

Medieval and Post-Medieval Remains from Excavations on the Site of the New Auditorium, Corpus Christi College, Oxford, 2008

ROBIN BASHFORD, ANNE DODD and DANIEL POORE

with contributions by LEIGH ALLEN, PAUL BLINKHORN, ANGELA BOYLE, JOHN COTTER, JON GILL, REBECCA NICHOLSON, IAN SCOTT, RUTH SHAFFREY, DAVID SMITH, WENDY SMITH, LENA STRID and HELEN WEBB

SUMMARY

Between January and October 2008, Oxford Archaeology (OA) carried out an excavation and subsequent watching brief at the site of the new auditorium, Corpus Christi College, Oxford. In addition, a further investigation and record was made of parts of the city wall and bastion, in continuation of work undertaken here in the 1980s. In an area of key interest for the origins and development of the late Saxon Oxford the excavation revealed a single eighth- to ninth-century inhumation associated with the late Saxon minster of St Frideswide. A number of charnel pits were also found, and these are likely to relate to the Augustinian Priory that succeeded the minster in the early twelfth century. Thirteenth- to fourteenth-century quarry and rubbish pits reflect contemporary building and demolition activity in this area. The location of these suggests that the medieval road known as Shidyerd Street either did not extend this far south at this time or was more a right of way than a formal surfaced street. From the 1320s on, the area became part of the Bachelors' Garden of Merton College, and remained as garden following its acquisition for the newly founded Corpus Christi College in the early sixteenth century. The construction of an ornamental mound against the city wall in the 1590s seems to have led to the collapse and reconstruction of part of the wall and bastion, and new evidence for this was recorded along with the remains of numerous garden walls and features. Some interesting assemblages of late seventeenth- and early eighteenth-century food remains, pottery, glass and clay pipe provide an insight into the standard of living at the college at this time.

Corpus Christi College is sited on the southern edge of the Summertown-Radley gravel terrace and the underlying solid geology is Oxford Clay. The upper surface of the gravel terrace is present at 58–59 metres OD, although this has been truncated and removed in some areas. The present investigations were located in the south-west corner of the college gardens, defined by the precinct wall of Christ Church (formerly the priory of St Frideswide's) to the west, and the much rebuilt remains of the medieval town wall to the south (Fig. 1). At this point in the town wall circuit a bastion (RCHM, no. 21)¹ marks the point where the wall is thought to have turned south to enclose the priory. There is increasing evidence to support the tradition that St Frideswide's originated as a minster community in the late seventh or early eighth century, and several excavations have recovered burials of the mid to late Saxon period from what was evidently an extensive associated graveyard; the old minster was re-established

¹ *An Inventory of the Historical Monuments in the City of Oxford*, RCHM (1939).

as an Augustinian priory around 1120 and major building works were undertaken throughout the twelfth century to construct the priory church (now Oxford Cathedral) and its cloister, interrupted by a serious fire in 1190.² During the late ninth or early tenth century a defended settlement, or *burh*, was created at Oxford as part of a wider campaign by King Alfred and his successors to resist Viking attacks. The possibility that this was initially a square fort centred on Carfax and later extended eastwards has been argued partly from the arrangement of later-medieval defences at Corpus (with a secondary wall added onto an earlier north-south wall), making this a key site for topographical change if it began as an extra-mural area. The defences were extensively rebuilt as a bastioned stone circuit during the first half of the thirteenth century, and the line of the medieval town wall can be followed in the early views by Agas (1578) and Loggan (1675). The southern line is complete through Merton and Corpus, in both cases reduced in height to create garden features with views into the meadows, but from Corpus bastion 21 (opposite the east end of St Frideswide's church), where the wall diverts southwards the nature of the defences through and around the priory precinct (now Christ Church), remains particularly unclear.³ A medieval road known as Shidyerd Street (now Oriel Street) ran southwards from the High Street as far as Merton Street and continued southwards beside St Frideswide's Priory wall to a putative gate in the town wall in the vicinity of bastion 21; it was anticipated that the remains of this street (which was only finally acquired from the city by Corpus in 1878) would be encountered in the area of the present excavations. During the thirteenth century and later a number of tenements are recorded along the frontages of Shidyerd Street and along Merton Street, where Merton College was established in the 1260s. Merton College had acquired much of the land along the town wall (and the site of any intra-mural road) by 1321, including the area of the present investigations, which became known as the Bachelors' Garden; this seems to have entailed the enclosure of the south end of Shidyerd Street within the garden, although the college was required to provide gateways to allow access to the town wall.⁴

Corpus Christi College was founded by Richard Fox, bishop of Winchester, in 1511–17. He acquired the block of properties between Merton College, Merton Street and St Frideswide's and the town wall that still forms the college site today, including the Bachelors' Garden, which was leased from Merton. Construction work began in 1512 and the first students were admitted in 1517, by which time the buildings of the front quadrangle were complete.⁵ The southern part of the site continued to be used for gardens for the president and fellows, divided by walls. By the time of the earliest surviving view of the college, Ralph Agas's map of 1578, the whole of Shidyerd Street south of Merton Street appears to have been enclosed within the Corpus Christi precinct, with gates for access at the junction with Merton Street and two thirds of the way to the town wall. Agas also indicates the presence of the bastion, although it is significantly less prominent than those elsewhere on the circuit, and there is no sign of the present mound on the north side of the town wall. In front of the bastion is a small building, which is in the corner of an area labelled as 'gardaine'. Loggan's map of 1675 shows the mound against the town wall with steps up at either end, and his view of the college shows a summerhouse in front of the bastion and the roof of the garden shed behind. The

² A. Dodd (ed.), *Oxford before the University: The Late Saxon and Norman Archaeology of the Thames Crossing, the Defences and the Town*, Thames Valley Landscapes Monograph, 17 (2003), pp. 17–19, 57–8; J. Blair, 'St Frideswide Reconsidered', *Oxoniensia*, 52 (1987), pp. 71–127; idem, 'St Frideswide's Monastery: Problems and Possibilities', *Oxoniensia*, 53 (1988), pp. 221–58.

³ The late Saxon and medieval defences are reviewed in detail in Dodd (ed.), *Oxford before the University*, pp. 135–200; for the subsequent discovery of the south-western stretch of the late Saxon rampart see D. Poore et al., 'Excavations at Oxford Castle', *Oxoniensia*, 74 (2009), pp. 1–18.

⁴ The complex topography of the area is discussed by Julian Munby in Dodd (ed.), *Oxford before the University*, pp. 188–92.

⁵ B. Collett, 'Bishop Richard Fox and the Foundation of Corpus Christi College, Oxford, Part II: Blood on the Building Site, 1517–1518', *The Pelican Record*, 43 (2006), pp. 32–42; T. Fowler, *The History of Corpus Christi College* (1893).

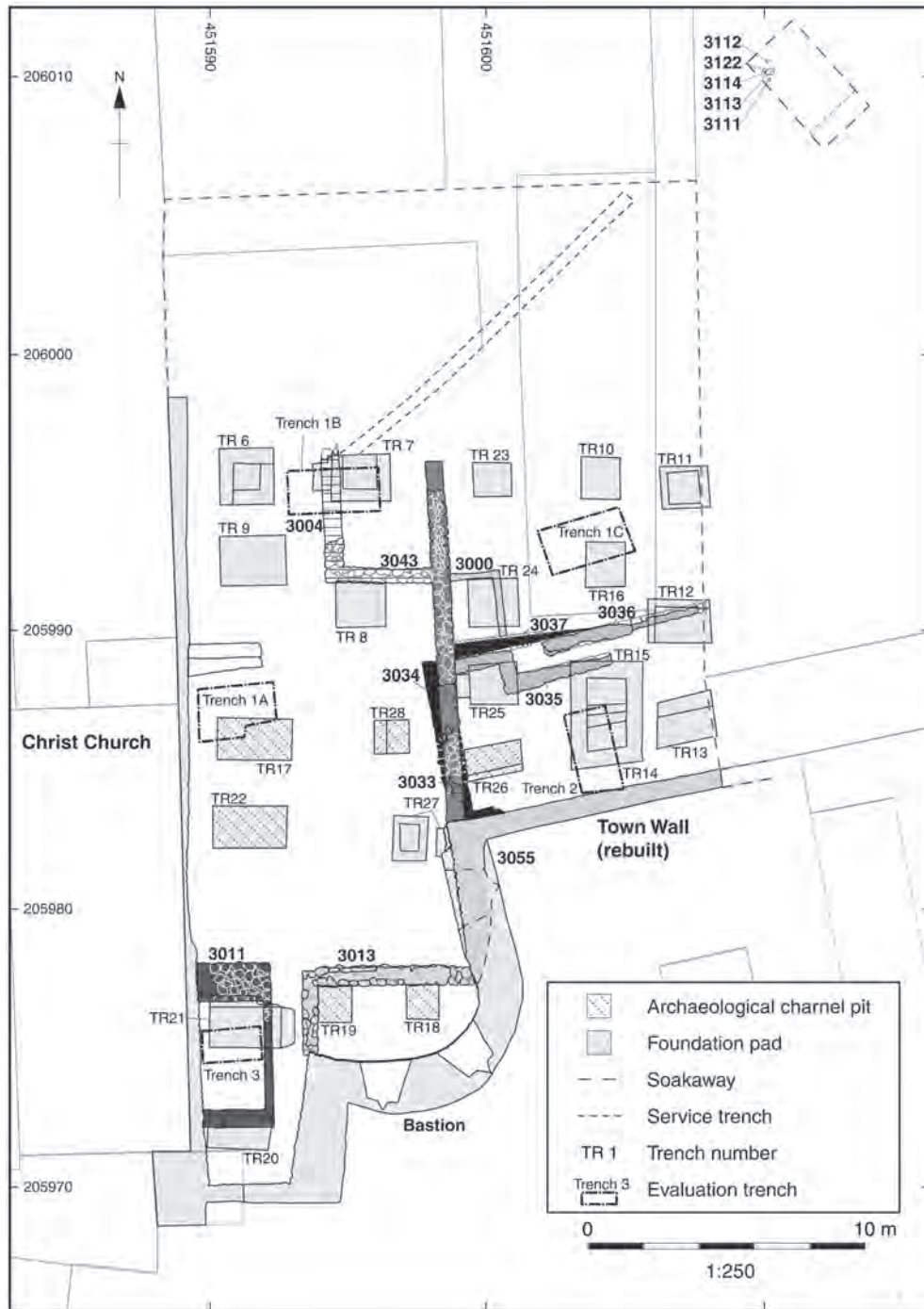


Fig. 1. Corpus Christi College, location of trenches and features.

mound had been constructed as a garden feature in 1596–7, when the college accounts refer to payments for ‘raising the mount’; this followed the building of a cellar under the buttery in the previous year, which is likely to have been the source of much of the soil. In 1596 the city complained about ‘the mound made in the College adjoining the Town wall, which will be an injury to the wall and an annoyance to Christ Church’. This proved to be entirely justified, as the college accounts for March and April 1603 record considerable expenditure on stone, lime, gravel and labour for rebuilding the wall following its partial collapse.⁶ A new president’s house was built in the early seventeenth century across the northern part of the enclosed Shidyerd Street. Evidence from the college accounts suggests that this took place in 1607, although the college only formally leased this length of street from the city in 1621. The new building is shown on Loggan’s view of 1675 with the addition of a possible stable block to the south. Various historic plans, and a model of the college made by the president’s butler in 1855, show how the president’s garden ran down to the bastion (though it only occupied the western part of it).⁷ Evidence recovered during the present excavations confirmed that the area between the president’s house and the bastion was walled off from the rest of the garden and used for privies and cess pits. An entry in the college accounts for 1601–2 records payments to two carpenters ‘about Mr President’s garden house’ and it is likely that this refers to the stone-lined privy constructed within the bastion (see below). Surviving roof timbers within the bastion studied as part of the investigations in 1981 (see below) were of sixteenth- to early seventeenth-century type and could therefore date from this occasion. Subsequently, the college accounts record further expenditure on the garden in 1623–4, including a payment of £10 to Francis Wells ‘for making the stayres in the garden’, which may be a reference to the steps leading up to the mound.⁸ Another feature of interest immediately adjacent to the site is the gate in the Christ Church wall, reputedly that made for Queen Henrietta Maria to pass from King Charles’ lodgings in Christ Church through Corpus to her own lodgings at Merton College (there is a matching gate – now blocked – to Merton Grove on the opposite side of the garden). The gateway has an outer four-centred arch on the Christ Church side (and so could be secured from the ‘inside’ on the Corpus side). A recent study of the dendrochronology of the planks forming the door has shown that they are formed of mid fifteenth-century Baltic oak planks from Germany, though the door was constructed in its present form after 1692.⁹

A number of archaeological investigations have been carried out within the college. During the rebuilding of the president’s lodgings in 1958 remains of medieval houses along the west side of Shidyerd Street and a thick deposit of the gravel metalling of the street surface were seen under the later boundary wall with Christ Church.¹⁰ This was on the opposite side of the president’s lodging from the area of the present investigations. In 1972 a small salvage excavation found evidence for a large gully or ditch more than 4 metres deep running north-east to south-west across the front quad.¹¹ The bastion and its interior was subject to an extensive study in 1981 when a measured survey of part of the bastion and limited excavations were carried out by Oxford Archaeological Unit, followed by a watching brief on rubble clearance in 1986 during the conversion of the bastion into a Music Room, and the conservation of the historic roof (since removed). The investigation reported here is

⁶ Munby in Dodd (ed.), *Oxford before the University*; information from the college accounts was kindly supplied by the college archivist Julian Reid and was included in full in the evaluation report, ‘Music Room Extension: Corpus Christi College, Oxford’, unpublished OA report (2007).

⁷ P.R. T[hompson], ‘The President’s Lodgings’, *Pelican Record*, 32 (1959), pp. 123–42, 18 plates (also reprinted as an unpaginated pamphlet)

⁸ J.C. Bramble, ‘The College Garden’, *Annual Report and Pelican Record*, Corpus Christi College (1980), pp. 20–32.

⁹ Personal communication from Graham Keevill and Daniel Miles.

¹⁰ D. Sturdy, ‘Recent Excavations in Christ Church and nearby’, *Oxoniensia*, 26/7 (1961/2), p. 32.

