



Morris Building, New College, Oxford

Archaeological Excavation Report

June 2021

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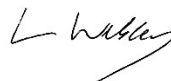


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Morris Building, New College, Oxford

Archaeological Excavation Report

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Summary

Oxford Archaeology undertook an archaeological strip, map and sample excavation ahead of development at the Morris Building, Longwall Street, Oxford (NGR SP 5192 0645) between August and November 2017. Although excavations were restricted to late post-medieval levels, part of a 19th-century brick-built livery stable block was revealed, along with a pathway leading to it from Longwall Street. Two earlier stone walls were also revealed, one of which was on the line of the 'outer city wall' of Oxford. Both walls cut dumps of makeup deposits dated to the mid-late 18th century that were probably associated with the final levelling of the city ditch. Cutting the remains of the stable block were the brick and concrete foundations of the original Morris Garage, built in 1910. Part of its rear workshop containing a vehicle inspection pit was revealed together with a small ancillary block, possibly a washroom/toilet, and a second inspection pit within the main garage area.

Acknowledgements

Oxford Archaeology would like to thank Austin Newport Ltd for commissioning this project on behalf New College. Thanks are also extended to David Radford, planning archaeologist at Oxford City Council, who monitored the work on behalf of the College for his advice and guidance.

The project was managed for Oxford Archaeology by Ben M Ford. The fieldwork was directed by Natalie Anderson who was supported by Adam Rapiejko. Survey and digitizing were carried out by Benjamín Brown and Matt Bradley. Thanks is also extended to the teams of OA staff that cleaned and packaged the finds under the management of Leigh Allen and prepared the archive under the management of Nick Scott.

1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by Austin Newport Ltd on behalf of New College to undertake archaeological work in mitigation of the construction of the New Garden building and associated landscaping. This mitigation comprised a strip, map and sample excavation to the formation level of the new building. This work followed an archaeological test-pit evaluation undertaken during September 2016 (OA 2016). The present archaeological work was undertaken between September and November 2017.
- 1.1.2 The work was undertaken to satisfy a condition of Planning Permission (planning ref. 16/03209/FUL). Although the Local Planning Authority had not set a formal brief for the work, discussions with David Radford, planning archaeologist at Oxford City Council, established the scope of work required. Subsequently, OA submitted a written scheme of investigation (WSI) that outlined how this condition was to be satisfied (OA 2017).

1.2 Location, topography and geology

- 1.2.1 The development site lies to the south of the junction between Holywell Street, Longwall Street and St Cross Road (NGR SP 5192 0645; Fig. 1), and formally consisted of a gravel courtyard to the rear of the Morris Building, with overgrown borders to the south and west. The site lies within the Central Conservation Area, adjacent to listed buildings and structures and the city wall, which is a scheduled monument. It comprises 18–21 Longwall Street which are Grade II listed and the courtyard area in front of it. The whole site is contained within the confines of New College. To the south of the site is a single storey gardener's outbuilding, to the west the site is bounded by a high brick wall and to the east it is bounded by other college buildings, trees and shrubbery. The site is relatively flat and lies at c 60.4m OD.
- 1.2.2 The development site lies between the Cherwell and the Thames (Isis), near the edge of the second gravel terrace (Summertown–Radley) and a short distance west of the first (flood plain type) terrace, overlying Oxford clay and Kellaway beds (BGS map sheet 236).

1.3 Archaeological and historical background

- 1.3.1 The following section is predominantly reproduced from the report of the results from an evaluation undertaken by OA to the rear of the properties fronting Longwall Street in 2015 (OA 2015). Reference has also been made to the Oxford History website (Oxford History, nd).

Prehistoric and Roman periods

- 1.3.2 No archaeological sites or finds dating to the prehistoric period have been located within the area of proposed development. Within the wider study area, Neolithic flints were found in 1968 during excavations under the south nave of the church of St Peter-in-the-East (now St Edmund Hall Library).

- 1.3.3 The presence of prehistoric settlement, field systems and burial monuments in the area of the University Parks has been long established. Crop-marks of ring ditches were known as early as the 17th century. As archaeological work has been carried out during the 20th and early 21st centuries, the extent and range of these sites have increased, with evidence having been found for all periods from the Neolithic onwards. However, as yet very little evidence has been found to suggest that this activity extended as far south as New College. Any evidence will have been substantially damaged or removed by later activity. Excavations around and within the University Science Area and to the north of the University Parks in the 20th and early 21st centuries have uncovered evidence for occupation during this period.
- 1.3.4 There is extensive evidence for Romano-British settlement to the north of the site around Mansfield College and the University Science Area. Residual Roman pottery has been recovered from excavations just to the west of the site in New College.

Anglo-Saxon

- 1.3.5 No archaeological evidence dating from the early or middle Saxon periods has been found in the immediate vicinity of the site. Evidence from this period in Oxford mainly relates to the establishment and maintenance of the crossing of the Thames in St Aldates, settlement activity directly associated with the crossing, and evidence for the existence of St Frideswide's priory (Dodd 2003).
- 1.3.6 There is documentary and archaeological evidence that Oxford was laid out as a planned burh in the late Saxon period (Dodd 2003). A recent analysis has suggested that it was built between May 878 and August 879 as part of a system of 31 fortresses, designed to support King Alfred's military strategy to drive the Vikings from Mercia and London (Haslam 2006). If correct, this dating represents a significant revision of the generally accepted dating, which assigns the construction of the burh at Oxford to between 911 (based on the first reference to Oxford in the Anglo-Saxon Chronicle) and 914–919 (the presumed date of the Burghal Hidage). The revised date is more consistent with the discovery of a silver penny of King Alfred (871–899), which carries the mint-name Oxford (Ohsnaforda) (Harris 2012).
- 1.3.7 The construction of the earliest defences of Oxford is not documented, although it is generally assumed that the late Saxon burh at the time of the Burghal Hidage must have been fortified. Writers including Salter (1912) and Jope (1956) suggested that the boundary of the burh was probably on the line later followed by the medieval town wall (Dodd 2003). Archaeological evidence for fortifications pre-dating the later medieval town wall has since been found, as discussed below, but conclusive evidence of dating has not been forthcoming.
- 1.3.8 The significance and extent of evidence for the late Saxon burh defences within New College has recently been considered in detail in a heritage assessment prepared to inform renovations of the college kitchen, hall and buttery (Harris 2012), and the following text is based on this work. The extent of the burh is not certain, although it has long been considered that the area east of line of the near-parallel Schools Street/Catte Street and Oriel Street/Magpie Lane and up to the later medieval Eastgate represents an extension of the original burh, and perhaps dates to early in the 11th

century or even the 10th century. The evidence is largely topographical. The eastern portion of the later medieval north town wall is offset some 60m north of the wall to the west. The case for a smaller burh has also relied on matching the length of the perimeter of the defences to the value of the hidage for Oxford in the Burghal Hidage. However, the hidage for Oxford is not entirely clear due to the corrupted text. Furthermore, it is demonstrable that a strict relationship between hides, manpower, and wall length does not apply throughout the system of Alfredian fortresses. The importance of determining the extent of the Saxon burh can be over emphasized, however, since it is probable that it had suburbs from the outset.

- 1.3.9 Archaeological evidence for the town wall and ditch, which may originally have consisted of an earth and timber rampart with external ditch, has relied on the interpretation of various deposits that pre-date the later city wall, as elements of a late Saxon earthen embankment. If it is true that the burh boundary underlies the later medieval walls, the development site would probably have lain wholly or partly within the late Saxon defensive ditch, and outside the burh. It is possible that a ditch excavated in 1949 on the north side of the inner town wall at New College, adjacent to the NE corner (Bastion 14) of the town defences and just 20m from the NW corner of the development site (Hunter and Jope 1951, figs 12 and 13), may have been part of the Saxon defences (Durham *et al.* 1983, 26, fig. 4). The turf facing of the Saxon rampart was also identified on the south side of the inner city wall at New College in 1987 (EOX4921), c 240m west of the site, and during recent investigations in a lift shaft associated with New College kitchen.
- 1.3.10 Some pottery dating from the late Saxon period was found in New College Garden in 1949 (Hunter and Jope 1951, 35). The level of occupation and activity within that part of the town is uncertain. No evidence has been found to suggest that there was activity on or close to the site before that date, although truncation caused by medieval and post-medieval activity may have removed any evidence of earlier date. Recent excavations and standing building recording (2013–14), ahead of a construction project to upgrade the college kitchens, buttery, pastry room, bar, hall and wine cellar connection, provided an opportunity to investigate a section of the late Saxon earthen burh rampart. Accurately dating this feature has proved difficult in the past, but the recent excavation, and planned scientific dating work on evidence recovered from the work, may provide an absolute date for the feature and help to establish whether or not this part of the Saxon burh was part of the original planned burh or an expansion in the 10th or early 11th century.

