: a lace tag (Fig. 15.3) and a drawn pin with a wire-wound spherical head (Fig. 15.4).

Ovens 166 and 167 (Figs. 11, 12, and 13). These lay in the northern property, with their backs abutting wall 205 of structure B. Both had been heavily burnt internally and appear to have been virtually identical, with oven 167 overlapping and replacing oven 166. Substantial parts of both had been cut away by a later, Phase 4 pit, but sufficient survived to determine their form. They were U-shaped in plan, built of limestone set in a clay matrix, and measured between 3 and 3.50 m. long, and approximately 1.50 m. wide (internally). The floors of the chambers were of limestone and the base of the flue of oven 167 was concreted, heavily burnt natural; no surface survived in the flue of oven 166. The floors of both chambers, and the flue in oven 167, were covered by thin spreads of burnt material (119/167, 175, and 178), and these in turn were sealed by thick deposits of silty clay containing some limestone rubble (168 and 177). The latter are likely to have derived from the collapsed or levelled domes which formerly covered the chambers and flues of the ovens. The west wall of the flue of oven 176 had been robbed-out, apparently during this phase, as robber trench 126 had been cut by the same Phase

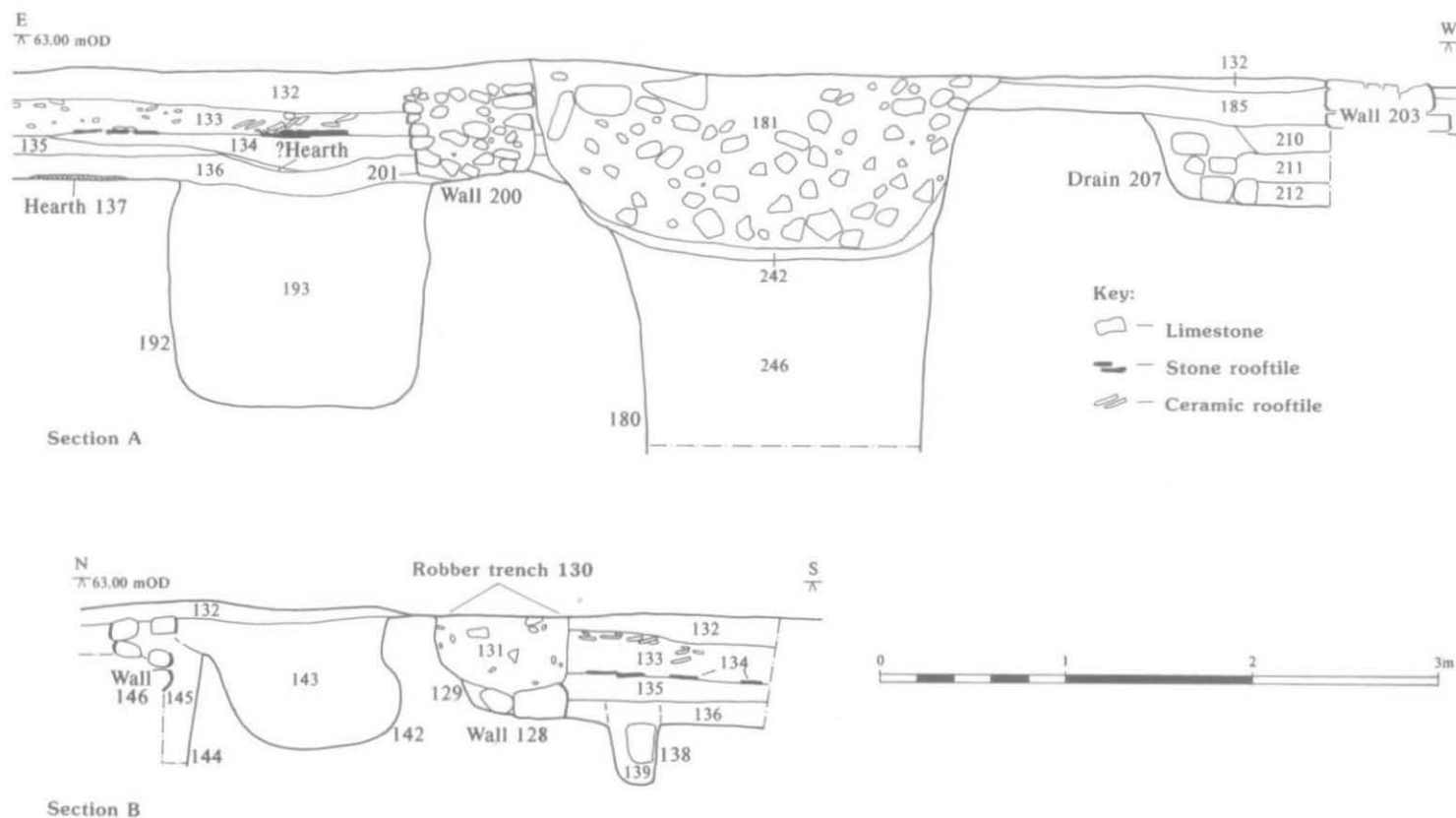


Fig. 9. Trench 2, North facing and West facing sections.

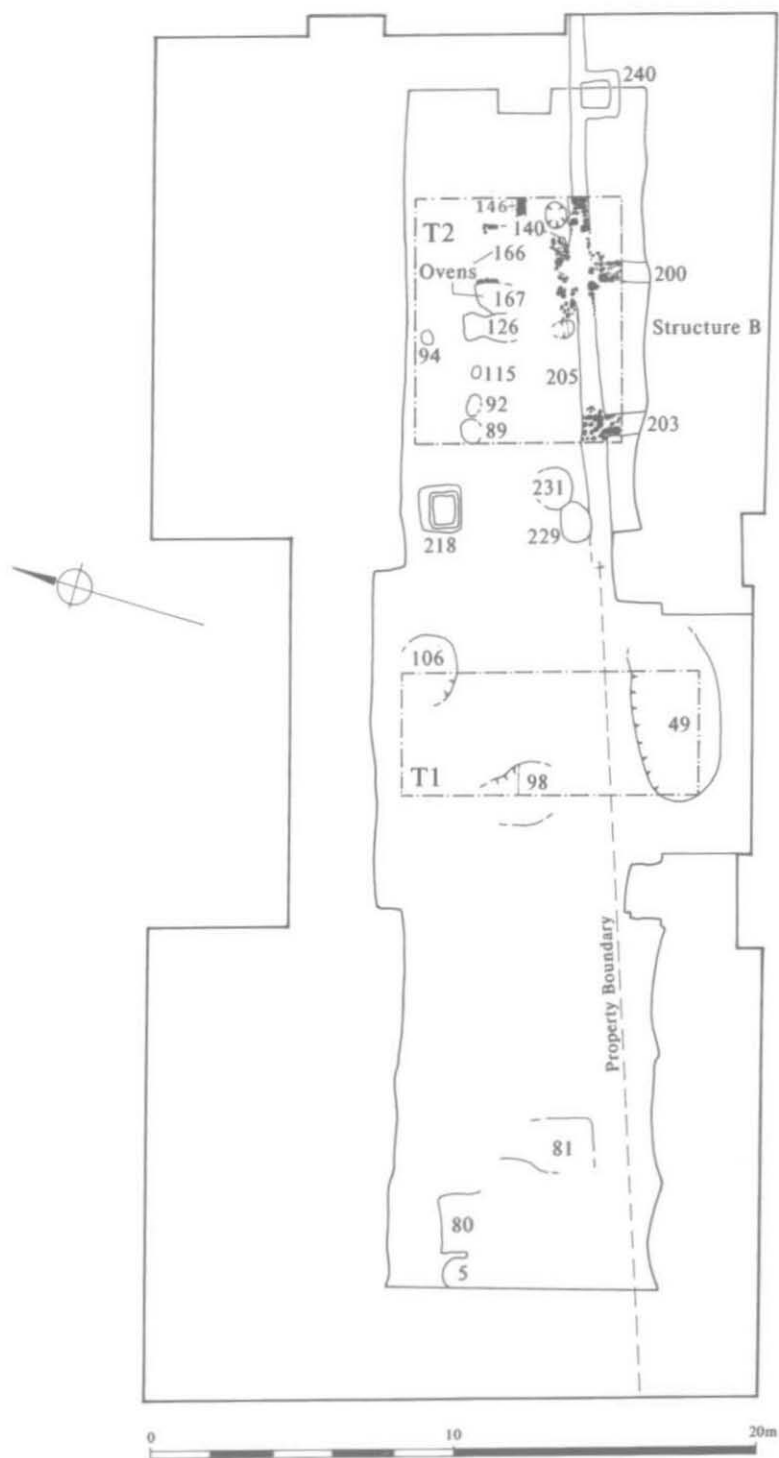


Fig. 10. Plan of Phase 3 features.

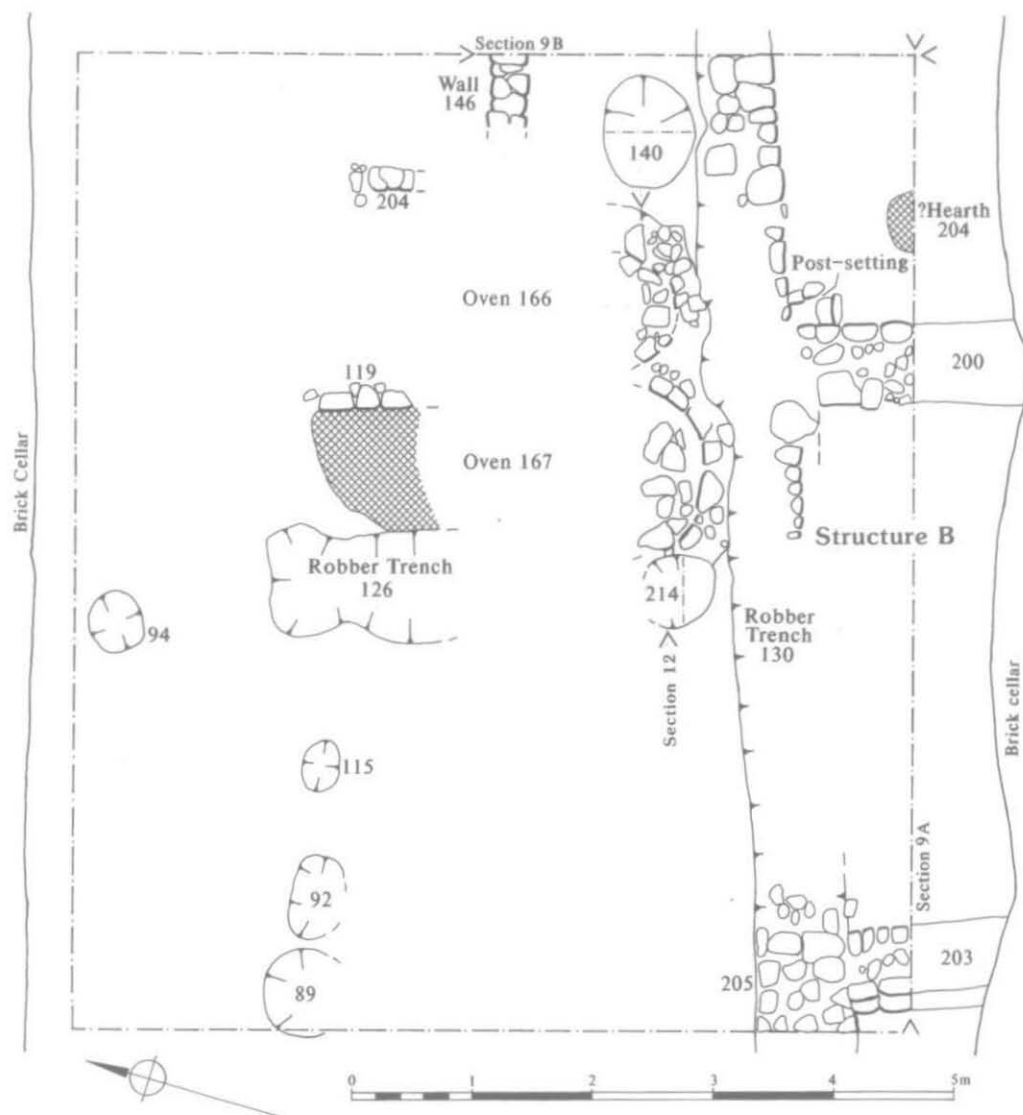


Fig. 11. Plan of Trench 2, Phase 3 features including Structure B and Ovens 166 and 167.

4 pit (88) that cut the ovens. The environmental evidence (see below) suggests that both ovens are likely to have been used for baking bread.

There was some evidence for one or more structures, possibly sheds or shelters, having been associated with the ovens, but it is unclear what form they may have taken. Stone-packed posthole 214 lay immediately to the west of oven 167, and several shallow features (89, 92, 94 and 115), possibly postholes, lay to the north-west. To the east of oven 167 was a narrow, insubstantial wall, 146, but the junction between this and oven 167 had been cut away by pit 88 and its purpose is unclear. However, it would appear not to have been a major structural feature.

