This report presents the results of over 40 years of excavation, historic building survey and documentary research that have been carried out by Oxford Archaeology and others at the site of the Cistercian house of Rewley, a chantry founded in 1280. It became an abbey and studium providing accommodation for monks studying at the university, and can therefore claim to be one of Oxford’s earliest colleges. The railway station that subsequently occupied the site in 1851 followed the design of the Crystal Palace, built for the Great Exhibition, and was the last surviving representative of that internationally important building.
From Studium to Station
Rewley Abbey and Rewley Road station, Oxford

Edited by Edward Biddulph and Anne Dodd

Front cover:
The London, Midland and Scottish railway station in 1940
No. 26886, collection DY © National Railway Museum

Back cover:
View of Rewley Abbey drawn by J B Malchair in 1772

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The station building and its site were the subject of a series of archaeological investigations in advance of, during and after the dismantling process. Reports on the foundation structures were prepared by Rob Kinchin-Smith, Julian Munby and Jonathan Hiller of OAU (OAU 1995a and b) and a full analytical survey was undertaken prior to dismantling by Rob Kinchin-Smith of OAU in 1997–98 (OAU 1998). A further programme of survey and recording work was undertaken by Stephen Dean of Gifford Archaeology during the dismantling process itself (Gifford and Partners 2000). Following the removal of the station building from the site, a watching brief was maintained on ground reduction associated with the construction of the link road between the Botley Road and Hythe Bridge Street by the AOC Archaeology Group (1999). A full programme of historical and documentary research was undertaken by Julian Munby of OAU in 1996 as part of the pre-dismantling study (OAU 1998, Appendix A). The following account is based for the most part upon these previous studies and the contributions of their respective authors are hereby gratefully acknowledged. The editors would like to thank the architect Lance Adlam, who oversaw the dismantling and subsequent reerection of the station building, for his contribution to this report, not only in terms of his text, but also of his freely- and enthusiastically-given specialist advice. Figures 41 and 42, prepared by Jane Phimester, could not have been produced without his help.

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The post-exavation programme was managed by Edward Biddulph. The report was edited by Edward Biddulph and Anne Dodd.
Summary

This report presents the results of over 40 years of excavation, historic building survey and documentary research that have been carried out by Oxford Archaeology and others at the site of the Cistercian house of Rewley, a chantry founded in 1281. It became an abbey and studium providing accommodation for monks studying at the university, and can therefore claim to be one of Oxford’s earliest colleges. The railway station that subsequently occupied the site in 1851 followed the design of the Crystal Palace, built for the Great Exhibition, and was the last surviving representative of that internationally important building.
INTRODUCTION

David R P Wilkinson

The Cistercian house of Rewley, on the western outskirts of medieval Oxford, was founded in 1280 as a chantry, and became both an abbey and a studium. The latter status enabled monks to live there while studying at the university, giving Rewley a reasonable claim to be one of Oxford’s early colleges. Apparently never very successful as a place of study, Rewley Abbey survived until the Dissolution, after which some of its buildings remained standing and were put to secular use. We also know that some parts of Oxford’s western Civil War defences crossed the site. All of this was swept away or buried when the railway came to Oxford in the mid 19th century. The railway station that occupied the site from 1851 was, by chance, a remarkable building as a twin sister to the Crystal Palace, and the last surviving representative of that renowned building of international importance.

Over the last 40 years, a series of developments on the old station yard site have prompted excavation, historic building survey and documentary research. This report brings together the results from all of that work, the bulk of which was carried out by Oxford Archaeology (OA, formerly Oxford Archaeological Unit), although results are included here from investigations by other bodies and private individuals.

In addition to the abbey complex, which is a Scheduled Monument (Oxon. No. 80), the site also included the former LMS station building, constructed in 1851 and a Listed Building (Grade II*), and a further Scheduled Monument, the railway swingbridge over Rewley Abbey Stream. The station building has now been removed from the site, and its history forms part of this report, while the swingbridge remains in situ and has not yet been the subject of a detailed survey.

Many different bodies have funded investigations and reports, but it seems fitting that the last organisation to do so, and to fund this publication, is the Said Business School (Oxford University), which was founded in 1996 and completed its new building on the Rewley Abbey site in 2001.

Geology and topography

The site is at NGR SP 5056 0645 (centred) and is roughly the shape of a narrow triangle pointing north-west, with the tip being cut off by Rewley Abbey Stream (Fig. 1). The investigated area was bounded to the east and north-east by the Castle Mill stream; to the south by Park End Street, on the east by Rewley Road and the fire station, and to the west by the current Oxford Station and associated railway land. The derelict rail yards that occupied the site 40 years ago have now been infilled or covered by housing in the northern part of the site, student accommodation to the east, the Oxford Station forecourt to the west, and the Said Business School to the central south. The Fellows’ Garden at the northern end of the Business School overlies much of the preserved abbey remains, and the garden has been laid out to reflect the medieval plan. Part of the extreme south of the site now lies under the widened and realigned Botley Road as it runs towards Hythe Bridge Street. Rewley Road, after passing the west side of the fire station, now loops across the east side of the abbey complex, and runs north into the housing development. Ground levels on the site, prior to the redevelopment, were generally between 58 and 58.5 m OD, falling to 57.5 m OD in the southwest corner. The underlying geology consists of the gravels of the Thames floodplain, overlain by alluvium, the upper surface of which can be from 1.5 to 2.5 m below ground level. Where investigated, the alluvium was up to 0.25 m thick.

Project background

This section concentrates on the below- and above-ground interventions that have led to the current report. This report has been written in the 300th anniversary year of known research into Rewley Abbey. In 1706, Thomas Hearne exposed and described parts of the abbey complex, on a site which Agas (in 1578, Fig. 2) and Loggan (in 1675, Fig. 3) depicted as mainly open ground with only a few buildings, some field or garden walls, and a number of ponds. Much of the layout of the watercourses was recognisable, but the site as known by Hearne was some 1 to 1.5 m lower than now, due to deliberate raising of the ground for railway construction during the second half of the 19th century. Rewley Abbey stream was filled in as part of the same operations.

The complex story of modern archaeological interventions at Rewley is set out in detail in Table 1. It began in 1967–69 when trenches were dug by Oxford Archaeological Excavation Committee on the site of, and just north of, the proposed fire station. These trenches were not deep enough to reach any in situ archaeology from the abbey period. A single trench in 1981 by Oxford Archaeological Unit (OAU, now OA) cut across a medieval wall on the north edge of Rewley Abbey stream. Since then there have been three main evaluations using trial trenches, all by Oxford Archaeology: on the abbey complex in 1986, for British Rail and Oxford City Council; at Rewley Road, on the south-eastern corner of the site, in 1993, for Oxfordshire County Council; and over almost the entire site in 1994, including the area north of Rewley Abbey stream, for Stanhope Properties PLC (Fig. 4). The 1994 evaluation extended beyond the abbey complex and explored aspects of the surrounding landscape, including the Civil War defences. These three phases of work produced most of the below-ground data described and discussed in this report.

Other below-ground fieldwork has consisted mainly of archaeological monitoring on the various phases of construction work since 1993 (not described here in detail – see Table 1). In all, there have been nine such interventions. This work was part of a mitigation process by preservation in situ, which...
Figure 1 Location of the Study Area.
was applied to the student accommodation built at Rewley Road, the housing development of the northern part of the site, the construction of the Saïd Business School and the new station forecourt.

The former LMS Station, listed Grade II* was surveyed by OA in 1995, and again in more detail in 1997–98 when it was becoming clear that the building was to be moved to make room for the Saïd Business School. Further recording work was undertaken by Gifford Archaeology during the dismantling process and the building’s reconstruction at the Buckinghamshire Railway Centre at Quainton.

Methodology

The trial trenches for the 1967–9 and 1981 evaluations were excavated entirely by hand. In 1986, 1.8 m wide areas of the site were stripped down to the 1850 ground level by machine, and narrower strip trenches were then excavated by hand, while the 1993 and 1994 work was undertaken by machine stripping within the trench areas only, followed by hand excavation. In all these cases, the main purpose of the investigations was to gain a better understanding of the layout of the abbey, and to characterise the surviving archaeological deposits. Working to guidelines set by English Heritage as conditions of Scheduled Monument Consent (from 1993 onwards these guidelines were formalised in written briefs set by Oxford City Council Planning Department in conjunction with English Heritage), excavation normally either stopped at the top of significant archaeological deposits, or a small sample of the deposits was excavated, allowing artefactual and palaeoenvironmental evidence to be assessed. Exceptions to this approach were graves, some of which were partially excavated in 1986, and robber trenches, which were normally excavated to clarify wall alignments. The layout of the trenches was in all cases chosen following study of the available historic maps and views of the site. Recording methodology was as set out in the Oxford Archaeology Field Manual (Wilkinson 1991).

Although the 1993 and 1994 trenches were slightly wider than those dug in 1986, the emphasis on narrow trenches continued. With hindsight, a more varied approach including some wider excavation areas might have given better results, although such an approach might not have been granted Scheduled Monument Consent.

Because of its status as a Scheduled Monument and the archaeological significance of the abbey site, confirmed by the evaluation work just described, the policy of preserving the archaeological remains in situ was continued during the ensuing developments. Archaeologists from Oxford Archaeology worked with English Heritage and Oxford City Council, and with developers, architects and engineers, to ensure that construction work impacted either outside the

Figure 2 The site of Rewley Abbey as it appears on Ralph Agas’ map of Oxford, 1578 (south is to the top).

Figure 3 The site of Rewley Abbey as it appears on David Loggan’s map of Oxford, 1675 (south is to the top).
central zone of preserved archaeology, or into the overlying post-1850 deposits. Once construction work began it was monitored by Oxford Archaeology (and in one case by AOC Archaeology Group), again according to written specifications approved by English Heritage and/or Oxford City Council. The general lack of archaeology from this monitoring shows that the preservation in situ was successful, although in the case of the student accommodation, construction of piles over (and in some cases through

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Figure 4 Plan of the Study Area with trench locations.
the walls of) the east end of the abbey church undoubtedly caused some damage to the monument.

The report
The overall aim of this report is to bring together and discuss all classes of evidence for the history of the Rewley Abbey site, from before the abbey to the present day.

Phasing and dating
Matrices were prepared for each trench, and links between trenches were defined where possible. Dates derived from the pottery and other finds were applied to the matrices, and they were divided into pre-abbey, abbey and post-abbey phases. Given the limited nature of the trenched evaluations (see above), and the extensive post-dissolution robbing of the site, it was rarely possible to further refine the phasing.

Structure of the report
The narrative derived from the above work has been expanded using the documentary and historic building evidence, and this forms the core of the report. Specialist reports are referred to in these chapters as appropriate, and are presented separately following the main narrative sections. In each of the phases of fieldwork the trenches were numbered sequentially from Trench 1, resulting in the replication of trench numbers between investigations. For clarity in the narrative that follows each trench number is prefixed by the year of excavation, thus Trench 1 of the 1986 evaluation becomes Trench 1986/1 and so on.

A number of environmental samples taken during the various stages of fieldwork were initially believed to be sufficiently well-preserved and suitably coherent in terms of site stratigraphy to allow further analysis work during the post-excavation project (OA 2005). However, doubt over the integrity of one seemingly ideal sample and the inability to locate others meant that further work would not have been justified, and therefore no analysis work was carried out.

The archive
Archives have been assembled for each of the interventions that took place at the site, and these contain all the detailed supporting information from which this report has been written, including the original site records, records made during post-excavation analysis, and previous reports. Deposition of these archives will be at either the Oxfordshire County Museum, or the Ashmolean Museum, depending on the land ownership, and the archives are or will be available for reference and research at these institutions. Table 1 lists which archives will be deposited with which museum.

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<th>Client</th>
<th>Accession code</th>
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Evidence for agricultural activity pre-dating the establishment of the abbey was identified in four trenches. To the west of the moat that encircled the abbey a series of layers of loamy soil (1946, 1952, 1959) and possibly water-lain silt (1980, 1995, 1947–9) were recorded in the base of Trench 1994/19. These layers were sealed beneath deposits associated with a barn contemporary with the abbey and contained considerable quantities of pottery dating from between the mid-11th and mid-13th centuries. Similar deposits were also recorded in Trenches 1994/27 and 1994/28, immediately to the north and south of Trench 1994/19, although here the very limited samples excavated did not yield any datable material, and similar silt layers in Trench 1994/21 further to the south produced a single sherd of late 11th to mid-13th-century pottery. Dumps of loamy soil were also identified in the vicinity of the abbey church in Trench 1994/18 and contained a similar assemblage of pottery. The loamy soils are likely to be former topsoil layers with an admixture of pottery resulting from manuring with midden material, while the silts were likely to have derived from episodes of flooding from the nearby channels of the River Thames.

The Abbey

Preparing the ground: reclamation and levelling deposits

Rewley Abbey occupied the northern part of Osney island, an area of low-lying ground between two channels of the River Thames a short distance north west of Oxford. The area is likely to have been susceptible to flooding, as demonstrated by alluvial deposits which formed the natural substrate in many of the trenches and the silts in Trenches 1994/19, 1994/27 and 1994/28 referred to above. The first stage of construction therefore entailed a considerable engineering operation to drain and consolidate the site before building could begin.

This comprised the digging of a series of drainage channels which effectively divided the area into a series of smaller islands, as is shown on the historic maps (Figs 2 and 3). One of these islands, which fronted onto the eastern channel of the Thames, was chosen for the site of the abbey complex itself, while the remaining islands are likely to have been used as fields and pasture, possibly benefiting from irrigation by seasonal flooding. The ground level within the site of the abbey complex was raised above flood level by the dumping of layers of made ground to create a platform on which the abbey buildings could be built. All this groundwork did not pass without comment and it is recorded that Osney Abbey, located a short distance downstream from Rewley, agreed a money settlement in case these changes to the floodplain should cause flooding affecting its land.

The layers of dumped soil used to raise the ground level were the earliest deposits recorded in most of the trenches, with the notable exception of Trenches 1994/16 and 1994/17, which may indicate the location of a natural rise in the original topography of this part of the site. Variations in the composition of this made ground across the site may indicate successive phases of levelling. The initial phase of levelling may have concentrated on the central part of the site and is represented by dumps of loamy soil recorded in Trenches 1994/18 and 1994/25 in the area of the church, Trenches 1986/1 and 1986/2 a short distance to the west and Trench 1986/5 in the area of the eastern range of the cloister. The soil used for this levelling contained much pottery and may have originated as midden material imported from the nearby city, which would explain the presence of much of the earlier pottery found on the site. These deposits also contained the only coin from the excavations, an Irish silver farthing of Edward I (SF 8) dating from 1280/1–1295, and an English jetton (SF 5) dating from 1302–7, both recovered from Trench 1994/18.

The made ground recorded in the eastern part of the site in Trench 1986/4 and all four trenches of the 1993 investigation (102, 107, 224, 326, 422) contrasted with that in the central part of the site in consisting of dumps of orange clay and gravel. These layers contained pottery of slightly later date in addition to early material similar to that seen in the central area, and is likely to represent a slightly later phase of levelling on account of its relationship with the precinct wall (below). Similar dumps (1637–1639) were also recorded immediately beyond the northern part of the moat in Trench 1994/16.

Enclosure and access: the precinct wall, moat and entrance road

Maps and views of the abbey drawn during the post-medieval period show that the complex was enclosed by a precinct wall (Figs 2 and 3), the construction of which was licensed by Edward I in 1299. The wall on the eastern side, facing onto the river, is still extant, including an arched doorway of 14th-century design (Plates 2 and 3), and the relationship of this wall to adjacent archaeological deposits was examined in Trench 1993/1.

The wall was set within a foundation trench (110) dug into the underlying alluvial silt (131) immediately adjacent to the edge of the river channel (Fig. 6). The fill of the foundation trench (130) contained a single piece of glazed floor tile of late 13th- or early 14th-century type which would be consistent with construction around the time the abbey was founded, and the presence of such material may be indicative of later construction work being carried on at the same time. That the wall and made ground were contemporaneous is demonstrated by the construction of the wall, with faced stones beginning at the original ground level on the river side but considerably higher on the inner side, which is butted by 0.8 m of dumped clay and gravel (102, 107) to make the ground up to this level (Plate 4).
The natural silt of the river bank was overlain by a dump of gravel (129) against the foot of the wall, upon which rested a thick layer of rubble and mortar (127) that spilled down the bank and into the river channel. This layer contained large faced limestone blocks and is likely to be the result of a partial collapse of the wall in this area, the repairing of which was identifiable as an area of cruder construction in the upper part of the wall. No evidence was recovered to provide a date for this event, but it may have occurred fairly late in the history of the site as it was overlain by a series of flood silts (120–125), the earliest of which was dated by pottery to the late 18th-early 19th century.

The drainage channel around the north and west sides of the main abbey complex was formalised into a moat, the sides of which were revetted by stone walls which were exposed in Trenches 1994/17, 1994/19 and 1994/21. In all three trenches only the top of the surviving part of the wall was exposed as the depth of the trenches and the instability of the overburden precluded excavation to a greater depth. The revetment wall on the inner side was presumably continued upward to form the precinct wall on these sides, as Loggan’s map of 1675 clearly shows the wall facing directly onto the moat (Fig. 3). The historic depictions of the abbey also show that along the north side of the complex the place of the precinct wall was taken by the north range of the cloister.
Figure 6. Trench 1993 T section through the riverside wall and related deposits.
The revetment walls were generally 0.5–0.7 m wide, and neatly constructed from limestone blocks. Trenches 1994/17 and 1994/19 showed that both the inner and outer walls were not constructed flush with the cut of the moat, but stood proud of it by as much as 0.55 m, with the intervening gap filled in with deposits that contained pottery of late 13th- to 14th-century date. The existence of a similar gap in Trench 1994/21 was less clear, as stone robbing, which had affected the wall in all of the trenches, had disturbed this side of the wall.

In Trench 1994/19 the wall revetting the outer side of the moat (1957) was found to be overlain by successive layers of silt (1928–1931) that contained pottery dating from the late 13th or 14th century. These layers may have been laid down either by overbank flooding of the river and moat, or represent upcast from periodic cleaning out of the moat.

The moat itself measured between 6 m and 8 m wide. Due to the difficulty in excavating safely to any great depth in narrow evaluation trenches it was not possible to establish the full depth of the moat, despite excavating to a depth of more than 3 m in Trench 1994/20. Most of the fills encountered within the moat consisted of the clay backfill used to level the site for the construction of the Rewley Road railway station during the 19th century. Possibly earlier fills were recorded in Trench 1994/21, in the form of a homogeneous layer of silt (2124) more than 0.6 m deep, and in Trench 1994/16 where a series of deposits dumped against the inner revetment wall (1657, 1658, 1662–4) may have been part of the 18th-century backfilling but could equally have started earlier. The latter scenario would be consistent with drawings of the northern frontage of the abbey, which show trees and plants growing on a slight bank against the wall (Fig. 7). There was some evidence that the moat had been re-defined or cleaned during the 18th or 19th century, particularly in Trench 1994/21 where an apparent re-cut (2106) truncated a layer (2121) containing pottery of this date.

There is some evidence that the main abbey complex may have been further defined by an east-west ditch dividing it from the southern part of the island on which it stood, and perhaps intended to separate the monastic buildings from the parts of the abbey estate with more secular uses. This ditch (216) was recorded at the southern ends of Trenches 1986/1 and 1986/2 investigation, where it curved around the south-western corner of the abbey complex and extended eastward beyond the trenches. It was cut into a layer containing early 15th-century pottery and had been re-cut on at least one occasion. Although it approached close to the western part of the moat, the fills in the base of the ditch showed no indication of being waterlain and so the ditch is likely to have been dry and not to have formed a continuation of the moat system. The evidence from pottery within its fills and from the overlying soil layer suggests that it was filled in during the 16th century, which would be consistent with its omission from Agas’ map (Fig. 2). A stone footing that was approximately square in shape (217) was set deep into the fills of the ditch, and may have been a pier for a bridge carrying the entrance road across it, although no corresponding abutments were observed at the edges.

The abbey grounds were entered from Hythe Bridge Street to the south, where a medieval arched gateway was still standing in 1720 (Fig. 8). An entrance road extended northward from the gate to the main abbey complex along the line now followed by Rewley Road. The entrance road was sectioned where it approached the main abbey complex in Trench 1986/3. The road comprised a surface of limestone cobbles (302) beside which was a shallow north-south ditch (303), presumably one of a pair of drainage ditches flanking the road. The ditch had been backfilled with gravel that may previously have been used as metalling for the road. Pottery from the road surface dated from between the 13th and 15th centuries.

Two successive gravel layers (213, 209) pre-dating the ditch in Trenches 1986/1 and 1986/2 and two later similar layers overlying the earlier cut of the ditch may indicate the presence of a path branching.

Plate 4. The western face of the riverside wall. Note the unfaced stonework of the lower part of the wall, which was abutted by dumps of made-ground.
off the entrance road to extend around the outside of the south-west corner of the cloister, possibly extending across a bridge over the moat shown in this location on historic maps.

The church and cloister (Fig. 9)
The results of the excavations at Rewley have demonstrated that the abbey complex comprised a church orientated ENE-WSW, with a small cloister on the north side. This is the reverse of the design normally adopted by the Cistercian order, which normally located the cloister to the south of the church, and may have been dictated by a desire to place the church away from the edge of the moat to avoid the risk of subsidence. Access into the complex from the entrance road may have been through an arch at the western end of the church, which was shown in

Figure 7. The ruins of Rewley Abbey seen from the north-west, drawn by W Turner in 1851. Minn Coll. Neg. 10/44 © Bodleian Library, University of Oxford.

Figure 8. A view of the entrance to Rewley Abbey, drawn by M Burghers in 1720. Henry W Taunt Coll. (HT12905) © Oxfordshire County Council.
Figure 9: Plan of the main archaeological features in the abbey precinct.
Burghers’ engraving of 1720 (Fig. 10), although it is also possible that this feature had been from another location after the Dissolution and that access into the cloister was originally gained at some other point. Although the west, east and north ranges have been located by excavation, none was investigated extensively enough to establish the functions of each range or identify specific rooms, but it seems most likely that the standard layout of a Cistercian monastery was simply reversed due to the specific circumstance of the abbey’s location. Limited investigation of the areas outside the cloister has also enabled some details of the use of these areas to be filled in.

The church (Fig. 11)

The precise location of the abbey church had been much debated due to an absence of historical records, as it was apparently demolished shortly after the Dissolution and no trace remained above ground by the time the earliest historic maps were drawn. The issue was partly resolved by the 1986 investigation, when parts of its remains were exposed in Trenches 1986/9–1986/11a. Its identification was confirmed in 1994 by Trenches 1994/18 and 1994/25, but there is still much uncertainty over its exact dimensions and layout, particularly as it has not been possible to satisfactorily identify either the east and west ends or the transepts.

The stonework of the church had been substantially robbed, with the outer walls reduced down to the level of the water table, but it was possible to trace the line of the north and south walls from the alignment of the robbing cuts. This indicated that the main body of the church had an internal dimension of 12.5 m and was at least 40 m long. The most substantial piece of surviving masonry from either wall was part of the foundation of the southern wall (1851) exposed in Trench 1994/18 (Plate 5). This was 1.5 m wide and survived to a height of 0.5–0.6 m and was constructed of large, roughly shaped limestone blocks bonded with a yellow sandy mortar. On its southern, external side was the foundation of a badly robbed piece of masonry (1852) 1.4 m wide and of identical build. This feature extended beyond the southern edge of the trench and is likely to be either a wall of the south transept or a buttress. It lay on the same alignment as a robber trench (801) recorded in Trench 1986/8 and has been viewed as being part of the east range of the cloister, suggesting that the former interpretation is more likely. If masonry 1852 is indeed the west wall of the transept, then a robber trench recorded in Trench 1986/10 is likely to indicate the position of the corresponding east wall.

The line of the south wall of the church identified in Trench 1994/18 was continued in this trench by a robber trench (1006) from which a return (1007) branched off to the south c 5.2 m east of wall 1852. The return extended for 1.2 m before continuing under a baulk within the trench. The northern wall of the church was identified as a robber trench 1.5 m wide extending through the northern ends of Trenches 1986/9 and 1986/11a (906, 1156), but the stonework at its base was not investigated in any detail.

Within the interior of the church four stone piers were identified, which would have formed part of a pair of arcades dividing the nave from two narrow aisles only c 1.7 m wide. The piers were constructed from blocks of limestone and, like the walls, had been affected by stone robbing, though to a slightly lesser and more variable extent. Although none of the piers was completely exposed within the limited area of the trenches, they appear to have been rectangular in shape with their longer axes parallel with that of the church. The piers in Trenches 1986/9 and 1986/10 both measured c 2 m × 1.6 m, while the largest example, the pier in Trench 1986/11, measured at least 2.15 m wide, its longer dimension extending beyond the edge of the trench.

Figure 10 A view of the ruins of Rewley Abbey from the south, drawn by M Burghers in 1720. Henry W Taunt Coll. (HT12905) © Oxfordshire County Council.
Figure 11  Plan of trenches investigating the Abbey Church.
The limited amount of trenching carried out revealed few details of the interior of the church. The floor comprised a series of make-up layers (1863–5) overlain in most of the trenches by a hard gravel surface (1823), none of which contained any dating evidence. In Trench 1986/9 a sequence of three mortar floors was encountered (928–930), but these seem to be localised to this trench. The gravel would have formed an unusually crude surface for the inside of the church, and so is likely to have been a bedding layer for a better quality surface that does not survive. Enough glazed floor tiles were recovered from residual contexts to indicate that at least part of the church was tiled, although this is unlikely to apply to this part of the floor as the gravel would not be an appropriate bedding for such a surface.

Four graves were identified within the church, all of which shared the same orientation as the building. One grave (1103) was located in the middle of the nave, one (1157) in the north aisle, and two (1104, 2523) in the south aisle. The inhumations were placed in an extended supine position in shallow sub-rectangular cuts without coffins, although it is possible that they were wrapped in shrouds. The parts of the skeletons in graves 1103 and 1104 exposed within Trench 1986/11 were excavated (Plate 6), but those elements lying beyond the limits of the trench were left in situ. Sufficient was exposed of the skeletons in graves 1157 and 2523 to confirm the identification of the features as graves, but the remains were left in situ. Unusually, the body in grave 2523 lay with its head at the east end, the reverse of the orientation of the other burials. The body from grave 1104 was identified as female, but the others lacked diagnostic features to establish their sex. The backfill of grave 1103 contained two sherds of pottery dating from the mid 12th–14th century while a handful of residual pottery recovered from grave 1104 dated from the 13th–14th centuries. Evidence for at least three other burials was also recovered. In addition to its intended occupant, grave 1103 also contained a disarticulated leg, presumably disturbed from an earlier burial. Robber trench 900, excavated in Trench 1986/9, contained the disturbed remains of a relatively complete burial, which like that in grave 1104 was female, while an apparent robber cut (1100) within the nave in Trench 1986/11 contained the remains of a more partial skeleton. A small assemblage of unstratified human bone was also recovered from Trench 1986/11.

Outside the south wall of the church the made ground (1858) was overlain by a skim of mortar (1853) that may have been associated with the construction of the church, above which was a make up layer (1850) for a hard gravel surface (1827, 1848). This surface also sealed a series of dumped deposits that seem to have formed part of a midden (1828, 1829, 1831, 1834–8) c 6 m from the wall of the church, containing large quantities of pottery, charcoal and bone. A layer of soil (1810/1847) that had accumulated over the gravel surface contained pottery dating from the late 13th–15th century.

A large roughly circular pit (2538) within the nave in Trench 1994/25 was found to have many large pieces of limestone in its base. The backfill of the pit (2537) contained pottery of 17th- to 18th-century date, and it is likely that the feature represents further robbing of stonework, although it is unclear what element of the church could have been located here. A large pit (918) was partly excavated within the nave at the south end of Trench 1986/9. The pottery from this feature was 13th- to 15th-century in date and included a jug base with an inner surface heavily stained with a dark red-brown substance which may be red lead, a common medieval paint. The jug may have been used for storing paint, or the broken base re-used as a palette. This pit was cut by a second, shallower pit (902) that was dated by pottery within its fill to the 13th–15th century. This feature may have extended into Trench 1986/10, where pit 1002 was in an analogous position and was cut by the robber trench (1016) for one of the piers of the southern aisle.

A further indication of the appearance of the church was provided by the discovery of pieces of medieval window glass painted with designs of foliage and cross-hatched in-filling, in a style typical
of the 13th century. One such fragment was recovered from a pit within the nave of the church (902) and one from a soil layer immediately outside the south wall (1810), while a third piece came from a disturbed context in Trench 1986/1.

The chapel/brewhouse

A rectangular building at the south-western corner of the complex was uncovered at the west end of the church in Trenches 1986/1 and 1986/2 (Fig. 12) and further investigated in Trenches 1994/18 and 1994/25. This building appears to have had a predecessor, as part of a wall (31) was exposed running parallel to the west wall of the building. A possible return of this wall (28) was cut by the foundations of the building.

The building lay on the same ENE-WSW orientation as the church and measured c. 10 m wide and 12.5 m long. The west wall (3) was very substantial with an offset plinth on its outer face, a battered inner face and a footing at least 1.0 m deep. The south wall (201/202) was of similar proportions, but the north wall (218) was narrower and also differed in being bonded with a more friable gravelly mortar. The eastern side of the building was represented by a return from the north wall at the north-eastern end of the trench. The variation in the dimensions of the walls is likely to be due to the south and west walls being external walls while the north wall was buttressed on its north side by the west range of the cloister.

Against the western edge of Trench 1986/2 a rebate in the north wall indicated the original position of a doorway opening into the west range, which had subsequently been blocked (236). Within the building a series of layers of gravelly soil deposited to raise the ground level in advance of construction (29/2–4) were sealed beneath a gravel floor surface (7, 29/1). A robber trench (259) inside the building, branching off at a right-angle from the north wall, may indicate the position of a former internal wall, and contained a French dolphin jetton (SF 88) dating to c. 1375–1415, in addition to a range of medieval pottery sherds.

Burghers’ engraving of the abbey in 1720 shows this building as having a pair of arched windows in its western gable end, indicating that it was medieval in date and had been constructed as part of the abbey (Fig. 13). A likely interpretation is that it was originally a chapel, although on present evidence it is not possible to say whether it was a free-standing building or was integral to the west end of the church. A stack of barrels shown outside its entrance suggests that by this time it had been converted into a brewhouse (Fig. 10), and this identification was confirmed in the excavation by the presence of a large feature interpreted as a steeping vat (6) cut into the floor of the building. This vat was sub-rectangular in shape and measured 5 m x 3 m. It was
HISTORICAL BACKGROUND

Julian Munby

West Oxford, Oseyne and Rewley

Westward from the city beyond Hith Bridge stands the ruins of an abbey called ‘Rewley’, in Latin evidence stiled ‘locus regalis in North Ousney’. It was sometimes seated with pleasant groves and invironed with clear streams, remote from the city, and for its solitariness agreeable to the disposition of the inhabitants, who (as it hath allwayes bin observed) made choice of such places to exercise their devotion in. [Wood City of Oxford ii, 290]

It may be asked why a Cistercian Abbey was built in the fields of West Oxford. The western suburbs, mostly consisting of hay meadows and pastures in the manor of Oseyne, were probably an ancient point of entry to Oxford from the ancient (Roman) route coming in from Ferry Hinksey and across the fields, but there was not a major road out of town before the 16th-century building of a causeway to Botley and thence across Wytham Hill to Eynsham and beyond. Neither was there a direct route: St Thomas High Street provided a lower route that turned up Hollybush Row to reach the Botley road and Hythe Bridge Street, formed by Oseyne Abbey around 1200, also had to turn a dog-leg to reach the Botley road. The manor or island of Oseyne, like the fields on the north of Oxford, was divided between the two Norman lords of Oxford, Robert d’Oilly and Roger d’Ivri. South Oseyne included much of the new suburb of St Thomas’s and the site of Oseyne Abbey. North Oseyne comprised the north side of St Thomas’s street and the fields as far as Rewley, where there may have been a manorial centre. D’Ivri’s holding in North Oseyne descended to the Honour of St Valery which was granted by the crown to Richard Earl of Cornwall in 1227.

The Earls of Cornwall and the Cistercians

Richard (1209–72), founder of the Cistercian Hales Abbey in 1246, was the younger brother of King Henry III and in the course of a varied public life was crowned King of the Romans (i.e. Germany) but did not go on to become Emperor. It was his son Edmund who brought the famous relic of the Holy Blood to Hales in 1270, and who then founded Rewley Abbey in memory of his parents (its name regalis loco ‘the royal place’ referring to Richard’s rank). They had been buried at Hales Abbey, but Richard’s heart was interred before the high altar of the Franciscan church in Oxford, and he had intended to found a college or chantry. This was taken up by his son who petitioned the general chapter of the Cistercian order in 1280 to build at his own expense a house of study (studium) at Oxford for English Cistercians. Their response was to licence a studium, built by the earl and to be subject to the Abbot of Thame, but this was altered, at the earl’s request, to be a proper abbey with its own abbot, where a mass would be said daily for his father’s soul.