Medieval

- 1.3.11 The earlier rampart around Oxford was replaced by stone walls, c 2 m thick, with semi-circular bastions in the first half of the 13th century. The ditch on the outside was generally c 18m wide, sloping fairly steeply from the wall to a flat-bottomed section, c 7.6m wide and then rising more gradually.
- 1.3.12 It is possible that some bastions were built or rebuilt later in the 13th century, possibly when the outer line of the city wall was constructed. The late 13th century outer wall of Oxford did not extend around the whole fortified area, but only the north-east portion, from Smithgate, at the west end of Holywell Street, to the Eastgate on High

Street, which includes the Longwall Street section. Excavations, mainly at 21 Longwall Street in 1979–80 (Durham *et al.* 1983), have shown that the outer wall was only c 1m wide. It was constructed in the middle of the existing ditch, c 10m from the inner wall. The section of ditch between the two walls was infilled. If the position of the arrow-slots in the inner bastions was intended to fall above the level of the outer wall, this would suggest that the wall was c 5m high on the ditch side. Oxford is unique in having a double stone wall (*ibid.*), and this combination of the inner and outer walls with the town ditch in the north-east is of particular significance. The lack of previous investigations along the eastern side of the city means that existence of an outer wall along this stretch of the defences was unproven until an evaluation undertaken by OA in 2015 revealed the base of the wall in two of the three trenches (OA 2015). None of the outer wall survives above ground and the section of the inner wall within New College represents the best preserved stretch. The upstanding part of Oxford's town wall is a Scheduled Monument. The monument description for the section of the wall from New College Tower to a point c 3m south of southern boundary of New College grounds (c 368m in length), describes it as follows: "This section of wall is in an excellent state of preservation. It stands on average 30' (9.1m) in height and has six bastions all more or less complete, one of which was converted into a gateway in the 15th century. In this section on the northern side of the city there still exist the remains of an outer wall with a bastion about 5' (1.5m) in height parallel to the 3rd bastion on the inner wall. Bastions are at c 60m intervals, crenellated, with walkway and access stairs."

- 1.3.13 The site would have lain within the town ditch until it was partly filled in to allow construction of the outer town wall in the later 13th century. Successive kings since before the Norman conquest granted the fee farm of Oxford (comprising grant of lands and privileges) to the burgesses of the town in exchange for an annual fee. The city dates its ownership of ancient properties from a grant of fee farm by King John in 1199, which included the ground outside the town walls.
- 1.3.14 Within the town wall the land now occupied by New College had been divided into several plots by the 13th century, in mixed ownership, but with substantial areas held by Oseney Abbey and the hospital of St John (Salter 1960, 156–62). The area between the inner town wall and a putative intra-mural lane was held by the Trinitarian Friars. William of Wykeham acquired the land in 1379 for the foundation of New College. The land to the east of Longwall Street lay in Holywell Parish, in the ownership of Magdalen College. The wall of Magdalen College that dominates the entire length of Longwall Street on the east side was built in the 15th century.
- 1.3.15 The 2013–14 excavations within the 14th-century New College kitchen revealed extensive *in situ* beaten earth and plaster floors, interleaved with charcoal-rich occupation deposits and rubbish pits. The deposits have not yet been analysed in detail, but pre-college deposits were found containing 11th–13th century pottery.

Post-medieval

- 1.3.16 At the end of the medieval period the defences were neglected, and the city ditch was allowed to fill in for much of its length. Agas' map of 1587 shows New College extending to the inner city wall, and a line that appears to represent the city ditch as

an open watercourse outside the wall to the east (Fig. 2). No sign of the outer wall or ditch is shown on either the northern or eastern side of the city on this map, although the outer wall is shown on the north side of the city on the Holywell Terrier from 1660, and on Loggan's map of 1675.

- 1.3.17 During the Civil War the medieval defences were repaired, and sections of the ditch recut as part of the protection of a major strategic base. The importance of Oxford during the Civil War arose in large part from its association with Charles I. While he was in dispute with parliament the king used Oxford as his base, making it in effect a temporary capital. The Longwall Street excavations of 1979–80 found substantial depths of fill dating from the 17th century.
- 1.3.18 The land between Longwall Street and the inner city wall fell within the historic parish of St Peter-in-the-East. The city ditch (or a remnant of it) is marked as an open watercourse on Loggan's map of 1675, either directly adjacent to buildings on the Longwall Street frontage, or possibly underneath them in a culvert for some of its length. All of the houses and cottages built on the west side of Longwall Street in the 17th and 18th centuries were city properties, separated from the gardens of New College by the inner city wall. The outer defences in the north-east corner of the city remained relatively undeveloped during the 17th century, in comparison with the northern defences or the stretch near Eastgate.
- 1.3.19 In the 19th century this land was occupied by the printing office of Jackson's Oxford Journal. This had the address of the house next door to which it belonged (namely 60 Holywell Street until 1837, and then 100 Holywell Street under the new numbering system). The newspaper's founder, William Jackson, died in 1795, leaving the ownership of the paper to Miss Mary Jones, and on her death in 1816 it passed to its printers, Grosvenor & Hall. William Hall became sole proprietor of the newspaper in 1824. The printing office moved out in 1894, and in 1899 the Oxford Times Company bought the business from the Hall family.
- 1.3.20 Most of the Morris Building site was originally attached to 100 Holywell Street to the west, which had a frontage of 51 yards at the time of the 1771 Survey. It has only been regarded as part of Long Wall Street since 1914.
- 1.3.21 The rear of the site was occupied by livery stables in the 19th century. The coach proprietor Christopher Waddell ran these stables by 25 June 1834, when he and his wife Sarah had their son Christopher baptised at Holywell Church. The 1841 census shows that his family lived in the adjoining house at 100 Holywell Street. It is likely that in 1894 the livery stables also took over the premises vacated by Jackson's Oxford Journal.
- 1.3.22 William Morris took over the disused livery stables on this site in 1902, and in 1910 he built the Morris Garage, designed by Tollit and Lee. The central doorway led to a covered garage and workshop, and it was here in 1912 that William Morris built his first motor car. Later, as Lord Nuffield, he had an office on the first floor of this building, which was given the address of 21 Long Wall Street. In 1977 the whole building was threatened with demolition, but when in 1980 it was developed as student accommodation for New College (by John Fryman of the Oxford Architects Partnership), the frontage was retained.

Previous archaeological investigations

- 1.3.23 The site had previously been subject to small-scale excavations and watching brief in 1979–80, during the conversion of the former Morris Garage into student accommodation. Two trenches revealed the outer face of the outer city wall and an adjacent bastion together with 17th century infilling of the city ditch (Durham *et al.* 1983, 22–6).
- 1.3.24 In September 2016, Oxford Archaeology undertook the excavation of four geotechnical trial trenches at the Morris Building. Three additional test pits were also excavated at the request of the arborist for Oxford City Council. Trench 1 revealed the northern face of an E–W orientated stone wall, under the current brick wall and its foundation. This was orientated along the line of the southern boundary to the site and possibly represents the remains of the medieval outer defensive wall, or a rebuild or repair to that wall. Earlier N–S orientated stonework was observed below the modern brick wall and foundations forming the current western boundary in Trenches 2 and 5; no dating evidence was recovered but this wall appears on 19th century maps. An internal mortar floor in Trench 1 was overlain with modern demolition rubble and probably represents the floor to a 19th/20th century building associated with the Morris Garage, shown in this location on contemporary maps. A similar layer of rubble overlay an external cobbled courtyard surface in Trench 4, probably also associated with the Morris Garage.
- 1.3.25 The majority of the deposits encountered in the remaining trenches were associated with the 1980s redevelopment. The evidence suggests that the ground level to the rear of the Longwall Street frontage had been raised at this time, burying the demolished remains of the former buildings by between 0.50–0.65m to achieve the current levels (c 60.4m OD).

1.4 Potential

- 1.4.1 The results of the evaluation suggested that the surface layers associated with the 19th century occupation of the site were present at c 59.7m OD. Consequently, it seemed likely that the impacts of the new development and associated service trenching would disturb surface layers associated with the courtyard and internal surfaces of the Morris Garage. It also seemed possible that further evidence for the northern face of the outer city wall would be revealed during the ground reduction for the new concrete raft. This was seen at c 59.61m OD in Trench 1 of the evaluation, which more or less corresponds with the formation level for the new slab. However, it seemed unlikely that deposits associated with the city ditch would be encountered.

2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The general aims of the work were to:

- i. determine the character of any remains present;
- ii. ensure that deposits were removed (where appropriate and practicable) by proper controlled archaeological methods;
- iii. determine or estimate the date range of any remains from artefacts or otherwise;
- iv. determine the potential of the deposits for significant palaeo-ecological information.