¹¹ T. Hassall, ‘Excavations at Oxford 1972: Fifth Interim Report’, *Oxoniensia*, 38 (1973), pp. 268–98.

essentially a continuation of that work and the reports should be read together.¹² A number of small excavations at Christ Church undertaken by David Sturdy between 1956 and 1961 and a further small excavation by Tom Hassall at Merton College Grove in 1970 also produced results of significance for the present site, and these are considered further below.¹³

In 2006 the college put forward a new scheme to extend and redevelop the Music Room, and OA carried out an evaluation of the site in 2007. This showed that the area contained potentially complex and significant archaeological remains, including a medieval grave and early phases of foundations beneath the town wall and the boundary wall with Christ Church, as well as a number of post-medieval garden structures.

Fieldwork Methods, Recording and Reporting

The general ground reduction was carried out by machine under archaeological supervision to c.59.50 metres OD revealing some evidence of post-medieval building and landscaping. Subsequently, the foundation pads for the new building were hand-excavated down to natural and a watching brief was maintained on the excavation of service trenches and an associated soakaway. Works within the bastion exposed areas of the internal wall that had not been accessible in 1981, and these were recorded. After completion of the fieldwork a post-excavation assessment was carried out and reported on, followed by a phase of further analysis of the most important evidence. The present report is an account of the results of these various phases of work and a discussion of their significance, supported by summaries of the key results from the finds and environmental studies. It incorporates the results of the evaluation and post-excavation assessment. Full details, along with the complete versions of specialist reports prepared at assessment stage and subsequently, can be found in the project archive.¹⁴

DISCUSSION

Prehistoric and Roman

In addition to a single sherd of prehistoric pottery (see below), a total of fifteen flints was recovered from the excavations, including eight burnt flints. Five pieces of worked flint are of probable Mesolithic or Neolithic date, comprising a snapped blade, a regular soft-hammer struck flake with parallel negative scars, an awl, a hollow scraper and a flake. The flints display various degrees of patination and edge damage, indicating that they are redeposited.¹⁵

Six fragments of Roman building material include pieces of tegula (one with signature), imbrex, brick and a corner piece from a hypocaust box flue tile with characteristic external combed decoration/keying (context 2404). This is one of the largest groups of Roman building material yet found in central Oxford, although the fact that only four sherds of Roman pottery occurred at the present site makes it unlikely that there was a significant Roman building in the immediate vicinity, and like other chance finds of Roman material in Oxford is more likely to derive from dung spreading.

¹² The results are reported by D. Wilkinson, 'Excavation and Survey at Bastion 21, Corpus Christi College, 1981', in Dodd (ed.), *Oxford before the University*, pp. 186–200; the report also includes the results of a trench dug by David Sturdy in 1963, which revealed part of an earlier wall beneath the south wall of the bastion.

¹³ Sturdy, 'Recent Excavations in Christ Church', pp. 19–37; T. Hassall, 'Excavations in Merton College, Oxford', *Oxoniensia*, 36 (1971), pp. 34–48; for summaries and discussion of these and other sites in a wider context see Dodd (ed.), *Oxford before the University*.

¹⁴ Munby in Dodd (ed.), *Oxford before the University*; 'New Auditorium, Corpus Christi College, Oxford; Post-Excavation Assessment', unpublished OA report (2010).

¹⁵ Identifications by Mike Donnelly; an earlier assessment by David Mullin is available in the archive.



Fig. 2. *Corpus Christi College, eighth- to ninth-century inhumation burial 2508.*

The Mid to Late Saxon Period

No evidence of roads or defences was found, though there was occupation debris and, somewhat surprisingly for its location outside the cemetery wall, remains of human burial. In trench 25, an early pit (2521) was cut into the underlying gravel. Four sherds of late Saxon pottery were recovered from this feature along with polished bones of sheep and roe deer that represent early evidence for possible tanning activity in the vicinity (Cotter, below; Strid, below). The fills of pit 2521 were truncated by an east-west aligned inhumation in what survived as a shallow grave cut (2504), some 22 cm deep (Fig. 2). The skeleton (2508) was clearly in situ and largely undisturbed, although the lower legs and feet had been removed by a later feature. The burial is that of an elderly adult, probably female, aged upwards of 60 years, and the skeleton has been radiocarbon dated to the period cal. AD 776–880 at 95% confidence (NZA 34675). Burial 2508 is considerably to the east of previously recorded burials from the graveyard of St Frideswide's minster and this suggests that the early graveyard originally extended beyond the line of the medieval boundary wall. Although the position of this burial might seem rather peripheral, stable isotope analysis carried out on the skeleton suggested that this woman's origins were no different from the local population.¹⁶

¹⁶ A. Boyle, 'Excavations in Christ Church Cathedral Graveyard', *Oxoniensia*, 66 (2001); R. Tyler, 'Archaeological Investigations during Refurbishment of St Aldate's Church', *ibid.* The stable isotope analysis was carried out by A.M. Pollard and P. Ditchfield of the Oxford University Laboratory for Archaeology and the History of Art and their report is available in the project archive.

The Eleventh and Twelfth Centuries

This period sees a marked increase in evidence for occupation, datable from the presence of the major local pottery fabrics early medieval Oxford (or 'Cotswold') ware OXAC (c.1050–1225 at Oxford) and late Saxon-medieval Oxford ware OXY (c.1075–1300), with other contemporary wares such as north-east Wiltshire ware OXBF. There are broadly two types of activity in the area, firstly the disposal of large quantities of disarticulated human bone in charnel pits, followed by the disposal of domestic and craft working waste. Evidence was also recovered for a large feature at the south edge of the site that may represent a ditch, channel or area susceptible to flooding.

A group of postholes (3111–3114 and 3122) was observed at the base of the soakaway trench towards the north of the site. These were cut into a grey silty clay overlying the natural subsoil and appear to pre-date a number of medieval pits, although there was no dating evidence from the postholes themselves. The area exposed is too small to suggest their function.

Charnel pits. A large quantity of disarticulated human bone was recovered, primarily from discrete layers within a series of charnel pits within trenches 17, 18, 19, 22, 26 and 28. The charnel had often been disturbed by later pits, causing considerable redeposition of human bone. There was some indication of a degree of organisation in the deposition of the charnel, in that certain layers appeared to contain a preponderance of a particular skeletal element, suggesting that several bodies had been disinterred and reburied simultaneously. In between the charnel layers were deposits of bone-free silty clay indicating that the deposition of the charnel occurred as a number of episodes over a period of time. Associated pottery suggests that this activity took place during the later eleventh or twelfth century, and it seems likely that the charnel pits were dug for the disposal of human remains disturbed during the large-scale building works at St Frideswide's Priory that were underway from c.1120 for much of the twelfth century. Presumably the graveyard still extended eastwards of its later boundary at this stage, since the burials (if disturbed by the building of the precinct wall) would perhaps have been redeposited within the new churchyard. It is not known for certain when the boundary of the cemetery was established on its present line, although it is generally accepted that new boundaries for the precinct of St Frideswide's were defined during the twelfth century.¹⁷ In all, some 1,183 fragments of disarticulated bone were recovered, including the remains of both adults and juveniles, and including the skull of a young woman who had died from a traumatic head wound (see human remains summary, below). The site lay inside the parish of St Frideswide, so the presence of secular burials is not surprising; the two houses inside the wall are documented from the mid thirteenth century but they may have begun fronting the cemetery rather than a road.¹⁸

A possible channel, ditch or floodable area. The deposits at the base of the sequence in trenches 13 and 14 just inside the city wall appeared to be fills of a single feature (1328/1423) that extended into the underlying gravel. The primary fill was gravel eroded from the edges of the feature, overlain by a dark brown organic silt (1326/1420). Further layers of silt accumulated above this, which were in turn overlain by a 6-cm thick layer of charcoal-rich material (1318/1414). Similar charcoal-rich layers were also present in trenches 15, 25 and 26, but it is not clear whether the underlying feature extended this far. The evidence from trenches 13 and 14 could suggest the presence here of an east–west aligned ditch or channel along the edge of the gravel terrace, or alternatively seasonal flooding from channels further south. Samples from the organic silt layers 1326 and 1420 produced waterlogged plant remains typical of waterside

¹⁷ Sturdy, 'Recent Excavations in Christ Church', p. 31.

¹⁸ H.E. Salter, *Map of Mediaeval Oxford* (1934), map 5; idem, *Survey of Oxford*, vol. 1, OHS, ns, 14 (1960), SE (pp. 92–3).

vegetation and waste places, including nettles, rushes, sedge and waterlogged wood, together with an insect assemblage that suggests the dumping of stabling waste.¹⁹ Flax was also noted among the plant remains. The presence of a water channel along the edge of the gravel terrace was noted by Sturdy, who reported finding silts from a deep stream running west–east across the garden to the south of Tom Quad, which he equated with nineteenth-century reports of a similar stream seen in Brewer Street and on the site of Christ Church Meadow Buildings.²⁰ Subsequently, Hassall investigated the town wall in Merton Grove, to the east of the present site, where he found that the wide wall footings had been set into an alluvial layer; at the time he equated this with a culverted gutter running southwards across the site.²¹ Sturdy's evidence suggested that the large natural stream was open into the late eleventh century but silted up during the twelfth century, and by the late twelfth century a gravel surface had been laid over it, prior to the development of houses on the site.²² The building of the stone city wall in the thirteenth century had then taken the defensive line forward to the very edge of the floodplain, and enclosing the former wet ground. Elsewhere, silting and reclamation along the line of the Grandpont causeway (down St Aldate's) raised the level of the Thames crossing itself during the twelfth century, but over the meadows to the west and east there were still numerous river channels, areas of marsh, and frequent flooding. The land west of the causeway was seasonally flooded hay meadow until the foundation of the Blackfriars priory in 1236,²³ and to the east of the causeway the situation will have been complicated even further by the management of waterflow to the Trill Mill. The results from the present site that point to the use of the area for crafts such as tanning and flax retting (see below) suggest that there is much of interest still to be discovered about this area of the early town.

Craft working and food processing debris. Deposits from several pits suggest that craft working debris was being dumped in the area. At the base of the sequence in trench 10 was an early pit (1010); a number of fills of this feature contained high concentrations of charcoal, associated with burnt clay, slag and hammerscale.²⁴ At the base of trench 26 was a sequence of three successive pits, 2634, 2635 and 2636 (Fig. 3). Pit 2634 and the lowest fill of pit 2636 contained hundreds of fragments of human bone, suggesting that they had been dug as charnel pits. The upper fills of pit 2636, however, contained forty-six horn cores from rams and goats and a number of other finds that suggest craft-working comprising a bone spindlewhorl, an unusual chalk object pierced with numerous small holes (see Fig. 12, no. 1, below), a Norwegian Rag whetstone and two droplets of copper alloy. Cut into the top of these fills was a further pit (2628) containing the articulated remains of the head and neck of a horse. In trench 25 nearby, sheep and roe deer bones were present in the early (late Saxon) pit 2521 and later fill 2514 with signs of polishing that have been linked elsewhere with use as implements for smoothing leather or rubbing fat or oil into the skin during the tanning process (Strid, below). The evidence points convincingly to craft working with animal products in this wet and waste area of the town from the ninth to the twelfth century. Tanning was an important industry in Oxford by the twelfth century, but direct evidence for the location of the tanneries has so far been lacking for the early town, despite the recovery of leatherworking tools, offcuts and

¹⁹ W. Smith, 'Assessment of Charred, Mineralised and Waterlogged Plant Macrofossils', in OA, 'New Auditorium, Corpus Christi College'; a full report on the insects by David Smith is available in the archive, with a summary in this report (below).

²⁰ Sturdy, 'Recent Excavations in Christ Church', p. 25; the development of the Thames channels south of Oxford is discussed by M. Robinson in Dodd (ed.), *Oxford before the University*, pp. 69–82, and summaries of the channel observations can be found in the gazetteer, with full references.

²¹ Hassall, 'Excavations in Merton College'.

²² Sturdy, 'Recent Excavations in Christ Church', p. 25.

²³ Robinson in Dodd (ed.), *Oxford before the University*, pp. 69–82.

²⁴ W. Smith, 'Assessment of Charred, Mineralised and Waterlogged Plant Macrofossils', table A12.3, listing of retained heavy residue fractions from CPR processing, in archive.

Trench 26
Section 2602

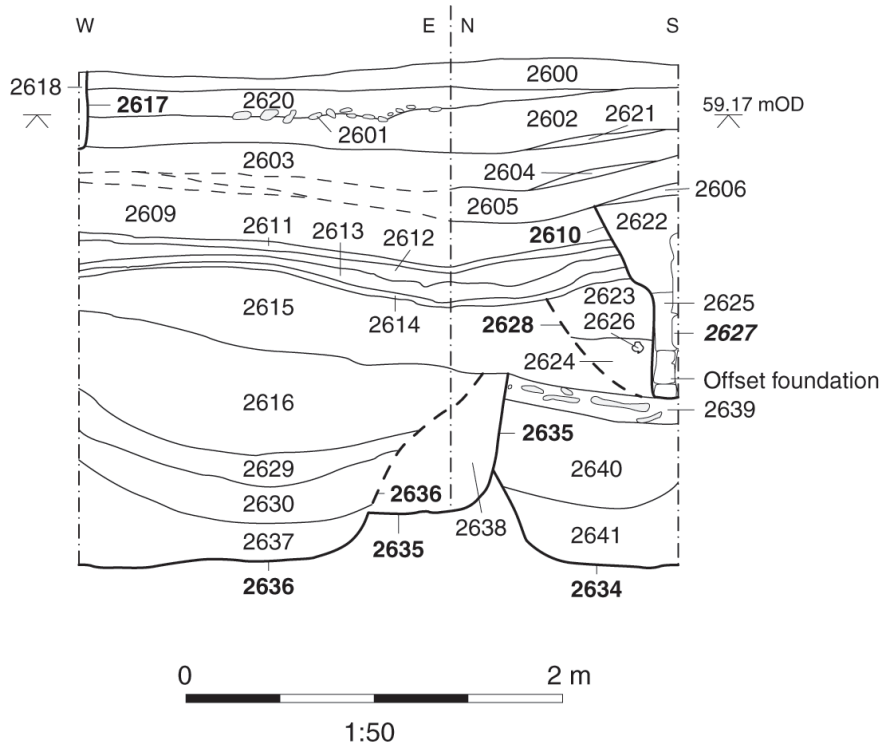


Fig. 3. *Corpus Christi College, Trench 26 section.*

products such as shoes and straps from numerous excavations in St Aldate's. Debris from horn working and possibly the boiling of bones to extract fat and grease was also recovered from pits at the nearby site at No. 4A Merton Street, and was datable to the later twelfth century. The identification of flax in the organic layer at the base of trench 13 adds to the substantial evidence for flax processing in the water channels south of Oxford previously noted in the St Aldate's area from the mid Saxon period onwards.²⁵

Within trench 26, these deposits were overlain by a series of charcoal-rich layers (2614–2611; Fig. 3) which were also present in trench 25, and samples from the two trenches produced evidence for dumps of charred grain and straw. These are likely to be debris from nearby ovens used for the parching of wheat prior to milling, and possibly also for arresting the germination of rye during the process of malting (see plant remains summary, below). Two ovens or kilns of eleventh- to early twelfth-century date were excavated by Sturdy in 1961 in the garden north of the cathedral;²⁶ these would have been some 45–50 metres north-west of the present site, and would be a plausible origin for the charred remains. The same samples also contained three rich assemblages of fish remains (samples 8, 10 and 16, see fish bone summary, below), dominated by eel and herring, but also containing a variety of sea fish, as well as freshwater fish

²⁵ The evidence for leatherworking and flax retting is reviewed in Dodd (ed.), *Oxford before the University*, 42; for No. 4A Merton Street see D. Poore et al., 'Excavations at No. 4A Merton St., Merton College, Oxford', *Oxoniensia*, 71 (2006), pp. 216–19.