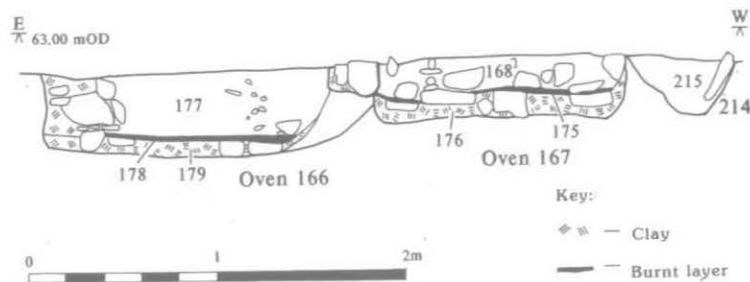


Fig. 12. Trench 2, North facing sections of Ovens 166 and 167.



Fig. 13. Trench 2, Ovens 166 and 167. Scales 0.5 m. and 2 m. Facing south-east.

Pits. Ten pits have been assigned to this phase. The largest, 49, was a deep, oval-shaped pit at least 5 m. long by 3 m. wide which lay immediately to the west of structure B. The remainder lay in the property to the north, with all but one (140) to the west of the ovens. These varied in shape and size, were fairly widely scattered, and one (218) had a rectangular, stone lining. The latter pit may have been a cess pit, with the remainder being used for the disposal of domestic rubbish.

Phase 4: 16th to 17th Century (Fig. 14)

It is considered likely that structure B remained standing and in use at this time, although there was no archaeological evidence for this; no floors, deposits, or finds attributable to this phase survived within the structure. However, it is possible that either the interior was kept clean with no debris being allowed to accumulate, or that contemporary deposits had been truncated. One further possibility, noted above, is that floor surface 134 and layer 133 overlying this might be assigned to Phase 4 rather than Phase 3, with the 14th- or 15th-century pottery sherds from the latter being residual. This possibility would envisage the stone roof tiles from Phase 3 being reused for a floor surface in Phase 4, and Structure B being re-roofed with ceramic roof tiles. Indirect evidence for the continued use of Structure B at this time is also provided by the absence of pits cutting it, and more convincingly by the fact that wall 205 (the north wall) does not appear to have been robbed until the 19th century.

The most remarkable feature of this phase was the distribution of the pits, all seven of which lay in a line immediately to the north of the property boundary; there were no other features marking the property boundary itself, which was defined by a narrow 'corridor' of unpitted ground.

There were no pits in the property to the south, and the northern property, north of the line of pits, apparently remained as an open area behind the street frontage. Two substantial postholes, 96 and 223, approximately 2 m. apart, indicated the existence of a structure, but its form is uncertain. Only one of the pits (88) within Trench 2 was excavated. This was sub-rectangular, at least 4 m. long, 2 m. wide, and 1.3 m. deep. It cut through the middle of the Phase 3 ovens, and was in turn cut by pit 54, a Phase 5 feature. The fill of pit 88 was a generally homogeneous deposit of greyish brown clay loam, but several tip lines were visible within this. Finds include comparatively large assemblages of animal bone, pottery, clay pipe, and ceramic building material. The latter comprised mostly very fragmentary roof tile, and might have come from the same source as the material from layer 133 in structure B discussed above. An iron door key (Fig. 15.2) with a potential date range from the mid 13th to the early 16th century also came from this pit. As this object may have had a comparatively long period of use it need not have been a residual find in this context.

Phase 5: 18th Century (Fig. 14)

A drawing of the earlier 19th century (see Fig. 20, discussed further below) indicates that it is likely that structure B remained standing and in use throughout Phase 5. However, as in Phase 4, there is no certain archaeological evidence for this; no walls, floors, or other deposits survived within structure B that might be assigned to Phase 5. A later pit, which lay in this area and cut the top of pit 180, was largely filled with lumps of limestone and some ceramic roof tile, presumably derived from the demolition of part or all of structure B (see Fig. 9). This pit, dug in the corner between the junction of the north-south wall and one of the east-west walls, contained a small quantity of residual medieval and post-medieval finds, and when exactly it was dug is uncertain; it may have been in the 19th century, when structure B was demolished prior to the construction of the Ashmolean Museum, or it may have been earlier when the rear part of the structure may have fallen into disuse.

Immediately to the rear (west) of the site of structure B was a large pit (254) cut by well 264. The bottom of the well was not reached and no lining survived. However, there was no indication of it having had a stone lining and a timber lining seems most probable.

Possibly as many as 13 pits lay within the northern property. Six of these lay immediately adjacent to the property boundary, with all but one of the remainder closely grouped towards the rear of the property at the west end of the site. These varied in shape and size and included examples which were circular (260), rectangular (172), and irregular (71) in plan. One, pit 41, had a stone lining. All, with the exception of pits 41 and 172, appeared to contain fairly homogeneous fills which produced comparatively small quantities of finds. Pit 41 was sub-oval in plan with an irregularly coursed, unmortared stone lining which sloped inwards. This stone lining did not extend to the bottom of the pit, at around 3 m. below the surface, and there was no surviving evidence for the bottom metre or so having been lined. The stone lining and depth of this pit suggests that it was a cess pit. Only a small part of pit 172 was excavated, but the fill of this was much darker and contained more charcoal flecking than any of the fills of the other pits. There was a notable concentration of cows' feet (from three individuals) in the upper part of the fill.

The various pits and walls were all sealed by dumped layers which contained pottery ranging in date from the 17th up to the 19th century. Some of this dumped material may have come from the digging out of ground for the basements and cellars of the Ashmolean Museum; some may have been brought to the site from elsewhere.

Phase 6: Late 18th to 20th Century

No 19th-century, pre-Ashmolean Museum (i.e. pre-1837) pits have been identified, although pit 180 (considered above as part of Phase 5) may have been dug then when Structure B was probably demolished. Robber trench 130 (see Fig.

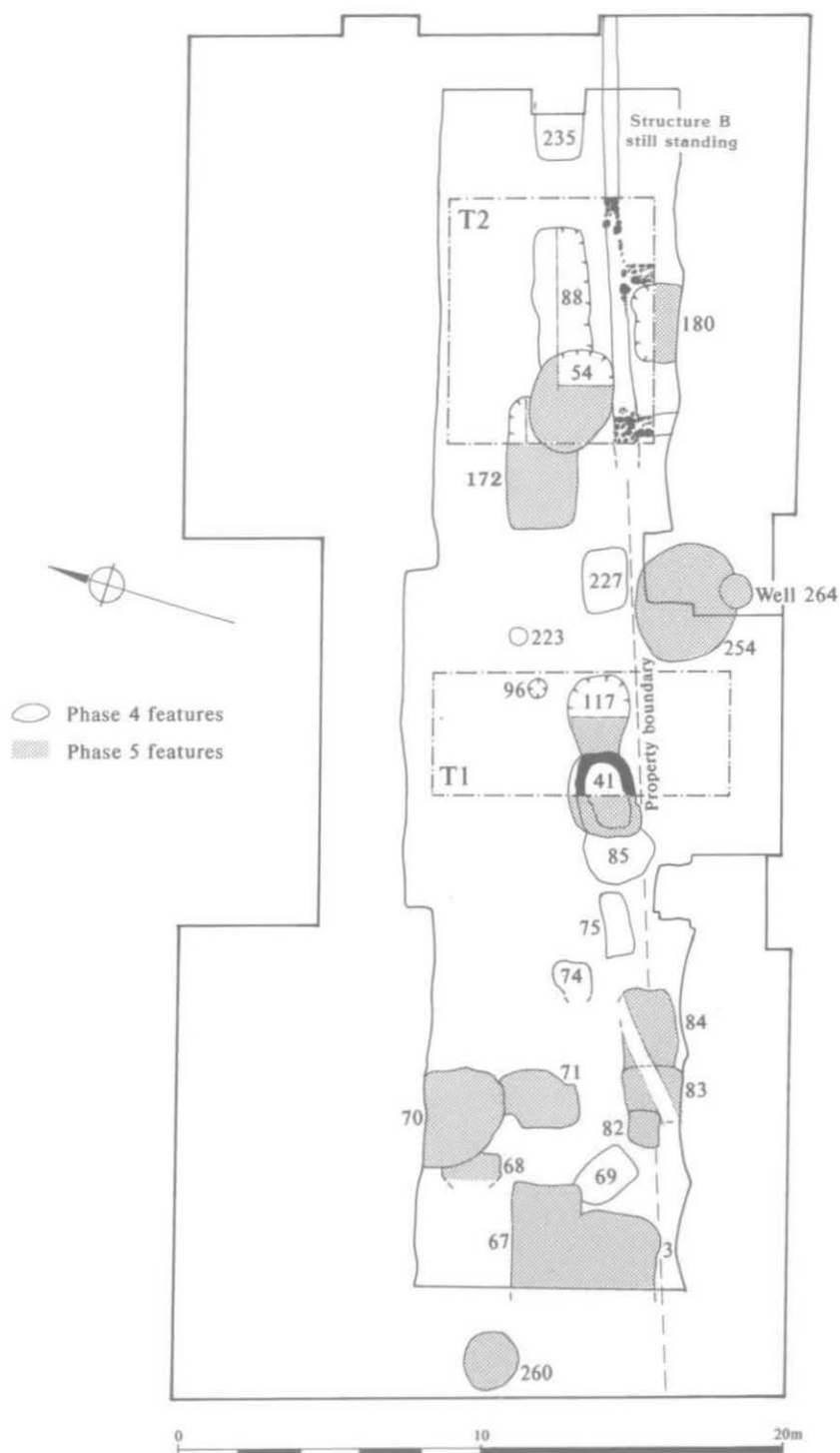


Fig. 14. Plan of Phase 4 and Phase 5 features.

11) contained 19th-century clay pipe and glass fragments which indicate that wall 205 forming the north wall of structure B was partly robbed-out at this time, although there was no evidence that cross-walls 200 and 203 were similarly robbed.

The only pit which produced 19th-century finds was stone-lined pit 41, a Phase 5 feature which contained later material in its upper fills. These fills post-dated its suggested use as a cess pit and were notable in that they contained a unique assemblage of worked human bone (this is discussed further below).

THE FINDS

All categories of finds are reported on here with the exception of the glass, the majority of which comprises fragments of post-medieval and modern (mid 17th- to 19th-century) green wine bottles, and the iron smithing slag, of which only four small pieces were recovered. (Details of both are available in archive.)

THE METALWORK by R. MONTAGUE

A total of 65 fragments and objects of metalwork was recovered during the excavations, 12 of copper alloy and 53 of iron. Fourteen were recovered from medieval contexts (Phases 1–3), 47 from post-medieval and modern contexts (Phases 4–6), and four pieces were unstratified. The metalwork is tabulated by phase, material and artefact type in Table 1, and detailed catalogue entries may be found in the archive. The metalwork has been X-radiographed, but has not undergone any conservation; consequently, the identification of some pieces is tenuous as most objects, especially those of iron, are covered in a thick layer of corrosion products.

The assemblage is very small and comprises material resulting from eight centuries of activity on the site, so any conclusions that can be drawn are necessarily broad. The complete absence of tools of any kind is perhaps noteworthy, with the assemblage comprising almost exclusively items of personal, household, and structural metalwork. This may suggest that the range of activities carried out on the site were primarily domestic. The majority of the finds come from pits, and were fairly evenly distributed across the site with no concentrations apparent.

The Medieval Metalwork

The metalwork assemblage from medieval contexts comprises five copper alloy and nine iron objects, most of which are not closely datable typologically to the medieval period or earlier. The exceptions comprise the two iron fiddle-key horseshoe nails, of a type known from the 9th to the mid 14th centuries.¹⁶ The copper alloy lace tag (Fig. 15, 3) could be as early as 14th-century,¹⁷ although lace tags continued in use through to the 17th century.¹⁸ Drawn copper alloy pins with wire-wound spherical heads (Fig. 15, 4) are a long-lived type, known from the medieval period to the early 19th century; both illustrated finds are from layer 185 within Structure B (Phase 3). Hand-made structural nails with flat, round heads and square-sectioned shanks, such as were found in Phase 2 and 3 contexts on the site, are known from the Iron Age right through to the post-medieval periods.

Two typologically medieval artefacts were not stratified within secure medieval contexts. The iron door key (Fig. 15, 2) from pit 88 (Phase 4) is of LMMC type VIIB, with a potential date range of mid 13th to early 16th century.¹⁹ The unstratified copper alloy strap-end (Fig. 15, 1) is very similar to an example excavated from a context dating from between 1270 to 1350 in London.²⁰ A small area of the surface of the front plate is not covered with corrosion

¹⁶ J. Clark, *Medieval Horseshoes* (Finds Research Group Datasheet 4, 1986), 2, Fig. 5.

¹⁷ G. Egan and F. Pritchard, *Dress Accessories c.1150–c.1450* (Museum of London Medieval Finds from Excavations in London 3, 1991), 281–2.

¹⁸ S. Margeson, *Norwich Households: The Medieval and Post-Medieval Finds from Norwich Survey Excavations 1971–1978* (East Anglian Archaeol. Rep. 58, 1993), 22.