2.1.2 The specific aims and objectives of the strip, map and sample were:

- v. to establish/confirm the position of the outer city wall;
- vi. to determine the presence or otherwise of the fills of the city ditch;
- vii. to determine the presence or otherwise of surviving archaeological evidence associated with the Morris Garage.

2.2 Methodology

2.2.1 The new building was to be constructed on a reinforced concrete raft foundation, slightly thickened where it corresponds with supporting ground beams. Archaeological excavation was limited to the formation level of this foundation, with an additional 50mm buffer (59.53m OD) to allow for potential compaction during construction. Within the area of the ground beams, archaeological excavation was 100mm deeper (59.43m OD).

2.2.2 The area indicated on Figure 1 was stripped by a mechanical excavator using a toothless bucket under archaeological supervision to the first significant archaeological horizon.

2.2.3 The latest exposed archaeological remains were cleaned by hand, planned and a photogrammetric survey was taken of the site. This formed the basis for a site-meeting with David Radford to determine suitable methodology for reduction to formation levels. Given the low significance of the exposed remains, further excavation proceeded by machine to the formation levels. These finished levels were then recorded as above.

2.2.4 In addition, a watching brief was maintained during the excavation of the new service connections associated with both the new building and the renovations to the Morris Building itself. No archaeological deposits were recorded.

2.2.5 Archaeological recording followed the methodology set out in the WSI.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results are presented below and include a stratigraphic description of each area that contained archaeological remains. Artefactual reports are presented in Appendix A and ecofacts in Appendix B.

3.2 Phase 1 (mid 18th to early 19th century)

3.2.1 The limited excavation that was undertaken of the earlier levels renders their interpretation difficult. However, several small sondages provided some information regarding earlier levels of the site (Figs 3 and 4).

3.2.2 A sondage against the existing southern wall (Fig. 4, Section 108) revealed that the existing brick-built garden wall overlay an earlier stone-built wall (167). The earlier wall was off-set but otherwise was on the same alignment, though it terminated to the east suggesting an entrance or return southwards at this point. It was constructed with large roughly squared limestone blocks and was at least 0.48m in width, bonded with pale yellowish sandy mortar. Six courses of well-faced stone facing were revealed that had a slight batter. The wall apparently cut a series of rubble dumps (191–4) that were overlaid by a possible garden soil (190) and in turn mortar rubble (189). However, the wall facing appeared to continue to below the base of the possible construction trench (unnumbered on Fig. 4, Section 108). The earliest deposit (194) produced sherds of pottery dated to 1760–80 and clay pipe stems of 19th century date. Mortar layer 188, possibly a floor, abutted the wall and was overlain by thick levelling deposit (187) which supported a second possible floor of mortar (186).

3.2.3 The removal of the concrete foundation for the garage workshop (see below) revealed earlier stratigraphy (Fig. 4 Section 107, construction cut 232). It cut similar dumps of mortar and rubble (177–9) and a subsequent garden-like soil (183). Pottery dated to c 1760–1820 was recovered from rubble 178 and 19th century clay pipe stems were retrieved from overlying rubble 179. On the south side, and contemporary with the wall, was a firm spread of lime mortar (146), possibly a floor surface. The wall had been partially robbed prior to the construction of Phase 2 wall 108/125.

3.2.4 A sondage excavated at the north-west corner of the site (Fig. 5, Section 103/109) revealed a 0.50m-thick sequence of levelling deposits of rubble, sand and sand (112, 103, 161–6). Though no dating evidence was recovered from these deposits, most are likely to predate the construction of the Morris Garage and are of similar nature to those described above, predating walls 167 and 169. This suggests a major episode of dumping occurred across the site, probably to level off the remnants of the underlying city ditch.

3.3 Phase 2 (early 19th century to c 1910)

Building 1 (livery stables?)

3.3.1 Building 1 was located at the south end of the site; its northern extent was revealed together with external divisions. It is likely that its western and southern extents were delineated by the stone precursors of the existing boundary walls of the site as the

building corresponds with the structure depicted on the First Edition Ordnance Survey map of 1878 (Fig. 2). It had been truncated by inspection pit 101 and wall 107, both of which formed part of the 1910 Morris Garage (Building 2). Its walls were constructed with red brick, the north external wall (141=142) of which measured 0.23m (9 in) in width, set upon an off-set foundation. The bricks were apparently randomly coursed. Up to seven courses survived, with the bricks laid on their edge and bonded by pale yellow-brown sandy mortar. Each brick measured 227 x 110 x 68mm (9 x 4 1/3 x 2 2/3 in). A damp course of slate was observed between the upper two surviving courses, confirming that this wall was external.

- 3.3.2 The building was sub-divided into at least two rooms by brick walls 148 to the west and an un-numbered brick wall to the east. Prior to the construction of its floors the footprint of the building was raised by c 0.20m with dumps of soil (Fig. 4, Section 100, cxts 154 and 155). The smaller west room was floored with large rectangular slabs of York Stone of various sizes (133), the largest of which measured 1.20m x 0.60m (c 4 x 2 ft). These were laid on a bed of yellowish-brown lime mortar (153). Within the south-east part of the room was a small slightly sunken area, perhaps a coal storage area, that had been floored with large polished stone cobbles that had been blackened. The cobbles were laid on the same bedding as the stone slabs. The cobbles were subdivided by a thin timber wall, of which remnants survived. Several of the floor slabs had been replaced at some stage with clinker brick flooring that were bonded together with cement. The east room had been floored with similar stone slabs (132) but had been more extensively repaired with brick flooring particularly towards the east where the brick repair overlay a small brick-built rectangular structure (168), possibly a fireplace that had been built against the south-east corner of the room. There appears to have been an entrance c 2.4m wide leading into this room from its north side, marked by two stone pillars (122 and 123) that were built into north wall of the building.

Exterior access route

- 3.3.3 Brick wall 108/124/125 ran parallel and 1.4m north of Building 1 and returned northwards as wall 119/127 for length of least 6.2m. It had been truncated by structures associated with the Morris Garage. Abutting the wall and Building 1 were the remnants of a cobbled surface (139) that probably formed part of a path or lane between the two structures that led northwards towards Holywell Street. This corresponds closely with an access way depicted on the Ordnance Survey map of 1878 (Fig. 2). It was formed with large stone cobbles with occasional re-used stone slabs, similar in nature to those used in Building 1. In the south-west corner were the remains of a soakaway (140) that had been built into the surface.

3.4 Phase 3 (1910 and later): the Morris Garage

Building 2 (The workshop)

- 3.4.1 Brick wall 107 ran obliquely across the site in a north-west to south-east direction and parallel with the existing building on the frontage of the site, before turning west near to its western extent as wall 130. It truncated the remains of Building 1 and the adjacent access lane. It corresponds with the north wall of the workshop that is

depicted on Tollit and Lee's sketch of the Morris Garage (1910). It was more substantial than the walls of the earlier building, measuring 0.45m in width, and was constructed on a 0.80m-wide foundation of concrete. A single course of brick survived, each brick measuring 230 x 120 x 72 (9 x 4 ¾ x ⅞ in) and had been constructed using header bond (bricks laid flat length ways). The concrete foundation was substantially deeper at its north-west end at the point where the wall turned westwards, suggesting that that it carried a greater load at this point, possibly a pillar.

- 3.4.2 Contained within the building was a rectangular brick-lined pit (101), likely to be an inspection pit associated with the garage. It measured 5.75m long internally and 1.40m wide, and survived to a depth of 1.04m. It was constructed with an outer lining of red brick that was faced internally with a thick lining of concrete. There was thin lining of bitumen between the brick and concrete, probably to provide waterproofing. The inspection pit corresponds to a structure depicted on Tollit and Lee's sketch and therefore dates to the construction of the garage in 1910.
- 3.4.3 Remnants of a concrete slab were recorded within the south-east part of the workshop and this is likely to have formed part of the floor of the workshop at some stage.

Building 3 (Ancillary building)

- 3.4.4 This was a small structure inserted against the north-west corner of Building 2, corresponding to a structure labelled as 'Foreman's Office' and 'WC' on Tollit and Lee's sketch. It was of similar construction to Building 2, with brick walls on a concrete foundation. Part of the building appears to have been sub-divided into four small spaces measuring c 0.65m in width, suggesting a toilet/washroom block and/or a storage area. A brick-lined manhole (115) located immediately outside the structure containing several ceramic pipes leading to the building would suggest its use as a toilet block/washroom.
- 3.4.5 The main garage area is depicted as a large covered open area on Tollit and Lee's plan, bounded by the main building to the north and the workshop (Building 2) to the south. It appears to have been floored with hard tarmac (Fig. 5, Section 109, 111) that was replaced on at least one occasion prior to the construction of a concrete slab. At some point the area was remodelled with the construction of N-S aligned brick wall 102 which cut through the earliest tarmac surface. Possibly at this time or later a large inspection pit (100) measuring internally at least 3.6m in length and 1.0m in width was inserted to the west of the wall. It was constructed with frogged bricks and unlike inspection pit 101 was not concrete lined, though it probably had a floor composed of the material (removed) which would have lay c 1.0m below the second tarmac surface. Its east wall face had recesses, probably for the insertion of lighting.