²⁶ Sturdy, 'Recent Excavations in Christ Church', pp. 30–1, fig. 8.

that might have been caught locally. Taken together, this evidence suggests food preparation on a significant scale.

The Thirteenth to Fifteenth Centuries

The town wall. In trench 26 the charcoal layers and horse burial were cut by the construction trench for an east–west aligned wall footing (cut 2610 for footing 2627; Fig. 3). Only the northern face of the wall footing was revealed within trench 26, with only three courses surviving, but the same footing was perhaps also identified within evaluation trench 2 just to the east (213), where it was seen to underlie, and extend at least 1 metre back (north) from, the upstanding remains of the town wall, albeit at a higher level of some 0.85 metres (Fig. 4). Pottery in fabrics OXAC and OXY was recovered from the fills of the construction cut in trench 26. A series of layers and surfaces built up over the wall footing, representing garden soils and possible surfaces or pathways. The footing is interpreted as the foundation for the medieval town wall, which was built from the second quarter of the thirteenth century. The footing was not seen in trenches 13 and 14 to the east, though here stony and mortar-rich layers were probably associated with the same event. The evidence for the early linear feature or floodable area in trenches 13 and 14 (see above) suggests the possibility that the town wall here was following the line of a pre-existing ditch or marsh edge that may have marked the line of the earlier defensive circuit, and wide foundations were needed to counteract the unstable organic and silty fills. A very similar profile was revealed by Hassall in his trench at Merton Grove, where the wall footing rested on sticky clay close to water level.²⁷ The town wall was extensively repaired in the vicinity of bastion 21 during the early seventeenth century (see below).

Bastion 21 (Figs. 5–6) by Jon Gill. The bastion is thought to be contemporary with the town wall. Its unusual nature, curving across a re-entrant angle in the defensive line, is unparalleled in medieval town plans in these islands. Drawn stone-by-stone surveys of the upstanding remains were undertaken in 1981 and 1986, and the lowering of the floor level of the Music Room as part of the present works has allowed us to extend this record down a further metre along the entire internal face (Fig. 5).²⁸ The character of the main stonework to the lower part of the main wall is similar to the primary medieval parts previously recorded and comprises uncoursed rubble bonded with a coarse mortar. Embrasures 1 and 2 were again unblocked (Fig. 6), and the base of the northernmost embrasure, not previously recorded, was exposed together with the lower 40 cm of each jamb; the embrasure had been blocked with a layer of soil beneath rubble and mortar. Above this level the wall had been extensively rebuilt. A further five putlog holes were identified in the lower part of the wall, along with the remains of the post-medieval walls of the garden structures built within the bastion following its incorporation into the gardens of Corpus Christi College. This additional survey of the lower parts of the fabric reinforced the earlier findings that there is no physical evidence for this structure having served as a gate at the south end of Shidyerd Street (and indeed almost no evidence for the street).

Other features (Fig. 1). The foundation of a wall, 3034, was observed during the general ground reduction; it ran north from the corner of Bastion 21 for a distance of at least 3 metres, and a second wall foundation, 3037, on a perpendicular alignment, may have been associated with it. A later wall (3033), in existence by the later sixteenth century, was built over the top of wall foundation 3034 on a slightly different alignment (see below). The date and function of walls 3034/3037 are not clear from the evidence currently available, but wall 3034 butted the base of the bastion and must therefore have been built after the bastion's construction.

²⁷ Hassall, 'Excavations in Merton College', pp. 38–40, fig. 2.

²⁸ The results of the 1981 and 1986 work are presented and discussed in detail in Dodd (ed.), *Oxford before the University*, pp. 188–200.

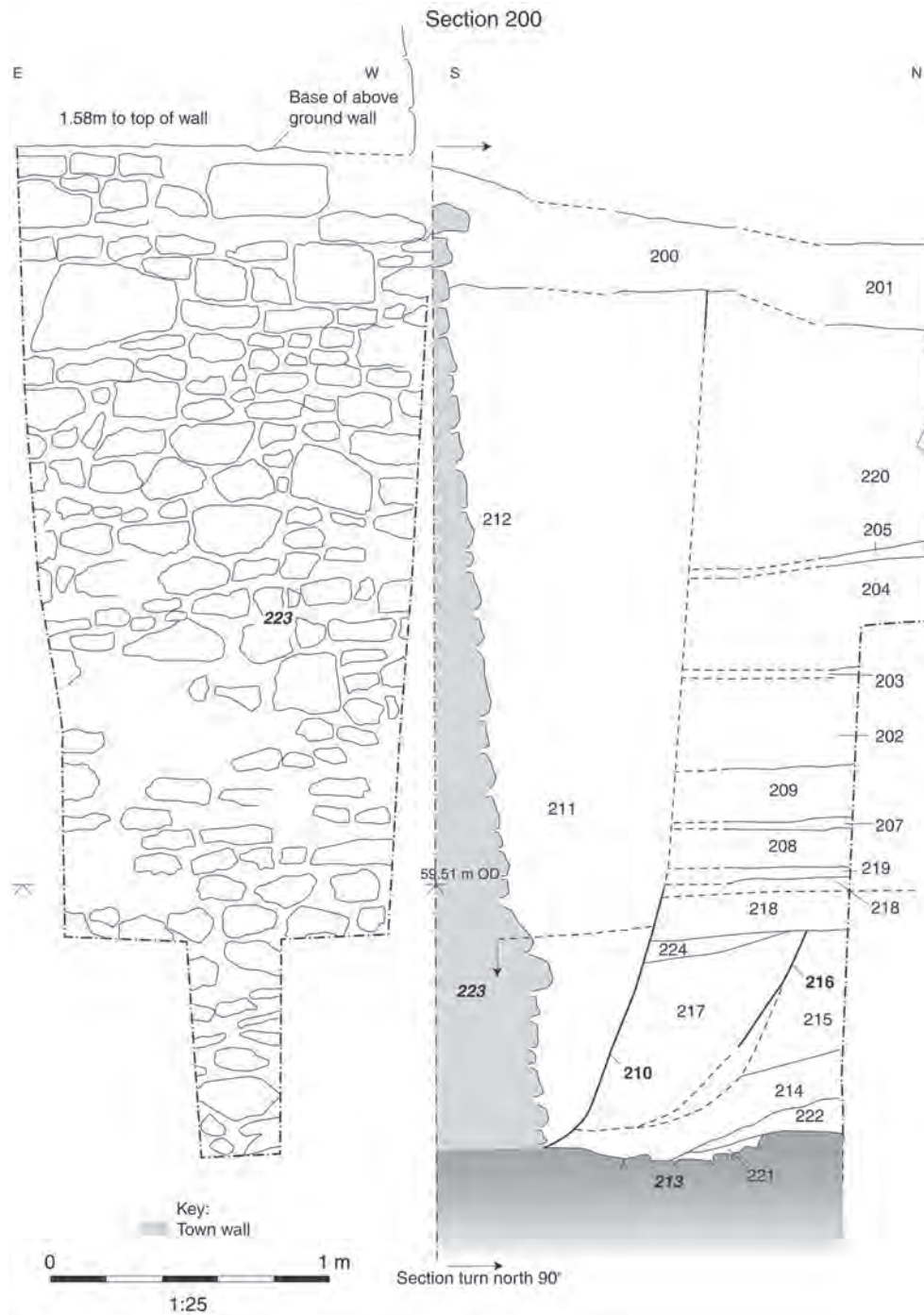


Fig. 4. Corpus Christi College, evaluation trench 2 section.

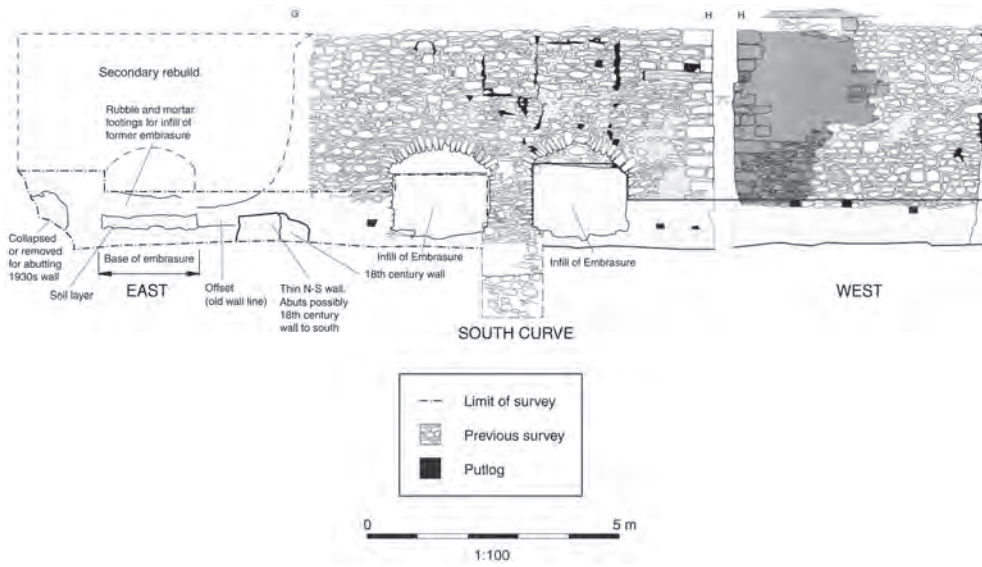


Fig. 5. The inner face of the Corpus Christi bastion (RCHM, no. 21)



Fig. 6. The unblocked embrasures 1 and 2 within the bastion.

Pits and pit fills datable broadly to this period were seen in trenches 6–12, 15, 16, 20 and 22–25, and in the soakaway trench. Many of these pits contained Brill/Boarstall ware pottery, which came into use in Oxford during the early thirteenth century, and fragments of roof tile which came into use in the town in the later twelfth century; two fragments of lava quern were also recovered from fill 3134 of pit 3127. The fills of these pits were notably less rich in occupation debris than the earlier examples, and their contents suggest that they were largely dug for gravel quarrying and the disposal of building rubble during construction and demolition of buildings in the vicinity. No evidence of occupied tenements was seen, although houses on Shidyerd Street are mentioned in documentary records from the mid thirteenth century, one abutting the town wall and described in 1299 as ‘opposite the high altar of St Frideswide’; this and the next north were removed when they became part of Merton College garden in 1321.²⁹ The results of the present investigations identified little structural evidence for houses built this far south. The foundations of the medieval boundary wall of St Frideswide’s were observed in trench 1A of the evaluation, and were seen to lie beneath the present wall, which suggests that although the wall has been rebuilt in places on numerous occasions its present line reflects that established in the medieval period. No dating evidence for the foundations was recovered, although the wall foundations had disturbed human remains from a grave or charnel pit. The existing boundary wall, both the high free-standing section next to the Cathedral Garden, and the rear wall of the Christ Church ‘Bethel’, were fully revealed during the course of works, and although rebuilt in upper sections may have substantial amounts of surviving medieval masonry at lower levels.

The presence of twelfth-century charnel pits and thirteenth-century quarry and rubbish pits across the whole of the area of the investigations suggests that Shidyerd Street never extended this far south as a formal surfaced roadway, and may have been little more than a path or a right of way at this point. The only evidence for Shidyerd Street recovered in the present investigations came from evaluation trench 1B, where a patch of compacted gravel and stone pebbles in a matrix of orange brown clay (406), up to 0.22 metres thick, was recorded above a pit fill containing thirteenth- to fourteenth-century pottery, and may have been a surviving area of street surfacing.³⁰ The only other feature of note dating from this period was a stone-lined drain containing thirteenth-century pottery seen in trench 20; this probably served to evacuate water through the town wall. A medieval buried ground surface was present beneath the late sixteenth-century mound (see below) and reflects the incorporation of the site into the Bachelors’ Garden following Merton’s acquisition of it in 1321.

The Sixteenth–Nineteenth Centuries: Corpus Christi College

The medieval pits in trenches 7, 8, 12 and 15, trench 1B of the evaluation, and in one of the service trenches monitored by the watching brief, were truncated by sixteenth-century features, the fills of which were almost exclusively lime mortar, with occasional fragments of limestone and ceramic building material. It seems certain that the fills originate from the construction of the college buildings in the sixteenth century, and the pits may have been dug as lime mixing or quarry pits, and used for the disposal of waste following the completion of the building work.

The Mound. In evaluation trench 2 (Fig. 4), the medieval soil layers and surfaces that built up over the footings of the town wall were overlain by thick layers of brown-grey clay silts (202, 204, 220) interspersed with thin layers of gravelly material (209, 203, 205) that were perhaps construction horizons. These layers probably represent the mound that is known to have been

²⁹ Salter, *Survey*, vol. 1, p. 212; see Munby in Dodd (ed.), *Oxford before the University*, pp. 188–92.

