
By T.G. Hassall, C.E. Halpin and M. Mellor


Plate 1. B VII F5, A mid 19th-century pearlware bowl with a blue transfer print of Oxford and the Thames viewed from the south-west.
SUMMARY

This report covers the post-medieval material excavated in advance of redevelopment from 31–34 Church Street (Site A), the Greyfriars (Site B) and Littlegate (Site D) and from salvage excavations during the construction of the Westgate Centre (Site W) and Selfridge’s (Site SEL). Each site is described individually, but the material from all the sites is discussed together. Fourteen ‘key assemblages’ are analysed for their pottery, clay pipe and glass assemblages. Summary reports are printed on the following subjects: pottery; petrological analysis; coins, tokens, counters and coin-weights; copper alloy and silver objects; lead and lead alloy objects; iron objects; bone and ivory objects; wooden objects; glass; glass beads; glass bottle seals; leather objects; stone and clay objects; plastic combs; clay pipes; hair and wig curlers; tiles; animal bones, bird bones and marine shells; plant remains; insect remains and plant material. Supporting material appears in microfiche. The report concludes with a summary of the post-medieval topographical development of St. Ebbe’s.

LIST OF CONTENTS

THE ARCHAEOLOGICAL EVIDENCE:

Introduction
Acknowledgements
31–34 Church Street, Site A: Introduction, Archaeological Evidence, Phase Plans and Discussion
Westgate, Site W (excluding features south of Church Street) and Selfridges, Site SEL: Introduction, Archaeological Evidence and Discussion
The Former Site of the Greyfriars, Site B and Westgate, Site W (including features south of Church Street): Introduction, Archaeological Evidence and Discussion
Littlegate, Site D: Introduction, Archaeological Evidence and Discussion by Brian Durham

THE FINDS:

Abbreviations
Finds Chronology by Maureen Mellor
Concordance of Finds by Maureen Mellor and Claire Halpin
Key Assemblages by Maureen Mellor and Gwynne Oakley
Pottery by Maureen Mellor
Petrological Analysis by Dr. D.F. Williams
Coins, Tokens, Counters and Coin-Weights by N.J. Mayhew, S.E. Rigold, Daphne Nash and Marion Archibald
Copper Alloy and Silver Objects by Alison R. Goodall; Spurs by Blanche Ellis
Lead and Lead Alloy Objects by Geoff Egan, Alison R. Goodall and Gwynne Oakley
Iron Objects by Ian H. Goodall; Spurs by Blanche Ellis
Bone and Ivory Objects by Geoff Egan and Martin Henig; Identification of Bone and Ivory by Philip Armitage and Bob Wilson
Wooden Objects by Gwynne Oakley; Species Identification by M.A. Robinson
Glass by Jeremy Haslam
Glass Beads by Jeremy Haslam
Glass Bottle Seals by Gwynne Oakley

Print Fiche
p.155 M I A4
p.158 M I C1
p.161 M I G5
p.170 M III G5
p.172 M IV A3
p.174 M IV B1
p.176 M IV C1
p.178 M IV D1
p.211 M IV G1
p.219 M IV G4
p.221 M IV F1
p.224 M IV G5
p.224 M IV A3
p.229 M IV B1
p.229 M IV B1
p.229 M IV B1
p.229 M IV B1
p.232 M IV B1
p.232 M IV B1
p.232 M IV A3

EXCAVATIONS IN ST. EBBE’S

Leather Objects by Gwynne Oakley  p.249  M V B1
Stone and Clay Objects by Geoff Egan, Gwynne Oakley and Martin Henig; Petrological Analysis by H.P. Powell  p.249  M V B3
Plastic Combs by Gwynne Oakley  p.250  M V B11
Clay Pipes by Adrian Oswald; with a Contribution on the Chester Pipes by Janet Rutter  p.251  M V C1
Hair and Wig Curls by Maureen Mellor  p.262  M V C12
Tiles by Simon Robinson  p.263  M V D1

THE ENVIRONMENTAL EVIDENCE:

Medieval and Post-Medieval Animal Bones, Bird Bones and Marine Shells by Bob Wilson, Philip Armitage, Roger Jones and Professor B. Marples  p.265  M VI A3
Plant and Insect Remains from Church Street (Site A) and the Oxford Castle Barbican Ditch by A.P. Brown and M.A. Robinson  p.268  M VI E1
Plant Material Adhering to a Copper Alloy Box (A SF1061 L39, Cat. No. 57) by M.A. Robinson  M VI F4

CONCLUSION:
The Archaeology, History and Topography of St. Ebbe’s from the Dissolution to the Late 19th Century  p.269

INTRODUCTION

Between 1967 and 1976, the redevelopment of the northern part of St. Ebbe’s in the City of Oxford provided the opportunity for a series of rescue and salvage excavations. St. Ebbe’s (Fig. 1) lies at the south-western end of the medieval town, between the commercial focus around Carfax and the site of Oxford Castle. The excavations were organised by the Oxford Archaeological Excavation Committee and from 1973 by the Oxford Archaeological Unit. From the start it was decided to treat the entire area (Fig. 2) as one survey area, and to combine the archaeological evidence with the available documentary evidence with the aim of reconstructing the evolution of St. Ebbe’s.

The most important new development in St. Ebbe’s was the construction of the Westgate Centre. The site occupies about 13,000 square metres, and extends from New Road, across the former line of Church Street (which has been realigned), to St. Ebbe’s Street on the east side. Construction included the provision of an underground service basement, which at its northern end was approximately 6m. deep and destroyed all but the deepest archaeological features. Associated developments, equally destructive of the archaeology of St. Ebbe’s, were the building of Selfridge’s, Fenwicks (28–31 St. Ebbe’s Street), Littlegate House and the multi-storey car park.

The medieval topography of the site was reconstructed by H.E. Salter.1 By the 13th century and probably long before there were tenements on the south side of Castle Street, on both sides of Church Street, and also south of the City Wall, which was continuous from Littlegate to Westgate. St. Ebbe’s church occupied its present site, and the church of St. Budoc stood on a roughly triangular space at the junction of Castle Street and Church

Street. In the early 13th century St. Budoc's was pulled down and removed to a site outside the Westgate. By the middle of the 13th century the Greyfriars had acquired all the properties south of Church Street on either side of the wall. The central section of the wall was taken down, and the Priory church built across its line. The first site of St. Budoc's was occupied by a market. For the remainder of the medieval period the topography remained unaltered.

The excavations were primarily aimed at recording aspects of medieval St. Ebbe's. After trial excavation at Christmas 1967, the excavations began in earnest in 1968. Three areas were chosen for examination before the start of construction. First, a series of medieval and post-medieval tenements at 31–34 Church Street, Site A, where preliminary excavations showed that the street frontages had not been destroyed by modern cellars; second, the Greyfriars Priory, particularly the church, Site B; and third, the City Wall at Littlegate, Site D. During construction of the new buildings a watching brief was maintained on each of these sites, as well as on those areas where no preliminary excavation was feasible. The main areas of watching brief were the new basements of Westgate, Site W, and Selfridge's, Site SEL.

In parallel with the excavations, Dr Hilary Turner began a detailed documentary

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Fig. 1. Location Plan. The box indicates the area of Fig. 2.
Fig. 2. Left A plan showing the location of the archaeological trenches (Site A, 31-34 Church Street; Site B, Greyfriars and Site D, Littlegate) and the salvage sites (Site SEL, Selfridges and Site W, Westgate). The plan shows the street pattern prior to the redevelopment of St. Ebbe's, and surviving stretches of the city wall. The buildings which have been retained have been shaded. Right A plan showing the new buildings and street pattern. A small stretch of the city wall is preserved behind Nos. 9-10 Turnagain Lane. Based on the City of Oxford Central Area 1:500 Survey, by permission of the City Engineer.
survey. This survey built on the material already collected by H.E. Salter, but the history of each tenement was traced up to the compulsory purchase orders made by the City. The documentary survey was completed by John Wood.

The post-excavation programme on St. Ebbe's was influenced by later excavations in Oxford, notably in St. Aldates and at the Hamel. Since these sites produced long sequences of well-stratified pottery it was decided to publish them first, and only then to tackle the very large quantity of material from St. Ebbe's. It was decided to divide the report on the St. Ebbe's material into two sections: Part I, the excavation method, descriptions of the streets, of the medieval domestic tenements and of the Friary buildings; and Part II, the post-medieval domestic tenements and the post-dissolution development of the Greyfriars site. The medieval city wall will be discussed as part of a separate report on the City's southern defences. It is hoped that the documentary survey will be the subject of a separate publication.