Oxford Schools and Colleges

Oxford was by no means a collegiate university at the end of the 13th century, and most students lived in academic halls under the care of a master. With the arrival of the friars (Blackfriars in 1221, Franciscans in 1224, Carmelites in 1256 and Austins in 1266) schools were associated with their houses and linked to the university. Three secular halls had been endowed to become ‘colleges’: University (1249), Balliol (1263), and Merton (1264), but they only provided for a total of 48 scholars. The Cistercians had founded a place of study in Paris in 1244, and the foundation of Rewley in 1281 gave them an English school to which other English abbeys could send their monks for study. Other colleges for Benedictine monks at Oxford were soon to follow: Gloucester College in 1282 and Durham College in 1286.

The Foundation

Rewley Abbey was dedicated in December 1281 by Robert Burnell, Bishop of Bath and Wells (himself an intended college founder at Burnell’s Inn), with the first six monks from Thame Abbey being responsible for the chantry masses. It was from the beginning an abbey with a school. Its seal showed a master with fourteen pupils, and it is evident from later records that the building(s) of the studium were somehow distinct from the abbey, just as the monk scholars were perhaps distinct from the other monks, supporting themselves at the expense of their own houses.

Abbey lands

The foundation was not without controversy: Oseyne Abbey received a payment in 1281 to withdraw their objection to the loss of tithes, and the flooding that they imagined would be caused by raising the land for the abbey. Not long after this, in a hearing before the itinerant justices in 1285 the Abbot of Rewley was fined for raising an outer chamber (cámara forinsecam) over the water of the Thames, 12 foot long by 6 foot wide, ‘by which boats bringing victuals to Oxford are impeded, to the great damage of the borough’. The abbot was fined and the Sheriff was to see to the demolition of whatever was damaging. At the same Eyre the Abbey of Eynsham claimed the manor of Yarnton from Rewley, and the Abbot of Rewley called upon Edmund Earl of Cornwall to give warranty, which was given. The charter of Edmund Earl of Cornwall in 1294 confirmed to the abbot and fifteen monks of St Mary of Rewley the manors of North Oseyne and Yarnton, his wood in Nettlebed in two parks, and land in Mixbury, together with a church in Cornwall. In 1354 Bishop Grandison granted Rewley the
appropriation of St Stithian’s in Cornwall (of which Edward the Black Prince had previously given them the advowson).10

Rewley had obtained the north end of Warham Bank next to their cemetery in 1286, after an inquisition decided that it would not cause damage so long as they did not breach it to the damage of the castle mill.11 Concerns for the control of the river and mill streams was a constant concern for their neighbours, and in a complex agreement with Oseney Abbey in 1297 about tithe payments the Abbot of Rewley agreed not to do anything in the abbey close that would impede water to Oseney mill.12 Disputes on tithes in the valuable hay meadows continued to occur at later dates,13 while there were also quarrels with the city in the 1330s on the abbey’s rights to hold pleas in its manor.14

The Studium

Something of the arrangements for the studies of the monks at Oxford is indicated by the records of the Cistercian General Chapter. In 1289 the places of study were Paris, Oxford, Montpellier, Toulouse and Compostella,15 and in 1292 the chapter commanded that every monastery with 20 monks should maintain one at University. Following this the Abbot of Citeaux ordered that Cistercian houses in the Province of Canterbury should send students to Oxford, and each student to have an allowance of 60 s.16 In 1335 Pope Benedict XII ruled that Cistercian students of England, Scotland, Ireland and Wales were to use the University of Oxford both for primary education (primitiv scientiae) and for theology.17 That the studium was active in the first half of the 14th century is shown by a formulary of model letters of 1340 containing references to Cistercian students at Oxford, and other references.18 However, the system of financial support for the monk students does not seem to have worked, and by 1381 the buildings and possessions of the studium were forfeited to crown before being returned to the abbey. The crown’s intervention was on the ground that there was a breach of the Statute of Mortmain, but it was observed that there were ‘buildings within the bounds of the abbey, built at the joint expense of certain abbeys of the order in England for the abode of monks of the order studying in the University of Oxford; they had been forfeited to the king and now belonged to the abbey of Rewley by the king’s gift. Salter suggested that the Earl of Cornwall’s buildings had been superseded by ones built by Cistercian abbeys, and that these were all now given to Rewley.19

A complaint was made in 1398 to the general chapter from Cistercian scholars at Oxford about the provision of buildings, maintenance and books. They were evidently not living at Rewley, and about then we hear of Cistercians renting rooms at University College, and living at Trillocks Inn (New Inn Hall).20 An attempt was made in 1400 by a delegation from the general chapter to organise a new building for students by raising a levy from Cistercian houses in England and Wales. Repeated efforts were made in 1411 and 1425, but it was not until 1438 with the foundation of St Bernard’s College (now St John’s) that a permanent home was found; its foundation charter specifically stated that the Cistercians had no one place of abode in Oxford but dwelt in various places [in diversis hospiciis site locis].21

Last days of the abbey

Rewley continued as an ordinary abbey, occurring occasionally in records of the order (rather unusually in 1470 when a monk wrote inquiring about the production of gold by alchemy),22 and as a neighbour paying tithes to Oseney and in dispute with the town in 1515 over enclosing and water management.23 The abbey was sufficiently prosperous in the 15th century to engage in some building activity, and benefactions were made to works on the church in 1461 and the rebuilding of the choir in 1488.24 The income of the abbey was reckoned to be £107 in 1526, and £188 15s 11d (£174 3s clear) in 1535.25 The king seems to have considered retaining Rewley as a grammar school, and in 1536 Abbot Austen offered Cromwell £100 to save the monastery by converting it to a College, but in the event the abbey was suppressed in that year and the abbot was pensioned off and retired to Cambridge.26

The site was sold to Dr George Owen in 1541, together with the lands of Godstow Nunnery, though he later released them to Henry VIII for the foundation of Christ Church in 1545.27

Post-dissolution history

The church and cloister were quickly removed, and by chance we know that the windows from the abbey were taken to Hampton Court in the autumn of 1537, apparently for the king’s new bowling alley. A total of 40 windows (20 from the church clerestory and 20 from the cloisters) were used, and lead from the roof was used to cover the queen’s new gallery.28 The remaining buildings were converted to domestic use, and leased out by Christ Church. As landlords, Christ Church took on the role of protagonist with the city over the control of water, and in particular Rewley Lock, over the next decades; this included the city closing the watercourse ‘going to the howse of ofycye of Ruley’ in August 1576.29 Monastic sites were often converted for industrial purposes, and in 1555 a lease was drawn up for a site at Rewley for a fulling mill, but the main building was leased as a farmhouse with adjacent land to Nicholas Woodson, yeoman from 1553 to 1580.30 The large number of leases at Christ Church is repetitive and none provides much topographical information, nor indicates the extent of sub-letting, which was usual. They are here summarised (Table 2).
Antiquarian discoveries

In the early 18th century Thomas Hearne made a systematic study of Oxford antiquities, publishing notes in the appendices to his numerous publications, and often illustrated by the accurate engravings of David Loggan’s pupil, Michael Burghers. His diaries include many references to his investigations at Rewley, and discoveries made there.33 His major discovery was the Countess of Warwick’s foundation stone in 1705 (Plate 1), which he bought for half a crown (see below), and he found coins there in February 1706.34 He made an important observation about the standing north range later that year referring to an otherwise unrecorded excavation:

‘That part of the Abbey of Rewley now standing which seems to have been part of the Chapell to some did not at all belong to the Chapell as appears from the whole Circumference of the Chapell lately discovered, when the Foundation of the Walls were dug up. It was in the Garden on the East side as you enter into the House, & did not come to the said part now standing by a great many Yards. I cannot learn that any coffins or Bodys have been ever dug up; so that it should seem their burying place was at St. Thomas’s Church, or else at Oseney, & perhaps this may be one reason why Ela Longspee (that built Rewley Chapell) was buried in the Chapell of Oseney, as appears from Evidences cited by Mr. Leland’.35

Table 2  Christ Church lessees of Rewley.

<table>
<thead>
<tr>
<th>Date</th>
<th>Lessee</th>
<th>Occupation</th>
</tr>
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<tbody>
<tr>
<td>23 Eliz (1580)</td>
<td>Francis Willis</td>
<td>President of St John’s College</td>
</tr>
<tr>
<td>1618</td>
<td>Katherine Willis</td>
<td>Widow of Francis ‘of the University’</td>
</tr>
<tr>
<td>18 Charles I (1642–3)</td>
<td>John Rouse</td>
<td>–</td>
</tr>
<tr>
<td>No date</td>
<td>William Hutchenson</td>
<td>Daughter of above</td>
</tr>
<tr>
<td>1650</td>
<td>Sylvester Hutchenson</td>
<td>Gentleman (of Gloucestershire)</td>
</tr>
<tr>
<td>1659, 1667, 1674</td>
<td>John Hicks</td>
<td>Of Inner Temple, London</td>
</tr>
<tr>
<td>1684</td>
<td>Robert Croke</td>
<td>Of the University, M.A.</td>
</tr>
<tr>
<td>1695, 1702</td>
<td>Timothy Bourne</td>
<td>Gentleman</td>
</tr>
<tr>
<td>1716, 1720, 1723</td>
<td>John Saunders</td>
<td>Gentleman of the parish</td>
</tr>
<tr>
<td>1737, 1744</td>
<td>Revd Benjamin Blayney</td>
<td>Worcester College</td>
</tr>
<tr>
<td>1765, 1772</td>
<td>Dr David Durrell</td>
<td>Principal of Hertford, D.D.</td>
</tr>
<tr>
<td>1779, 1786</td>
<td>Thomas Spencer</td>
<td>Of St Clement’s, horsedealer</td>
</tr>
<tr>
<td>1793</td>
<td>Richard Godfree &amp; wife</td>
<td>Of London, upholster</td>
</tr>
<tr>
<td>1800, 1807, 1839</td>
<td>James Rowland</td>
<td>–</td>
</tr>
<tr>
<td>1851</td>
<td>Acquired by Bucks. Railway</td>
<td></td>
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</tbody>
</table>

Plate 1  Countess of Warwick’s foundation stone © Oxfordshire County Council.
On a visit in May 1706 he noted the arms at the gate (see below) and some surviving glass:

‘At Rewley, just as you enter into the House now standing are the Arms of the Earls of Cornwall &c., and in a Closet on the south side are the Images in Glass of some of the Apostles, as St. Andrew, St. Thomas &c. And as you go upstairs in the window are these Arms, viz. Azure a Bend Sinister argent, & parted per Pale Azure & or’.

Odd notes about Rewley occur at various points in the diary, and in 1717 he noted, ‘There are two FishPonds remaining at Rewly that belong’d to ye Monks there’. In his usual manner, Hearne included an engraving of the foundation stone in his 1718 publication of Leland’s Itinerary, and in 1719 he remarked on the ownership of Mr Bourne, a brewer in St Thomas’s parish, who now wished to sell. A year later Hearne published his edition of the Textus Roffensis, which included the Burghers view of Rewley (Fig. 5, 8, 10 and 13), notable for showing brewing in progress. And in March 1725:

‘This day walking to Rewly I saw many Alterations making on the North side of the Remains of that House, now turned into a Brew House, particularly a passage made through the Wall for better convenience of the Place, as it is now a BrewHouse’.

Finally in 1732 Mr Bourne, described as a sadler and maltster, died at ‘Rewly House’ and was buried at St Thomas’s:

‘Tis pretty certain he did not thrive at Rewly, which was a religious House, as ‘tis likewise pretty certain that never anyone thrived at it since the Dissolution. Mr Bourne used to love to talk of Antiquities’.

Final years

The later history of the estate, recorded in Christ Church records, included surveys in 1775 and 1829, and valuations made in 1807, 1828, and 1842. The plan made in 1775 showed the north range still standing, but when surveyed in 1829 it had been reduced to a rump at the west end. In May 1849 an agreement was made with the Great Western Railway for the purchase of five acres in occupation of James Rowland (i.e. the present station site), with a subsequent valuation, and an agreement that the money would be invested for Rowland’s benefit. At the final sale to the Buckinghamshire Railway Company in January 1851 the valuation stated that the property consisted of Rewley gardens, dwelling house, malthouse and sundry buildings (12 ac., 1 rood, 27½ perches), bounded west by the intended GWR station, and south by the turnpike road. It was the freehold of the Dean and Chapter, with a value of £12,355 (in relation to the price of land in the vicinity, which exceeded £1000 per acre, and the scarcity of freehold land in the area because of college ownership, and the expansion of that part of Oxford in the previous 30 years).

Buildings of Rewley Abbey

The buildings of Rewley Abbey are known from a series of pictorial representations dating from the 16th to 19th centuries, supplemented by a number of later plans and descriptions. The birds-eye view on Ralph Agas’s map (Fig. 2) of 1588 is instructive, but must in part be interpreted by reference to David Loggan’s careful mapping of 1675 (Fig. 3). This shows the extent of the precinct, the outline of the moat, and the fishponds.

The key illustration is Burghers’ view of 1720, which is a detailed archaeological record of the standing remains at that date, viewed from the south, west and north, and including the outer gate. The brewhouse (Fig. 10, a) was taken to have been the Chapter House (which it was not), and the 1574 datestone on the chimney (c) with initials FW, KW, LW & RW (not shown) must relate to the Woodson family, though LC 1711 does not relate to a known lessee. The most interesting part is the depiction of the north range as a two-storeyed building, possibly with medieval windows on the first floor (Fig. 5).
Excavation results

The excavations, more fully described in the next section, for the first time located the principal buildings of Rewley Abbey, while leaving many remaining problems about the details of the monastic plan. The preparation of the site was clearly revealed in the dumping of materials to raise the ground level, and the creation of a series of ditches – virtually a moat – around the abbey site. Finds dating from before the late 13th-century were perhaps brought in with spoil for dumping. The precinct wall was constructed as the internal ground level was raised. The church was located, as described by Hearne, though the walls had been severely robbed. The south wall of the church was well defined, and the probable junction with the south transept was identified, but only a small part of the north wall was seen. Remnants of four pier bases allowed a general reconstruction of the plan, but little was found at the east end, and nothing at the west end. This gives an approximate plan area of 165 by 50 ft, comparable with the 13th-century parish church of St Giles (115 by 55 ft) or the 15th-century rebuilding of St Mary the Virgin (175 by 60 ft). It is half to two-thirds the size of Hailes Abbey. It must be recalled that a total of 20 clerestorey windows were removed from the church in 1537 (St Mary’s has 22 windows). The only difficulty is with the very narrow aisles, but then the church is not likely to have had much of a parochial function.

More substantial remains were encountered of the ’brewery’ building west of the church, with remains of a brewing vat, but no indication of its function (it seems to have had a door to the cloister), or the possibility that it may have been a separate chapel for the monk students. Only slight traces were found of the west cloister range (where the students may have lived, as it were the Lay Brothers of the standard Cistercian plan), and only minimal evidence for the east range and its cloister walk in one trench. From the cloister came a total of 20 windows in 1537, that would be five to each walk. For the north range, the limited trenching was able to corroborate some of the evidence of topographical views. The window recess at the west end for a triple splayed opening was located with the details show by Grimm and Turner, perhaps as a ground-floor window beneath the single window shown on the first floor by Burghers and Turner. The early views show that the ground floor was well fenestrated on the north side, though quite how the monastic refectory and kitchen were fitted in, let alone any provision for the monk students, remains quite uncertain. Grimm’s illustration of a large late medieval fireplace (its mantel decorated with a panel of quatrefoils) is likely to have come from this range.

With the arch over the moat, of which more substantial remains were found, this is very likely to be the common lavatory or reredorter, which should be at the north end of the east cloister range (leading out of the dormitory). A post-medieval phase of modifications to this structure seems to relate to its use as a bridge.

The excavations have clearly shown the potential of the site for discovering more about this unusual Cistercian Abbey, while leaving many questions unanswered, and above all just how the buildings were divided between the two communities.

ARCHAEOLOGICAL DESCRIPTION

Andy Simmonds

Before the Abbey

Documentary sources record that in 1281 Edmund, Earl of Cornwall, granted the site of his manor at North Otseney to the Cistercian order for the foundation of Rewley Abbey. However, these sources are less informative as regards the previous use of this land. In particular it is unclear whether a manor house or other settlement already existed on the site on which the Abbey was to stand.

The various episodes of excavation carried out at the site have yielded tantalising results regarding the possibility of earlier occupation but have not been able to resolve this problem conclusively. Although as much as one third of the pottery recovered from the excavations could pre-date the establishment of the abbey this material was recovered predominantly from layers whose origin is uncertain and could derive from dumping associated with the construction of the abbey. In Trenches 1986/1 and 1986/5, for example, the earliest layers associated with the occupation of the abbey overlay a succession of gravelly loam deposits that yielded pottery that need not date from later than the mid-13th century. Similarly, during the 1993 investigation pottery dating from the 12th–13th centuries was recovered from Trenches 1993/3 and 1993/4, although in the former it was associated with a smaller quantity of pottery contemporary with the abbey.
more than 0.5 m deep but could not be excavated to its full depth due to the depth of the trench and the instability of the overburden. An effluent culvert (10) that drained westward from the vat and cut through the wall of the building contained pieces of clay pipes with diagnostic bowl forms indicating that the feature was filled during the early part of the 18th century. It is uncertain whether this means that the building fell out of use at this time, or whether it continued with a different function until the final
clearing of the site for construction of the railway in the 19th century. Sherds of medieval window glass recovered from the steeping vat and the floor surface may have derived from the windows shown by Burghers.

The west range

The west range of the abbey cloister extended north from the former chapel. The only part of this range that has been recorded was a stub of wall (220) that buttressed onto the north wall of the chapel and was of the same build. The masonry of this wall extended for only 0.6 m, beyond which its line was continued by a robber trench (233). A doorway was identified between the stub of the wall and the robber trench, through which a fragmentary tiled floor (238) extended from the western side, and a mortar surface with tile impressions (265) was exposed on the eastern side. The tiles of floor 238 were plain and likely to be 16th-century in date, representing a re-surfacing of the floor late in the abbey’s existence. Within a hollow that had formerly held a doorpost, the corner of an earlier stone threshold was exposed some 0.15 m deeper, indicating that earlier floor surfaces may be preserved beneath those recorded in the evaluation.

These remains were sealed by a thin layer of rubble (222), possibly associated with the demolition of the range at the Dissolution, which was cut by the construction of a later wall (234) that is likely to have been part of a new range constructed during the use of the former abbey as a domestic house during the post-medieval period. This range was not present in 1578 when Agas drew his map of Oxford (Fig. 2), and was first recorded on Loggan’s map of 1675 (Fig. 3).

The east range

Trench 1986/8 was targeted on the assumed location of the east range of the cloister. Two robber trenches (801, 810) aligned NNW-SSE were exposed, which were likely to be all that remained of the range. The removal of stonework had been particularly severe in this part of the site, and stone survived only at the deepest level of robber trench 801. Robber trench 801 lay on the same alignment as wall 1852, interpreted as being the west side of the south transept, and should therefore have been the west wall of the east range, in which case robber trench 810 represented the wall of the cloister walk. A large cut feature at the western end of Trench 1986/8 may have been part of a drain within the cloister. The cloister walk was floored with mortar (812) bedded on a layer of sandy loam (813), while the surface inside the cloister itself was a yellowish white mortar (821) with two gravel make-up layers (822, 824) to the west of robber trench 810. An area of pitched stones (815) to the east of robber trench 801 may be the floor of a room within the range.

Trench 1986/5 was excavated in an area that should be internal within the east range, but was unable to locate either walls or floor surfaces. Instead, the natural alluvium (506, 508) and made ground (502–505) were overlain by a layer interpreted as either a midden or a garden soil manured with midden material (500, 501). The finds recovered from this layer included the lower portion of the base of a hanging lamp as well as a concentration of sherds from Brill/Boarstall ware bottles, the latter including one almost complete example. These vessels may have served as containers for refilling oil lamps and it is tempting to associate them with lighting for the monks’ dormitory, which was usually located over the east range, although they could have been dumped here after being used elsewhere in the complex. Indeed, one possible interpretation for this deposit is that it is refuse dumped here as a make-up layer for a floor surface that has not survived. Other examples of these vessels were found largely in the vicinity of the church, particularly in the midden.

Figure 13  A view of the ruins of Rewley Abbey from the west, drawn by M Burghers in 1720. The gable end of the chapel/breakhouse can be seen at the right of the picture. Henry W Taunt Coll. (HT12905) © Oxfordshire County Council.
outside the south wall, where they may have been dumped after being used to refill lamps lighting the church.

No east range is shown on any of the historic depictions of the abbey, indicating that this range was completely demolished at or shortly after the Dissolution. This is confirmed by sherds of Brill/Boarstall ware (c 1225–1600), Cistercian-type ware (c 1475–1650) and Surrey/Hampshire white ware (c 1550–1700) found in robber trench 801, although more recent pottery recovered from robber trench 810 indicates that further robbing took place, possibly when the railway was built.

The north range

The north range, which on analogy with other Cistercian houses is likely to have housed the refectory, was investigated by two trenches excavated during the 1994 evaluation, Trenches 1994/16 and 1994/17.

Trench 1994/17 (Fig. 14) was positioned to examine the western end of the range. The earliest feature recorded in this trench was a wall that predated the construction of the north range. The wall (1703) was recorded near the north-western corner of the abbey precinct and lay on a NW-SE alignment. Only the foundation survived, 1.1 m wide and constructed rather roughly from small pieces of limestone. It was set into the natural alluvium and was presumably trench built as no construction cut could be identified. The wall was overlain by a layer of demolition rubble (1739/1744) containing pottery dating its destruction to the late 13th–14th century. Although this date would fit with this being an earlier building demolished to clear the ground for the construction of the abbey, this cannot be the case as the demolition layer overlay the construction cut for the precinct wall, which is unlikely to have been built before 1299. No evidence was found to indicate the form or function of the building of which the wall had formed a part. Its location suggests that it could have been an early and short-lived predecessor of the north range of the cloister, but it could equally have been a free-standing building. The demolition rubble was directly overlain by post-medieval garden soils, and so presumably remained as an area of hardstanding throughout the occupation of the abbey.

The eastern end of the demolition layer was cut by the foundation trench (1750) for the west wall of the north range. An off-set foundation of small unshaped stone supported a wall 1.2 m wide and well-constructed from roughly squared limestone blocks (1702). One course (0.18 m) above the foundation the wall had a 0.6 m deep recess flanked by the lower part of a sculpted triangular stone jamb with a decorated roll moulding at its apex (Plate 7). The jamb has been dated on stylistic grounds to the mid 14th century. A drawing of the same wall from 1850 shows several of these jambs defining three wide recesses along the west wall containing doors and windows (Fig. 15). Within the northern part of Trench 1994/17 the north wall of the range was identified as a robber trench 1.2 m wide (1701).

In the interior of this part of the range two thin make-up layers were overlain by a patchy tiled floor (1720) on a mortar bedding (1721). The level of this floor matched the base of the recess in the wall, and was clearly the original floor level. Above this was a layer of accumulated soil (1724) that contained a jetton dating from the mid 16th century (SF 14). It is unlikely that such a layer would have been allowed to accumulate while the buildings were in use, so it seems most likely that this deposit dates from after the abandonment of the abbey. Re-occupation of the north range as a domestic residence is represented here by subsequent re-surfacing of the floor with successive mortar layers (1736, 1734) and an intervening make-up layer (1735), none of which yielded datable finds.

The 1850 drawing of the interior of this building shows that it had a brick floor at this time, which may have been bedded on the upper mortar layer.

Trench 1994/16 was excavated across the north side of the north range, targeted on the location of a structure over the moat depicted a short distance to the east of the north range on Loggan’s map (Fig. 3) and on Burghe’s view of the abbey (Fig. 5, extreme left). The structure is shown adjacent to a doorway in a section of the outer wall of the north range that has been stepped out towards the moat, but its precise nature is unclear. Much hangs upon the date of the structure, which is uncertain. Agas’ map, drawn in 1578, does not show this structure, but does depict a structure projecting over the moat from the rear of the north range. If this is in fact the same structure and Agas had simply mis-located it, then it is probably medieval in date and is most likely to be a reedorter associated with the abbey. However it is also possible that the structure shown by Agas had been demolished by 1675, when Loggan drew his map, and a new structure, possibly with a different function, had been built over the moat further to the east. Burghers’ drawing, dating from 1720, seems to show it being used as a bridge across the moat, with a figure crossing it, but on Loggan’s map the north side of the structure appears to be a solid wall. It would therefore appear that the structure originally had some other function and that the opening through which Burghers’ figure crosses the moat was broken through between the drawing of the two images.

The north wall of the north range (1612) was identified extending into the trench from the south west on the same alignment as the robber trench in Trench 1994/17 (Plate 8). A short distance into the trench the wall underwent a change of alignment (Fig. 16), stepping out by a distance of 2.25 m to the north west, as indicated on the historic views. The former location of a doorway through this stepped-out section of the wall was indicated by large shaped stones marking the jambs and a void where the sill had formerly been (1620) To the east of this the stonework of the wall had been completely robbed.
Figure 14 Plan and section of the western end of the north range, Trench 1994/17.
out, although its line was indicated by a robber trench (1651) that continued beyond the eastern end of the trench.

An abutment (1632) exposed on the north side of the moat was interpreted as being part of the possible reredorter. This comprised a substantial piece of masonry wall set into the northern bank of the moat and running parallel to the outer wall of the northern range of the cloister (Plate 9). This abutment must correspond with the northern side of the structure shown by Loggan and Burghers and is likely to be the wall exposed in the trench excavated in 1981.

Figure 15  W Turner’s drawing of the room at the western end of the north range, drawn in 1850, showing three recesses flanked by jambs with roll mouldings.

Plate 7  The end wall of the north range (1702) showing the stone jamb with roll moulding exposed in Trench 1994/17. A sequence of medieval and post-medieval floor surfaces can be seen at the foot of the section to the left of the frame.
Figure 16 Plan and section of the reredorter in Trench 1994/16.
The wall was 1 m wide, constructed from large blocks of masonry neatly faced on its exposed southern side. The wall was not flush with the edge of the moat, but had been constructed 0.1–0.2 m proud of the cut, with the gap behind it having been filled in with gravel (1660) that contained three sherds of pottery dating from the 12th–13th century. This date would be consistent with the structure having been part of the original construction of the abbey, and thus being the same as the reredorter drawn by Agas.

Loggan’s depiction of the structure as triple-arched was confirmed by the discovery of a further abutment (1666) set within the moat. This feature was uncovered in a sondage excavated within the fills of the moat c 1 m south of the northern abutment, and would have been one of the piers supporting the structure’s central arch. The pier was 0.9 m wide and extended beyond the trench to north-east and south-west. Excavation was not deep enough to investigate its base, the earliest layer encountered being a layer of dark grey silt (1667) that had built up against the southern side of the pier. This was overlain by layers of gravel (1665, 1659) that overlay the abutment, the latter containing 19th-century pottery and an incomplete bone comb (SF 33) dating from the 17th century or later. The other abutment of the central arch should be located between abutment 1666 and the south side of the moat, but this part of the trench was not excavated to sufficient depth to locate it. On the southern side of the wall 1612, within the north range, were the remains of a floor comprised of a mortar bedding layer (1617) bearing the impressions of tiles which had evidently been removed. Part of a return wall (1615) was exposed extending to the south east from the point at which the north wall changed alignment, and this is likely to have been an internal dividing wall. These features are likely to date to the occupation of the abbey, as Loggan shows that by 1675 the range had been shortened and no longer extended this far east.

Outbuilding east of the cloister

The foundations of two walls (405, 416) that are likely to form part of a building were uncovered to the east of the cloister in Trench 1986/4, the eastern wall extending into Trench 1993/2. The foundations were trench built and cut into dumps of clay and gravel used to raise the ground level. Both had been substantially robbed but were clearly the remains of a building or room measuring 4 m wide and at least 6.5 m long and aligned NW-SE. This alignment was somewhat askew from that of the nearby northern wall of the abbey precinct and indicated that the building was free-standing rather than butting onto
this wall. It was, however, parallel with the riverside wall that defines the eastern side of the precinct. No floor surfaces were identified within the building, and this absence of formal flooring suggests that the building was utilitarian in nature. A gravel surface (407) lay on the western side of wall 405 and could have been a path or the floor of an adjacent room. The remains of the building were overlain by a layer of rubble (400) presumably resulting from its demolition. No evidence was found to provide a date for either the construction or the demolition of the building. A large cut feature (213/234) was dug through this layer and had dug away the south-eastern end of the eastern wall of the building. Although only part of this feature was exposed within Trench 1993/2, it appeared to be rectangular in form and is likely to have been one of the ponds shown in this part of the site on the historic maps. Sherds of 17th-century pottery recovered from one of its fills (206) confirms this as being a post-medieval feature associated with the conversion of this part of the site into a formal garden.

Garden soils

In Trench 1986/5 and Trench 1993/4 soil layers (501, 407) were identified that contained large quantities of pottery and bone which are likely to indicate areas of garden soils fertilised with midden material. The garden soil in Trench 1993/4 was overlain by a mortar surface (412) associated with a NW-SE aligned wall of which only the lowest course survived (408). A similar wall (116) crossed Trench 1993/1 on a comparable alignment. Neither wall possessed foundations, so they were unlikely to be structural and are more likely to be garden walls. In the area behind the precinct wall in Trench 1993/1 the absence of medieval deposits stratified between the made ground associated with the construction of the abbey and the overlying post-medieval garden soils may indicate that these soil layers were also being cultivated throughout the medieval period.

The barn

Trenches 1994/19, 1994/27 and 1994/28 were targeted to investigate the site of a barn shown on Agas’ map of 1578 across the moat west of the main cloister (Fig. 2). The earliest features cutting into the pre-abbey agricultural layers discussed above were a pit (1985) and two ditches (1979, 1999) that contained mainly earlier pottery but with a few sherds dating to the 13th and 14th centuries. The west wall of the barn was identified as a roughly built stone foundation (1938) 1.1 m wide and extending across Trench 1994/19 on a NE-SW alignment parallel to the edge of the moat. The foundation was trench built and cut into the fill of ditch 1999. On its internal side
was a mortar surface (1926), the make-up layer for which (1951) contained pottery contemporary with the construction of the abbey. Part of a robbed-out wall (2708) recorded in Trench 1994/27 is likely to have been the northern end of the building, where a possible buttress (2710) was also discovered. A short length of stone foundation (2815) was exposed to the south in Trench 1994/28 but its interpretation is uncertain as it was substantially cut away by later features. Nevertheless, it lay on the same alignment as foundation 1938 and so was likely to be a continuation of that wall. No evidence was found for the eastern wall of the building, which had presumably been completely destroyed by later groundwork, but the existing evidence confirms the presence of a substantial buttressed barn measuring at least 17.5 m in length.

All the stone elements of the barn had been subject to stone robbing, and in all three trenches the robber trenches were sealed by a layer of demolition rubble (1909, 2703, 2808) the latest pottery from which was Surrey/Hampshire whiteware dating from c.1550–1700. This was overlain by a layer of loamy soil that was likely to have resulted from cultivation of this area until it was buried beneath the thick dump levels associated with the construction of the railway.

**North of the Abbey complex**

Part of a feature interpreted as a fishpond (1645) was discovered to the north of the moat in Trench 1994/16. The shape and dimensions of the feature could not be ascertained as only the north edge was identified within a sondage at the end of the trench, but it was more than 0.9 m deep. It was filled by a series of silt deposits (1641–2, 1668–9) that contained no useful dating evidence, but it was likely to be the same as a linear pond shown extending along the north side of the moat on Agas’ map (Fig. 2). The fishpond did not appear on Loggan’s map (Fig. 3), by which time a line of trees is shown extending along this area, and so it was presumably filled in during the late 16th or early 17th century.

Further north, Trenches 1994/11–1994/14, located north of Rewley Abbey Stream, and Trench 1994/23 and 1994/24, located in the area of the island north of the main abbey complex, generally uncovered only natural alluvium and 19th-century made ground. This would be consistent with the agricultural use of these areas during the medieval and post-medieval periods. However, a sondage at the north west end of Trench 1994/24 revealed a NW-SE aligned ditch (2420) sealed beneath a depth of more than 1 m of alluvial clay. In addition to pottery contemporary with the abbey, the fill of the ditch contained waterlogged and charred plant remains that indicated that the drying of grain prior to milling and of malted grain had taken place nearby. This environmental evidence may hint at the presence of a mill in this area. Although no mention of a mill survives in the documentary evidence, this could be simply a product of the general paucity of records relating to the abbey, and the existence of such an installation would be consistent with the agricultural basis of the monastic community as well as with other Cistercian houses.