³⁰ OA, ‘Music Room Extension’.

constructed against the wall by the college in 1596–7 to provide a raised garden walk, and which appears to have provoked the partial collapse of the thirteenth-century town wall. On the north side of the mound, the remains of two wall footings were recorded (3035, 3036; Fig. 1). The ‘dog-leg’ shape of wall 3035 suggests that these may be the remains of steps leading up the mound, possibly the ‘stayres in the garden’ referred to in the college accounts for 1623–4 (see introduction, above). The purpose of the mound was (as with the similar work in Merton College) to provide a raised walk with views out of the garden across Christ Church meadow, and it did, as predicted by the city, cause damage to the wall.

The rebuild of the town wall. The mound material seen in evaluation trench 2 (Fig. 4) was cut by a construction trench (210) for the standing wall (223) which was seen to have been built with a slight batter at the base. The base of the wall lay directly over the medieval mortared stone footing 213. Entries in the college accounts for 1603 detail considerable expenditure on the construction of new walls, and this is considered unlikely to relate to the college’s western and eastern boundaries, which were the responsibility of Christ Church and Merton respectively (Julian Reid, personal communication). The accounts of 1603 seem likely to refer to the rebuilding of the town wall, and perhaps also to the rebuilding of the interior of the bastion, and it was clear that the angle between the bastion and the wall, which had been undermined by a large pit, had been much disturbed and rebuilt. The lack of clay pipe within both the mound deposits and the construction trench for the rebuilt town wall would be consistent with a date before c.1620 for both. The survey of the interior bastion masonry revealed a large area of rebuilt wall on the east side (Fig. 5), and the area of rebuilding continued round the corner into the wall behind and above the mound (Fig. 7).



Fig. 7. View of the much rebuilt east wall of the Corpus Christi bastion joining the west end of the rebuilt town wall.

Other features within the college gardens (Fig. 1). The footing for a narrow wall (3033) was observed running northwards from the corner of the bastion across the whole project area (in other words the west boundary wall of the Fellows' Garden as shown on Loggan and later plans). At its southern end, wall 3033 appeared to overlie the thirteenth-century foundations of the bastion, but it was clearly post-dated by the later rebuild. A number of pits dug for the disposal of cess and rubbish from the early college were seen in trenches 6, 8, 9, 17, 20, 22, 27 and 28, and latrines were constructed within the curvature of the bastion and against the boundary wall with Christ Church (see below). It is notable that these features are all located to the west of wall 3033, which suggests that the wall may have been constructed to screen this area off from the college's formal gardens to the east. A wall in this position is shown on Agas's map of 1578. A small square structure (3000) built using dressed limestone blocks abutted walls 3033 and 3037 and this may be the remains of the summerhouse shown in this area on Loggan's view of the college accessible from the mound and reached by a flight of stairs (perhaps those built in 1623–4 as mentioned above).

Two robbed wall foundations (3004 and 3043) were observed to the west of wall 3033, and appear to have formed the southern and western walls of a structure built against it. A building running north–south alongside the garden wall is shown in this position by Loggan (but not on later plans), and is likely to be the remains of the president's stables.

The use of the bastion as a latrine at the south end of the president's yard seems to have begun around this time. The foundations and fills of two stone-lined latrine pits were recorded during the excavations, one (structure 3013, trenches 18 and 19) built within the curvature of the bastion, and the other (structure 3011, trenches 20 and 21) built against the Christ Church boundary wall. A roofed structure within the curvature of the bastion is shown by Loggan and possibly also by Agas, and it seems likely that the reference to carpentry work for 'Mr President's garden house' in the college accounts (see above) is a reference to this structure. This is supported by the sixteenth- to early seventeenth-century style of the roof timbers recorded here in 1981 and since removed. Dating evidence suggests that latrine 3011 was in use by the early eighteenth century, and its identification as a latrine is confirmed by analysis of plant and insect remains from its fills (see summaries of plant and insect remains, below). It remained in use until the introduction of mains sewerage in the late nineteenth century, and both latrines are visible on the 1878 Ordnance Survey plan of the college. While the latrines were shown as a single building with three compartments on William Williams' plan of 1733, later plans (for example King's 1848 survey) suggest that the garden walls were rearranged to provide a separate access from the Fellows' Garden, and that the facility was divided so that the western latrines (in the square part of the bastion) were the president's and the eastern part (in the round bastion) the fellows.³¹ Analysis of waterlogged remains from the latrine fills suggests a rich and varied diet including a wide range of fruit, and the remains of crab, crayfish and anchovy as well as the commoner sea and river fish (see fish bone and waterlogged plant remains summaries, below). The absence of bran in these deposits suggests that highly processed 'white breads' were consumed, rather than wholemeal/brown breads, or that bread was a more minor component of the diet. By 1848 the president's privy remained on the western side, but the eastern part had become the 'Gardener's Toolhouse' and the college privies were relocated to the kitchen yard.

Further insights into the early college come from pottery, glass and tile discarded in the rubbish pits and latrines (see specialist summaries, below). Large numbers of German Frechen stoneware drinking jugs of the late sixteenth and early seventeenth centuries were probably used in the hall, and an unusual find for Oxford is a fragment of a possible Spanish olive jar. High-quality Chinese porcelain dishes and tea bowls are also present, and a very elaborate ceramic flower-pot holder in the shape of an urn with classical style decoration (see

³¹ James King's 1848 survey (with key) of Corpus Christi in Bodleian, MS Top. Oxon. a. 25; Thomas Axtell's plan of 1883, reproduced in Thompson, 'The President's Lodgings', plates 9 and 13.

Table 1. The pottery assemblage by phase

| Phase | Date | Sherds | % Sh | Weight (g) | %Wt | EVEs | % EVEs |
|--------------|----------|--------|-------|------------|-------|-------|--------|
| II | 10–11C | 6 | 0.2% | 28 | 0.0% | 0.14 | 0.7% |
| III | 11–12C | 812 | 25.1% | 9,246 | 14.5% | 6.59 | 34.8% |
| IV | 13C | 831 | 25.7% | 9,625 | 15.1% | 6.48 | 34.2% |
| V | 14C | 12 | 0.4% | 121 | 0.2% | 0 | 0.0% |
| VI | 16C | 212 | 6.6% | 3,546 | 5.6% | 1.4 | 7.4% |
| VII | 16C | 637 | 19.7% | 14,148 | 22.2% | 1.95 | 10.3% |
| VIII | 17–19C | 435 | 13.5% | 17,360 | 27.2% | 0.15 | 0.8% |
| IX | 17–19C | 59 | 1.8% | 2,772 | 4.3% | 0 | 0.0% |
| UN | Unphased | 228 | 7.1% | 6,996 | 11.0% | 2.25 | 11.9% |
| Total | | 3232 | 100% | 63,842 | 100% | 18.96 | 100% |

Fig. 9, below). The rim of a German Hessian crucible from a later sixteenth-century context may have been from a vessel used for chemical/alchemical research. Numerous seventeenth- and eighteenth-century wine bottles had been discarded in the pits and latrines. Two pieces were bottle seals of licensees of the Three Tuns in High Street (see Fig. 11, below), reflecting the use of taverns (and their bottles) by Oxford colleges.³² Among the fragments of floor tile were numerous examples of Flemish-style 'black and white' tiles that were used in the popular chequerboard floor designs of the late-medieval period and the sixteenth century, and presumably floors of this style were laid in some of the early college buildings. Two pieces of rare early tin-glazed 'delftware' floor or wall tile were also recovered, with attractive decoration in blue, white and yellow (see Fig. 8, below).

SUMMARY OF THE MEDIEVAL AND POST-MEDIEVAL POTTERY by PAUL BLINKHORN and JOHN COTTER

A total of 3,232 sherds of pottery weighing 63.842 kg was recovered. The estimated vessel equivalent (EVEs, a measure of surviving rim circumference) is 18.96 and the average sherd weight is 16.4 g. Table 1 shows a breakdown of the pottery assemblage by date; the phase column allows cross-referencing to the phasing established for the post-excavation assessment. Apart from four residual sherds of Roman pottery and one prehistoric sherd all the pottery is post-Roman. This includes a couple of residual sherds of early Anglo-Saxon pottery, but the bulk of the assemblage dates from the tenth to the nineteenth century. Besides a single sherd from a post-medieval crucible the assemblage appears to be wholly domestic in character. This report summarises the principal findings of the pottery assessment, with additional comment on the most significant material. The full version of this report and the assessment can be found in the project archive.³³

³² J. Haslam, 'Oxford Taverns and the Cellars of All Souls' College in the 17th and 18th Centuries', *Oxoniensia*, 34 (1969), pp. 45–77; idem, 'Sealed Bottles from the Cellars of All Souls' College' in the 18th Century', *Oxoniensia*, 35 (1970), pp. 27–33; F. Banks, *Wine Drinking in Oxford 1640–1850. A Story revealed by Tavern, Inn, College and other Bottles*, BAR BS, 257 (1997).

³³ This summary retains the original system of fabric codes ('F' prefix followed by a number) used in the catalogue but to these have been added the codes used for medieval and post-medieval pottery in Oxfordshire published in M. Mellor, 'A Synthesis of Middle and Late Saxon, Medieval and Early Post-medieval Pottery in the Oxford Region', *Oxoniensia*, 59 (1994), pp. 17–217, and M. Mellor and G. Oakley, 'A Summary of the Key Assemblages', in T. Hassall et al., 'Excavations in St Ebbe's, Oxford 1967–76, Part II', *Oxoniensia*, 49 (1984),

Pottery Fabrics (Earlier Medieval)

- F1: Anglo-Saxon chaff-tempered ware, c.400–800. 1 sherd, 8 g, EVE = 0.
 F2: Anglo-Saxon sand-tempered ware, c.400–800. 1 sherd, 4 g, EVE = 0.05.
 F100: OXR: St Neots-type ware, c.850–1100 (mainly c.950–1075 at Oxford). South-east Midlands. 61 sherds, 475 g, EVE = 1.12.
 F101: OXB: Late saxon Oxfordshire shelly ware, c.800–1050. 9 sherds, 97 g, EVE = 0.22.
 F200: OXAC: Early medieval Oxford ware ('Cotswold'-type calcareous gravel-tempered), c.875–1250 (mainly c.1050–1225 at Oxford). Central and north-west Oxfordshire, Gloucestershire. 448 sherds, 5360 g, EVE = 3.74.
 F202: OXBF: North-east Wiltshire ware (flint- and sand-tempered, including Fabric OXAQ c.1170–1350), c.1050–1350. 120 sherds, 1628 g, EVE = 0.90.
 F205: OXZ: Stamford ware, c.850–1150. Lincolnshire. 7 sherds, 36 g, EVE = 0.
 F300: OXY: Late Saxon-medieval Oxford ware (sand-tempered), c.1075–1300. Oxfordshire. 924 sherds, 10279 g, EVE = 7.16.
 F329: OX68: Potterspury ware, c.1250–1550. Northamptonshire. 3 sherds, 27 g, EVE = 0.
 F330: OXBK: Medieval shelly coarse ware, c.1100–1350. Northamptonshire? 4 sherds, 68 g, EVE = 0.
 F331: Unidentified medieval ware, twelfth century? 1 sherd, 5 g, EVE = 0.
 F352: OXAM: Brill/Boarstall ware, c.1225–1625. Buckinghamshire. 860 sherds, 13,497 g, EVE = 3.85.
 F355: OXBB: Minety ware, c.1225–1525 (at Oxford), Wiltshire. 2 sherds, 10 g, EVE = 0.
 F356: OXBG: Surrey whitewares, c.1250–1500. Surrey/Hampshire. 7 sherds, 116 g, EVE = 0.13.
 F362: OXAG: Ashampstead-type ware, c.1050–1400. Berkshire. 2 sherds, 226 g, EVE = 0.
 F365: LOND: London-type ware, c.1050–1400. 2 sherds, 58 g, EVE = 0.

Pottery Fabrics (Later and Post-Medieval)

- F408: OXAP: Late-medieval overfired Brill/Boarstall ware, c.1550–1625. Buckinghamshire. 1 sherd, 4 g, EVE = 0.
 F403: TUDG: Tudor green ware, c.1375–1550 (mainly c.1450–1550). Surrey/Hampshire. 2 sherds, 5 g, EVE = 0.02.
 F404: OXCL: Cistercian ware, c.1475–1700. 22 sherds, 245 g, EVE = 0.
 F405: OXST: Langerwehe stoneware, c.1350–1600. Import, Germany. 1 sherd, 4 g, EVE = 0.10.
 F405: OXST: German stonewares, c.1475–1750. Import, Germany. 166 sherds, 4,983 g, EVE = 1.67. Mostly comprising Cologne/Frechen stoneware jugs (c.1550–1750). At least four classic Raeren stoneware mugs with frilled bases (c.1475–1550) also noted.
 F413: OXST: Westerwald stoneware, c.1580–1750. Import, Germany. 8 sherds, 177 g.
 F414: OXBEW: Staffordshire manganese glazed ware, c. 1700–1800. 5 sherds, 39 g.
 F412: OXRESWL: Post-medieval Brill slipware, c.1750–1800. 2 sherds, 1,620 g.
 F416: METS: Metropolitan slipware?, c.1612–1800. 1 sherd, 1 g.
 F425: OXDR: Post-medieval red earthenwares, c.1550–1900. Local, including Brill (Bucks.). 125 sherds, 12,813 g.
 F430: OXFI: Chinese porcelain, c.1650–1900. 49 sherds, 363 g.
 F431: MART: Martincamp flasks (Type III fabric), c.1600–1700. Normandy. 1 sherd, 81 g.
 F432: OXEST: Later English stonewares, c.1750–1900. 3 sherds, 216 g.
 F433: OXFM: Staffordshire white salt-glazed stoneware, c.1720–80. 10 sherds, 312 g.
 F436: OXNOTTS: Nottingham stoneware, c.1690–1800. 2 sherds, 15 g.
 F451: OXFH: Surrey/Hampshire white border wares, c.1550–1700. 62 sherds, 1,821 g.

pp. 176–219. Unphased pottery is mostly from the evaluation. It should be noted that EVEs and vessel form details were not recorded for the post-medieval wares (c.1500+).

F1000: WHEW: Mass-produced white earthenwares, c.1825–1900+. Staffordshire etc. 79 sherds, 4,453 g.

F1001: ROM: Miscellaneous Roman pottery, c.AD 43–410. 4 sherds, 29 g.