4 DISCUSSION

- 4.1.1 The site is positioned against the line of the 'outer town wall' to the south and the rear of the former Morris Building to the north. It would have occupied a location within the former medieval town ditch of Oxford (Fig. 2, Agas). Previous excavations within the eastern part of the site (Durham *et al.* 1993, 22–6) revealed that the ditch had been largely filled during the 17th century to a depth of at least 4.5m (c 56.5m aOD) below the pre-existing level of The Slype at New College. The present excavations were limited to a maximum depth of 58.90m aOD (Fig. 4, section 108) within a sondage at the south end and 59.28m aOD within a sondage towards the north-east corner (Fig. 5, Section 103/109).
- 4.1.2 The earliest deposits revealed were a succession of mortar and rubble dumps dating from the second half of the 18th century that were carefully laid and compacted. Levels pertaining to the 17th century filling of the ditch were not reached, and it is probable that the revealed dumps relate to its final levelling prior to the 19th century redevelopment of the site.
- 4.1.3 A small part of a well-built stone wall predating the existing brick wall that forms the southern boundary of the site was revealed (Fig. 3, wall 167). It corresponds with the line of the outer city wall that was revealed during the excavations of 1979–80, located about 9m further east along this boundary wall (Durham *et al.* 1993, fig. 4, Trench 1). As in the previous excavations this wall was off-set by about 0.6m from the north side of the existing wall. The earlier excavations suggest that the wall had been rebuilt during the post-medieval period though no further details are supplied in the published report except that it had been cut by the concrete foundations of the Morris Garage. The published section (*ibid.*) shows the base of this apparent rebuild at about 58.70m aOD, some 0.20m below the sondage excavated against the wall during the present excavations. As no rebuild was apparent within this sondage, it may be presumed that the wall exposed here (167) pertains to the same supposed rebuild. Its well-faced northern side is similar to the rebuild (*ibid.*, wall 11/3) as depicted in the published photograph (*ibid.*, plate 2), in contrast to the rugged face of the underlying wall, which is more akin to a foundation. It is likely that the rebuild, which apparently cut rubble deposits containing 19th century clay pipe stems (Fig. 4, Section 108), was in existence immediately prior to the construction of William Morris's garage in 1910 as the existing wall was constructed with brick supported by concrete foundations. An opening through the wall suggests access to land to the south which by the 19th century would have formed part of The Slype, New College.
- 4.1.4 The 1878 Ordnance Survey map (Fig. 2) depicts buildings abutting the north side of this boundary, together with a small building on the south side, corresponding with the position of the opening. Perhaps the smaller building represented a gatehouse for an entranceway leading from Holywell Street to the north. These structures are not depicted on earlier maps; the site is shown as a large empty plot on Loggan's map of 1675 and within the rear of a narrow plot with a small house on the Holywell Street frontage on Faden's map of 1789. The buildings depicted on the 1878 map correspond with the excavated brick-built Building 1 (Fig. 3), which on stratigraphic grounds was built during the 19th century. It may have replaced an earlier 19th century stone-built

structure (Fig. 3, wall 169), though too little of this was exposed for this to be ascertained. Building 1 was approached by a narrow passage leading from the street that is also depicted on the 1878 map. The cobbled path or lane (139) was flanked by a boundary wall (119/127) likely to have separated it from the plot to the east that formed the property of Jackson's Oxford Journal from 1816 (Oxford History online). It is likely that this was a separate plot that formed the livery stables, which by 1834 was ran by coach proprietor Christopher Waddell who lived with his family in the adjacent property on 100 Holywell Street (*ibid.*). The path, at least 2.2m wide, was sufficient in width to allow the passage of horses from the street. However, the 1878 map shows it was narrower at the street frontage at c 1.5m wide, though perhaps this was a later alteration as the result of the eastwards extension of the house on 100 Holywell Street.

- 4.1.5 There was little in the surviving remains of Building 1 to suggest its use as a stable block, though the use of large stone paving throughout that had been extensively repaired suggests heavy wear from intensive use rather from domestic activities. However, a possible fireplace, later filled in, could suggest a more domestic function, or perhaps accommodation for the horse groom. A horseshoe of post-medieval date recovered from levelling levels immediate predating Building 1 and a possible harness fitting recovered during initial cleaning of the site offer the only artefactual evidence for the presence of the stable block. A radius and a proximal humerus, both from large horses, were recovered from an early levelling layer and from a construction trench of the Morris Garage. Although these may have derived from one or more horses belonging to the stable, it is more likely that were deposited from elsewhere during levelling of the former city ditch. Within an urban environment such animals are more likely to have been sent to the knacker's yard at the end of their life.
- 4.1.6 William Morris acquired the former printing works and livery stables in 1902 as a workshop, initially re-using the existing buildings. He may have been responsible for the repairs to the stone floor within the former stable block, though it is unlikely that he made any substantial changes to the site prior to the construction of the Morris Garage eight years later when the earlier buildings were demolished. The new garage was designed by Tollit and Lee and their design sketch (Wooley 2010, fig. 22) gives some information regarding its layout within the area investigated. The site formed part of the garage to the rear of main building on the Longwall Street frontage. The garage included a workshop to its rear and ancillary buildings located along its west side together with two vehicle inspection pits. The excavations revealed a number of brick walls with concrete foundations associated with the workshop that been demolished in 1980 during the conversion of the main building into student accommodation. The north wall of the workshop (Building 2) and an inspection pit contained within it (101) were revealed. Both correspond to the architect's sketch as do the auxiliary building (Building 3) that according to the plan included a washroom and toilet block. The second inspection pit (100) and an internal dividing wall (102) are not depicted on the architect's sketch, suggesting either that they were later additions or there were last minute changes in the design of the garage.

APPENDIX A FINDS REPORTS

A.1 Pottery

By John Cotter

A.1.1 A total of 60 sherds of pottery weighing 1339g were recovered. All of this is post-medieval in date. An intermediate level catalogue of pottery types was constructed (in Excel), following standard procedure, for the whole assemblage and spot-dates produced for each context. The catalogue includes, per context and per pottery fabric, quantification by sherd count and weight only. Additional details, including vessel form, part, decoration, condition etc., were recorded in a comments field. Full details remain in the archive. As better parallels exist elsewhere, no material was illustrated. Fabric codes for used for this late material are those of the Museum of London (MOLA 2014). The range of pottery types is summarised in Table 1 below.

Table 1. Breakdown of pottery types in roughly chronological order

Fabric	Common Name	Date	No. Sherds	Weight (g)
FREC	Frechen stoneware (Germany)	1550-1750	1	3
TGW	English tin-glazed ware	1575-1840	4	23
PMR	Post-medieval red earthenwares	1580-1900	12	200
CHPO	Chinese porcelain	1600-1900	3	14
BRSL	Brill post-medieval slipware	1650-1800	3	57
LONS	London (salt-glazed) stoneware	1670-1850	1	55
ENGS	English stonewares (misc)	1670-1900	3	338
SWSG	Staffs white salt-glazed stoneware	1720-1780	12	121
REST	Red stoneware	1730-1800	1	2
ENPO	English porcelain	1745-1900	1	6
CREA DEV	Developed Creamware (Staffs/Yorks)	1760-1830	8	50
PEAR PNTD	Pearlware with painted decoration (Staffs etc)	1780-1840	1	3
PEAR TR	Pearlware with transfer-printed decoration	1780-1840	4	30
TPW	Transfer-printed wares (Staffs etc)	1780-1900	1	197
REFW	Refined whitewares	1805-1900	3	216
YELL	Yellow ware (Staffs/Midlands)	1820-1900	1	18
ENGS BRST	English stonewares (Bristol-type glaze)	1835-1900	1	6
Total			60	1339

A.1.2 The pottery is in a fairly fresh but fragmentary condition. Ordinary domestic pottery types are represented, all typical of the post-medieval types commonly found in Oxford. Its main value therefore is largely confined to the dating it provides for the site sequence (see stratigraphic narrative).