¹⁹ J.B. Ward Perkins, *London Museum Medieval Catalogue* (1940), 141, Fig. 42.

²⁰ Egan and Pritchard, op. cit. note 17, 143, Fig. 93.664.

TABLE 1. METALWORK BY PHASE

	PHASE						U/S	Total
	1	2	3	4	5	6		
COPPER ALLOY								
Token							1	1
Strap-end							1	1
Pins; wire-wound spherical heads		1				1		2
Lace tag		1						1
Suspension rings					1		1	2
?Collar or ferrule			1					1
Discs			1			1		2
Strip fragment				1				1
Sheet fragment			1					1
IRON								
Door key				1				1
Handle						1		1
Bar object; white metal plating				1				1
Sheet frags; white metal plating				11				11
				mni=1				mni=1
Sheet fragments				1		15		16
						mni=4		mni=5
Strip fragment					1			1
Bar fragments		1		1				2
Horseshoe fragment					1			1
Fiddle-key horseshoe nails		1	1					2
Nails		1	2	1				4
Nail shanks	1	1	1		3	3	1	10
Lumps				1	1	1		3
TOTALS	1	6	7	18	7	22	4	65

products and here a small area of engraved zigzag decoration can be seen, a technique found on items such as buckles, mounts, and strap-ends from the early 13th to the early 15th century.

The Post-medieval and Modern Metalwork

A total of 47 pieces was recovered from post-medieval and modern contexts. The assemblage comprises four copper alloy objects (a pin, a suspension ring, a disc, and a strip fragment) and 42 iron fragments, none of which is particularly chronologically diagnostic, comprising a handle, sheet, strip, and bar fragments, a horseshoe fragment, nails, and featureless lumps.

An unstratified copper alloy token which has been clipped with a quarter segment missing is probably of 18th-century date.²¹

List of illustrated objects (Fig. 15)

1. Copper alloy strap-end. Obj. No. 1030, unstratified.
2. Iron door key. Obj. No. 1010, pit 88, Phase 4.
3. Copper alloy lace tag. Obj. No. 1022, layer 185, Phase 3.
4. Drawn copper alloy pin with a wire-wound spherical head. Obj. No. 1021, layer 185, Phase 3.

²¹ Nick Wells, pers. comm.

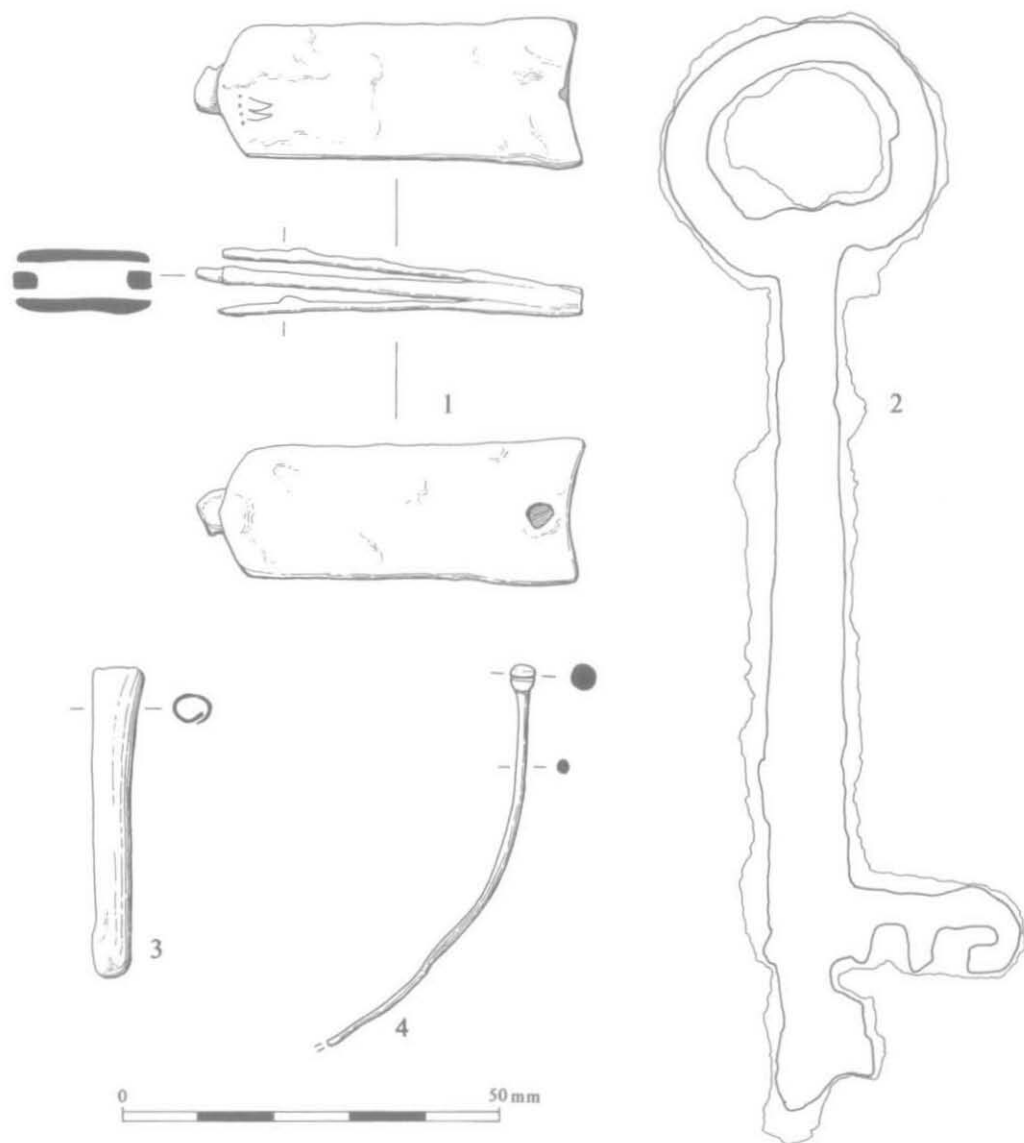


Fig. 15. Copper alloy and iron objects (scale 1 : 2).

THE POTTERY by LORRAINE MEPHAM

The pottery assemblage consists of 1079 sherds weighing 26,649 g. This assemblage ranges in date from early medieval to modern, with two sherds of Romano-British type.

Analysis of the pottery was conducted following the standard Wessex Archaeology recording system.²² The medieval assemblage was divided into 17 separate fabric types on the basis of the range and size of inclusions visible under a binocular microscope (x20 mag.). These fabric types were then correlated, as far as possible, with the existing Oxford fabric type series.²³ The nomenclature used for the medieval fabric types (fabrics AC, Y, etc.) and ceramic traditions (e.g. Early Medieval Oxford Ware) follows that in current use for Oxford and the surrounding region.²⁴ Fabric types within the Oxford type series are not described in detail here; for full fabric details refer to published reports.²⁵ Pottery was quantified by fabric type, both by number and by weight, within each context. Details of vessel form, dimensions, surface treatment, decoration, manufacturing technique, and cross-context joins were also recorded. Post-medieval pottery was considered in less detail; it was divided into fabric types on the basis of known type or source (e.g. coarse redwares, Cologne/Frechen stoneware), and vessel forms have likewise been defined on a broad basis. The pottery is discussed by chronological period below. Medieval and post-medieval pottery fabric totals are presented in Table 2.

Romano-British Pottery

Two sherds of Romano-British micaceous greyware occurred as redeposited sherds in pit 151 (Phase 2).

Medieval Pottery

The earliest pottery types present within the medieval assemblage comprise Early Medieval Oxford Ware (fabric AC), Late Saxon/Early Medieval South West Oxfordshire Ware (fabric BF) and Late Saxon/Early Medieval Oxford Ware (fabric Y), all types which are commonly found in early medieval assemblages in Oxford.

Fabric AC, which includes several regional styles within a handmade, calcareous, gravel-tempered tradition, is found from the mid 11th to the late 12th century in Oxford itself. The vessel forms in which it occurs at the Ashmolean Museum, including jars with clubbed or externally thickened rims (Fig. 16, 2), and one inturned, incised bowl rim (Fig. 16, 1),²⁶ are generally dated from the early 12th century, although a single plain, everted jar rim could represent a slightly earlier element. There are no jug or pitcher forms in this fabric, but this is a trend which has been noticed elsewhere in Oxford, and it is suggested that these vessel forms were instead supplied by a rival production centre, represented by Late Saxon and Early Medieval Oxford Ware (fabric Y).²⁷ This tradition supplied Oxford from the late 11th century, superseded the calcareous wares (fabric AC) by the middle of the 12th century, and continued in use throughout the 13th century. At the Ashmolean Museum excavation, vessel forms represented in this fabric include jars with rim forms similar to those in the calcareous ware, as well as more developed rim forms (Fig. 16, 4). Also present are three externally glazed pitcher rims.

Fabric BF, dated from the mid 11th to the early 13th century in Oxford, is represented here by only two plain body sherds.

The moderately coarse sandy ware sherds, identified as fabric AG, fall within a widespread tradition of such sandy wares which are found over much of central southern England, and which are likely to have been produced at a number of different centres. For example, a kiln producing sandy wares, dated to the early 13th century but probably part of a larger production centre with a wider date range from the late 12th century and through the 13th century, has recently been excavated at Ashampstead in west Berkshire, between Newbury and Oxford.²⁸ Sherds of fabric AG from the Ashmolean Museum are broadly comparable to samples from Ashampstead. Vessel forms include jars with

²² E.L. Morris, 'The Analysis of Pottery' (Wessex Archaeology Guideline No. 4, 1992).

²³ E.g. R. Haldon, 'Late Saxon and Medieval Pottery', in B. Durham, 'Archaeological Investigations in St. Aldate's, Oxford', *Oxoniensia*, xlii (1977), 114–20.

²⁴ Most recently published in M. Mellor, 'A Synthesis of Middle and Late Saxon, Medieval and Early Post-Medieval Pottery in the Oxford Region', *Oxoniensia*, lix (1994), 17–217.

²⁵ E.g. Haldon, op. cit. note 22.

²⁶ Cf. Mellor, op. cit. note 24, Fig. 12, nos. 16, 18.

²⁷ Ibid. 45.

²⁸ M. Heaton and L. Mephem, 'A Medieval Pottery Kiln at Ashampstead, Berkshire', *Medieval Ceramics*, 19 (1995).

TABLE 2. POTTERY: FABRIC TOTALS

Fabric type	No.	Wt	% of period
Romano-British greyware	2	6	
<i>Medieval fabrics</i>			
OXAC	58	626	6.79
OXBF	3	19	0.21
OPY	184	1727	18.74
OXAG	106	1355	14.70
OXAQ	119	1698	18.42
OXAM	172	3269	35.46
OXAP	9	115	1.25
OXBK	3	68	0.74
OXAY	1	2	0.02
London-type ware	2	280	3.04
Whitewares	8	58	0.63
Total	665	9217	
<i>Early post-med</i>			
Redwares	165	9500	62.15
Slipwares	18	1518	9.93
Whitewares	40	1143	7.48
Staffordshire-type	3	57	0.37
Iberian redware	2	202	1.32
Tinglazed earthenware	54	1667	10.91
German stoneware	11	461	3.01
English stoneware	16	738	4.83
Total	309	15286	
<i>Industrial wares</i>			
White salt glaze	29	424	
Creamware	38	1161	
Pearlware	29	469	
Porcelain	6	85	
Fine whiteware	1	1	
Total	103	2140	
OVERALL TOTAL	1079	26649	

externally thickened or squared rims, and glazed jugs or pitchers with strap handles (Fig. 16, 6 and 7). Also present here is a variant of this fabric, white-slipped externally with a mottled dark green glaze; all sherds derive from a single vessel, a jug decorated with multiple stamped ring-and-dot motifs in vertical bands (Fig. 16, 13). This is noted as a later 13th-century development in Oxford and elsewhere; the form and decoration are particularly common at Newbury²⁹ and Reading.³⁰

Fabric AQ, which covers a fairly wide range of variation of flint- and flint-/chalk-tempered coarsewares, has a wide distribution across eastern Wiltshire, into north Hampshire and across much of south Oxfordshire; its putative source lies within the Savernake Forest.³¹ It forms a significant proportion of assemblages within this area from the

²⁹ A.G. Vince, 'Excavations at Nos. 143-5 Bartholomew Street, 1979', in A.G. Vince, S.J. Lobb, J.C. Richards and L. Mepharn, *Excavations in Newbury 1979-1990* (Wessex Archaeology Mono., forthcoming), fabric N17; J. Hawkes, 'The Pottery', in *ibid.* Fig. 70, no. 110.

³⁰ C. Underwood, 'Pottery', in J.W. Hawkes and P.J. Fasham, *Excavations On Reading Waterfront Sites 1979-1988* (Wessex Archaeology Mono., forthcoming), ill. nos. 128-9.

³¹ Vince, *op. cit.* note 28, fabric groups A/B.

