

Park End Street and  
St Thomas' Street  
Oxford



**Post Excavation Assessment and  
Updated Project Design**



**Oxford Archaeology**

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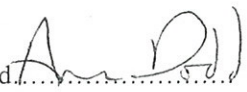


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**Nos 67-69 St Thomas' Street and  
40-41 Park End Street, Oxford**  
NGR SP 5080 0618

**POST-EXCAVATION ASSESSMENT AND UPDATED PROJECT DESIGN**

**Oxford Archaeology**

**November 2005**

## CONTENTS

1	Summary .....	1
2	Project background .....	2
2.1	Location and scope of work .....	2
2.2	Geology and topography .....	2
2.3	Archaeological and historical background .....	2
3	Quantification of the archive .....	4
3.1	Stratigraphic records: summary table .....	4
3.2	Artefactual and ecofactual material: summary table .....	4
4	Statigraphic summary .....	5
4.1	General .....	5
4.2	Area A .....	5
4.3	Area B .....	7
4.4	Watching Brief .....	8
5	Artefact summary .....	10
5.1	Introduction .....	10
5.2	General .....	10
5.3	Artefacts .....	10
6	Environmental summary .....	12
6.1	Introduction .....	12
6.2	Ecofacts .....	12
7	Statement of potential .....	13
7.1	General .....	13
7.2	Stratigraphic .....	13
7.3	Artefactual .....	13
7.4	Environmental .....	14
8	Research Aims .....	15
8.1	General aims .....	15
8.2	Period specific aims .....	15
8.3	Revised aims .....	16
9	Methodology .....	18
9.1	Stratigraphic .....	18
9.2	Artefactual .....	18
9.3	Ecofactual .....	18
10	Publication .....	20
10.2	Publication synopsis .....	20
10.3	The archive .....	21
11	Project personnel .....	22
12	Task list .....	23
13	Project Gantt chart .....	24
14	Bibliography .....	25
15	Appendices .....	27
Appendix 1	Pottery .....	27
Appendix 2	Clay pipe .....	31
Appendix 3	Worked animal bone .....	33
Appendix 4	Stone .....	34
Appendix 5	Slag .....	35
Appendix 6	Flint .....	36
Appendix 7	Metalwork .....	37
Appendix 8	Environmental data .....	46
Appendix 9	Animal bone .....	49

Appendix 10 Shell ..... 51

**LIST OF FIGURES**

- Fig. 1 Site location
- Fig. 2 Principal archaeological features (all phases)
- Fig. 3 Phase 1 (1200-1485)
- Fig. 4 Phase 2 (1485-1600)
- Fig. 5 Phase 3 (1600-1800)
- Fig. 6 Phase 4 (1800 onwards)
- Fig. 7 Agas' map of Oxford 1595
- Fig. 8 Loggan's map of Oxford 1675

## 1 SUMMARY

*Between August and November 2003 Oxford Archaeology (OA) carried out an excavation on land between 67-69 St Thomas' Street and 40-41 Park End Street, Oxford (NGR SP 5080 0618) in advance of construction of new retail and residential properties. The excavations revealed a sequence of medieval levelling deposits and remains of a 15th-century property with an associated water channel. Remains of post-medieval buildings with associated hearths and floor layers were also identified. The position of Small Bridge Stream, an historic watercourse, was identified located running across the centre of the site along with associated revetment walls. The stream was infilled in the 19th century and a brick culvert constructed.*



## 2 PROJECT BACKGROUND

### 2.1 Location and scope of work

2.1.1 The development area (hereafter the Site) comprises an askoid-shaped block of *c* 0.3 ha (Fig. 1) lying on the west side of Oxford City, *c* 700 m from its centre at Carfax, on the south side of Park End Street (NGR SP 5080 0618). It is bounded to the north by Nos 40-41 Park End Street and to the south by Nos 67-69 St Thomas' Street (Fig. 2) and lies within the medieval limits of St Thomas' parish.

2.1.2 In February 2003, Oxford Archaeology (OA) carried out a field evaluation in advance of development of offices and retail units to the north of the Site and a residential development to the south. These investigations exposed the remains of medieval and post-medieval structures, channels and gardens (OA 2003a). The City Archaeological Officer, Brian Durham, determined that a full excavation of the southern part of the Site should take place with an archaeological watching brief carried out on localised areas of impact. A Written Scheme of Investigation (OA 2003b) prepared by OA outlined proposals to mitigate the effect of the development on the surviving archaeological remains.

### 2.2 Geology and topography

2.2.1 The Site lies on a minor river channel at *c* 57 m OD, with a major watercourse, the Castle Mill Stream, *c* 80 m to the east from the centre of the Site (Fig. 2). It is situated on the first gravel terrace on the floodplain of the Thames and the underlying geology is Oxford Clay (Geological Survey of Great Britain, Sheet 236). The Site lies on land formerly occupied by a warehouse and house on Park End Street, with the yard behind and two adjacent yards on St Thomas' Street. These were slightly lower than the properties on Park End Street, which sloped gently down to the west.

### 2.3 Archaeological and historical background

#### ***Introduction***

2.3.1 The Site has been the subject of a separate desk-based assessment (OA 2002), the results of which are summarised here.

#### ***Prehistoric and Roman***

2.3.2 There is limited evidence for prehistoric and Roman activity in the immediate area of the Site. The Site lies on a gravel terrace and there is some potential for survival of settlement evidence from the prehistoric period. There is evidence for Bronze Age activity within 30 m of the Site but the area became waterlogged when the water table rose during the Early Iron Age. Little evidence has been found for Roman activity on the west side of Oxford.

**Saxon**

- 2.3.3 The Saxon town of Oxford lay *c* 300 m to the east of the Site, on the opposite side of the river channel. Various excavations in the vicinity of the Site have produced no evidence of Saxon activity.

**Medieval**

- 2.3.4 The medieval town developed mainly within the area of the Saxon defences, with the castle sited to the west. The Site lies in St Thomas' parish, where Osney Abbey was founded in the 12th century. According to historic records, building began in the southern part of the Site during this period.
- 2.3.5 Two watercourses crossed the Site. The Wareham Stream runs from the NW to the SE sector of the Site (Fig. 2). The stream was partially reclaimed and narrowed in the medieval period, forming the Wareham Bank, the area between the Castle Mill Stream and the Wareham Stream. The Small Bridge Stream also crossed the Site (Figs 7 and 8), but was filled in around 1800.

**Post medieval**

- 2.3.6 Historic maps of the area show successive building phases during the post-medieval period, during which time the town gradually expanded to cover the whole of the area of the Site. One 18th century stone building has survived on St Thomas' Street.
- 2.3.7 In the 20th century the Park End Street frontage was used as a petrol garage.

**Previous work**

- 2.3.8 The evaluation carried out by OA in 2003 followed an archaeological evaluation in 1999 by Thames Valley Archaeological Service (TVAS) on the site of Morrell's Lion Brewery site (TVAS 1999). This investigation exposed medieval remains from the 11th century onwards, overlain by post-medieval deposits.
- 2.3.9 Several archaeological investigations were carried out close to the Site during redevelopment in St Thomas' Street (Hardy 1996; Cook 1999), Hollybush Row (Roberts 1996) and the Hamel (Palmer 1980). Evidence of medieval and post-medieval structures was discovered.

### 3 QUANTIFICATION OF THE ARCHIVE

#### 3.1 Stratigraphic records: summary table

RECORD TYPE	QUANTIFICATION (EXCAVATION)	QUANTIFICATION (EVALUATION)
Context records	854	131
Matrices A1	4	0
Matrices A4	7	0
Plans A1	9	0
Plans A4	131	12
Sections A4	62	13
Level sheets	37	4
Small find/stone registers	10	1
Bulk finds lists	17	4
Digital photo registers	5	0
Digital data	61	0
Black and white films	23	5
Colour films	23	5
Site diary	9	10

#### 3.2 Artefactual and ecofactual material: summary table

MATERIAL	QUANTITY
Pottery	2005
Ceramic building material (CBM)	370
Glass	92
Clay pipe	240
Worked animal bone	2
Stone	52
Slag	31
Shell	190
Flint	6
Mortar	13
Copper alloy	90
Lead	7
Iron	237
Animal bone	4969



## 4 STATIGRAPHIC SUMMARY

### 4.1 General

4.1.1 The archaeological remains consisted of a series of building foundations, associated surfaces and internal features, dating from the medieval period to the present day. External yard surfaces and water channel features were also identified (Fig. 2). Much of the archaeology was poorly defined due to truncation by later buildings. The dating of the ceramic assemblage has been combined with the stratigraphic matrix and, despite the complexity of the archaeology, there was little cross-contamination of dating evidence. The results of the work were limited by the depth of excavation, which stopped at the impact level of the new development, *c* 1.60 m below ground level.

4.1.2 In general the features encountered could not be accurately phased on stratigraphic evidence alone, but were generally well dated by associated finds.

4.1.3 The main excavation area, located in the southern part of the Site, was divided by the infilled Small Bridge Stream into Area A to the east and Area B to the west (Fig. 2). The archaeology was less dense in the northern part of the Site and this was, therefore, subject to a series of watching briefs:

- Area 2 covered the northern part of the Site, directly to the south of Park End Street.
- Area 4 lay to the east of the Wareham Stream, behind Clement Burrows House.
- Area 5 was directly to the north of the western excavation Area B.

4.1.4 Other watching brief areas (Areas 1 and 3) were incorporated in the main excavation.

4.1.5 Four broad phases were identified, based on spot dates from the pottery assemblage and the stratigraphic record:

- Phase 1: Medieval (1200-1485)
- Phase 2: Early post-medieval (1485-1600)
- Phase 3: Late post-medieval (1600-1800)
- Phase 4: Modern (1800 onwards)

### 4.2 Area A

#### ***Phase 1 (1200-1485)*** (Fig. 3)

4.2.1 The earliest deposits observed in the eastern part of Site were layers of organic material. They may have represented reclamation of boggy land for the construction of a property or properties. A structure comprising a NW-SE aligned limestone wall (3022) and a sequence of gravel and flagstone floors was exposed. Pottery dated between the 13th and 15th centuries was recovered from the surfaces. The wall appeared to be aligned with the Wareham Stream. A 15th century flagstone-floored hearth (3112) and partition wall (3021) were observed within the structure. They may



have been associated with the structure or the road on St Thomas' Street. The surfaces had been truncated by a N-S aligned ditch of a similar date.

- 4.2.2 To the west of the structure a narrow channel (3225), constructed of limestone blocks and measuring approximately 1.0 m wide and 0.7 m deep, was exposed. A vertical recess in the wall may have accommodated a sluice gate. Vertical limestone slabs at the base of the channel may also have been designed to affect the water flow. Pottery recovered from the fills of the channel was dated from the 13th to the 15th century. The structure may have serviced the property to the east, and channelled water from the Wareham Stream to the Small Bridge Stream.
- 4.2.3 To the south of the channel a large re-cut ditch (not shown in plan) was observed, cut through 13th to 15th century levelling deposits.

#### **Phase 2 (1485-1600)** (Fig. 4)

- 4.2.4 By the 16th century, structure 3022 had been demolished and a levelling deposit was laid down over the area. An E-W aligned structure (3018) was constructed over the levelling deposits. The walls were constructed from limestone blocks and measured 0.9 m in width. The structure was aligned with St Thomas' Street and was divided into two rooms. A probable partition wall had been removed by a robber trench (3042). The eastern room had a gravel floor with a limestone-floored hearth (3004) at the NE corner. A series of hearths were revealed in the eastern side of the room. The earliest (3216) was dated to the late 15th century. The western room contained a sheep knuckle floor (3030) to the east and a pitched stone floor (3031) to the west. It is likely that the knuckle floor formed an entranceway into the building. It is feasible that the building was the single structure depicted to the west of the stream on Agas' map of 1595 (Fig. 7). The sluice channel running into the Small Bridge Stream may have been used during this time.

#### **Phase 3 (1600-1800)** (Fig. 5)

- 4.2.5 The Small Bridge Stream was observed at the western extent of Area A. Its banks had been truncated by the construction trenches for two limestone walls (3011 and 3012). The structures probably acted as revetment walls for the stream. An H-shaped structure (3016) had been constructed over the eastern wall (3011). Pottery dating to the 17th century was recovered from the foundation cut of the structure. It may have formed a fireplace separating two rooms of a building. There was a crude mortar surface to the north of the structure and remnants of a disturbed pig knuckle floor, but no evidence for any walls had survived. This feature and the earlier structure to the east appeared to represent the two western properties within a row of four, shown on Loggan's map of 1675 (Fig. 8).

#### **Phase 4 (1800 onwards)** (Fig. 6)

- 4.2.6 A stone culvert (3010) dating to the 19th century was exposed within the revetting walls. The culvert may have been built as a result of the infilling of the Small Bridge

Stream in 1800. The buildings within the rest of the area were demolished and the area was used for yards.

### 4.3 Area B

#### ***Phase 1 (1200-1485)***

- 4.3.1 A sequence of dumped soils, dating from the 13th to the 15th centuries, indicated that the area was being prepared for development during this period. No evidence for structures of this date was recovered.