Part II of the St. Ebbe's report is published first, since the pottery sequences which were recovered extend those already published from Oxford from the 16th to the 19th centuries (little 16th-century material was recovered). Indeed, the material assemblages constitute the core of the report, since coherent information on structures was largely absent. The printed section of the report begins with brief archaeological discussions of each site. The evidence for the chronology is then given, and a selection of key assemblages from all the sites is presented to indicate the range of material present. Summaries of all other classes of material are also printed, but the main catalogues and supporting data are in microfiche. Photocopies of the microfiche can be obtained from the Oxford Archaeological Unit, 46 Hythe Bridge Street, Oxford, OX1 2EP.

A concordance of finds, with a description of the post-medieval layers and features, appears in microfiche (M I A4). The material and the original site archives will be lodged with the Oxfordshire Department of Museum Services.

ACKNOWLEDGEMENTS

A project of this nature carried out over so many years would not have been possible without the assistance of many institutions and individuals. The project was conceived in the first instance by the Oxford Archaeological Excavation Committee. Alderman Peter Spokes, the Committee's Chairman, was unfailing in his encouragement and interest. The two successive secretaries of the Committee were Miss J.M. Cook, Director of the Oxford City and County Museum, and Miss C.M. Preston of the Town Clerk's Department. The post-excavation work was organised under the auspices of the Oxfordshire Archaeological Committee and the Oxford Archaeological Unit. Two County Treasurers, Messrs H.C. Bedwell and W.H.P. Davidson, administered the finances, assisted by Messrs J.H.R. Day and A.B. Linsell together with a series of assistants: Messrs H. Davies, M. Neate, M. Petty and A.L. Wilkes. Subsequently Mr R. Gould has been the Unit's Treasurer.

The excavations were financed by: The British Academy; The Department of the Environment (formerly Ministry of Public Building and Works); Oxford City Council; Oxford Preservation Trust; Oxfordshire County Council; The Pilgrim Trust; The Society of Antiquaries; All Souls College; Balliol College; Brasenose College; Christ Church; Corpus Christi College; Exeter College; Jesus College; Keble College; Lady Margaret Hall; Lincoln College; Merton College; New College; Nuffield College; Oriel College; Pembroke College; The Queen's College; St. Anne's College; St. Antony's College; St. Catherine's College; St. Cross College; St. Hilda's College; St. Hugh's College; St. John's College; St. Peter's College; Somerville College; Trinity College; University College; Wadham College;
Culham College; B.H. Blackwell Ltd.; Basil Blackwell and Mott Ltd.; Blackwell Scientific Publications Ltd.; Coopers (St. Ebbe's) Ltd.; and other private donors. To all these sponsors the Committee is very grateful.

In addition, the following provided the free use of equipment: Amey's Ltd.; British Motor Holdings; Cliffplant; Curtis and Horn; J.H.B. (Equipment) Ltd.; Lovell Plant Hire Ltd.; Minns Ltd.; Oxford Plant Hire Ltd. and the Oxford Fire Service.

The excavations would have been impossible without the active support of Oxford City Council, on whose property most of the work was carried out. A number of Officers were extremely helpful in ensuring that the archaeological work was phased in with the development: the City Architect and his staff, notably Messrs J.H. Ashdown, P.G. Beresford, K. Hearne, G.F. Spray and K. Lichtenstein; the City Engineer's Special Projects Section; and the City Estates Surveyor, especially Mr L.R. Flint of his staff.

Many people took part in the excavations themselves. It is an especial pleasure to thank the main site supervisors: Mr B.G. Durham (Lilliegate, Site D), the Rev. J.C. Huntriss (31–34 Church Street, Site A), and Mr J. Haslam (Westgate, Site W). Other supervisors who took part in the excavations were Messrs. T.G. Allen, H. Blake, P.J. Fasham, S. Harris, M.R. Robinson, I. Sanders, G. Smyth, T. Ward, H. Woods and C.J. Young. Surveying was carried out by Messrs. G. Morgan, H. Richmond and P. Sorowka. Photographs were taken by Messrs. G.S. Baker, D. Carpenter, K.W. Sheridan and M.S. Wade. The on-site processing of finds was organised by the Misses J. Cox, E.S. Leedham-Green, K.J. Lucas, J. Smith and J.S. Walker. Conservation was carried out by B.V. Arthur and A. Shishtawi of Oxfordshire Department of Museum Services. Of the volunteer excavators who worked on the site, several generations of the Oxford University Archaeological Society should be singled out. Accommodation for volunteers was provided by the Balliol Boys Club and the Governors and Headmaster of Christ Church Cathedral Choir School. Catering was at times organised by Miss Z.R. Carson, assisted by Mr C. McLellan and Crawford Caterers Ltd.

Dr H.L. Turner inaugurated the parallel programme of documentary research, which was completed by Mr A.J. Wood. Much of the supporting evidence used in this report is based on their unpublished work.

Much preliminary work was carried out by the Rev. J.C. Huntriss for 31–34 Church Street, Site A, in ordering all the site records and producing preliminary flow diagrams of both the medieval and the post-medieval stratification. Mr M. Wilcox carried out a similar operation for Greyfriars, Site B. Mr B.G. Durham produced the report on Littlegate, Site D, much of which will be published elsewhere.

The main feature of the report is the analysis of the pottery. This was begun by Mrs J. de Goris; separate acknowledgements to all those who have assisted appear with that section of the report. It is also a pleasure to thank all the other authors of the specialist reports under whose names the reports appear.

The drawings were the work of Mrs E. Beard. The texts were typed by the Misses S. Quiney and J. Wilson.
Fig. 3. 31–34 Church St., Site A, Evidence Plan.
31–34 CHURCH STREET, SITE A (Figs. 3–9)

Introduction (Fig. 3)

Although the excavated area included all the frontages of 31–34 Church Street (SW81–82), it fell short of the backs of these properties. An overall assessment of the density and diversity of activities carried out on the site is not possible. The Late Saxon and medieval aspects of this site will be discussed in ‘Excavations in St. Ebbe’s Oxford, 1967–1976, Part I’.

The parish boundary between St. Ebbe’s and Peter-le-Bailey coincides with the northern boundaries of SW81 and 82. The documentary sources indicate that the properties were variously owned and exploited throughout the post-medieval period. From 1496 SW82 was always united with property west of the excavated area. A malthouse and associated buildings occupied most of SW82/83/84 from the early to mid 17th century. These buildings were replaced in 1695 by five small tenements. The Blue Coat School (after c.1893 the Technical College) moved to No. 31 (SW82) in 1811. After a temporary separation, the whole of SW84 was reunited with SW82/83 in 1892 as part of the western expansion of the college.

From 1439 Lincoln College paid rent to Oseney Abbey for SW81. After the Dissolution it kept the property, eventually selling it to the City in 1922. The archaeological evidence suggests that it was variously divided into two or three holdings.

Figs. 4–9 show tentative indications of the successive property boundaries. These have mostly been drawn from the documentary and topographical survey of St. Ebbe’s, which was largely based on the 1772 Survey of Frontages and the first edition Ordnance Survey. The documentary evidence suggests that of the north/south boundaries, those between SW81 and SW82 (Nos. 31–32) and SW81 and SW80 (Nos. 34–35) were fixed by 1600 and did not alter. Pits of uncertain date have been excluded from the phase plans. Two features, W F117 and W F118, were recorded during the Westgate (Site W) watching brief in the area of Site A, but their location is dubious (Fig. 10).

1500–1620 (Fig. 4)

The siting of the shallow pits A F2531, A F1528 and A F1529, which date from the 16th to the early 17th century, indicate that this part of the Church Street frontage (SW81, Nos. 32–33) was not built upon during this period. Wild bird and animal bones (for example black rats, crows and owls), indicate the presence of waste grounds or gardens, as does a few-months’-old hedgehog found in A F1528 (below). Documentary evidence indicates that 33–34 Church Street possessed gardens, at least during the 15th century. Features A F2531, A F1528, A F2504 L1 and A F2504 L8 (= F2011) have been selected as key assemblages (below, Fig. 15), and A F1529 produced tentative evidence of butchering (below). The other 16th- to early 17th-century pits may be associated with building remains on the frontage SW82 (No. 31) and the eastern part of SW81 (No. 34). The higher density of pits behind No. 34 is largely continuous throughout the post-medieval period. A F41 produced

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5 Surveys and Tokens, ed. H.E. Salter, O.H.S., lxv (1920), 27.
OXFORD: 31-34 Church St., Site A, 1500-1620.