12th to the early 15th century, and was the only coarseware supplying Oxford during the 14th century; the proportion here is relatively high and roughly equivalent to the coarseware fabric Y (see Table 2). Vessel forms from the Ashmolean Museum include jars with thickened rims, one with an applied vertical strip (Fig. 16, 3).

London-type ware is an unusual but not unknown find in Oxfordshire.³² The single vessel from the Ashmolean Museum is a Rouen-style jug, with characteristic applied and painted slip decoration (Fig. 17, 14), closely paralleled by an example from London,³³ where such vessels are dated from the early to mid 13th century.

Three undiagnostic body sherds were defined as fabric BK, a shelly fabric with a date range of late 12th to 14th century.³⁴

Approximately one-third of the total medieval assemblage by weight is made up of sherds of Brill/Boarstall type wares (fabric AM and the overfired variant AP). These sherds derive mainly from glazed or partially glazed jugs, often with slipped decoration in complex motifs (e.g. Fig. 16, 7-11); also present are jars with clubbed and moulded rims (Fig. 16, 12), and double-shelled candlesticks (Fig. 17, 15), together with one bung-hole pitcher (Fig. 17, 16) and one skillet (Fig. 17, 17). All vessels are wheelthrown and well made and the decoration on the jugs is vibrant and shows an extensive variety: applied strips, pellets and scales, rouletting, and both painted and applied slip in linear and curvilinear motifs. These types have a wide date range in Oxford, from the mid 13th century to at least the 15th century; within this date range, the highly decorated jugs from the Ashmolean Museum would be placed within the second half of the 13th century, while forms such as the bung-hole pitcher and plainer, horizontally-grooved jugs are later types from the 14th and 15th centuries.

A single sherd was identified as fabric AY, a sandy ware dated to the 15th century.³⁵ White wares occur in small quantities, comprising three sherds of Coarse Border Ware, one sherd of Kingston-type ware, two sherds of Tudor Green, and two sherds of uncertain origin.

Post-medieval Pottery

The post-medieval pottery may be sub-divided into early post-medieval types (16th to mid 18th century) and industrial wares (late 18th to 20th century), although the predominant fabric type, coarse redwares, has a date range which potentially extends into the modern period. No attempt has been made to subdivide the coarse redwares any further and this type is likely to include products of more than one source. Potential sources include the kilns at Brill and Nettlebed. Glazes range from clear to dark olive to dark purple/black. The black-glazed wares might be more readily defined as 'Midlands Black Ware' but do not appear to include the characteristic Cistercian type tankards and mugs. The redwares occur mainly in forms such as deep pans and bowls, and chamber pots; the potential date range is quite wide, but the majority of the forms would fit within a range of 16th to mid 18th century.

Coarse whitewares are present in smaller quantities. Most of these probably originate from the Surrey/Hampshire Border Ware industry,³⁶ although whiteware industries are known more locally, for example to the south of Brill and elsewhere in Buckinghamshire.³⁷ Most common are the yellow- and green-glazed types, but there are also a few sherds with mottled brown glaze. The whitewares occur in very similar forms to the redwares: dishes, bowls, and chamber pots, with a potential date range of 16th to 17th century; the *floruit* of whitewares in Oxford is considered to be the second half of the 17th century.

Slipwares are far less common and derive from just a handful of redware vessels, all shallow bowls or dishes with an internal marbled green and white decoration. Slipwares began to appear in Oxford by the later 17th century and reached a peak in the mid 18th century;³⁸ the main source appears to have been the post-medieval Brill industry.³⁹ Other slipwares comprise two sherds of Staffordshire-type slipware of 17th- or early 18th-century date.

³² J.E. Pearce, A.G. Vince and M.A. Jenner, *A Dated Type-Series of London Medieval Pottery. Part 2: London-type ware* (London Mddx. Archaeol. Soc., Special Paper 6, 1985), appendix 3; also one example from Sutton Courtenay (M. Mellor pers. comm.).

³³ Pearce et al., op. cit. note 32, Fig. 30, no. 78.

³⁴ Haldon, op. cit. note 22, note 50.

³⁵ Ibid.

³⁶ J. Pearce, 'Border Wares', in *Post-Medieval Pottery in London, 1500-1700*, vol. 1 (Museum of London, 1992).

³⁷ E.g. Bucks. County Museum Archaeol. Group, 'A Seventeenth-century Pottery at Potter Row, Great Missenden, Bucks.', *Recs. Bucks.* xx (1978), 586-96.

³⁸ T.G. Hassall, C.E. Halpin and M. Mellor, 'Excavations 1967-1976: Part II: Post-medieval Domestic Tenements and the Post-Dissolution Site of the Greyfriars', *Oxoniensia*, xlix (1984), 216.

³⁹ E.g. M. Farley, 'Pottery and Pottery Kilns of the Post-medieval Period at Brill, Buckinghamshire', *Post-med. Arch.* xiii (1979), 127-52; W.D. Cocroft, 'Two Post-medieval Pottery Kilns and Associated Products from Prosser's Yard, Brill, Buckinghamshire', *Recs. Bucks.* xxvii (1985), 72-93.

Tinglazed earthenware is relatively common; again, no attempt has been made to attribute this to the various potential sources. The majority is almost certainly of English manufacture and includes plain utilitarian forms such as bowls, chamber-pots, and ointment jars, although higher quality decorated table wares, such as small bowls, cups, and plates, are also present. The general date range is 17th to mid 18th century, although one sherd derives from an altar vase of 16th-century type, which could be of either English or Low Countries manufacture.⁴⁰

Definite imports within the early post-medieval period are scarce and are almost entirely restricted to a handful of sherds of German stonewares. The earliest is a single sherd of possible 15th-century Langerwehe stoneware, from a jug with rouletted decoration around the shoulder. The remainder comprise three sherds of late 15th/16th-century Raeren stoneware, including a fluted base, and seven sherds of Cologne/Frechen stonewares, of 16th/17th-century date, including one medallion from a jug/bottle shoulder. Similar stonewares of probable English manufacture are present in very small quantities, with a date range of 17th to 18th century, as well as later, finer stonewares with the characteristic lustrous finish of the Nottingham-type wares.

Only two other sherds of imported wares were identified: two joining sherds from the rim of a globular jar in a very micaceous redware, probably of Iberian origin.⁴¹ These micaceous redwares, generally termed 'Merida-type' ware, were widely traded from the late medieval period and are most commonly found in this country in 16th- and 17th-century contexts, where jar forms are frequently associated with the sugar-refining industry.⁴² The jar forms themselves are not particularly closely datable; the Ashmolean Museum jar was associated with a single sherd of glazed redware.

The remaining wares may be grouped together as industrial wares. The bulk of these comprise white salt glaze, creamware and pearlware, in forms such as chamber pots, plates, bowls, and jugs or coffee pots, with a date range of late 18th to early 19th century. Porcelain and fine whitewares of 19th/20th-century type are present in very small quantities.

The Ceramic Sequence and Site Phasing

The phasing of the site has relied on a combination of stratigraphic relationships and the chronological data supplied by the pottery and, for the post-medieval period, the clay pipes (few other closely datable finds were recovered). The quantities of pottery by fabric type for each phased feature have been amalgamated to give totals and percentages by phase (Table 3), and the ceramic dating evidence for each phase is discussed here.

In Phase 1, six local fabric types are represented (fabrics AC, BF, Y, AG, AQ, and AM). The only non-local ware present is London-type ware and this is represented by a single vessel (Fig. 17, 14). The single sherd of post-medieval whiteware is intrusive here, as is the single sherd of post-medieval industrial whiteware. The fabrics with the earliest potential date are Y and AC, both of which appeared in Oxford in the 11th century. However, there are no features in which these fabric types occur unmixed with later material, and the overall relative proportions of these two fabrics in Phase 1 would indicate the date for the start of this phase at a point when fabric Y had started to supersede the earlier calcareous tradition (AC), within the second half of the 12th century. The vessel forms present – jars with a variety of rim forms, and pitcher rims (e.g. Fig. 16, 4) – would not contradict this, and the dating is supported by the presence of a small number of Brill/Boarstall types (AM), including decorated jugs (e.g. Fig. 16, 11) and double-shelled lamps, and the single London-type jug, which give a probable end date for the phase around the middle of the 13th century.

Contexts in Phase 2 produced a very similar range of fabric types but, by this stage, Brill/Boarstall has become the dominant type (AM, AP), occurring in a range of decorated jug forms (e.g. Fig. 16, 8, 9). Other vessel forms are scarce in this phase, but there is one bowl (Fig. 16, 12) and one double-shelled lamp. Although the proportion of fabric AG from this phase is slightly higher than Brill/Boarstall, this is largely made up of sherds of a single vessel, a white-slipped, green-glazed jug with ring-and-dot stamped decoration, of later 13th-century type (Fig. 16, 13). Fabrics Y and AQ are still present in some quantity, but AC has almost disappeared, and sherds present are likely to be residual in this phase (e.g. Fig. 16,

⁴⁰ F. Britton, *London Delftware* (1986), 98–9.

⁴¹ J.G. Hurst, D.S. Neal and H.J.E. van Beuningen, *Pottery Produced and Traded in North-West Europe 1350–1650* (Rotterdam Papers VI, 1986), 69.

⁴² C.M. Brooks, 'Aspects of the Sugar-refining Industry from the 16th to the 19th century', *Post-Medieval Archaeol.* xvii (1983), 1–14.

TABLE 3. POTTERY: FABRIC TOTALS BY PHASE

Totals are presented by number of sherds/weight in grammes, with percentages by weight of the phase total in brackets.
NB. Total does not include Romano-British sherds.

	AC	Y	MEDIEVAL WARES				Redware	Slipw.	POST-MEDIEVAL WARES					Total
			AG	AQ	AM/AP	Other wares			Whitew.	Staffs.	Stonew.	Tinglaze	Industrial	
Phase 0	—	1/5	—	—	—		—	—	—	—	—	—	—	1/5
Phase 1	46/423 (12.2)	113/1021 (29.5)	29/322 (9.3)	61/792 (22.9)	31/596 (17.2)	4/294 (8.5)	—	—	1/11 (0.3)	—	—	—	1/1 (0.1)	286/3460
Phase 2	7/130 (4.1)	41/400 (12.6)	72/1013 (32.0)	28/548 (17.3)	64/1057 (33.5)	3/10 (0.3)	1/4 (0.1)	—	1/4 (0.1)	—	—	—	—	217/3166
Phase 3	2/25 (3.2)	10/98 (11.7)	1/3 (0.4)	6/86 (11.0)	35/542 (69.2)	2/6 (0.8)	2/20 (2.6)	—	—	1/1 (0.1)	—	1/8 (1.0)	—	60/789
Phase 4	—	7/101 (3.7)	1/3 (0.1)	4/27 (1.0)	18/463 (16.8)	4/42 (1.5)	38/1173 (42.7)	—	30/882 (32.2)	—	2/39 (1.4)	—	1/16 (0.6)	105/2746
Phase 5	3/48 (0.4)	12/102 (0.9)	3/14 (0.1)	20/230 (2.1)	29/673 (6.0)	4/75 (0.7)	101/7266 (64.7)	4/646 (5.7)	4/178 (1.6)	—	8/331 (3.0)	31/1091 (9.7)	26/571 (5.1)	245/11225
Phase 6	—	—	—	1/15 (0.3)	3/50 (0.9)		25/1239 (23.6)	14/872 (16.6)	4/68 (1.3)	2/56 (1.1)	1/91 (1.7)	22/568 (10.8)	91/2290 (43.7)	162/5249
Unphased	—	—	—	—	1/3		—	—	—	—	—	—	—	1/3
TOTAL	58/626	184/1727	106/135	119/1698	181/3384	17/427	167/9702	18/1518	40/1143	3/57	11/461	54/1667	119/2878	1077/26643