#### ***Phase 2 (1485-1600)*** (Fig. 4)

- 4.3.2 To the south of the area an E-W aligned limestone wall (1236) was seen that may have been associated with wall 1353 to the west. The walls may have formed an E-W aligned structure fronting St Thomas' Street. A N-S aligned wall (1256) may have formed the eastern wall of a property or divided a larger structure into two rooms. No evidence of floor surfaces was seen to the north of wall 1236, but a floor constructed from stone roof slabs (1365) was seen to the north of wall 1353. Several postholes were also seen and a limestone-floored hearth (1340) was located in the north of the stone floor. Pottery dating to the late 15th to 16th centuries was recovered from the walls. A ragstone yard surface and an associated pit (1299) were located to the north of the property. The pit was *c* 4.0 m in diameter and filled with cess-like deposits.
- 4.3.3 To the west of the structure was a second building dating from the late 15th or 16th century. It was aligned N-S and consisted of a northern room (1360-1362) and truncated southern room (1576). The northern room was *c* 5 m wide and contained a number of hearths. To the west of the room limestone hearths (1504 and 1467) were set at the NW and SW corners. Earlier hearth pits were revealed below 1504 and 1467.
- 4.3.4 The southern room may have represented an entranceway or front yard, and contained a roughly laid roof tile surface (1576) superseded by a limestone surface, and its subsequent repairs.
- 4.3.5 Both structures may be represented by buildings on Agas' map of 1595 (Fig. 7).

#### ***Phase 3 (1600-1800)*** (Fig. 5)

- 4.3.6 There was little evidence for building work in this part of the Site during the 17th and 18th centuries. The eastern building appeared to go out of use with demolition spreads observed in the back yard, dated to the 17th and 18th centuries. A well (1321) was cut through these deposits. It is possible that walls 1180 and 1181 and a sunken room (1415) formed the northern room of a N-S aligned structure, but there was no dating evidence.
- 4.3.7 A hearth (1527) was recorded in the northern room of the western building; it contained pottery dated to the 17th or 18th centuries. Robber trenches had removed



parts of the walls of the northern room and the building may have been rebuilt during this time.

- 4.3.8 Loggan's map of 1675 (Fig. 8) shows two N-S aligned structures on the Site and it may be that the earlier buildings were either rebuilt or extended to form these properties.

#### ***Phase 4 (1800 onwards)*** (Fig. 6)

- 4.3.9 By the 19th century the structures had gone out of use and the sunken room (1415) had been infilled. The eastern building was replaced by a N-S aligned building with limestone walls (1102 and 1103). To the east of the building was a brick walled garden and associated well (1230).
- 4.3.10 To the west there was evidence of a brick walled structure (1243) with brick and tile floors and an associated well (1391).

#### **4.4 Watching Brief**

##### ***Area 2***

- 4.4.1 To the north of the site a NW-SE aligned limestone channel wall (1182) was identified (Fig. 5). No dating material was recovered but it appeared to be the same structure as the post-medieval channel identified during the evaluation. Associated walls were revealed and a later brick culvert (1216) was exposed to the east (Fig. 6). The structure may have lined one of the sides of the channel visible on Loggan's map of 1675 (Fig. 8).

##### ***Area 4***

- 4.4.2 A number of cobbled yards and pathways were identified to the east of the Wareham Stream (Fig. 5). Wall 1515 in the north of the area may have divided a property fronting the Wareham Stream from a property on Fisher Row. A rectangular limestone structure (1529), which measured 3 m by 2 m and was over 1 m deep, may have formed a cess pit within the yard of a property between Fisher Row and the Wareham Stream (Fig. 6). Associated walls, cobbled paths, yard surfaces and a stone drain were recorded. No dating material was recovered.

##### ***Area 5*** (Fig. 5)

- 4.4.3 To the rear of the western properties an area of limestone wall footings was revealed. An associated garden soil produced 17th century clay pipe fragments and the structure may have been related to a wall and building shown on Loggan's 1675 map (Fig. 8).
- 4.4.4 On the eastern side of the Small Bridge Stream a revetting wall was revealed (1425) which was probably part of the 17th or 18th century river wall 3011. A limestone wall abutted the channel wall and may have formed the rear of a building. Clay tobacco pipes recovered from an associated garden soil were dated to the 17th

century. A cobbled path (1432), from which 19th-century pottery was recovered, overlay the soil.

## 5 ARTEFACT SUMMARY

### 5.1 Introduction

5.1.1 Summaries of the artefactual evidence by category are presented below. The full assessment reports can be found in Appendices 1-8.

### 5.2 General

5.2.1 There was an apparent redeposition of artefacts across the site, as would be expected within an archaeologically active urban context. The initial levelling deposits and later demolition deposits contained a background scatter of material from earlier activities. The integrity of the artefact assemblage, however, does not appear to have been compromised.

### 5.3 Artefacts

#### *Pottery*

5.3.1 The pottery assemblage comprised 1,765 sherds with a total weight of 37,737g. The estimated vessel equivalent (EVE), by summation of surviving rim sherd circumference was 9.51. All the pottery was medieval or later, with the range of fabrics indicating that there was little significant activity at the site before the beginning of the 13th century.

5.3.2 Generally, the assemblage is somewhat fragmentary, despite the presence of quantities of fairly large sherds, suggesting that the bulk of the pottery was a product of secondary deposition. The range of fabric and vessel types is typical of the city of Oxford, and, overall, is somewhat unremarkable, apart from evidence of a possible hiatus in activity in the 15<sup>th</sup> century.

#### *Ceramic building material (CBM)*

5.3.3 The assemblage comprised 370 fragments of medieval and post-medieval building material, recovered from 86 contexts. The medieval material was generally redeposited in later features such as robber trenches or make-up layers, although roof tiles were recovered from late medieval pits and a ditch. Of note were late medieval glazed ridge tiles, glazed floor tiles and stone peg tiles.

5.3.4 The majority of the material was recovered from contexts dated between the 15th and 17th centuries although material was also recovered from 18th and 19th century contexts. Amongst the later material were large unglazed floor tiles dated to between the 17th or 18th centuries, resembling those seen in properties in Reading (Norton forthcoming).

5.3.5 In general the assemblage formed a background scatter, comprised of redeposited material discarded within bulk deposits.



### ***Glass***

- 5.3.6 The glass assemblage comprised 92 fragments, recovered from 42 separate contexts. Most of the material was dated to between the 17th and 19th centuries and was either bottle or window glass, although a 19th century glass stem was also noted.
- 5.3.7 In general the assemblage formed a background spread, comprised of redeposited material discarded within bulk deposits.

### ***Clay pipe***

- 5.3.8 The excavation produced a total of 237 fragments of clay tobacco pipes, but only 29 complete bowl forms. The bowls were generally dated to the mid to late 17th century and did not differ greatly from the London styles (Oswald 1975). The bowls did not display any makers' marks or stamps, although a highly decorated 19th-century bowl was of interest.

### ***Worked animal bone***

- 5.3.9 A total of 2 worked bone objects and 1 worked antler object were recovered from the archaeological investigations. The objects included an antler handle for a whittle tang implement, a bone spoon and a perforated fragment of bone.

### ***Stone***

- 5.3.10 A total of 53 stone fragments were retained during the excavations. The majority were unworked. The worked stone included three roof stones, one weight, one probable spindle whorl, one piece of building stone and one indeterminate object.

### ***Slag***

- 5.3.11 A small assemblage (1051g) of slag was examined by eye and categorised on the basis of morphology. The assemblage was recovered from posthole fills and hearth fills and does not indicate metalworking took place on the site.

### ***Flint***

- 5.3.12 A single piece of unclassifiable waste and two pieces of burnt unworked flint (52g) were recovered.

### ***Metalwork***

- 5.3.13 A total of 341 metal objects were recovered from the excavation. The assemblage comprised 93 copper alloy objects (19 of which were coins or jettons), 242 iron objects (including 211 nails) and 6 lead objects. The copper alloy objects were in a reasonable condition but the ironwork was extremely corroded and fragmentary. The iron assemblage was x-rayed in order to aid identification but many objects had so little metal surviving that they could not be identified. The assemblage was dated to the medieval/post-medieval period.

## 6 ENVIRONMENTAL SUMMARY

### 6.1 Introduction

6.1.1 Summaries of the ecofactual evidence are included below. Full assessment reports can be found as Appendices 11-12

### 6.2 Ecofacts

#### *Animal bone*

6.2.1 A total of 4969 bones was recovered from the Site, of which 1567 fragments (31.5 %) were analysed for this assessment. Many fragments analysed exhibited fresh breaks, the re-fitting of which reduced the fragment count to 1310.

6.2.2 The assemblage was dominated by domestic animals, with only limited exploitation of wild resources. The majority of the sheep/goat and cattle bones were recovered from levelling layers 1135 and 1286. Analysis of the remaining bone will reveal age at death patterns, metrical data, and butchery techniques, all of which will contribute to an understanding of the use of animals at the Site.

#### *Plant remains and Wood charcoal*

6.2.3 Soil samples were taken during the excavation for the recovery of charred plant remains, of which thirteen were selected for the assessment. All of the samples date to the early post-medieval period (c 16th century), and came from a range of features, including a hearth and kiln. These features were situated in a small area in the corner of a possible domestic structure. Several different layers within the hearth were sampled separately.

#### *Shell*

6.2.4 A total of 190 fragments of shell weighing 2,588g were recovered from the archaeological investigations at Park End Street Oxford. The majority of the assemblage consists of fragments of oyster shell with a few fragments of mussel shell and a single terrestrial snail shell.

## 7 STATEMENT OF POTENTIAL

### 7.1 General

7.1.1 The stratigraphic and significant artefactual and environmental assemblages have high potential to illuminate the development of the area through the medieval and post-medieval periods. Identification of variations in activity and consumption patterns should be possible across the properties involved and comparisons made with other sites on St Thomas' Street and in the surrounding area.

### 7.2 Stratigraphic

7.2.1 A clear and complete record of the stratigraphic evidence has been recovered from the excavations, and offers good potential for further detailed analysis in order to refine the provisional understanding of dating and phasing.

7.2.2 Comparisons with evidence from nearby sites could give a greater understanding of the function and status of the properties.

### 7.3 Artefactual

#### *Medieval pottery*

7.3.1 Generally, the assemblage is large and reasonably well preserved, with a fairly high mean sherd weight for each ceramic phase. However, it seems that despite this, most of the material is the product of secondary deposition. Certainly, there are only a handful of vessels that survived to a full profile and little or no material that cannot be paralleled elsewhere in Oxford. Thus, only limited further work on the assemblage is recommended.

#### *Ceramic building material (CBM)*

7.3.2 The majority of the assemblage was recovered from redeposited material, and as such does not provide an accurate guide to the types of buildings within the area. The glazed floor and roof tiles were of note but they may be associated with other properties. The assemblage should be catalogued and used to assist in refining the overall interpretation of the Site.

#### *Glass*

7.3.3 The glass assemblage formed a general background spread of material and warrants little further work. The material should be catalogued and used to assist in refining the overall interpretation of the Site.

#### *Clay pipe*

7.3.4 No further work is necessary.



**Worked animal bone**

7.3.5 The objects should be fully analysed and illustrations made.

**Stone**

7.3.6 The stone will need to be fully recorded and comparison should be made with other sites regionally. The weight is of particular interest and further research should be undertaken to establish its function.

**Slag**

7.3.7 No further work is necessary.

**Flint**

7.3.8 No further work is necessary.

**Metalwork**

7.3.9 The assemblage, although large, is in poor condition. Many of the objects are fragmentary and highly corroded. As a result, there are relatively few identifiable diagnostic objects, particularly amongst the ironwork. The identifiable copper alloy objects were mostly personal items and of particular note were the composite strap ends and the hooked clasps. There were no high status items and very few domestic or structural objects (with the exception of nails). The majority of objects date to the post-medieval period with one or two items, particularly the strap ends, dating to the late medieval period. Limited further work is recommended.

**7.4 Environmental****Animal bone**

7.4.1 It is recommended that the remainder of the hand-collected bone is fully analysed and the sieved remains examined, which may reveal evidence of fish and bird exploitation. Further analysis may also reveal the importance of individual species, and provide an understanding of the use of animals at the Site.

**Charred Plant remains and Wood Charcoal**

7.4.2 The preservation of the charcoal and charred remains was good and so the material is suitable for further identification by specialists. However, the range of food remains, relating to diet, is quite limited and the significance of the remains is low. The charcoal is of greater interest as it offers the potential to explore domestic fuelwood supplies to Oxford in this period. As a minimum, the assessment results should be incorporated in the final publication.

**Shell**

7.4.3 No further work is necessary

## 8 RESEARCH AIMS

### 8.1 General aims

8.1.1 The general aim of the excavation was to investigate, characterise and record any archaeological evidence that would be destroyed during development. It was intended that the results of the investigation would be made available through full publication.