Fig. 4. 31-34 Church St., Site A, Phase Plan.
Fig. 5. 31-34 Church St., Site A, Phase Plan.
Fig. 6. 31-34 Church St., Site A, Phase Plan.
seeds of black mulberry, fennel and fig, suggesting that the user enjoyed more than a subsistence diet (below). A glass fragment with white and marvered trails, from a vessel of uncertain form which may have been imported, was recovered from A F68 (not illustrated). The construction trench (L1065) of the stone-lined pit A F14 contained two glass drinking beakers (Fig. 44, Nos. 2, 7).

The lack of dating evidence means that building remains have been assigned to the various phases on a fairly arbitrary basis. Because of further archaeological difficulties, reconstructions relating to house backs and internal divisions are similarly arbitrary. No. 31 Church Street was known as 'Whitehall', and the property was first mentioned in 1340. A F2504 and A F2011 represent the robbing of presumed medieval footings, possibly carried out just prior to the rebuilding or extending of the property.

1620-40 (Fig. 5)

By the early to mid 17th century, a change in the previously vacant area behind the frontage (SW81, Nos. 32-33) is evident. The archaeological evidence is slight, but suggests that a single tenement was created. A F1544, a stone wall, lies across the later 1772 boundary division (all other frontage walls, for example, A F1550 and A F1551 which supersede this wall, are interrupted at the intersection of boundary lines). The evidence is not strong, but it may be that for twenty years Nos. 32-33 were combined as a single tenement.

1640-1700 (Fig. 6)

During this period activity increased in St. Ebbe's, but this is not evident at 31-34 Church Street until about 1660. There were only two pits which produced material dating to 1640-60, A F1001 and A F1023. A F1023 contained possible evidence of butchery (below), a wood-working tool (dividers; Fig. 35, No. 31), and a horseshoe fragment (Fig. 38, No. 81).

A stone-lined well, F1, and ?robbed stone-lined pit, A F40, almost certainly pre-dating 1690, were constructed. Probably about the same time another stone-lined pit, A F17, belonging to the tenement SW82/83/84, was built. The extensive and remarkable contents of this pit have been chosen as a key assemblage (Figs. 19-20). It contained a variety of pottery, including local red earthenwares, Surrey-type white wares, Rhenish stoneware bellarmines, drinking tankards from Westerwald and early tinglaze plates. The glass vessels, mostly heavy wine bottles, are remarkable for the high proportion of completely restorable bottles. Window-glass is plentiful (Fig. 45, Nos. 18-21). Further uncommon finds include a green glass bowl (Fig. 45, No. 1), a samian sherd and a 3rd-century Roman coin (Cat. No. 1), a four-armed copper alloy seal matrix (Fig. 31, No. 1), and an iron chape and sword pommel (Fig. 37, Nos. 73-74).

Additional unusual finds from pits of this phase include an assemblage of animal bones, including two polecats skinned for their fur, from A F17 (below). Two ivory off-cuts from A F17 could indicate comb manufacture (Fig. 39, No. 24). Similarly, a bone off-cut from A F45 may indicate button making (Fig. 39, No. 23). A saw-blade fragment came from A F17 (Fig. 35, No. 28). A colourless glass jug decorated with white marvered swags (Fig. 45, No. 5), and two large glass jars from A F55 and A F45 (Fig. 43, Nos. 28-29), were recovered. A variety of horse equipment was also found in pits of this phase: bridle bits from A F149 (Fig. 38, Nos. 77-78), and a currycomb handle from A F17 (Fig. 38, No. 79). Two glass bottle seals from the Mermaid tavern were recovered from A F17 and A F55 (Fig. 48, Nos. 2-3).
Fig. 7. 31-34 Church St., Site A, Phase Plan.
EXCAVATIONS IN ST. EBBE'S

1700–1800 (Fig. 7)

SW82 was always united with property lying west of the excavation. In 1695 five small tenements were built by William Burrows, replacing a malthouse. SW82, No. 31, was the easternmost tenement erected. Stratigraphically the stone walling (A F7, A F11, A F10, A F2 and A F23), the cobbled floor (A F5) and the drain (A F6) may all belong to this phase. Walling A F2 and A F2548 may have been reused from an earlier building. The brick hearth, A F2004, inserted into A F2 belonged to the adjoining property. The drain, A F6, was well-built of a double row of sloping stones. The replacement of A F1550 by A F1543 (SW81, No. 32), and the rebuilding of SW81, No. 34, is assigned to this phase. In the latter property a drain, A F63, was similarly inserted beneath the centre of the building. A F48 may represent a hearth stack, and A F47 is a floor of large, flat, irregular stones.

The suggested frontage widths can be compared with those given in the 1772 Survey of Frontages, which are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Householder</th>
<th>Frontage</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Mr Burrows</td>
<td>5 yds. 1' 6&quot;</td>
</tr>
<tr>
<td>32</td>
<td>Mrs Horn</td>
<td>3 yds. 2' 3&quot;</td>
</tr>
<tr>
<td>33</td>
<td>Mrs Franklin</td>
<td>5 yds.</td>
</tr>
<tr>
<td>34</td>
<td>Mrs Dandee</td>
<td>8 yds.</td>
</tr>
</tbody>
</table>

The reorganisation of properties SW82/83/84, collectively owned by William Burrows, may have been responsible for the abandonment of A F17. The most remarkable finds from this phase are from A F57, which produced organic seeds from many luxury fruits including grape, raspberry, strawberry and plum (below), and a particularly fine group of decorated creamwares including a coffee can, a tea bowl, a jug, bowls and plates (Pl. 8; M II G3 Fig. 88). The name 'J. Martin' was painted on the rim of one of the plates (Pl. 4, No. 4). A J. Martin, at one time a cook at Christ Church, is mentioned in Jackson's Oxford Journal during the period 1773–86. A second link with Christ Church is provided by a glass bottle seal from its common room, found in A F18 (M V A6, Cat. No. 4, not illustrated).

The stone-lined pit A F13 contained two ceramic horizons dating to the late 18th, and the early to mid 19th century. The pottery assemblages are remarkable and are described under the key assemblages (Pl. 3). They include a pair of fine tinglaze plates (Nos. 1, 4), a hand-painted chinoiserie-style decorated shallow dish in pearlware (No. 2), a fluted shallow dish also in pearlware (No. 3), and a fine moulded teapot in red stoneware (No. 5). The pottery also includes an unusually large number of creamware and pearlware plates with personal names—probably of city notables and college servants—hand-painted on the rims and undersides (Pl. 4, Nos. 6–15).

1800–c. 1860 (Fig. 8)

In 1811 the Blue Coat Boys' School, founded in 1710, moved to No. 31 Church Street. A schoolmaster, John Robinson, already occupied the site. A contemporary architect's plan for the new school-room is superimposed on Fig. 8. Stone walls, A F11 and A F7, were presumably incorporated since they formed a property division. A F2005, an early 19th-century well, is not shown, but should probably be equated with the pumps shown in the yard beyond the kitchen. It is possible that this well was constructed at a much earlier date, comparable with A F1, a well dating from c. 1640. The school-room encroaches on SW83. SW82 had long been in the same ownership as this property, although they were divided into separate tenements.
OXFORD: 31-34 Church St. Site A, 1800–c.1860.
(Blue Coat School, Architect's Plan dated 1811).

Fig. 8. 31–34 Church St., Site A, Phase Plan.
Fig. 9. 31–34 Church St., Site A, Phase Plan. Based on the Ordnance Survey map, 1:500.
A pearl ware plate from A F72 has the name 'Purdue' hand-painted on the rim (Pl. 4, No. 5). The only person of that name known in the city is Henry Purdue who lived in Blue Boar Lane in c. 1864.

A F72, A F66 and A F56 contained locally-made clay pipes of George Norwood and the Huggins family (Figs. 55–56). Local makers predominated in the 19th century, and such pipes are found in most deposits. At least five pipemakers are recorded in St. Ebbe's.