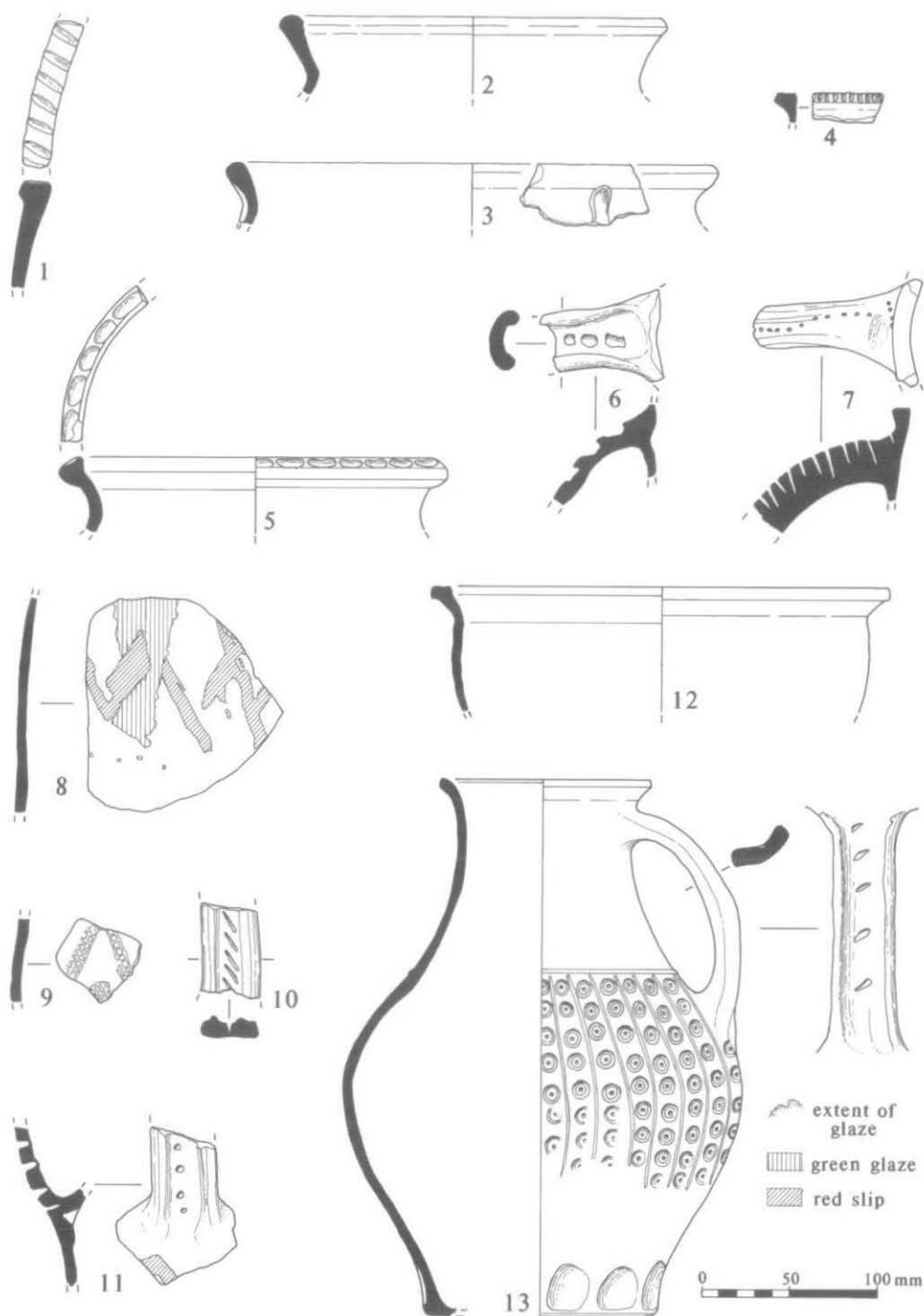


Fig. 16. Pottery (scale 1:4).

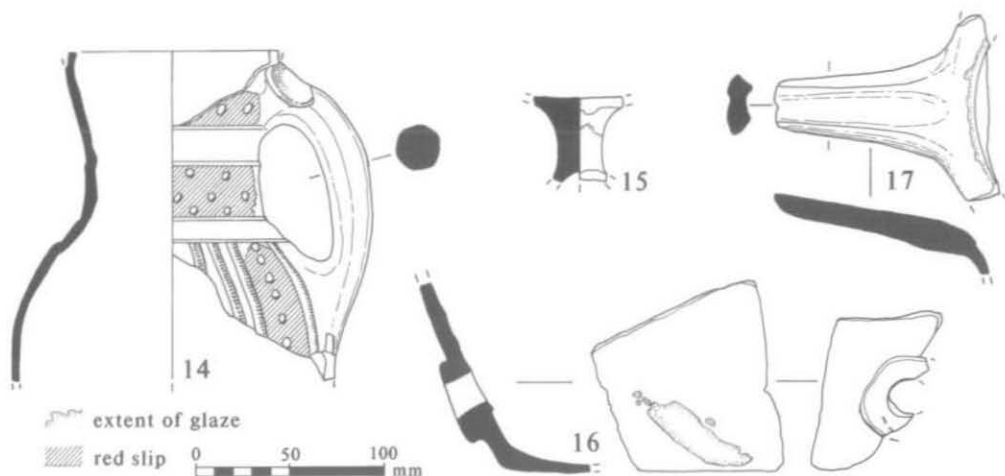


Fig. 17. Pottery (scale 1:4).

1, 2). Single sherds of, respectively, post-medieval whiteware (pit 102) and glazed redware (pit 74) are almost certainly intrusive. The suggested date range for this phase is from the mid 13th century into the 14th century.

In Phase 3, Brill/Boarstall types (AM, AP) occur almost to the exclusion of all other types, although it should be noted that the total quantity of pottery from features attributed to this phase is low. Diagnostic forms are correspondingly scarce, but one jug in fabric AM from pits 229/231 is of a plain, rounded form with pronounced horizontal grooving on the shoulder, a type characteristic of the later medieval phases of the industry – a date in the 14th century or later would be appropriate and the single sherd of Tudor Green would confirm a late 14th- or 15th-century date. The single sherd of tinglazed earthenware is from an altar vase of 16th-century type but this, and the single sherd of Staffordshire-type brown-glazed ware, could be intrusive here.

The earliest post-medieval phase (Phase 4) is marked by the appearance of glazed redwares and whitewares. The only feature attributed to this phase that produced any quantity of pottery is pit 88 (77 of the 105 sherds). The only other types represented are stonewares: two sherds of Cologne/Frechen type and one sherd of English stoneware of modern type – the latter sherd is almost certainly intrusive here. A date range of 16th to 17th century, with an emphasis on the latter part of that period, seems likely for Phase 4. Phase 5 sees the introduction of slipwares, tinglazed earthenware, later English stonewares such as Nottingham types, and the beginnings of the industrialised wares of the later 18th century: creamware and white saltglaze. Redwares, however, both glazed and unglazed, are by far the dominant type, occurring in standard utilitarian domestic forms such as deep bowls and chamber pots, but whitewares have virtually vanished. Two sherds of Iberian micaceous redware came from the Phase 5 pit 260. The industrial wares are concentrated in two features (84 and 41) and date these features to the latter part of the 18th century; other features within this phase have a potentially wider date range within the 18th century.

List of illustrated vessels (Figs. 16 and 17)

1. Bowl with inturned, externally thickened rim, with impressed decoration on top of rim; fabric AC. Handmade. Context 184, Phase 2.
2. Jar/cooking pot with out-turned neck and clubbed rim; fabric AC. Handmade. Context 145, pit 144, Phase 2.

3. Jar/cooking pot with externally thickened rim; applied vertical strip on neck; fabric AQ. Handmade. Context 170, pit 171, Phase 1.
4. Jar/cooking pot with clubbed rim, finger-impressed decoration on top of rim; fabric Y. Wheel-finished rim on handmade body. Context 170, pit 171, Phase 1.
5. Jar or pitcher rim; impressed decoration on outside edge of rim; fabric AG. Glazed inside and out; wheelthrown? Context 64, pit 49, Phase 5.
6. Top of strap handle from jug or pitcher, just below rim; stabbed decoration; fabric AG. Partially glazed; handmade. Context 143, pit 142, Phase 2.
7. Jug rim and rod handle, stabbed down centre; fabric AM. Glazed externally, wheelthrown? Context 226, pit 225, Phase 2.
8. Body sherd from jug, from near base; fabric AM. Painted red slip (lattice/chevron pattern), vertical green glaze band; elsewhere clear lead glaze externally; wheelthrown. Context 226, pit 225, Phase 2.
9. Body sherd from jug; fabric AM. Glazed externally over applied red slip bands (rouletted) and white slip pellet (rouletted); handmade. Context 91, unstratified cleaning.
10. Base of strap handle from jug; fabric AM. Externally glazed; painted red slip below handle. Handle stabbed and incised down edges. Base of handle riveted through body. Context 163, pit 144 (top fill), Phase 2.
11. Section of strap handle from jug; fabric AM. Partially glazed; handle slashed. Context 169, pit 171, Phase 1.
12. Jar/cooking pot; fabric AM. Glazed over rim; wheelthrown. Context 221, pit 220, Phase 2.
13. Jug, full profile with strap handle; fabric AG. Glazed externally and decorated with vertical grooved lines and stamped ring-and-dot motifs. Thumbled base; handle slashed; wheelthrown. Context 163, pit 144 (top fill), Phase 2.
14. Decorated jug; London-type ware. Rouen style decoration, consisting of applied, rouletted vertical strips, and raised horizontal cordons on the neck, both delineating panels, some of which are painted with red slip and have applied white pellets. Applied 'ears' at junction of handle and rim. Glazed externally; wheelthrown. Context 246, pit 180, Phase 1.
15. Base of double-shelled candlestick; fabric AM. Glazed inside saucer and partially on outside of base. Context 255, pit 254, Phase 5.
16. Base and bung-hole from large cistern; fabric AM. Splash of glaze on outside; wheelthrown. Bung-hole applied and inside of spout smoothed down to inside surface. Context 87, pit 88, Phase 4.
17. Skillet rim/handle; fabric AM. Glazed internally; wheelthrown. Context 174, pit 172, Phase 5.

THE CLAY PIPES by LORRAINE MEPHAM

The clay pipe fragments recovered include 13 datable bowls. These can be divided into three date ranges: mid 17th century (two examples, both from Phase 4 pit 88); second half of the 17th century (nine examples, from Phase 5 pits 54, 73 and 117, Phase 6 cut 110, and unstratified), and mid to late 18th century (two examples, from Phase 6 robber trench 130, and unstratified). One of the mid 17th-century bowls has a heel stamp 'M'.

THE CERAMIC AND STONE BUILDING MATERIAL by R. MONTAGUE and L. MEPHAM

Building material recovered comprised 71 pieces of stone and 357 pieces of ceramic building material. This has been classified by type (roof tile, floor tile, etc.) and totals by phase are given in Table 4.

Roof Tiles

Roof tile fragments form the majority of the stone building material, and the overwhelming choice is for fossiliferous limestone, for which a local source is likely within the Cotswolds, where good quality stone suitable for roofing tiles

TABLE 4. ALL CERAMIC AND STONE BUILDING MATERIAL BY PHASE

	Roof tile CBM	SBM	Ridge tile CBM	Floor tile CBM	SBM	Brick CBM	Arch. SBM	Indet. CBM	Total
Phase 1	10 (2 L)	1	—	1	—	—	—	—	12
Phase 2	36 (4 L; 2W)	4	—	—	—	—	—	3	43
Phase 3	30	10	4 (1 L)	—	2	1	—	5	52
Phase 4	111 (7 L)	12	2	—	—	11	—	4	140
Phase 5	74 (1 W)	33	3 (1 L)	3	3	15	—	4	135
Phase 6	20	5	—	1	—	11	—	—	37
Unstrat.	6	—	—	1	—	—	1	1	9
Total	287	65	9	6	5	38	1	17	428

Key: CBM = ceramic building material; SBM = stone building material; L = limestone fabric; W = white fabric.

was readily available. The fragments which preserve some of the original edges show that the tiles were only roughly shaped. Some bear peg holes. In addition, one sandstone, one oolitic limestone, and one slate roof tile survive.

Nearly two-thirds of the ceramic building material recovered (65% by weight) comprised fragments of flat roof tiles. These fragments are most likely to derive from peg tiles and a proportion do have peg holes surviving. A small proportion (33 fragments) are glazed.

Only nine ceramic fragments could be positively identified as deriving from ridge tiles and these comprised three plain, curved, unglazed pieces, three glazed curved pieces with no crest surviving, and three fragments of crested tiles. All three have knife-cut pyramidal crests, close-spaced on one and wider-spaced on the other two. The ridge tiles were restricted to features in Phases 3–5.

No attempt was made at a detailed fabric analysis for the ceramic roof tile, although a few general statements may be made. By far the most common fabric type is the standard moderately coarse, sandy fabric, firing brick red, often with a reduced core. Sparse calcareous inclusions occur in a small proportion of these, most probably occurring naturally in the clay utilised. Three other distinctive fabric types were noted. Two contain a noticeable proportion (<10%) of limestone inclusions, which are sufficiently frequent to indicate deliberate addition to, rather than natural occurrence in, the clay. In both types the inclusions appear to have been derived from oolitic limestone; one is softer-fired with a soapier texture and is visually comparable to the pottery fabric AC. Of the eight fragments in this fabric type, two are from ridge tiles, and the remaining six have a slight curvature which could indicate a similar derivation. The second calcareous fabric type is harder-fired with oxidised surfaces; all five fragments derive from flat tiles. The third distinctive fabric type has a particularly pale-firing clay matrix, with colours ranging from buff to a pale greenish-beige; again, all fragments derive from flat tiles. The breakdown of these distinctive fabric types by phase is included in Table 4, from which it can be seen that both calcareous and pale-firing fabrics occurred in both medieval and post-medieval contexts from Phase 1 onwards.

Floor tiles

The six ceramic floor tiles comprise one worn, slip-decorated tile from an unstratified context and a second tiny fragment of slip-decorated tile from a Phase 5 context, one plain glazed piece, cut to a triangular shape, and three unglazed pieces.