### 8.2 Period specific aims

#### *Medieval*

8.2.1 The Site had potential to provide important information about the development of medieval Oxford. In particular it was believed that it would provide evidence for activity outside the western limits of the Saxon town and the subsequent development of the medieval suburb. The aims were:

- To seek evidence of the land use in the area prior to the development of the medieval suburb of St Thomas' parish.
- To further understand the orientation and/or character of St. Thomas' Street before the development of the suburb.
- To investigate the medieval street frontage on St Thomas' Street.
- To seek evidence of the medieval land use in the area to the rear of the frontages onto St Thomas' Street and Fisher Row.
- To further understand the nature of any medieval watercourses.
- To establish dates of structures and associated activities.
- To recover ceramic evidence to help develop pottery chronology and typology.
- To identify local and non-local resources of pottery, for indications of exploitation of those resources.
- To recover artefactual evidence, to clarify the nature of industrial and other activities, or domestic occupation.
- To seek to recover evidence of the medieval economy of the site.
- To compare and contrast the evidence with contemporary activity found locally and regionally, particularly with previously excavated sites along St Thomas' Street and the more affluent properties on the southern side of the street.
- To seek to recover palaeoenvironmental data to provide evidence for the utilisation of resources, and to establish the pattern of local environmental conditions.

#### *Post-medieval*

8.2.2 The Site also had the potential to provide important information about the development of post-medieval Oxford. In particular it would provide evidence for activity within the western suburb of the post-medieval town. The aims were:

- To investigate the post-medieval street frontage on St Thomas' Street.
- To seek evidence of the post-medieval land use in the area to the rear of the frontages onto St Thomas' Street and Fisher Row.
- To further understand the nature of any post-medieval watercourses and specifically to investigate the culverting of the Small Bridge Stream and its relationship with the Wareham Stream.



- To establish the general character of post-medieval activity in the area and relate it to documentary and cartographic records.
- To establish dates of post-medieval structures and associated activities.
- To recover ceramic evidence to help develop pottery chronology and typology.
- To identify local and non-local resources of post-medieval pottery, for indications of exploitation of those resources.
- To seek to recover evidence of the post-medieval economy of the site.
- To recover other artefactual information for the period, to clarify the nature of industrial and other activities, or domestic occupation.
- To compare and contrast the evidence with contemporary activity found locally and regionally, particularly with previously excavated sites along St Thomas' St.
- To seek to recover palaeoenvironmental data to provide evidence for the utilisation of resources, and to establish the pattern of local environmental conditions.

### 8.3 Revised aims

8.3.1 In the light of the provisional results of the excavation, the original research aims are still valid. However, in some respects the questions to be considered can be more precisely defined.

- To establish whether the hiatus in the 15th-century, suggested by the pottery assemblage, is genuine or a result of the removal of the deposits by later activity.
- To investigate what effect the influence of Rewley Abbey had on the development of the northern part of St Thomas' Street.
- Further investigate the activities occurring within the properties, paying particular attention to the purpose of the hearths or ovens.
- Establish whether St Thomas' Street had a staggered street frontage by comparing cartographic and archaeological evidence.
- Further research into the documentary evidence of Oxford will allow the archaeological evidence to be set in a historical context, and, specifically, may also establish the date and function of the structures.
- To further understand the nature of any medieval watercourses specific to the reconstructed geomorphology of this part of St Thomas'.
- Was the section of the Wareham Stream to the rear of the properties on Lower Fisher Row originally the quarry pit for the Castle Mill bank.
- It is feasible that the Small Bridge Stream differs in location on Logan's map of 1675 from the stream shown on Agas' map of 1578. Originally the stream may have lay to the west of the properties revealed within Area A, and ran across Area B. The original stream may have been sub-divided into channels to distribute the flow of water. This may explain the fan shape pattern of the earlier property boundaries. Some of the walls revealed within Area B may represent this channel division.
- If the site was divided into channels, the building within Area A may have sat between two water courses. The stone sluice to the east may indicate that the property had a water-related function such as a fulling mill.
- Investigate whether the industrial activity occurring on St Thomas' Street was typical of that observed at other properties throughout Oxford?
- It is possible that the 19th-century Small Bridge Stream culvert was intended to adjoin the recently culverted section of the Wareham Stream to the north. The Wareham Stream would have been diverted and the land to the east could have been reclaimed. The land was not reclaimed so the scheme may have failed or

been aborted. Alternatively both sections of culvert may have lay either side of the Small Bridge Scheme and were never intended to link. The culverts may have been constructed so as to extend individual garden plots. The relationship between the two sections of culvert should be further investigated.

- Does the tight curving line of St Thomas' at this point conceal the remains of a bridge?
- A geomorphological cross-section of the site could be produced, potentially utilising geotechnical information and piling logs to provide data on the unexcavated deposits below the impact level of the development. This may help determine how the settlement developed. Did it develop from a dry flood plain with man made channels or did it occupy the site of natural watercourses associated with the Thames.
- The contrast between the development of Areas A and B could also be hi-lighted on this composite section. It may be possible to extend the section east across the Castle Mill Stream, as far as the 2nd gravel terrace at the Castle Mound, and west as far as the previously excavated sites at 68 St Thomas St and The Hamel. The section would provide valuable insight into the suburban growth of the western edge of Oxford, and provide a detailed setting for the excavation results.

## 9 METHODOLOGY

### 9.1 Stratigraphic

9.1.1 Matrices and digitised plans exist but the nature of the excavations is such that phasing will be largely be established through spatial analysis and detailed examination of finds assemblages. Descriptions of structures and groups of features will be generated and drawing briefs prepared.

### 9.2 Artefactual

9.2.1 For those categories for which no further analysis is recommended, the assessment report will be published, subject to any necessary editorial adjustments.

#### ***Pottery***

9.2.2 The assemblage will be fully recorded and reported.

#### ***Ceramic building material (CBM)***

9.2.3 The assemblage should be fully catalogued.

#### ***Glass***

9.2.4 The assemblage should be fully catalogued.

#### ***Worked animal bone***

9.2.5 The assemblage will be fully recorded and reported.

#### ***Stone***

9.2.6 The assemblage will be fully recorded and a report produced.

#### ***Metalwork***

9.2.7 The non-ferrous objects will be x-rayed to aid full identification and the objects should be recorded on an Access database. A catalogue will be compiled and a short report produced with reference to previous work that has been carried out at Park End Street and St Thomas Street.

### 9.3 Ecofactual

9.3.1 For those categories for which no further analysis is recommended, the assessment report will be published, subject to any necessary editorial adjustments.

#### ***Animal bone***

9.3.2 The assemblage will be fully analysed and recorded.

***Charred Plant remains and Wood charcoal***

9.3.3 The assessment results will be incorporated in the final publication.



## 10 PUBLICATION

10.1.1 It is proposed that a site report of approximately 20 pages will be published in *Oxoniensia* under the following title and format:

**Excavations at 67-69 St Thomas' Street and 40-41 Park End Street, Oxford by Andrew Norton**

## 10.2 Publication synopsis

	Word Count
<i>Summary</i>	500
Project background:	1500
The development	
Archaeological and historical background	
Evaluation phase	
Excavation methodology	
Watching brief methodology	
Archaeological description:	5000
Artefactual evidence:	3000
Pottery	
Other finds (CBM, clay tobacco pipes, worked stone, glass and metal objects)	
Ecofactual evidence:	3000
Animal bone report	
Charred plant remains	
Discussion	2000
The site development	
The site in its local and regional context	
Acknowledgements	
Bibliography	

**Provisional list of figures and plates**

## Figures:

- 1 Location of the site (national/regional/local)
- 2 Plan of all known excavations within the area, hi-lighting settlement growth and areas of marshland.
- 3 Reproduction of Agas 1595 detail with site superimposed
- 4 Reproduction of Loggan 1675 detail with site superimposed
- 5 Plan(s) of excavated features (inc. enlarged detailed areas)
- 6 A geomorphological cross-section of the site, hi-lighting the differences in development between Areas A and B.
- 7 Other objects (Clay Pipe, Glass, Metal)

Plates:

To be determined

### 10.3 **The archive**

- 10.3.1 Oxford Archaeology's archiving standards will be adhered to at all times with regard to project documentation and archivally suitable materials will be used (Walker 1990). All post-excavation documentation will be filed, ordered and indexed as part of the research archive. This will be submitted to the National Archaeological Record for microfiching. After completion of the project the archive will be deposited with Oxford County Museum Services.



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## 15 APPENDICES

**Appendix 1 Pottery***by Paul Blinkhorn*

The pottery assemblage comprised 1,765 sherds with a total weight of 37,737g. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 9.51. All the pottery was medieval or later, with the range of fabrics indicating that there was little significant activity at the site before the beginning of the 13<sup>th</sup> century.

Generally, the assemblage is somewhat fragmentary, despite there being large quantities of fairly large sherds, suggesting that the bulk of the pottery is a product of secondary deposition. The range of fabric and vessel types is typical of the city of Oxford, and, overall, is somewhat unremarkable, apart from a possible hiatus in activity in the 15<sup>th</sup> century.

**Analytical Methodology**

The pottery was initially bulk-sorted and recorded on a computer using DBase IV software. The material from each context was recorded by number and weight of sherds per fabric type, with featureless body sherds of the same fabric counted, weighed and recorded as one database entry. Feature sherds such as rims, bases and lugs were individually recorded, with individual codes used for the various types. Decorated sherds were similarly treated. In the case of the rimsherds, the form, diameter in mm and the percentage remaining of the original complete circumference was all recorded. This figure was summed for each fabric type to obtain the estimated vessel equivalent (EVE).

The terminology used is that defined by the Medieval Pottery Research Group's Guide to the Classification of Medieval Ceramic Forms (MPRG 1998) and to the minimum standards laid out in the Minimum Standards for the Processing, Recording, Analysis and Publication of post-roman Ceramics (MPRG2001). All the statistical analyses were carried out using a Dbase package written by the author, which interrogated the original or subsidiary databases, with some of the final calculations made with an electronic calculator. All statistical analyses were carried out to the minimum standards suggested by Orton (1998-9, 135-7).

**Fabric**

The pottery was recorded utilising the coding system and chronology of the Oxfordshire County type-series (Mellor 1984; 1994). The 'F' prefixed numerical codes are those used in the database, as follows:

- F200: OXAC: Cotswold-type ware, AD975-1350. 75 sherds, 944 g, EVE = 0.46.  
 F202: OXBF: North-East Wiltshire Ware, AD1050 – 1400. 60 sherds, 987 g, EVE = 0.54.  
 F300: OXY: Medieval Oxford ware, AD1075 – 1350. 89 sherds, 1,136 g, EVE = 0.76.  
 F330. OXBK: Medieval Shelly Coarseware, AD1100-1350. 1 sherd, 10 g, EVE = 0.  
 F355: OXBB: Minety ware. Early 12th - 15th century. 1 sherd, 10 g, EVE = 0.  
 F352: OXAM: Brill/Boarstall ware, AD1200 – 1600. 872 sherds, 15,551 g, EVE = 5.60.  
 F356: OXBG: Surrey Whiteware. Mid 13<sup>th</sup> – mid 15<sup>th</sup> C. 27 sherds, 511 g, EVE = 0.44.  
 F403: OXBN: Tudor Green Ware, 15<sup>th</sup> – mid 16<sup>th</sup> C. 53 sherds, 292 g, EVE = 0.84.  
 F404: OXCL: Cistercian ware, 1475-1700. 35 sherds, 396 g, EVE = 0.52.  
 F405: OXST: German Stoneware, late 15<sup>th</sup> C - 1700. 76 sherds, 1,533 g, EVE = 0.10.

- F410: OXAM: Brill 'Tudor Green' type, AD1475 – 1550. 28 sherds, 375 g, EVE = 0.25.  
 F425: OXDR: Red Earthenwares, 1550+. 176 sherds, 6,909 g.  
 F451: OXFH: Border wares, 1550 - 1700. 62 sherds, 1,859 g.  
 F417: OXCE: Tin-glazed Earthenware, 1613 – 1800. 11 sherds, 165 g.  
 F416. OXRESWL: Polychrome Slipware, 17<sup>th</sup>C. 7 sherds, 354 g.  
 F426: OXBEWSL: Staffordshire slip-trailed earthenwares, 1650-1800. 3 sherds, 16 g.  
 F414: OXFG: Staffordshire Manganese Glazed ware. late 17<sup>th</sup> - 18<sup>th</sup> century. 2 sherds, 10 g.  
 F443: OXFM: Staffordshire White-glazed English Stoneware, 1730 – 1800. 9 sherds, 75 g.  
 F438: OXEST: English Stoneware, 1680 +. 6 sherds, 115 g.  
 F1000: WHEW: Mass-produced white earthenwares, mid 19<sup>th</sup> - 20<sup>th</sup> C. 168 sherds, 6,365 g.

The range of fabrics is very typical of sites in Oxford and the surrounding region. They indicate that there has been continuous activity at the site from the medieval period to the present day. This is examined in more detail below.