F1002: PREHIST: Prehistoric pottery. 1 sherd, 13 g.

Additional sherds of interest (from a subsequent watching brief and therefore not included in the original catalogue) are:

OLIV: Spanish olive jar, c.1500–1750. 1 sherd, 95 g. Context 3135.

HESS: Hessian crucible (Germany), c.1480–1900. 1 sherd, 38 g, EVE = 0.38. Context 212.

Discussion

Overall, the pottery is in a fairly mixed and fragmentary condition, suggestive in many cases of redeposition (as in the twelfth-century charnel pits and thirteenth-century quarrying pits) and it is quite likely that much of the medieval pottery was dumped here from occupation sites in the general vicinity. Vessel profiles are very rare in the medieval assemblage but commoner amongst the more robust post-medieval forms. The range of fabrics and vessel forms present is fairly typical of the older Oxford college and domestic sites in central Oxford with the late Saxon, medieval and post-medieval periods all well-represented.³⁴ The softer late Saxon/early medieval (Phase II-III) sherds show a fair degree of wear and as many of these contexts are described as charnel pits the pottery from them is unlikely to be from primary contexts, although a few early occupation layers were identified. The relatively large quantity of late Saxon/early medieval pottery present is nevertheless quite significant despite some degree of redeposition. St Neots-type ware, mainly in the form of jars and a few bowls, comprises 5.9% (by EVEs) of the entire site assemblage. Cotswold-type ware, one of the commonest fabrics, comprises 19.7% (EVEs) of the assemblage and as well as the usual jars and bowls a rare curfew (firecover) handle was noted (context 2633). Four sherds from an early pit (2521, fill 2516) beneath a burial radiocarbon dated to cal AD 776–880 are potentially one of the earliest occurrences of their kind in the city. The sherds in question, which are all fairly small, include a sherd of Cotswold-type ware, a jar rim in St Neots-type ware and two sherds in late Saxon Oxfordshire shelly ware comprising a jar rim and a base sherd. The radiocarbon date implies that the pit cannot be later than c.880 at the latest. Cotswold-type ware dates from as early c.875 elsewhere but in Oxford mainly occurs from c.1050.³⁵ Similarly, although St Neots-type ware was in production from c.850 it is not thought to be common in Oxford until after c.950. If this material is not intrusive (which unfortunately cannot be ruled out) then this is one of the earliest dated occurrences of these two wares from Oxford. Late Saxon-medieval Oxford ware is the commonest single fabric from the site (37.8% by EVEs, 28.6% by sherds). This occurs in the form of unglazed jars/cooking pots and large yellow-glazed jugs and tripod pitchers. These suggest a peak in site activity around the twelfth century, although it is evident that some of this material must be redeposited. As at neighbouring Merton College the high-medieval assemblage is dominated by Brill/Boarstall ware jugs (OXAM), mainly perhaps of thirteenth-century date and mainly from pit contexts. Most of the assemblage is quite fragmentary and evidently redeposited. Some individual pieces are of intrinsic interest but nearly all of these can be paralleled in

³⁴ Sites with a comparable range of late Saxon to post-medieval material include nearby Merton College (Poore et al., 'Excavations at No. 4A Merton St.'). Lincoln College (Z. Kamash et al., 'Late Saxon and Medieval Occupation: Evidence from Excavations at Lincoln College, Oxford 1997–2000', *Oxoniensia*, 67 (2002) pp. 199–286), 113–119 High Street (G. Walker and R. King, 'Early Medieval and Later Tenements at 113–119 High St., Oxford: Excavations in 1993–5', *Oxoniensia*, 65 (2000), pp. 381–440) and Logic Lane with its late Saxon pits (F. Radcliffe, 'Excavations at Logic Lane, Oxford; the Prehistoric and Early Medieval Finds', *Oxoniensia*, 26/7 (1961–2), pp. 38–69).

³⁵ Mellor, 'A Synthesis of Middle and Late Saxon, Medieval and Early Post-Medieval Pottery'.

the published typology.³⁶ Contexts datable to the late-medieval period (fourteenth–fifteenth century) are rare although pottery of this date occurs residually in sixteenth-century and later contexts. Sherds from up to seven thirteenth- to fourteenth-century Brill ware oil lamps are notable, but as Corpus Christi College was not founded until the early sixteenth century the lamps here are unlikely to be linked to the site's academic function, though they might derive from nearby Merton College, where at least sixteen similar lamps have been found, or from other academic halls in the vicinity. The medieval Brill ware assemblage also includes quite a few small handled skillets (small saucepans). Rarer forms such as dripping pans were also noted. A rare (for Oxford) late fourteenth-/fifteenth-century German Langerwehe stoneware globular cup rim was also noted (context 1106).

The post-medieval assemblage is in many ways more informative than the medieval assemblage since it illuminates aspects of college life and reflects the activities and status of its occupants. Many large fresh sherds as well as a few complete vessel profiles are present. Much of this material comes from large rubbish pits and would certainly represent pottery used in the college. An evaluation context (212), dating probably to the later sixteenth century, produced what appears to be the rim of a German Hessian crucible in a dark grey sandy near-stoneware fabric. As this shows no metallurgical residues it may have been used for chemical/alchemical purposes. The pit assemblages produced a large number of late sixteenth- and seventeenth-century German Frechen stoneware drinking jugs and bottles ('bellarmine's) suggestive of large-scale drinking activities, perhaps in the college hall. Several of these have attractive applied medallions including a few heraldic ones which can be paralleled in stoneware publications. A sherd of Iberian pottery, possibly a Spanish olive jar, was noted from a late sixteenth- or seventeenth-century pit (3135). This has an unusually fine pale pinkish-brown fabric with a frosty (?alkaline) grey-green glaze inside and out. Iberian imports are very rare from Oxford and if this is from an olive jar then it is only the second example of this type recognised from the city. English tinglazed earthenware chamber pots, ointment pots and drinking vessels of the seventeenth and eighteenth centuries are common and also hint at conspicuous consumption. The quantity of high-quality Chinese porcelain dishes and tea bowls recovered is also notable (49 sherds). A couple of pottery candlesticks of this date might be also be linked to the site's academic function (Fig. 8, no. 1). Much of this material comes from the stone-lined latrine built against the Christ Church boundary wall (trench 21, context 2101) which produced a large group of early/mid eighteenth-century pottery (c.1720–40) including several attractive and significant vessels (contexts 2103, 2104). These perhaps deserve further study, and there are many parallels here with a similar dump of eighteenth-century pottery from Market Street.³⁷ Fills from the latrine included profiles of post-medieval Brill slipware dishes (Fig. 8, no. 2) and a complete profile of a remarkably elaborate red earthenware 'urn' shaped like a large chalice with a hollow pedestal base and with applied classical-style cherub masks and foliage (?acanthus) around the upper body (Fig. 9). This highly unusual vessel is probably best interpreted as a flowerpot holder. Profiles of several other large conical flowerpots in a similar red fabric also came from the fills. Only a relatively small number of sherds from the site (c.100) are as late as the nineteenth century.

Catalogue of Illustrated Vessels (Figs. 8 and 9)

Fig. 8.1. Two post-medieval candlesticks. Left: Yellow-glazed border ware, from pit dated by pipes to c.1660–1681 (context 2209). Right: Post-medieval red earthenware, from stone-lined latrine (2101) dated c.1720–40 (context 2103).

Fig. 8.2. Two post-medieval Brill slipware dishes with green-glazed highlights.

³⁶ Ibid.

³⁷ P. Blinkhorn, 'Pottery', in K. Taylor and G. Hull, 'Excavation of Post-Medieval Features and a Dump of Late Eighteenth-century Artefacts from 5/6–7 Market St., Oxford', *Oxoniensia*, 67 (2002), pp. 318–43.



Fig. 8. *Corpus Christi College, pottery and tile from the early college.*

Both from stone-lined latrine (2101) dated c.1720–40 (context 2103). Diameter of larger dish 380 mm.

Fig. 9. Flowerpot holder in post-medieval red earthenware. Applied classical cherub masks and foliage. Probably made in two sections and joined together (evidence of knife-trimming

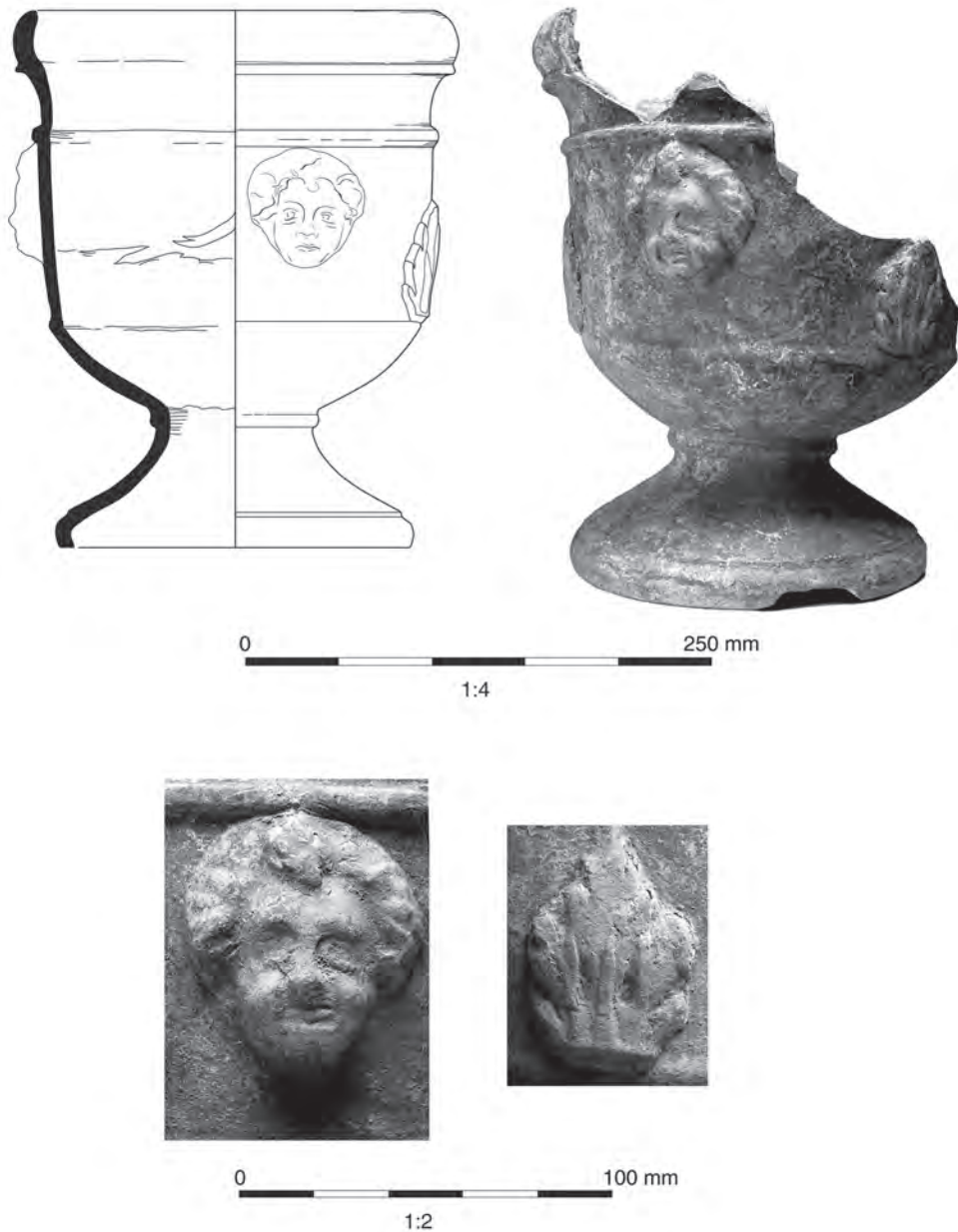


Fig. 9. *Corpus Christi College, an elaborate flowerpot holder from the early college.*

in 'stem' area). Small accidental brown glaze splashes. Patchy greyish covering (possibly whitewash?). Height 290 mm.

CERAMIC BUILDING MATERIAL by JOHN COTTER

Approximately 850 fragments of roofing tile were recovered, including 85 pieces of ridge tile. Most of this is medieval, and there are numerous fragments in early pink-buff and cream/

Published in *Oxoniensia* 2014, (c) Oxfordshire Architectural and Historical Society

off-white fabrics that are of early date, from the thirteenth or late twelfth century through to the fourteenth century. No contemporary buildings were present within the area, however, so the provenance of this material is uncertain. Parts of at least six medieval decorated floor tiles were recovered. The provenance of these is unclear, but the types are all known from the Oxford Blackfriars.

A total of 238 pieces of floor tile were recovered, mostly very worn. These are of some interest as the vast majority are plainer fifteenth- to sixteenth-century types that are likely to be contemporary with the foundation of the college. Many of these are Flemish-style 'black and white' tiles with a consistently fine sandy orange-red fabric and a thickness of around 22–23 mm (Fig. 8, no. 3). Nearly all were pre-scored before firing for breaking into smaller square or triangular tiles although some were left unbroken. The square design tiles are glazed black or dark brown and have been cut (?quartered) to produce small squares measuring 58–62 sq. mm. One such tile has been scored for breaking into six smaller squares but has been left unbroken (613). The triangular design tiles are covered in a white slip showing yellow under a clear glaze though a few have splashes of pale green glaze. These have been cut to produce triangles with a base of around 80 mm and sides of 58 mm. These smaller tiles could have been used, in combination, either as infilling in larger designs employing larger tiles or to produce a variety of 'black and white' designs including chequerboard and repeating geometric designs.

These were very popular in the late medieval period and well into the sixteenth century and are shown in numerous contemporary Flemish paintings.³⁸ A fifteenth- to sixteenth-century date is therefore suggested here. They were commonly imported from Flanders but the smaller size and thickness of the tiles here and their relative abundance so far inland as Oxford suggests they may have been more locally produced but in the popular 'black and white' Flemish style. In this respect it is worth noting that a tiler from Chertsey, Surrey is documented as having supplied Hampton Court Palace with 'black and white' tiles in the early sixteenth century.³⁹

There are also many fragments of larger thicker tiles (c.32–38 mm thick) with plain clear brownish or greenish glazes which occur in a very similar fabric to true Flemish tiles and have the usual quite large dimensions of the commonest Flemish imports. These could be true imports but may include local copies too.