The single complete stone floor tile is made of fossiliferous limestone and is triangular in shape, with traces of lime mortar present on all three edges. The upper surface is worn smooth. Four further fragments of fossiliferous limestone of a similar thickness could also have derived from floor tiles. All four fragments show traces of burning.

Bricks

Brick fragments were restricted to contexts in Phases 3–6 and only one fragment came from Phase 3. The majority of fragments appear to have been burnt to some degree and, as such, are more likely to derive from hearths than from other structural use.

Architectural fragment

A fragment of architectural moulding was an unstratified find. This is fashioned out of Oolitic Limestone, and cannot be closely dated typologically.

Distribution on site

Ceramic building material occurs in all stratigraphic phases, although the quantities from Phase 1 are very small. The bulk of the assemblage came from post-medieval contexts (Phases 4–6). The majority of features excavated produced ceramic building material, but only one feature, the Phase 4 pit 88, contained any quantity (88 fragments); the rest of the assemblage was distributed fairly evenly in small quantities over the site.

Stone building material occurred in all phases of the site except for Phase 1, and quantities for the other two medieval phases (2 and 3) are low (see Table 4). The largest quantities were found in Phase 5 contexts, but it was obviously never as commonly used on the site as the ceramic building material (see below).

THE HUMAN BONE by JACQUELINE I. MCKINLEY

Bone fragments from three contexts were examined. The contexts formed part of the late 18th- to 19th-century upper fill in stone-lined pit 41, which incorporated some redeposited medieval material. The human remains were recovered together with fragments of animal bone and were not distinguished as human during excavation.

Methods

Age was assessed from the stage of ossification and epiphyseal bone fusion;⁴³ length of immature long bones;⁴⁴ and the general degree of cranial suture fusion and degenerative changes to the bone. Sex was assessed from the sexually dimorphic traits of the skeleton and platycnemic indices were calculated.⁴⁵ Pathological lesions and morphological variations/non-metric traits were recorded, and diagnoses suggested where appropriate.

Full details of all identified bone are presented in the archive report. This includes Skeleton Record Sheets and Data Sheets which show skeletal elements recovered, tooth wear patterns and measurements taken, and text descriptions of morphology and pathological lesions.

⁴³ H. Gray, *Anatomy* (New York, 1977); R.M.H. McMinn and R.T. Hutchings, *A Colour Atlas of Human Anatomy* (1985); P. Webb, A. Owings and J.M. Suchey, 'Epiphyseal Union of the Anterior Iliac Crest and Medial Clavicle in a Modern Multi-racial Sample of American Males and Females', *American Jnl. Physical Anthropology*, lxviii (1985), 457–66.

⁴⁴ W.M. Bass, *Human Osteology* (Missouri Archaeol. Soc., 1987).

⁴⁵ *Ibid.*

TABLE 5. SUMMARY OF HUMAN BONE FROM PIT 41

Context	No. frags.	Skeletal elements	Age	Sex	Pathology
44	1	a.	adult		
45	4	a.u.l.	adult	??female	
46	26	s.a.u.l.	1) adult 2) young infant 3) older infant 4) adult [= 45]	1) male	1) osteophytes - rib facet

Key: s. = skull; a. = axial; u. = upper limb; l. = lower limb.

Age categories: young infant = 6 months-2 yr.; older infant = 3-5 yr.; adult >18 yr.

Results and Discussion

The results are summarised in Table 5. The bone was in good condition, though some appeared slightly battered and worn. With the exception of two fragments of vault and two fragments of tibia from context 46, all the bones were present as single fragments with no joins and no fresh breaks.

A minimum of four individuals was identified, two infants and two adults (one male, one possibly female). Bone from the adult ??female appeared to be present in two contexts.

Evidence of pathology was limited to slight osteophytes on the margins of one rib facet.

Seven of the 31 fragments of bone from pit 41 (including most of the long bone fragments) showed some evidence of cut marks or 'shaving' of the bone. Both immature and adult bone was affected. For example, the fragment of adult right distal humerus shaft has cut marks and 'shaved' areas over much of the bone; the distal end of the anterior shaft had been 'shaved' flat with a minimum of four worn cut-marks along the length of the shaved area and other, diagonal cut marks, c. 10 mm. long, were noted at several points (Fig. 18). The morphology of the adult left proximal humerus shaft was somewhat obscured where what appears to be the dorsal side of the bone had been 'shaved' flat along a 95 mm. length, the 9 mm. wide flattened surface having numerous small, faint (worn) knife marks; a minimum of two horizontal and two diagonal cut marks were noted around the diameter of the shaft. The left femur of the young infant has two parallel, horizontal cut marks in the anterior mid-shaft, 11.3 mm. long, 5.5 mm. apart, and the intervening rectangular section of bone appears to have been removed (Fig. 19).

The cuts cannot have been administered *ante mortem* or to fleshed bone, thus they are not traumatic in origin and are unlikely to have been part of a mortuary ritual. The nature and form of the marks is not consistent with those seen in butchery, nor in bone working, and there are none of the saw or chop marks cutting through the bone as noted in some of the animal bone. Conversely, the butchery marks on the animal bone do not resemble the marks on the human bone.⁴⁶ There does not appear to be any meaningful pattern to the marks noted and they have the appearance of having been produced as a result of absent-minded 'fidgeting/whittling'.

The original place of deposition of the human bone, presumably from burials, is unknown. There is no indication that any graves were ever present in the excavation area and the nearest known burial place lies approximately 75 m. to the south-east (the churchyard of St. Mary Magdalen). It would seem probable that the individuals responsible for the modification of the bone were not aware it was human. The bone is present only as fragments and mixed together with animal bone which has not been similarly treated. It is possible that disturbed human remains were redeposited somewhere with animal remains, both subsequently being removed and redeposited in the pit. A date cannot be securely attributed to the bone, since medieval material was found redeposited in the pit, and the bone itself may have been moved more than once from its original location.

⁴⁶ S. Hamilton-Dyer pers. comm.

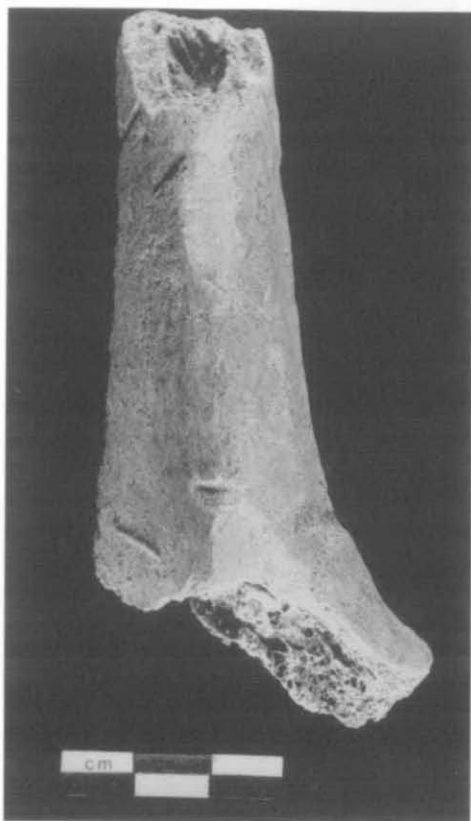


Fig. 18. 'Worked' human bone: adult right distal humerus. Scale in cms.

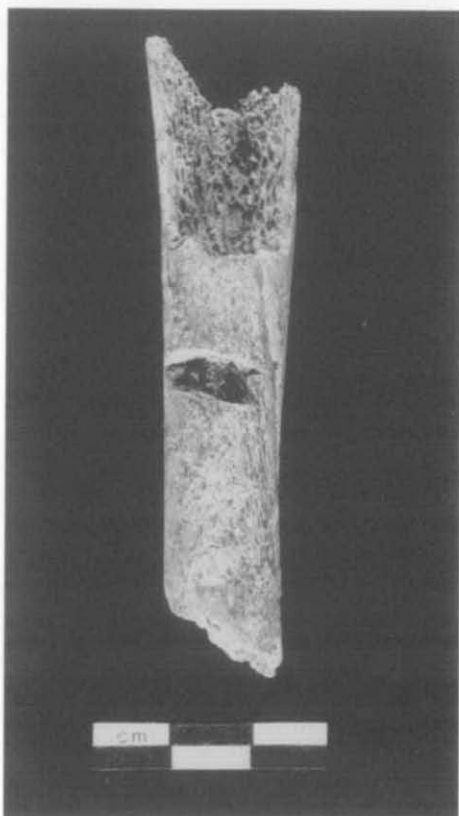


Fig. 19. 'Worked' human bone: young infant left femur. Scale in cms.

The probable condition of the bone at the time of its modification is difficult to ascertain. Green bone would certainly be easier to work and result in 'clean' cuts, totally dry bone being hard and rather brittle rendering it prone to break-up. However, bone can be modified whether green or dry and it is possible that bone may have been softened in some way prior to cuts being made.⁴⁷ Although some of the cuts do appear fairly 'clean', Hamilton-Dyer believes many of the marks were made on dry bone since the outer surface is broken in some instances suggesting that it was brittle.

There are no known parallels in Britain for human bone being recovered in this condition.

ENVIRONMENTAL EVIDENCE – THE ANIMAL BONE by SHEILA HAMILTON-DYER

Introduction

The excavation produced 934 animal bones, mainly from pits, with some additional material from soil samples. The bones are generally well preserved. A detailed study was carried out on 470 bones as follows:

⁴⁷ Ibid.

- Phase 1, late 12th to mid 13th century – pits 61 and 171 (70 bones)
 Phase 2, mid 13th to 14th century – pits 144, 151, 154, layer 136 (153 bones)
 Phase 4, 16th to 17th century – pit 88 (247 bones)

The remainder of the material was scanned.

Methods

Identifications were made using the modern comparative collections of the author. Recently broken fragments of the same bone are recorded as a single bone. All bones were identified to species where possible and are listed by phase and feature in Table 6. Further details are available in archive. Bones from the contexts listed above are recorded in detail using dBase. The few measurements were taken using a vernier calliper and are in millimetres. In general these follow the methods of von den Driesch.⁴⁸ Withers heights are based on factors recommended by von den Driesch and Boessneck.⁴⁹

Results

Overall, the 934 bones are mainly of sheep/goat and cattle, with some pig, and a few bones of other species including cat, rabbit, fowl, goose, duck, and fish. No remains of horse, deer, or dog were identified. Undiagnostic fragments have been divided into cattle/horse sized (LAR) and sheep/pig sized (SAR) with a further group identified only as mammalian.

Phase 1, Late 12th to Mid 13th Century

Pit 61. The 51 bones from this pit, mainly of sheep and cattle, include a sawn fragment of goat horn-core. The sheep bones are a mixture of elements including several tibiae and jaws. A complete radius, with knife chatter marks on the shaft front, gives an estimated withers height of 0.56 m. Cattle bones are more varied in the elements present. Pig bones number only three. Several bones had been gnawed, giving indirect evidence of dog. One sheep fragment had small puncture marks consistent with gnawing by a cat.

Pit 171. The 19 bones from the two contexts are mainly of cattle; several of these are butchered.

Phase 2, Mid 13th to 14th Century

Pit 144. The upper, Phase 2 fill of this feature produced 77 bones. Many are of cattle and sheep-sized rib, vertebra, and shaft fragments. A large proportion of these and the other bones are small pieces only. The preservation is generally very good, with some fragments having an ivory appearance; few bones are recently broken. A small number have evidence of gnawing and/or butchery but most fragments have no indication of reasons for this fragmentation. The single complete bone is a cattle metacarpus which gives an estimated withers height of 1.078 m.

Pit 151. The 24 bones from this feature include a duck sternum, the only presence of duck on the site.

Pit 154. A complete fowl humerus and a bone of a red gurnard, *Aspitrigla cuculus*, are present in the 22 bones from this feature.

Layer 136. There are 30 bones from this layer. These include nine mammalian fragments from a soil sample, three of which are charred. The single bird bone is a fowl scapula. The sheep bones include a complete metacarpus of

⁴⁸ A. von den Driesch, *A guide to the measurement of animal bones from archaeological sites* (Peabody Museum Bulletin 1, Harvard, 1986).

⁴⁹ A. von den Driesch and J. Boessneck, *Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen* (Säugetierkundliche Mitteilungen 22, Munich, 1974), 325–48.

TABLE 6. SPECIES DISTRIBUTION SUMMARY

Phase	Feature	Context	Cattle	Sheep/goat	Pig	LAR	SAR	MAM	Fowl	Other bird	Fish	Total
1 C12-13th	pit 61	62	13	20	3	8	7	-	-	-	-	51
	pit 171	162	4	-	-	2	6	-	-	-	-	12
	pit 171	169	3	1	-	2	1	-	-	-	-	7
		Total	20	21	3	12	14	0	0	0	0	70
		percent	28.6	30	4.3	17.1	20	0	0	0	0	
2 C13-14th	pit 144	145	13	12	2	26	24	-	-	-	-	77
	pit 151	152	2	2	1	13	4	-	-	2	-	24
	pit 154	155	1	1	2	6	7	-	1	-	4	22
	layer	136	2	3	2	5	8	9	1	-	-	30
		Total	18	18	7	50	43	9	2	2	4	153
		percent	11.8	11.8	4.6	32.7	28.1	5.9	1.3	1.3	2.6	
4 C16-17th	pit 88	87	95	37	6	87	21	-	1	-	-	247
			38.5	15	2.4	35.2	8.5	0	0.4	0	0	
	Grand Total		133	76	16	149	78	9	3	2	4	470
	Overall percent		28.3	16.2	3.4	31.7	16.6	1.9	0.6	0.4	0.9	

0.58 m. estimated withers height. This bone has evidence of skinning in the form of small knife marks across the front of the shaft.