An indication of tenement environments is given by the range of animal and bird bones found. Scavengers and other foragers on the tenements include pigs, cats, an occasional dog, black rats, hedgehogs, birds such as crows and owls, and possibly fowls and rabbits; it is even suggested that cows were kept (below). From A F90 (not shown on the phase plan but possibly dating to the 19th century) the skeleton of a 'broad headed' pig was recovered. It appears to be a sow which died approaching maturity. Two methods of constraint – tethering and penning – are indicated by bone deformation. Probably the pig died of disease. The corpse was not butchered, and was probably buried near where the pig had lived. In 1834, a reference to the pigsties of Mr Cooke at Nos. 32–34 Church Street confirms the rearing of pigs on the tenements (below).

Frequent references to gardens appear in the documents. From A F56 and A F2005 a hoe and spade fragment were found (Fig. 36, Nos. 32–33).

The material from the construction trench (L1065) of the stone-lined pit A F14 is dated to the early 17th century; the material from the fill, which was not kept, all dated to the 19th century. Stone-lined pits raise two general points. Their greater stability meant that they could be built closer to a boundary, so they would be a less dominant feature of the yard. The Greyfriars site produced similar sitings of stone-lined pits. Secondly, the more elaborate and expensive construction of stone-lined pits implies a system for carting away the fill.

1878 (Fig. 9)

This phase-plan is a direct copy of the Ordnance Survey 1:500 map for Nos. 30–34 Church Street. A playground was added to the Blue Coat Boys' School in 1825 and its teaching area enlarged in 1850. After c. 1893 the site was used by the Technical College. The classroom was retained, but the front of the property was redeveloped. More college buildings were erected, mainly west of the excavation area, in SW82/83/84. Excavation within No. 31 revealed brick footings on concrete forming a right-angle (Fig. 3). It is not known to which late post-medieval phase this brickwork belongs.

A F1, the stone-lined well, continued in use into the late 19th century, and the property boundaries skirt around it. The pottery evidence for well A F2005 extends only to c. 1820, but it appears that this water supply also remained in use.

Westgate, Site W (excluding F7, F21, F48, F70–72 and F80, features south of Church Street) and Selfridges, Site SEL (Fig. 10)

The material from these sites was recovered in the general salvage excavations which accompanied the watching brief when the basements for the Westgate Centre and Selfridge's were dug out. At Westgate the street frontages of Castle Street and Church Street had been almost entirely removed by previous cellars; the method of bulk excavation also made it difficult to recover material from the rear garden areas. Most of the material
Fig. 10. Two plans showing the location and date of the post-medieval salvage features from Site SEL (Selfridges) and Site W (Westgate, both north and south of Church Street). Also included are the post-medieval features recorded within Site B (Greyfriars) trenches which overlay the cloister range. Features are represented by a square. A single layer, B XX L72, is represented by a circle. Based on the city of Oxford Central Area 1:500 Survey by permission of the City Engineer.

*Left* The features, with dates shown in shaded form, are plotted against the 1772 property boundaries. The numbers refer to Salter's documentary references and only the relevant numbers are given. *Right* A key plan which shows the feature numbers and gives the date key. W FI17 and W FI18 were recorded as overlying Site A (31–34 Church Street) but their location is probably in error.
came from the eastern side of the excavation, where a standing face of the basement remained. Two pits (W F117 and F118) were recorded beneath 31–34 Church Street (Site A) and another series (Site W:F7, F21, F48, F70–72 and F80) are best considered in relation to the former site of the Greyfriars.

The Selfridge site also had a large pre-existing basement on the street frontages. The lowering of this basement was carried out more slowly than at Westgate because of the confined conditions, enabling a more even distribution of pits to be recorded.

The random distribution of pits recovered on both sites reflects the arbitrary, and at times hazardous, methods of recovery. The documentary survey, however, enables these pits to be related to individual households. Three pits (W F22, F45 and F112) are of particular interest, and their contents are treated as selected key assemblages.

The notable assemblage from W F112 from the rear garden of 10 Castle Street (SW158), is of the 16th century. It includes a fine two-handled Tudor Green cup (Fig. 15, No. 15). At this time the western part of the block of properties defined by St. Ebbe’s Street, Castle Street and Church Street was still the open area known as Newmarket. After the market was disbanded, in the early to mid 16th century, its site remained undeveloped waste ground until after 1578. Pit W F66 may represent one of the earliest encroachments on this area, which had been developed by the town by the end of the 17th century.

Pit W F22 (N1/N2 combined holdings) is a key, early to mid 18th-century, assemblage on the site of this built-up area (Figs. 22–23). The animal bone debris from this pit might be connected either with intermediary stages of butchery or with rubbish deposits of poor people (below).

The latest selected key assemblage from the Westgate site is W F45, a pit from the rear of 10 Castle Street (SW158). This property was a public house, leased and owned by the Scudamore family from 1736 to 1779. A Charles Scudamore was a scout at Christ Church in c. 1769 and he may, like other college servants, have run a public house as well. In 1794 the public house at 10 Castle Street was known as the Saracen’s Head. The assemblage from W F45 includes material which might be associated with such a property (Figs. 28–29). There are tinglaze plates, Staffordshire slipware platters, local red earthenware platters and white saltglaze platters. Predictably there is a high percentage of English stoneware drinking tankards, including some with sprig-moulded public house signs. These tankards, and the large number of slip trailed platters which were presumably used as serving dishes, are consistent with the eating and drinking which must have taken place at the Saracen’s Head. Not only alcohol was drunk on the premises: one of only three fragments of mid to late 18th-century continental spa water bottles was found in the same feature.

THE FORMER SITE OF THE GREYFRIARS, SITE B, AND WESTGATE, SITE W (including F7, F21, F48, F70–72 and F80, features south of Church Street) (Figs. 10–11).

The main Greyfriars excavation (Site B) lay on the Westgate Centre site between the former Church Street and Old Greyfriars’ Street. Further excavations took place in 1970 and 1973 on the St. Ebbe’s multi-storey car park site south of Old Greyfriars’ Street, and in 1976 south of Turnagain Lane, formerly Charles Street. The method of excavation will be described in the report on the Greyfriars; it is sufficient to note here that the trenches

References prefaced SW and N refer to A.J. Wood and H.L. Turner, ‘St. Ebbe’s Documentary and Topographic Survey’. Unpublished, available for consultation with the site archives. See also Figs. 60–62.
EXCAVATIONS IN ST. EBBE'S

(I-XXXIII) were laid out with the intention of recovering the evidence for the medieval building and not to answer questions relating to the post-dissolution use and occupation of the site. No street frontages were examined, and indeed the Church Street frontage had largely been destroyed by cellars. It was therefore the property boundaries, and the back-garden areas filled with pits, which were uncovered. The most coherent picture was derived from tenement G22x and to a lesser extent G22y.7 G22x was set back from the street frontage, and lay across the nave and north aisle of the Greyfriars church.

Fig. 11 shows the pits in relation to property boundaries, both as excavated and as shown in 1772.8 The pits have been shaded to indicate the date-range present. No detailed descriptions of the pits are published, since with the rare exception of stone-lined pits they were all simple earth-cut pits without any distinguishing features. The detailed site records contain full descriptions of each pit.

By 1544 the Greyfriars church had been largely demolished. However, the north wall of the choir (B I F1), its continuation westwards in the form of blocking across the entrance to the north nave, and the west wall of the north nave, were all left standing. These walls formed a major property division which was to survive subsequent subdivisions of the site until the building of the Westgate Centre. The immediate post-Dissolution history of the site was to be dominated by property speculators, who brought up large holdings or combined small holdings and leased them to tenants. Richard Gunter, a property dealer from South Wales, acquired the eastern half of the Greyfriars site in 1544, but its division into smaller estates had begun by the early 17th century. These estates were often short-lived, and their sale paved the way for the development of the street frontages.

One of these was the Littlegate Garden Estate (G6, comprising G7-15), which ran back from St. Ebbe’s street and lay south of St. Ebbe’s church and cemetery. One of the selected key assemblages (B III F4 L2), an early to mid 17th-century pit adjacent to the north choir wall, comes from this estate. It contained luxury items, including two olive green glass beakers of exceptional quality (Fig. 17, Nos. 9-10). The estate itself was divided and sold off c. 1645, following the fire which devastated St. Ebbe’s and Littlegate Streets.