A drawing showing a representation of Rewley Abbey in its original state is shown on Figure 17.

**After the Abbey**

The abbey was dissolved in 1536 and shortly afterwards records indicate that stone and timber was being sold off. This was likely to have been the cause of much of the stone robbing recorded in the excavations, particularly in the church and the east and west ranges, no trace of which survived in 1578 when Agas was drawing his map of Oxford (Fig. 2). The accumulation of soil (1724) on the partially robbed tile floor of the north range noted in Trench 1994/17 may indicate a period of abandonment before the site was re-occupied as a domestic residence, and this would account for the absence of diagnostic 16th-century pottery.

Remarkably little evidence was uncovered for post-medieval activity at the site, although it is known to have remained in occupation into the 19th century. Historic depictions of the site show that the north range was retained as the main residence, and this occupation is evidenced by the sequence of mortar floors recorded in Trench 1994/17. The finds from this period are predominantly domestic, including a small assemblage of glass vessels representative of a reasonably wealthy household, although the discovery of sherds of ceramic ‘chicken feeders’ from a gravel surface on the north side of the moat in the 1981 excavation serves as a reminder that the site was a working farm as well as a domestic residence.

The main evidence discovered for new building during the post-medieval period was the construction of a new west range shown on Loggan’s map (Fig. 3), one wall of which (234) was recorded in Trench 1986/2. The adjacent chapel may have remained in use as a brewhouse until the final destruction of the site in the 19th century. After a period of disuse during which a soil layer containing 17th-century pottery accumulated, the gravel path curving around the south-west side of the brewhouse was superseded by a series of superimposed metalld surfaces creating a raised track leading to the bridge across the moat to the west.

As mentioned above, there is doubt as to the dating and function of the structure over the north part of the moat shown by Loggan and Burghers. Although this may be the remains of a reredorter associated with the abbey, it is also possible that it is a later structure, built after the drawing of Agas’ map in 1578. Burghers shows that by 1720 it was being used as a bridge, but this is not consistent with Loggan’s earlier depiction of a closed structure, suggesting that it originally had a different, currently unknown, function. A hard-packed surface of gravel (1627) and stone (1633, 1629) excavated on the north side of the moat may have been associated with
Figure 17. A representation of Reewley Abbey.
the track shown beyond the moat on Burghers' engraving, extending to the north from the bridge. The surface contained pottery dating from the 18th century and was likely to have been the same deposit as layer 11 recorded in the 1981 trench.

Much of the grounds of the former abbey were converted into a formal garden, as indicated by the garden soils that overlay the medieval remains in most of the trenches. The probable pond which truncated the southern end of the outbuilding in Trench 1993/2 was likely to have been one element of the landscaping that accompanied the creation of this garden. A large cut feature (139) recorded at the south-western end of Trench 1993/1 could have been the end of a second such pond. One of its fills (140) contained pottery dating from the 16th or 17th century. The feature had subsequently been cut by the trench for a stone-lined drain (135, Fig. 6). The drain may have been associated with the drainage or irrigation of the garden, although how it functioned is unclear as terminated within the trench without connecting with any other drainage features.

Civil war defences

Oxford was the Royalist capital for most of the Civil War and as such was strongly defended. A new outer embankment was thrown up beyond the medieval city walls, and de Gomme's map, drawn in 1644, clearly shows that the site of Rewley Abbey was included within this, with the north and west arms of the moat and the precinct wall being incorporated into the defences (Fig. 18). Part of this rampart was recorded to the south of the site of the abbey in a watching brief conducted by AOC Archaeology during road widening between Botley Road and Hythe Bridge Street (Fig. 19). Ground reduction exposed a 20 m length of the defences, comprising a substantial ditch and dumped rampart. The ditch (16) was 12 m wide and ran north-south, turning slightly towards the west at its south end. Only the upper 1 m of the ditch was excavated as the remainder extended below formation level, but this was sufficient to establish that the western, outer edge had quite a gradual slope while the east side dropped almost vertically. No datable finds were recovered from the fills of the ditch, but pottery, glass and a great many pieces of clay pipe were recovered from the ground surface into which it was cut (30). The latest of these dated from the early-mid 17th century, confirming the identification of the earthwork as a Civil War defence. A berm 2.5 m wide separated the ditch from a bank c 8 m wide that survived to a height of 0.5 m. The bank was composed of a sequence of redeposited subsoil and natural gravel (40–44), presumably spoil excavated during the digging of the ditch. A deposit of limestone rubble, some of it worked, lay on the berm and although no structural form was apparent it is possible that this material was used to revet the face of the rampart. It is also possible that some or all of this material may have been obtained from the ruins of Rewley Abbey. Layers 36, 38 and 39 to the rear of the bank may be derived from the levelling of the upper part of the earthwork.

The barn to the west of the moat may have been demolished when the defences were built, as the latest pottery in the layer of demolition rubble overlying the barn was Surrey/Hampshire whiteware dating from c 1550–1700. The demolition of any buildings outside the defensive line, defined in this area by the moat, would have been a practical course of action to create a clear field of fire for the defenders while simultaneously gaining stone that could be used in the defences. The demolition of the barn at this time would also explain why there is no structure in this area on Loggan’s map (Fig. 3).

Possible sconce

Possible evidence for another defensive installation dating from the Civil War was uncovered in Trench 1994/24, in the area north of the site of the abbey. The natural alluvium was over lain by a layer of gravelly sand (2416) from which a single sherd of mid 11th- to late 12th-century pottery was recovered. This layer was cut by a ditch 5 m wide. The ditch (2406) could only be excavated to a depth of 0.5 m due to the high water table, and the fills encountered
Figure 19  Section through the Civil War defences exposed in the 1999 watching brief.
contained no finds. A single course of roughly laid limestone pieces (2412) ran along the northern edge of the ditch and may originally have revetted a bank, since removed. Although no dating evidence was found to confirm such a theory, it is tempting to identify the ditch with that surrounding a scone depicted to the north of the site of Rewley Abbey on de Gomme’s map (Fig. 18).

Construction of the railway

The remaining buildings were demolished during the mid 19th century to make way for the construction of the Rewley Road station. The absence of demolition layers associated with this event indicates that the building materials recovered from the dismantling of these structures were taken off site and presumably re-used or sold off. The moat and other drainage channels were filled in and the ground made up by the dumping of 1–1.5 m of clay, as can be seen on the section drawings above (Fig. 6, 14, 16, and 19). This material cannot have been sourced at the site and was presumably brought in from elsewhere by rail. In Trenches 1994/16 and 1994/24 this made ground also included deep deposits of refuse containing much pottery and glass, which may have been brought from the city.

FINDS

The medieval coin

Martin Allen

The medieval coin (8) from context 1843 is an Irish silver farthing of Edward I (1272–1307), belonging to Withers’ type 1 (2005, 47), and issued by the Waterford mint (Spink 2003, 127, no. 6268). The inscriptions are partly illegible, because the coin was struck off-centre, but they can be reconstructed as ERA/NG/ILIE [Edwardus Rex Anglie] on the three sides of the triangle around the crowned bust of Edward I on the obverse, and [CIVI/TAS/VATE/RFOR] in the four quarters of the cross on the reverse. The coin weighs 0.33 g, which is within the normal range for coins of this type (the official weight at issue was c 0.36 g).

Michael Dolley (1972, 11–14) argued that the Waterford mint was operational during the reign of Edward I in two separate periods, from 1280/1 to 1282, and c 1294, but Jeffrey North (1997, 11–13) has suggested that it remained open from 1280/1 to 1295. North (1997, 17) tentatively dates the farthings of the Waterford mint and similar coins from the Dublin mint to c 1280–1284. The farthing from Rewley Abbey can be dated to 1280/1–1295, with a probable date in the early 1280s.

A review of post-1279 Irish coins of Edward I in coin hoards (Dolley 1968, 277–9) has shown that they appear in English hoards deposited as early as c 1285, and it can be assumed that they were quickly integrated into the English currency as exact equivalents of the English penny, halfpenny and farthing.

The relatively unworn condition of the Rewley Abbey coin suggests that it may have been deposited on the site between the 1280s and the mid 14th century.

Jettons

identified by Edmund Simons (see table below)

Medieval and post-medieval pottery

John Cotter

Introduction

The pottery reported on here comes from four separate sets of excavations that have taken place within the abbey precincts over the years. These are coded OXRA 81, OXRA 86, OXRR 93 and OXSTRA 94. Together these comprise 3044 sherds of pottery weighing 48.885 kg. The 1986 and 1994 excavations produced the highest numbers of sherds (1238 and 1239 sherds respectively) but with 1986 producing the greatest weight (17.963 kg). All of this material is of post-Roman date (mainly 11th–19th century) except for a small shard of Roman fine grey ware (2nd–4th century AD) which was residual in a medieval context. The pottery was generally very fragmentary but not, on the whole, excessively abraded. A small number of complete or nearly-complete medieval vessel profiles have survived, however, or are capable of reconstruction (generally the smaller more robust forms) as well as a larger number of post-medieval forms – although the latter are mostly late in date and well-known from other English sites.

The following account aims to summarise the main trends of pottery supply and usage to the site not only during its monastic phase (1281–1536), but

<table>
<thead>
<tr>
<th>SF Number</th>
<th>Identification</th>
<th>Date Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>French Dolphin Jetton</td>
<td>c 1375–1415</td>
<td>From Vienne, Paris or Tournai. Treasure around dolphin on Obv is not a type collected by Mitchiner or Barnard</td>
</tr>
<tr>
<td>14</td>
<td>Nuremberg Rose and Orb type</td>
<td>c 1550</td>
<td>Iliterate inscription? Possibly Hans Schultes (1553–1584)?</td>
</tr>
<tr>
<td>5</td>
<td>English Jetton contemporary with Type 10 Stirling Jettons</td>
<td>1302–7</td>
<td>Similar (but not identical) to Mitchiner type 183</td>
</tr>
<tr>
<td>28</td>
<td>Fragmentary worn jetton</td>
<td>?</td>
<td>Unknown type (worn). Flowers visible on Obv are similar to Mitchiner type 577 (c 1450?)</td>
</tr>
</tbody>
</table>
also during the less well-understood pre-monastic phase, and the better documented post-monastic phase up to and including the construction of the railway station in 1851. Although the range of medieval and post-medieval pottery recovered from the site is fairly typical of Oxford sites generally, the increased frequency of certain vessel forms (such as medieval ceramic bottles and jugs) is likely to be a reflection of specific activities relating to lifestyle of the site’s Cistercian inhabitants. In addition, the pottery gives us insights into some aspects of medieval pottery production and supply as well as pottery ‘consumption’. A very limited number of pieces have been illustrated, mainly because the types of pottery recovered have been treated in some detail in other reports of Oxford sites (see below).

**Methodology**

A number of pottery specialists have worked on this pottery assemblage in succession over the years. Most of the original spot-dating and cataloguing was undertaken by Catherine Underwood-Keevill and Lucy Whittingham, both of whom produced interim summaries which are freely drawn upon in the present summary. The original catalogues have subsequently been computerised and updated where necessary but not fundamentally changed. Although the original catalogues provide sherd counts for each pottery fabric type per context, they vary in the method of recording weights. Sometimes weights were recorded per fabric, in the case of selected groups or sites, or sometimes weight was recorded as a context sub-total, so although an overall weight total can be obtained for each site, it is not possible to compare individual pottery types by using weight a means of quantification. For this reason the only method of quantification used in this report is sherd counts. The original catalogues also contain comments on the range of vessel forms present and in some cases pencil sketches of rim profiles, particularly for the late Saxon/early medieval wares. All the catalogues and lists of spot-dates remain in archive although some details and summaries are available in the interim site reports.

**Fabrics**

Pottery fabrics were recorded using the system of codes developed for the Oxfordshire County type series (Mellor 1984;1994) and extended in more recent years by Carole Wheeler (2004, unpublished). The types and quantities occurring at Rewley Abbey are listed below in roughly chronological order.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R10:</strong></td>
<td>Roman fine grey ware, 2ndC+.</td>
</tr>
<tr>
<td><strong>MISC:</strong></td>
<td>Miscellaneous or unidentified, c 400–1900. (7 sh.)</td>
</tr>
<tr>
<td><strong>OXR:</strong></td>
<td>St Neot’s-type ware, c 850–1100 (mainly c 950–1075 at Oxford), South-east Midlands.</td>
</tr>
<tr>
<td><strong>OXAC:</strong></td>
<td>Early Medieval Oxford ware (Cotswold-type calcar- eous gravel-tempered), c 875–1250 (mainly c 1050–1225) in Oxford, central and north-west Oxfordshire, Gloucestershire.</td>
</tr>
<tr>
<td><strong>OXBF:</strong></td>
<td>Late Saxon–Early Medieval South-West Oxfordshire ware (flint- and sand-tempered), c 875–1250 (mainly c 1050–1250 at Oxford).</td>
</tr>
<tr>
<td><strong>MISC.1:</strong></td>
<td>Fine grey micaceous sandy ware with sparse flint, ?Hampshire (similar to Winchester Fabric MBK), 7, 975–1200.</td>
</tr>
<tr>
<td><strong>OXAD:</strong></td>
<td>Andenne-type ware, c 1050–1225.</td>
</tr>
<tr>
<td><strong>OXAK:</strong></td>
<td>Developed Stamford ware, c 1150–1250.</td>
</tr>
<tr>
<td><strong>OXAG:</strong></td>
<td>Late Saxon–Medieval Abingdon ware (sand-tempered), c 1050–1400.</td>
</tr>
<tr>
<td><strong>OXY:</strong></td>
<td>Late Saxon–Medieval Oxford ware (sand-tempered), c 1075–1300.</td>
</tr>
<tr>
<td><strong>OXBK:</strong></td>
<td>Medieval shelly coarseware, c 1100–1350. Including Northamptonshire shelly ware</td>
</tr>
<tr>
<td><strong>OXAQ:</strong></td>
<td>Early-Late Medieval, (14 sh.) Wiltshire ware (flint and algal limestone), c 1150–1425.</td>
</tr>
<tr>
<td><strong>OXAH:</strong></td>
<td>?Nuneaton ware, c 1175–1250.</td>
</tr>
<tr>
<td><strong>OXAS:</strong></td>
<td>‘Early Surrey Border ware, c 1175–1250.</td>
</tr>
<tr>
<td><strong>OXAW:</strong></td>
<td>Early Brick/Boarhall ware, c 1175–1400.</td>
</tr>
<tr>
<td><strong>WORC:</strong></td>
<td>Worcester-type sandy glazed ware, c 1175–1400.</td>
</tr>
<tr>
<td><strong>OXAM:</strong></td>
<td>Brick/Boarhall ware, c 1225–1625.</td>
</tr>
<tr>
<td><strong>OXBG:</strong></td>
<td>Coarse Border ware, c 1350–1500.</td>
</tr>
<tr>
<td><strong>OXBX:</strong></td>
<td>Late medieval Brill/Boarhall ware, c 1450–1625.</td>
</tr>
<tr>
<td><strong>TUDG:</strong></td>
<td>Tudor Green ware, c 1375–1550 (mainly c 1450–1550).</td>
</tr>
<tr>
<td><strong>CIST:</strong></td>
<td>Cistercian-type ware, c 1475–1650.</td>
</tr>
<tr>
<td><strong>FREC:</strong></td>
<td>Frechen stoneware, c 1525–1750.</td>
</tr>
<tr>
<td><strong>OLIV:</strong></td>
<td>Spanish olive jars, c 1550–1750.</td>
</tr>
<tr>
<td><strong>BORDDG:</strong></td>
<td>Surrey/Hampshire white Border ware, green-glazed, c 1550–1700.</td>
</tr>
<tr>
<td><strong>BORDY:</strong></td>
<td>Surrey/Hampshire white Border ware, yellow- glazed, c 1550–1700.</td>
</tr>
<tr>
<td><strong>BORDB:</strong></td>
<td>Surrey/Hampshire white Border ware, brown- glazed, c 1650–1700.</td>
</tr>
<tr>
<td><strong>REW:</strong></td>
<td>Post-medieval red earthenwares, c 1550–1900.</td>
</tr>
<tr>
<td><strong>MLTG:</strong></td>
<td>Montelupo maiolica, c 1575–1650.</td>
</tr>
<tr>
<td><strong>WEST:</strong></td>
<td>Westerwald stoneware, c 1590–1750.</td>
</tr>
<tr>
<td><strong>ENGTN:</strong></td>
<td>English tin-glazed earthenware, c 1575–1825.</td>
</tr>
<tr>
<td><strong>TN:</strong></td>
<td>Tin-glazed earthenware, source uncertain, c 1300–1900 (mainly c 1550–1825).</td>
</tr>
<tr>
<td><strong>CHIPO:</strong></td>
<td>Chinese porcelain, c 1600–1900 (+mainly c 1725–1900).</td>
</tr>
<tr>
<td><strong>BLREW:</strong></td>
<td>Black-glazed red earthenware (‘Blackware’), c 1600–1800.</td>
</tr>
<tr>
<td><strong>BRSLS:</strong></td>
<td>Red earthenware slipware, Brill-type, c 1650–1800.</td>
</tr>
<tr>
<td><strong>REWSL:</strong></td>
<td>Red earthenware slipware, ‘Metropolitan’-type, c 1650–1800. Various sources.</td>
</tr>
<tr>
<td><strong>EST:</strong></td>
<td>English stoneware, c 1675–1900.</td>
</tr>
<tr>
<td><strong>NOTTS:</strong></td>
<td>Nottingham stoneware, c 1670–1900.</td>
</tr>
<tr>
<td><strong>MBBEW:</strong></td>
<td>Staffs-type mottled brown-glazed earthenware, c 1675–1800.</td>
</tr>
<tr>
<td><strong>STLSBEW:</strong></td>
<td>Staffordshire-type combed slipware, c 1675–1900</td>
</tr>
<tr>
<td><strong>WHSG:</strong></td>
<td>Staffordshire-type white salt-glazed stoneware, c 1720–1790.</td>
</tr>
<tr>
<td><strong>JACK:</strong></td>
<td>Jackfield-type ware, c 1740–1780.</td>
</tr>
<tr>
<td><strong>EPO:</strong></td>
<td>English porcelain, c 1745–1925.</td>
</tr>
<tr>
<td><strong>CRM:</strong></td>
<td>Creamware, c 1750–1830.</td>
</tr>
<tr>
<td><strong>PW:</strong></td>
<td>Pearlware, c 1780–1830.</td>
</tr>
</tbody>
</table>
The main trends of pottery supply to the site down through the centuries are considered here; this is of necessity a simplistic and subjective overview relying almost entirely on the pottery to tell, in a sense, its own story rather than relying on the details of site phasing. Pottery, as usual, is the main tool for dating archaeological contexts on the site and this, in turn, affects the dating assigned to individual site phases. Scattered trench excavation as employed on this site rarely yields large or deeply stratified pottery sequences suitable for statistical analysis, and no systematic detailed recording of vessel forms has been carried out. Subjectively, however, it is possible to divide the assemblage into three broad ceramic phases, based on pottery currency dates, and which roughly correspond with three major phases or periods in the history of the site (Roman and miscellaneous pottery excluded). These are: a pre-abbey phase (28% of pottery); an abbey phase (35%), and a post-abbey or post-Dissolution phase (37%). Some pottery types here will obviously overlap in date and could arguably belong to one or other phase. Many unknown factors, such as breakage rates, modes of rubbish disposal and residuality as well as occupation intensity will have an effect on how these figures should be interpreted.

Pre-Abbey or early medieval phase
(710th Century – 1281)

This comprises all those fabrics in the list above from OXR to WORC (total 840 sherds or 28% of site assemblage). This phase may be slightly over-represented due to the inclusion of early medieval Brill/Boarstall ware (OXAW, c 1175–1400) although it is likely that most of this is 13th-century in date and therefore mostly pre-abbey. Likewise the inclusion of early-late medieval east Wiltshire ware (OXAQ, c 1150–1425). It has been observed, however, that OXAQ nearly always occurs in association on this site with medieval Oxford ware (OXY, c 1075–1300) and one researcher (LW) has therefore suggested a new date range of c 1075–1300 for this fabric type. This may well be the case, although this suggestion requires further testing. This phase is thought to include agricultural activity on the site prior to the construction of the abbey, though much of the pottery may well have arrived in loads of soil brought to the site from elsewhere in town to improve the quality of its marshy soils or to provide a firmer foundation for the projected abbey.

There is no early Anglo-Saxon pottery from the site but there is almost certainly some late Saxon (10th/early 11th-century) pottery in the assemblage although these comprise pottery types with a currency from the late Saxon period through to the 12th or 13th century (OXR, OXAC, OXBF, MISC.1). These possible late Saxon types mostly comprise handmade coarseware cooking pots or jars plus a few bowls. The commonest type here is early medieval Oxford ware (OXAC) which, despite its name, was probably from several sources to the north and west of Oxford as well as the Cotswold area to the west outside the county. This type however was not common in Oxford until just a few decades before the Norman Conquest and so it is likely that that most of the assemblage here is post-Conquest in date. Another handmade ware (OXBFl) was probably from a source in the Savernake Forest in east Wiltshire. A few sherds including a cooking pot rim occur in St Neots’s-type ware (OXR) – a wheel-thrown late Saxon shelly ware from the Northamptonshire/Bedfordshire area.

Pottery types arriving on the site after the Norman Conquest of 1066 but (mostly) pre-dating the foundation of Rewley Abbey in 1281 include all those in the fabrics list from OXAD to WORC, mainly early medieval types with some fully-fledged medieval types. Although coarseware cooking vessels are still predominant the range of vessel types has widened to include vessels for carrying and serving drinks, such as spouted pitchers – a forerunner of the jug – basically a jar-shaped vessel with a short tubular spout attached to the shoulder, and also true jugs with a taller narrower neck, a pouring lip pulled from the rim, and a handle. These vessels, though mostly still handmade, mark the appearance of glazing and the frequent use of various types of applied, painted and incised decoration. The main pottery industry represented in the whole of this phase is medieval Oxford ware (OXY, 48% of phase) which is thought to have been produced somewhere to the north-east of the city. This pottery type flourished in the 12th century. By c 1250 it represented only 15% of the pottery assemblage at the Dominican Priory in Oxford suggesting it was in decline by this date. While also used for cooking vessels, and some bowls, medieval Oxford ware also occurs as distinctive yellow-glazed spouted pitchers with a variety of simple applied and incised decoration appropriate for serving vessels used at the table. Some spouted pitchers also have characteristic tripod feet and strap handles with braided clay strips applied along the spine of the handle – examples of all these features are present in the sherds from Rewley Abbey. Some jugs occur in this fabric too, as does a rim from a shallow unglazed creset lamp with heavy internal sooting. Jugs are generally commoner in early medieval Brill/Boarstall ware (OXAW) – the third most common fabric in this phase and which marks Oxford’s long connection with this prolific pottery-producing area of west Buckinghamshire (see OXAM below).

Medieval east Wiltshire ware (OXAQ), also (like OXBFl) from the Savernake Forest area, is the second
commonest pottery type in this phase and is a common find from Oxford sites of this period. This flint- and limestone-tempered coarseware is mainly present as cooking pots/jars and a couple of bowls (Fig. 20.1). Medieval Abingdon ware (OXAG), a sand-tempered tradition from Berkshire, has a moderate presence on the site although 34 of the 47 sherds recovered come from just one crushed 13th-century jug with characteristic decoration in painted white slip (Mellor 1994, fig. 27.3). Other wares have a lesser presence but these include small sherds from one or two wheel-thrown green-glazed jugs in Developed Stamford ware from Lincolnshire, a yellow-glazed jug possibly from Nuneaton in Warwickshire, and a single sherd from a yellow-glazed vessel, almost certainly a spouted pitcher, from the Andenne kilns in east Belgium – a high quality tableware which is rarely found on sites as far inland as Oxford.

A probable 13th-century jug rim from this phase has a rare incised potter’s mark on the neck (Fig. 20.2, Plate 10.2). This is incomplete but includes an apparently abstract arrangement of horizontal and vertical lines forming a box with a diagonal line within. These marks were made before the jug was fired and were almost certainly made by the potter – perhaps as a batch-mark for a particular customer. This sandy cream-coloured fabric (OXAS) has yet to be accurately sourced although it may be a Surrey/Hampshire or perhaps even an early Brill product. A sherd from a jug in Worcester-type sandy glazed ware (WORC, Fig. 20.3, Plate 10.3) is probably of 13th- or early 14th-century date and is the first example of this ware to have been recognised from Oxford although one or two other possible sherds have been identified from Witney a few miles west of the city.

The abbey phase (1281–1536)

This phase comprises a much narrower range of pottery fabrics (OXAM to TUDG) but still a considerable volume of pottery (1081 sherds, 35% of site assemblage). Some of the ‘early medieval’ wares from the previous phase however continued to be supplied to the site during the earlier part of this phase. The main suppliers of pottery to Oxford, and most of Oxfordshire, during this phase were the Brill/Boarstall kilns of west Buckinghamshire, only twelve miles from the city. Brill/Boarstall ware (OXAM) comprises some 96% of pottery fabrics safely attributable to this phase and while the true percentage is probably slightly lower than this owing to the overlap in date of earlier types (including Brill OXAW, some OXY, OXAG and OXAF), it is still, overwhelmingly, the main pottery type in use during the lifetime of the abbey. This could imply that the abbey – as has been suggested for some medieval colleges in the city – ordered its pottery supplies directly from the potters at Brill. It is rather more likely however that Brill ware is the commonest type of pottery from the abbey simply because it was so easily available from the markets in Oxford. Brill/Boarstall ware is a smooth fine sandy ware ranging in colour from cream to light orange or buff. Vessels were well-potted on a potter’s wheel and most commonly glazed (Mellor 1994, 111–140). The industry is best-known for its wide variety of jug forms which were often highly decorated with designs in red and white applied strips and pads of clay, usually in linear geometric schemes but not infrequently in exuberant floral or foliage schemes sometimes accompanied by stamped designs (Plate 10.4). Applied zoomorphic and anthropomorphic decoration (Plate 10.5) also occasionally occur and incised or combed decoration is common. Vessels were either clear glazed (yellow or orange) or green glazed. With the exception of zoomorphic decoration, examples of nearly all these types of jug decoration are present at Rewley Abbey, though all in a fragmentary state.

Although detailed quantification of vessel types was not routinely carried out on this assemblage, it is possible to form a reasonably clear picture of the Brill/Boarstall ware assemblage from the comments recorded in the existing catalogues. The frequency of each form type is briefly considered first, followed by a consideration of likely function. One vessel category, Brill/Boarstall ware bottles, has been singled-out for more detailed treatment (see below). Jugs are easily the predominant vessel form present and – although their numbers cannot be calculated with any accuracy – jug sherds occur in virtually every one of the 183 contexts containing Brill/Boarstall ware (OXAM). Remarkably only four instances of cooking pot/jar forms were noted, from as many contexts – even fewer than bowls or dishes (8 vessels from 8 contexts). There is also a single sherd from the stem of a double-shelled oil lamp. Bottles, usually a fairly rare form in this ware, are surprisingly common here – occurring in 32 contexts and representing a minimum of 17 individual vessels (see below). Fine-walled green-glazed cups copying Tudor Green ware, around 4 examples, are known from 2 contexts and there is a single sherd from a dripping pan.

Brill/Boarstall ware bottles: a case study

The minimum of 17 individual bottles from Rewley Abbey represents the largest number of these vessels recovered from a single site in Oxford, as pointed out by Maureen Mellor some years ago (1994, 118). Because of this remarkable concentration and the unique context that Rewley Abbey makes towards the study of this particular vessel form, a separate more detailed catalogue of this type was compiled and their contexts examined more closely to see if any patterns occur in their distribution across the site. Their presence here raises a number of interesting questions. Foremost of these are: what were they used for, and is there a special connection between this vessel form and monastic sites? We might not be able to provide definite answers to all
these questions at the moment but by considering the evidence available we should come closer to the truth.

Brill/Boarstall bottles are slender, slightly baluster-shaped vessels with a flat base and a plain rim. They show no evidence of handles or other applied features and are plain except for a thin wash of glaze on the shoulder (Fig. 20.6–7; Plate 10.6, 8; Mellor 1994, fig. 55.1–9, 13–16). Suggestions as to their use include containers for oils and sauces or culinary use, or perhaps measures, although there is little definite evidence to support these suggestions. At least 165 sherds from the site were identified as coming from bottles. Bottles thus comprise 15% of all sherds belonging to the monastic phase (or 16% of all Brill/Boarstall OXAM sherds). These range from three almost complete examples which lack only their rims, to several half-complete examples (or half profiles), right down to small thick-walled body sherds that seem quite probably from bottles. The more robust bases generally survive better than the delicate rims (17 bases representing the same number of vessels as opposed to 12 rim sherds representing just 9 vessels). Rim diameters from the site are in the 30–50 mm range, but 38–40 mm (5 vessels) was clearly the preferred size. Most rims are of plain tapering slightly everted form but one or two examples are thicker with a slight external furrow or hollow. Bases range in diameter from 42–62 mm (two larger bases of 80 mm and 160 mm can probably be discounted as jugs and are excluded from these figures). There is a clear size preference for bases of 47–53 mm (12 vessels; mainly 50–52 mm). Bases are flat but with a splayed and pedestal-like foot, often with a slight ridge or moulding above the outer edge which sometimes creates a slight pad reminiscent of some metal vessels of this period. Most bases have a single central dimple on their underside caused by the potter’s thumb, and the lower wall of several examples has an untidy scar or nick possibly caused by the potter’s thumbnail when carelessly removing the vessel from the wheel.

Size analysis points, perhaps, to the production of two sizes of bottle – a smaller commoner type (12 vessels: rims 38–40 mm, with bases 47–53 mm), and a larger rarer type (3 vessels: rims 43–50 mm, with bases 60–62 mm), with the occasional production of bottles outside this vessel range. Examination of the capacities of complete examples in museum collections might show whether these variations relate to known medieval units of capacity.

Most bottles have a broad band of green copper-flecked or speckled glaze around the shoulder area only. Only one example has a bright yellow (clear) glaze. One or two have a thin clear olive-green glaze – in one case (perhaps accidental) extending all over the lower walls and underside of the base. The interiors are always unglazed and show no visible evidence of residues which might help explain their function.

Brill/Boarstall ware bottles are considered to have a mainly later 13th-century to 14th-century dating although production continued into the 15th century (Maureen Mellor, pers. comm.). However, a group of at least seven bottles, including several complete and near-complete examples, are known from the Dissolution backfill of a latrine pit at Eynsham Abbey, west Oxfordshire, there assigned to Phase 4a dated 1538–1660 (Blinkhorn 2003, fig. 1606–17). This seems surprisingly late but all the other vessels illustrated from the latrine pit, including an almost complete 15th-century Spanish lustreware jar (ibid., fig. 19,156) appear to be late medieval forms. A pair of bottles were among a deposit of vessels buried c 1290 in the foundation of the walls of Trinity College, Oxford (Mellor 1997, fig. 83). The 1281–1356 lifespan of Rewley Abbey provides only broad confirmation for their dating. Unfortunately, in almost all of the monastic contexts, Brill/Boarstall ware is the only dating evidence available due to its predominance on the site. This often means that contexts containing bottle sherds cannot usually be dated much closer than a couple of centuries and broad context dates of the 13th–14th or 14th–15th century are common.

Examination of their contexts and locations does reveal an interesting concentration of bottle sherds from the area of the church but also, curiously, from the eastern side of the cloister. There is however a thin scatter of bottle sherds from across almost the whole site although mainly from trenches within the precinct walls only. The highest concentration of bottle sherds comes from Trench 1986/5 located within the east side of the cloister walk. Here a sequence of three extensive layers interpreted as a midden or dump (500, 501, 502) produced 86 bottle sherds – more than half the total number recovered from the whole site. Base fragments suggest a minimum of 6 vessels here, although there are probably more than this number. Pottery finds were concentrated at the northern end of the trench. Associated jug sherds in Brill/Boarstall ware include late 13th- to 14th-century types but also a jug with a reeded or grooved shoulder band and a sherd from a Brill/Boarstall Tudor Green-style vessel, both the latter probably dating to the late 14th to 15th century suggesting the context could be of mixed date. The bottle sherds recovered include two of the most complete bottles from the site – one of which is complete but has lost its rim (Fig. 20.6; Plate 10.6). Curiously, although many of the sherds are obviously fresh, a few bottle sherds, including three separate bases in a softer unglazed fabric, show considerable abrasion or weathering suggesting they were already old when deposited (or redeposited) which again points to material of mixed date. Bottle sherds from the church area (see below) also include a few softer weathered sherds suggesting that these deposits too contain some residual earlier material and thus perhaps were deposited some decades, at least, after the 1281 foundation.
The Trench 1986/5 ‘midden’ layers also contain large pieces of charcoal, oysters shell and fragments of stone roofing shingles. The excavators have suggested that these layers represent domestic rubbish dumped from buildings to the east of the cloister. Whatever the source it seems a little odd to dump domestic rubbish in the middle of a cloister walkway – unless perhaps it was used as levelling prior to a resurfacing of the cloister. A few bottle sherds also occur in very similar layers in Trench 1986/4 several metres away to the north-east in the garden area.