Phase 4, 16th to 17th Century

Pit 88. This pit produced 247 well preserved bones, the largest group examined. Many of the fragments are of calf bones, particularly of at least four heads. The presence of nicks in the hornbuds and on the skull indicate skinning. The state of tooth eruption and wear is virtually identical, with the deciduous fourth premolar in wear and the first molar beginning to erupt. In modern cattle this equates to an age of about six months and would be around the natural time for weaning. These would have provided veal. The other cattle bones are from animals of about three or four years in age or older. Several bones are of the foot and ankle, some having been chopped through and both parts disposed of together, perhaps after stewing. Several bones could be rejoined for withers height estimates. These range from 1.187 m. to 1.269 m. The sheep bones from this pit include the horncore of a ram as well as a hornless cranium. The presence or absence of polled sheep is variable, even in a single flock, they are present on many sites in Britain and the continent. Pig bones are restricted to the remains of a single head and part of a femur. The bone of a cockerel was also noted and gnawed bones indicate the presence of dog.

Scanned Contexts

The scanned material is broadly similar in content to the group of bone studied in detail. Bones from the post-medieval features, particularly of cattle, are often of larger animals than from medieval contexts.

The assemblage from the 14th- to 15th-century oven 166 includes the partial skeleton of a half grown lamb. A soil sample from this context contained many small fragments with the appearance of plant waste or cess and included bones of herring, hake, and conger. Hake has been reported from a 16th-century context in Oxford, but has not been found in earlier deposits.³⁰ The flue, 120, also contained bones of herring and one of eel. Although some burnt material is present most bones are not charred. Context 175, a burnt layer on the floor of oven 167, contained similar material but also included some charred herring bones.

The material from the 16th- to 17th-century pit 96 included a vertebra of a halibut, a deep-water species uncommon in medieval assemblages. The 17th- to 18th-century pit 172 contained a dump of cattle foot bones from at least three animals, two male and one female. The withers heights of these range from 1.134 m. to 1.286 m.

Few bones were recovered from the late 18th- to 19th-century upper fill of pit 41; three from context 43 and six from context 46. None had butchery/working marks resembling those on the human bones. The material from these contexts is of large animals comparable with the early modern bones in the assemblage.

Discussion

The amounts of bone studied in detail are too small for analysis of husbandry and population structure, or for investigation of intra-site variations in status and disposal patterns, for example, over space and time. The data are, however, useful in the study of bone from medieval and post-medieval Oxford, being from the first assemblage from this northern suburb. Generally the indications are that the bone does not come from high-status occupation; there is almost no evidence of the exploitation of birds and wild mammals; even remains of fowl are few. The bones of the main domestic animals do include those elements associated with a high meat value, but they also include low-value bones such as those of the head and feet. Even the presence of veal in the post-medieval pit 88 is mainly of heads. These calf remains are consistent with other material, as an increase in juvenile cattle in post-medieval assemblages

³⁰ B. Wilson, A. Locker and B. Marples, 'Medieval Animal Bones and Marine Shells from Church Street and other Sites in St. Ebbe's, Oxford', in T.G. Hassall, C. Halpin, M. Mellor et al., 'Excavations in St Ebbe's', *Oxoniensia*, liv (1989), 258-68 and microfiche.

has been noticed generally⁵¹ and in Oxford.⁵² Remains of pig are very few, 6% of the total at most, often less. While low amounts have also been observed before in material from Oxford,⁵³ none was as small as here. The assemblage is small and may not accurately reflect animal usage in the area but, rather, a biased disposal strategy. Generally however, the animal species and relative proportions appear similar to material reported on elsewhere, and the sizes, which are small by modern standards, are also similar to those reported already from Oxford.⁵⁴ These fall within the range reported from elsewhere, such as Southampton,⁵⁵ Lincoln,⁵⁶ and Faccombe,⁵⁷ with an increase in cattle size in the post-medieval period.

THE CHARRED PLANT REMAINS FROM OVENS 166 AND 167 by PAT HINTON

Six soil samples of c. 10 litres were taken from a range of features of late 12th/early 13th- up to 19th-century date and were processed by Wessex Archaeology's standard methods. The flots from three samples, from ovens 166 and 167, were subsequently selected for further analysis and sorted by stereomicroscope at 7–40× magnification. The results are presented in Table 7.

Both samples from the chambers of the ovens included cereal grains, of which most were *Triticum* cf. *aestivum* s.l. (bread wheat), and seeds of arable, ruderal, and grass species. Minor differences are that the earlier oven (166) had some evidence of *Secale cereale* (rye) and the later (167) included *Pisum sativum* (pea) and *Linum usitatissimum* (flax/linseed). The preponderance of bread wheat suggests that both ovens had been used for the baking of bread.

The sample from the flue of oven 167, however, had a greater density of identifiable charred plant remains, more or less replicating those from the oven and suggesting that originally a similar assemblage was present in both, presumably representing fuel which would have been raked from the oven when the required temperature was reached. Significant in this sample, in addition to the cereals, are the seeds and capsule fragments of flax, a plant grown for fibre and its oil and protein-rich seeds. Although the seeds may have had some culinary use here, the capsule fragments offer an alternative explanation. When the plant is harvested for fibre the seed capsules are stripped off before the stems undergo further treatment, and these capsules and seeds may then be used as animal feed or otherwise disposed of. They may therefore represent waste resulting from flax processing which has been used, with wood, as fuel to heat the ovens, which were then presumably used for the baking of bread.

DISCUSSION

The excavation in the forecourt of the Ashmolean Museum has produced evidence for occupation from the late 12th century up to the present day, with virtually nothing to indicate any earlier activity on the site.

⁵¹ U. Albarella and S. Davis, 'Medieval and Post-medieval Mammal and Bird Bones from Launceston Castle, Cornwall: 1961–1982 excavations', (A.M.L. report 18/94, 1994); M.J. Maltby, *Faunal Studies on Urban Sites: the Animal Bones from Exeter 1971–1975* (Exeter Archaeol. Rep. 2, Sheffield, 1979); T.P. O'Connor, 'Animal Bones from Flaxengate, Lincoln c. 870–1500', in *The Archaeology of Lincoln*, vol. XVIII-1 (CBA for Lincoln Archaeol. Trust, 1982).

⁵² Wilson, Locker and Marples, op. cit. note 50.

⁵³ M. Harman and D. Bramwell, 'The Animal and Bird Bones', in G. Lambrick, 'Further Excavations on the Second Site of the Dominican Priory, Oxford', *Oxoniensia*, 1 (1985), 190–2; B. Marples, 'Animal Bones', in B. Durham, 'Archaeological Investigations in St. Aldates, Oxford', *Oxoniensia*, xlii (1977), 106–8; Wilson, Locker and Marples, op. cit. note 50.

⁵⁴ Op. cit. note 50.

⁵⁵ J. Bourdillon, 'Town Life and Animal Husbandry in the Southampton Area as suggested by the Excavated Bones', in *Proc. Hants. Field Club Archaeol. Soc.*, xxxvi (1980), 181–91.

⁵⁶ O'Connor op. cit. note 51.

⁵⁷ P. Sadler, 'Faunal Remains', in J.R. Fairbrother, *Faccombe Netherton, Excavations of a Saxon and Medieval Complex*, ii (Brit. Mus. Occ. Paper 74, vol. ii, 1990), 462–508.

TABLE 7. CHARRED PLANT REMAINS FROM OVENS

Feature		Oven 166	Oven 167	
Context		Floor (178)	Floor (175)	Flue (119/167)
Sample no.		504	503	501
Sample volume		10	10	10
Cultivated	common name			
<i>Triticum</i> cf. <i>aestivum</i>	bread wheat	7	20	200*
<i>Triticum</i> cf. <i>aestivum</i> – internode fragments		4		
<i>Triticum</i> sp.	indeterminate wheat	10	3	50*
cf <i>Secale cereale</i>	rye	2		
<i>Hordeum</i> cf. <i>vulgare</i>	hulled barley	2	6	25
<i>Hordeum</i> cf. <i>vulgare</i> – rachis internode		1		1
<i>Cerealia</i> indet.	indeterminate cereal fragments	50*	70*	100*
<i>Pisum sativum</i> L.	pea		1	(1)
<i>Linum usitatissimum</i> L.	flax/linseed		3(1)	100*
<i>Linum usitatissimum</i> – capsule fragments				40*
Arable/Grassland etc.				
<i>Fumaria</i> sp.	fumitory			5
<i>Urtica urens</i> L.	small nettle			1
<i>Chenopodium</i> sp.	goosefoot		1	
<i>Polygonum</i> cf. <i>aviculare</i> L.	knotgrass			1
<i>Rumex</i> cf. <i>crispus</i> L.	curled dock	1		
<i>Rumex</i> sp.	dock	1		1
<i>Vicia tetrasperma</i> (L.) Schreber	smooth tare	1(1)		
<i>Vicia/Lathyrus</i> sp.	vetch/vetchling	1	1	2
<i>Medicago</i> cf. <i>lupulina</i>	black medick	6(1)	2(1)	2
<i>Trifolium</i> sp.	clover		1	
<i>Apiaceae</i> indet.	carrot family			1
<i>Lithospermum arvense</i> L.	corn gromwell			3
<i>Galium aparine</i> L.	cleavers			23
<i>Anthemis cotula</i> L.	stinking mayweed			1
<i>Asteraceae</i> indet. – capitulum	daisy family	1		
<i>Carex</i> sp.	sedge			1
<i>Bromus</i> cf. <i>secalinus</i>	rye brome			1
Poaceae	grass family		2	
Woodland/wood margin				
<i>Corylus avellana</i> L.	hazel nut shell fragments			2

* = estimated

Pre-medieval

The mammoth's tusk revealed during the watching brief represents an unexpected but not unusual find. Other examples have been recovered from the Quaternary gravels in the area (part of the Summertown-Radley Gravel Formation), most notably at Stanton Harcourt.⁵⁸

⁵⁸ I am grateful to Kate Scott and Philip Powell for providing information on the discoveries made at Stanton Harcourt. See also D.R. Bridgeland, *Quaternary of the Thames* (1986), 65–79.

However, the Stanton Harcourt examples date to a temperate period c. 220,000 years BP, whereas the Ashmolean Museum is from a colder period c. 40,000 years BP.

The earliest excavated feature was gully 164. The alignment of this feature bore no relation to the subsequent medieval property boundaries and structural alignments, and the fill was different to that in any of the later features. It may have been a boundary of some sort, perhaps a field or enclosure boundary, and possibly predated medieval occupation on the site. However, a single sherd of early medieval pottery came from the surface of the fill. It may also be relevant to note that similar, though slightly larger features, with similar fills, have been excavated at Jowett Walk just outside the north-east corner of the city walls;⁵⁹ these features, interpreted as drainage ditches, have been dated to between the late 11th and early 13th century, and like gully 164, were not on the same alignment as the subsequent property boundaries. Conceivably therefore, gully 164 may also have been dug for drainage, although there is no other evidence that drainage was ever a problem on the site.

Medieval: Late 12th to 15th Century

The area covered by the Ashmolean Museum Forecourt lay approximately 15 m. back (west) from the St. Giles' street frontage and thus the buildings along the frontage lay outside the area available for excavation. However, the scatter of Phase 1 pits dated to the late 12th and early 13th century suggest that the frontage may have been built up then, around the time that the suburban church of St. Giles was founded in the 12th century; it may also be relevant to note that the church of St. Mary Magdalen, a short distance to the south, is attributed to the 11th century or earlier. St. Giles' may have reached its full length by 1150, its width possibly indicative of a market place outside the North Gate, or an assembly area for goods before they were taken into the town.⁶⁰

There was nothing in the nature of the Phase 1 pits or their contents to suggest that the occupation was anything other than domestic; all the pits were quite large, generally with homogeneous fills containing variable quantities of pottery and animal bone. None appeared to have been dug specifically for gravel extraction, though they may have served this purpose as well as being used for rubbish disposal. At least two, including pits 180 and 237, may have been timber-lined, and were possibly cess pits rather than wells of which no examples were identified from Phase 1.

It is not clear whether the north boundary of a long property running east-west back from St. Giles', apparent from Phase 2 onwards, was established at this time or later. At no time was the boundary demarcated by any ditch or fence line, and its presence was only ever indicated by the succession of structural and pit alignments crossing the site. However, it may have been established as early as Phase 1, by the beginning of the 13th century. The properties in this area were narrow in width (generally less than 15 m.), but stretched back some 75 m. or more from the street frontage. It is estimated that the western boundary to the properties lay less than 15 m. beyond the west edge of the excavation, and may have been defined by a boundary marking the extent of the land belonging to the Whitefriars.