The western neighbour of the Littlegate Garden Estate was the Almont Estate, which ran southwards beyond the line of the north aisle arcade and extended at its south-eastern corner as far as the south wall of the nave. Objects from the mid to late 17th-century pits from within the area of the Almont Estate include an iron spur (B IV F49; Fig. 38, No. 106) and an unusual glass posset pot (B IV F101; Fig. 45, No. 8). Another of the selected key assemblages comes from the same area (B IV F13; Fig. 18). This pit is also of the mid to late 17th-century, and its bone contents might possibly indicate butchery activity (below). A nearby pit of early to mid 18th-century date (B IV F44) contained two tarsometatarsi of domestic fowl with the spurs cut off, presumably to prepare the birds for cock-fighting with metal spurs (Pls. 9, 10, M VI C14, D1-2).

The Almont estate was divided in 1679. It was sold to John Smith, carpenter, and the contents of pit W F80 may have belonged to him. This is another selected key assemblage (Fig. 21). The tinglaze earthenware products are of superior quality to those in contemporaneous assemblages. They include an ointment pot of c. 1640-90. Another of the smaller units (G22x No. 13 Church Street) was mortgaged in 1739 to Sir Charles Osbaldestone, gentleman. He bought the property in 1741. In 1743 it changed hands again. One of the selected key assemblages comes from this property (W F48, Figs. 24-25). This material

7 References prefaced G refer to A.J. Wood and H.L. Turner, St. Ebbe’s Documentary and Topographic Survey’, unpublished, available for consultation with the site archives. See also Figs. 60-62.
8 The Greyfriars’ church robber trenches are not shown, but will appear on the medieval phase plans; however, the post-medieval finds from these features are included in this report.
seems to have been deposited over a very short period in the early 1740s. It is tempting to associate the unusually exotic finds with Sir Charles's household. By comparison with contemporary assemblages there is a higher percentage of coffee and tea wares made in Chinese porcelain, and white salt-glaze is present. The glass consists of a curious and exotic group of sixteen vessels, including one caged bird fountain (Fig. 25, No. 11) and a dish in opaque white glass (Fig. 25, No. 12).

The process of subdivision of the Almont estate by 1772 is shown in Fig. 61. By that time the Church Street frontage was fully divided; G20 was set back from the street, and a narrow lane provided access to it between G22x and G22y. This recalls the subdivision of medieval tenements with wide and therefore valuable frontages elsewhere in Oxford.

South-west of the Almont estate, the land including the former orchard of the Greyfriars known as Paradise was gardened by the Tagg family. The Taggs were well-known and successful market gardeners, who are reputed to have paid their workmen in 1725 the high rate of £700 a year. Another of the selected key assemblages (W F7, Figs. 26–27), of the mid 18th century, seems to have come from the northern part of the Taggs' property. This is another pit containing high-quality finds. There is a marked increase in the number of finer regional imports, and a corresponding decrease of red earthenwares. The assemblage includes the remains of a white salt-glaze stoneware dinner service, a wide variety of tea and coffee wares, 'scratch blue' salt-glaze stoneware, Astbury, Jackfield, Agate wares, and a very fine Whieldon-type teapot (Pl. 2). From this pit there is the base of a glass jug in red-brown glass marvered with white bands (Fig. 27, No. 11). A Spanish origin is possible for this vessel. There is also the spout of a posset pot (Fig. 27, No. 12).

Adjoining the Taggs' market garden to the east was the Wrenchs' garden. Like the Taggs' garden it ran southwards to the Trill Mill Stream, which was exploited by a variety of trades including a mill, breweries and tanneries. A deposit of horn-cores lining a late 18th-century pit (B 1 F27; G3) was presumably derived from one of the tanyards which lay 50 m. and 100 m. south-west of the pit (below). The same pit also contained narrow glass tubing, possibly derived from chemical apparatus (Fig. 45, No. 16). The pit itself lay in the north-east corner of G3, in the angle formed by the former north choir wall with the western boundary wall of the last property in Turnagain Lane.

The 19th century saw rapid development in St. Ebbe's, and the market gardens were built over. In 1822 G3 was sold for development, much of it to Charles Lane after whom Charles Street (formerly Turnagain Lane and now so renamed) was called. The Taggs' market garden was auctioned in lots for development in 1838. From this period came a stone-lined pit, B VII F5, behind Nos. 7–10 Turnagain Lane, the material from which has again been selected as a key assemblage (Pls. 1, 5–7). The pottery from this group was dominated by mass-produced white earthenwares, but pearlwares were evidently also popular. There are also English porcelain tea wares, red earthenware, and children's plates. Several sets of dinner and tea wares came from discrete factories. By contrast there is also a wide variety of jugs, perhaps acquired as gifts or collected as souvenirs. Finally, this echo of Victorian St. Ebbe's includes a commemorative Victoria and Albert marriage tankard (Pl. 7) and a large pearlware bowl with a blue transfer print of Oxford and the Thames viewed from the south-west (Pl. 1).

LITTLEGATE, SITE D (Fig. 11) – Brian Durham

The main objective of the excavation was to examine a length of the medieval town defence prior to a commercial development, and particularly to search for a Late Saxon rampart in
Fig. 11. Greyfriars (site B) and Littlegate (Site D), Evidence Plan.
an area where the early perimeter is totally lost. To get to the Saxon levels the site was excavated by hand from the outset, and on the south side of the town wall a useful 16th- to 17th-century sequence was recovered.

From the early 14th century the whole area was brought within the Greyfriars precinct. In 1544 it was acquired by Richard Gunter. When the Greyfriars site was divided the city wall became the boundary between the Littlegate Garden Estate and the Wilson née Stevens Estate. Although the alignment of the town wall certainly survived as a property boundary, it is difficult to be sure when the medieval fabric was removed (F1) and was replaced by a more slender boundary wall (F1/2). On the south side of the wall the level would have dropped abruptly to the surface of the Oxford clay, and the loss of half a metre of natural gravel is attributed to indiscriminate quarrying soon after the Dissolution. This quarrying must have weakened the wall, if indeed it still stood. Agas’s map in 1578 shows an uncrenellated wall here. West of the Greyfriars he shows another uncrenellated wall which must be the continuation, but the two are on such divergent alignments that the cartographer probably did not realise he was looking at the town defence. The wall west of the Greyfriars is more correctly shown in Loggan’s map of 1675, and has been confirmed by excavation. Taken with the scale of the gravel quarrying, the indirect evidence of Agas’s map tends to suggest that the wall had been replaced by 1578.

Most of the archaeological evidence relates to the plot immediately south of the wall. The quarrying would have been levelled up to form what was perhaps a yard (L24/1) of tenement G5. Although this area is now on the street frontage, until the end of the 18th century it would have been blocked off from the street by the projecting tower of the medieval gate (F2), and this may explain why there was no building structure. An effect of the quarrying would have been to lower the ground-level to the top of the clay, so that the yard was effectively on the spring-line. Two shallow pits are probably therefore to be seen as water-holes rather than waste pits (F62, F5, L5/2). After backfilling, they were to be covered with a scatter of pierced stone roof slates, perhaps a sparse paving (F24). A further shallow pit, perhaps a replacement water hole (F23), would have been in use in the cobbled yard towards the end of the 16th century. This type of usage probably continued for a further half-century to judge from the pottery evidence, with a short gully (F9/1, L9) and a rectangular pit (F27). This pit contained a glass beaker of 16th-century type, probably a goblet of Venetian origin (Fig. 44, No. 1). The area may by this time have been covered, but the three post-holes were too irregular to enable anything to be reconstructed (F17, F18, F25).

Twyne remarked in 1630 that the Little Gate was in disrepair. None of the extant maps shows two arches, and it is possible that the larger had gone by 1578, when there is tenuous evidence that the road had already bypassed it on the east. This detail is effaced on the surviving copy of Agas’s map, but Whittlesey’s later copy of 1728 implies that the gate is bypassed. Indeed, we only know of the second arch from Wood’s account, which may have been a deduction from what was left of the masonry. But the cartographical evidence does not correspond with the medieval rentals, which imply an extensive first floor chamber commanding substantial rents, and there can be little doubt that some part at least of the gate had gone by 1578. The remainder survived for a further two centuries.

10 See below, p. 271.
15 Victoria County History of Oxford, iv, 303.
The only other building structure on the site was a row of three stone piers to the north (F20, F33, F47). A building in this position first appears on Hollar’s map of 1643 and there were pits of this period to the rear of this and the adjoining plot (G8 and G9). However, these pits and their 18th-century successors were seen only in section in the machine-dug Trench III, and it is possible that they served lesser premises to the rear of these properties. In the 19th century the frontage was infilled, leaving a lane along the north side of the wall. With the removal of the gate-tower the long-lived yard area to the south, which had been accumulating rubbish over one and a half centuries (L3), would finally have supported the wall of a building (F4).