Two pieces of rare early tin-glazed ('delftware') floor or wall tiles were redeposited in later contexts, but this type dates to c.1550–1625, suggesting that tiles of this type were also used in the construction of college buildings. These have a pinkish-buff fabric under a white tin glaze and may have been imported from the Netherlands or they may be very early products of the English tin-glazed ware industry (c.1560+). One (3008) is an unusual rectangular tile fragment with blue decoration on a white background showing a floral motif, perhaps a tulip or an acanthus, while the other (2401) is an edge fragment with traces of concentric decoration in blue and yellow (Fig. 8, no. 4). These are likely to have come from a building of fairly high status.

Some 29 fragments of brick were found, nearly all in fifteenth- to sixteenth-century contexts, suggesting their use in the early college buildings. One or two occur in an unusual yellow or pale brown fabric and probably come from the same source. At least two of these (contexts 606 and 2714) are outsize architectural bricks around 48–52 mm thick with rounded or rounded chamfered edges and were perhaps employed as plinths or ledges.

³⁸ For example, Hans Memling's *Madonna and Child* of c.1480–90 (see Figure 1.3 in T. Wilson, 'Italian Maiolica around 1500: Some Considerations on the Background to Antwerp Maiolica', in D. Gaimster (ed.), *Maiolica in the North: The Archaeology of Tin-Glazed Earthenware in North-West Europe c.1500–1600*, British Museum Occasional Paper, 122 (1999), pp. 5–21).

³⁹ J. Musty, 'Brick Kilns and Brick and Tile Suppliers to Hampton Court Palace', *Archaeological Journal*, 147 (1990), pp. 411–19.

Illustration Catalogue (Fig. 8)

3. Examples of 'black and white' floor tiles including some pre-scored for breaking into smaller tiles. Probably early sixteenth century (contexts 801, 620, 604).

4. Early tin-glazed floor or wall tiles. Possibly Netherlandish, c.1550–1625. Top: border tile, width 40 mm, maximum length 75 mm (context 3008); bottom: edge fragment (context 2401).

CLAY TOBACCO PIPE by JOHN COTTER

A total of 477 pieces of clay pipe was recovered, comprising 128 pieces of bowl, 14 pieces of mouth and 335 fragments of stem. The earliest piece is an unusually small pipe bowl of c.1580–1610 (context 3018). The assemblage is remarkably rich in pipe bowls of the mid and later seventeenth century and the early eighteenth century and most of the assemblage was deposited between c.1640–1740 and therefore constitutes quite a pure sample. Most of the pipe bowls and some of the stamps can be closely paralleled with those published from excavations in nearby St Ebbe's, Oxford and to a slightly lesser extent with those published in Oswald's simplified national typology.⁴⁰ The pipes have therefore not been analysed and reported in detail; an assessment of the assemblage with a list of the more interesting pieces is available in the project archive. A piece of outstanding interest, however, is a pipe by the maker John Tayler (Taylor) of Oxford (Fig. 11) which was recovered along with 128 other pieces (including 18 bowls) from fill 2209 of pit 2207, and dates to c.1660–81.⁴¹ This is one of the most highly decorated seventeenth-century pipes ever found in the city; this pipe and other comparable examples form the subject of a forthcoming report by the clay tobacco pipe specialist Dr David Higgins. Most of the pipes are probably local Oxford products but at least two early eighteenth-century pipes are distinguished by makers' stamps as Wiltshire products. This ties in with Oswald's observation at St Ebbe's that the local pipe industry lost some of its dominance in the eighteenth century to outside competition from Wiltshire, Hampshire and Shropshire but regained its dominance in the nineteenth century.

METALWORK by LEIGH ALLEN

Two hundred and fifty-nine metal objects were recovered from the excavations and assessed by the author. The majority of these were nails (143), with a further 19 examples of very common copper alloy lace tags and pins, and 53 unidentifiable fragments. The present report highlights the key aspects of the assemblage; full details can be found in the assessment report in the project archive.

A droplet of copper alloy (2615) and a piece of melted and distorted copper alloy (2633) came from fills within the eleventh-/twelfth-century pit 2636; this pit is notable for the presence of numerous craft-related finds, including sizeable deposits of ram and goat horn cores and possible tanners' tools, a spindlewhorl, a whetstone and an unusual perforated chalk object. Nails, including five 'fiddle key' horseshoe types, were recovered from pits 1010, 1710, 2410 and 2636 and the very fragmented remains of a barrel padlock came from fill 1327 of linear feature 1328. Pit 1010 also contained a hinge pivot and evidence of ironworking debris in the form of deposits of charcoal with slag, burnt clay and hammerscale. Two interesting objects were recovered from the fills of thirteenth-century pit 1032, a sheet-metal spacer from a strap-end of late thirteenth- to early fifteenth-century type, and a fragment of possible book or casket fitting of a type commonly found on sites of the twelfth and thirteenth century.

⁴⁰ A. Oswald, 'Clay Pipes', in Hassall et al., 'Excavations in St Ebbe's', pp. 251–62; A. Oswald, *Clay Pipes for the Archaeologist*, BAR 14 (1975).

⁴¹ Taylor died in St Mary Magdalen parish, and his will is dated 14 January 1683/4.

A much larger assemblage was recovered from sixteenth-century contexts that are probably from the early years of the college, although most of the objects are quite mundane and include large numbers of nails, lace tags, pins, a large darning needle, keys, scissors, a number of knives and a scale pan and weight. The more interesting items include two hooked clasps from book locks (Fig. 10, no. 1), fragments from two sheet metal vessels, and a set of rowel spurs. Two unusual finds are small decorative fittings that appear to be winding keys for small clocks or watches, from latrine pit 1801 (fill 1803; Fig. 10, no. 2) and fill 2804 of pit 2803. Otherwise, finds from later contexts of the seventeenth to nineteenth centuries are wholly utilitarian, and include nails, knives, keys, lace tags and a pin.

Illustration Catalogue (Fig. 10)

1. A hooked clasp, copper alloy, complete, with sprung back plate. The front plate is hooked at the lower end and has the characteristic expanded and scalloped upper end. There are two rivets at the upper end to attach the clasp to the cover of the book; each rivet head has a concentric circle design around it. A third rivet towards the lower end secures the two plates together. These clasps were used to keep books closed; the hooked end would have attached to a bar on the opposite cover of the book. This form of locking device is a thirteenth-century innovation but continues in use throughout the medieval and post medieval periods.⁴² SF 37, context 2805, L: 42 mm.
2. A winding key, copper alloy, incomplete. A 'T'-shaped fitting, possibly for a small clock or watch. Only one arm of the cross bar is complete; it is decorated with raised collars and is perforated vertically at the end. The central shaft is hollow and expands towards the base and is decorated with incised grooves. An identical fitting was recovered from Aldgate.⁴³ SF No -, context 1803 (backfill of latrine pit, trench 18, context 1801), L: 37 mm.

WORKED BONE by LEIGH ALLEN

A small group of objects of bone or antler was recovered during the excavations and assessed by the author; full details are available in the assessment report in the project archive. Three objects came from late eleventh- to twelfth-century contexts. These comprise a bone skate from fill 2215 of charnel pit 2212, a bone spindle whorl from fill 2632 of pit 2636 and a worked but unfinished length of red deer antler from fill 1321 of linear feature 1328. Two worked fragments of bone were recovered from thirteenth-century pits 2409 and 1223, comprising a rectangular fragment cut from a large mammal long bone which had been smoothed and lightly polished, and a sheep/goat metapodial that had been cut to form a point. A musical instrument tuning peg (SF 3; Fig. 10, no. 3) was recovered from the sixteenth- to seventeenth-century fill 2402 of pit 2416. The fan-shaped head/terminal from a pin or possibly a stylus (SF 42; Fig. 10, no. 4) was recovered from context 2209 (fill of seventeenth- to nineteenth-century pit 2207). Without the complete shaft it is difficult to say exactly what the object is but it does resemble the eraser end from a stylus, and could have been used to correct mistakes written on a wax tablet. A fragment of large mammal long bone (SF 17) was recovered from context 900 (fill of post-medieval pit 904). The fragment has been very crudely cut to form a point.

Illustration Catalogue (Fig. 10)

3. A musical instrument tuning peg, bone, incomplete. The peg has a squared off head and a cylindrical shaft; the lower end of the shaft is missing but would have had a slit or a perforation through it for attaching the string. This form of peg was for use with instruments with open

⁴² M. Biddle and D. Hinton, 'Book Clasps and Page Holder', in M. Biddle, *Object and Economy in Medieval Winchester* (1990), pp. 755–8, fig. 215, no. 2326.

⁴³ F. Grew, 'Small Finds', in A. Thompson et al., 'Excavations at Aldgate, 1974', *Post-Medieval Archaeology*, 18 (1984), pp. 127–8, fig. 63, no. 124.



Fig. 10. Corpus Christi College, objects of copper alloy and bone.

Published in Oxoniensia 2014, (c) Oxfordshire Architectural and Historical Society

superstructures where they could be inserted and tuned from behind such as harps, lyres, lutes and fiddles.⁴⁴ SF 3, context 2402 (fill of post-medieval pit 2416), L: 28 mm.

4. A fan-shaped head/terminal from a pin or stylus, bone, incomplete. The fan-shaped head has an incised groove running around the edge of both faces and on three ruled lines (on each face) the following words are crudely inscribed 'SET GOD EVER IN THY EYS HIS LAW DO NOT DISPISE'. The short section of shaft that survives is cylindrical and it is broken across an incised groove. SF 42, context 2209 (fill of post-medieval pit 2207), L: 37 mm.

GLASS by IAN SCOTT

The glass assemblage from Corpus Christi College comprises 175 sherds of vessel glass and 180 sherds of window glass. The vessel glass represents some 138 vessels almost exclusively datable to the sixteenth to eighteenth centuries. Overall the vessel assemblage is dominated by wine bottles, flasks, and phials or pharmaceutical bottles, which comprise 116 sherds representing 91 vessels, many of them complete or near complete (Fig. 11). The most interesting glass was found in pits 904 (trench 9), 1708 (trench 17) and 2207 (trench 22) and latrine pit in trench 21 – all in the president's back yard, and in the fellows' latrine pits (trench 18; trench 19, 1909–1912). Full details of the assemblage are available in the project archive, and it may (like the post-medieval ceramics) deserve further study to compare the lifestyles of the president and fellows. The study of wine bottles and tavern owners in Oxford has a long history, and the use of bottles to transport wine from the small number of Oxford wine taverns is well known.⁴⁵

Pit 904 (context 900) produced a sherd possibly from the round base of a urinal, which would be of late-medieval or post-medieval date, large single sherds from two small oval flasks with optic blown wrythen ribs and plain necks dating to the sixteenth century, and two sherds from an optic blown flask with vertical ribs on the neck, dating to the sixteenth or early seventeenth century. Pit 1708 (context 1700) contained 13 sherds from an almost complete small 'globe and shaft' bottle of mid to late seventeenth-century date. The bottle has a seal with the initials 'R.E.P.' with the arms of the Vintners' Company (Fig. 11). This seal has been identified with Richard and Elizabeth Pont, who were sub-licensees of the Three Tuns, High Street, Oxford from 1666–71, Elizabeth continuing in business after her husband's death until 1687.⁴⁶ The Three Tuns was opposite All Souls College, and stood on part of the site now occupied by the High Street frontage of University College. Other sherds include a possible urinal rim sherd of late-medieval or early post-medieval date, 4 sherds from thick walled early wine bottles dating to the late seventeenth or early eighteenth century, and a decorative wine glass stem of similar date. One of the latrine pits (trench 18) produced part of the base of a small case bottle (context 1802), a fragment of the foot of a wine glass (context 1803), a neck and shoulder fragment from a phial or small bottle (context 1804), and 2 body sherds from a small cylindrical phial or bottle (context 1804). The 9 sherds from wine bottles include 4 thick-walled body sherds from later seventeenth- or earlier eighteenth-century wine bottles (contexts 1804 and 1805). A body sherd from a squat wine bottle of early to mid eighteenth-century date came from trench 19 (context 1907).

The largest number of vessel glass sherds comes from latrine pit fills in trench 21 (contexts 2103 and 2104). These include 35 complete or near-complete vessels, for the most part wine bottles ranging in form and date from mid seventeenth-century 'globe and shaft' bottles to late eighteenth-century cylindrical wine bottles. A complete 'globe and shaft' bottle from

⁴⁴ G. Lawson, 'Pieces from Stringed Instruments', in M. Biddle, *Object and Economy in Medieval Winchester*, p. 713.

⁴⁵ Early studies by Leeds (see following) and by Haslam and Banks (see note 32 above).

⁴⁶ E.T. Leeds, 'Glass Vessels of the XVI Century and Later from the Site of the Bodleian Extension in Broad Street', *Oxoniensia*, 4 (1938), p. 154, plate xii, c.5; idem, '17th and 18th Century Wine-Bottles of Oxford Taverns', *Oxoniensia*, 6 (1941), pp. 48–9, plate x, 24–8.



Fig. 11. Corpus Christi College, seventeenth- and eighteenth-century wine bottles from the early college, with two bottle seals from *The Three Tuns on the High Street*; highly decorated clay tobacco pipe of the later seventeenth century by John Tayler of Oxford.

Published in Oxoniensia 2014, (c) Oxfordshire Architectural and Historical Society

context 2103 has a seal of Humphrey Bodicot(t) of the Three Tuns, High Street, Oxford⁴⁷ and is dated 1639–60 (Fig. 11). The phials or pharmaceutical bottles are mostly complete and are broadly contemporary with the wine bottles; fragments of three wine glasses and a tumbler were also present. Notable finds from trench 22 included three fragments of a pedestal bowl of sixteenth- to early seventeenth-century date, and three sherds from early wine bottles of later seventeenth- or early eighteenth-century date.

WORKED STONE by RUTH SHAFFREY

Twenty-nine pieces of worked stone were retained comprising 21 from contexts relating to the college (mostly stone roofing) and eight from features pre-dating the construction of the college, including whetstones, rotary quern fragments and structural stone. Four pieces of structural stone are from contexts pre-dating the foundation of Corpus Christi College, and must derive from buildings in the vicinity. One of these was a small fragment of oolitic limestone ashlar block (context 638) which had been heavily burned. The others are roof-stone fragments recovered from three thirteenth-century contexts. Two of the roof-stones are complete (706, 1403). The third example may have been used as a large floor tessera as it has been neatly cut into a right-angled triangle (2615).