### Chronology

All the pottery assemblages were given seriated ceramic phase dates based on the range of ware and vessel types present, with these dates then adjusted after reference to the stratigraphic matrix. The seriation scheme is shown in Table 1.1.

**Table 1.1: Ceramic Phase Chronology and Defining Wares**

Phase	Date	Defining Fabric
CP1	?11 <sup>th</sup> C	OXAC
CP2	L11 <sup>th</sup> -12 <sup>th</sup> C	OXY
CP3	13 <sup>th</sup> – 15 <sup>th</sup> C	OXAM, OXBG
CP4	15 <sup>th</sup> – late 15 <sup>th</sup> C	OXBN
CP5	L 15 <sup>th</sup> – M16 <sup>th</sup>	OXCL, OXAM, OXST
CP6	M16 <sup>th</sup> – 17 <sup>th</sup> C	OXDR, OXFH
CP7	17 <sup>th</sup> – L 17 <sup>th</sup> C	OXREWSL, OXCE
CP8	L 17 <sup>th</sup> C – 18 <sup>th</sup> C	OXFM, OXFG
CP9	19 <sup>th</sup> C	WHEW

The pottery occurrence per ceramic phase is shown in Table 1.2.

**Table 1.2: Ceramic phasing: pottery occurrence per phase by number and weight of sherds and EVE, all fabrics (including residual material)**

Phase	No Sherds	Wt. Sherds	EVE	Mean Sherd Wt.
CP1	0			
CP2	2	11	0	5.5 g
CP3	164	3329	1.45	20.3g
CP4	12	322	0.38	26.8g
CP5	847	13446	6.52	15.9g
CP6	78	3105	-	39.8g
CP7	192	3657	-	19.0g
CP8	124	2257	-	18.2g
CP9	346	11610	-	



The pottery occurrence per ceramic phase by fabric is shown in Table 1.3.

**Table 1.3: Pottery occurrence per ceramic phase by fabric type, expressed as a percentage of the weight (in g) per phase, major fabrics only**

	CP 3	CP 4	CP 5	CP 6	CP 7	CP8	CP9
F200	8.8%	0	4.0%	0	1.0%	0.6%	0.6%
F202	19.3%	1.2%	1.9%	0	0	1.4%	0.5%
F300	15.5%	7.5%	4.3%	0	0	0	0.1%
F352	56.4%	87.9%	77.2%	11.1%	32.9%	12.5%	10.2%
F403	-	3.4%	2.0%	0.1%	0.3%	0.1%	0
F404	-	-	1.7%	0	4.0%	0.5%	0.1%
F405	-	-	2.9%	3.1%	14.3%	7.0%	2.3%
F410	-	-	1.8%	0.4%	1.5%	0.4%	0.5%
F425	-	-	-	70.0%	32.8%	53.5%	19.7%
F451	-	-	-	15.1%	2.0%	21.0%	7.0%
F416	-	-	-	-	7.9%	0	0.5%
F417	-	-	-	-	1.9%	0.3%	0.7%
F443	-	-	-	-	-	1.6%	0.3%
F1000	-	-	-	-	-	-	54.8%
Total	3329	322	13446	3105	3657	2257	11610

Shaded cells = residual

The data in Tables 1.1 – 1.3 shows that there was little significant activity at the site before the 13<sup>th</sup> century. Only two sherds may date to before that time, and it is entirely possible that they are from later contexts that lack contemporary pottery. From CP3 onwards, pottery was deposited in fairly large quantities, apart from CP4, which yielded just 322g of material. This is somewhat unusual, and may relate to the use of the site at that time. At the same time, the largest group of pottery comes from the following phase, and so there may have been significant removal of 15<sup>th</sup> century strata at that time due to building activity, etc. Certainly, many of the pottery types in use from the 15<sup>th</sup> – early 16<sup>th</sup> centuries do not change significantly during that period, and without the presence of Cistercian ware or Brill 'Tudor Green' types, it would not be possible to say which of the two phases the bulk of the pottery dated from. This apparent hiatus will be examined in greater detail at the report stage.

There does seem to be rather high levels of redeposited material in the post-medieval phases (Table 1.3), again suggesting that there may well have been removal of medieval deposit during that time.

### Vessel Types

The range and occurrence of medieval vessel types in use at the site is shown in Table 1.4. Generally, the data are fairly typical of sites of the period in the city. The earlier medieval groups are almost exclusively jars, bowls and jugs, although a bodysherd of a curfew (fire-cover) was noted in a CP3 context. The much greater range of pottery from CP5 contexts is also typical of the period. Many of these vessels types first appear in CP4, but the small assemblage size means that none were noted. The CP5 assemblage appears purely domestic in nature, comprising a range of cooking and table-wares.

Table 1.4: Vessel occurrence per phase, expressed as a percentage of the EVE per medieval phase, including all sub-phases

	Phase 3	Phase 4	Phase 5	Total EVE
Jars	49.0%	21.1%	28.6%	2.91
Bowls	4.1%	0	3.6%	0.33
Jugs	46.9%	78.9%	35.3%	5.60
Skillet/Pipkin	0	0	10.8%	0.80
Lids	0	0	1.5%	0.11
Mugs/Cups	0	0	8.1%	0.60
Other*	Curfew, DDx1, bottle base	-	DD x3, cistern bunghole x2	-
Phase Total	1.45	0.38	7.42	9.35

\*DD = Dripping Dish. These vessels are asymmetrical and cannot be recorded by EVE. Other vessels are bodysherds of vessels other than jars, bowls and jugs.

### Cross-fits

The following cross-fits were noted:

1385 = 1392, OXAM, large pipkin, both CP5.

1296 = 1303, OXBN, jug, both CP5.

The number of cross-fits is rather small considering the size of the assemblage, and this despite the fact that selected groups of pottery were examined at this stage. This suggests that much if the pottery at the site comprises only the partial remnants of much of the material deposited at the site, and that much of the material was removed in the past.

### Assessment

Generally, the assemblage is large and reasonably well preserved, with a fairly high mean sherd weight for each ceramic phase (see Table 1.2). However, it seems that despite this, most of the material is the product of secondary deposition. Certainly, there are only a handful of vessels that survived to a full profile, and little or no material that cannot be paralleled elsewhere in Oxford. Thus, only limited further work is required on the assemblage:

Preparation of a report summarising each phase group: 1 day.  
Selection of sherds for illustration, preparation of catalogue, editing etc. 1 day.



## Appendix 2 Clay pipe

by Andrew Norton

### Introduction

The excavation produced a total of 237 fragments of clay tobacco pipes. Although there was a general background spread of material, across the site, the larger assemblages were found in dumped make-up deposits or gardens soils.

### Methodology

All fragments were examined for evidence of markings, decoration and name stamps. Unmarked bowls have been dated by reference to Oswald's general typology (Oswald 1975). No attempt has been made to consider the bowl shape in terms of regional variations. Plain stems have been counted. Sufficient dating information has been obtained from bowl shape typology so no attempt has been made to assess their dates on stem bore analysis. Other diagnostic pipe fragments have been briefly described and recorded where relevant.

### Results

The results of the assessment are tabulated below by context.

Of the total 237 fragments of clay tobacco pipes 206 were stem fragments. The majority of the 31 bowl fragments were whole or partially whole, all but two could be dated. The majority of bowls were spurred, of which most were comparable to London types 17G or 18G. These were dated from 1640-1670 or 1660-1680. A number of the bowls appeared to be transitional types. The heeled bowls were broadly similar in date. The majority of the pipes were dated to the 17th century although 4 bowls were dated to the early 18th century and one to the 19th century. The 19th-century bowl was of note and was comparable a London type 24G. It was spurred and was highly decorated with a grape motif. It was dated between 1810 and 1840 and was recovered from silt within a 19th-century culvert. None of the bowls displayed makers' marks or stamps and no decorated stems were present.

Although the date ranges given are for London types it can be assumed that examples from Oxford will have been made at a similar time.

**Table 2.1: Incidence of clay pipe stems and diagnostic fragments by context**

Context	Stem count	Bowl/Bowl fragment count	Date	Comments
1111	3		?	
1117	3		?	
1119	1		?	
1121	1		?	
1128	21	2	?	fragmented
1129	12	2	1660-80	type 6 rouletted rim
1129		4	1640-70	type 17
1129		4	1690-1710	very bulbous type 19?
1135	1		?	
1178	5		?	
1185	4		?	
1207	1		?	

Context	Stem count	Bowl/Bowl fragment count	Date	Comments
1238	13	2	1660-80	very bulbous type 18?
1238		1	1640-70	type 17 rouletted, very bulbous
1242	22	1	1660-80	type 18
1259	2		?	
1273	3		?	
1283	9		?	
1284	1		?	
1285	3		?	
1286	1		?	
1291	4		?	
1297		1	1700-40	type 10
1300	4		?	
1303	1		?	
1333	2	1	1700-40	type 10
1336	10	1	1640-70	type 17
1343	2		?	
1363	1		?	
1375	4		?	
1379	1		?	
1389	7		?	
1413	1		?	
1414	1		?	
1416	3		?	
1431	3	2	1640-70	type 17
1434	3	1	1640-70	type 17
1451	8	1	1660-80	type 18
1492	2		?	
1620	18	1	1730-80	type 12
1620		3	1820-40	type 14
1644	1	1	1660-80	type 18
1645	1		?	
1647		1	1700-40	type 10
3030	6		?	
3032	2		?	
3039	5		?	
3076	1		?	
3079	1	1	1810-40	type 24 highly decorated grapes
3131	1		?	
3145	2		?	
3147	3	1	1660-80	type 6 rouletted rim
3202	1		?	
3279	1		?	

### Further work

The clay pipes were recovered from well-dated contexts and coupled with the absence of makers' marks and stamps would not add to the overall interpretation of the site. Further research into the 19th-century bowl decorated with grapes may establish whether it was locally produced, although the overall understanding of the site would not increase. No further work is deemed necessary.



### **Appendix 3    Worked animal bone**

*by Leigh Allen*

A total of 2 worked bone objects and one worked antler object were recovered from the archaeological investigations. The worked antler object recovered from context 507 is a handle for a whittle tang implement. The handle is plain with a circular cross section and tapers along its length; the surface is polished through wear. This simple form of handle is common in the late medieval and post medieval periods.

The bone objects comprise a spoon and a perforated fragment. The spoon (SF 32) recovered from context 1269 has an elegant elongated oval shaped bowl and a rectangular sectioned handle that is incomplete. The forms of spoons proliferate in the late medieval and post medieval period, many types are developed for specialised functions; this spoon could have been used for cosmetic or domestic purposes.

The second bone object (SF 47) from context 1353 is a curved spatulate shaped fragment rounded at one end and with a circular perforation through it. It is probably a handle of some sort.

All the objects require further analysis and should be illustrated in the final report.

**Appendix 4 Stone***by Ruth Shaffrey***Summary and Quantification**

A total of 53 stone fragments were retained during the excavations. The majority of these are unworked but the worked stone includes three roof stones, one weight, one probable spindle whorl, one piece of building stone and one indeterminate item.

**Methodology**

All the stone was examined with the aid of a x10 magnification hand lens.

**Description**

The majority of the worked stone is associated with building including one chunk of building stone which has mortar and plaster attached. Three roofing stones are all made from shelly oolitic limestones and two of these appear to be fairly recent, as the suspension holes are perfectly circular. There is also a probable spindle whorl and a large weight. The weight is almost identical to an example from a late 14th / early 15th century context at Reading Oracle (Shaffrey in prep).

**Table 4.1 Catalogue of stone**

Context	SFNO	Description	Notes	Lithology	Illust
1495		Roof stone	Perfectly circular suspension hole.	oolitic and shelly limestone	No
1392		Roof stone	Perfectly circular suspension hole Is this from a modern or recent context as the hole looks mechanically formed	Shelly and oolitic limestone	Poss
1286		Worked item	Flat chunk appears to have been shaped into an approximate circle. Function unknown	Slightly shelly greensand	No
1273		Probable spindle whorl	Broken in half across the perforation.	Fine grained shelly limestone	Poss
1178		Roof stone	Perforation not quite as professional as the other two roof stones so possibly this is earlier?	Slightly shelly fine grained limestone	Poss
1341		Building stone	Square chunk with mortar and plaster attached	Pumice	No
1247	54	Weight	Oblong and slightly tapered shape with square section. Circular perforation.	Oolitic limestone	Yes

**Recommendations for further work**

The stone will need to be fully recorded and comparison should be made with other sites regionally. The weight is of particular interest and more research should be done to investigate its function.

**Appendix 5 Slag***by Lynne Keys*

A very small assemblage (1051g), initially identified as slag, was examined for this report. The material was examined by eye and categorised on the basis of morphology. Each type within each context was weighed and the smithing hearth bottom was measured to obtain its dimensions.

The assemblage does not indicate metalworking took place on the site. One smithing hearth bottom, the most characteristic bulk slag produced by smithing, was recovered from a seventeenth century posthole. Additionally one tiny hammerscale flake was found in soil adhering to material from context (1336). Hammerscale is a microslag which generally remains in quantity in the immediate area of smithing activity; occasionally it does adhere to soil on bulk slags.