A.1.3 No medieval pottery is present, and the earliest item is a single rim sherd from a Frechen stoneware drinking jug of c 1550–1700, but this, and the single piece of 18th-century Chinese porcelain, is residual in the Phase 2 drain backfill. Apart from the Frechen sherd, it would appear that all the pottery recovered is 18th century or later. By this late date most pottery from Oxford excavations comprises regional imports from the predominant Staffordshire and Midlands potteries. There are also a few tin-glazed ware (TGW) vessels from the London or Bristol potteries. English stonewares are likewise from London, Bristol and the Midlands. The Staffordshire white salt-glazed stonewares from Phase 1 include large fresh sherds from at least three cylindrical tankards of commonplace form, two of which probably date to c 1720–50. The later Staffordshire-type fabrics (Creamwares, Pearlwares and transfer-printed whitewares) mostly occur as dishes and a few tankards or mugs. Only the post-medieval red earthenwares (PMR, BRSL) are of fairly local origin, probably from the kilns at Brill (Buckinghamshire). The latter comprise a few bowls and flowerpots. A breakdown of pottery occurrence by phase is presented below.

Table 2. Pottery by Phase

Phase	Sherds	Weight (g)	Phase Description
1	44	539	Pre stable block: Mid 18C - Early 19C
2	6	222	Stable block: Early 19C - 1910
3	0	0	Garage: 1910+ (No pottery)
Unphased	10	578	Unphased or unstratified
Total	60	1339	

A.2 Clay tobacco pipes

By John Cotter

A.2.1 Twenty pieces of clay pipe weighing 95g were recovered from seven contexts (including unstratified). These have been catalogued in Excel. The catalogue records, per context, the spot-date, the quantity of stem, bowl and mouth fragments, the overall fragment count, weight, and comments on condition and any makers' marks or decoration present. The minimum number of bowls per context was also recorded. Full catalogue details remain in archive. Most of the pipe bowls can be paralleled with the local Oxford typology based on pipes from St Ebbe's church (Oswald 1984), although this has been updated where necessary. Other bowls are identified in the catalogue by codes based on Atkinson and Oswald's (1969) London pipes typology with bowl types assigned to an abbreviated code (e.g. AO22).

A.2.2 The pipes are in a fairly fragmentary and variable condition although two complete (early) bowls are present and several fresh pieces of stem up to 85mm long. The 17th-century pieces are mostly quite abraded, whereas the 19th-century material is fresh. In total there are four pieces of pipe bowl (from the same number of pipes), no mouthpieces, and 16 pieces of stem. None bears a maker's mark although one decorated stem can probably be attributed to a 19th-century local maker. Only eight

pieces (18g) are from phased contexts (Phase 1) including a spurred bowl base of London type AO28 datable to c 1820–60 (context 194). No stratified context contained more than four pieces. Three of the four pipe bowls are 17th-century and the fourth 19th-century. The earlier bowls are mostly quite abraded and are residual in much later contexts, or unstratified, but they do nevertheless suggest some activity on the site by the 17th century. The earliest bowl is of Oxford Type A (c 1630–55). There are two of Oxford Type B (c 1650–90) and the single AO28 bowl of c 1820–60.

- A.2.3 Stem fragments also span the 17th to the 19th century. Two of the 19th-century stems are decorated and of some interest. One exhibits a zone (now broken) of spiral-fluted or barley-sugar decoration (possibly a product of the Broseley, Shropshire, manufactories; ctx 212); the other (unstratified) is the longest stem in the assemblage (85mm) and has moulded decoration down its whole length comprising highly stylized swags down the sides, and faint oakleaf or acorn ‘seams’ along the top and bottom; this is identical to a decorated pipe by the Oxford maker George Norwood who was active 1852–63 (Oswald 1984, fig. 55.26.D).

A.3 Ceramic building material

By John Cotter

Introduction and methodology

- A.3.1 The excavation produced a total of 76 pieces of ceramic building material (CBM) weighing 7.450kg, from six contexts. Most of this (51 pieces) is from a single 19th-century ceramic water closet. Apart from a single medieval piece, the rest is post-medieval and mainly from the 18th and 19th centuries.
- A.3.2 The CBM was catalogued at an ‘intermediate’ level of detail (in Excel). By this system broad functional categories are recorded by fragment count and weight per context (ie. roof tile, ridge tile etc.). Some pieces have an individual record whereas groups of very similar material (e.g. brick fragments) were recorded together. Each record has a comments field with a brief description of the colour, character and condition of the material and any measurable dimensions (for more complete pieces). An approximate spot-date was assigned to the latest material in each context. This flexible approach gives a reasonably detailed snapshot of the composition of the assemblage. Full details remain in the site archive.
- A.3.3 The assemblage produced 14 pieces of flat roof tile, 11 pieces of brick and 51 pieces from a ceramic water closet. The latter item is from a Phase 2 drain backfill associated with the 19th-century stable block. Everything else came from Phase 1 layers (mid 18th to early 19th century). Most of the material is quite fragmentary and no complete items were recovered. While many pieces are quite fresh (mainly roof tile), the general character of the assemblage can probably be summed-up as post-medieval ‘rubble’. None has been illustrated. Medieval and some post-medieval CBM types from Oxford have been described in some detail in previous reports (Cotter 2006; 2008).

Summary of functional types

- A.3.4 *Flat roof tile (14 pieces, weight 824g)*. Usually the commonest type of CBM from Oxford sites. Also known as peg tile. These are of typical rectangular shape and fairly crude manufacture with a pair of circular nail holes at the upper end. Several fairly large fresh pieces are present, some with circular nail holes, but none complete or with measurable widths. The majority are in a hard, fairly smooth, orange-red post-medieval type fabric, in some cases with a thin grey core. Some pieces might be early post-medieval (17th century?) but most are probably from the 18th and early(?) 19th centuries. A single small piece of green-glazed medieval roof tile (or ridge tile?) occurred as a residual element (context 189). This is the only medieval ceramic item from the excavation.
- A.3.5 *Brick (11 pieces, weight 1944g)*. Mostly brick rubble from a minimum of seven bricks; none complete, but a few with measurable widths surviving on the larger fresher pieces (none frogged). Mostly in soft red or red-brown fabrics and probably date from the 18th and early(?) 19th centuries. Three fragments from two bricks occur in a pale cream (low iron) fabric with a pale grey core and are possibly from an Oxford Clay or Gault Clay source a few miles to the west or north-west of Oxford. A late 18th- or 19th-century date seems likely for the latter type.
- A.3.6 *Ceramic water closet (51 pieces, weight 4682g)*. All from one water closet (WC) in a hard yellow pottery-type fabric closely related to Yellow ware (Fabric code YELL, c 1820–1900+). From a Staffordshire or Midlands source. These were presumably cheaper than the refined whiteware water closets found in many Victorian homes and perhaps more appropriate for a stable block. The inside of the rim has a band or border of white slip decoration and the U-bend is set in cement. Most ceramic water closets date after c 1840/1850.

A.4 Mortar and render

By John Cotter

Introduction

- A.4.1 Ten pieces of mortar and render weighing 202g were recovered. These came from five contexts. Given the small size of the assemblage a separate catalogue has not been constructed and instead the material is briefly described and approximately spot-dated below. All the pieces are apparently of late post-medieval or modern date. No further work is recommended, and the material can be discarded if so desired.

Context (189) Spot-date: Late post-medieval?

- A.4.2 Description: 3 pieces (89g). 1 larger and 2 smaller pieces of flat tabular white-cream render with an external coating of white plaster. The largest piece with a maximum length of 80mm and fairly uniform thickness of 15mm. The backing render has a soft and fairly lumpy/chalky texture. The outer surface of white plaster is dead flat and c 1.5mm thick, probably brushed or painted on. Preserves one dead-straight squared

edge probably from the impression of a wooden lath. The underside is also flattish from being applied against a brick wall or a wooden plank.

Context (193) Spot-date: Late post-medieval?

- A.4.3 Description: 1 piece (6g). Lump of soft cream mortar/plaster with a flattish possible edge. Possibly roughly flattish/tabular. Approximately 16mm thick x 23mm long.

Context (194) Spot-date: Late post-medieval?

- A.4.4 Description: 4 pieces (77g). Very similar to those in context (189). Probably joining pieces of flat tabular white-cream render with an external coating of flat white plaster. The largest piece with a maximum length of 63mm and fairly uniform thickness of 13mm. The underside also flattish but with a moulded seam and pinkish staining from attachment to bricks.

Context (207) Spot-date: Late post-medieval?

- A.4.5 Description: 1 piece (12g). A roughly oval flake of flat tabular white-cream render. Maximum length 56mm. Smoother crackled/crazed ?external surface with gentle curvature/undulations, possibly hand-smoothed?

Unstratified

- A.4.6 Description: 1 piece (18g). Shapeless lump of light brown to grey mortar containing small pebbles, grits and shell.