Pre-college contexts also produced two whetstones. One of these, of probable Kentish Ragstone, was found in upper fill 1320 of the possible early channel or ditch 1328, at the south edge of the site. The other, a whetstone of Norwegian Ragstone, was found in association with a horn core deposit in fill 2616 of the eleventh- to twelfth-century pit 2636. Both are typical finds from medieval urban assemblages, with Norwegian Rag in particular being a very common whetstone material from the late eleventh century onwards.

Interestingly, pit 2636, which contained sizeable deposits of possible tanning waste, was also the source of an enigmatic piece of worked chalk which has had a series of shallow holes made in one surface with a pointed implement the size of a pencil (fill 2630 Fig. 12, no. 1). Chalk was imported into Oxford and occurs on a small number of other sites including Oxford Castle and the Clarendon Hotel, where it has generally been found in late Saxon or early post-Conquest contexts. The function of this particular item is unknown but it is possible that some or all of the chalk found in Oxford was used either as a whitening agent in a parchmenerie, or by scribes for correcting mistakes.⁴⁸ The only other stone finds associated with early phases of activity are two thin lava quern fragments from fill 3134 of medieval pit 3127.

The remaining items of worked stone are related to the construction and use of the college buildings. Three small pieces of oolitic limestone are certainly structural and although they are too small to be identified more closely (3022, 3025, 604), two have been reddened by exposure to heat. A total of 17 roof-stones (from 13 contexts) utilise Pusey Flags from the middle Jurassic Corallian beds of Oxfordshire, a possible source of which was located some 19 km from Oxford near Buckland. They are of varied forms including a tapered rectilinear stone with roughly central perforation at the top of the stone (1901), a narrow rectilinear example with single offset perforation (614) and a tapered example with curved edges (903). Limestone roofing from various sources was widely used in Oxford by the thirteenth century, so the recovery of it here is not unexpected.

Amongst the mainly structural stone, a single pebble has been modified into a waisted shape and suspended for use as a weight (900). It is similar in shape to a weight identified by the author from excavations at Reading Oracle, although modified pebbles such as this are unusual.

⁴⁷ E.T. Leeds, '17th and 18th Century Wine-Bottles', p. 48, plate x, 23.

⁴⁸ The possible link between chalk objects and parchment preparation is discussed in more detail in the report currently in preparation by OA on excavations at Oxford Castle.

Stone weights were used for a variety of purposes, for example as loom weights, fishing weights or door weights, and it is not possible to identify the precise function here.

Much of the stone recovered is typical of medieval Oxford sites both in terms of the stone types exploited and the functions represented. The chalk item is intriguing however, and although different in form to previously recovered items, adds to a growing body of data regarding the use of chalk in Oxford.

Illustration Catalogue (Fig. 12)

1. Worked chalk. Broken, some shaping on one side and many small pointed holes in opposing face <3–4 mm deep. Ctx 2636.

HUMAN REMAINS by HELEN WEBB and ANGELA BOYLE

A single inhumation and a quantity of disarticulated human remains were recovered during excavations in 2008. Approximately three quarters of the in situ skeleton survived (Fig. 2), although the lower legs and feet had been truncated by a later feature; the burial has been radiocarbon dated to the period cal AD 776–880. Disarticulated human bone was recovered from 37 separate contexts (within 21 features/layers). Most came from features identified as late eleventh- to twelfth-century charnel pits, in which human bone was found in deposits or layers interspersed with layers of soil that did not contain bone. Some deposits comprised only long bones, whilst others comprised other elements such as the skull and pelvis. Small quantities of human bone occurring in later features presumably derive from accidental disturbance of charnel pits.

The inhumation burial, skeleton 2508, is an elderly adult, probably female and aged upwards of 60 years. Her height can be estimated at 1.55 m and she had suffered from osteoarthritis and evidently quite severe dental problems as she had lost 11 of her teeth. Given the possible peripheral location of this burial, an analysis of carbon and nitrogen stable isotope values was undertaken on samples from a rib and a femur. This work was carried out by A.M. Pollard and P. Ditchfield of the Oxford University Laboratory for Archaeology and the History of Art. The results show no difference from other Anglo-Saxon populations in the region; the full report is available in the project archive.

The disarticulated bone comprised a total of 1,183 fragments and included some animal bone. Interestingly, the charnel includes the remains of both adults and sub-adults; 24 of the 37 contexts contained solely adult remains, only 3 appeared to comprise solely subadult remains, and 10 were seen to contain both adult and sub-adult remains. A bowed adult tibia from context 1716 suggests an individual who had suffered from rickets (vitamin D deficiency). A single adult skull (from context 1714) was isolated for detailed osteological analysis. This individual is most likely to have been a woman of around 32–35 years (although the possibility of a young male cannot be completely discounted), and appears to have died from a wound to the forehead caused by a slingshot or by an arrow with a bodkin-type point (Fig. 12, no. 2). Analysis of the skull also revealed a number of pre-existing conditions. The individual had suffered from anaemia as a child, which is usually caused either by a deficient diet or by a severe intestinal parasite infestation. Lesions on the inside surface of the occipital bone at the back of the skull may also have been the result of anaemia, although they are also thought to result from a range of conditions including meningitis, trauma, scurvy and tuberculosis.

ANIMAL BONE by LENA STRID

An assemblage of 3,704 bones from the eleventh- to twelfth-century pits was fully analysed (Table 2); they were generally in good condition and 824 (22.2%) could be identified to taxa. Traces of burning, from partial charring to complete calcination, were recorded on



Fig. 12. Corpus Christi College, 1) an unusual chalk object from early craft working debris; 2) skull from a charnel pit showing unusual evidence for a fatal wound to the forehead.

337 fragments (9.1%). It is possible that the assemblage contains a small element of material redeposited from the mid to late Saxon minster cemetery of St Frideswide's, as some human bone from truncated charnel pits was occasionally present in the groups studied for the present report.

Livestock

Domestic mammals dominate the assemblage with sheep/goat most common, even excluding the large number of sheep and goat horn cores in pit 2636 (see below). However, due to their

Table 2. Number of identified bones/taxon (MNI)

| | Total assemblage | Pit 2636 |
|------------------------|------------------|-------------|
| MAMMALS | | |
| Cattle | 186 (6) | 73 |
| Sheep/goat | 320 (14) | 155 |
| Sheep | 75 | 49 |
| Goat | 8 | 7 |
| Pig | 113 (10) | 36 |
| Roe deer | 5 (2) | |
| Horse | 18* (1) | 8* |
| Dog | 3 (1) | 1 |
| Cat | 13** (3) | 2 |
| Total mammals | 741 | 331 |
| BIRDS | | |
| Domestic fowl | 52 (6) | 17 |
| Goose | 20 (4) | 7 |
| Duck | 4 (1) | |
| Pigeon | 1 (1) | 1 |
| Woodcock | 1 (1) | 1 |
| Snipe | 2 (1) | 1 |
| Unidentified wader | 3 | 2 |
| Indeterminate bird | 92 | 30 |
| Total bird | 175 | 59 |
| COMMENSAL FAUNA | | |
| Mole | 1 (1) | 1 |
| Frog | 2 (1) | |
| Amphibian | 7 | 1 |
| Total commensal fauna | 10 | 2 |
| Small mammals | 24 | 2 |
| Medium mammals | 467 | 194 |
| Large mammals | 333 | 119 |
| Indeterminate | 1954 | 641 |
| TOTAL | 3704 | 1348 |
| Weight (g) | 29830 | 13856 |

* Including one semi-articulated horse skeleton (6 fragments)

** Including two semi-articulated cat skeletons (3 and 4 fragments)

larger size, cattle would have been the main meat provider. Judging by dental ageing data, sheep/goat were slaughtered at a range of ages, though mostly at 3–4 years. The cattle and pig were predominantly female, as were the sheep/goat pelvises; by contrast all horn cores were from males. Ram horn cores are much larger and thus more valuable for horn workers. The predominance of male horn cores may also be due to the presence of hornless ewes, a genetic trait among several sheep breeds which was almost ubiquitous in England during the medieval period. The remaining domestic species were found in small numbers. The

partial horse burial found in trench 26 consisted of the head and upper neck of an adult male, though the skull was too fragmented to allow measurements. Two semi-articulated cat skeletons were found, one in pit 2507, and the other in a charcoal-rich fill (1318) of possible ditch 1328. The avian assemblage included bones of domestic fowl, goose, duck, snipe and woodcock, all from adult individuals. It is not clear whether the goose and duck bones belong to greylag goose/mallard or their domestic forms, as they are very similar skeletally and interbreeding may occur. Chickens and geese were reared for meat, eggs and feathers and were probably kept within the town and on the floodplain meadows. The presence of waders is not surprising, considering the site location near the Cherwell and Thames rivers.

Pit 2636 – An Industrial Waste Pit?

The different layers of pit 2636 contained 46 horn cores from sheep and goat, many with chop marks at the base. This suggests that the pit functioned as a waste pit for one or more industries nearby. The pit also contained other bones from a great variety of taxa and skeletal elements, similar in composition to the rest of the assemblage, which suggests that this was combined industrial and butchery/kitchen waste. It is not clear whether the horn cores are waste from tanners or horn workers. When the butchers skinned animals, the lower legs and horns were usually left on the hide, which was sold to the tanners. They in turn cut off the lower legs and horns prior to preparing the hides for tanning, either dumping them as waste or selling them to bone workers or horn workers. The horn workers then removed the horn sheath and disposed of the core. An articulated horse head and upper neck in the same pit is more suggestive of tanning waste. Since the pit was not completely revealed within the excavations it is not known whether other parts of the horse were present, or if it had any cut marks from skinning or from disarticulation. Other finds in the excavation area also suggest waste related to tanning. One sheep metacarpal and two roe deer metatarsals with polish on the shafts were retrieved from fills 2516 and 2517 of the early pit 2521 beneath the eighth- to ninth-century human burial in this location, and from fill 2514 of the overlying feature 2507. The latter also included a roe deer metacarpal with the anterior side chopped flat with signs of polishing. Similar bones have been found in Germany in association with tanning deposits and it has been argued that they were used for smoothing leather or rubbing fat or oil into the skin during the tanning process.⁴⁹ Fill 2514 also contained the distal part of a sheep tibia that had been chopped off mid-shaft. The proximal part of the fragment was rounded and smooth from wear. It is however unclear what action may have caused this wear pattern.

FISH BONE by REBECCA NICHOLSON

In total, around 350 fish fragments were recovered, of which almost 200 bones could be identified (Table 3). The great majority come from pits of late eleventh- and twelfth-century date and this assemblage was dominated by remains from herring and eel, which is typical for sites of this date in Oxford and common for urban sites of the period. Herring and the migratory eel seem to have been staple foods, and their chewed vertebrae often appear in cess pit fills, suggesting these bones were consumed together with the flesh. Other taxa represented include rays, particularly the thornback ray, conger eel, sea bream and small gadids (cod family fish) including whiting, pollack and haddock, as well as smaller flatfish. Together with herrings, these fish were evidently imported from the coast and while it is likely that

⁴⁹ B. Arndt, *Archäologische Befunde zum Handwerk im mittelalterlichen Göttingen*, in *Lübecker Kolloquium zur Stadtarchäologie im Hanseraum V: Das Handwerk* (2006), p. 193; V. Herrmann, *Die Entwicklung von Halle (Saale) im frühen und hohen Mittelalter. Topographie und Siedlungsentwicklung im heutigen Stadtgebiet von Halle (Saale) vom 7. bis zur Mitte des 12. Jahrhunderts aus archäologischer Sicht*, Veröffentlichungen des Landesamtes für Archäologie Sachsen-Anhalt, Landesmuseum für Vorgeschichte, 56 (2001), pp. 155–6.

Table 3. Fish remains

| Sample* | 4 | 6 | 7 | 8 | 9 | 10 | 14 | 15 | 16 | 20 | 27 | 28 | 30 | 13 | 11 | 29 | Grand Total | |
|--|----------|----------|----------|-----------|----------|----------------------------|----------|----------|------------|-----------|----------|----------|----------|----------|-----------|-----------|-------------|--|
| Date | | | | | | Late 11th and 12th century | | | | | | | | | | | | |
| <i>Raja clavata</i> – Thornback | | | | | 1 | | | | | | | | | | | | 1 | |
| Rajidae – Rays | | | | | 1 | | | | | | | | | | | 1 | 2 | |
| <i>Anguilla anguilla</i> – Eel | 1 | | | 18 | 3 | 1 | | 16 | 4 | 2 | 2 | 2 | | 3 | 8 | 2 | 60 | |
| <i>Conger conger</i> – Conger eel | | | | 1 | | | | | | | | | | | | | 1 | |
| <i>Clupea harengus</i> – Herring | 1 | | | 30 | 15 | | | 9 | 3 | 2 | 2 | 2 | 4 | | 1 | 11 | 79 | |
| Engraulidae – Anchovy | | | | | | | | | | | | | | | 1 | | 1 | |
| Salmonidae – Salmon/trout | | | | | | | | 1 | | | | | | | 3 | | 4 | |
| <i>Rutilus rutilus</i> – Roach | | | | | | | | | 1 | | | | | | | | 1 | |
| Cyprinidae – Cyprinids | | | | 1 | | | | 1 | 1 | | | | | | 1 | | 4 | |
| <i>Esox lucius</i> – Pike | | 1 | | 1 | | | | 5 | | | 1 | | | | | | 8 | |
| Gadidae – Cod family | | | | | | 1 | | 7 | | | | | | | 1 | 1 | 10 | |
| <i>Gadus morhua</i> – Cod | 1 | | | | | | | | | | | | | | | | 1 | |
| <i>Melanogrammus aeglefinus</i> | | | | 1 | | | | | | | | | | | | | 1 | |
| Haddock | | | | | | | | | | | | | | | | | | |
| <i>Pollachius pollachius</i> – Pollack | | | | | | | | | 1 | | | | | | | | 1 | |
| <i>Merlangius merlangus</i> – Whiting | | | | | | | | | 1 | | | | | | | | 1 | |
| <i>Perca fluviatilis</i> – Perch | | | | | | | | 3 | | | | | | | 1 | | 4 | |
| Sparidae – Sea Bream | | | | | | | | 1 | | | | | | | | | 1 | |
| <i>Pleuronectes platessa</i> – Plaice | | | | | | | | | | | | | | | | 1 | 1 | |
| Pleuronectidae – Right-eyed flatfish | | | | 4 | | | | 2 | | | | | | | | | 6 | |
| Flatfishes nfi. | | | | | | | | | | | | | 1 | | | | 1 | |
| Unidentified | | 1 | | | | | | | | 2 | 1 | | | 1 | | | 4 | |
| Indeterminate | 1 | | 2 | 11 | 7 | 10 | 1 | 2 | 110 | 5 | | | | | 5 | 3 | 157 | |
| Grand Total | 3 | 3 | 2 | 67 | 7 | 30 | 3 | 2 | 157 | 16 | 5 | 5 | 5 | 4 | 21 | 19 | 350 | |