The other main concentration of bottle sherds is from the group of trenches dug across the central part of the church (Trenches, 1986/9, 1986/10, 1986/11a and 1994/18). These collectively produced 52 bottle sherds from a minimum of eight vessels (base counts) – nearly a third of all bottle sherds from the site (but more than half the minimum vessel count). These, on the whole, are more fragmentary and less concentrated than those in the eastern cloister (Trench 1986/5), although they do include an almost complete (reconstructable) bottle from Trench 1986/11a (presumably residual in a post-Dissolution robbing layer over the north wall of the church). A few bottle sherds come from contexts within the church (3 sherds from a rectangular pit, context 908, to the south of a pier in Trench 1986/9) and a few others come from post-Dissolution wall-robbing features, but most (31 sherds) are from just outside the south wall of the church at the southern end of Trench 1994/18. The bottle sherds here were from a sequence of quite deeply-stratified dump layers almost certainly laid down during the lifetime of the abbey.

Two bottles, including a complete (reconstructable) example, lacking only its rim, come from a layer above disturbed alluvium in Trench 1993/3 several metres to the south-east of the church. This context also produced a 13th- to 14th-century decorated jug sherd but also a probable late 14th- to 15th-century sherd copying Tudor Green ware.

Unfortunately one cannot deduce from any of these contexts exactly where in the abbey the bottles would originally have been used. However, the concentration of bottle sherds in and around the central part of the church and the eastern side of the cloister to the north of this is undeniable and unlikely to be pure coincidence.

The possible use of ceramic bottles within the church is slightly surprising given their supposed culinary function. An earlier suggestion, now out of favour, is that ceramic bottles may have served as altar cruets for holy wine or oil. However, they seem rather crude for this purpose and it is more likely that metal cruets were preferred. Another and perhaps more plausible suggestion, given their context, is that they could have been used as containers for refilling oil lamps which may have illuminated parts of the church (see below). Medieval church records and wills sometimes mention donations of money for the oil used to burn in obit lamps to commemorate the dead. The lamps, which are sometimes shown in medieval illuminations, were probably of metal and usually suspended above the image of a favourite saint. The same documents sometimes mention the purchase of ‘pottles’ of oil which may be a reference to ceramic bottles or containers, although it was also a medieval unit of fluid measurement – equivalent to half a gallon and thus too large to relate to the bottles here. Many medieval monasteries had their own pharmacies or dispensaries where medicines and herbal preparations were kept and sometimes prepared. These sometimes included stills for the production of alcohol – a precious commodity that may, perhaps, have been stored or dispensed in small containers such as ceramic bottles – but this suggestion does not explain why they might have been needed in a church. Of course, it is quite possible that Brill/Boarstall bottles were multi-purpose containers – though presumably for small amounts of a fairly precious liquid commodity – whatever that may have been. Until a reasonable sample of bottle sherds has been scientifically analysed to determine what they might have contained everything else, for the moment, remains speculation.

Other vessel forms and their function in the monastic phase

The fact that only one Brill/Boarstall oil lamp was found in the excavations (outside the ancillary building, Trench 1986/1) is slightly problematical given the obvious need for lighting in the church and monastic buildings and the suggestion above that ceramic bottles may have been use as lamp-fillers. The ceramic lamps, which have a similar dating to the bottles, were a little like candlesticks in form with a drip-tray or saucer (‘shell’) and a stem supporting a small shallow dish which contained the oil and a wick (Mellor 1994, fig. 54.18–22). They were designed to be placed on a flat surface. Obits or shrine lamps, as suggested above, were probably suspended from the ceiling and were of metal or even glass. Wax candles, stone cresset lamps and rush lamps may have been used to illuminate other parts of the church and monastic buildings, although candles may have been reserved for the church. Some college buildings in Oxford, and sites along the main roads, have produced fairly large numbers of Brill/Boarstall oil lamps – at least seven were found during recent excavations at Merton College – suggesting a likely connection with students. The low number of lamps from Rewley Abbey is therefore a little puzzling given that the abbey had a studium and a resident student population of its own. Some form of lighting, other perhaps than oil lamps, would have been needed, or perhaps the area of the studium has not yet been discovered (but see Roe below for a possible stone candle holder). The removal of rubbish from the site during the medieval period, as well as the consequences of the
Dissolution, is likely however to have left us with a very incomplete ceramic and artefactual record. The very few bowls or dishes identified in Brill/Boarstall ware (eight examples) are of small size (ibid., fig. 53.5) and are likely to have been used for table condiments rather than serving vessels. Ceramic table dishes or plates as we now know them are largely a post-medieval invention. Medieval people would most probably have eaten from wooden trenchers or bowls. The even smaller number of jars in Brill/Boarstall ware (four examples) presumably served as cooking vessels or storage jars. To the small number of jars and bowls in Brill/Boarstall ware, however, we must also add an unknown number in medieval east Wiltshire ware (OXAQastic phase although most of these probably date of bowls and especially jars from the site is undoubtedly low. This may be a reflection of the monastic or institutional nature of the site – with large-scale catering taking place in a centralised kitchen and bulk cooking in just a few large metal cauldrons rather than many smaller, more fragile, ceramic pots. Increasing competition from metal vessels, which became cheaper and commoner as the medieval period wore on, had a gradual effect on the number of ceramic cooking vessels in general circulation.

Conversely, the relatively high number of jugs on the site is also likely to be a reflection of the institutional nature of the site. Jugs were used for the fetching and serving of drink and smaller jugs, particularly in the late medieval period, were increasingly used as drinking vessels – primarily perhaps for beer or, rather, small beer, which was regarded as a safer option than untreated water. This high ratio of jugs to cooking vessels and other vessel forms has been observed on a number of monastic sites in England and is probably a reflection of the fact that cooking, in monasteries, was a specialised activity carried out by the few, whereas drinking was carried out by the many (Cotter 2001). Occasionally jugs could be used or re-used for less obvious purposes. A jug base found in an early pit inside the church (Trench 1986/9; Plate 10.9), is heavily stained internally with a dark red-brown substance which may be red lead (an oxide of lead), a common medieval pigment or paint. Perhaps the jug was used for storing paint or was originally a broken jug base re-used as a paint pot or palette. A small but very similar sherd from a separate jug, also with red pigment, was found in a post-Dissolution layer outside and to the south of the church (Trench 1994/18).

Dripping pans, of which a single fragment was identified, are long oval or sub-rectangular dishes often with a pouring lip at each end and a pair of side handles. These were used in the kitchen to collect fat from spit-roasts. The basal/wall fragment identified from the site is characteristically thick walled and heavily sooted externally. Again, given the scarcity of this form on the site, one might suppose that metal equivalents were preferred.

Definite purpose-made drinking vessels are uncommon in the monastic phase. A very small number of cups and possibly drinking jugs are represented by 12 sherds of Tudor Green ware – a high quality green-glazed whiteware from the Surrey/Hampshire border produced between the late 14th and early 16th centuries. To these must be added three or four copies made in Brill/Boarstall ware. One or two black glazed Cistercian ware cups may also belong to this phase although these have been assigned to the following phase as most examples look later.

Although some of the more decorative Brill/Boarstall ware jugs in the monastic phase can be regarded as high quality tablewares, there is little else in the monastic assemblage that speaks of luxury. All the pottery is functional and utilitarian. There are no decorative imported wares of the period such as Spanish lustrewares or highly decorated French wares although these are very rare on Oxford sites generally and probably reflect the city’s inland location. High class tablewares, of course, could have been of metal or glass rather than pottery but these materials were usually recycled and tend to be rare on monastic sites, particular those of the Cistercian order, whose monks followed a life of self-sufficiency and severe austerity.

Post-Dissolution phase (c 1536–1900)

This, by a small margin, comprises the largest proportion of site pottery – all those fabrics from CIST to WHEW (1115 sherds, or 37% of site assemblage). It almost certainly comprises the bulk of pottery weight from the site. The post-medieval assemblage is not particularly remarkable or well-preserved and is typical of numerous post-medieval assemblages from Oxford and southern England generally. Consequently it will not be considered in much detail (see fabrics list). After the Dissolution in 1536 it is known that much of the abbey grounds was given over to gardens while much of the stonework was carted away. There seems to be very little in the way of diagnostic 16th-century wares which suggests, perhaps, a period of near-abandonment. Some late, plain, Brill/Boarstall products (OXAM, OXBX) may have continued to reach the site as late as c 1600 but there is not much evidence for this. Similarly, a very small number of thin-walled black-glazed Cistercian-type ware drinking vessels from the Midlands may have reached the site during the 16th century – some perhaps even before the Dissolution – although this generic term includes some vessels of later date. Some local red earthenwares (REW) and Surrey/Hampshire white wares (BORD) were also in circulation by the mid 16th century but there is little to distinguish these rather plain vessel forms from their successors in the following two centuries. A single fairly small sherd of Montelupo maiolica, a luxury tin-glazed tableware
imported from Tuscany is, however, most likely to date to the late 16th or early 17th century. The sherd is from just below the rim area of a bowl-like fruit stand or tazza with polychrome fruit or floral decoration inside and out (Plate 10.10). Montelupo maiolica is rare on British sites generally and even rarer from sites as far inland as Oxford, although a couple of Ligurian maiolica dishes of similar date are known from the city (Mellor 1997; see below also).

In the main, the post-medieval assemblage appears to be predominantly of 17th- to 19th-century date. The 17th- to 18th-century assemblage is dominated by common red earthenwares (REW), mostly glazed. These are the general crockery of the period, mostly in the form of large bowls or dishes and storage jars. An unusual item is an unglazed ‘chicken feeder’ (Plate 10.11) found in a mid 18th-century context along with other domestic pottery and clay pipes. These flattish dish-like vessels had two or three added concentric rings of clay. Similar dishes are known elsewhere from 19th-century farmyard contexts, so the traditional identification as chicken feeders is probably correct and implies that the 18th-century inhabitants of the abbey site kept poultry. Some or perhaps most of this redware was made at Brill (see also medieval wares) and perhaps at other fairly local potteries too. Likewise the more decorative slipware dishes in red earthenware with their trailed decoration in white slip (Plate 10.12; BRSL, REWLS). The Brill slipwares, here almost entirely 18th-century, occasionally have green glaze highlightst giving a polychrome effect.

The German stonewares present, all common imports of the period, include a few plain Frechen drinking jugs of the late 16th to early 17th centuries, and 17th-century type ‘bellarmines’ or Bartmann jugs with applied bearded masks on the neck. One other more unusual tin-glazed vessel (TN) of uncertain continental or English origin deserves closer consideration. This is represented by a rim sherd from a smallish jar (Fig. 20.13; Plate 10.13), possibly a wet drug or syrup jar, with an off-white or discoloured pale grey tin glaze with external blue-painted floral decoration outlined in places with black – a design ultimately derived from Chinese porcelain and probably dating to the 17th or early 18th century. This may be Portuguese, or possibly Ligurian (north-west Italy), but without scientific analysis of the clay it is best described, for the moment, as a possible import. It may have come from an apothecary’s shop, or have been a purely decorative piece from a private house. A sherd from an early 17th-century English tin-glazed drug jar with polychrome geometric decoration was also recovered as well as plain white glazed drug jars and ointment jars of the 17th–18th centuries. A single sherd from a Spanish olive jar (OLIV), a rare type in Oxford, was found in a mid 18th-century context. These coarseware containers, shaped like Roman amphorae, were a common product of Seville and were used to export luxury Mediterranean foodstuffs such as olives, olive oil, honey and dried fruit.

The 18th-century assemblage here, as elsewhere, witnesses the gradual rise of the Staffordshire and Midlands pottery industries – slipwares and stonewares at first – and mass-produced cream and white tableware by the late 18th and early 19th centuries. The high number of Creamware dish and plate sherds from the site (mainly c.1780–1830) is noteworthy. Some of the latest Staffordshire-type products (WHEW) and English stonewares of the 19th century may have been associated with the Rewley Road station constructed on the site in 1851, although there is nothing particularly noteworthy or obviously connected to the railway in this latest assemblage. Several cylindrical whiteware jars (perhaps from the station cafeteria?) have inscriptions showing they contained ‘Frank Cooper’s Oxford Seville Marmalade… by Royal Appointment to His Majesty King George V’. The Oxford marmalade factory lay only a short distance south of the station – although the jars themselves were made to order by Malling of Newcastle.

Pottery illustration catalogue (Fig. 20; Plate 10)

1. Early-late medieval east Wiltshire ware (OXAQ). Bowl. 12–13C. OXSTRA 94 (1739). Fig. 20

2. ?Early Surrey/Hampshire border ware (OXAS) or unidentified fine cream sandy ware from same general source. Jug rim with incised (pre-firing) potter’s mark on neck. Large rounded off-white fine sandstone inclusion (8 mm across) protruding from surface. Large patch of clear yellow glaze on shoulder to right of mark. 13C? OXSTRA 94 (1622). Fig. 20; Plate 10

3. Worcester-type sandy glazed ware (WORC). Jug sherd with stamped decoration. Identified by Alan Vince. 13C-early 14C. OXSTRA 94 (1952). Trench 1994/19. Probably 13C dump layer cut by ‘barn’ wall. Fig. 20; Plate 10

4. Two decorated Brill/Boarstall ware (OXAM) jug sherds. 13–14C. Max. length 68 mm. Left OXRA 86 (910); right OXRA 86 810/A/2. Plate 10

5. Brill/Boarstall ware (OXAM) jug rim with applied face pad. 13C. Height of sherd 43 mm. Diameter 160 mm (160–180 mm?). Slight possibility an unusual bowl because of large diameter and internal and external green glaze? OXRR 93 (228). Linear feature cutting retaining wall (226) in Trench 1993/2, courtyard/garden. Plate 10

6. Brill/Boarstall ware (OXAM). Bottle. Complete except for rim. Zone of speckled copper green glaze around shoulder area. 13–14C. OXRA 86 (501). Fig. 20; Plate 10

7. Brill/Boarstall ware (OXAM). Bottle rim. Over-fired. Unglazed except for clear specks. 13–14C. OXSTRA 94 (1829). Fig. 20

8. A group of four Brill/Boarstall ware (OXAM) bottles. 13–14C. Height of tallest to left 165 mm. Various contexts. Plate 10

45 mm. Base diameter 130 mm. OXRA 86 (904).
Plate 10
10. Italian Montelupo maiolica (MLTG). Dish sherd (tazza). External view showing traces of polychrome decoration. Late 16-early 17C. Max. length 42 mm. OXRA 86 226/A/1. Plate 10
12. Fine red earthenware with trailed white slip decoration (REWSL). Possibly ?Brill slipware. Internal detail of dish sherd with curvilinear slip decoration with dot fillers. Late 17–18C. Rim diameter 420 mm. OXSTRA 94 (2821). Plate 10
13. Portuguese or ?Ligurian maiolica drug jar (TN). 17–18C. OXSTRA 94 (310). Fig. 20; Plate 10

Figure 20 Pottery.
Plate 10 Pottery.
Clay Tobacco Pipes

David Higgins

The six phases of work on this site produced a total of 623 fragments of clay tobacco pipe from 81 different contexts, with one unstratified group. A summary of the pipes recovered from the site as a whole is provided in Table 4. This shows the numbers of bowl (B), stem (S) and mouthpiece (M), as well as the total number of pipe fragments that this represents, from each phase of work. The marked pipes are then listed, as well as the number of decorated pieces, before the figure numbers of the illustrated pieces and any general comments. A fuller record of the pipes by phase of work and context, which has been used to inform the dating and interpretation of the archaeological features and deposits on the site, can be found in the context summary in the project archive.

Pipes of the 17th and 18th centuries

Some of the early pipes are very neatly made and finished, for example OXRA 86 [0006/C], which dates from c 1620–1650 (Fig. 21.1). This piece is fully milled and finely burnished and the pipe is of a good form, neatly finished. These early bowls are rarely marked and made of a fine, inclusion free fabric so that it is impossible to tell whether they were made in London or produced locally in a London style. Given the size and significance of Oxford as an urban centre, it would be very surprising if pipemakers did not establish themselves in the area at an early period.

The mid 17th-century forms closely follow London fashions but the presumption must be that most of the pipes in use by this date were being produced locally. Both spur and heel forms were commonly used but, if anything, it is the spur forms that appear to have been slightly more common. The pipes are generally well made and neatly finished, and produced using fine almost inclusion free clay. There are a number of individual pipes dating from this period, but the best group was recovered from beneath a collapsed wall (OXRA 81 [0011]; Fig. 21.7–13). This does not appear to be a single-phase group of pipes, but rather a collection of material that built up over a period of some 30–40 years.

Towards the end of the 17th century the pipe assemblages exhibit a number of changes, in particular with regard to form and fabric. The London forms that had dominated production until around 1680 were replaced by more distinctive local styles. In particular, large and rather sharply curved spur forms appeared, which seem to draw on West Country styles for their inspiration as much as London. This style emerged from the middle of the century onwards and was noted by Oswald as his ‘Type B’ in the St Ebbe’s report (Oswald 1984, fig. 51). An early example of this style, dating from c 1660–90, was recovered from OXRR 93 [0204] (Fig. 21.14).

The author considers that this form developed into a rather ‘top-heavy’ and heavily built spur bowl

<table>
<thead>
<tr>
<th>Site</th>
<th>B</th>
<th>S</th>
<th>M</th>
<th>Tot</th>
<th>Marks</th>
<th>Dec</th>
<th>General Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXRA 81</td>
<td>34</td>
<td>63</td>
<td>4</td>
<td>101</td>
<td></td>
<td></td>
<td>All C17th and C18th material. Two good mid-C17th groups account for 78% of the assemblage</td>
</tr>
<tr>
<td>OXRA 86</td>
<td>35</td>
<td>120</td>
<td>1</td>
<td>156</td>
<td>ED BEASTEN, AM, WT</td>
<td>2 or 3</td>
<td>Almost all C17th and C18th material with just a few C19th fragments. Includes some good early C18th material (including 2 stamped stem marks), a decorated Dutch stem and an early C19th moulded mark</td>
</tr>
<tr>
<td>OXRR 93</td>
<td>13</td>
<td>40</td>
<td>1</td>
<td>54</td>
<td></td>
<td>**</td>
<td>Mainly rather small groups with some battered looking fragments. Most material dates from C17th and C18th but with some C19th groups. Context 204 includes two interesting transitional forms. The only mark is part of a C19th moulded spur mark (stars)</td>
</tr>
<tr>
<td>OXSTRA 94</td>
<td>48</td>
<td>243</td>
<td>6</td>
<td>297</td>
<td>RICH/ ARD/ CUTTS; ID</td>
<td>1</td>
<td>Most of the groups fairly small and of mixed C17th to C19th dates. The majority of the finds (207 pieces) come from a pit group of c1690–1710 [2821], which provides a well dated and important reference point for the study of Oxford pipes</td>
</tr>
<tr>
<td>OXSTRA 96</td>
<td>12</td>
<td>12</td>
<td>1</td>
<td>29</td>
<td>BH × 1; ** × 2</td>
<td>9</td>
<td>Single group of C19th pipes from a levelling deposit including a spur mark of Benjamin Huggins, working 1841–75. May well be from the construction of the railway terminus in about 1850</td>
</tr>
<tr>
<td>OXSAID 01</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td>Single context group [302] containing three pieces of C17th or early C18th stem</td>
</tr>
<tr>
<td>TOTALS</td>
<td>142</td>
<td>469</td>
<td>12</td>
<td>623</td>
<td></td>
<td>9</td>
<td>12 or 13</td>
</tr>
</tbody>
</table>

43
with an even more pronounced curve to its profile. This type has been encountered at other sites in Oxford, for example the New Chemistry Laboratories (Higgins 2005, fig. 11.2) as well as at this one. An example was recovered from OXRA 81 [0011], where it seems out of place in size and style amongst the predominantly mid 17th-century forms that made up the rest of the group, suggesting that it is intrusive. Two examples were present in a pit group of c 1690–1710 (OXSTRA 94 [2821]; Fig. 22.20) and a similar example was also recovered from OXRA 86 [0010/A/2] (Fig. 22.31), a deposit dominated by early 18th-century forms.

The occurrence of three examples of this large spur form in good late 17th- and early 18th-century groups clearly suggests that it is a contemporary style and one that can be seen as a local competitor to the West Country spur forms of the same date. The large version of this particular form seems to fit much better in these later contexts, where its size is more in keeping and it can be seen as an established design being produced alongside newer varieties. Being an established or ‘old fashioned’ variety, it was produced with a bottered and milled rim, techniques that had been dropped with the newer styles (cf. Higgins 1987, 257, Types 5c and 5f). It is suggested that the large Oxfordshire spur form was introduced around 1680 and that some examples may have continued in production until around 1720 or 1730 alongside the newer forms. This is a rather later and longer range than that suggested for an example from St Ebbe’s (Oswald 1984, fig. 52.7) and it also has implications for the dating of the RP stem mark that is associated with it. It is suggested that the use of large unbordered incuse initial stem marks (Oswald 1984, figs 52.7 and 52.10), some of which were clearly associated with this bowl form, dates to c 1680–1710. An incuse mark of this type, but on a heel form of c 1690–1720, was recovered from these excavations (Fig. 21.16).

### A pit group of 1690–1720 and changing pipe styles

At the end of the 17th century the barrel-shaped spur and heel forms that had dominated pipe styles for the previous century suddenly started to fall from fashion and the pipemakers experimented with new ‘transitional’ styles. A variety of new forms were introduced around 1680–1710, from which a fairly upright cylindrical bowl form emerged and it was this form that went on to dominate the markets for most of the 18th century. A pit fill (OXSTRA 94 [2821]) associated with the demolition of the barn to the west of the abbey moat produced 207 pipe fragments (40 bowl, 162 stem and 5 mouthpieces), all of which appear to have been deposited within a short space of time. The bowl forms present are all of types that can be broadly dated to around 1680–1720, but a date of c 1690–1710 seems much more likely for this group, with deposition of around 1700 seeming most probable. This is because, at the earlier end, there are none of the forward leaning but rather curved forms that represent the end of the ‘barrel shaped’ 17th-century tradition and which would certainly be expected to be present in some numbers until at least the 1680s. Furthermore, there is one stem mark of Richard Cutts from East Woodhay in Hampshire (Fig. 22.22), who was married in 1693 (Cannon 1991, 22) and so would have been unlikely to have been making pipes of his own much before 1690. At the other end, there are none of the very upright forms that appeared from early in the 18th century and none of the pipes has cut rims, another characteristic that appeared at about this time.

The close dating afforded by this group allows it to be used to characterise the types of pipe that were being made and used within Oxford at this date, and it provides an important benchmark for the region. In terms of style, there are 29 identifiable forms represented in the group. Three of these are spur types (10%) and 26 are heel types (90%). This dominance of heel types is in marked contrast with the mid 17th-century groups from this site, where spur types appear to have been slightly more common than heel types. Of the three spur forms represented, two are of the heavy local style discussed above (Fig. 22.20) and one is of a rather more elegant style with a finer spur (Fig. 22.21). The two local forms are so similar that they may well have been produced in the same mould and both have one quarter of the rim facing the smoker milled, the only pieces in this group to be so treated. The finer form is of a style characteristic of Wiltshire and Hampshire and this piece may well have been imported from outside of Oxford (but in the Thames Valley area as it appears to be made of a local fabric). It may well have had a stem stamp, like the incuse Richard Cutts example found in this group (Fig. 22.22), which would have been on a similar bowl form. The Oxfordshire makers do not appear to have used this style of full name incuse mark on their pipes and they rarely seem to have used any marks at all until the nineteenth century. None of the other heel or spur pipes from this group appears to have been marked or decorated.

There are 22 heel bowls where the bowl form can be determined. About one third of these (seven examples) have a rather straight-sided and forward-leaning form and at least five different types are represented (Fig. 22.23–27). These tend to have rather large heels, cut close to the stem and often not very well differentiated from the bowl. In one instance, a fragmentary example has quite a marked curve at the front of the heel, which is also slightly flared to each side (Fig. 22.27). All of these types are represented by single examples except for one type (Fig. 22.24), of which there are three examples. The remaining two-thirds of the heel bowls (15 examples) have a rather more upright and cylindrical bowl form with a longer and more sharply differentiated heel (Fig. 22.28–30). This is the forerunner of the style that went on to dominate pipe assemblages in this area for most of the 18th century. Three basic types are represented; those with large, medium and small heels. Those with large heels
tend to have slightly taller and broader bowls and those with the small heels smaller ones. These differences may be related to stem length, which in turn was related to the cost of the pipe (longer stems being more expensive). There are six examples of bowls with large heels (Fig. 22.28), five examples with medium heels (Fig. 22.29) and four with small heels (Fig. 22.30).

Every single bowl fragment is burnished, showing that this was an absolutely standard finish in Oxford around 1700. The burnish is usually of average to good quality, although often it is quite lightly applied. There are a few finely burnished pieces. Almost all the stems are burnished too, although there are one or two that do not seem to be, suggesting that not all of the bowls that were burnished had burnished stems as well (or that the burnishing stopped part-way along the stem). As noted above, all the surviving rim fragments have been bottered, that is, shaped and smoothed by twisting a finishing tool over the rim, and most of the rims have been internally knife trimmed as well. Only two rims have been milled, both on the locally produced spur bowls, where it occurs on one quarter facing the smoker. The use of milling seems to be specifically associated with this form where it was almost certainly seen as part of the ‘style’ of the pipe.

The stem bores are generally quite large, around 6/64" or 7/64" with only one or two pieces smaller than this. This is an important characteristic to note, and another one that places this group at about 1700, since by the 1710s or 1720s the Oxford makers appear to have suddenly adopted the use of much smaller wires, often producing unusually small bores for this period of around 4/64". The exact date at which this change occurred needs to be pinned down more closely, but it should provide an important watershed in determining the date of early 18th-century groups. The stems themselves taper to quite long, thin tips but, once again, their large bores provides a clue as to dating.

The final characteristic of this group is the use of a fine sandy fabric that was used to produce the pipes. This is most evident under a x10 lens, when numerous closely spaced sand grains are visible on the surface of the pipes and the broken edges exhibit a fine, granular texture. Almost all of these pipes are made of this type of fabric, which seems to have been exploited from around 1680–1750. Similar fabrics are found at Reading (Higgins, forthcoming) and the clay must have been obtained somewhere in this region of the Thames valley. It is interesting to note that the fine spur form (Fig. 22.21) appears to be made of this type of fabric, but not the Richard Cutts stem from East Woodhay (Fig. 22.22). This suggests that the fine sandy clay is from a different source to that used by the East Woodhay industry and that the fine spur form was imported to Oxford from somewhere in the Thames valley area, rather than from the heartland of this form in the Wiltshire/Hampshire area.

### Early 18th-century groups of c.1710–1730

Around 1700, a rather upright heel bowl with a cylindrical body was introduced that went on to dominate local production for the next 70–80 years. This form is directly comparable to the London Type 25 form (Atkinson and Oswald 1969), but the Oxford version tends to be a little shorter and more heavily modelled around the heel area. The Oxford heels are rarely marked and the bowl is often set at a sharp, upright angle to the stem. Furthermore, the bowls are often burnished and, in particular, they are often made of a distinctive fine sandy fabric, quite different to that used in London. Another characteristic of these pipes is that they often have an unusually small stem bore for the period, often around 4/64". This small bore seems to be particularly associated with the new bowl forms and late 17th-century types, some of which were probably still being produced at the same time, invariably have much larger stem bores. The large Oxfordshire spur types are a good example of this. Individually many of the differences from London pipes are slight but taken together, they define a distinctive local style of pipe that was being produced in the Oxford area.

The early 18th-century forms produced in Oxford are well represented by OXRA 86 [0010] and [0010/A/2], two contexts associated with the fill of a steeping vat culvert in a brewhouse. The finds from these two contexts (20 bowl and 47 stem fragments) form a very homogeneous looking group, but one that appears to be slightly later than the pit fill (OXSTRA 94 [2821]) discussed above. The pipes from the brewhouse culvert not only exhibit more upright, cylindrical forms, but they also have later finishing characteristics, such as fewer bottered rims and smaller stem bores. These differences clearly indicate a later date for the culvert group than the pit group, that is, after c.1690–1710. On the other hand, some bottered rims still occur and there is one transitional spur form with a milled rim, both of which are characteristics showing that this group does not date from too far into the 18th century. For these reasons, the culvert group has been dated to c.1710–1730. This group provides an ideal opportunity to compare and contrast the pipes of this period with the slightly earlier pit group of c.1690–1710.

The culvert group is rather smaller than the pit group and only 11 bowl styles can be identified. One of these is a late spur form of local style (Fig. 22.31) but the other ten are all heel types, a similar proportion to the pit group. The spur form is once again the only milled example, in this instance with half the rim milled. This piece could be residual, although it is perhaps more likely that it represents the late production of an ‘old fashioned’ style for which there was still a small market. In contrast to the pit group, however, none of the heel forms is particularly forward leaning and it is clear that a more upright bowl form has become standard. One form, represented by at least two examples from the same mould, still has quite a simple bowl form and
chunky heel (Fig. 22.32), but the majority of the pipes have smaller, more clearly defined heel areas (Fig. 22.33–35, Fig. 23.36–37). In some instances, the bowl is extremely sharply angled back towards the stem (Fig. 23.36). One or two of the bowl forms overlap with those from the pit group, showing that both deposits are quite close in date, but a general shift towards new forms is clear.

A similar change can be seen in the form of the heels from the culvert groups, which are all either medium or small in size, showing that the use of large heels had gone out of fashion. There is also more of a tendency for the heels to be slightly flared, especially when viewed from the ends of the pipe. The pipes are still made of a fine sandy fabric but the finishing techniques have changed notably over time. Although it is not the most immediately apparent difference between the two groups, one of the most marked changes is in the rim finish. There are 16 complete or partial rims from the culvert group out of which only six may have had their rims bottered (and some of these are dubious) as opposed to every single rim fragment from the pit group being so treated. Furthermore, only one of the rims has been internally knife trimmed, a common feature in the pit group. The majority of the culvert rims, 10 examples, have simply been formed with a single knife cut across the bowl axis to produce a quite sharply squared rim. This was a quicker production method and one that was clearly taken up very rapidly once it had been introduced. A similar change towards quicker production methods is evident in the burnishing, which not only tends to be of slightly poorer quality but, most significantly, now only occurs on half of the bowl fragments recovered as opposed to all of them. The final change to note is stem bore size, which is not related to the speed of manufacture, other than that it is slightly easier to produce a small hole, especially towards the tip of the pipe. Although one or two larger bores are still present, the majority of the fragments from the culvert group have stem bores of 6/64” or 5/64” with a few being as small as 4/64”. As with the pit group, none of the pipes has an internal bowl cross and none of the culvert pipes is marked or decorated.

Although none of the individual characteristics listed above can be reliably used in isolation, they clearly provide a series of clearly defined trends that, taken together, provide an important means of placing local pipe groups within a broad chronological framework. It is also important to note how distinct the two groups are from one another, despite their similarity in date. This underlines how sensitive pipes can be for dating purposes, since their forms and finishing characteristics changed rapidly over time while their short life expectancy often means that they are the most recently produced artefact type to be discarded in any given deposit.

Unfortunately, there are no good examples of mid- to late 18th-century pipes from this site and the 19th-century evidence, other than the group discussed below, is rather scrappy. Such as it is, the evidence suggests (and one could conjecture) that moulded decoration is adopted from the early 19th century onwards. It also seems that the 19th-century makers quite frequently adopted the use of moulded initials or symbol marks on the heels or spurs of their pipes.

Marked Pipes

Very few marked pipes were recovered from the excavations, which is typical of pipe assemblages from the Oxford area. Be that as it may, some of the pipes from Hannington Wick (70), Cirencester (78), Brinkworth and East Woodhay. In addition to some of these places Oswald (1991) has noted other examples of this mark from Oxford and Facccombe Netherton in north-west Hampshire. Cannon says that the greatest concentration of these marks comes from Newbury and suggests either Newbury or the important pipemaking centre of East Woodhay in north-west Hampshire as the source, although the large number of examples that he notes from Hannington Wick in north-east Wiltshire would seem to argue against this. The new find adds to the known list of examples that were made by this prolific maker.