Phase 2 saw the clear establishment of the east-west property boundary and the first evidence for building within the area excavated. Structure A, which lay in the southern property,

⁵⁹ M.R. Roberts, 'Excavations at Jowett Walk, Oxford', *Oxoniensia*, lx (1995).

⁶⁰ Hassall, op. cit. note 50, 124; D. Keene, 'Suburban Growth', in M.W. Barley (ed.), *The Plans and Topography of Medieval Towns in England and Wales* (CBA Res. Rep. 14, 1986), 82.

was probably constructed in the mid 13th century, and its north wall clearly defined the northern boundary of the long east-west property which was to remain in virtually the same position until the 19th century. Although only a small part of structure A was exposed, this would appear to have been similar to other shallow sunken-floored buildings excavated elsewhere in Oxford, most notably at Jowett Walk, where a sequence of three sunken-floored structures were found covering a period beginning in the mid 13th century and continuing into the 14th century.⁶¹ The example at the Ashmolean Museum survived probably to its original depth of approximately 0.5 m. below the contemporary ground surface and, by analogy with the examples from Jowett Walk, might have had an internal area of up to 5 by 3 m. The substantial postholes in the bottom provide evidence for a timber superstructure, probably with a thatched roof, with unmortared stone walls lining or revetting the sunken area. Traces of a hearth on the bottom of the sunken area suggest that the floor was at this level, although there was no evidence for any surface having been laid down. It seems likely that this building was a form of sunken-featured structure, perhaps not deep enough to be classified as a cellar, which stood behind a more substantial building on the street frontage. Earlier, urban parallels for such structures, also set back from the street frontage, may be sought in the late Saxon period in East Anglia, at Thetford for example,⁶² as well as in Oxford,⁶³ though these were sometimes both larger and deeper and did not have stone linings. Contemporary examples, apart from those excavated at Jowett Walk, Oxford, have been found at Brackley Castle, Northamptonshire.⁶⁴ The latter were deeper with more substantial stone linings which, in some cases, had stone steps and door jambs. It would appear that such structures should be regarded as ancillary buildings, perhaps for storage or craft purposes, though there is nothing from the example in the Ashmolean Museum Forecourt which serves to indicate its function. Drain 207 was apparently related to this structure; it may have carried water away off the roof preventing it from seeping back into the sunken area, or it may have served some other purpose related to the use of the building.

No structural remains were present in the northern property, which was largely given over to pit digging, although two shallow gullies do hint at some form of internal division within the property.

The break between Phase 2 and Phase 3, sometime in the 14th century, is clearly defined in the structural sequence which saw structure A replaced by structure B in the southern property, and the construction of a sequence of two ovens in the property to the north. The ceramic sequence cannot be so conveniently divided, but what small amount of material there is suggests that this occurred in the second half of the 14th century rather than earlier.

Structure B was of more substantial construction than structure A and it is considered to have represented part of a building, probably a hall, at right-angles to the street, perhaps set back from it and fronted by another building. The greater part of the structure lay outside the excavated area, but it is probable that it was Batayl Hall, recorded in the documents (see above) as an academic hall on the property owned by Exeter College from 1320 to 1803. The width of the surviving stone footings suggest a building largely of stone, possibly of two storeys, and probably roofed with stone roof tiles. The internal stone-lined pit 240, and the irregular nature of the possibly contemporary floor surface, suggest that the part of the building

⁶¹ Roberts, *op. cit.* note 59.

⁶² A. Rogerson and C. Dallas, *Excavations in Thetford 1948-59 and 1973-80* (*E. Anglian Archaeol. Rep.* 22, 1984); see, for example, Hut 3, Figs. 8 and 9, 7-9.

⁶³ E.M. Jope, 'The Clarendon Hotel, Oxford. Part I, The Site', *Oxoniensia*, xxiii (1958), Fig. 3.

⁶⁴ Information on the structures at Brackley Castle was brought to my attention by Mark Roberts of the Oxford Archaeological Unit, and was kindly supplied by Ian Meadows of Northamptonshire Archaeology.

exposed may have been within the service rather than living quarters. The stone-lined pit is perhaps best interpreted as an internal cess pit, similar examples of which are known, for example, in Norwich.⁶⁵

The northern property, containing Ovens 166 and 167, belonged to the Chantry Chapel of St. Mary's which acquired the site sometime after 1279. The evidence from the charred plant remains from the ovens would suggest that they were bread ovens, perhaps, judging from their size and the fact that one replaced the other, producing bread in some quantity over a considerable period in the 14th and possibly 15th centuries. The occurrence of fishbone, some of it burnt, within the ovens might indicate that they may occasionally have had more than one use, in this case the smoking of fish, although three out of the four types identified are marine fish and likely to have arrived in Oxford in a dried state. A malting kiln of similar date in Thetford also contained burnt fishbone, most notably eel, and it has been suggested that this was used for smoking fish as well as for malting barley.⁶⁶ The two ovens and some possibly associated features were the only structural remains to be found in the northern property at the Ashmolean Museum, and it seems likely that the principal structures were confined to the St. Giles' street frontage with the area behind remaining as an unmetalled yard subject to pit digging.

The paucity of 15th-century pottery may reflect the contraction of Oxford from the late 14th century⁶⁷ and the documentary evidence does suggest that Batayl Hall (= ?structure B) may have ceased to be an academic hall after the 14th century, and that it was subsequently rented or leased as a private house. However, there is no evidence that structure B was abandoned and perhaps, given the location of this property along a major thoroughfare, possibly a market place, this is less likely than in other peripheral suburban areas. At Jowett Walk, for example, within the suburb to the north-east, there is clear evidence of the tenements having fallen into disuse and the area reverting to agricultural use before the 15th century.⁶⁸ In the northern property, the ovens appear to have gone out of use in the 14th or 15th century, before the Dissolution, and to have been partly robbed.

Post-medieval: 15th to 19th Century

Although there was comparatively little evidence for 15th-century occupation, there were large numbers of pits and finds assigned to Phases 4 and 5 which demonstrate a continuity of activity on the site from the 16th century up to the construction of the Ashmolean Museum building in the mid 19th century. As in the preceding phases, few cess pits and wells were identified, though this may reflect the fact that not all of the areas covered by the properties lay within the area investigated. No new structures were identified, and presumably any rebuilding was largely confined to the street frontage, with the areas behind remaining as open yards. However, it is suggested that structure B in the southern property remained standing, though there were no surviving contemporary floor levels or evidence of rebuilding. Support for this sugges-

⁶⁵ M. Atkin, 'The Norwich Survey', in *Flatlands and Wetlands: Current Themes in East Anglian Archaeology* (E. Anglian Archaeol. Rep. 50, 1993), 139.

⁶⁶ P. Murphy, 'Plant Macrofossils', in P. Andrews, *Excavations at Redcastle Furze, Thetford, 1988-9* (E. Anglian Archaeol. Rep. 72, 1995), 131-5.

⁶⁷ J. Bond, 'The Oxford Region in the Middle Ages', in G. Briggs, J. Cook and T. Rowley (eds.), *The Archaeology of the Oxford Region* (1986), 137.

⁶⁸ Roberts, *op. cit.* note 59.



Fig. 20. Houses on the site of the Ashmolean Museum; pre-demolition view from south-east (St. Giles' bottom, Beaumont Street centre left).

tion comes from a plan of the site made in 1839⁶⁹ and a view of the houses on the site made after 1821 (when Beaumont Street was laid out, truncating the south side of the property) and before 1839 (when the houses were demolished),⁷⁰ which both show a substantial row of back tenements, perhaps of 17th-century date, behind a small yard (Fig. 20). This back row of tenements was almost certainly on the site of structure B, perhaps a remodelling of the 14th-century building, or a rebuilding on the earlier footings.

The assemblages of pottery and animal bone from the site in the post-medieval period provide comparatively little evidence for the use of the structures which belonged to a succession of tenants throughout the 16th, 17th, and 18th centuries. The only occupier whose occupation is recorded in the northern property, to which most of the pits belonged, was Charles May, grocer, in 1733. A dump of cattle foot bones from at least three animals in pit 172, a Phase 5 feature, hints at a possible 'industrial' activity such as tanning. The animal bone suggests that occupation was not high status, although relatively high quality tablewares are present in the 17th- to 18th-century pottery assemblage. Other than this, the pottery assemblage is fairly typical of the period, and small finds from all periods are rare.

The most intriguing find was the group of 'worked' human bone from pit 41. It is not clear what date this bone is, where it came from, when it was 'worked', and how it came to be in the upper, 19th-century fill of a stone-lined pit on the site. One possibility is that it was medieval bone, possibly dug up from a nearby cemetery (?St. Mary Magdalen), which was

⁶⁹ Osmund, *op. cit.* note 9.

⁷⁰ Salter, *Balliol Deeds*.

imported to the site with other material to backfill pit 41; the cutting and shaving may have taken place during this latter operation, though none of the associated animal bone showed evidence of similar working.

The buildings on the site survived until c. 1839 when the University acquired the three properties on the north side of Beaumont Street for the building of the Taylorian Institution and University Galleries. The Ashmolean Museum was subsequently transferred there from Broad Street in 1894.

Conclusion

The discoveries in the forecourt of the Ashmolean Museum have added to our knowledge of Oxford's medieval suburban development which began in the 12th century. This excavation, the first in the northern suburb alongside St. Giles', has shown the area to have been occupied probably from the late 12th century. This is similar to the evidence from north of the medieval defences at the New Bodleian extension,⁷¹ and to the north-east at Jowett Walk,⁷² where development began early in the 13th century, and also to the west in the suburb of St. Thomas where development began in the late 12th century.⁷³ Only at St. Aldates to the south, is there evidence for suburban growth beginning earlier, in the 10th century.⁷⁴

Although the street frontage lay outside the area investigated and only parts of two adjacent properties were exposed, the combined archaeological, environmental and documentary evidence provided information on the development of the site from the 12th century, with a possible decline in the 15th century, and subsequent recovery from the 16th century. The yard areas behind the frontage were heavily pitted and, with the exception of structures A and B, appear to have been largely unbuilt on despite the pressure on space suggested by the narrow property widths. There was no significant trace of any trade or industry other than the bread ovens, and the buildings appear to have served domestic functions. However, the structural remains were well preserved, and any future opportunity to investigate the street frontage along St. Giles' should be taken, particularly given its important position in relation to the layout of the town and its great width which may be indicative of a medieval market place.

ACKNOWLEDGEMENTS

The archaeological project was made possible by a generous donation by Headley Building Services Limited for the cost of the building works to the Ashmolean Museum Forecourt Development project. The project was managed by Bovis Construction Limited. The co-operation and assistance of Mr Martin Potterton and Mr Paul Ryan of Bovis Construction Limited, and Mr Mike Stone and Mr Pip Maidment of Geoffrey Osborne Civil Engineering Limited, is gratefully acknowledged. The collaborative role of the Oxford Archaeological

⁷¹ R.L.S. Bruce-Mitford, 'The Archaeology of the Site of the Bodleian Extension in Broad Street, Oxford', *Oxoniensia*, iv (1939), 89-146.

⁷² Roberts, *op. cit.* note 59.

⁷³ N. Palmer, 'A Beaker Burial and Medieval Tenements in the Hamel, Oxford', *Oxoniensia*, xlv (1980), 124-225.

⁷⁴ Durham, *op. cit.* note 3.

Advisory Service throughout the project and in particular of Mr Brian Durham is acknowledged.

The assistance and support of Dr Roger Moorey, Dr Arthur MacGregor, and Mr Mark Norman of the Ashmolean Museum is acknowledged, and Dr Kate Scott and Mr Philip Powell of the Oxford University Museum are thanked for organising the recovery of the mammoth's tusk and providing a note on it for publication.

The archaeological evaluation was undertaken by the Oxford Archaeological Unit, under the direction of Mark Roberts, and the authors are grateful to Mark Roberts, Julian Munby, and Lucy Bown for discussing various aspects of the site and providing information on other sites in Oxford.

The project was managed for Wessex Archaeology by Roland J.C. Smith. The fieldwork was directed by Phil Andrews, assisted by Vaughan Birbeck, Jez Fry, Dom Barker, Craig Cessford and Jez Taylor. Lorraine Mephram was responsible for managing the finds work, and Michael J. Allen for the environmental work. Sarah F. Wyles processed the soil samples, Elaine Wakefield prepared the photographic plates, and Rob Read drew the figures for publication. Lorraine Mephram thanks Maureen Mellor for comments on the medieval pottery. Sheila Hamilton-Dyer thanks the Literature Bank at the Centre for Human Ecology, Southampton University, for conducting a literature search, and Jacqueline I. McKinley is grateful to Sheila Hamilton-Dyer and Julie Bond for their comments on the cut marks on some of the human bone. Finally, the authors would like to acknowledge the helpful comments made by Susan M. Davies, David Hinton and Roland J.C. Smith on an earlier draft of this report.