* S4 ctx 2408; S6 ctx 1019; S7 ctx 1022; S8 ctx 2612; S9 ctx 2611; S10 ctx 2614; S14 ctx 1720; S15 ctx 1420; S16 ctx 2511; S20 ctx 1326; S27 ctx 2630; S28 ctx 2633; S30 ctx 2006; S13 ctx 1906; S11 ctx 2104; S29 ctx 3041

the herrings were pickled to preserve them, other marine fish may have been available fresh, although all could have been preserved by salting. Freshwater fish included small cyprinids (carp family: Cyprinidae), perch and pike of less than 25 cm; pike of this size were termed 'pickerele' in later documents. All are now available in the Thames and Cherwell, as were eels, which were usually caught by trapping in mill weirs in the eleventh and twelfth centuries. A small salmonid vertebra was probably from brown trout (*Salmo trutta trutta*). Trout inhabit clean fast-flowing rivers and streams. All of these fish have also been recorded in late Saxon deposits from Oxford Castle.⁵⁰

The small fish assemblage from early eighteenth-century latrine pit fill 2104 included eel, herring, small gadid, small salmonid (probably trout), perch and, surprisingly, anchovy (Engraulidae). This deposit was particularly rich in seeds, including large quantities of grape and other fruit pips. It also included fragments of crustacean shells, some from crab (probably *Cancer pagrus*) and others probably from the freshwater crayfish (*Astacus astacus*). Small bird bones and feathers were also recovered, as well as fragments of textile. Abundant insect remains, together with bones from frog or toad, suggest that the cess pit was at least partially open to the elements.

CHARRED AND WATERLOGGED PLANT REMAINS (summarised from an original report) by WENDY SMITH

Four samples for charred plant remains from late eleventh- to twelfth-century deposits and two waterlogged samples from post-medieval deposits were fully analysed following selection at assessment stage. The results are summarised here, and can be found in full in the project archive, along with the accompanying tables.

The Charred Plant Remains

The samples analysed for charred plant remains came from a sequence of charcoal-rich layers overlying the horse burial in trench 26 (from lowest to highest, samples 10, 8 and 9 from layers 2614, 2612, 2611 respectively) and from a similar charcoal-rich layer 2511, a fill of feature 2507 in trench 25 (sample 16). The cereal grain from all three trench 26 samples was strongly dominated by free-threshing wheat, with significant quantities of rye (*Secale cereale* L.) also recovered. In addition, low levels of barley (*Hordeum* spp.) were recovered from all three samples and cultivated oat (*Avena sativa* L.) was recovered from sample 9. Samples 8 and 10 are dominated by cereal grain (63.6% and 59.9% respectively). However, sample 9 is more mixed, with 47.3% cereal grain, 9.3% germinated grain/ detached sprout/ embryo and 23.2% cereal chaff fragments, which suggests that this sample may contain malting debris. However, this is not certain and the debris could reflect spoiled grain. Sample 16 produced significantly more cereal chaff (N = 436 or 43.2%) than cereal grain remains (N = 260 or 25.7%). Notably, rye rachis nodes (*Secale cereale* L.; N = 113 or 25.9% of all cereal chaff remains) were much more frequent than rye grain (N = 2 securely identified rye grains or 0.7% of all cereal grain). The recovery of 33 cereal/ large grass (Poaceae) culm nodes from this sample, however, may suggest that cereal straw, possibly rye straw, was intentionally selected for use. Whether the charred remains are the disposal of accidentally or intentionally burned remains, however, is not clear. Although cereal straw is a likely fuel stuff, it is also possible that straw would have had a number of uses in Norman Oxford, from basketry and bedding to thatch, and burning of such material when defunct/broken or discarded may well have been a frequent occurrence.

The recovery of charred grain is common for this period in Oxford, and these results are particularly interesting in relation to recent results from Jesus College where three probable

⁵⁰ R. Nicholson, report on fish remains in OA report on excavations at Oxford Castle.

late eleventh-century samples contained proportions of germinated grain/detached sprouts/embryos ranging from 8.9% to 16%.⁵¹ Like sample 9 from Corpus Christi here, this is a fairly significant proportion of potential indicators for malting, but could be explained in other ways, including mixing of debris deposited into these secondary features. Indeed, the differences between the contents of the samples at Corpus Christi may be explained if these deposits represent a number of dumping episodes. The abundance of charred grain strongly suggests that ovens for parching/malting of grain were located nearby, and the material is also mixed with charcoal, which is consistent with debris from an oven. The charred free-threshing wheat, which is the dominant grain in the samples, usually shows no signs of germination suggesting that this is debris from parching, a process of roasting grain before milling, since if grain has a high moisture content it will turn to paste during milling. The evidence for germinated rye, particularly in sample 9, suggests that some of the debris may derive from malting, for which the same technology is used (in this case sprouted grain is heated to arrest germination).

The Post-Medieval Waterlogged Deposits

Two waterlogged deposits were fully analysed. Sample 13 was taken from layer 1906 within trench 19, located within a latrine built inside the bastion. Clay pipe from adjacent layers suggests that layer 1906 is datable to the later seventeenth century. Sample 11 was taken from layer 2104, trench 21, which was located within a second stone-lined latrine, built against the wall with Christ Church to the west; dating evidence from clay pipe, pottery and glass suggests that this layer dates from c.1720–40. Because the contents of both deposits are highly similar, they will be discussed together below.

Both samples were strongly dominated by fruit pips/stones. Possible cultivated apple (*Malus* spp.), black mulberry (*Morus nigra* L.), blackcurrant (*Ribes nigrum* L.), blackberry (*Rubus* section *Rubus* – *R. fruticosus* type), dwarf/morello cherry (*Prunus cerasus* L.), elder (*Sambucus nigra* L.), fig (*Ficus carica* L.), possible gooseberry (*Ribes* cf. *uva-crispa* L.), grape (*Vitis vinifera* L.), pear/apple (*Pyrus* spp./ *Malus* spp.), cultivated plum (*Prunus domestica* L.), raspberry (*Rubus idaeus* L.), strawberry (*Fragaria* spp.) and wild/sour cherry (*Prunus avium* L.) were recovered in abundance.

Identification of gooseberry remains tentative, because the preservation was such that it was not clear whether potential gooseberry remains were indeed gooseberry or merely the internal structure of blackcurrant (*Ribes nigrum* L.), which was recovered in large numbers. However, gooseberries have been identified by Robinson from an eighteenth-century deposit at Frewin Hall, which does suggest that this identification is not out of place for the period.⁵²

Account books from the kitchen of Corpus Christi College dating to the 1820s do appear to demonstrate a social hierarchy in access to food, with 'fee-paying gentlemen' clearly partaking in more varied culinary fare than poorer members of the college (personal communication from Julian Reid, archivist, Corpus Christi College). An account from 1827 lists apple, apricots, blackcurrants, cherries, damson, gooseberries, lemons, quince, raspberries, red currants, rhubarb and strawberries. These coincide fairly closely with the remains recovered from samples 11 and 13, and in other cases the removal of stones and pips as part of the cooking or preserving process may explain their absence from the archaeobotanical samples. Some obvious omissions from the kitchen accounts appear to be fig, grape and black mulberry, all of which were recovered from both samples 11 and 13.

In addition to fruit, condiments such as black mustard (*Brassica nigra* L.), coriander (*Coriandrum sativum* L.) and possible dill (*Anethum* cf. *graveolens*) were recovered. Whereas the fruits appear to be primarily waterlogged remains, these Apiaceae (carrot family) mericarps do appear to be at least partially mineralised.

⁵¹ W. Smith, 'Charred and Mineralised Plant Remains', below.

⁵² M. Robinson, in J. Blair (ed.), 'Frewin Hall Oxford: A Norman Mansion and a Monastic College', *Oxoniensia*, 43 (1978), pp. 48–99, identification p. 76, n. 180.

It is notable that no bran was observed in these samples, which may suggest that a 'white bread' style loaf was consumed rather than a wholemeal/brown bread type, or that bread was a more minor component of the diet. Robinson has also encountered fruit-rich deposits without bran in Oxford, but has argued that this would mean the deposit (from the Hospital of St John the Baptist, Oxford) was natural in origin.⁵³ The features sampled from Corpus Christi, however, preclude such an explanation. Aside from waterlogged plant macrofossils, these deposits have also generated small mammal bones, fish bones and unidentified crustacean remains. They also have produced abundant remains of fly puparia, which are frequently seen as an indicator of foul deposits and/or cess. As a result, it is highly likely that these deposits represent food waste, if not human excrement.

INSECT REMAINS by DAVID SMITH

Four contexts of material were presented for analysis of insect remains. Two were layers of organic material in the fills the waterlogged areas 1328 (context 1326/sample 20) and in feature 1423 (context 1420/sample 15); the third was from context 1906 (sample 13), fill of a latrine pit datable to the later seventeenth century, and the fourth was from context 2104 (sample 11), fill of a latrine pit datable to c.1720–40. The results are summarised here, and can be found in full in the project archive, along with the accompanying tables and references.

Results

The two deposits from the waterlogged areas are probably derived from stabling waste. The clearest indication for this is the considerable number of fly puparia recovered. These are dominated by two taxa, *Selobia* spp. and Copromyzinae both of which are often associated with animal dung. Similarly, the 'stable fly' *Stomoxys calcitrans* is often associated with stabling waste. Many of the beetles recovered are part of the 'indicator group' of taxa associated in the archaeological record with stabling waste, including several taxa of staphylinid 'rove beetles' such as *Lithocharis* spp., *Leptacinus* spp., *Neobisnus* spp., *Omalius caesum*, *Oxytelus sculptus*, *O. rugosus* and *Platystethus arenarius*. The various species of hydrophilids recovered, such as *Cercyon unipunctatus*, *C. atricapillus*, *C. analis* and *Cryptopleurum minutum* are also associated with this kind of loose structured and often dung-ridden material. Additionally, *Monotoma brevicollis* often is associated with stabling waste and other similar materials around settlement. Unfortunately, various parts of Kenward and Hall's insect indicator group for hay are not present here at Corpus Christi which may weaken this interpretation.⁵⁴ For example, phytophages (plant feeders) associated with hay meadows, species normally indicative of dry hay, the *Anthicus* species which occur in very decayed stabling waste and ectoparasites associated with stock animals are absent. An assessment of the plant material from these contexts included abundant plant stem/grass straw-like material, a single flax seed (*Linum usitatissimum*) and occasional seeds from weeds typical of waste ground (for example, nettle – *Urtica dioica*) and wet ground (such as spike rush *Eleocharis palustris* and sedge (*Carex* sp.)).⁵⁵ However, if this material does represent stabling waste then the single individual of the 'granary weevil' *Sitophilus granarius* may have entered the deposit in grain used as animal feed.

The insect faunas from samples 11 and 13 are similarly dominated by fly puparia. The flies from the fill of context 2104 leave us in little doubt as to the contents of this pit. The small 'sea

⁵³ M. Robinson, 'Plant and Invertebrate Remains from 13th-century Silt beneath the Hospital Buildings', in B. Durham, 'The Infirmary and Hall of the Medieval Hospital of St John the Baptist at Oxford', *Oxoniensia*, 56 (1991), p. 60.

⁵⁴ H.K. Kenward and A.R. Hall, 'Enhancing Bio-Archaeological Interpretation using Indicator Groups: Stable Manure as a Paradigm', *Journal of Archaeological Science*, 24 (1997), pp. 663–73.

⁵⁵ W. Smith, 'Assessment of Charred, Mineralised and Waterlogged Plant Macrofossils', table A12.2.

weed' fly *Thoracochaeta zosteræ* was represented by more than 800 individuals. The larvae and puparia of this fly are today mainly associated with seaweed on the coast but this species is very commonly recovered from archaeological cesspits where it is thought that pools of decaying urine and cess may have produced a similar saline environment. Also particularly indicative of the presence of cess are 14 individuals of the 'latrine fly' *Fannia scalaris* along with individuals of *Pyscoda* spp. and *Scatopse notata*, which are the 'filter' and 'drain flies', both species associated with the mats of microbial slime that build up in drains and filter beds in sewage works. The plant remains from these two contexts clearly suggest that cess is present (see Waterlogged plant remains report, above).

ACKNOWLEDGEMENTS

The excavations and the preparation of this report were funded by Corpus Christi College, and OA are most grateful to the college, and to the college's Bursar, the late Ben Ruck Keene, and Domestic Bursar, Colin Holmes, for their help and support throughout the project. We are also grateful for practical assistance, support and advice to Richard Keep and Stuart Cade of Rick Mather Architects, Roy Rowland of Ridge, Julian Reid, David Leake and Stuart Dutson of Corpus Christi College, Brian Durham formerly of Oxford City Council, Chris Welch of English Heritage, Nick Bradley of Beard and Stephen Haskins of Haskins Robinson Waters. The fieldwork was supervised by Robin Bashford and managed by Daniel Poore. The site was excavated by Sergio Carvalho, Jodie Ford, Panagiota Markoulaki, Jim Mumford, Bronwen Pihlwret, Mattias Pihlwret, Chris Richardson, Gemma Stewart and Rob Tannahill. The recording of the elevation of the bastion was undertaken by Simon Underdown. The illustrations have been prepared by Magdalena Wachnik. The project site code is OXCRI 07 & 08 and the site archive will be deposited with OXCMS under accession number 2007.2.

Published in Oxoniensia 2014, (c) Oxfordshire Architectural and Historical Society