RICH/ARD/CVTTS A stem stamped with the incuse mark of Richard Cutts was found in OXSTRA 94 [2821] (Fig. 22.22). Richard Cutts worked at East Woodhay in Hampshire, which was a regionally important pipemaking centre. He was married there in 1693 and baptised five children between 1694 and 1702, before his own death in 1731 (Cannon 1991, 22). Two of his pipes have been recovered from Reading (Higgins, forthcoming) and others are known from Chilton Foliat, Coleshill, East Woodhay, Highworth, Littlecote, London, Marlborough, Newbury, Poulton (near Marlborough), Ramsbury, Southampton, Swindon and Winchester (Cannon 1991, 22). As with the Beasten mark (above), this shows the very wide market area that some makers were able to achieve, with Cutts finding a regular market within a 35 mile radius and with some pieces travelling as far as 60 miles from their place of manufacture. This example is the first recorded from Oxford and adds to the known distribution pattern for this maker.

ID A plain pipe bowl of c. 1620–1660 with the relief moulded initials ID on its spur was recovered from OXSTRA 94 [1641] (Fig. 23.40). The initials are quite large and simply executed and the pipe is not particularly well finished. Oswald (1984, 261–2) does not list any Oxfordshire makers with these initials and this piece is likely to represent a previously unrecorded local maker.

AM A heel bowl of c. 1690–1720 made of a fine sandy fabric and with an internally trimmed and bottered rim (but no milling) was found in OXRA 86 [0906/4]. The pipe has a stem bore of 6/64” and both the bowl and stem have an average burnish. About 26 mm from the bowl a band of milling has been impressed around the stem and then the incuse letters AM have been impressed 32 mm from the bowl. The use of unbordered incuse stamped initials in this way is very unusual nationally but the style appears to have used by a few of the Oxford area...
manufacturers from around 1680–1720. Oswald (1984, figs 52.7 and 10) illustrates late 17th-century bowl forms with the initials RP and MC stamped on their stems in this manner. He dates these types from as early as 1660 but the present author believes the bowl forms to date from around 1680 or later, which would also fit better with the date attributed to this new mark. None of these three sets of initials (MC, AM or RP) can be matched with known makers, but the style of the bowls is certainly local as is the use of a fine sandy fabric for the new piece. Although no AM maker is currently known, it is worth noting that a John Matthews was recorded as a pipemaker in Oxford in 1764 (Oswald 1984, 262) and so it is possible that AM was an earlier member of the same family.

WT Relief-moulded initials on the heel from a pipe dating from c.1790–1830 (Fig. 23.38). The bowl is missing, but slight traces at the broken edge suggest that it was probably mould decorated originally. The base of the heel has not been trimmed, a characteristic of pipes produced after about 1800. A William Tuckwell is recorded at Wallingford in 1796 (Oswald 1984, 262) and he could have been the maker of this pipe, although the large number of excavated pipes from Reading, which is about the same distance from Wallingford as Oxford is, do not include any WT marks. There are a number of other pipes with these initials known from Oxford (eg Oswald 1984, figs 55.29a; 55.29b and 56.36) and so it is perhaps more likely that this maker worked in or near Oxford itself. All of the other known examples are of a similar date and form, but with plain bowls.

** A plain 19th-century bowl, probably dating from c.1830–1870, was recovered from OXRR 95 [0123] (Fig. 23.41). The spur is largely chipped away but enough survives on the right hand side to show that it had a crudely executed star on it. There would have been another one on the other side. Symbol marks such as this were quite common during the 19th century and they are not related to any specific maker. Two further examples of pipes with star marks were recovered from OXSTRA 96 [0010] (see below; Fig. 43.43).

Decorated Pipes

Very few of the excavated pipes are decorated. Those that were recovered are described and discussed below.

An elaborately decorated stem, almost certainly from a Dutch pipe of c.1660–1740, was recovered from OXRA 86 [0810/1] (Fig. 21.18). Immediately behind the bowl junction are five identical roll-stamped borders decorated with geometric patterns and dots. Just overlapping these a stem twist has then been applied, followed by four lines of decorative milling, one of which clearly runs over the borders. There are also traces of burnishing running back from the bowl. This was clearly a well-made and very decorative pipe, most likely produced around 1660–1740. Dutch pipes of this date are not often found in England and, when they are, they tend to have a coastal distribution, suggesting that they were primarily being carried as the personal possessions of sailors rather than being traded objects in their own right. This is an interesting and unusual object for an inland site and one that perhaps reflects the international links and cosmopolitan nature of Oxford itself.

A band of milled stem decoration was used in conjunction with incuse maker’s initials (AM) on a pipe from OXRA 86 [0906/4] (Fig. 21.16). This piece probably dates from c.1690–1720 and the use of milling on the stem is interesting since it was not used on the bowl rim. Decorative roll-stamped stem borders were becoming fashionable at this time and it is possible that this maker was using an ordinary milling tool in conjunction with his initials to mimic this style.

From the late 18th century pipes were often mould decorated but there are very few of these types represented from the site, since not many late 18th- or 19th-century deposits were excavated. One fragmentary bowl of c.1820–70 was recovered from OXSTRA 94 [1629] with short, narrow, fluted around the lower half of the bowl and hanging swags above (Fig. 23.39). The spur, which may have been marked, is missing.

Apart from a heel marked WT that may have had a decorated bowl (Fig. 23.38), the only other decorated material was recovered from a mid 19th-century levelling layer, OXSTRA 96 [0010]; see below.

Conclusions

The excavations at Rewley Abbey have produced an interesting range of pipes that help refine our understanding of the Oxford pipe making industry. Although there are none of the earliest pipe styles, the forms from around 1640 through to the middle of the 18th century are fairly well represented and there are a few 19th-century groups. The 17th- and 18th-century styles are similar to those that have been identified from Reading (Higgins, forthcoming) and there are certainly similarities between the two areas, for example in the exploitation of presumably local fine sandy fabrics. Despite this, subtle differences in the bowl forms and finishing techniques clearly show that the two towns both had their own local pipemaking industries that supplied the majority of their needs. One particular difference can be seen in the use of moulded makers’ initials during the 18th century. This type of mark was typical of London and many of the surrounding counties and it was certainly adopted at Reading. But the use of moulded initials was extremely rare in Oxford before the 19th century, showing that marking fashions at the two centres evolved independently.

The local marks that occur also reflect the degree of self-sufficiency in the local pipemaking industry, while the small number of imported marks reflect the areas from which pipes (and by extension other goods and services) were being drawn. The locally produced pipes at Oxford dominate the market and suggest that many more local manufacturers remain to be identified from documentary sources. Where marks do occur, such as the AM stem mark, they are often in local styles and seem likely to represent as yet unidentified local makers. A few imported marks occur, such as the Richard Cutts mark from East Woodhay. These show a small number of pipes arriving from the Wiltshire/Hampshire area, perhaps reflecting individual travellers and/or trading links. A small number of pipes from these areas have
also been noted at Reading and London, showing this to be part of a wider pattern of movements heading towards the capital. The Dutch stem is interesting in that it represents a more distant source, and one that rarely reached the inland areas of England.

Some of the deposits from Rewley have produced very coherent and tightly datable groups of pipes. The pit group of c 1700 (OXST RA 94 [2821]) and the early 18th-century pipes from the brew-house culvert (OXRA 86 [0010] & [0010/A/2]) both provide important reference groups that not only characterise the local pipes at these period but also provide benchmarks for future work. The later pipes are not so well represented but the mid 19th-century group hints at the more decorative designs that would have been current at that time as well as showing that local manufacturers were still providing for the town until at least the middle of the century.

List of illustrations (Figs 21–23)
All of the pipes are illustrated at 1:1 with burnished surfaces being shown with a broken line on the surface of the pipe. The illustrations have been arranged in roughly chronological order to show the evolution of types as represented amongst the excavated assemblage. Four particularly good groups of material are represented from this site as follows:

Nos 31–37 OXRA 86 [0010] Brewhouse culvert fill of c 1710–1730 (good group) and [0010/A/2].
Nos 42–47 OXST RA 96 [0010] Levelling layer, probably c 1850 for station construction (see below; Fig. 43).

1. Heel bowl dating from c 1620–1650; finely burnished; rim internally trimmed, bottered and fully milled; stem bore 7/64". (OXRA86 Context: 6/C).
2. Heel bowl dating from c 1640–1660; not burnished; rim internally trimmed, bottered and fully milled; stem bore 8/64". (OXRA81 Context: 6/1).
3. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11/1).
4. Heart-shaped heel fragment dating from c 1640–1670; not burnished; stem bore 8/64". (OXRA81 Context: 11/1).
5. Spur bowl dating from c 1650–1670; not burnished; stem bore 7/64". (OXRA93 Context: 140).
6. Spur bowl dating from c 1650–1670; not burnished; stem bore 7/64". (OXRA93 Context: 140).
7. Heel bowl dating from c 1640–1670; not burnished; stem bore 7/64". (OXRA81 Context: 11).
8. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11).
9. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11).
10. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11).
11. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11).
12. Heel bowl dating from c 1640–1670; not burnished; rim bottered and fully milled; stem bore 7/64". (OXRA81 Context: 11).
13. Spur bowl dating from c 1680–1700; average burnish; rim internally trimmed, bottered and three-quarters milled; stem bore 7/64". (OXRA81 Context: 11).
14. Spur bowl dating from c 1660–1690; average burnish; rim bottered and one-quarter milled; stem bore 7/64". (OXRA93 Context: 204).
15. Large spur bowl dating from c 1690–1720; average burnish; rim bottered and half milled; stem bore 9/64". (OXSTRA94 Context: 2134).
16. Heel bowl dating from c 1690–1720; average burnish; rim internally trimmed and bottered but with no milling; stem bore 6/64". About 26 mm from the bowl a band of milling has been impressed around the stem and then the incuse letters AM have been impressed. The maker is unknown but this is a local style of mark. (OXRA86 Context: 906/4).
17. Heel bowl dating from c 1680–1710; good burnish; rim is cut and internally trimmed. (OXRA93 Context: 204).
18. Stem fragment dating from c 1660–1740; traces of burnishing; stem bore 6/64". This elaborately decorated stem is almost certainly Dutch. Immediately behind the bowl are five identical roll-stamped borders decorated with geometric patterns and dots. Just overlapping these a stem twist has then been applied, followed by four lines of decorative milling, one of which clearly runs over the borders.
19. Stem fragment dating from c 1690–1730; poorly burnished; stem bore 6/64". The stem has a large incuse mark reading ED/BEAS/TEN stamped across is. A large number of these marks have been recovered from sites in the Wiltshire/Hampshire area although the maker has not yet been traced in the documentary records. (OXRA86 Context: 810/A/2).
20. Spur bowl dating from c 1690–1710; average burnish; rim bottered and internally trimmed but not milled; stem bore 7/64". (OXSTRA94 Context: 2821).
21. Spur bowl dating from c 1690–1710; finely burnished; rim bottered but not milled; stem bore 6/64". (OXSTRA94 Context: 2821).
Figure 21  Clay pipes, nos 1–18. Drawn by Dr Susie White.
Figure 22 Clay pipes, nos 19–35. Drawn by Dr Susie White.
22. Stem fragment dating from c1690–1710; poorly burnished; stem bore 6/64”. The stem has the incuse lettering RIH/ARD/CUTTS stamped across it. Richard Cutts was an East Woodhay maker who married in 1693 and died in 1731. (OXSTRA94 Context: 2821).

23. Heel bowl dating from c1690–1710; average burnish; rim bottered and internally trimmed.
From Studium to Station Rewley Abbey and Rewley Road Station, Oxford

but not milled; stem bore 7/64". (OXSTRA94 Context: 2821).

24. Heel bowl dating from c 1690–1710; average burnish; rim bottered and internally trimmed but not milled; stem bore 5/64". (OXSTRA94 Context: 2821).

25. Heel bowl dating from c 1690–1710; good burnish; rim bottered and internally trimmed but not milled; stem bore 6/64". (OXSTRA94 Context: 2821).

26. Heel bowl dating from c 1690–1710; average burnish; rim bottered and internally trimmed but not milled. (OXSTRA94 Context: 2821).

27. Fragment of a heel bowl dating from c 1690–1710; average burnish; no rim surviving; stem bore 7/64". (OXSTRA94 Context: 2821).

28. Heel bowl dating from c 1690–1710; average burnish; rim bottered but not milled; stem bore 6/64". (OXSTRA94 Context: 2821).

29. Heel bowl dating from c 1690–1710; average burnish; rim bottered and internally trimmed but not milled; stem bore 6/64". (OXSTRA94 Context: 2821).

30. Heel bowl dating from c 1690–1710; average burnish; rim bottered and internally trimmed but not milled; stem bore 6/64". (OXSTRA94 Context: 2821).

31. Spur bowl dating from c 1690–1720; average burnish; rim bottered and half milled; stem bore 7/64". (OXRA86 Context: 10/A/2).

32. Heel bowl dating from c 1700–1730; one of two bowls from the same mould; not burnished; rim cut; stem bore 5/64". (OXRA86 Context: 10/A/2).

33. Heel bowl dating from c 1700–1750; poorly burnished; rim bottered and internally trimmed but not milled; stem bore 5/64". (OXRA86 Context: 10/A/2).

34. Heel bowl dating from c 1700–1750; good burnish; rim cut and not milled; stem bore 5/64". (OXRA86 Context: 10/A/2).

35. Heel bowl dating from c 1700–1750; not burnished; rim bottered but not milled; stem bore 5/64". (OXRA86 Context: 10/A/2).

36. Heel bowl dating from c 1700–1730; average burnish; cut rim with no milling; stem bore 4/64". Bowl is sharply angled back towards the stem. (OXRA86 Context: 10/A/2).

37. Heel bowl dating from c 1700–1750; not burnished; cut rim with no milling; stem bore 5/64". (OXRA86 Context: 10/A/2).

38. Fragment of a heel bowl dating from c 1790–1830; not burnished; rim bottered but not milled; stem bore 5/64". The bowl is missing, but slight traces at the broken edge suggest that it was probably mould decorated originally. On either side of the heel are the relief moulded initials WT. (OXRA86 Context: 10/A/2).

39. Fragment of a spur bowl dating from c 1820–1870; not burnished; cut rim; stem bore 4/64". Mould-decorated with short narrow flutes with swags hanging above. (OXSTRA94 Context 1629).

40. Spur bowl dating from c 1820–1860; not burnished; cut rim with no milling; stem bore 4/64". On either side of the spur are the relief moulded initials ID. There is no known maker with these initials, but it is most likely to be a local product. (OXSTRA94 Context: 1641).

41. Spur bowl dating from c 1830–1870; not burnished; cut rim with no milling; stem bore 4/64". The spur is now missing. There are traces of a star mark on one side of the spur, and it would almost certainly have been the same on both sides. (OXRR93 Context: 123).

The Ceramic Building Materials
John Tibbles, with a contribution by John Cotter

Introduction and methodology

A total of 1380 fragments of ceramic building material weighing 84349 grams, and 72 fragments of stone roof tile weighing 13007 grams were submitted for examination. All the fragments were retrieved from 233 contexts and were visibly examined using a 15x-magnification lens. Information regarding the dimensions, shape and fabric of the material was recorded and catalogued accordingly. It should be noted that the diversity of size and colour within the tile caused during the manufacturing process must be taken into consideration when comparing examples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the tile within the kiln. Fabric descriptions can be found in the site archive.

The assemblage

Roof tiles

There is clear evidence to show that clay roof-tiles were in use within England by the late 13th century (Drury 1981) and continued through to the 18th century. Non-diagnostic or fragments of flat tile with no suspension or other identifiable characteristics can therefore only be attributed within this date range.

Table 5 Ceramic building materials, assemblage quantification.

<table>
<thead>
<tr>
<th>Form</th>
<th>No. of fragments</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick</td>
<td>84</td>
<td>10199</td>
</tr>
<tr>
<td>Flat roof tile</td>
<td>689</td>
<td>32360</td>
</tr>
<tr>
<td>Floor tile</td>
<td>505</td>
<td>34210</td>
</tr>
<tr>
<td>Ridge tile</td>
<td>102</td>
<td>7580</td>
</tr>
<tr>
<td>Stone tile</td>
<td>72</td>
<td>13007</td>
</tr>
<tr>
<td>Totals</td>
<td>1452</td>
<td>97356</td>
</tr>
</tbody>
</table>

52
The contextual deposition of the ceramic tile assemblage is often of limited interpretative value, although it does reflect a variety of forms and use within construction. The material provides evidence for the architecture of buildings that may have had flat-tiled roofs capped with ridge tiles. The majority of the assemblage was of good condition.

**Flat roof tile**

Representing 48% of the total assemblage, 689 fragments of flat roof tile were identified, of which sixty-three fragments bore suspension holes. The holes ranged between 10 mm–17 mm in diameter and approximately 50% showed a diameter of between 14 mm–15 mm. Two joining fragments from context 250 formed a full width of a tile 175 mm across containing two suspension holes 85 mm apart. Two further joining fragments from context 1152 also showed two suspension holes 50 mm apart. This tile type can be equated with near-parallels recorded at Oxford Castle (Tibbles 2005a). The majority of the identifiable flat tiles were of this type [Type 28] (Tibbles in prep.), which represented (9%) of the tile assemblage. The remaining fragments displaying thickness only were unable to be classified.

Thickness of the tiles ranged between 7 mm–18 mm with 391 tiles (57%) within a 14 mm–16 mm range. Twenty-three fabrics were provisionally identified of which F2, F4 and F5 were most common. Thirty-nine flat tiles (6%) were either glazed or displayed splashes which ranged between a dark olive green to a dark reddish brown.

Diagnostic qualities included the varying methods of suspension, length, width and thickness. However, thickness alone suggested multiple possibilities within the flat roof tile typology and were therefore impractical to attempt identification. A rabbits paw impression (Oryctolagus cuniculus) was noted within a tile fragment from context 126 and a grey slip/wash over the tile surface from context 140.

**Ridge tiles**

One hundred and two fragments of ridge tile representing 7% of the assemblage were identified within the assemblage, of which 27 fragments were glazed. Two types of tile crests were recorded: pinched/thumbed crest, possibly 13th–14th century, and knife-cut/dog-tooth. The former was most common with 27 fragments recorded whilst the latter only two fragments recorded. Six fragments from context 2512 were found to join forming approximately 68% of a complete tile. A large fragment of the crested type from within contexts 1716 had its crests removed by knife and re-used as a repair (7) piece.

Two fragments of ridge tile from contexts 107 and 208 displayed the residual elements of finial sockets. Thickness of ridge tile varied between 7 mm–20 mm with 92 fragments (90%) displaying a thickness of between 10 mm–16 mm. Eleven different fabrics were recorded of which 58 fragments (57%) were of F11.

**Brick**

Approximately 7.5% of the ceramic building material assemblage comprised of medieval bricks, although none was complete or near complete.

Dating of bricks is highly contentious due to their re-use nature as a valuable building commodity. At York in 1505 bricks were standardised at 10" × 5" × 2½"; Parliament in 1571 decreed that the size of a brick should be 9" × 4½" × 2½", revising that in 1725 to 9" × 4½" × 2".

Of the eighty-four fragments of brick within the assemblage none were complete or near-complete. Two part bricks from context 1610 and one from context 1658 displayed both width and thickness (110 mm × 56 mm and 100 mm × 50 mm respectively). The remainder of the assemblage displayed thickness only ranging between 40 mm–60 mm (√9/2 to √9/4) all comparable with medieval manufacture. Sixteen fabrics were recorded of which F16 was the most common (33%).

A single fragment from context 818/A may be of modern origin. In addition to the traditional finished brick the assemblage contained examples of ‘samels’ (underfired bricks). Only one fragment showed evidence of light post-breakage burning that may suggest demolition burning rather than secondary usage within hearth make-up.

**The floor tile**

Five-hundred and five fragments of floor tile representing 35% of the total assemblage was examined. The majority were either decorated or plain glazed of which 69 bore designs or part thereof. A total of one hundred and eighty-one (36%) showed bevels between 8° and 10° and sixty-six (13%) displayed ‘stabbed’ keying on the underside. Most of the stabbing appeared random although several tiles exhibited an ‘oblique’ stabbing pattern.

A substantial proportion of the tiles displayed heavy wear obliterating many designs and glazes. At least two glazed tiles exhibited a fresh crisp appearance suggesting an original location close to a wall or hidden out of general access. Glazes ranged between reddish brown, dark/light olive green and yellow with variations between. The majority of the glazed tiles bore partial designs or remnants of white slip and residual glazes. Partial designs have been provisionally identified as floral (1005, 501, 261), eagle wings (12), fleur-de-lis (301/1), animal head (204) and stag (702, 1003). Tiles from contexts 1818, 1010, 401 and 1153 show ⅓ tile designs.

Plain yellow, green and dark green/black glazes were also recorded on five square tiles and twelve triangular tiles. The latter tiles having been scored prior to firing to facilitate post-firing division.

Seven decorated tiles from contexts 500, 501 and 1003 displayed heavy mortar adhesions on all or
Table 6  Floor tile thickness by quantity.

<table>
<thead>
<tr>
<th>Thickness Range</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mm–17 mm</td>
<td>31</td>
</tr>
<tr>
<td>18 mm–22 mm</td>
<td>242</td>
</tr>
<tr>
<td>23 mm–26 mm</td>
<td>63</td>
</tr>
<tr>
<td>27 mm–34 mm</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>375</td>
</tr>
</tbody>
</table>

most surfaces suggesting re-used as coursing levelers or internal rubble filling. Other tiles displayed mortar over breaks suggesting their use as repair pieces. At least three tiles from contexts 401, 731/2 and 1909 displayed glaze over breakage and/or mis-firing suggesting their use as seconds. Tile thickness ranged between 10 mm–34 mm (See Table 6) with 65% within a size range of between 18 mm–22 mm.

Item of intrinsic interest

A fragment of a carved disc was recovered from within context 226/A/1 manufactured from re-used glazed floor tile. It displayed a diameter of c 45 mm, a thickness of 17 mm and weighed 40 g. The fragment had been cut to create a multi-faceted edge.

Flat roof tile was generally the accepted raw material possibly because of its standard thickness of between 12 mm–16 mm and could be easily chipped to the desired diameter. Occasionally an alternate raw material was utilised such as stone.

Discs shaped from potsherds also appear with assemblages but are generally much smaller in diameter. Although discs have been recorded within Roman contexts they generally appear from the thirteenth century and continue through to the post-medieval period where they are likely to be of a residual nature. Objects of a similar nature have been recorded at Oxford (Tibbles 2005a, Beverley (Tibbles 2005b), and Hull (Tibbles forthcoming). Their exact use is still arguable but previously they have been recorded generally under the generic terms of pot lids, counters or tally markers. They are more likely, however, to have been used as gaming counters for the game of Tabula or Tables.

A commentary on the source and local context of the floor tiles

John Cotter

Although the quantity and material characteristics of the Rewley Abbey floor tiles has been dealt with in some detail above, a few comments on their local context and significance can usefully be offered here. A few of the best preserved tiles from the excavations—some of which can be paralleled on other sites in the region—are illustrated here (Plate 11), although, as pointed out earlier, most are very worn and fragmentary and the designs mostly unrecognisable.

Decorated medieval floor tiles in the Oxfordshire and Buckinghamshire region have been the study of two and, by now, classic reports: the first of these by Loyd Haberly (1937), and the second by Christopher Hohler (1942). References to tiles in Haberly’s catalogue are usually abbreviated ‘LH’ followed by the catalogue number in Roman numerals (eg LH XLIX). Other important assemblages of ceramic building materials from Oxford, including decorated floor tiles, include those from the Dominican Priory (Blackfriars) (Lambrick and Mellor 1985), St Frideswide’s Priory (Oxford Cathedral) (Green 1988), St Olbe’s (Greyfriars) (Mellor 1989), and more recently from Beaumont Palace (Whitefriars) (Atherton and Mitchell 2001). A medieval tile fabric series for the Oxford region was first devised for The Hamel site, Oxford (Robinson 1980) and subsequently extended in some of the reports listed above.

The 18 floor tile fabrics from Rewley Abbey identified by JTibbles (above) are almost certainly variants of those in the existing Oxford tile fabric reference collection, although no attempt has been made here to correlate these.

Loyd Haberly (1937, 76) lists the site of Rewley Abbey as one of the many places he visited in gathering data for his book, although he offers few details of what he might have seen there. He may, in fact, have been referring to a collection of floor tiles in the Ashmolean Museum which, perhaps, included tiles from the site, or more likely to sketchbooks of tile designs by local Victorian antiquarians such as Percy Manning and the Parker-Hoare family. His comments are sometimes a little obscure and eccentric to modern eyes but it is evident that he (and Hohler) must have seen tiles, or drawings, from the Rewley Abbey site. Haberly (196–8) illustrates four ‘printed’ floor tile designs from Merton College Library (LH CIL, CL-II) showing poorly executed or jumbled letters of the alphabet interspersed with hares or rabbits within a larger roundel (each part of a four tile pattern). He describes these as belonging to a puzzling and incomplete series and mocks that they are unfit for an academic institution such as Merton College: ‘Possibly the 17th-century builder who laid the library floor had inherited them from a 16th-century ancestor who bought the spoils of Rewley Abbey!’. He adds that one of the tiles (LH CL) “was drawn by Manning as a Rewley tile”. Haberly’s alphabet tiles are listed under his ‘printed and unkeyed’ tiles, implying, as seems evident from the drawings, that they were products of the Penn or Chilten factories and therefore would now be dated to c 1330–1380. However, no examples of these ‘alphabet’ tiles were recognised from the excavations discussed here. An eagle tile from Rewley Abbey, originally drawn by Manning, is also illustrated by Haberly (LH LXVI). Examples of the latter were found in the assemblage discussed here (see below). Hohler (1942) also has scattered references to Rewley Abbey tiles.

The illustrated floor tiles from the recent excavations that can be safely paralleled elsewhere in the
city or the region are shown in Plate 11 (see illustration list for details), although the list of parallels is by no means exhaustive. Most of the tiles with recognisable designs are fairly common types either in Oxford itself or the nearby region, or they are close variants of these. Less common types are mentioned below.

Description

Decorated medieval floor tiles from Oxford are generally of two main types, or traditions, reflecting two main source areas and two successive chronological periods. Designs from the earlier tradition were inherited by the later tradition but were increasingly debased with the passing of time. Also the technology of tile manufacture changed from ‘inlaid’ to ‘printed’ designs in ways that are still not fully understood. Floor tiles of the earlier tradition are known as the ‘stabbed Wessex’ type. These have a fairly uniform orange or brick-red sandy fabric of relatively fine-medium coarseness, usually with a grey core (Oxford tile Fabric IIIB). They derive part of their name from the distinctive deep circular stabbing or keying on their undersides – although not every example displays this feature. Compared with later tiles the designs in contrasting white slip are unusually deeply inlaid (up to 5 mm deep) into a previously stamped design or pattern and the whole design is generally more detailed and more carefully executed than those of later tiles. Many other, more subtle, differences also distinguish the earlier from the later tiles (size, thickness, pattern subject matter etc.), but these distinctions are a little more subjective. The main production period of ‘stabbed Wessex’ tiles is thought to have been c 1280-1330 (arguably from c 1250) (Lambrick and Mellor 1985, 185-6). No kilns producing the ‘Stabbed Wessex’ tiles have yet been discovered in the region but the similarity of the sandy brick-red fabric to medieval pottery believed to have been produced in the Newbury-Reading area of Berkshire strongly suggests a source in this area (ibid., 186).

Tiles of the ‘stabbed Wessex’ tradition tend to form the majority of decorated floor tiles excavated from monastic sites in Oxford, most probably reflecting the fact that the late 13th and early 14th century was a major period of ecclesiastical building or renewal in the city. The tiles from Rewley Abbey conform to this pattern with the c 1281 foundation date for the abbey providing useful additional confirmation for the introduction of the ‘stabbed Wessex’ type. Most of the tiles illustrated from the excavations are of this type (Plate 11. T1–4, T6). Tiles T1 and T2 with a mixture of stylized floral and geometric designs are common types but T3 (quatrefoils in squares) is much less common. A cut triangular tile fragment is decorated with stylized fleur de lys which can be paralleled on several other Oxford sites (LH XXXI, OXSTRA 94 1804, not illustrated). There is a single fairly definite example of a knight on horseback (T6) which, it would seem, is only paralleled elsewhere in Oxford at Carfax church (N Mitchell, in notes). This design, in origin, may hark back to Richard the Lionheart doing battle against Saladin – a design that occurs in several tile-making traditions including the celebrated Chertsey tiles (Eames 1968, 7-8) and on those from Hailes Abbey in Gloucestershire – founded by Richard Earl of Cornwall (father of Edmund) in 1251 (examples in British Museum).

Two other ‘stabbed Wessex’ tiles illustrate from Rewley (OXRA 81 (12), OXSTRA 94 (1818), not illustrated) are from tiles showing an eagle tile with outstretched wings. This is one of the Rewley Abbey tiles illustrated by Haberly, also known from Carfax Church (LH LXVI) and both Blackfriars and Greyfriars (N Mitchell, in notes). A related design the double headed eagle (LH LXI though not from Rewley) was, in origin, the badge of the Holy Roman emperors and also occurs at Hailes Abbey where it may be a reference to Richard of Cornwall’s claim to be king of Jerusalem. However, the design is also known from Oxford Cathedral and Osney Abbey. By the later 13th century many tile designs such as these, which originally may have had more specific and heraldic significance, had become part of the general repertoire of many tile factories and may have lost much their original significance. If there were an unusually high number of these particular designs from Rewley Abbey there might have been a case for connecting them with Edmund of Cornwall’s foundation and dynastic claims, but as there are so few this connection, tantalizing though it seems, appears rather tenuous.

Floor tiles of the later tradition found in Oxford are described as ‘printed’ owing to the thinness of the white slip designs which wear off much more easily than the earlier ‘inlaid’ tiles. They are also un-stabbed or unkeyed on the reverse. ‘Printed’ tiles tend to have a paler-firing fabric than the ‘stabbed Wessex’ tiles. This is generally light orange or pink-buff in colour and has more visible coarse inclusions – mostly hard red-brown clay pellets or ‘grog’, red iron oxide and sometimes thin streaks of cream or pinkish marly clay – but relatively little quartz sand giving a smoother matrix texture. Oxford Fabric IIC is a hard grog-tempered fabric thought to originate from the Nettlebed area of south-east Oxfordshire, while Fabric IVB is sandier and probably comes from the Penn or Chiltern factories in Buckinghamshire (Lambrick and Mellor 1985, 178, 186).

Printed tiles are mainly datable to c 1330-1380 (Green 1988, 109) with some limited output as late as the 15th century. They are common from the Rewley Abbey site, though less so than the earlier ‘stabbed Wessex’ type. Their presence in quantity suggests that new tiled floors were laid in the Abbey around the middle of the 14th century, or that earlier floors were extensively repaired. Recognisable designs include several examples of the four tile pattern shown in Plate 11.T5 (probably a Nettlebed fabric) with a procession of four-legged monstrous human-headed creatures with a cusped roundel and a quatrefoil in
the centre. Another recognisable four tile pattern (OXRA 86 1003, not illustrated) also has a large roundel enclosing fleur de lys and stylized vegetation within cusped triangles outside the roundel (LH CLXXXVIII, also at Dorchester Abbey).

A few fragments of much thicker and much larger tiles with a fine sily orange fabric are likely to be late medieval imports from Flanders (mainly 14th–15th century). These are either plain with a clear glaze, or an almost black glaze, or covered

Plate 11 Medieval decorated floor tiles.
with white slip under a clear (yellow) or a green glaze. One or two examples are pre-cut for division into two triangular tiles. Flemish tiles were often laid in chequerboard patterns or used here and there for repairs in older floors. Some of the earlier plain tiles from the ‘stabbed Wessex’ and printed tile sources were probably used in a similar way. Both the latter include examples of pre-cut tiles for areas against the wall and elsewhere where small triangular tiles were needed as fillers (Plate 11.T4).

None of the Rewley tiles was recovered from an in situ tiled floor, although an area of mortar bedding showing tile scars was found in the area of the reredorter (Trench 1994/16) and a little further west inside the northern boundary wall (Trench 1994/17). The very worn state of most of the tiles indicated that they had been in use for a long period of time. Many had evidently been reused as levelling or hardcore. It is likely that many of the better tiles were carted off for reuse elsewhere at the Dissolution.

List of illustrated floor tiles (Plate 11)

T1. OXSTRA 94 (1828). ‘Stabbed Wessex’ type. Matches LH XLIX (Loyd Haberly 1937). Size 132 mm x 130 mm x 21 mm thick. Stabbed underside. Bevelled edges. Design also known from OXRA 86 (1003) and the Greyfriars (St Ebebe’s), Oxford (Mellor 1989, fig. 78.6).