**ABBREVIATIONS**

The following abbreviations are used in the Catalogue of Pottery, Clay Pipes and Glass in each Key Assemblage (M I C1-G3) and in the individual Pottery and Glass Catalogues (M I G5-III G2).

**Pottery Catalogues**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BEW</td>
<td>Buff Earthenware</td>
</tr>
<tr>
<td>BEWSL</td>
<td>Buff Earthenware Slipware</td>
</tr>
<tr>
<td>BS</td>
<td>Body Sherd</td>
</tr>
<tr>
<td>CEW</td>
<td>Coloured Earthenware</td>
</tr>
<tr>
<td>CHIPO</td>
<td>Chinese Porcelain</td>
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<tr>
<td>CRM</td>
<td>Creamware</td>
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<tr>
<td>DECO</td>
<td>Decoration</td>
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<tr>
<td>DK</td>
<td>Dark</td>
</tr>
<tr>
<td>DPSG</td>
<td>Dipped Saltglaze</td>
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<tr>
<td>EST</td>
<td>English Stoneware</td>
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<tr>
<td>EXT</td>
<td>External</td>
</tr>
<tr>
<td>EUPO</td>
<td>European Porcelain</td>
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<tr>
<td>HORZ</td>
<td>Horizontal</td>
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<tr>
<td>INC</td>
<td>Including</td>
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**Glass Catalogues and Captions to Figures**

<table>
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<tr>
<td>B</td>
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<tr>
<td>bg</td>
<td>Blue-green</td>
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<td>Blue</td>
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<td>Crizzled</td>
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<td>Engraved</td>
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<tr>
<td>em</td>
<td>Emerald Green</td>
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<td>Early post-medieval</td>
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<td>G</td>
<td>Glass</td>
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<tr>
<td>g</td>
<td>Gilded</td>
</tr>
<tr>
<td>gr</td>
<td>Green</td>
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<tr>
<td>H</td>
<td>Hume’s Type (No.)</td>
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<table>
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<td>M</td>
<td>Marvered trail</td>
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<tr>
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<td>Colourless</td>
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<tr>
<td>ol</td>
<td>Olive Green</td>
</tr>
<tr>
<td>p</td>
<td>Pale</td>
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<tr>
<td>pu</td>
<td>Purple</td>
</tr>
<tr>
<td>R</td>
<td>Rim</td>
</tr>
<tr>
<td>rb</td>
<td>Red-brown</td>
</tr>
<tr>
<td>T</td>
<td>Twist within Stem</td>
</tr>
<tr>
<td>U/S</td>
<td>Unstratified</td>
</tr>
<tr>
<td>w</td>
<td>Opaque White</td>
</tr>
<tr>
<td>+</td>
<td>Cross-Join</td>
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The following abbreviations are used in the Concordance of Finds (M I A4–B11):

A  Silver          P  Plastic
B  Bone Artefact   R  Metalworking Residue
F  Leather Footwear S  Stone
HB Human Bone      W  Wood
L  Lead            X  See appropriate Finds Report
M  Medieval        ( ) Bracketed finds have not been reported on
N  Nails

Captions to Pottery, Clay Pipes and Glass Figures

Examples           Pottery  A P2504/8/1 DR
                   Clay Pipe  B X PP29/0/a
                   Glass     A G17/?2012/5 gr

The initial letters refer to the Site Code:
A Church Street; B Greyfriars; D Littlegate; SEL Selfridges; W Westgate. Greyfriars and Littlegate references include trench numbers in Roman numerals.

P, PP and G identify Pottery, Clay Pipes and Glass respectively.

The numbers following refer to feature and layer numbers, e.g. F2504 L8; F29; F17 ?L2012.

The final numbers for Pottery and Glass indicate unique drawing numbers within a context. The final letter for Clay Pipes indicates a unique drawing number.

The final letters for Pottery refer to the Fabric Code, e.g. DL, and for Glass, a colour description, e.g. gr green.

Colour Key

Light Blue   Yellow   Red & Brown
Dark Blue    Purple   Green
White

Fig. 12. Colour key to pottery illustrations.
There was little stratigraphy from the survey area as a whole, and in fact only three short stratigraphic sequences were established:

i) from the 16th to the early 17th century (D I L24/1, D I L9) through to the late 18th century (D I L3);
ii) from the mid-late 17th century to the mid-late 18th century (A F45, A F57) and to the early-mid 19th century (A F56);
iii) from the early-mid 17th century to the early-mid 19th century (A F82, A F54) and to the mid 19th century (A F72).

Two of the stratified sequences outlined above yielded independent dating evidence:

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Dating Evidence</th>
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<tbody>
<tr>
<td>A F45 (Cut by A F57)</td>
<td>Charles II farthing, c. 1672-75 (Cat. No. 22).</td>
</tr>
<tr>
<td>A F57 (Cut by A F56)</td>
<td>Coin-weight of George III, post-dates 1772 (Cat. No. 27); pearlware plate marked ‘J. Martin’, c. 1773-86, post-dates 1780 (Pl. 4, No. 4).</td>
</tr>
<tr>
<td>A F56</td>
<td>Clay pipes made by the Huggins Family, c. 1851-55 (Cat. No. 34e).</td>
</tr>
<tr>
<td>A F54 (Cut by A F72)</td>
<td>Plate with an impressed mark of Spode, c. 1790.</td>
</tr>
<tr>
<td>A F72</td>
<td>Plate marked ‘Purdue’ (Pl. 4, No. 5): a Purdue was known to be residing in Blue Boar Lane c. 1864; clay pipes made by G. Norwood, c. 1852-63, corroborate the date (Cat. No. 26a).</td>
</tr>
</tbody>
</table>

The excavations also include a number of other intersecting pits, and these, together with the stratified sequences, provide the basis for the chronological framework of the finds. The numismatic and documentary evidence, the dated pottery and its factories, dated glass bottle seals, and pottery, glass and clay pipe typologies were used to achieve the overall ceramic sequence for each site (Figs. 13-14). The chronology for the post-medieval finds is broadly based on some thirty dated assemblages from within the survey area.

16TH CENTURY
For the 16th century the demolition of the Greyfriars church in c. 1546 is an important terminus ante quem.

**Coins, Tokens, Counters and Coin-weights:**
- Nuremberg jetton, c. 1505±10 (A L70, Cat. No. 3);
- Nuremberg jetton, c. 1510±10 (A L70, Cat. No. 4);
- Nuremberg jetton, early or mid 16th cent. (A F2504 L8 (= F2011), Cat. No. 8);
- Jetton, early-mid 16th cent. (B IV L5, Cat. No. 40).
17TH CENTURY

The 17th-century horizons are based on four assemblages dated on numismatic evidence, and three assemblages dated by glass bottle seals. Further corroborative evidence for this period is provided by clay pipe and glass typologies.

**Coins, Tokens, Counters and Coin-Weights:**

- Copy of Nuremberg jetton, c. 1600 (A F2 L2011, Cat. No. 9);
- Nuremberg jetton, 1618–60 (A F1023 L1120, Cat. No. 10);
- Charles I ‘Rose’ farthing, 1634–44 (A F1003 L1027 (= F1023), Cat. No. 17);
- Farthing token, (1652 or) 1656–61 (A F17 L15, Cat. No. 20);
- Charles II farthing, 1672–75 (A F2003 L2015 (= F17), Cat. No. 23);
- Copper farthing, post-dates 1672 (A F1023 L1120, Cat. No. 24);
- William and Mary farthing, 1694 (B V F6 L1, Cat. No. 47).

**Glass Bottle Seals:**

- Squat globe-shape bottle datable to 1650–70 (A F17 L2012, Cat. No. 1);
- Mermaid Tavern 1684 (A F55 L55, Cat. No. 3);
- King’s Head Tavern, 1693 (W F80, Cat. No. 22).

18TH CENTURY

For the 18th century the dating evidence includes a dated pottery vessel, vessels marked with the names of people whose occupations and activities were sometimes documented, and regional imports. In particular, the finer wares such as the mass-produced creamwares and pearlwares from the Midlands provide other important *termini ante quos*. Known clay pipemakers supplement the dating evidence. The coins, glass bottle seals and typology of clay pipes are considered less reliable during the latter part of this century.