A.5 Glass

By Ian Scott

- A.5.1 There are 16 pieces of window glass and 13 pieces of vessel glass from the site (Table 3). The majority of the glass came from contexts assigned to Phase 1. Four bottles or parts of bottles came from Phase 2 context 208. Unstratified glass consists of six pieces of vessel glass and two pieces of window glass.

Phase 1

- A.5.2 Most of the window glass was recovered from Phase 1 context 206 (burnt dump). The only piece of vessel glass was small body sherd in pale olive-green glass possibly from a bottle or flask, and not closely datable. The 11 sherds of window glass were probably all post-medieval, dating from the later 16th to 18th century. Most of the sherds were light green in colour, though there were two light blue-green sherds. The sherds differed in thickness and some had iridescent weathering. Post-medieval glass is difficult to date closely. A further three sherds of colourless window glass were recovered from levelling layer 189. Again, the window glass is not closely datable but broadly post-medieval in date.
- A.5.3 Other vessel glass from Phase 1 contexts included the base of a cylindrical phial or pharmaceutical bottle, probably of 18th-century date, from rubble 178, and a small olive-green body sherd from demolition deposit 194. The latter sherd is not closely datable.

Table 3. Summary quantification of glass by phase, context and glass type (sherd count)

Phase	Context	vessel	window	Totals
	178	1		1
	189		3	3
Phase 1	194	1		1
	206	1	11	12
	Totals	3	14	17
Phase 2	208	4		4
unphased	u/s	6	2	8
	Totals	13	16	29

Phase 2

A.5.4 The only glass from Phase 2 comprises four bottles recovered from context 208, the backfill of services. These include the base of a wine or beer bottle in very dark green glass, and a complete wine bottle in very dark olive-green glass. Both bottles were moulded in three-piece moulds and date to middle years of the 19th century. The other two bottles were the complete body of soda bottle embossed "MORRELL'S | TRUSTEES | LION BREWERY | OXFORD" and manufactured by the Riley Manufacturing Co., London, and a complete Codd bottle embossed "NORTH | & CO LTD | OXFORD". Both these bottles date to the very late 19th or early 20th century.

Unstratified glass

A.5.5 The unstratified glass comprised sherds from late 19th-century or early 20th-century bottles and two pieces of window glass, probably post-medieval in date.

A.6 Stone

By Ruth Shaffrey

A.6.1 A single slate pencil or stylus measuring 47mm in length x 2mm diameter was unstratified but probably of modern date as it appears to be machine made. Two other pieces of stone are blackened from exposure to fire (178, 194, 17g).

Pencil/stylus. Slate. Weighs 2g. Very slim cylindrical pencil with one flat end and one rounded/slightly pointed. Is unusually thin for a pencil. Measures 47mm long x 2mm diameter. Unstratified.

A.7 Metal and worked bone

By Leigh Allen

A.7.1 A small assemblage of metalwork was recovered from the site. The assemblage comprises 26 iron objects, 10 copper alloy objects and three lead objects. The condition of the metalwork, particularly the iron, is poor and the assemblage has

undergone x-radiography to aid identification. There are a very limited number of identifiable objects and most of these were recovered from cleaning layer 211.

- A.7.2 The only identifiable objects recovered from Phase 1 (mid 18th–early 19th century) are eight nails from contexts 178, 200 and 209, and a simple square buckle frame with a wrap-around pin, suitable for securing a belt or harness straps, also from context 209.
- A.7.3 The only identifiable objects from Phase 2 (early 19th century–1910) and Phase 3 (1910+) are two nails from contexts 195 and 207.
- A.7.4 Cleaning layer 211 produced the largest number of identifiable objects. They include a small discoidal button with an integral attachment loop, a hinge plate, a U-shaped staple, metalworking files, a horseshoe and a knife. The two metalworking files (one complete the other broken) are both of the same form with a tapering body, D-shaped section and a short tang. Angled single-cut grooves are visible on the x-ray on one flat face of the complete example. These files could be associated with the use of the site as a garage and been used for filing or deburring various components. The horseshoe is large and has nail holes set in a groove or fullering running around the edge of the shoes; this groove is a post-medieval innovation (Clarke 1995, 82). The bone-handled knife is an example of a post-medieval table knife. It has a very damaged blade but there is a bolster or thickening at the shoulder, a hafting innovation introduced in the 17th century. The simple bone handle is sub-rectangular in shape, plain but highly polished.

APPENDIX B ENVIRONMENTAL REPORTS

B.1 Animal bone

By Rebecca Nicholson

- B.1.1 A small assemblage of animal bone was recovered by hand during the excavation and has been recorded in a Microsoft Access database, with identifications supported by OA's reference collection, standard identification guides and the use of diagnostic zones (Serjeantson 1996, 194–253). Unstratified bone was quickly scanned for unusual specimens but is not included in the data record. The basic identifications are given in Table 4, by Number of Identified Specimens (NISP). The assemblage was mainly recovered from layers associated with the Phase 1, pre-19th century dumping and the most significant finds from this phase was the partial remains of a very small, adult dog in dump deposit 210. The only bones recovered from other phases were a fragment of an immature pig humerus from Phase 2 drain backfill context 207 and a largely complete horse radius from Phase 3 construction cut context 195. Surprisingly, perhaps, given the nature of these contexts there was no clear evidence of gnawing and most bones were in fair or good condition, suggesting fairly rapid burial.
- B.1.2 The dog remains from dump deposit 210 comprised a left and a right humerus, several vertebrae and ribs, all in good condition. All epiphyses were fused, suggesting that the animal was at least about 15 months of age at death (Silver 1963, 250–74). Measurements taken on the left humerus, which was the only complete limb bone, indicate an animal which stood about 30.8cm at the shoulder, based on the method developed by Koudelka (bone measurements: GL 97.6mm, SD 7.6mm, BP 17.9mm, Bd 22.2m, following von den Driesch 1976). Although most dog breeds have a very recent origin, this indicates a dog of the size range currently exhibited by a modern miniature poodle (Baxter 2010, 1–9), cavalier King Charles spaniel or West Highland terrier (Small Dogs Breed online). Despite the unceremonious burial, the animal may have been a pet.
- B.1.3 Measurements taken on the horse radius from Phase 3 indicate a very large animal, about 1.67m at the withers (bone measurements GL 406mm, SD 46.3, Bp 94.5mm, Bd 93.3mm, Bfd 75.3mm, following von den Driesch 1976). Phase 1 levelling layer 200 also included a fragment of horse bone: a proximal humerus again from a very large individual. It is tempting to see these animals as former residents of the stable block, but the remains may equally simply represent waste from a knacker's yard.
- B.1.4 Rubble dump 178 contained a suite of bones more typical of general urban waste including a complete sheep or goat metacarpal, a sheep/goat tibia and a fragment of cattle radius shaft in addition to less diagnostic fragments. Similarly, a sheep/goat humerus from demolition layer 191 and various large and medium mammal vertebral and rib fragments from levelling layer 200 and occupation deposit 193 are likely to derive from portions of meat sold by the butcher.
- B.1.5 Three bones had clear evidence of butchery: the cattle radius from 178 had been chopped through obliquely, with another chop marks along the shaft indicating the effort taken to cleave the bone to provide a portion of lower value shank suitable for

domestic cooking. A sheep/goat tibia from the same pit fill also exhibits cuts and chop marks to the bone shaft from dismembering and filleting the meat. A large rib (cattle or horse) had been sawn through and this bone has the only possible evidence of pathology: a circular depression at the head of the rib, with slightly polished edges, may be indicative of a space occupying lesion of uncertain aetiology, although a taphonomic origin cannot be entirely ruled out.

Table 4. Bone identifications (NISP) by phase

Taxon	Phase 1	Phase 2	Phase 3	Total
Cattle	1			1
Sheep/goat	3			3
Pig		1		1
Horse	1		1	2
Dog	17*			17*
Large mammal	10			10
Medium mammal	3			3
Total Identified	35	1	1	37

*articulated. Count is minimum number of identifiable bones.

B.2 Marine shell

By Rebecca Nicholson

- B.2.1 Four oyster valves (*Ostrea edulis* L.) were recovered by hand from rubble 179 and possible occupation surface 193, both from Phase 1.
- B.2.2 All of the valves are in fair or good condition; the single shell from 179 is complete and two from 193 are almost complete. None have any evidence of encrustations or infestations. Where possible shells have been measured, with estimates provided where the margin has been damaged (Table 5). All the valves are of moderate size and of triangular or round shape. One example from context 193 has an elongated hinge while the others have small and slightly angled hinges. V-shaped notches to the shell margin opposite the hinge indicate that two of the oysters were opened while still alive.
- B.2.3 By the 19th century oysters were dredged in huge quantities from beds located along the coasts and estuaries of southern and eastern England, particularly in Sussex, and were widely marketed as a cheap food, transported inland either as fresh shellfish or pickled.