T2. OXSTRA 94 (1817). ‘Stabbed Wessex’ type. Matches LH I. Length 130 mm x 22 mm thick. Stabbed underside. Bevelled edges. Design also known from Oxford Cathedral and several other Oxford sites including the Blackfriars (Dominican Priory) (Lambbrick and Mellor 1985, fig. 20.9). Also at Dorchester Abbey.

T3. OXSTRA 94 (1818). ‘Stabbed Wessex’ type. Variant of LH L (LH has a piercing in each quatrefoil). The surviving white slip square measures 59 mm x 56 mm. 25 mm thick. Deeply stabbed underside, Bevelled edges. Design also known from Oxford Cathedral (St Frideswides) (Green 1988, fig. 49.12).

T4. OXSTRA 94 (1818). ‘Stabbed Wessex’ type? The surviving quarter measures 70 mm square. 20 mm thick Original tile pre-cut into 8 small triangular tiles. All over white slip under clear glaze with copper-green flecks.

T5. OXRA 86 (1003). Printed, probably Penn-type. Two tile fragments from a four tile scheme with repeating pattern of monstrous or mythological creatures within a cusped roundel. Length 145 mm. 20 and 24 mm thick. Related to Höhler W25-6 and LH CXLV-VI. More fragments of this design from OXSTRA 94 (1833) and (1844). Similar from Oxford Cathedral (St Frideswides) (Green 1988, fig. 49.9).

T6. OXRA 86 (1003). ‘Stabbed Wessex’ type. Matches LH LVIII. Corner fragment showing knight on horseback holding upright sword in outstretched arm and shield in other. Very worn. Stabbed underside. 20 mm thick. Design also known from Carfax Church, Oxford, Eynsham Abbey and Leicester Abbey.

Glass
Hugh Willmott

A reasonable sized assemblage, consisting of around 430 fragments of glass from 78 different contexts, was recovered from the excavations at Rewley Abbey. The glass ranges in date from the 13th to the 20th centuries, the majority being from the latter end of this span. This report is principally concerned with glass that relates to the period of use of Rewley Abbey, and the immediate post-Dissolution period. A list of all the glass is included in the project archive. The glass not fully catalogued and discussed mainly consists of wine and other bottle fragments, as well as ordinary plain window glass, common glass finds on almost all post-medieval sites, and therefore not particularly diagnostic.

Glass dating to pre-1536

The medieval glass can be divided into two broad categories, vessel and window. In total seven fragments of glass from a minimum of four vessels were recovered. All are highly weathered and in an advance stage of devitrification, as is usual with glass of this date. The most characteristic, GL1, is a small portion of pushed-in base from a small squat beaker or tumbler. Made in a clear soda-rich glass this is the only imported tableware present in the medieval assemblage. This form, known as a moiole in Italy where it was produced, was used for drinking wine and probably dates to the later 15th century (Charleston 1984, 43). The other medieval vessel forms are more ordinary and typical English products (Willmott 2005, 60). One fragment, GL2, is the very lower portion of a stub base from a hanging lamp. These are finds commonly associated with monastic houses, such as nine rather more complete examples excavated at Battle Abbey (Charleston 1985, 140). Although lamps are most common in the 13th to 15th centuries, they are occasionally found in 16th-century contexts. The remaining two fragments, GL3–4, are portions of everted rim and neck from ordinary potash glass flasks, perhaps the most common medieval vessel and typically of late 13th- to 15th-century date.

The majority of the medieval glass comes from windows rather than vessels, and three examples are painted on their interior surface. All are in a 13th-century grisaille style, a pattern that, given its use of naturalistic and foliage design, was particularly favoured by Cistercian houses. Two are from sections of stickwork borders, GL5 having the remains of a foliage design, and GL6 being made up from a series of compacted roundels. The final painted piece, GL7 has a section of tight cross-hatching, the typical infill...
used between foliage patterns in grisaille work. Fragments of plain window glass were also recovered from six other contexts, GL8–13, and although difficult to date accurately, they are probably of similar date to the painted examples.

**Glass post-dating 1536**

Fragments from seven different vessels of early post-medieval date were recovered. Some, if not all, relate to the immediate post-Dissolution use of the site. The earliest fragments, GL14–15, are portions of rim and folded base from 16th-century pedestal goblets. These are made in a tinted, but clear glass, and are decorated with optic-blown moulding. Pedestal goblets such as these are relatively uncommon, and tend to date from the early to mid 16th century (Willmott 2002, 69). Of slightly later date and rather more common are the fragments of bowl and base from a clear glass goblet made with a separate knop stem, GL16. Although the stem is now missing, its precise form cannot be reconstructed, the style suggests it is late 16th century in date.

Two beakers were also recovered from the excavations, of slightly different forms. The first, GL17, is a portion of folded foot-ring from a tall pedestal variety and is late 16th-century in date. The second, GL18, dates from the 17th century and is a squat tumbler shape, decorated with optic-blown bosses. This type, made in a good clear soda-rich glass, is commonly thought to be an Italian import, and there is no reason for this not to be the case with the Rewley example (Willmott 2002, 44).

The final two vessels are both containers. The first, GL19, is the everted rim from a small jar decorated with optic-blown wrythen ribbing, a type well-known on late 16th- and early 17th-century sites. The second, GL20, is the base from a small octagonal bottle, a typical English product of the late 16th century. It would have been used for the semi-permanent storage of liquids or medicines (Willmott 2002, 87–9).

**Conclusions**

Although only relatively few fragments were recovered that relate to the monastic phase of the site, they are typical of what might be expected for a monastic house. The vessel glass with its range of table and storage wares reflects large assemblages from sites such as Battle Abbey. Likewise the grisaille window glass, which seems to be entirely 13th century in date, is a typical glazing scheme for a Cistercian house that was wealthy enough to purchase such luxuries. The early post-medieval assemblage, although again small, is standard for this type of site. Whether the material derived from 16th-century occupation on or close to the excavated area, is uncertain. However, the range of both table and storage wares is representative of a reasonably wealthy household.

### Catalogue (selected pieces)

**GL1.** 1 fragment of pushed-in base with pointed kick from a plain squat beaker or moiolo. Clear fine glass with heavy weathering. Base diameter 35 mm. 15th-early 16th century. OXRA86 (507).


**GL3.** 1 fragment of everted thick rim from a flask. Green potasso-calcic glass with extreme weathering, totally devitrified. 13th–15th century. OXRA94.11 (1830).

**GL4.** 4 fragments of thick body, probably from a flask. Green potasso-calcic glass with extreme weathering, totally devitrified. 13th–15th century. OXRA86 (264).

**GL5.** 1 fragment of window glass. Painted with stickwork border and foliage design of uncertain type. Green potasso-calcic glass with heavy weathering. Late 13th–14th century. OXRA86 (5/A/2)

**GL6.** 4 joining fragments of window glass. Painted with a very fine stickwork border containing scratched roundels. Green potasso-calcic glass with heavy weathering. 13th–14th century. OXRA94 (1810).

**GL7.** 1 fragment of window glass. Painted with a border and section of grisaille cross-hatching. Green potasso-calcic glass with some weathering. 13th–14th century. OXRA86 (902)

**GL8.** 5 fragments of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (5)

**GL9.** 1 fragment of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (6)

**GL10.** 1 fragment of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (6/A/1)

**GL11.** 1 fragment of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (7/A/1)

**GL12.** 1 fragment of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (47)

**GL13.** 7 fragments of plain window glass. Green potasso-calcic glass with heavy weathering. 12th-early 16th century. OXRA86 (260)

**GL14.** 1 fragment of vertical rim from a pedestal goblet, decorated with optic-blown moulding. Clear glass with very little weathering. Rim diameter uncertain. 16th century. OXRA81 I (6/1).

**GL15.** 1 fragment of folded base-ring from a pedestal goblet, decorated with optic-blown moulding. Clear glass with little weathering.
Base diameter uncertain. 16th century. OXRA86 (18/A/1).

GL16. 3 fragments of flaring base and plain lower bowl from a goblet. Clear glass with medium weathering. Base diameter 58 mm. Late 16th-early 17th century. OXRA81 I (11).

GL17. 1 fragment of folded base-ring from a plain pedestal beaker. Green potasso-calcic glass with heavy weathering. Base diameter uncertain. Late 16th century. OXSTRA94.11 (2512).

GL18. 1 fragment of pushed-in base from a squat beaker, decorated with optic-blown bosses. Clear glass with very little weathering. Base diameter 55 mm. 17th century. OXRA81 I (11/1).

GL19. 1 fragment of everted rim and upper should from a jar decorated with optic-blown wrythen ribbing. Green clear glass with quite heavy weathering. Rim diameter 85 mm. Late 16th-early 17th century. OXRA86 (814/A).

GL20. 1 fragment of base from an octagonal bottle. Green glass with quite heavy weathering. Base diameter 50 mm. Late 16th-early 17th century. OXRA86 216/B/1.

Building stone

Fiona Roe, with a note on the architectural stone by Julian Munby

All eleven pieces of building stone are fragmentary and most have also been burnt. Good quality building stone from the abbey would have been re-used and after the dissolution of the abbey in 1536 the new owners, Christ Church, began to sell the stonework for new buildings (see above). Although parts of the abbey were still standing in the 19th century, these too have now gone. The excavated pieces of stone are all poor quality fragments unsuitable for re-use. None is closely dated but it is probably a reasonable assumption that they originate from the abbey buildings, since the area was not subsequently built over to any great extent. Two fragments (232 and 500) are in fact from possible post-abbey cultivation. There are three different varieties of building stone, but all are from local Corallian beds.

Six fragments, all burnt, can be identified as Lower Calcareous Grit, a Jurassic sandstone. This calcareous sandstone had been used in Oxford as a building material since at least Norman times and can be found, together with the overlying shell bed and Coral Rag, in the Castle Tower and the City Wall (Arkell 1947, 33). It has been suggested that the Lower Calcareous Grit was obtained in North Hinksey (Arkell 1947, 35), only about 8 km from Rewley Abbey and with access by river as well as probably by road. This therefore would have been a good option as a building stone. It seems likely that the same combination of materials as those used for the Castle Tower and the City Wall could have been used for the construction of the abbey.

Three fragments of building stone appear to be Corallian limestone, another material that was widely used for building in medieval Oxford. It is known that between 1290 and 1377 it was an important source of supply to Merton College (Arkell 1947, 37), and it seems likely that limestone from Wheatley would have been used for at least some of the abbey buildings. However, by the end of the 14th century Headington stone had come into use as the main building stone for the Oxford colleges (Arkell 1947, 39), so this too may have been used at the abbey for any later medieval construction work. The three fragments of limestone that have survived may have come from either of these sources. Oolitic limestone is suitable for use on architectural details such as mouldings and the one worked fragment of this (500) is an angled piece that retains traces of diagonal tooling. Another fragment of oolitic limestone is discoloured from burning (1006). A coarser-grained and more shelly variety of limestone was re-used for a pierced, circular object (324) which could perhaps have been used as a candle holder.

Two further burnt fragments of finer-grained, shell fragmental limestone are probably fragments of roofing tile (326) and these may have come from a quarried area known as the Slat Pit, near Buckland (Arkell 1947, 150). They came from a layer of 14th- to 15th-century date and so provide more certain evidence for the medieval use of stone roofing tiles.

Few architectural stone fragments of any significance were recovered from the excavations. The single item that has been illustrated (Plate 12) is a large limestone springer for an arch or window, with roll mouldings and chamfer. Probably 13th–14th century.

Other finds

Metalwork by Ian Scott, worked bone by Rosemary Grant, whetstone by Fiona Roe and flint by Rebecca Décary

The assemblage of finds from this site is limited in number and range of objects (Table 7). Not one object in the assemblage could be identified as certainly medieval, with the possible exception of a flesh hook fragment; a small number are probably
early post-medieval, but most of the objects that can be dated are more recent. In terms of numbers the nails dominate the ironwork assemblage. The minimum number of nails is 262, but in total there are at least 354 fragments. All the nails are hand made, but otherwise not closely datable. There are two tools, a knife with a curved antler handle (OXRA 86 Tr VII ctx 732 sf 96), and a small file (OXRA 86 Tr VIII ctx 810/2 sf 95), both probably late post-medieval in date. The five household objects comprise a cast iron saucepan (OXSTRA 94 ctx 1614 sf 9) of 19th- or early 20th-century date, two post-medieval table or dessert knives (OXRA 86 Tr I/II ctx 241/As sf 93 & OXSTRA 94 ctx 1614 sf 10), a whittle tang knife of uncertain form (OXSTRA 94 ctx 1970 sf 19) and a possible flesh hook (OXRA 86 Tr I ctx 9 sf 111). The latter could be medieval or post-medieval. The structural items other than nails are a T-staple and a modern chain and fixing bolt. The remaining objects are miscellaneous fragments and unidentifiable objects of uncertain function (n = 5). The copper alloy objects include two household items, a probable drape ring (OXRR 93 ctx 134 sf 1) and a modern decorative lion head roundel (OXSTRA 94 ctx 2512 sf 26). There are four personal items: two pins (OXRA 86 Tr VIII ctx 813 sf 98 & OXSTRA 94 ctx 2514 sf 20), a lace tag fragment (OXRA 86 Tr VIII ctx 813 sf 104) and a cast button (OXRA 86 Tr VIII ctx 813 sf 105). The pins and button are later post-medieval and the lace tag early post-medieval. There is also a possible token (OXRA 86 Tr X ctx 1010 sf 100), again post-medieval. The lead comprises a possible lead stylus (OXSTRA 94 ctx 1836 sf 6), and seven pieces of window came. There is also part of a toy umbrella made from two pieces of bone joined by a threaded iron pin (OXSTRA 96 ctx 10). The latter is of 19th-century or later date.

Two worked bone items, an incomplete comb (sf 33) and an incomplete knife handle (sf 34) were recovered. The bone comb is of the double sided simple form. This form dates back to the Roman period and became popular again in the medieval period. This example has a slight convex curve on its remaining end suggesting its date as 17th-century or later (Galloway 1990, fig. 185, no. 2185). Both sets of teeth are very fine with one side being slightly thicker than the other. The knife handle is very smooth and highly polished and has a rectangular section. The tang extends along the entire length of the handle suggesting that it is a medieval or post-medieval example (Goodall 1993, fig. 87, no 768).

<table>
<thead>
<tr>
<th>Material</th>
<th>Function</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper alloy</td>
<td>Tools</td>
<td>2</td>
</tr>
<tr>
<td>Iron</td>
<td>Household</td>
<td>4</td>
</tr>
<tr>
<td>Iron and copper</td>
<td>Personal</td>
<td>1</td>
</tr>
<tr>
<td>Lead</td>
<td>Token</td>
<td>6</td>
</tr>
<tr>
<td>Stone</td>
<td>Window</td>
<td>2</td>
</tr>
<tr>
<td>Bone</td>
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<td>262</td>
</tr>
<tr>
<td>Copper alloy</td>
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<td>2</td>
</tr>
<tr>
<td>Iron</td>
<td>Waste</td>
<td>15</td>
</tr>
<tr>
<td>Iron and copper</td>
<td>Unidentifiable</td>
<td>11</td>
</tr>
<tr>
<td>Lead</td>
<td>Objects</td>
<td>316</td>
</tr>
</tbody>
</table>

Table 7 Quantification of small finds by functional category.
14th-century date in the fill of ditch 1999 associated with the construction of the barn to the west of the abbey moat. One end is now missing from this whetstone but it has two well worn, concave surfaces. Macroscopic examination shows that it was made from a fairly fine-grained sandstone speckled with small areas of iron staining. The stone may have been obtained from local Corallian rocks such as the Lower Calcareous Grit or perhaps other fine-grained Jurassic sandstone like that occurring in the Pusey Flags. Whetstones made from comparable sandstone have not often been recorded, though one came from a generalised Anglo-Saxon context at Eynsham Abbey (Roe 2003, 291). Perhaps they were used either as a substitute, when whetstones of imported materials were not available, or just for specific purposes.

A small assemblage of flint consists of 13 fragments of burnt, unworked flint and two flakes. One of these may have been a blade removal when complete. Neither flake is datable.

**Previous Finds**

*Julian Munby*

A number of important antiquities relating to the abbey and recovered from previous episodes of activity have been preserved, and are here described.

**DEDICATION STONE** (Plate 1)

In July 1705 Thomas Hearne noted that an inscription had been found at Rewley, and he later gave an account of the ‘stone dug up at Rewley in the Ground, where the Chappel of the Abbey formerly was. This Stone I purchas’d of Mr. Cox who lives now in the house which is part of the Abbey, and I have since put it into the Anatomy Schoole Adjoining to the Publick Library’. This was one of several public collections of antiquities in the University, housed in what is now the Lower Reading Room of the Bodleian Library. Fr. Jerome Bertram has provided a transcription and translation.

Building inscription, now in Ashmolean Museum. 35 x 42 cm; brown sandstone; Lombardic/Romanesque lettering. Inscription in roughly cut lettering:


Ella Longspee, Countess of Warwick, built this chapel; may Christ be her reward in glory, Amen.

Rewley Abbey was dedicated on 3 December 1281, which seems the most plausible date for this inscription. The slab was found on the Rewley site in 1705, and rescued by Thomas Hearne.

The connexion of the Countess with Rewley is not without interest. Ella Longspee was a daughter of the Earl of Salisbury, and wife of Thomas Earl of Warwick (d.1242), and then in 1254 married Philip Basset, Justiciar of England (d.1271). She was buried at Osney on 9 February 1298 beneath a stone with a memorial brass. With her second husband she was a benefactress of Merton College, and when she eventually retired to Godstow Nunnery we find the college building a chamber for her and sending a boat to Godstow with preserved ginger for her. In return she gave the college money for drinks on the day they said a mass for her. She also founded a loan chest for poor students (the Warwick Chest), and helped the Friars of the Sack get established in Oxford. The Rewley inscription shows that she built a chapel at Rewley, and according to Leland she also gave land to the abbey.

**ARMORIAL SHIELDS**

The armorial shields from the inner gate at Rewley, and shown in situ on Michael Burghers engraving of 1720, were saved at the time of the coming of the railway and taken to Christ Church Cathedral where they are now mounted on the walls in the Chapter House. They are in the form of sunk panels with angels holding shields of (a) the imperial double-headed eagle, and (b) the lion of Richard of Cornwall.

**THE ABBEY SEAL**

The abbey seal was engraved for William Huddesford’s *Life of Hearne*, from a single impression of 1431. It shows a scene of the ?annunciation in the central panel, above a schoolroom scene of an abbot with fourteen scholars; in the sides are the arms of the Empire and Cornwall, as above. The inscription reads: SIGILL(UM) COM(M)UNE. ABBATIS. ET. CONVENT(US) DE REGALL. LOCO.

**THE YARNTON GLASS**

A fragment of medieval glass in the great collection at Yarnton church includes two early fifteenth-century portraits of Cistercian monks, which may reasonably be associated with Rewley Abbey as lord of the manor.

**HUMAN SKELETAL REMAINS**

*Georgina Slater and Louise Loe*

Two skeletons were excavated from the abbey church, one from grave 1103 in the middle of the nave, and the other from the south aisle. Disarticulated material, believed to be from an earlier burial, was also recovered from grave 1103. Additional disarticulated material includes the remains of one relatively complete disturbed burial and one disturbed partial skeleton, both recovered from post-medieval robber trenches (900 and 1100). Limited disarticulated material derives from Trench 1986/11 and is of unknown date. The preservation of all of the skeletal material was good; the outer surfaces of
the bones and joint surfaces had survived intact and there was limited post-mortem erosion. However, all of the material was fragmentary. Standard anthropological and palaeopathological examination was undertaken in accordance with published guidelines (Brickley and Mckinley 2004), and a fuller version of this summary report can be found in the project archive.

**Results**

**Skeletal remains from grave 1104** (Plate 6)

This contained the remains of a skeleton buried in an extended, supine position within the south aisle of the church. Other evidence for funerary treatment, such as a coffin, was not identified.

The skeleton was approximately 15% complete and was represented by fragments of cranium, mandible and ribs, and the first two vertebrae (atlas and axis) of the spine. The missing elements of this skeleton had been left *in situ* owing to the fact that they lay beyond the limits of the excavation. The remains were undoubtedly those of an adult, although no indicators that would allow a more precise age estimation had survived. Based on the morphology of certain landmarks of the skull and the shape of the mandible, it was concluded that the remains represent those of a female.

Dental conditions include a slight deposit of calculus (tartar) on one mandibular canine and a carious cavity that involved a maxillary premolar. In addition four teeth, one premolar and three molars, had been lost before death. Calculus is formed by the mineralisation of organic material and bacteria and, as such, reflects the lack of importance (or perhaps inability owing to illness) given to maintaining healthy teeth. The prevalence of calculus in the medieval period was higher than other periods and its occurrence was associated with a soft diet (Stroud and Kemp 1993). Caries, an infectious and stagnating disease, results in the destruction of the enamel, dentine and cement of the tooth. It arises when bacteria harbouring calculus convert carbohydrates into acid that subsequently undermines the mineral matrix of the tooth. Rates of caries in the past show a sharp rise in the later medieval period, which coincides with the introduction of sugar into the diet (Moore and Corbett 1971). During the early medieval period cane and beet sugar were unknown, honey being the only sweetening agent at this time (Roberts and Cox 2003, 190).

Ante-mortem loss may arise as a result of several factors including abscess development secondary to caries, periodontal disease secondary to calculus formation, and pulp exposure and abscess formation secondary to severe attrition. Any one of these factors may have resulted in the tooth loss observed in the present skeleton, although the absence of a visible abscess suggests that this is an unlikely explanation.

Smooth remodelled new bone was present on a fragment of left sphenoid bone of the cranium. This represents an inflammatory response, although the cause is unknown. Inflammation involving the sphenoid bones may be as a result of scurvy (Ornitz and Ericksen 1997). Scurvy, or vitamin C deficiency, causes haemorrhage of the skin, gums, joint spaces and subperiosteal regions (Zimmerman and Kelley 1982). This can trigger a skeletal response in which sub-periosteal new bone is formed and periodontal disease (a condition whereby the alveolar bone is resorbed and the tooth roots are exposed) is common due to bleeding gums. In the present example, although ante mortem tooth loss is also present, the changes are not enough on their own to confirm a diagnosis of scurvy.

**Skeletal remains from grave 1103**

This includes one discrete skeleton and disarticulated remains. The discrete skeleton was excavated from a shallow grave that lay partially beyond the limit of the excavation. No associated burial rites were identified, other than the fact that the individual had been placed in the grave in an extended supine position.

The skeleton was approximately 20% complete and was represented by bones from the forearm, right hand, left leg and foot, all of varying degrees of completeness. It was not possible to estimate the precise age of these remains, other than to say that they represent an adult. The surviving bones did not permit the estimation of biological sex.

Changes that are consistent with non-specific bone inflammation (periostitis) were present on the distal third of the left femur. Measuring 17.7 mm wide and 25 mm long, the lesion appeared as a well demarcated, smooth deposit of new bone. Trauma or infection are likely to have caused these changes.

The remains of another left leg bone (distal femur) were also present and comprise the disarticulated material from this context. These represent an adult of unknown sex.

**Skeletal remains from robber trench 900**

The remains from this context comprise one disarticulated individual, approximately 65% complete and represented by differentially preserved bones of the axial skeleton, the upper and lower appendages and the jaw. The wide angle of the sciatic notch of the pelvis, backed up by the size of the femoral and humeral heads, the shape of the mandible and the overall gracile appearance of the skeleton, strongly indicated that the remains were those of a female. The appearance of the auricular surfaces of the pelvis suggests that she was between 30 and 40 years of age and, based on the maximum length of the ulna, it was estimated that she was 157 cm tall (5 ft 15 inches).

Hypoplasia, in the form of linear grooves of depressed enamel, was present and involved two teeth, one canine and one premolar. These changes would have arisen during the individual’s childhood.
when the enamel was developing as a result of non-specific health stress. Factors that may cause this can broadly be classified as those that relate to childhood illness (eg measles) and those that relate to nutritional deficiency.

Slight calculus and carious cavities were also present, the latter involving one premolar. Antemortem tooth loss was extensive and involved seven teeth. Incomplete resorption of alveolar bone, coupled with spiculated, active new bone, indicated that these teeth had been lost not long before death and that this had resulted in severe inflammation, possibly infection (although no sinuses were present). The cause is unknown, although abscess formation is unlikely (see above).

Sinusitis is another pathological condition that was observed on this skeleton. Sinusitis is believed to result from inflammation of the mucous membrane and is diagnosed by the presence of new bone on the maxillary antra (Boocock et al. 1995). Upper respiratory tract infections, poor living conditions, environmental pollution, congenital abnormalities, dental disease and specific infectious diseases such as tuberculosis and leprosy are among the aetiological factors associated with this condition (Lewis 2002, 21). In the present example, the changes were present as smooth, non active deposits of new bone on the left maxillary sinus. Sinusitis arising from an abscess involving the maxillary molars can be ruled out here since this skeleton showed no evidence for a dental abscess.

**Other human remains from robber trench 1100**

The disturbed remains of incomplete leg, foot and arm bones were present in robber trench 1100. The remains represent at least one adult with no diagnostic features that would allow a more precise age or sex to be estimated. No skeletal pathology was identified. The remains from Trench 1986/11 were very limited, including fragments of rib only, probably adult. Neither a more accurate age nor sex could be estimated and no skeletal pathology was present.

**Comment**

A small, fragmentary assemblage such as this offers limited potential in terms of what can be learnt about the former population associated with the abbey. All of these individuals had survived into adulthood, although the presence of enamel hypoplasia suggests that, for some, this was not without the experience of health stress during childhood. Sinusitis, identified here as bone inflammation, is associated with poor environmental conditions and was also present. This also implies non-specific health stress. The impact of health stress on the population may not, however, have been great, if the estimated stature is anything to go by. This stature was estimated by employing the measurement of one of the least reliable long bones (Trotter, 1970). It indicates that final attained height was not compromised by childhood health stress as this falls within the expected range for this period (Roberts and Cox 2003). The changes observed on the remains from grave 1104 are perhaps the most intriguing since they may have been caused by scurvy. This need not, however, necessarily have been the cause of the changes observed on this individual, whose remains are too incomplete to explore this further. Owing to these factors this, and other points raised here, should be regarded with caution.

**ANIMAL BONE**

*Lena Strid*

In accordance with the agreed research aims for post-excavation (OA 2005, 6), study of the animal bone assemblages was undertaken in order to shed light on diet and agriculture at the medieval abbey. In the event, the quantity of data available has proved insufficient to support detailed analysis. The full report, by Lena Strid, can be found in the project archive. The following account provides a general summary of the material that was present in the pre-abbey and abbey phases of occupation of the site. The limited size of these assemblages undoubtedly reflects the type of features on which the excavation strategy was targeted. However, Cistercian monks were forbidden to eat meat unless they were ill, and they were expected to follow a largely vegetarian diet, with fish and eggs as occasional treats.

The assemblage from the pre-abbey and abbey phases consisted of 549 fragments, of which 154 (34.5%) could be determined to species. Of these, 446 bones were from contexts predating the foundation of the abbey, of which some 25% could be identified to species. Unfortunately the provenance of this material is very uncertain. While some of it may have derived from activities at the site itself, it is likely that much of the bone was brought in with dumped soil to raise the ground level for construction and could have originated more or less anywhere in the medieval town. All three major domesticates, cattle, sheep/goat and pig, were present, with sheep predominant according to number of bones. The 19 identifiable bird bones included fowl, goose, duck and two bones possibly of coot, a species that would have been living on the river nearby.

The abbey period assemblage was even smaller, and comprised 93 bones, of which 37% were identifiable to species. As before, the three main domesticates were identified. Both meat-rich and meat-poor elements of cattle and sheep/goat were present, suggesting that whole animals were butchered on the abbey site itself, although not necessarily slaughtered there as complete carcasses could have been acquired from the town. One sheep bone had skinning cutmarks. One horse bone was present in the assemblage, and four bird bones, which included both domestic fowl and goose.
THE REWLEY ROAD STATION: THE COMING OF THE RAILWAY
Ric Tyler, with contributions by Lance Adlam and David Higgins

Introduction
The historical importance of the L&NWR (subsequently LMS) railway station at Rewley Road (Plate 14), based upon its close association with Joseph Paxton’s ‘Crystal Palace’ structure built in Hyde Park for the ‘Great Exhibition’ of 1851, has long been recognised. The Crystal Palace was a remarkable example of contemporary architecture in glass and iron, a celebration of the achievements of British innovation and technological prowess. Designed and erected in only nine months, it was characterised by its use of prefabricated modular construction, and thus occupies an important place in the history of architectural and technological development in the mid 19th century. Its standardised, modular construction represented a pioneer model for later ‘system building’, while the sheer scale of the undertaking and the industrialised nature of the mass production of its structural components served to heighten its significance.

With the closure of the Great Exhibition after six months in October 1851, it had been agreed that Hyde Park was to be returned to its original state, the Crystal Palace dismantled and disposed of as its owners saw fit. The popularity which the building had experienced, however, encouraged Paxton to set up the Crystal Palace Company and secure over £500,000 of private funding to finance the purchase, dismantling and re-erection of the exhibition building on a much-enlarged scale at a new site at Sydenham Hill in south-east London. Here it remained for the next 82 years until it was sadly destroyed by fire on 30 November 1936. Since its destruction, the Rewley Road station at Oxford, built ‘on the plan’ of the exhibition building and using a similar range of constructional elements, has provided the last representative example of the technology associated with this highly significant building. In recognition of this importance, the station was included in 1985 as Grade II* on the List of Buildings of Special Architectural or Historic Interest.

The dismantling and removal of the station building from its Rewley Road site has provided, for the first time, the opportunity for a detailed study of the structure to be made and for the nature of the relationship with the Crystal Palace to be more properly assessed. An examination of the records of the Buckinghamshire Railway has further illuminated the connection between the two buildings, long acknowledged but never fully understood. A review

Plate 14 The Rewley Road L&NWR station from the south, 1914. Henry W Taunt Coll. (CC54/00324) © Oxfordshire County Council.
of archive plans and historical photographs of the station has proved useful in tracing later alterations to
the building. However, as will be seen in the following
discussion, the sometimes ambiguous dating of these
sources has made the assigning of exact dates to
 certain, specific interventions unfeasible and we are
left with a loose chronology of change as opposed to a
closely defined historical development.

Historical Background

The coming of the railway to Oxford presents a
somewhat complex history, reflecting contemporary
rivalries between a number of competing independent
railway companies. The railway first reached
the city in 1844, when the Great Western Railway
(GWR) completed a broad-gauge line from Didcot to
a temporary station located south of the Thames in
Western Road, Grandpont. The GWR soon began
work on extending this line via Rugby to Birming-
ham. However, as will be seen in the following
discussion, the sometimes ambiguous dating of these
sources has made the assigning of exact dates to
the London and Birmingham Company together
with the Manchester and Birmingham Railway, which
merged in 1847 to form the London and North Western
Railway. This locally-backed scheme comprised a series of lines throughout that
county serving AYLESBURY, Banbury, Bicester, and
Buckingham and linking Oxford to the L&B Euston
line at Bletchley. The proposal was
authorised by the Buckingham Railway Act of 1847
(Fig. 24).

From the start, it would appear that the company
intended to associate its new line with the opening of
the Great Exhibition at the Crystal Palace in Hyde
Park, London on 1 May 1851, a project which had
been the subject of much publicity and had captured
the imagination of the general public. It was pro-
suggested the opening dates and to run
cheap excursions to the royal opening of the exhi-
bition from the new terminus.

While work on the new Oxford line progressed
pace, reaching Islip by October 1850, and, with
a temporary station opening at 'Oxford Road'
(Banbury Road, Oxford) in December of the same
year, the establishment of a permanent terminal
proved to be a rather more involved process. Various
proposals were put forward for the final approach of
the line, within the limits of deviation defined by the
Act. However, given the existence of the GWR line,
options were restricted and, in the end, the Buck-
ingham Railway had little choice but to run into
Oxford on the east side of the GWR's designated
route. This solution entailed crossing the Sheepwash
Channel, a navigable link between the River Thames
and the Oxford Canal, at a low level, necessitating
the construction of a two rail swing-bridge (rebuilt in
1890, still extant), and locating the terminus some-
where near the former site of Rewley Abbey in the
low-lying fields of North Osney fronting onto Park
End Street in the west of the city (Fig. 25). The site
was agreed at a meeting of the Board of the
Buckingham Railway in July 1850 and Robert
Benson Dockray, principal engineer with the
L&NWR, was invited to draw up draft plans for
the station buildings, comprising locomotive shed,
goods shed, water tower and weigh office in consul-
tation with the L&NWR's general manager, Captain
Mark Huish.