**Table 5.1 Quantification table for iron slag and related debris**

Context.	<s>	Identification	wt	len.	br.	dep.	Comments
1178		undiagnostic	7				magnetic & with Cu waste adhering
1336		coal	7				
1336		hammerscale	0				one flake in soil
1336		iron	72				nails?
1336		undiagnostic	487				
1546	1105	iron	37				heavily corroded
3070		undiagnostic	152				
3103		undiagnostic	15				
3145		smithing hearth bottom	207	80	60	45	
3147		cinder	43				
3147		undiagnostic	24				
		total wt. = 1051g					

On the basis of the information available at assessment no further work need be undertaken on the assemblage. The slag suggests itself as a candidate in any policy of discard of material.



**Appendix 6 Flint***by Kate Cramp*

A single piece of unclassifiable waste and two pieces of burnt unworked flint (52g) were recovered during excavations at Park End Street, Oxford (Table 6.1). No further work is required.

**Table 6.1. Flint by type**

Category/context	1284	1389	1447	Total
Unclassifiable waste	1			1
Burnt unworked flint		1	1	2

**Appendix 7 Metalwork***by Leigh Allen*

A total of 341 metal objects were recovered from the excavations at Oxford Park End Street/ St Thomas Street. The assemblage comprises 93 copper alloy objects (19 of which are coins or jettons), 242 iron objects (including 211 nails) and 6 lead objects. The copper alloy objects are in a reasonable condition but the ironwork is extremely corroded and fragmentary. The iron assemblage has been x-rayed in order to aid identification but many objects have so little metal surviving that they can not be identified. The assemblage dates to the medieval/post medieval period.

**Coins/jettons** (identified by Edmund Simons)

It has only been possible to date 10 of the 19 coins/jettons the remaining objects are very corroded and require x-radiography before they can be identified.

**Table 7.1 Coins and tokens**

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object date
Coin	57	1332	Charles II penny	29	19th	9	
Coin	58	1332	William and Mary penny	27	19th	9	
Coin	89	1620	George II penny	28	19th	9	
Jetton	24	-	Rose and Orb type anonymous issue with fictitious inscription	24	-	-	1500-1550
Jetton	16	1135	Rose and orb type made by Hans Krauwinckel II. obv 'GOTTES.SEGFEN.MACHT.REICH' rev 'HANS KRAUVINCKEL.IN.NV'	21	17th-18th	8	1586-1635
Jetton	18	1160	An early Rose and Orb type Nuremburg jetton, this is only the centre part of a larger jetton which has been crudely clipped(although the base metal would have had no monetary value)	17	L15th-M16th	5	c.1500-1550?
Jetton	38	1333	obv shield of Nuremberg in three arched treasure( see Mitchiner 984) but rev is from a later die as used on early Rose and Orb types.	21	L15th-M16th	5	c.1500?
Jetton	84	1579	'Noble and Proud fish' (badge of the Dauphin). obv 'AVE MARIA GRACIA.PLENA'	27	L15th-M16th	5	1373-1415
Jetton	1001	3020	Very worn and unidentifiable Rose and Orb type	21	-	-	1500-1635?
Jetton	1002	3228	'Moors Head' jetton obv 'AVE MARIA PLEI'	20	-	-	Late 14th-15th C
Misc	12	1129	Unidentifiable	15	17th-L17th	7	
Misc	13	1129	Unidentifiable	19	17th-L17th	7	
Misc	55	1285	Unidentifiable	22	L15th-M16th	5	
Misc	-	1285	Unidentifiable	17	L15th-M16th	5	
Misc	36	1291	Unidentifiable	21	19th	9	



Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object date
Misc	49	1332	Unidentifiable	21	19th	9	
Misc	46	1348	Unidentifiable	27	-	-	
Misc	45	1348	Unidentifiable	27	-	-	
Misc	88	1620	Unidentifiable	27	19th	9	

### Copper alloy objects

A total of 74 copper alloy objects were recovered from the archaeological investigations; 48 of these are identifiable; the remaining 26 objects are fragments of sheet, strip or miscellaneous scraps. The majority of the identifiable objects are personal items but the assemblage also includes domestic and structural objects.

**Personal items:** The assemblage comprises 3 buckles, 5 buttons, a lace tag, a mount, 20 pins and 2 strap-ends. Buckle SF 11 (ctx 1128) is a double looped buckle frame with ornate outside edges and would have been used with a belt or strap (Margeson 1993, 28, Fig.17, No.174); SF 10 (ctx 1120) and SF 75 (ctx1505) are shoe buckles. The buttons are all plain, circular discoidal buttons, many of which are plated with a white metal (probably tin). Only one lace tag was recovered from the site, from context 1281. It is cylindrical and has edges that meet and turn in on themselves to secure the tag to the lace, this type of tag dates mainly to the 16th and 17th centuries. A single circular mount (SF 28) was recovered from context 1282 it is domed and decorated with fine incised grooves radiating from the centre. There is a central rivet for attachment. Simple mounts were used individually or in groups to decorate belts and straps. A number of pins were recovered from the site, the majority of which have wire wound heads some of which have been crimped to form spherical or globular heads. This type of pin is generally associated with dress, used to secure light garments and headdress and was produced in much the same way from the medieval period through to the 19th century. Although the demand increased rapidly in the 16th-17th century. The two strap ends are of a distinctive type; they are both composite strap-ends with forked spacers but of different forms. SF 31 (ctx 1160) is circular and the other example from context 1645 is tongue shaped. This type of strap-end does not appear to have been introduced until the late 13th or more probably the early 14th century and its numbers diminish in the early 15th century (Egan and Pritchard 1991, 140-141, Fig.92).

**Domestic items:** The domestic items comprise 2 thimbles, 2 (possibly 3) vessel fragments and 2 hooked clasps. SF 1004(ctx 3228) is a small straight sided thimble with hand applied indentations, the second thimble from context 1157 has a border below the indentations decorated with roundels containing leaves and fleur-de-lis. Two fragments from cast metal vessels were recovered from contexts 1243 and 1297, and a number of irregularly shaped sheet fragments SF 86 (ctx1584) some with rivet holes through them may be all that remains of a sheet metal vessel. The two hooked clasps are of identical form but slightly different in size. SF 21 (ctx 1128) is the largest of the two It has an expanded scalloped end and a hooked end, there are rivets for attachment. Both examples are decorated with herringbone and concentric circle motifs. The second example is from an unstratified context. In both cases it is only the front plate that survives. Hooked clasps were used keep books closed; the hooked end would have attached to a bar on the opposite cover of the book. This form of locking device is a 13th century innovation but continues in use throughout the Medieval and Post Medieval periods (Biddle and Hinton 1990, 755-758, fig.215, No.2326).



**Structural objects:** The structural items include 3 drape rings, a handle, a hinge plate and 3 tack/rivets. The drape rings all have flattened hexagonal sections and would have been used to suspend tapestries or curtains. The handle SF 37 (ctx 1333) is a heart-shaped drop handle from a draw or possibly a chaffing dish. The hinge plate SF 1005 (ctx 3228) is a simple double-leaf pinned hinge. The tack/rivets have domed heads and are possibly upholstery tacks.

**Other:** A small ring with a short shank that has a domed terminal SF 66 was recovered from context 1606. This object could be a pendent loop although it doesn't have a constriction at the point of suspension.

**Table 7.2 Copper alloy objects**

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object Date
Buckle	11	1128	Double oval buckle with an ornate outside edge (decorated with rosettes) and lobes at the junction of the bar and the frame.	44	-	-	PM
Buckle	10	1120	Fragment from a sub-rectangular buckle frame, it is decorated and would originally have had a separate central bar.	39	M16th - 17th	6	
Buckle	75	1505	Plain circular buckle with a flat back and a D-shaped section. The central bar is slender, probably a shoe buckle	31	L15th-M16th	5	PM
Button	35	1297	A plain circular discoidal button with an integral attachment loop	17	L15th-M16th	5	
Button	25	1199	A plain circular discoidal button with only the stub of the attachment loop remaining.	13	-	-	
Button	60	1353	Circular button with an integral attachment loop. The button is plated with a white metal coating, probably tin and the edge appears to be knurled.	18	L15th-M16th	5	
Button	14	1129	Circular discoidal button with an integral attachment loop. The button is solid and slightly domed. Traces of white metal coating probably tin.	14	17th-L17th	7	
Button	87	1620	Upper part of a plain circular discoidal button, the attachment loop is missing	15	19th	9	
Disc	43	1259	Small machine made disc with the numbers '4 and 6' inscribed on one side	12	19th	9	
Drape ring	-	1178	A drape ring with a flattened hexagonal section	24	19th	9	
Drape ring	1000	3036	A drape ring with a flattened hexagonal section	26	-	-	
Drape ring	19	1160	Drape ring with a flattened hexagonal section	25	L15th-M16th	5	PM
Handle	37	1333	Heart shaped loop handle	59	L15th-M16th	5	PM
Hinge	1005	3228	Double-leaf pinned hinge	45	-	-	
Hooked clasp	-	u/s	Identical to SF 21 but smaller	73	-	-	
Hooked clasp	21	1128	The front plate from a hooked clasp. The expanded end has a rivet for attachment and traces of herringbone decoration. The other end is hooked. In the centre there is a concentric circle design. The back plate is missing	87	-	-	13th C - PM
Lace tag	-	1281	Lace tag with edges that meet and turn	24	M16th-	6	

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object Date
			in on themselves to secure the lace		17th		
Misc	26	1199	7 irregularly shaped miscellaneous fragments	20	-	-	
Misc	-	1178	A very irregularly shaped fragment possibly slag.	29	19th	9	
Misc	23	1199	Irregularly shaped miscellaneous fragment	30	-	-	
Misc	-	1284	Irregularly shaped miscellaneous fragment	20	17th-18th	8	
Misc	63	1447	Irregularly shaped miscellaneous fragment	15	L15th-M16th	5	
Misc	-	1353	Irregularly shaped miscellaneous fragment possibly slag	32	L15th-M16th	5	
Misc	-	1590	Irregularly shaped miscellaneous fragment possibly slag	32	-	-	
Misc	-	1603	Irregularly shaped miscellaneous fragment possibly slag	19	L15th-M16th	5	
Misc	-	1178	Nine irregularly shaped miscellaneous fragments	36	19th	9	
Misc	64	1477	3 fragments of curved strip from a ring or possibly a buckle frame	25	-	-	
Misc	65	1464	Two small miscellaneous fragments: one is rectangular the other triangular	11	-	-	
Misc	78	1522	Very small-flattened sphere, possibly a bead as it is darker at the centre (perforation?). Alternatively it could be a pinhead.	3	L15th-M16th	5	
Mount	28	1282	A circular mount with a domed central rivet. The upper face is decorated with 4 incised grooves radiating from the centre	21	L15th-M16th	5	
Nail/bolt	-	1283	A robust nail/bolt with a slightly domed cap head and a perfectly circular cross-section and a flat end.	38	17th-18th	8	
Pin	59	1341	A pin with a globular head, the head is very corroded and the shank is incomplete	20	19th	9	
Pin	20	1135	Pin shank , the head is missing	31	17th-18th	8	
Pin	73	1455	Pin with a globular head	39	19th	9	
Pin	67	1303	Pin with a long fine shank, the head is incomplete (the top half is missing) it is probably wire wound	50	L15th-M16th	5	
Pin	74	1465	Pin with a long, fine shank , the head is a domed cap	66	L15th-M16th	5	
Pin	82	1523	Pin with a spherical head	40	L15th-M16th	5	
Pin	17	1135	Pin with a spherical head (tip missing	29	17th-18th	8	
Pin	15	1129	Pin with a spherical head the shank is incomplete	24	17th-L17th	7	
Pin	68	1303	Pin with a spherical wire wound head	36	L15th-M16th	5	
Pin	71	1483	Pin with a spherical wire wound head	28	-	-	
Pin	-	3030	Pin with a wire wound head, the tip of the shank is missing	18	-	-	
Pin	-	3001	Three fragments from a pin with a very corroded head		-	-	
Pin	-	1247	Very long pin with a wire wound head	72	L15th-M16th	5	
Pin and wire	48	1332	1. Pin with a spherical wire wound head 2. Two fragments of wire	24 45	19th	9	



Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object Date
Pins (x2)	52	1365	1. Pin with a long shank and a cap head 2. Pin with a long shank and a rather squashed wire wound head	50 60	-	-	
Pins (x4)	30	1283	1. wrap around wire wound head 2. wrap around globular head 3. wrap around wire wound head 4. Spherical wire wound head	27 26 36 56	17th-18th	8	
Sheet	72	1490	A long slender fragment of sheet roughly cut appears to have a rivet through it.	79	L15th-M16th	5	
Sheet	76	1506	A triangular fragment of sheet, folded back on itself	43	L15th-M16th	5	
Sheet	56	1354	Folded sheet	26	L15th-M16th	5	
Sheet	-	1178	Nine very corroded fragments of sheet (needs x-ray)		19th	9	
Sheet	-	1129	Roughly rectangular fragment of sheet with part of one edge beginning to curve over, possibly part of a hinge plate	31	17th-L17th	7	
Sheet	27	1207	Roughly triangular shaped fragment of sheet with a rectangular section. Possibly the remains of a perforation at the upper edge, but this is across the break	36	19th	9	
Sheet	62	1447	Small fragment of roughly rectangular sheet with a single perforation through it	12	L15th-M16th	5	
Strap end	-	1645	Composite strap end with a forked spacer and a corroded knob that is possibly acorn shaped. Tongue shaped, very slightly flared towards the upper edge and with 2 rivets.	36	L15th-M16th	5	14th C
Strap end	31	1160	Composite strap end with a forked spacer and an acorn knob. Circular with slightly flaring upper part. Concave attachment end and a hole for a single rivet.	53	L15th-M16th	5	14th C
Strip	-	1357	A curved strip the upper edge is rounded, most probably a fragment from a vessel	46	L15th-M16th	5	
Strip	-	1603	A triangular shaped strip slightly curved over at the widest end. Both ends are broken	18	L15th-M16th	5	
Strip	33	1270	Highly corroded curved strip	52	-	-	
Strip	-	1620	Rectangular strip hooked over at the end, the tip of the hook is pointed	52	19th	9	
Swivel ring	66	1303	Swivel ring, with a circular loop, a shank and a domed expanded terminal	23	L15th-M16th	5	
Tack/button	50	1332	Circular domed head from a tack or button	18	19th	9	
Tack/rivet	-	1281	The head and part of the shank from a dome headed tack/rivet. The shank is incomplete but with a circular cross section	20	M16th-17th	6	
Thimble	1004	3228	Small straight sided thimble with hand applied indentations in a spiral, it has a very narrow plain rim	15	-	-	
Thimble	-	1157	Thimble very damaged and squashed	23	19th	9	



Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object Date
			flat. Originally straight sided with hand applied indentations and with a border of roundels containing leaves and fleur-de-lis.				
Vessel frags	-	1243	Two fragments from a cast metal vessel	43		9	
Vessel frags	-	1297	One fragment from a cast metal vessel	52		5	
Vessel frags ?	86	1584	Various fragments of sheet, 2 fragments appear to join to form a roughly sub rectangular shape. There are rivets and perforations through the sheet. There appear to be 2 layers of sheet riveted together in places, Possible sheet metal vessel repair.	64	-	-	
Wire	51	1383	A length of wire hooked over at one end	56	-	-	

### Iron Objects

A total of 242 iron objects were recovered from the archaeological investigation 211 of these are nails and are listed separately. Of the remaining 31 objects only 9 are identifiable, the rest are fragments of sheet, strip or miscellaneous scraps. The identifiable objects comprise 3 horseshoes, 4 knives and 2 components from a door hinge (a pivot and a strap).

**Horseshoes:** The 3 horseshoe fragments are all very small and abraded and impossible to date. The fragments from contexts 1379 and 1552 have sub-rectangular perforations through them. The fragment from context 1505 is from the very tip of the arm.

**Knives:** The knives are all very corroded and fragmentary. A small whittle tang knife was recovered from context 1131, the back of the blade and the tang are in a line, and the blade edge rises up to meet the back. The tip of the tang is bent over. This form of knife was a common form through out the medieval period. SF 29 from context 1283 is a fragment from a blade but it is too small to identify the form. The remaining two fragments SF 69 (ctx 1464) and the second from context 1135 are from scale tang knife handles with nothing of the blade remaining. Handle SF 69 has 4 copper alloy rivets through it and a copper alloy end plate; the other example has a single rivet through it. Scale tang knives were introduced in the 13th-14th century.

**Structural items:** The hinge components are an L-shaped hinge pivot and a strap that would have been attached to the door, the looped end would have fitted over the pivot allowing the door to open and close.

**Table 7.3 Iron objects**

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object date
Bar	41	1333	Large iron bar	186		5	
Bar	40	1291	Large rectangular bar with 3 spikes projecting from the underside			9	
Disc	-	1414	An iron disc with a copper alloy band around the edge	25		9	
Hinge pivot	-	1392	An L-shaped hinge pivot			5	
Horse shoe	-	1379	Fragment from the arm of a horseshoe with one complete and one incomplete sub-rectangular perforation	53		8	

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object date
Horse shoe	-	1505	Possible fragment from the arm of a horseshoe	100		5	
Horse shoe	83	1552	Fragment from the tip of a horseshoe with one large sub-square perforation	65		5	
Knife		1131	Small whittle tang knife, the tang is bent over at the tip	79		9	
Knife	29	1283	Possible fragment from a blade	117		8	
Knife handle	-	1135	Possible scale tang handle from a knife. There is a single copper alloy rivet at the butt end	94		8	
Knife handle	69	1464	Scale tang knife handle with a copper alloy end plate and 4 copper alloy rivets	41		-	
Misc	-	1284	A small irregularly shaped miscellaneous fragment	15		8	
Misc	-	1286	Irregularly shaped fragment	67		7	
Misc	-	1292	7 miscellaneous fragments	27		9	
Misc	-	1332	Miscellaneous fragment roughly rectangular	55		9	
Misc	-	1357	Miscellaneous rectangular fragment	37		5	
Misc	-	1379	11 miscellaneous fragments	43		8	
Misc	-	1384	An irregularly shaped fragment	52		5	
Misc	-	1458	An irregularly shaped fragment	105		6	
Misc	-	1579	Irregularly shaped fragment	72		5	
Misc	-	3147	Two irregularly shaped fragments	29		6	
Misc	1003	3228	A large solid irregularly shaped fragment	45		-	
Object	-	1263	Large solid fragment shaped like an axe blade	110		5	
Rod	-	1132	Rod with a circular section	124		9	
Rod	-	1178	A rod expanded slightly at one end, there are a 2 irregularly shaped miscellaneous fragments associated with it	133		9	
Rod	-	1342	Rod with a square section, there is a large area of corrosion at one end that may obscure the implement.	134		7	
Sheet	-	1178	4 irregular fragments of sheet	57		9	
Sheet	-	1282	A rectangular fragment of sheet with a nail or rivet through it	61		5	
Sheet	77	1520	Large irregularly shaped fragment of sheet	142		-	
Strap hinge	-	3132	Strap hinge with a nailed U-shaped eye.	133		-	
Strip	-	1644	A rectangular strip with rounded ends and a circular perforation at both ends	124		7	

### Table 7.4 Iron nails

Iron nails were recovered from the following contexts

Context	No.bags	SF	No. of nails	Pottery Phase	Comments
1111	1	-	1	6	
1113	1	-	1	-	
1115	1	-	2	8	
1133	1	-	1	9	
1135	4	-	7	8	
1160	2	-	2	5	
1178	1	-	6	9	
1185	2	-	2	8	



Context	No.bags	SF	No. of nails	Pottery Phase	Comments
1238	3		3	7	
1242	1		1	7	
1246	1		1	9	
1247	1	-	1	5	
1259	1	-	3	9	
1263	1		2	5	
1270	1	34	1	-	
1281	2	-	8	6	
1282	1	-	2	5	
1283	1		1	8	
1285	2		8	5	
1291	1	40	4	9	
1292	1		1	9	
1293	1	-	2	5	
1296	4		12	5	
1303	1		3	5	
1306	1		1	-	
1307	1		1	5	
1332	1	-	1	9	
1335	1		2	-	
1336	2		3	7	
1342	1		1	7	
1343	2		7	5	
1344	2		6	5	
1357	2		8	5	
1358	1		1	5	
1379	1		7	8	
1410	1		3	5	
1413	1		1	8	
1451	1		1	6	
1465	5		5	5	
1522	1		1	5	
1523	9		18	5	
1546	1	81	1	8	
1546	1	80	1	8	
1546	1	79	1	8	
1552	1		1	-	
1553	1		1	-	
1578	1		4	-	
1579	2		2	5	
1592	1		1	5	
1620	3		3	9	
3030	1		1	-	
3039	1		1	9	
3069	1		2	6	
3076	1		1	5	
3129	1		2	3	
3147	1		1	6	
3155	1		1	5	
3221	1		1	4	
3232	1		1	5	

### Lead objects

A total of 6 lead objects were recovered from the archaeological investigations, only two of these are identifiable SF 1006 from context 3281 is a possible pan weight and a fragment of window came was recovered from context 1111.



**Table 7.5 Lead objects**

Object	SF	Context	Description	Length (mm)	Pottery date	Pottery Phase	Object date
Disc	70	1186	A circular disc with a raised rim and a crude perforation through it	25	L15th-M16th	5	
Disc/weight	1006	3281	A circular, slightly domed object with a flat back, possible pan weight (136g, 4.8 oz)	62	-	-	
Misc	-	1347	An irregularly shaped miscellaneous fragment	83	M16th-17th	6	
Misc	-	1607	A fragment of lead spillage	55	L11th-12th	2	
Strip	-	1282	A folded rectangular sheet fragment	49	L15th-M16th	5	
Window came	-	1111	A short fragment of window came	65	M16th-17th	6	

### Statement of Potential

The assemblage, although large, is in poor condition and many of the objects are fragmentary and highly corroded. As a result of this there are relatively few identifiable diagnostic objects, particularly amongst the ironwork. The identifiable copper alloy objects are mostly personal items. Of particular note are the composite strap ends and the hooked clasps. There are no high status items and very few domestic or structural objects (with the exception of nails). The majority of the objects date to the post-Medieval period with one or two items, particularly the strap ends dating to the late medieval period.

### Recommendations for further work

The rest of the metalwork assemblage should be x-rayed to aid full identification and the objects should be recorded on an Access database. A catalogue should be compiled and a short report produced with reference to previous work that has been carried out at Park End Street and St Thomas Street.

It is recommended that the following objects be illustrated:

Strap end (ctx 1645)

Strap end (SF 31, ctx 1160)

Hooked clasp (SF 21, ctx 1128)

Hooked clasp (u/s)

#### Resources and timings

- X-ray the rest of the assemblage (2.0 days)
- Record objects on Access database (1.5 days)
- Produce catalogue (2 days)
- Report writing/Library time (2 days)
- Editing and drawing briefs (0.5 days)

## Appendix 8 Environmental data

by Dana Challinor and Laila Sikking

### Introduction

Soil samples were taken during the excavation for the recovery of charred plant remains, of which thirteen were selected for the assessment. All of the samples date to the early post-medieval period (c 16th century), and came from a range of features, including a hearth and kiln. These features were situated in a small area in the corner of a possible domestic structure. Several different layers within the hearth were sampled separately.

### Methodology

The soil samples, ranging in size from 2.5 to 40 litres, were processed for charred plant remains and charcoal by mechanical flotation in a modified Siraf-type machine, with the sample held on a 500µm and the flot collected on a 250µm mesh. The flots were then air-dried and scanned under a binocular microscope at x10 and x20 magnification. Any seeds or chaff noted were provisionally identified and an estimate of abundance made. Charcoal caught on the 2mm sieve was considered identifiable and quantified; fragments were randomly extracted, fractured and examined in transverse section. While this provides a reliable method of the identification for ring porous taxa (eg *Quercus* sp.), identifications are tentative for the semi- to diffuse-porous taxa (Maloideae, *Prunus* etc.).

### Results

The results of the assessment are presented in Table 8.1. The flots varied in size but were similar in character. The preservation of the material was good and modern contamination was marginal. Nine of the flots contained molluscs and small fish bones were noted in three samples. Wood charcoal was abundant with a range of taxa present, including *Quercus* (oak), *Ulmus* (elm), *Fagus* (beech), *Fraxinus* (ash), *Prunus* (cherry, sloe etc) and Maloideae (hawthorn type). Several of the flots contained coal.

Eight flots produced cereal grains, including *Triticum* sp. (wheat), hulled *Hordeum* sp. (barley) and *Avena* sp. (oat), but no chaff was noted in any of the samples. One sample (context 1645) produced a possible *Secale cereale* (rye) grain. Weed seeds were present in 9 flots, including *Chenopodium* (goosefoots), *Rumex* (dock) and cf. *Myosotis* (forget-me-nots).

One sample (sample 1105, context 1546) contained a large amount of uncharred *Sambucus* (elder) seeds. Seeds from elder generally preserve very well and it is possible that the seeds in this sample are from the same period as the charred remains. Five of the flots contained charred remains of pulses (Fabaceae family), including *Pisum* sp. (pea) and *Vicia* sp. (bean).

In sample 1112 (context 3001) a complete stone of *Prunus*-type (cherry) was identified and in sample 1122 (context 3102) a fragment of a similar stone was recovered. This sample also produced *Prunus* charcoal. It is possible that these stones entered the archaeobotanical record as accidental inclusions with the fuel wood, rather than as food debris, particularly since there were few other edible charred remains present.