**Coins, Tokens, Counters and Coin-Weights:**

- George I Irish farthing, 1723 (W F25, Cat. No. 54);
- George III farthing, 1717–24 (W F25, Cat. No. 53);
- Imitation George III ‘Spade’ Guinea, post-dates 1787 (A F13 L11, Cat. No. 38);
- ?Halfpenny token, late 18th cent. (A F56 L56, Cat. No. 25);
- George III penny, 1797 (A F13 L11, Cat. No. 28).

**Glass Bottle Seals:**

- Thomas Swift, onion-shaped bottle datable to c. 1690–1710 (B VII F4, Cat. No. 12);
- Crown Tavern, 1701 (B X F26, Cat. No. 10);
- Three Tuns Tavern, 1709 (B IV F44, Cat. No.11);
- King’s Head Tavern, onion-shaped bottle not later than 1715 (W F45, Cat. No. 23);
- Christ Church, pre-dates 1771 (A F57 L57, cross-joined with A F56, B X F26, B V F11 L2, Cat. No.5).

**Pottery:**

- Vessel, dated ‘3rd October 1739’ (W F48), Fig. 25, No. 1;
  
  A stoneware drinking vessel and several pieces of dinner and tea ware are marked with the purchaser’s/owner’s name:

- Field, c. 1734–75 (W F45, Fig. 69, No. 5);
- J. Smith, c. 1756–90 (A F13, Pl. 4, No. 9);
J. Smith, c. 1756–90 (A F13, Pl. 4, No. 10);
T. Stockford, c. 1771–80 (A F13, Pl. 4, No. 11);
Sadler, c. 1778 (A F13);
Musgrove, c. 1778 (A F13, Pl. 4, Nos. 7–8).

Factory Names:
Turner, c. 1770–80 (B I F27);
J. Heath, c. 1770–1800 (B I F27).

Clay Pipemakers:
William Pearce, c. 1700–40 (W F25, Cat. No. 15);
Robert Gadney, c. 1720 (W F22, Cat. Nos. 11a–b);
Richard Sayer, working until c. 1720 (B IV F44, Cat. No. 17);
Joyce Rhoden, c. 1730–50 (A F60, Cat. No. 22);
Samuel Acton, c. 1731–48 (B I F29, Cat. No. 21);
John Bradley, c. 1740–60 (B X F26, Cat. No. 23a);
Ben Abbott, c. 1758 (B X F27, W F7 L1, W F45, Cat. No. 25b)

19TH CENTURY
The dating evidence for the 19th century relies primarily on factory names stamped or impressed on the china crockery, a commemorative mug and local clay pipemakers.

Coins, Tokens, Counters and Coin-Weights:
Napoleon III 10 centimes, mid 19th cent. (A F14 L12, Cat. No. 34);
?Victoria halfpenny, post-dates c. 1860 (A F14 L12, Cat. No. 36);
Victoria halfpenny, c. 1860–90 (A F14 L12, Cat. No. 37).

Pottery:
Commemorative mug, marriage of Victoria and Albert, c. 1840 (B VII F5, Pl.7);
Slop bowl, scratched with the name ‘Dodd’, pre-dates 1849 (B III L2).

Factory Names:
William Adams, 1798–1865 (B VII F5);
Elkin, Knight and Bridgewood, 1827–40 (B VII F5);
G. Phillips, Longport, 1834–48 (B VII F5);
T.G., Thomas Godwin, 1835–54 (B X F23);
Davenport, c. 1836 (B VII F5);
J.M.S., John Meir and Son, 1837–97 (B V L2);
Goodwin and Ellis, 1839–40 (B VII F5);
Robert Gallimore, 1840–50 (B VII F5).

Clay Pipemakers:
Thomas Frost, 1803–44 (B V F11 L3, Cat. No. 28);
Huggins family, c. 1850 (A F56 L56, B VII F5, Cat. Nos. 31–33);
G. Norwood, 1852–63 (A F66 L74, A F72 L82, B X F27, B VII F5, Cat. Nos. 26a–e);
Samuel Carter, 1857–75 (B IV F8 L1, Cat. No. 27).
A SUMMARY OF THE KEY ASSEMBLAGES. A STUDY OF THE POTTERY, CLAY PIPES, GLASS AND OTHER FINDS FROM FOURTEEN PITS, DATING FROM THE 16TH TO THE MID 19TH CENTURY
by MAUREEN MELLOR and GWYNNE OAKLEY

(Figs. 13–29, Pls. 1–7) (Catalogue of the pottery, clay pipes and glass in each key assemblage, M I Cl–G3). Abbreviations used in the catalogue are listed at the beginning of the Finds Report.

The survey area excavations produced very large quantities of artefacts with relatively little direct dating evidence or stratigraphic seriation. At an early stage in the post-exca vation work, therefore, it was decided that the most instructive results would come from an intensive study of the contents of certain features which promised to be representative of particular periods. Four or five key assemblages were accordingly selected for each century, notionally at twenty- or twenty-five-year intervals, although comparative study of the various categories of finds has inevitably upset the symmetry of these intervals.

A second objective was to illustrate all the major categories of finds from each key assemblage in a single figure. This proved impractical for the small-finds, but for the glass and ceramic objects it has proved to be a good way of visualising the domestic possessions of successive generations.

The key assemblages from 1500 in chronological order are: A F1528, A F2531, A F2504 L1, W F112 16th century; A F2504 L8 (= A F2011), B III F4 L2, B IV F13, A F17, W F80 17th century; W F22, W F48, W F7, W F45 18th century; A F13, B VII F5 19th century.

Four 16th-century assemblages (A F1528, A F2531, A F2504 L1, W F112) were selected as key groups. They are very small: the number of vessels range from one to forty-three. Carting of rubbish is known to have taken place in some parts of the city in c. 1593, and may account for the lack of large assemblages. At present it is not possible to divide the post Dissolution 16th-century pottery into twenty-year periods.

A F1528 16th Century (Fig. 13, vessels not illustrated)

This is the earliest of the key groups. It was recovered from a pit which lay about 4 m. behind the frontage of SW81 (33 Church Street, Fig. 3). The presence of the pit suggests that this part of the frontage was not built up during this period.

A wide variety of red earthenware fabric types were recovered, but of these, two Brill-types dominate (Fabric BX and DR); Brill-types had been the major local source since the mid 13th century. Cistercian-type drinking vessels and a Rhenish stoneware flagon are also present, and these can be paralleled with ceramics found at the Hamel (Phase E4(2)), which are dated to the first half of the 16th century. The latter dating was achieved by analogy with sites as far afield as Yorkshire and Surrey, as there is little independent dating locally.

A F2531 16th Century (Figs. 13; 15, Nos. 9–14)

The assemblage was found in a pit situated c. 4.5 m. behind the frontage of SW81 (32

17 V.C.H. Oxon. iv. 76.
Fig. 13. Post-medieval wares from the rescue excavations: 31–34 Church Street (A), and Greyfriars and Littlegate (B). A histogram showing the minimum vessel numbers in each ware as a percentage of the total in each assemblage. + Indicates 5% or less.
Fig. 14. Post-medieval wares from the salvage sites: Westgate (north of Church Street) and Selfridges (C), and Westgate (south of Church Street) (D). A histogram showing the minimum vessel numbers in each ware as a percentage of the total in each assemblage. + Indicates 5% or less.
Church Street, Fig. 3). Its location suggests that this adjoining property was also unoccupied during the 16th century. A limited range of vessels was found, similar to those in A F1528. Red earthenwares are still dominant (Fig. 15, Nos. 9–10, 12–14), and Brill-types now include Fabrics DR and DG; this assemblage is thought to be slightly later than A F1528 (above) on account of the presence of the latter fabric type, which has not been recognised in Oxford before. A Rhenish tankard is also present (No. 11).

A F2504 L1 16th Century (Figs. 13; 15, No. 7)

Only two recognisable vessels were recovered, both jars and both from Brill (No. 7). They were derived from a pit which related either to tenement SW82 or to SW83 (30 or 31 Church Street, Fig. 3).

W FII2 16th Century (Figs. 14; 15, Nos. 15–16)

Three vessels were recovered from a small pit which lay c. 30 m. behind the Castle Street frontage (south side) and within SW158, (10 Castle Street, Fig. 10). A deed of 1533 records that this property consisted of four messuages and gardens, and was bought by John Thomas, tailor, from Richard Gunter. The finding of a watering-pot corroborates the reference to the presence of gardens. The pot (No. 16), made at Brill, was a 16th-century innovation and can only be paralleled in Oxford by a fragment of a base found within A L70 dated by two jettins (1505±10 and 1510±10; Cat. Nos. 3–4), and one in the Ashmolean Museum Reserve Collection. A very fine two-handled Tudor Green cup was also found (No. 15).