At a meeting of the Board on 7 November 1850,
Dockray's designs, along conventional lines in an
eclectic style combining gothic and classical ele-
ments, were presented. They were accepted and it
was ordered that detailed contract plans be drawn
up based upon them, with certain modifications
including the transposition of the passenger and
goods sheds so that the former lay nearer to the
town. A sum of £7,000 was allocated for the
building, which, it was resolved, should 'be made
and placed so as to be capable of Extension without
any demolitions'.

Dockray's final plans were presented to the Board
on 12 December 1850, and it was agreed that '...tenders be obtained for the Oxford Station on the
plans proposed for the alternatives of Wood and
Stone for the front buildings'. Interestingly, at this
late stage in the process, the Board also invited alter-
native plans to be submitted by the engineering part-
nership of Fox, Henderson and Company 'for the
whole erection on the plan of the exhibition build-
ing, in all respects, as information for the Board'.

Given this proposed association with the Great
Exhibition, it is not altogether surprising that Charles
Fox and John Henderson were invited to tender for
the Oxford terminus building. They had been, from
the earliest tendering stage, heavily involved in the
construction of the Crystal Palace itself, generally
considered a joint venture between Fox and Joseph
Paxton, while Fox (a former pupil of Robert
Stevenson on the London and Birmingham Railway)
could lay claim to an extensive portfolio of work for
the L&NWR including the roof of the original Euston
terminus in 1837. The L&NWR itself had been invol-
ved in the transportation of materials from foundries
in Birmingham to the capital for the construction of
the Crystal Palace.

A total of 18 tenders for the work were submitted
based upon the Dockray design, and were examined
by the Board at a meeting on 9th January 1851.
Tenders ranged in cost from £6,904 to £12,330 against
a surveyor's estimate of £8,000. In the event it was Fox
Henderson's tender, on the altogether different de-
sign, that proved to be the lowest at £6,552, inclusive of
12 months maintenance and of apparatus to warm the
offices with hot water. The Board came to an imme-
diate decision and 'resolved that the tender of Fox
Henderson and Coy be accepted as follows:- the
whole works specified to be done for £6,552 including
12 months maintenance or if corrugated iron be used
£31 more. Any alterations as to the strength or detail,
which Mr Dockray may consider necessary to be
made at his request without increased cost to the
Company. The whole to be completed ready for use in
3 months from January 16th instant. Regarding the precise location of the building... Captain Huish was requested to confer with the Engineer and on the ground to set out the Station in such a situation as may be most expeditious.

There seems to have been some delay in obtaining the land for the station, as in February the powers to conclude the purchases were delegated and, as late as 10 April 1851, the Board learned that Christ Church 'declined to part with the property at Oxford'. At the same meeting, the Directors were informed of the probability that the line would not be ready for traffic on 1 May and, although they ordered 'every exertion be made by the engineers to secure its being opened on that date', it was not to be. On 1 May the L&NWR was forced to run its 'Cheap Excursion' for the royal opening of the Great Exhibition from the Oxford Road Station.

The station as built, 1851

Preparation of the site

Prior to the construction of the railway, the site comprised relatively low-lying, undeveloped alluvial
grassland and water meadow, at a level of around 56m OD, and was prone to flooding. To the east, the site was bounded by the remains of the earthen bank of the civil war defences, which would have stood no more than c 0.5 m high at this time. In order to avoid any potential problems of flooding, it was thus necessary to build the ground level up around the proposed station site. The Geological Survey of Great Britain (England and Wales) Sheet 236 (1982) clearly shows a 100–200 m broad swath of made ground beginning c 900 m north of the station site at Medley Weir and continuing to the south of Park End Street. An archaeological watching brief undertaken following the removal of the station building has confirmed the pre-station ground surface lay at a level of some 2 m below the level of the finished station concourse. The necessity of raising the ground level resulted in an interesting sequence of construction for the station building.

Initial works involved the laying out of a grid of foundation pads to support the principal uprights of the iron framework. A series of pits, c 0.65 m square × 0.4 m deep, were cut into the alluvial surface and were filled with concrete to form solid foundations for the vertical elements of the station structure. The first components of the station building to be erected were the c 2 m long, 8-inch (203 mm) diameter circular, cast-iron foundation columns (F) (Fig. 26). As they were also to serve as downpipes for the evacuation of rainwater from the finished station roof, the columns were furnished with integrally-cast outflow pipes just above their base for connection to ceramic drainage pipes feeding into brick-built culverts to the south and east of the site. With the below-ground ironwork and drainage in place, foundation walls were constructed, using grey engineering brick laid in English bond, up to proposed ground level on the lines of the principal walls of the building, the retaining walls for the train lines and the concourse.

Once the subterranean ironwork, drainage pipes and brick footings were complete, the ground within and around the station could be raised to its required final level. Without, the surface was raised by the dumping of c 1.5 m of imported blue-grey clay, followed by layers of sand and limestone rubble, and finally a sand bedding for the granite cobble setts of the station yard. Within the area of the concourse, the ground level was made up with dumped building rubble material prior to the laying of a York
flagstone floor. The timber floors of the east and west flanking wings were suspended over substantial voids, supported upon piers of Oxfordshire red brick.

The ironwork superstructure

The station as built comprised a central, single-span concourse/trainshed aligned approximately north-south, flanked to east and west by single-storey wings. The concourse/trainshed had a span of 48 ft (14.64 m), stood 17 ft 10\(\frac{1}{2}\) in. (5.45 m) tall to eaves level, and originally comprised 13 bays, each 24 ft (7.32 m) in width with a further, single-bay, two-part porte-cochère to the front elevation. The main structure thus had an overall length of 336 ft (102.4 m) and an overall width of 96 ft (29.26 m) including the side wings, which each measured 48 ft (N-S) × 24 ft (E-W). The building’s superstructure was of modular construction, utilising both cast-iron and timber.
Figure 27 Details of vertical components of primary structure: (a) foundation column F; (b) columns C1-C3; (c) columns C2a and C2b; (d) column C4; (e) extension piece E.
Figure 28: Details of horizontal components of primary structure: (a) side-beam B1; (b) truss T1.
Figure 29  (a) Schematic layout of structural components; (b) plan view of principal walling components, as recorded in 1999. Based on a survey by Colin Wide.
structural elements, summarised below in tabulated form (Table 8 on p. 74) and illustrated in Figures 27–28. A schematic layout of the primary elements is shown in Figure 29.

All cast-iron columns of the framework (C1–3) were made essentially to the same basic design, though varying in shaft-length and upper union details according to their location within the building (Fig. 27b and c; Table 8). They were circular in cross-section, 8-inch (203 mm) diameter, with four raised square fillets. The flat faces presented by these fillets provided a decorative feature to the uprights, but they also reflected the profile of the upper extension pieces (Fig. 27e) where flat faces were a functional necessity, allowing flush bolted connections for both longitudinal beams (B1) and transverse trusses (T1). The main column sections were joined to the sub-surface foundation columns (F) by bolted unions, bolts running through four 2-inch deep, integrally cast projecting lugs at the base of the column and at the top of the foundation column. The bases of the columns were visually enhanced, and the bolt-heads hidden, by the use of decorative cast-iron bases (Fig. 30). These base mouldings were of two designs; externally, they were square in plan, while in the arcades separating the station concourse from the side wings, a six-sided form was employed. Bases were also used for the intermediary timber columns (C4).

At the head of each column within the concourse and trainshed, an extension piece (Fig. 25e) was attached. These were standard castings, 3 ft ½ in. (0.93 m) long, of identical cross-section to the main column section, and with a ¾-inch thick upper and 2-inch thick lower flange. The union details between column and extension piece varied. Within the trainshed (Bays 4–13), the connection was relatively simple, mirroring the bottom detail, with four bolts passing through integrally-cast projecting lugs in the column (C1) and the square flange at the base of the extension piece. Within the concourse (Bays 2–3), however, the detail was complicated by the presence of large sockets with projecting flanges in the lateral faces of the columns (C2a and 2b), necessitating the elongation of the projecting lugs on the column to some 16 in. (0.40 m) in length (Fig. 27c and 31). The flanged sockets relate to a primary, deep-flow valley gutter draining the original roofs of the flanking wings by channelling water into the column down-pipes, a system which had become redundant by the time of the reinforcement of the concourse roof in c. 1888 (see below).

It is likely that the station would have been constructed one bay at a time, most probably from the south. Each pair of columns would be raised and secured to their corresponding foundation column, the extension pieces fitted and the primary truss (T1) inserted between them. The trusses were 47 ft 4 in. (14.42 m) long × 3 ft ½ in. (0.93 m) deep and were formed of paired wrought-iron angles and flats, riveted together with additional ½-inch flange plates, top and bottom (Fig. 28b). The trusses were divided into six panels along their length by elegantly barreled, cast iron, cruciform-profile uprights. Each panel contained a single tension brace, angled downwards towards the centreline, forming a 'Pratt'
type truss. The end standards of the trusses were secured to the column extension pieces by paired 1-inch diameter iron bolts. Longitudinal bracing to the structure was supplied by cast-iron, lattice edge-beams (B1) spanning between the principal columns. These beams were 23 ft 4 in. (7.11 m) long × 3 ft 1\(\frac{1}{2}\) in. (0.93 m) deep, divided into three panels along their length by cruciform-section uprights, each panel containing integrally-cast, cruciform-section diagonal bracing (Fig. 28a). As with the transverse trusses, the edge-beams were secured to the column extension pieces by paired iron bolts, and were furnished with externally mounted, louvred ventilation panels (V1–2: see Plate 15).

The two-bay long side wings were similarly framed using the shorter column C3, here without the use of upper extension pieces, the upper flange of the columns being bolted directly to a timber wall plate.

**Primary roofs**

The original roof of the main concourse/trainshed comprised a longitudinal, fully glazed ridge-and-furrow structure, on the model of the Crystal Palace, comprising six 8 ft (2.44 m) wide bays, running perpendicular to the primary trusses (N–S), the valleys aligning both with the vertical members of the trusses and with the iron and timber columns of the south elevation. The form of this original roof is recorded in an early interior photograph of c. 1900 (Plate 16 on p. 76) and is evidenced structurally by the presence of regularly-spaced, grouped bolt-holes in the upper chords of primary trusses (T1), recorded during dismantling, representing connection points for the valleys.

The side wings were originally roofed with a similar glazed, ridge-and-furrow style structure though the alignment here was transverse (E–W) as opposed to longitudinal (N–S). These roof structures were replaced in their entirety at an early stage (see below), though evidence for the original arrangement was recorded during the pre-dismantling survey in the form of the tongue-and-groove cladding of a primary internal partition wall, surviving within the roof space of the west wing (Plate 17).
Table 8  Summary of primary framework components (see Figures 27–28).

<table>
<thead>
<tr>
<th>Ref</th>
<th>Type</th>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Structural Elements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Foundation Column</td>
<td>Cast Iron</td>
<td>8 in. (203 mm) diam. hollow, circular section foundation column associated with columns C1–3. Integrally-cast drainage offshoot. Upper flange with four projecting lugs for bolted connection to main column section.</td>
</tr>
<tr>
<td>C1</td>
<td>Column</td>
<td>Cast Iron</td>
<td>8 in. (203 mm) diam. hollow, circular section column with square fillets, c 19 ft (5.79 m) long. Four 2-inch deep, integrally cast projecting lugs to top and bottom for connection to sections F and E. Originally used throughout length of trainshed, four examples survive in Bay 5 (N and S).</td>
</tr>
<tr>
<td>C2</td>
<td>Column</td>
<td>Cast Iron</td>
<td>8 in. (203 mm) diam., hollow, circular section column with square fillets (as C1); 14 ft 10 in. (4.52 m) long. As C1 except for shorter shaft length. Originally used throughout the porte-cochere, only one complete example survives at the south-west corner of the reduced structure (that to the south-east corner has been replaced). Central column of south elevation (truncated) was also originally of this type.</td>
</tr>
<tr>
<td>C2a</td>
<td>Column</td>
<td>Cast Iron</td>
<td>Variant of column C2; similar except for the inclusion of a large square hole in the lateral face with 16 in. (0.4 m) deep integrally-cast flange. This detail originally housed a primary valley gutter (removed) for the draining of the flanking wing roof, though it is now obsolete. A similar opening is present in the external face of the column, set some 4 in. above the existing valley. Four examples survive, used at junction of concourse/trainshed (Bay 4, N) and concourse/porte-cochere (Bay 2, S).</td>
</tr>
<tr>
<td>C2b</td>
<td>Column</td>
<td>Cast Iron</td>
<td>Variant of column C2; identical to C2a except for additional lateral openings and deep gutter flanges in N and S faces as well as that in the lateral face. As the columns no longer serve as downpipes, the lateral and transverse openings have been sealed by wooden blocks. Two examples survive in Bay 2, N.</td>
</tr>
<tr>
<td>C3</td>
<td>Column</td>
<td>Cast Iron</td>
<td>8 in. (203 mm) diam., hollow, circular section column with square fillets (as C1); 14 ft 4 in. (4.37 m) long. Essentially similar to C1/C2 though of shorter length. Used in exterior walls of east and west flanking wings. Six examples survive.</td>
</tr>
<tr>
<td>C4</td>
<td>Column</td>
<td>Timber</td>
<td>Semi-circular section with square fillets; imitation of primary cast-iron columns columns (C2 &amp; C3). Used @ 8 ft centres between columns of the concourse arcades and the external walls, 27 examples survive though most of the exterior examples have been truncated by the introduction of brickwork plinths.</td>
</tr>
<tr>
<td>E</td>
<td>Extension Piece</td>
<td>Cast Iron</td>
<td>Standard casting, 8 in. (203 mm) diam. hollow, circular section column with square fillets × 3 ft ½ in. (0.93 m) long, used to extend columns C1 &amp; C2 and provide connection for trusses and side beams, which are bolted to the extension pieces. Square flanges to top (3/4 in. thick) and bottom (2 in. thick) for connection to wooden gutter/cornice and main column section respectively.</td>
</tr>
<tr>
<td>T1</td>
<td>Truss</td>
<td>Composite Cast/Wrought Iron</td>
<td>47 ft 4 in. (14.42 m) long × 3 ft ½ in. (0.93 m) deep. Wrought-iron angles and flats riveted together; cast-iron cruciform, barrelled uprights divide truss into six panels. ‘Pratt’ type truss with single diagonal tension braces in each panel. Span concourse/trainshed between primary columns, four examples survive (Bays 2–5, N).</td>
</tr>
<tr>
<td>B1</td>
<td>Edge-Beam</td>
<td>Cast Iron</td>
<td>23 ft 4 in. (7.11 m) long × 3 ft ½ in. (7.11 m × 0.93 m) deep; trussed edge-beam spanning between primary columns. Divided into 3 panels by four cruciform section uprights, each panel including integrally-cast diagonal cross-braces. Four examples survive, in bays 4 and 5.</td>
</tr>
<tr>
<td></td>
<td>Decorative Elements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>Decorative arch/spandrel</td>
<td>Cast Iron</td>
<td>Cast iron, arched spandrels with integrally-cast decorative scrolls at connection points. Used in pairs to form arched decoration in the south elevation of the concourse and in the sides of the shorter bay of the porte-cochère (that to east has been replaced), spanning 7 ft 4 in. (2.24 m) between adjacent iron and wooden columns, fixed with bolts. An additional integrally-cast decorative moulding serves to hide the join between paired castings.</td>
</tr>
</tbody>
</table>
Decorative elements

The front elevation of the station concourse and the projecting porte-cochère were visually enhanced by the use of cast-iron spandrels and decorative panels with integral circle-motif at high level (Fig. 32b; Plate 18), representing exact copies of elements used extensively in the Crystal Palace. In the concourse elevation and the northern section of the porte-cochère, where spandrels were paired to form semi-circular arches with the circular-motif panel above, the recreation of the Crystal Palace façade panel was almost complete (Fig. 33).

Early photographic sources (eg Plate 19) show that the eaves of the station were decorated with distinctive crests and the corners enhanced with tall finials. These were again reproductions of decorative elements employed at the Crystal Palace, and served to hide the structure of the roof. It is known that the crests at the Crystal Palace were made of zinc and it is probable that the same material was used at Oxford, while it is possible that the station finials

<table>
<thead>
<tr>
<th>Ref</th>
<th>Type</th>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Decorative Panel</td>
<td>Cast Iron</td>
<td>Rectangular cast-iron panel, 7 ft 4 in. (2.24 m) long × 3 ft 1 1/2 in. (0.93 m) deep with integrally-cast, central circular motif. Used above the southern concourse elevation and in the shorter bay of the side elevations of the porte-cochère (that to the east elevation has been replaced).</td>
</tr>
<tr>
<td>A2</td>
<td>Decorative arch/</td>
<td>Cast Iron</td>
<td>Cast-iron arched spandrel, originally used singularly in the southern, wider bay of the porte-cochère (removed); similar in most respects to A1, though lacking the integrally-cast moulding hiding the join between paired elements, redundant in this location.</td>
</tr>
<tr>
<td></td>
<td>spandrel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td>Decorative Panel</td>
<td>Cast Iron</td>
<td>Rectangular cast-iron panel, 15 ft 4 in. long × 3 ft 1 1/2 in. deep with integrally-cast, paired circular motifs. Originally used in the front and side elevations of the southern, wider bay of the porte-cochère (removed).</td>
</tr>
</tbody>
</table>

Plate 15  Trainshed, Bay 5 (W) before dismantling, 1998. Note inserted type C5 rail-built column, also the surviving type V2 louvre panel.
Plate 16  The earliest known view of the station interior looking south from c 1900. The original longitudinal glazed roof is still in-situ, though the intermediary supports (1988) have been added. Note the oval booking office and the original low platform level. Photo: Lens of Sutton Collection.

Plate 17  Profile of the original longitudinal ridge-and-furrow side-wing roof preserved in original internal vertical-boarded partition (west wing roof).
Figure 32 (a) Front elevation as recorded; (b) front elevation (1914 reconstruction). Based on a survey by Colin Wide.
were adapted from gallery handrail balusters from the Crystal Palace (OA 1998, 18).

**Primary walling**

At the time of survey, the exterior walls of the primary structure were formed of studwork panels (W1–3: see Table 9), which appeared to have been fabricated on site, clad externally with horizontal ship-lap boarding, of a type familiar from many Buckinghamshire Railway stations on both the Oxford and Banbury branch lines. Each panel spanned between adjacent cast-iron columns, to which they were affixed using cast-iron ‘butterfly’ fixings, and incorporated two intermediate, evenly spaced, timber columns (C4). Internally, the flanking wings were lined with vertical, reeded, tongue-and-groove boarding, while the concourse arcades and the southern wall, facing onto the station concourse, were clad in corrugated, galvanised iron sheets. Each
Plate 18  Detail of decorative spandrels and circle motif in the west elevation of the porte-cochère, photographed prior to dismantling, 1998.

Plate 19  Photograph of 1883 showing the Oxford Volunteers marching to the GWR station. The porte-cochère of the L&NWR station, with original decorative crests and finial, is clearly visible to the left hand side of the photograph. MS. Top. Oxon. d. 505, no. 189 (Minn Coll. Nég. 6/122a) © Bodleian Library, University of Oxford.
Figure 34  (a) Longitudinal cross-section looking east; (b) west elevation as recorded. Based on a survey by Colin Wide.
Figure 35  (a) Transverse cross-section of concourse and side-wings looking south; (b) northern elevation of trainshed and side-wings looking south. Based on a survey by Colin Wide.
bay of the concourse arcades originally included three round-headed double-doors with wooden architraves and glazed semi-circular fanlights (Fig. 34), with the exception of Bay 3 (W), which only included two. At least some of these openings would appear always to have been blocked.

While the flanking walls of the concourse (Fig. 35) are primary, close archaeological investigation has revealed that the exterior wall panels had been subject to major alterations contemporary with the re-roofing of the side wings (see below) and it appears that, in its original form, the station building was fully clad externally with vertical ship-lap boarding. This original cladding survives only in isolated areas, where it was preserved behind later panelling. Where original internal partition walls survive, these are also clad in vertical tongue-and groove boarding.

**Interior arrangements**

In ascertaining the original layout and arrangements of the interior of the station, archaeological evidence is augmented by the survival of several plans of the building from the 19th and early 20th centuries, and a number of early photographs. The First Edition Ordnance Survey 1:500 plan of the station of 1876 (Fig. 36) would appear to show the building much as built with the exception of the northern extensions to the side wings (see below). The open station concourse was confined to Bays 2 and 3, the trainshed occupying Bays 4 to 14, with the tracks themselves terminating in buffers within the southern half of Bay 4. The island platform was bisected by a transverse siding with wagon turn-tables within Bay 6. Bay 1 formed the bi-partite porte-cochère providing covered loading/unloading space in front of the main entrance to the station. Offices and passenger facilities were accommodated within the flanking wings, accessed via the concourse arcade. The plan is detailed enough to show internal room divisions and a number of room are labelled. The east wing contained a large booking office, occupying Bay 3 and the northern third of Bay 2, a waiting room (possibly 3rd class) and store, with the Station Master’s rooms located in the secondary northern extension. The west wing contains two waiting rooms (presumably 1st and 2nd class), a cloak room and attached toilet facilities aligned along the west wall. The northern extension houses a porter’s room and lamp room. Within the roof-space of the west wing tongue-and-groove boarding, preserving the profile of the primary ridge-and-furrow roof, was recorded cladding the rear brickwork of the chimney indicating that the fireplace heating the waiting room was primary, or at least a very early addition to the plan as it must date to before the replacement of the primary roof (see below). Evidence regarding the chimney in the east wing suggests that it is an insertion, possibly contemporary with the re-roofing of the flanking wings.

**Similarities to and differences from the Crystal Palace structure**

Many elements of the primary station building are essentially similar to the components illustrated in contemporary published drawings of the Crystal Palace (Downes and Cowper 1852). Many of the column castings are the same in all but shaft length while the edge-beams appear almost identical to the standard 24 ft Crystal Palace floor beams. Apparent structural differences between the primary station trusses and their Crystal Palace counterparts, however, have proven on closer examination to be illusory (Sutherland 1975, 69). Despite the outward similarity of the components used in the two buildings and the obvious use at Oxford of the characteristic structural and, in particular, the decorative motifs of the Crystal Palace, close inspection has revealed that very few members of the station building represent exact matches. While a small number of elements may have been cast from the Crystal Palace moulds, or may even represent ‘spares’ from the Hyde Park structure, it is apparent that considerable reworking of the foundry patterns, if not a completely new second set, would have been necessary to suit the particular form of the Rewley Road station. Certain components appear unique to the station, for example columns C2a, C2b and C3 with their complex upper flange detailing related to the primary roof drainage system. They were unlike anything in the published Crystal Palace drawings and would have required entirely new casting moulds.

One of the principal differences between the two structures lies in the method of connecting the principal vertical and horizontal components of the framework. At the Crystal Palace, a system of wedge fixings, patented by Paxton, was used (Fig. 37) while at Oxford, trusses and beams were secured to columns by paired 1 inch (25 mm) bolts. The reasons for these differences are not entirely clear, though Kinchin-Smith (OAU 1998, 25) has suggested it may have been a way for Fox and Henderson to avoid breaking Paxton’s patent. Alternatively, it may simply be that the bolted connections were designed to be more durable, better suited to a permanent building with a longer envisaged lifespan than the Crystal Palace, which was from the start planned as a temporary structure. Patent avoidance may also have been a deciding factor in the decision not to use Paxton’s Crystal Palace trussed gutter beams in the station roof, resulting in persistent structural problems which led eventually to the need to re-roof the whole station building at an early date (see below).

Though financial and time considerations must have played a part in the Board’s decision to contract Fox and Henderson, and the rapidity of the construction process tested at the Crystal Palace clearly lent itself commendably to the circumstances of the station project, their involvement should not be reduced simply to the level of economics.
### Table 9  Summary of primary walling components.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Type</th>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>Wall Panel</td>
<td>Timber</td>
<td>Tri-partite wall panel used in external walls of flanking wings, spanning between primary cast-iron columns (C2a/C3) and incorporating 2 timber columns (C4) per panel. Formed of 4(\frac{1}{2}) in. × 2 in. (115 × 50 mm) softwood studwork. Clad externally with horizontal ship-lap boarding, 6(\frac{3}{4}) in. × 7(\frac{7}{8}) in. (170 mm × 22 mm), and internally with vertical, reeded tongue-and-groove boarding, 6(\frac{3}{4}) in. × 7(\frac{7}{8}) in. (170 mm × 22 mm). Panels secured to iron columns using cast-iron ‘butterfly’ fixings. Manufactured in situ.</td>
</tr>
<tr>
<td>W2</td>
<td>Wall Panel</td>
<td>Timber/corrugated-iron</td>
<td>Tri-partite wall panel used in the arcade between the station concourse and the flanking wings, spanning between primary cast-iron columns (C2a/b) and incorporating 2 timber columns (C4) per panel. Formed of 4 in. × 2 in. (100 × 50 mm) softwood studwork, clad to the flanking wing side in vertical, reeded tongue-and-groove boarding, 6(\frac{3}{4}) in. × 7(\frac{7}{8}) in. (170 mm × 22 mm) and to the concourse side in corrugated iron. Panels mostly include three integral, round-arched door openings with glazed fan-lights (one example contains only two doors). Panels are secured to iron columns using cast-iron ‘butterfly’ fixings. Manufactured in situ.</td>
</tr>
<tr>
<td>W3</td>
<td>Wall Panel</td>
<td>Timber/corrugated-iron</td>
<td>Tri-partite panel wall panel used in south elevation of station concourse, spanning between primary cast-iron columns (C2/C2a) to which they are secured to iron columns using cast-iron ‘butterfly’ fixings. Formed of 5 in. × 2 in. (127 mm × 50 mm) studwork, clad externally with standard horizontal ship-lap boarding, 6(\frac{3}{4}) in. × 7(\frac{7}{8}) in. (170 mm × 22 mm), internally with corrugated iron.</td>
</tr>
<tr>
<td>W5</td>
<td>Wall Panel</td>
<td>Timber</td>
<td>Wall panel originally used throughout the full length of the trainshed (Bays 4–13). Most were replaced prior to 1914, though examples survive within Bay 4, where they were preserved by the low extensions built against them. They comprise a single skin of 8(\frac{3}{4}) in. reeded, vertical tongue-and-groove boarding, faced to the exterior, fixed to the outer face of 3-in. deep, chamfered horizontal rails. These rails are 6 inches thick at the centre narrowing to 1(\frac{3}{4}) in. where they are secured to cast-iron columns (C1/C2a) using cast-iron ‘butterfly’ fixings. Extend to bottom flange of edge-beam B1.</td>
</tr>
<tr>
<td>V1</td>
<td>Ventilation Panel</td>
<td>Timber</td>
<td>7 ft 6 in. long × 2 ft 10(\frac{3}{4}) in. deep, louvered panel. Used in external walls of trainshed below eaves level, fitted between the upper and lower flanges of the edge-beams (B1). Divided into two panels, each containing six horizontal louvres. Used in conjunction with V2, one of each per bay, the shorter module being located to the north of the longer module in each case.</td>
</tr>
<tr>
<td>V2</td>
<td>Ventilation Panel</td>
<td>Timber</td>
<td>15 ft 10 in. long × 2 ft 10(\frac{3}{4}) in. deep louvered panel. Used in external walls of trainshed below eaves level, fitted between the upper and lower flanges of the edge-beams (B1). Divided into four panels, each containing six horizontal louvres. Used in conjunction with V1, one of each per bay, the shorter module being located to the south of the shorter module in each case.</td>
</tr>
</tbody>
</table>
The choice of engineers and design was unquestionably influenced by the Board’s desire to capitalise on the publicity surrounding the Hyde Park exhibition building, and by associating themselves closely with it, to capture the imagination of the people of Oxford with the aim of encouraging them to use their more circuitous route to the capital. The use of the structural and decorative motifs of the
Crystal Palace was conspicuous, possibly down to the level of reproducing the original paintwork scheme.

Alterations to the Primary Structure

The extensions to the flanking wings, pre-1876

At a point early in the life of the station, two small, low extensions were appended to the north of the east and west flanking wings, abutting the side walls of the trainshed. Each measured one full bay (7.32 m) N-S × 2/3 bay (4.88 m) E-W and were built with double, longitudinal low-hipped roofs, partly hidden behind the exterior walls seemingly in imitation of the original concourse/trainshed roof. At the outer corners, cast-iron columns of identical section to the primary uprights were used, although they were here crudely truncated to match the low level of the extensions and, though serving as downpipes to drain the roofs, were not connected to sub-surface foundation columns as in the primary structure. The outer walls were mainly of studwork construction, clad externally with vertical ship-lap boarding and with no intermediate timber columns. The northern and southern walls of the western extension were in brick, laid in Flemish bond, that to the south containing a substantial fireplace serving the newly created room.

The exact phasing of these extensions is problematical; that they included standard profile columns at their outer corners would seem to imply contemporaneity with the main station building. However, it is clear that the columns were not custom made in this context, and taken together with the evidence of differing foundation and floor structure details, it seems reasonable to suggest that the extensions represented an on-site adaptation to the original plan as opposed to a separate building phase per se. They were certainly in place by the time of the 1876 First Edition Ordnance Survey plan (Fig. 36) on which they are shown; the eastern extension housed the ‘Station Master’s Rooms’ while that to the west housed the ‘Porter’s Room’ and ‘Lamp Room’. Interestingly, during dismantling of the western extension, a small information poster (L&NWR No.1229) pertaining to the ‘Instructions as to Trimming Lamps’ issued by the Chief Traffic Managers Office at Euston on 3 April 1875, was recorded.

The re-roofing of the flanking wings, pre-1888

At an early date, the transverse ridge-and-furrow roofs of the flanking wings were replaced in their entirety by fully hipped roofs comprising five substantial, timber queen-post trusses (Plate 20), clad with softwood roof-boards and slate, subsequently overlaid with bitumen. In both wings, the outer ends of the trusses were carried on hardwood wall-plates running around the external walls. Where the flanking wings abutted the central concourse arcade, the details varied; in the eastern wing, the trusses were supported on iron brackets or cleats bolted to the outer faces of the primary columns (both iron and timber) of the concourse arcade while in the western wing, the trusses were carried by a timber plate supported on a series of secondary, stop-chamfered softwood posts. No evidence exists to allow a definite date to be assigned for this work. However, it must have been carried out prior to or contemporary with the introduction of a series of intermediary trusses to support the primary roof structure over the concourse in c 1888 (see below) as the valley gutters serving the original side wing roofs, feeding into the hollow arcade columns via the flanged openings described above, would have to have been dismantled for the insertion of the fish-bellied edge-beams associated with this phase of work. The principal rooms of the wings were ceiled over at this stage and incorporated, in places, elaborate moulded cornices (Plate 21), though the less prestigious rooms, such as the toilet facilities in the west wing, remained open to the underside of the roof.

With the removal of the glazed roof, the fundamental problem of lighting the side wings arose. The

Figure 37 Detail of Paxton’s patented wedge-fixing system used at the Crystal Palace. (Downes and Cooper)
solution to this problem involved the total renewal of the exterior studwork walls and the introduction of new panels including square-headed, double sash-windows within the west, south and east walls of the flanking wings. The exterior elevations of the new panels were finished in horizontal ship-lap boarding, while internally the original vertical cladding was re-used though, in places, rather awkwardly applied. Each side wing roof, as recorded, was additionally furnished with two light wells. In the east wing, these served the main booking office and the ladies’ waiting room; in the west wing, the northern of the two waiting rooms and the adjacent toilet facilities. The light wells have been assumed, for the most part, to be contemporary (though see below), based upon the fact that the structure of at least one example in the eastern wing was found to incorporate reused ‘Paxton-esque’ glazing bars, presumably originating from the dismantled primary roof structure (Plate 22). Further, evidence recorded within the roof space (OA 1998, 24) indicates that the original room plan was maintained after the replacement of the glazed ridge-and-furrow roof, and it is apparent from an examination of the 1876 plan that certain of the rooms would have been left with no source of natural light if the roof lights do not represent contemporary features. Evidence from the dismantling survey is, however, somewhat contradictory in this respect and small sockets recorded within the purlin of the west wing roof suggest that the outer side at least of this

Plate 20  Roof structure of west wing, showing wall plate and stopped lap joints. Photo: Gifford Archaeology.

Plate 21  ‘Ghost’ of former cornice in original booking office (east wing).
roof may originally have been glazed. This would imply that the roof lights of the west wing may represent a slightly later adaptation.

Archaeological evidence, recorded after dismantling, suggests that the brick-built chimney stack of the eastern flanking wing is secondary to the station structure, and it seems reasonable to associate the introduction with the re-roofing of the wings.