### Discussion

The results of the assessment indicate that the sampled layers, hearths and kiln fills contained discarded or *in situ* domestic refuse, including fuelwood and foodstuffs. The range of identified taxa in the samples is generally what could be expected in domestic features dating







**Table 8.1 The results of the assessment of the charred plant remains and charcoal**

Type of context	Sam- ple no.	Cont ext no.	Charcoal		Cereal Grain		Other charred remains		Potential
			Quantity	Identificat ion	Quantit y	Identification	Quantity	Identification	
burnt layer below hearth	1101	1591	++	Quercus, Maloideae Mixed diffuse	+	Hordeum cf. Triticum			Low
pit or kiln fill	1105	1546	++++	Quercus Maloideae cf. Fagus	++	Triticum cf. Avena	+	Vicia/Pisum, thorns	Medium
L15-16 land infilling	1109	1645	+++	Quercus, Fagus	+	Triticum Hordeum cf. Secale	++	Chenopodium Myosotis?	Low
kiln fill over 3040	1112	3001	++++	Quercus r/w Maloideae r/w, Twigs	+		++	Prunus stone, Thorns, Pulses	Medium
	1113	3066	++	Prunus	+				Low
hearth 3040	1114	3155	++++	Maloideae , Mixed taxa Corylus/A lnus	+	Triticum	+++	cf. Pisum sativum, cf. Vicia faba Rumex	High
	1117	3113	++	Corylus/A lnus	+	Hordeum	+	Pisum/Vicia	Low
	1118	3111	++++	Ulmus Mixed taxa			++	Pisum/Vicia	High
	1121	3105	++	Maloideae			+	Lolium	None
	1122	3102	+++	Prunus Maloideae Mixed taxa	+		+	cf. Prunus stone	Low
	1123	3107	+				+	Rumex	None
	1124	3101	++	Fraxinus Maloideae Prunus					Low
undated pit fill	1116	3143	+++	Quercus, Ulmus r/w Mixed taxa, twigs	++	Triticum	++	Pisum/Vicia	Medium - if dated

+ = present (up to 5 items), ++ = frequent (5-25), +++ = common (25-100), ++++ = abundant (&gt;100)

## Appendix 9 Animal bone

by Emma-Jayne Evans

### Introduction

This report encompasses animal bones from the site at St Thomas Street, Oxford. A total of 4969 bones were excavated from this site, with 1567 fragments (31.5 %) being analysed for this assessment. Many fragments analysed exhibited fresh breaks, the re-fitting of which reduced the fragment count to 1310.

### Methodology

Identification of the bone was undertaken at Oxford Archaeology with access to the reference collection and published guides. All the animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Also, fusion data, butchery marks, gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified, or were from an identifiable articulated skeleton in which there could be no doubt as to their species. Undiagnostic bones were recorded as small (small mammal size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was undertaken using the criteria of Boessneck (1969) and Prummel and Frisch (1986), in addition to the use of the reference material housed at OA. Where distinctions could not be made, the bone was recorded as sheep/goat (s/g).

The condition of the bone was graded using the criteria stipulated by Lyman (1996), grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated, and this figure broken down to the total number of fragments identifiable to each species.

Tooth eruption and wear stages were measured using a combination of Halstead (1985) and Grant (1982), and Levine (1982), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (\*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

### Results

The bone has survived in good condition, with the majority scoring 2 according to Lyman's grading. This has allowed for 52.3 % of the recorded bone to be identified to species, and allowed for butchery marks, pathologies, gnawing and burning to be recorded. A list of the species identified is highlighted in Table 9.1 below.

**Table 9.1. Animal bones identified to species and phase**

Phase	Cattle	Sheep/ goat	Sheep	Pig	Horse	Dog	Domestic fowl	Goose	Duck	European pochard	Rabbit	Bird	Unidentified	Total
3	6	4	-	1	-	-	1	-	-	-	-	1	25	38
5	59	73	6	16	1	-	7	2	2	1	3	6	288	464
6	7	7	1	-	2	-	-	-	-	-	-	-	9	26
7	41	28	14	10	-	-	4	1	1	-	2	9	100	210
8	98	120	71	10	-	1	-	-	-	-	-	1	144	445
9	17	11	4	2	-	-	1	-	-	-	2	2	41	80
Unphased	15	11	-	-	-	-	-	-	-	-	1	2	18	47
Total	243	254	96	39	3	1	13	3	3	1	8	21	625	1310

The assessment of the bones from this site suggests that the assemblage is dominated by domestic animals, with only limited exploitation of wild resources. The majority of the sheep/goat and cattle bones originate from levelling layers 1135 and 1286. Analysis of the remaining bone will reveal age at death patterns, metrical data, and butchery techniques, all of which will help gain an understanding of the use of animals at this site.

### Recommendations

It is recommended that the remainder of the hand collected bone be fully analysed and the sieved remains examined which may reveal evidence of fish and bird exploitation. Further analysis may also reveal the importance of individual species, and give as an understanding of the use of animals at this site.

Task	Time
Analysis of hand collected bone	7
Analysis of any sieved bone	1
Visit to library	1
Writing of Report	4
Total	13

Fish remains will have to be sent to an external specialist, the time for which has not been allocated in this assessment. This will have to be considered when the extent of the fish remains is known.



**Appendix 10 Shell**

A total of 190 fragments of shell weighing 2,588g were recovered from the archaeological investigations at Park End Street Oxford. The majority of the assemblage consists of fragments of oyster shell with a few fragments of mussel shell and a single terrestrial snail shell.

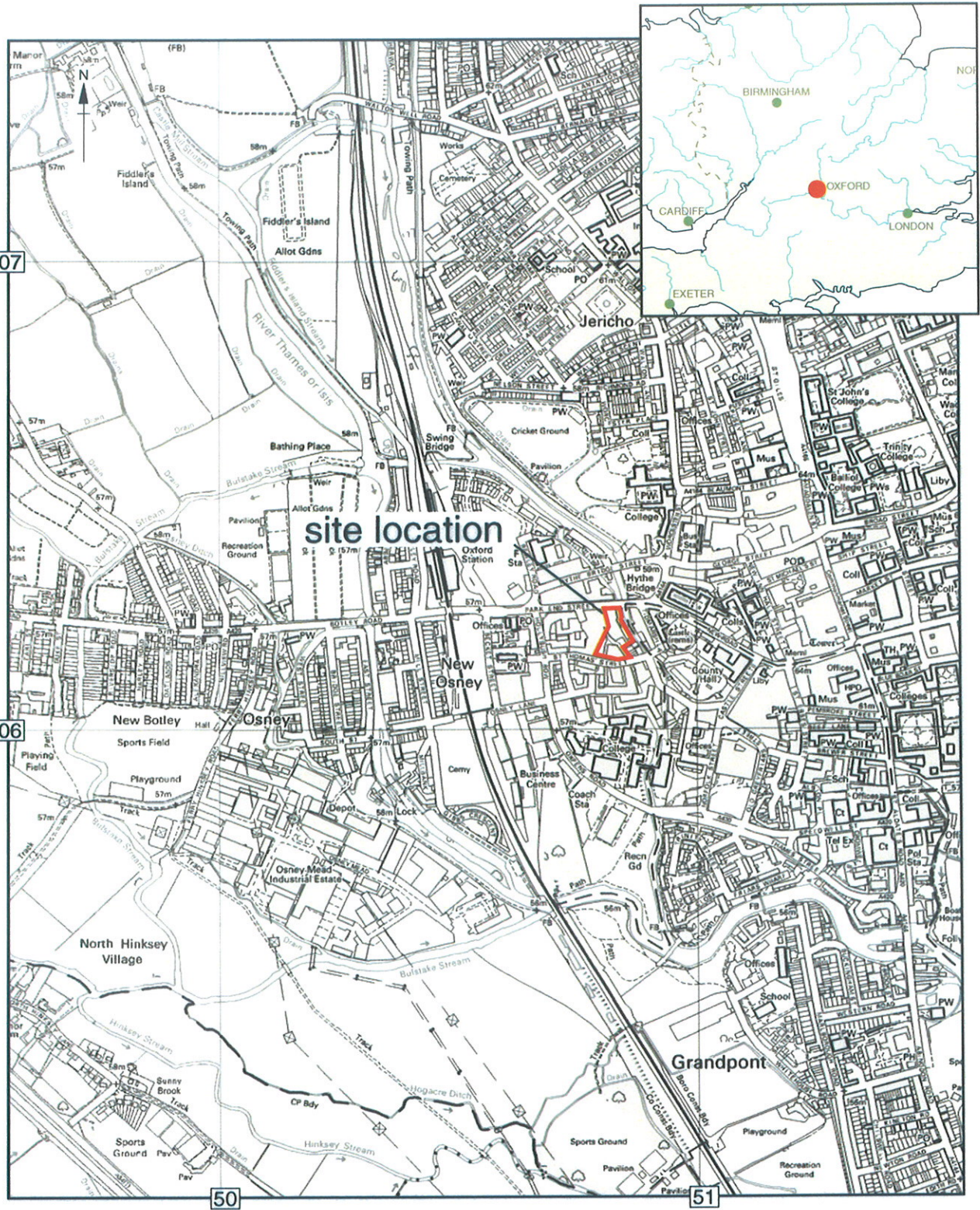
**Table 10.1 Incidence of shell by context**

<i>Context</i>	<i>No. of fragments</i>	<i>Weight</i>	<i>Type</i>
1135	2	20	Oyster
1160	6	86	Oyster
1178	2	32	Oyster
1185	3	10	Oyster
1243	7	50	Oyster
1247	14	109	Oyster
1280	2	40	Oyster
1281	3	36	Oyster
1283	1	17	Oyster
1285	5	67	Oyster
1286	12	222	Oyster
1296	19	217	Oyster
1297	2	20	Oyster
1303	1	15	Oyster
1307	23	456	Oyster
1342	18	193	Oyster
1343	1	10	Oyster
1357	3	47	Oyster
1392	1	23	Oyster
1396	2	52	Oyster
1400	1	10	Oyster
1447	2	24	Oyster
1455	2	36	Oyster
1456	3	56	Oyster
1465	1	5	Oyster
1486	1	19	Oyster
1487	3	36	Oyster
1490	1	8	Oyster
1505	1	25	Oyster
1506	1	10	Oyster
1522	1	5	Oyster
1523	10	75	Oyster
1537	1	7	Oyster
1545	2	12	Oyster
1553	1	7	Oyster
1579	2	49	Oyster
1601	1	40	Oyster
1620	1	30	Oyster
1645	2	44	Oyster
1647	7	57	Oyster
3039	2	83	Oyster
3128	1	6	Oyster
3232	8	145	Oyster and snail
3254	8	77	Oyster and mussel

No further work is recommended







Scale 1:12,500

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Figure 1: Site location



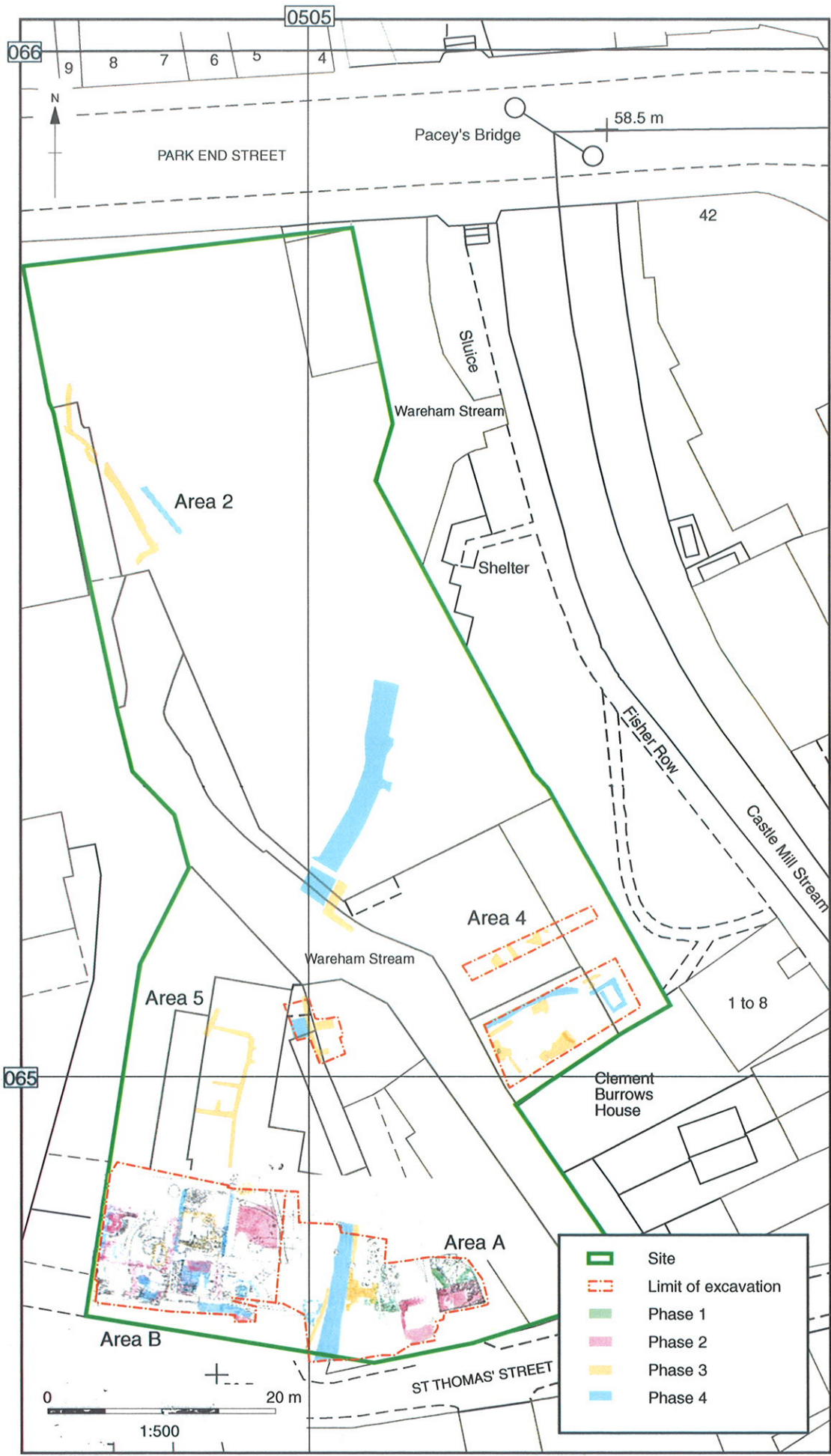


Figure 2: Principal archaeological features (all phases)