Table 5. Oyster shells

Context	Shell weight	No. of left oyster valves	No. of right oyster valves	Measurements	Comments
179	18g		1	Max width=61mm Max length = 56mm	Slight orange stain externally and internally
193	47g	3		Max width = c. 75mm Max length = 70mm	Opening notch

				Max width = c. 64mm Max length = c. 56mm	Opening notch
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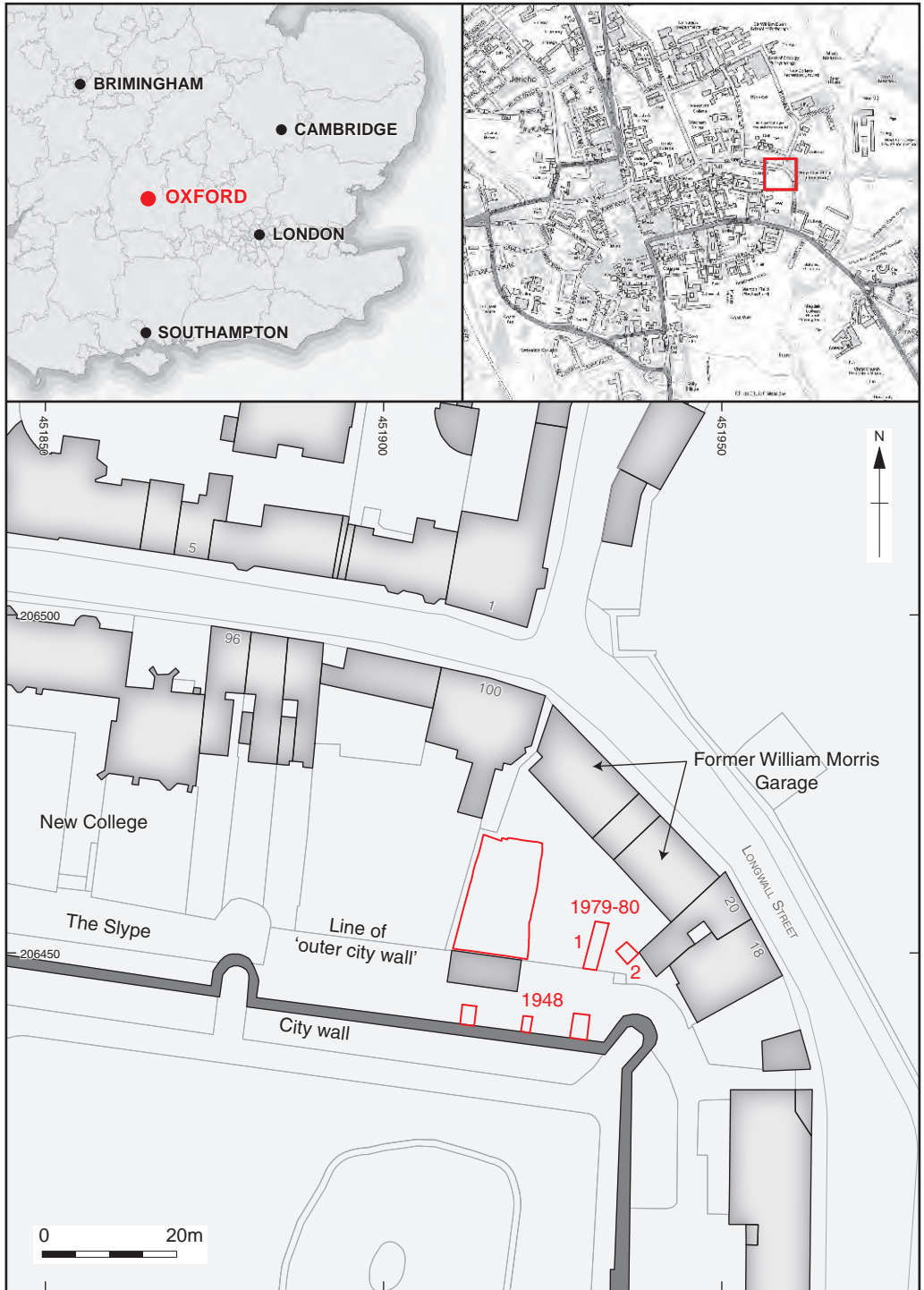
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APPENDIX D**SITE SUMMARY DETAILS**

Site name:	Morris Building, New College, Oxford
Site code:	OXMO 17
Grid Reference	NGR SP 5192 0645
Type:	Archaeological Excavation Report
Date and duration:	September–November 2017
Area of Site	170m ²
Location of archive:	The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Oxfordshire County Museums Service in due course, under the following accession number: OXCMS:2016.136
Summary of Results:	Oxford Archaeology undertook an archaeological strip, map and sample excavation ahead of development at the Morris Building, Longwall Street, Oxford (NGR SP 5192 0645) between August and November 2017. Although excavations were restricted to late post-medieval levels, part of a 19th-century brick-built livery stable block was revealed, along with a pathway leading to it from Longwall Street. Two earlier stone walls were also revealed, one of which was on the line of the ‘outer city wall’ of Oxford. Both walls cut dumps of makeup deposits dated to the mid–late 18th century that were probably associated with the final levelling of the city ditch. Cutting the remains of the stable block were the brick and concrete foundations of the original Morris Garage, built in 1910. Part of its rear workshop containing a vehicle inspection pit was revealed together with a small ancillary block, possibly a washroom/toilet, and a second inspection pit within the main garage area.



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Figure 1: Site location

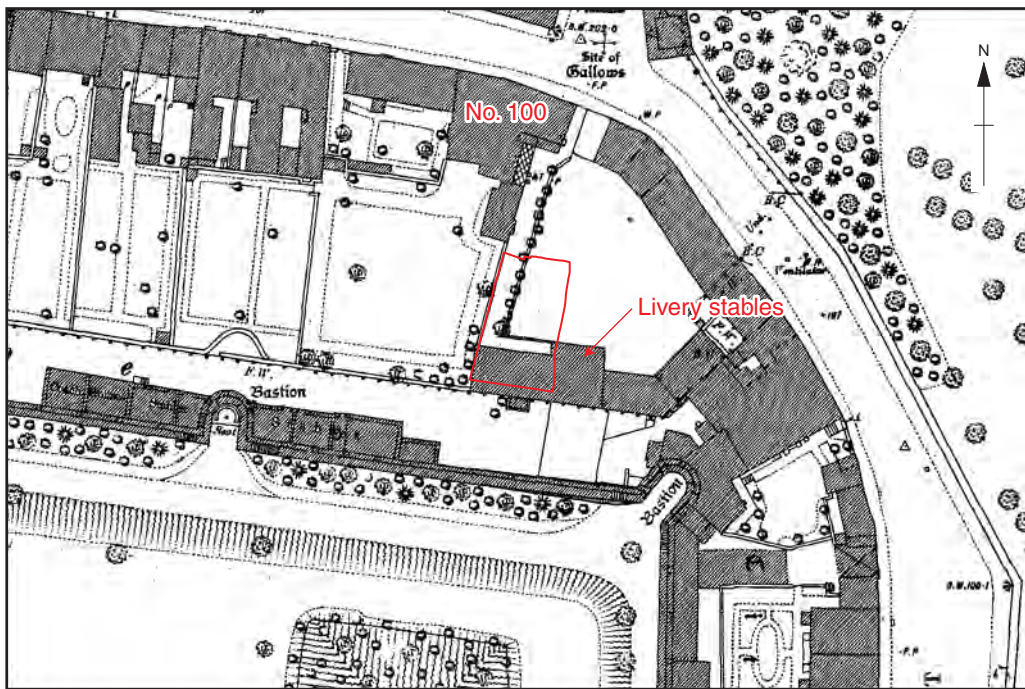


Figure 2: Top: Agas (1578) (north to bottom); bottom: First Edition OS (1878)