The reinforcement of the primary roof, c 1888

Weaknesses inherent within the original longitudinal roof structure became evident at an early stage and a programme of remedial works was necessary to provide additional support. The flaw was associated with the wide span between the primary trusses, exacerbated by the fact that the trussed gutter beam, patented and used by Paxton in this context at the Crystal Palace, was apparently not employed in the Oxford building, most probably to avoid breaking the terms of the patent. To redress the problem, a series of additional, intermediate trusses (T2–4) were inserted midway between the principal trusses throughout the full length of the concourse, trainshed and porte-cochère, halving the distance that the roof had to span between supports. Structural components related to this phase of work are summarised below in Table 10 and illustrated in Figure 38. It is worth noting in this respect that the roof of the locomotive shed, evidently built to a similar design, was recorded as having been repaired in 1877 and 1879 before being completely renewed in 1883 (Waters 1986, 43).

The inserted trusses were of composite steel and wrought-iron construction and were somewhat deeper than the primary trusses T1, though again of 'Pratt' type. Within the trainshed, the inserted trusses (T2) were supported on simple, free-standing 'A'-frames (C5) formed of paired sections of wrought iron, double-headed rail, set approximately 1 ft. in from the exterior walls, to which they were braced with diagonal struts. Within the area of the concourse (Bays 2 and 3) the introduction of the new trusses was a little more involved. Here the trusses (T3), rather than being carried on inserted 'A'-frames, which would have disrupted circulation between

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**Plate 22** Paxton-esque glazing bars re-used in the structure of the secondary roof light of the eastern side-wing.
the concourse and flanking wings, were carried through to the line of the main north-south walls. However, as the new trusses were some 0.35 m deeper than the primary members, their introduction necessitated the replacement of the original cast-iron edge beams (B1) with fish-bellied beams (B2), deep enough at the centre to accommodate the new trusses. Within the porte-cochère, a variant truss (T4), of fish-bellied form, was introduced. As noted above, the introduction of the deeper, fish-bellied edge-beams (B2) within the concourse made the valley gutters of the side wing roofs redundant, implying that the roof structures of the flanking wings had already been replaced by this point (Fig. 38).

Although it would at first appear logical to associate the introduction of these intermediary trusses with the replacement of the original longitudinal roof by the transverse ridge-and-furrow roof which respects them (see below), photographic evidence demonstrates this not to be the case, clearly showing the inserted supports in conjunction with the primary roof (Plate 16). Further, the grouped bolt-holes recorded in the upper chords of the primary trusses (T1) during dismantling, were also noted to be present in the inserted trusses T2/T3, proving that these trusses were inserted for the support of the original roof.

No evidence survives to allow an exact date to be assigned for the work on the station roof, though a dated plan (Drg No. 66792, L&NWR Oxford Passenger and Goods Station: July 1888), seen by Sutherland in 1975 in preparation of his article ‘Oxford Midland Station and The Crystal Palace’, marked the inserted supports for the intermediate trusses as ‘new’ at this date. Unfortunately, this plan has since been lost. The last dated rail rolling mark is 1872, and the rail had seen service on the track evidenced by compressions where it had sat on cast
iron chairs, while the location of the ‘A’-frame supports for the inserted trusses within the trainshed demonstrates that the transverse siding and associated wagon turntables visible on the 1876 Ordnance Survey plan had gone out of use by this time. Indeed, Plate 16 clearly shows one of the inserted ‘A’-frames obstructing the large wooden sliding doors in the trainshed side screens.
The replacement of the primary roof, 1901–1906

Despite the reinforcement work undertaken on the concourse and trainshed roof in c. 1888, it is clear that problems with this element of the building persisted and eventually the entire roof had to be replaced to an alternative design. The new roof maintained the hipped, ridge-and-furrow pattern, but was aligned transversely (E–W) with valleys set wider than the primary roof, at 12 ft (3.66 m) centres, respecting with the primary (T1) and inserted trusses (T2–4). A further two bays, of 8 ft (2.44 m) and 16 ft (4.88 m), protected the porte-cochère.

Assigning a precise date for the introduction of this roof has not proved possible, although two sources allow a close estimate to be proposed. As noted above, the earliest known photograph of the station interior (Plate 16) shows the longitudinal roof still in place along with the inserted trusses, confirming that the intermediate trusses were inserted for the support of the original structure and were not contemporary with the new, transverse roof. Although this photograph is undated, the character of the rolling stock is suggestive of a date in the early years of the 20th century, and it provides a loose terminus post quem for the introduction of the new roof. A dated drawing of 11th July 1906, illustrating the ‘renewal of the roof etc.’ shows the transverse ridge and furrow arrangement in place at this date, and details the ‘proposed glazing’ of this structure, though it includes few details of the roof construction itself. It is unlikely that a roof introduced post-1901 would require re-glazing within five years and it seems reasonable to assume that the surviving drawing represents one of an original series detailing a more extensive programme of works to the roof. A date range of between c. 1901 and 1906 can thus be proposed for the introduction of the transverse roof, with the likelihood that it falls towards the latter end of this range.

Internal reorganisation

An early 20th-century photograph shows a freestanding, apsidal-ended booking office (Plate 16), located centrally within Bay 3 of the concourse area. This structure was introduced early in the life of the station to replace an original office in the east side-wing and survived until the closure of the station to passenger traffic in 1951 and was subsequently removed. A photograph from c. 1940 (see Plate 24) shows its form in some detail, while its ‘footprint’ was preserved within the York stone slabs of the concourse floor. Located centrally within Bay 3, the structure was 16 ft 9 in. (5.1 m) wide by 26 ft 3 in. (8 m) long with apsidal ends. It was divided into vertical and horizontal panels, used for information and advertising display, by timber rails and columns above a dado of fielded timber panelling. The top of the structure was furnished with decorative ‘Crystal Palace’ crests, mirroring the eaves level decoration of the station exterior.

The new booking office is not shown on a plan of 1903 (Fig. 39), which shows the layout of the station facilities much as it was in the 1876 Ordnance Survey plan, with the additional inserted trusses of the concourse/trainshed roof. The original context of this plan is, however, unclear and the similarity of the internal layout to the 1876 plan has led to speculation that these details may simply have been traced from the earlier plan, bringing into doubt its value as a reliable historical document of the layout of the station at any specific date.

With the relocation of the booking office to the centre of the concourse, the arrangements of the side wings could be improved. The 1906 plan (see above) indicates that at that date the east wing housed, from south to north, a ladies’ waiting room, slightly enlarged from the 1876 plan, with attached toilet facilities, a general waiting room and a parcels office and porters’ office extending into the northern low extension. The new general waiting room and parcels office were created by the subdivision of the former large booking office. The west wing contained a second ladies’ waiting room (again with attached toilets), an enlarged gentlemen’s waiting room and toilet block and, within the northern extension, the station master’s office, fireman’s office and store. Each room was separately accessed from the concourse, with no interconnectivity between rooms. A further plan of c. 1920 (Fig. 40) shows an essentially similar layout, though the station master’s office had been moved to occupy the northern half of the central ticket office, while the porters’ room has been moved to the west wing extension and the parcels office in the east extension enlarged.

The raising of the platform, 1906

The 1906 plan referred to above specifically details the raising of the island platform by c. 1 ft along with associated alterations to the ramp between the concourse and the new platform level and the relocation of the buffer stops one-and-a-half bays to the north. The reasons for these works were based on both safety and loading/unloading efficiency concerns. In the early years of the railway in Britain, the train/station interface was designed on the basis that passengers stepped up into the train from a low-level platform, or even straight from the ground, via a system of running boards fixed to the outside of the train running gear below the carriage bodywork (see Plate 16). From the turn of the 20th century, however, it was deemed desirable that platform levels be raised closer to the height of the train floor, with a view to ensuring speedier and safer embarkation. The new platform at Oxford, raised from 1ft 10½ in. to 3 ft, is first seen in a photograph of 1914 (Plate 23).

Rationalisation of the rail network, 1921–1951

Throughout the early years of the 20th century, a slow rationalisation of the national rail network took place. During the First World War, the network had...
operated under central, state control and this continued until 1921. Under the Railways Act of 1921, which came into effect on New Year’s Day 1923, more than 120 individual companies were regrouped to form four major companies, each dominating its own geographic area. These were the Great Western Railway (GWR), the London, Midland and Scottish Railway (LMSR) (Plate 25), the London and North Eastern Railway (LNER) and the Southern Railway (SR).

Further rationalisation followed and when the entire rail network was nationalized under the Transport Act of 1947, coming into effect on 1 January 1948, the London, Midland and Scottish...
Railway was merged into the London Midland Region of British Railways. As a part of the rationalisation of the railway network, from 1951 on all passenger trains on the former LMS branch line were diverted to the former GWR station. The LMS tracks and sidings continued in use, for goods traffic only, in ever diminishing volumes while the station building itself found temporary use as a hostel for goods train crews.

Modifications to the station building during this period appear to have been fairly limited. Small-scale internal reorganisations appear to have been undertaken, for example the subdivision of the general waiting room in the east wing, and were traceable as wall and ceiling scars within the surviving fabric. Larger scale works included the creation of a small lobby in the south elevation of the eastern flanking-wing, undertaken at some point between 1920 and 1936 and involving the removal of the central window of the elevation. Between 1949 and 1951, substantial blue-brick plinths were introduced to the exterior walls of the flanking wings, presumably in an attempt to alleviate problems of wet rot in the lower parts of timber columns and wall panels (Plate 26). The windows would have been supported and the external cladding removed, leaving the internal vertical cladding in situ, up against which the brick plinths were constructed. The introduction of these plinths involved the truncation of all but one of the external, intermediate timber columns. At some point between 1951 and 1959 (see Plate 27), the southernmost 16 ft, outer bay of the porte-cochere was removed, the columns being truncated at ground level (the foundation columns of the port-cochere were recorded during post-dismantling works).

**Post-railway use**

The station finally moved out of railway use in 1969, when it was leased by the British Rail Property Board for commercial and light industrial use. It was at this time that the northern nine bays of the trainshed structure (Bays 6–14) were removed and a breeze-block wall erected between bays 4 and 5. Recognising the historical importance of the

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*Plate 23  Interior of the train shed looking north, 1914. Note the secondary, transverse ridge-and-furrow roof and the raised platform level. Note that the upper ventilation panels (V1 and V2) have been removed by this date. Henry W Taint Coll. (CC54/00325) © Oxfordshire County Council.*
structure, two complete bays of the dismantled trainshed structure, including the inserted ‘A’-frame supports, were acquired by the National Science Museum. The goods shed, locomotive shed and water tank were demolished and the island platform levelled. In its final years in Oxford, the station building saw use as a tyre and exhaust depot and car rental centre. Internally, a number of partitions were removed and an ephemeral office structure formed within the area of the concourse; otherwise the early 20th-century layout of the concourse and offices survived relatively intact up until the time of the archaeological survey.

Dismantling and re-erecting the station
Lance Adlam

Introduction
Since the Rewley Road station building could not be considered within the plans for the new Said Business School and road scheme, an alternative site that could accommodate the station was sought. Quainton Railway Society was approached by Oxford University and accepted the building for use as a new visitor centre for the Buckinghamshire Railway Centre at Quainton Road Station, together with funding to move, refurbish and re-erect the building.

The dismantling and pre-erection inspection and testing process for the Rewley Road station indicated a number of significant structural weaknesses and defects, and while there was the desire to preserve and reuse as much of the original building fabric as possible in the reconstruction, it was necessary to erect the building in a way that would meet long-term conservation needs and require the lowest possible maintenance in its new function. As the structure was dismantled (Plate 28), the metalwork was cleaned back to the bare base, and both visual and non-destructive testing were carried out to identify any works of renewal or repair that were necessary before re-erection.

The main superstructure (Fig. 41; Plate 29)
The cast-iron hollow foundation columns (see Fig. 26) were found on dismantling to have a reservoir of water and detritus within them, and there was no way of emptying or clearing the bases, or of rodding

Plate 24 The free-standing booking office, seen in a photograph of 1940. 26888, collection DY, courtesy National Railway Museum.
the columns which formed the rainwater pipes for the building. Additionally, a number of the column bases were broken, cracked or rotted through, and unusable for the reconstruction. A few also had damage to the base plates, and would not therefore be able to spread the column loads evenly across the casting. As the ditch water levels into which rainwater discharged were considerably higher at Quainton than at Oxford, it was necessary to recast the bases at a length appropriate to the new site in order to maintain the original appearance of the building. Some movement of the foundations had been detected at Oxford, and to avoid this happening at Quainton, a concrete-filled foundation trench was dug.

Of the 22 structural columns brought from Oxford, two were beyond use, and a further three were found on structural testing to be seriously degraded. In the reconstruction, a plastic rainwater pipe was inserted through the core of the original and recast columns to avoid rainwater degradation. Some of the columns were turned in the reconstruction from their original orientation so that they could be seen.

The majority of the column head sections were damaged through structural changes, poor workmanship in the original castings, or weathering, and most of bolt fixings had rotted away. As they were fundamental as roof supports, all the head sections were recast for the reconstruction. The original heads were re-used as balusters to support the platform balustrade so that they could be inspected.

The four cast-iron trusses taken from the original building appeared to be in reasonable condition, as they had been little more than decorative features holding the column heads apart and supporting the gutters. There was, however, some serious deterioration of the iron and timber trusses across the main hall and trainshed where the gutters above failed. For the re-erected building, some of the truss ends were drilled out and replaced with new castings, along with a few of the intermediate struts. The rivets from the first diagonal tie bar from each column head were drilled out and the fixing changed to a larger section modern bolt.

The vents underneath the original ground surface had been blocked over the years, and the floors had rotted out almost completely. As the station was to become a closed building at Quainton, the reconstructed ground floor was laid with reinforced concrete throughout, preventing excessive moisture entering the building. The main hall of the re-erected building was floored with pre-cast concrete simulated York Stone pavings; sadly, there were
very few original pavings salvable on dismantling. Little was also left of the platform; the reconstructed platforms were built with brick longitudinal walls supporting pre-cast, pre-stressed concrete planks with a paved surface as used for the concourse, but with modern pre-cast concrete tactile platform edges, and built to the same height as the final Oxford platform levels.

The extant internal walls generally fell apart as they were removed. The walls were rebuilt with timber studs and plywood forming a stiff box to which the facings were applied, and the variety of temporary infill panels used at Oxford were scrapped and replaced with glazed doors and panels. It was also necessary to remove any lead-based paint from any of the re-used materials. Most of the architraves and trims and the semi-circular windows survived and were incorporated in the new design. None of the original material in the brick or block walls was salvable. Much of the paneling was tongue-and-grooved boarding which was destroyed on removal where fixings had been pinned through the tongues.

The internal decoration set at high level in the concourse area was provided by the use of corrugated iron galvanised sheeting. The sheets were found to be in as good condition as when they were first erected, with the exception of some damage where fixings were added over the years. All were re-used, although some additional modern sheets had to be used in one location where an existing sheet was re-cut for use over the café servery entrance. The flue to the west wing front room was reconstructed as a working chimney for a coal fire, and to the café for a gas fire. The other flues to the east side became dummies for appearance purposes only, and were built solid above roof level to avoid weathering problems.

The external windowed walls were taken down where possible as complete panels, generally with the external face and window frames left intact. The panelling was removed from the inside-wing wall faces to allow the panels to be removed. As before, it was mostly tongue-and-grooved board and so destroyed when it was removed. The boarding below cill level was generally rotten, probably due to condensation on the brick backing. The panels were re-erected and the timber given a spray or hand-applied timber treatment. The timber was replaced only where severely damaged or rotted. All the
Plate 27  View of station in 1959, when it was in use as a goods depot and lodging. Note that the southern section of the port-cochère has been removed by this date.
Photo: J D Edwards.
panels had new cills, and rotted timber column ends and some boards were replaced. The brick elements were rebuilt in \( \frac{3}{4} \) brick Staffordshire Blue brickwork externally from cill to finished floor level, and solid 1 brick thick below (in hindsight, these plinth walls should have been built as half brick thick, but with snapped headers to resemble English Bond, not as stretcher bond.)

The vertically-mounted, ship-lap boarding was found behind the later panelling was in poor condition and did not survive the removal process. The circle-motif decorated panels from the front elevation were all severely damaged bar one. Several panels appear to have been repaired at the foundry prior to despatch to Oxford in 1851, and most of those suffered further breaks while \textit{in situ}. Nevertheless, the original panels could be re-used, since they were not now subject to the roof loads they had previously carried. The semi-circular headed brackets were reused, except for broken sections, which were recast.

The walls of the rear wing blocks were in such a poor state that they had partially collapsed. The two blocks were reconstructed with timber facings, but without windows in the walls. Timber louvres were re-located at Quainton on the southerly side of the building as they helped to reduce the direct sunlight on the internal artefacts, and glare on bright days.

\textbf{The roofs} (Fig. 42; Plate 29)

The gutter edge/roof beams all required replacement; these were built up using two sections, since suitable wood matching the original construction was not available. The roof adopted after c.1888 placed an unacceptably high bending moment on the top flanges of the trusses, requiring a stiff block at the tie bar location. The pads at the re-erected structure were therefore increased in number from five to seven per truss to sit in the original positions used when the roof was first constructed, centred over the vertical struts in the trusses. The roof to the front canopy was clad in patent glazing to all four facets. The main roof to the main hall and trainshed had the north faces clad in patent glazing, and the other three faces were clad in Terncoated stainless steel sheet, with insulated construction below.

The angle of the high level roofs covering the east and west wings was too shallow, given the size of slates removed during dismantling, and consequently the roofs leaked. The slates were ‘Turnerised’ (coated in a bituminous paint), which caused most of the slates to disintegrate, as well as some rot problems in the timbers below, due to trapped condensation. The central purlin was removed on the re-erected building, and new timber rafters spanning the gutter to the rooflight edge were fitted, thus enabling the same insulated roof construction as for
Figure 41  Rewley Road station, extent of restoration. Reproduced with thanks from drawings supplied by Lance Adlam.
the main roof to be used. The central valley faces of the roofs covering the rear blocks were glazed with patent glazing, while the four perimeter faces were the same roofing system as for the other roofs.

The porte-cochère and trainshed

The porte-cochère was damaged by a heavy vehicle in the 1950s and, for the safety of the railway staff, removed as scrap, leaving only the canopy over the front entrance to the station. It was reconstructed in a second phase of works at Quainton using photographs and the known measurements of the decorative ironwork. The circle-motif patterns were modified, and the panels cast in two equal halves with a centre joint; a new section was cast to provide the link between the two quarter-circle column brackets. The roof was constructed to the same pattern as the canopy, and was fully glazed with clear patent glazing.

Only four bays survived from the original trainshed. The re-erected trainshed was extended as part of the Phase 2 work by a further five bays to the rear to allow the feel of the former station to be recreated. This work emulated the original structural appearance but used modern materials and all-welded construction for the trusses.

A mid 19th-century group of clay tobacco pipes

David Higgins

A group of 12 pipe fragments were recovered from a 19th-century levelling layer (OXSTRA 96/97 [0010]). It is unfortunate that not more material was recovered from this layer since it was clearly a fresh and little disturbed deposit, the number of duplicate forms present suggesting a narrow date range. All the pieces were complete bowls with up to 125 mm of surviving stem. There was one spur bowl with the moulded initials BH on the spur (Fig. 43.42). This can be attributed to the Oxford pipemaker Benjamin Huggins, recorded working from 1841–76 (Oswald 1984, 262) and this particular example comes from a levelling deposit that may well be related to the construction of the railway terminus in c.1850. Other pipes made by Huggins, some of which also have circular or shield shaped bowl stamps or leaf decorated seams, are also known (Oswald 1984, fig 56). Decorated material was additionally recovered from a mid 19th-century levelling layer, OXSTRA 96 [0010]. This probably dates from c.1850 and shows the styles in production at that period. Most of these pipes all seem to have had long stems although several of the bowl forms are of types that were later produced with short stems. The decoration was fairly restrained for the main part. There were just two examples with leaf-decorated seams, both from the same mould (Fig. 43.43). Had a larger sample of 19th-century pipes been recovered there would, no doubt, have been a much larger range of decorative designs represented.

List of illustrations (Fig. 43)

42. Spur bowl dating from c 1840–1875; not burnished; cut rim with no milling; stem bore 4/64". On either side of the spur are the relief moulded initials BH. This is most likely to be Benjamin Huggins of Oxford, who was recorded working 1841–1876. (OXSTRA96 Context: 10).

43. Spur bowl dating from c 1840–1875; not burnished, cut rim with no milling; stem bore 4/64". One of two identical bowls with leaf and acorn decorated seams and star marks on the spur, which may have been cut over earlier initials. (OXSTRA96 Context: 10).

44. Spurless bowl dating from c 1840–1875; not burnished; cut rim with no milling; stem bore 4/64". (OXSTRA96 Context: 10).
Figure 42 Rewley Road station, roof plan showing age of trusses. Reproduced with thanks from drawings supplied by Lance Adlam.
Figure 43  A group of mid 19th-century clay tobacco pipes, nos 42–47. Drawn by Dr Susie White.
45. Spurless bowl dating from c 1840–1875; not burnished; cut rim with no milling; stem bore 4/64". One of six similar forms, all from the same mould, decorated with a simple rib seam. (OXSTRA96 Context: 10).

46. Spurless bowl dating from c 1840–1875; not burnished; rim cut with no milling; stem bore 4/64". Mould decorated with looped panels on the stem and lower part of the bowl with plant motifs above, including the rose, thistle and shamrock motifs for England, Scotland and Ireland. (OXSTRA96 Context: 10).

47. Spurless bowl dating from c 1840–1875; not burnished, rim cut with no milling; stem bore 4/64". This thick-walled, forward leaning form is a style that was known as a 'miner' or 'woodstock' pattern. (OXSTRA96 Context: 10).

BIBLIOGRAPHY

Aksádi, G and Nemeskéri, J, 1970 History of human life span and mortality, Akadémiai Kiadó, Budapest


AOC Archaeology Group, 1999 An archaeological watching brief at the site of the old LMS Station, Oxford, unpubl. report

Arkel W J 1947 Oxford stone, Faber and Faber, London


Blinkhorn, P W, 2003 The pottery, in Hardy et al. 2003, 159–206


Brockley, M and McKinley, J, 2004 Guidelines to the standards for recording human remains, IFA Paper 7, British Association for Biological Anthropology and Osteoarchaeology and the Institute of Field Archaeologists

Buikstra, J E and Ubelaker, D H (eds), 1994 Standards for data collection from human skeletal remains, Arkansas Archaeological Survey Research Series 44, Arkansas


Charleston, R, 1985 The vessel glass, in Battle Abbey: The eastern range and excavations of 1978–80 (J Hare), HBMC Archaeological Report, 139–46


Dolley, R H M, 1968 The Irish mints of Edward I in the light of the coin-hoards from Ireland and Great Britain, Proceedings of the Royal Irish Academy 66, section C no. 3, 235–97


Downes C and Cowper C, 1852 The building erected in Hyde Park for the Great Exhibition of the Works of Industry of all Nations, 1851 (reproduced by Victoria and Albert Museum, 1971)

Druy P J, 1981 The production of brick and tile in medieval England, in Medieval industries (D W Crossley), CBA Res Rep 40


Goodhall, I H, 1993 Implements, in Norwich households, medieval and post-medieval finds from Norwich Survey excavations 1971–78 (S Margeson), The Norwich Survey/Norfolk Museum services

Green, J, 1988 Medieval floor-tiles from St Frideswide’s Priory, Oxoniensia 53, 103–114

Habery, L, 1937 Medieval English paving tiles, Shakespeare Head Press, Oxford


Higgins, D A, 1987 The interpretation and regional study of clay tobacco pipes: a case study of the Broseley District, Doctoral thesis submitted to the University of Liverpool

Higgins, D A, 2005 Clay tobacco pipes, in Prehistoric and Roman activity and a Civil War ditch: Excavations at the Chemistry Research Laboratory, 2–4 South Parks Road, Oxford (P Bradley et al.), Oxoniensia 70, 172–174

Higgins, D A, forthcoming Clay tobacco pipes from excavations at the Oracle Site, Reading, Berkshire (REOR 96–97 and REORM 98), Oxford Archaeology Thames Valley Landscapes Monograph series

Hohler, C, 1942 Medieval paving tiles, in Mediaeval paving tiles, Shakespeare Head Press, Oxford

Hyde Park for the Great Exhibition of the Works of Industry of all Nations, 1851 (reproduced by Victoria and Albert Museum, 1971)


102

Mellor, M, 1984 A summary of the key assemblages. A study of pottery, clay pipes, glass and other finds from fourteen pits, dating from the 16th to the 19th century, in Excavations at St Ebbe’s (T G Hassall et al.), Oxoniensia 49, 181–219

Mellor, M, 1989 Tiles, in Excavations in St Ebbe’s, Oxford, Oxford Archaeological Unit unpubl. report


Mellor, M, 1997 Pots and people, Ashmolean Museum, Oxford


OA 2005 Rewley Abbey and the old LMS station, Oxford: post-excavation assessment and project design for publication, Oxford Archaeology unpubl. post-excavation assessment and updated project design, revised version November 2005


Oswald, A, 1991, Pipe stamp index, unpublished manuscript (4 vols), copy held at the National Clay Tobacco Pipe Archive, Liverpool

OAU, 1995a Oxford Rewley Road (LMS) Station: Investigation of Foundation Structure, Oxford Archaeological Unit unpubl. report

OAU, 1995b Oxford Rewley Road (LMS) Station: Investigation of Foundation Structure to Station Porte Cochère, Oxford Archaeological Unit unpubl. report

OAU, 1998 Former LMS Station, Rewley Road, Oxford: Archaeological Investigation, Oxford Archaeological Unit unpubl. report

Roberts, C and Cox, M, 2003 Health and disease in Britain from prehistory to the present day, Sutton Publishing, Stroud


Roe, F, 2003 Whetstones, querns and other non-structural worked stone, in Hardy et al., 2003, 290–7


Spink, 2003 Coins of Scotland Ireland and the Islands (Jersey, Guernsey, Man & Lundy), Pre-Decimal Issues, (2 ed.), Spink, London


Sutherland, R J M 1975 Oxford Midland Station and the Crystal Palace, The Structural Engineer 2, 53, 69–72

Tibbles, J, 2005a The Ceramic and other building materials from Oxford Castle, unpublished report no. 2076

Tibbles, J, 2005b The ceramic building materials, in Archaeological investigations at Morton Lane, Beverley, East Yorkshire (R McNaught and A Webb)

Tibbles, J, forthcoming The ceramic building material, in Excavations at Blanket Row, Hull (J Lee)


Withers, P and B R, 2005 Anglo-Irish coins John – Edward VI, Small Change VI, Llanfyllin, Galata


END NOTES

2. VCH Oxon iv, 279.
From Studium to Station Rewley Abbey and Rewley Road Station, Oxford

5. VCH Oxon ii, 83; see below for seal.
7. J E Thorold Rogers, Oxford City Documents OHS 18 (1891), 206–7 1148 & 53 (from Bodl. MS. Twyne IV, 617 et seq.).
9. VCH Oxon ii, 82; Dugdale, Monasticon v, 699–700 from Inspeccimus, Pat. 22 Edw. I, m.16.
10. VCH Oxon ii, 82; Reg. Grandison, 1132.
15. EHSJ, 6; Denifle, Cartularium ii, 38.
17. EHSJ; C. Henriquez, Regula Cisterciensis (1680), 102–3.
19. EHSJ; 10; Cal. Close Rolls, 17.
22. Talbot 44–6 (§6), 144 (§71), 198, 228 (§110).
26. VCH Oxon ii, 82–5; L. and P. Hen VIII x, 387; xiii (i), 1520 (38) and xii (2), 1320; also Emden BRUO.
28. H M Colvin et al. (eds), History of the King’s Works IV (1585–1660) (1982), 132, quoting works accounts (PRO, E36/244).
31. Information gathered by Nicholas Doggett in 1984 from Christ Church Archive, original leases (Oxford: Rewley), Estate Registers (C XX, 1–36), and Book of Evidences (I.3.2).
34. Hearne Collections i, 8, 47, 184.
35. Hearne Collections i, 241; L T Smith, Leland’s Itinerary i. (1906), 124.
36. Hearne Collections i, 244.
37. Hearne Collections ii, 216, 387; iii, 43, 67, 314, 395; iv, 347; v, 110; vi, 18.
38. Hearne Collections vii, 21; ix, 356.
39. Hearne Collections viii, 349.
40. Hearne Collections xi, 134.
41. Christ Church Archive, MS Estates 77, pp.117–118 (items 395 to 433).
43. MS Estates 77, items 416, 419 and 429.
44. MS Estates 77, items 421 and 425.
45. British Library, Additional MS 15,546, fos 52–57 (online images at www.collectbritain.co.uk). In general see the Bodleian Library card index of Oxford Views.
46. British Library, Additional MS 15,546, f. 54.
47. Hearne’s Collections i O.H.S. 2 (1884), 8.
48. Ibid., 47.
49. ‘Medieval Epigraphy in the City & University’, no. 7.
51. GEC, Complete Peerage 12/2, 365.
53. History of the University of Oxford I, 276; VCH Oxon ii, 150.
54. L T Smith, Leland’s Itinerary i. (1906), 125.
55. RCHM Inventory, Oxford (1939), 47, pl. 108.
56. The Lives of those eminent Antiquaries John Leland, Thomas Hearne and Anthony Wood (1772) 1, pl. at 138–9; also reproduced by Skelton, Oxonia Antiqua (1823) opp. Pl. 117.
58. It is beyond the scope of the current report to provide a detailed description of the Crystal Palace building, a subject for which a copious literature exists.
59. In the early years of the development of the rail network in Britain, one of the key points of contention was that of rail gauge – the distance between the two running rails of the track. Two distinct gauges of track were commonly employed, broad gauge at 7 ft ¼ in and standard gauge at 4 ft 8¼ in preference being based upon criteria of performance and cost-efficiency respectively. A Royal Commission set up in 1845 to establish a norm decided in favour of the use of standard gauge over broad gauge as the then existing network using the former was significantly larger than that using the wider gauge (confined principally to the GWR). The Gauge Act of 1846 ruled that new tracks should be laid to standard gauge, but allowed for broad gauge companies to continue to expand their networks. This resulted in the use for a period of time of mixed-gauge line comprising three running rails to accommodate both wide and standard gauge rolling stock. The GWR finally converted its whole network to standard gauge in 1892.
60. Buckinghamshire Railway Board of Directors Minute Book 1847–74 (PRO, Rail 86/3), Minute §499.
61. Ibid., Minute §499. The tender documents for the proposed station have by chance survived, and one (partial) drawing indicates a brick building with iron elements, in usual Gothic/Italianate railway style: Oxon Record Office 0159/F/1 (costs) and 0159/P/1 (drawing).

62. Ibid., Minute §507.

63. Ibid., Minute §514.

64. Ibid.

65. Ibid., Minute §548.

66. In the following description of the structure, all measurements will be first given in imperial units as this was the system used in its construction. Metric conversions are given for reference. Bays have been numbered from 1 (porte-cochère) to 14, from south to north.

67. The northern nine bays of the trainshed structure were dismantled in 1969.

68. These ventilation panels had been removed, at least within the area of the trainshed, by 1914 (see Plate 19), though it has been suggested they were reintroduced during WWII as a ‘black-out’ measure.

69. Lance Adlam views the roof differently and writes: ‘The wing block roofs, if constructed parallel to the main building, would have had beam structures through the centre of the block, spanning onto the cast iron columns, and the drainage of the rainwater for the most part of the roof would have been via these gutters and also down the three outer columns to the wing blocks. The internal columns have flanged outlets to the lower-level outlets which suggests that there was a built-up gutter, probably on the lines of the main roof gutters. The lower gutter would have spanned between the columns, and supported the edge of the ridge-and-furrow roof adjacent to the main building. Reference to the Crystal Palace drawings shows that most of the roofs spanned with the main building axis. If the roof spans were at right angles to the main building, with lead flat gutters, would the builders not have simplified the construction to stop the wing block glazing against the main building side wall, and directed all the rainwater to the perimeter gutters, and saved the cost of the expensive and non-standard column heads? This was a cheap building being constructed on a fixed price as a design-and-build contract where the contractor took all the risk’.

70. The stock shown is a Bletchley District 32 ft 0 in. × 7 ft 9 in. five-coach set with one 30 ft 1 in. × 8 ft 0 in. at the rear as a strenghtener. The coaches still have ogee-ended headstocks and the old type of buffer, and the rings along the cornice for the Harrison alarm cord are prominent. These carriage sets were in use on the Oxford branch line until the introduction of the new Bletchley District bogie sets in 1906. These six-wheeler sets were not finally eliminated until April 1909. If the Harrison cord is not in use, as would appear to be the case, then the photograph would date to after 1901. Info: Philip Millard, LNWR Society.