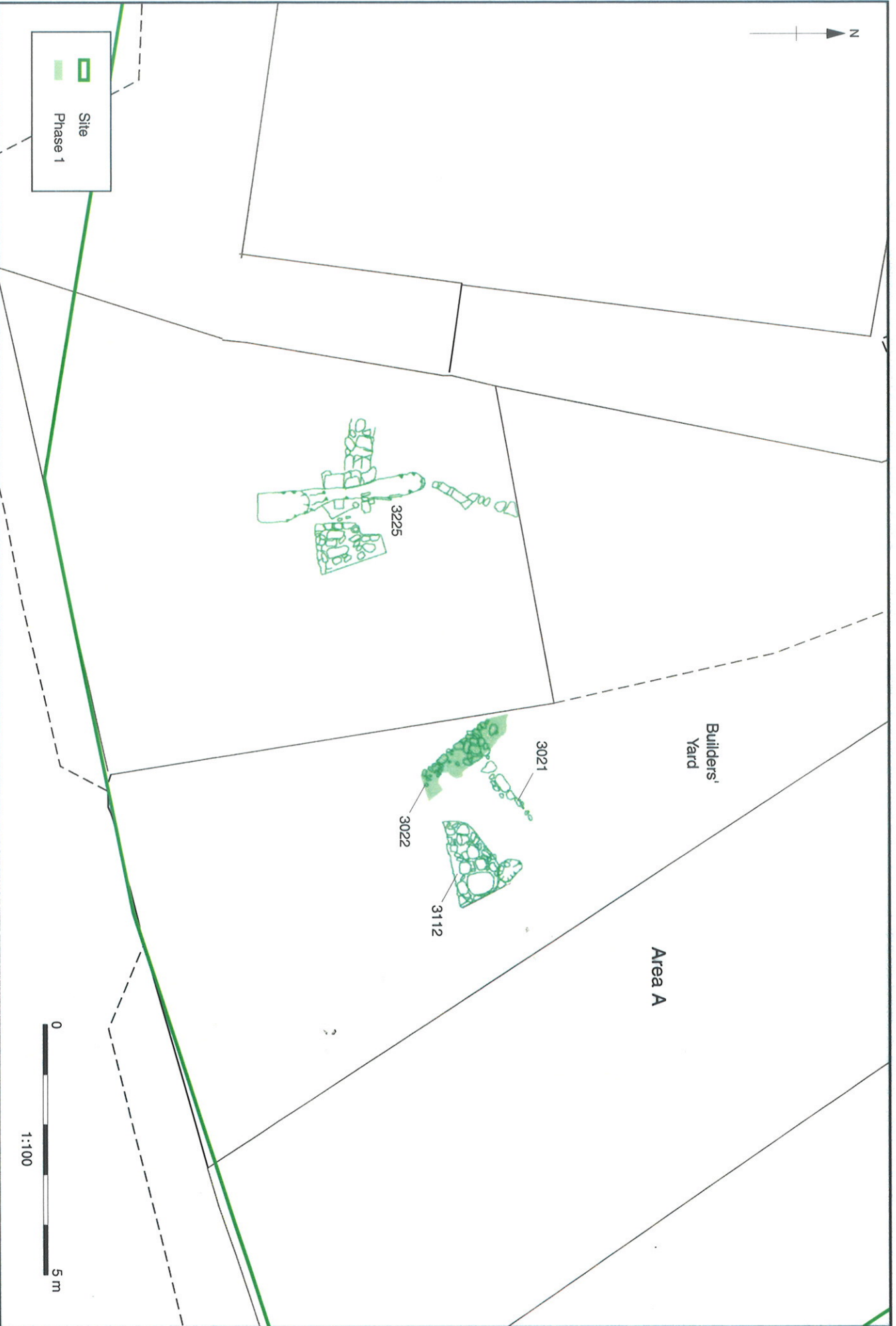


Figure 3: Phase 1 (1200 - 1485)



Figure 4: Phase 2 (1485 - 1600)



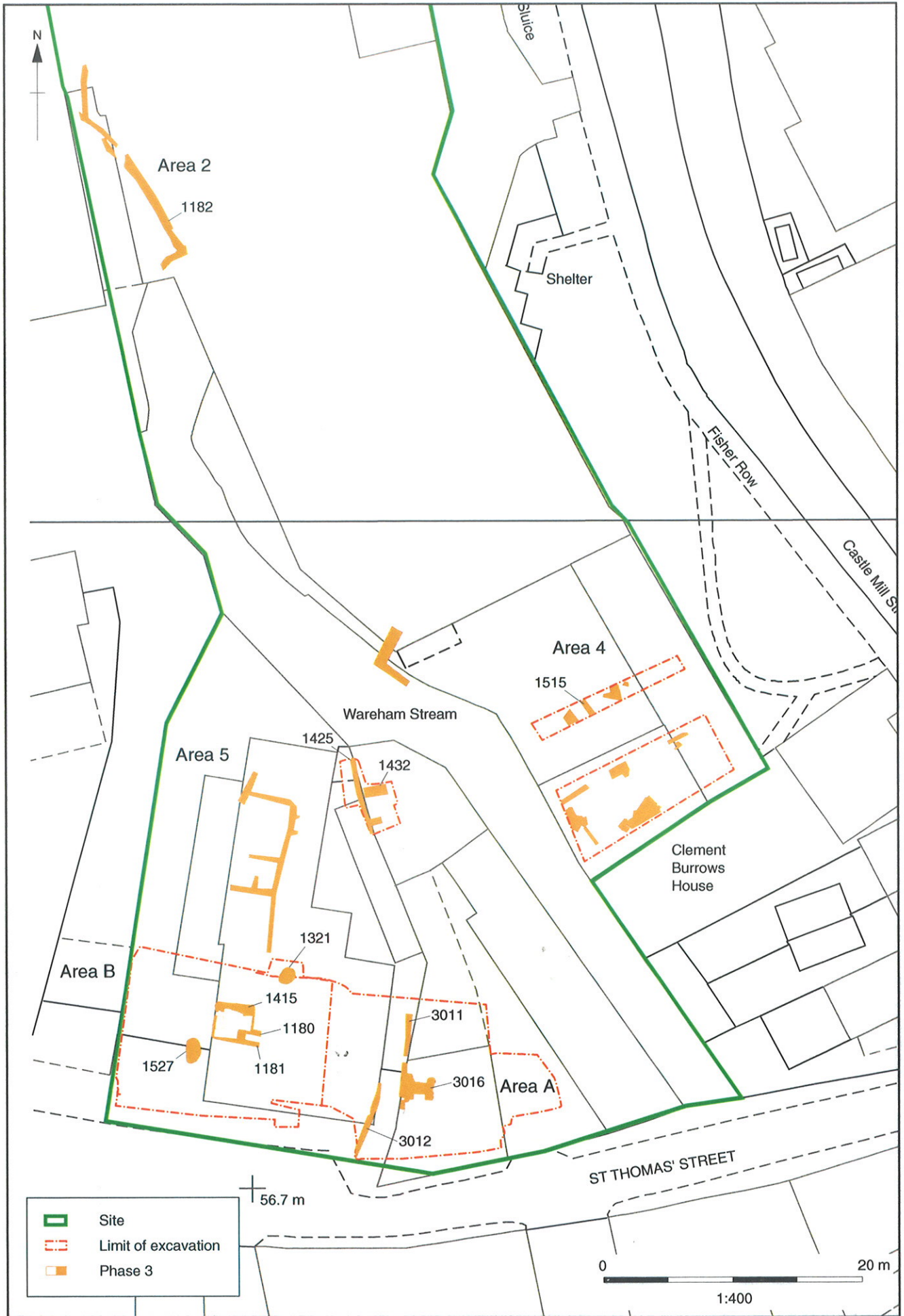


Figure 5: Phase 3 (1600 - 1800)





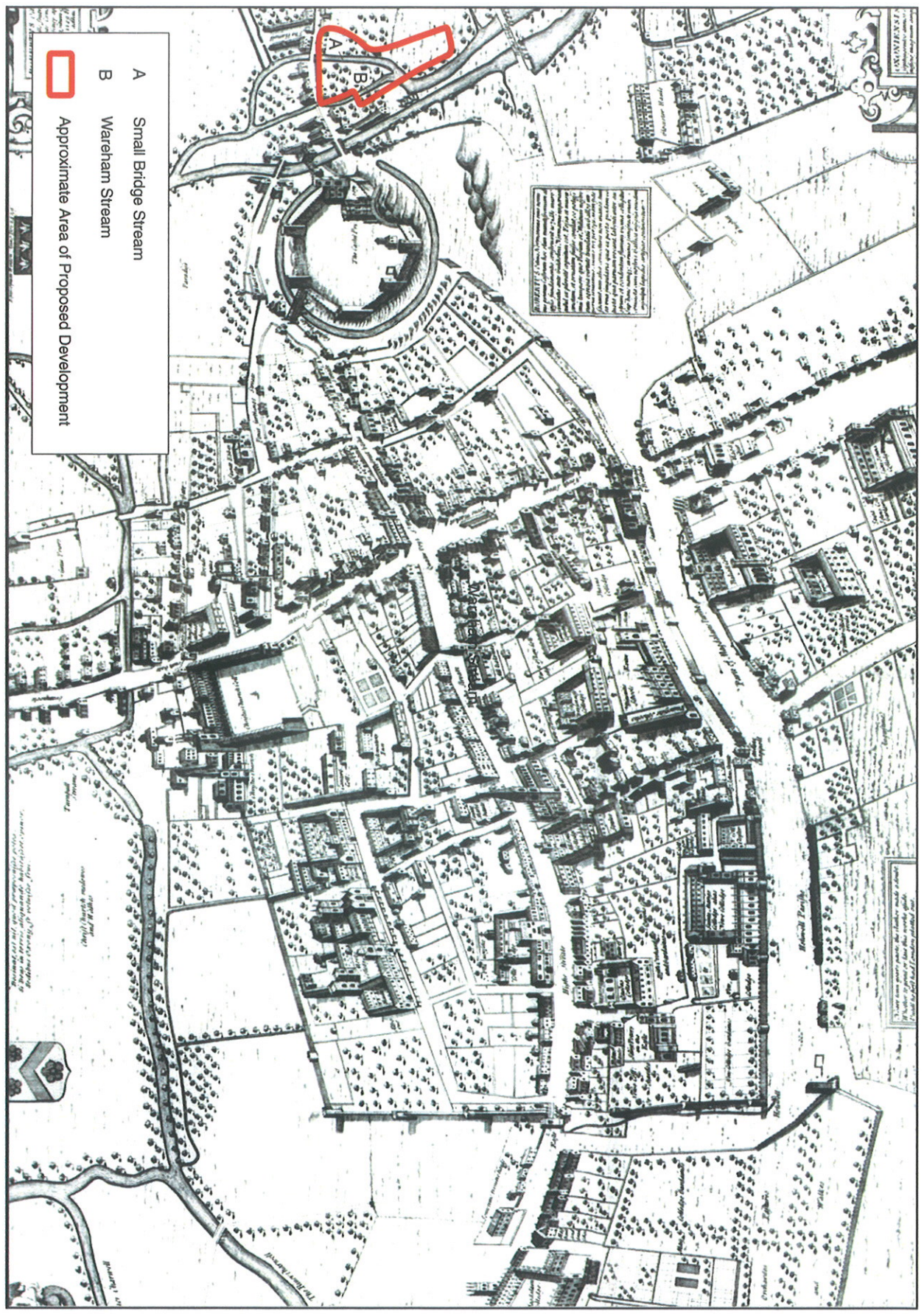


Figure 7: Agas' Map of Oxford 1595





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