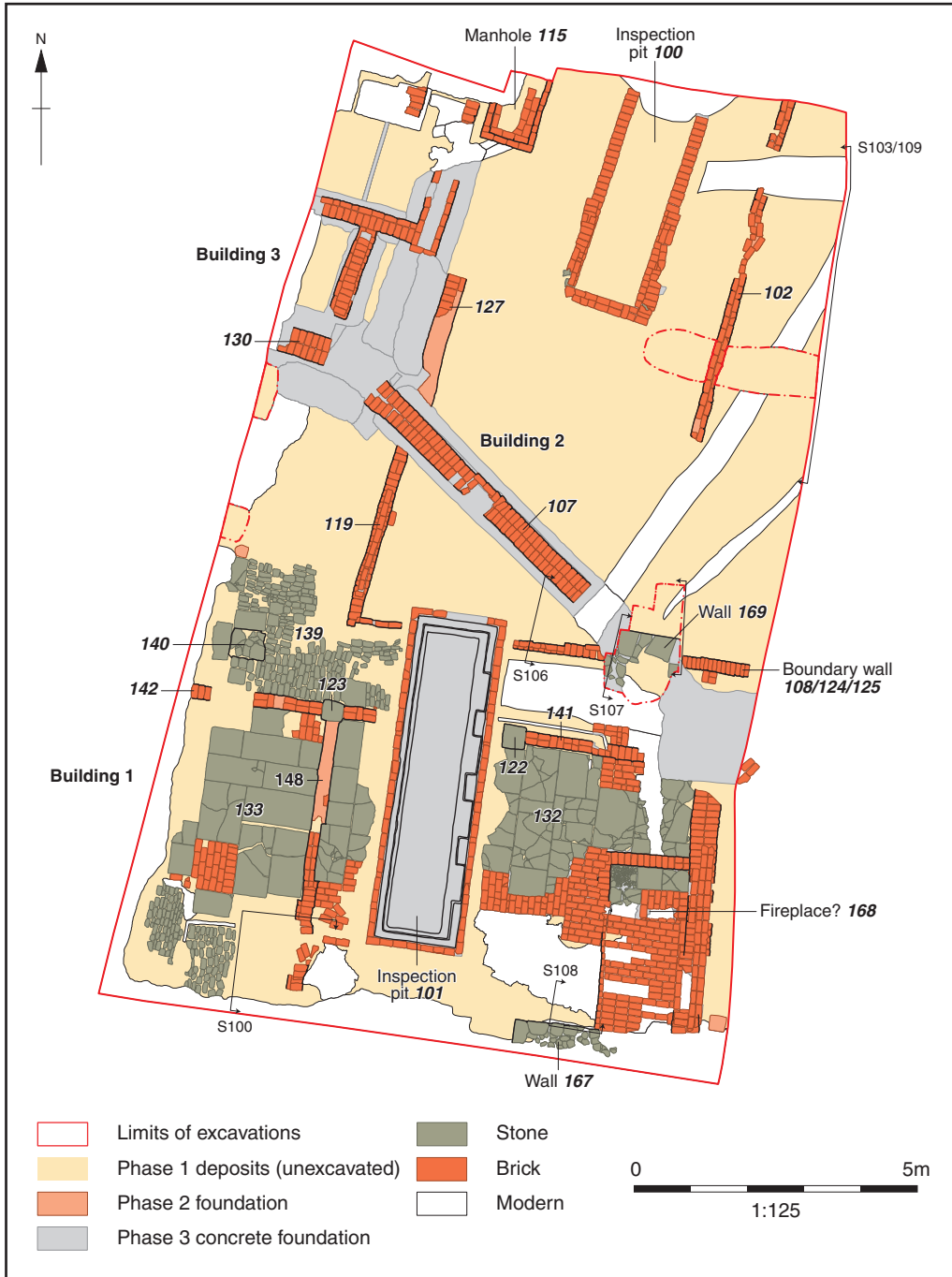


Figure 3: Site plan

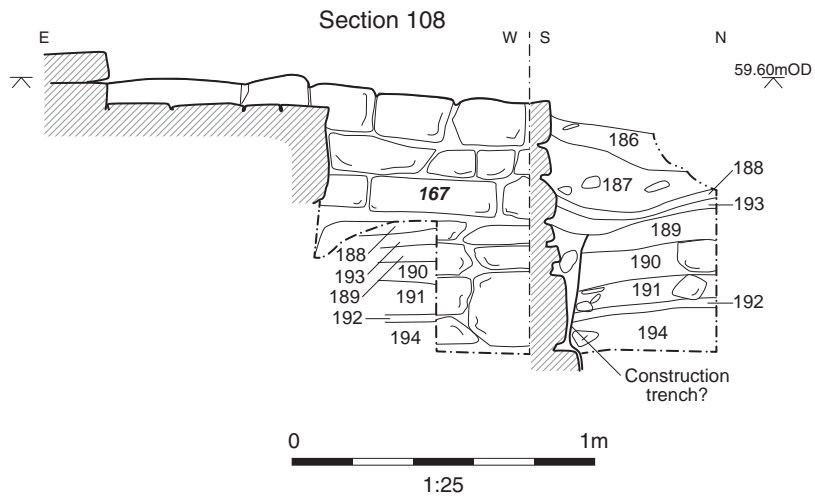
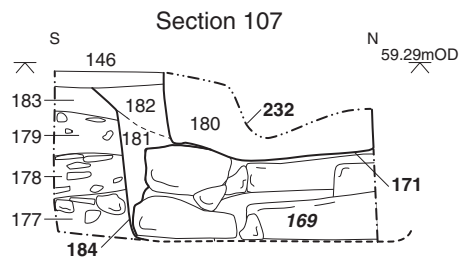
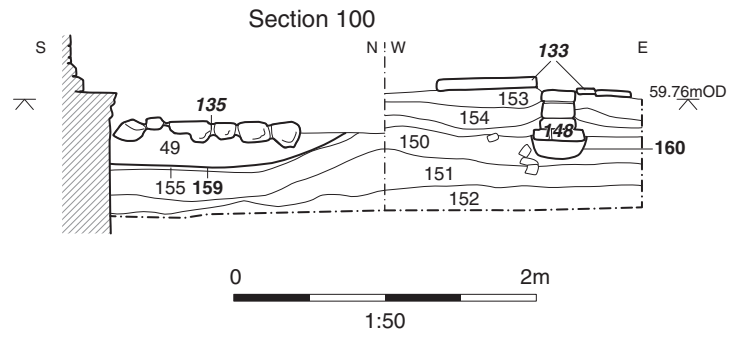


Figure 4: Sections 100, 107 and 108

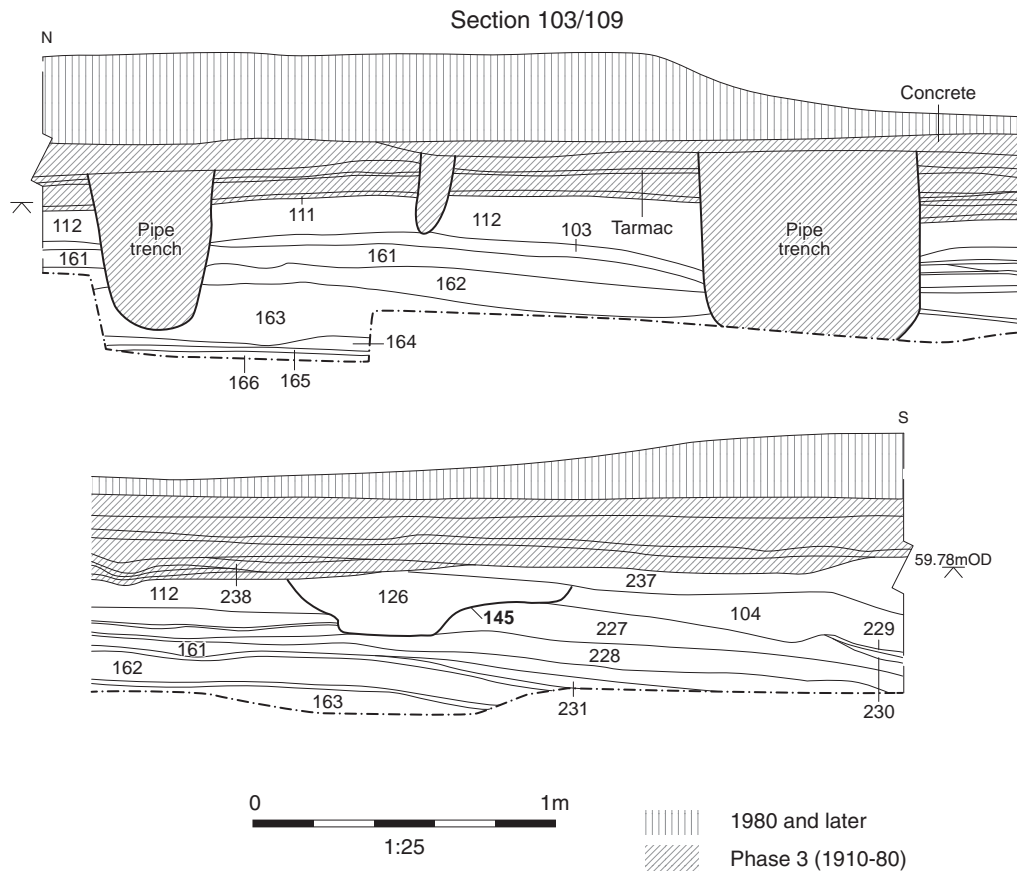


Figure 5: Selected sections



Figure 6: General view of site, looking SW



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