These 16th-century groups contain no glass vessels. This is not surprising as such items, during this period, were luxury goods afforded by few households. More mundane items were found: a few copper alloy pins and lace-ends from shoes or clothing; a bone awl; two iron knives; and a hone for sharpening knives (Fig. 50, No. 1).

A F2504 L8 (= F2011) 16th to early 17th century (Figs. 13; 15, Nos. 1–8)

This assemblage was recovered from a north/south trench which may have been the robber-trench of a medieval wall. The trench extended from 6 m. to 10 m. behind the frontage of SW82 (31 Church Street, Fig. 3). A wider range of ceramic vessel types is now evident, and includes a tinglaze dish, probably from London, and Rhenish stonewares (Nos. 2–3). Pottery made at Brill accounts for sixty-three per cent of the total, and includes a form (No. 8) parallel with kiln material found at Brill which is tentatively dated to the

19 For the definition of a watering-pot see Stephen Moorhouse, Medieval Pottery Research Group Glossary, forthcoming.
20 Copper Alloy and Silver Objects Catalogue, following No. 41 and Nos. 33–34 respectively, M IV B6.
21 Bone and Ivory Objects Catalogue No. 26, M IV F6.
22 Iron Objects Catalogue Nos. 4–5, M IV D2.
Fig. 15. A F2504 L8 (= F2011), A F2504 L1, A F2531 L1, W F112, 16th-century assemblages.
first third of the 17th century. Many of the Brill products (Nos. 1, 6) show little if any change over the late 15th century originals, but some new forms were added to the repertoire (Nos. 4–5).

Clay tobacco pipe stems were recovered (these were not made in England before the late 16th century).

The assemblage also contains an early to mid 16th-century Nuremberg jetton and two copper alloy double-looped buckles. Once again there is no glass.

BIII F4 L2 Early to mid 17th century (Figs. 13, 16–17)

This assemblage perhaps derives from the area of the Littlegate Garden Estate, G15 (Fig. 11). The estate, however, was broken up in c. 1645, so the pit may be associated with a property frontline onto St. Ebbes/Littlegate Street (west side). The land was bought from Will Levins by Alexander Carpenter in 1646.

Surrey-type white areas dominate the pottery assemblage (forty-six per cent) (Fig. 16, Nos. 3–12), while red earthenwares account for twenty-five per cent (Fig. 16, Nos. 13–14; Fig. 17, Nos. 1–6), sixteen per cent being attributed to Brill. A much wider variety of wares is present than in the late 16th- to early 17th-century assemblage (A F2504 L8 (= F2011)), with an emphasis on trade with London and Surrey indicated by the presence of tinglaze earthenware (Fig. 16, No. 2) and Surrey-type wares. Rhinish stonewares are still present and include a tankard with a stylised Amsterdam coat of arms (Fig. 16, No. 1). Clay pipes of c. 1625–45 were recovered.

Only five glass vessels were found, not surprisingly since glass was still a luxury item. Two olive green beakers are of exceptional quality (Fig. 17, Nos. 9–10). They are probably the products of the new coal-fired glasshouses set up in Staffordshire and Gloucestershire by families of glassmakers who had moved from the Weald in the late 16th century. Two round-shouldered phials, a biconical flask (Fig. 17, No. 8) and eighteen fragments of window glass were found. There are no case bottles.

Other finds include an ivory double-sided comb, a cutlery handle, and an iron padlock key (Fig. 37, No. 92).

B IV F13 Mid to late 17th century (Figs. 13, 18)

This assemblage was recovered from a pit which lay in the garden area of G22 (11–13 Church Street, south side, Fig. 11). Before the 1670s the area had formed part of the Almont Estate.

The pottery continues to be dominated by Surrey-type white wares (thirty-eight per cent) (Fig. 18, Nos. 3–6, 8–12, 15), but this emphasis is less marked here than in the early to mid 17th-century assemblage (BIII F4 L2). Red earthenwares account for thirty-two per cent of the total (Brill-types still retain eighteen per cent of the market and include slip decorated wares) (Nos. 7, 13–14, 16–19). Regional imports now include London-type

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24 Michael Farley, 'Pottery and pottery kilns of the post-medieval period at Brill, Buckinghamshire', *Post-Medieval Archaeology*, xiii (1979), 132, Fig. 6, No. 2.

25 Coins, Tokens, Counters and Coin-weights Catalogue No. 8, M IV A4; Copper Alloy and Silver Objects Catalogue Nos. 8–9, M IV B4.

26 Bone and Ivory Objects Catalogue Nos. 30, 35, respectively, M IV F8; Iron Objects Catalogue No. 92, M IV D14.
Fig. 16. B III F4 L2, An early to mid 17th-century assemblage.
Scale 1:4.
stonewares, Staffordshire slipwares (No. 2), 'Midlands blackware' tankards, as well as English tinglaze earthenwares. Rhenish stonewares (No. 1) are also present.

The clay pipes, including local Type B, are dated to c. 1660–70 (Fig. 18, No. 20). Only three glass bottle sherds were recovered, including a case bottle probably of early to mid 17th-century date. One piece of green window-glass was also found. The paucity of this material suggests that glass vessels and glazing was still a rarity for most households. There are nevertheless some high-quality finds which indicate that this assemblage did not derive from a poor household. They include two fine iron knives, one with decorative silver wire inlay on the bolster between the handle and the blade, the other with a cutler's mark (Fig. 35, Nos. 88–89), 27 and an ornate iron hinge from a door or cupboard (Fig. 37, No. 94). 28

27 Ibid., Nos. 88–89, M IV D14.
28 Ibid., No. 94, M IV D14.
Fig. 18. B IV P13, A mid to late 17th-century assemblage.
This stone-lined pit contained several ceramic horizons, and was the largest 17th-century assemblage excavated in the survey area. It lay within a combined holding, SW2/83/84 (27-31 Church Street, Fig. 3), which was occupied by a malthouse from c. 1640. By 1695 the malthouse had been replaced by five new tenements.

Red earthenwares have superseded the Surrey-type white wares (Fig. 19, Nos. 4-5) in popularity, but Brill-types account for only ten per cent of the total assemblage. The local red earthenware industry was beginning to diversify by producing more coarsewares in open forms (Fig. 19, Nos. 9-12; Fig. 20, Nos. 1, 3), and decorating platters and dishes with trailed white slip. In the uppermost layer (L15) a number of very fragmentary sherds of both white and red earthenware were found. These sherds largely account for the wide range of new fabric types identified in this assemblage (Fabrics DH, DI, DL, DG, DS, DU, ED, EG), but the layer may represent 'slumping' and the finds are dated slightly later than the majority of material from the pit. Rhenish stoneware bellarmines (Fig. 19, No. 1) and drinking tankards from Westerwald are present. Plates in tinglaze earthenware make their first appearance, in particular Type 1a (Fig. 19, No. 3). This type was thought to date to c. 1690-1770, but its occurrence here suggests that it was manufactured slightly earlier. Albarello-type containers also occur for the first time (Fig. 19, No. 2). A unique type of jug and globular mug (Fig. 20, Nos. 3a, 4), glazed black internally and externally, is of a quality of workmanship which suggests a Staffordshire origin.

The clay pipe typology also suggests that the archaeological material may have been deposited at slightly different periods: the lowest layer (L2012) is dated to c. 1650-70 (Fig. 20, Nos. 5-6, 8); it was sealed by L2010, dated to c. 1670-80; and the uppermost layer (L15) is dated to c. 1660-90 (Fig. 20, No. 7).

The glass vessels (Fig. 20) are remarkable for the high proportion of completely restorable bottles (Nos. 9-10, 12, 16-17). These comprise the largest percentage of bottles in any group of significant size, and they must have been discarded intact. The majority are heavy wine bottles of globular shape which were introduced c. 1650 (No. 9), and two have previously unrecorded seals, 'B/TM/Oxon' (No. 10) and 'IH/Oxon' (No. 11). Nine are thin case bottles. Five round case bottles range in size from ? half-gallon, to quart (Fig. 17), to ? pint. Three square (No. 12) and one hexagonal case bottles are present. Case bottles are an earlier type which were usually protected by leather or wicker cases.

The latest bottles in the assemblages are two onion-shaped bottles which probably post-date 1670. Early round-shouldered phials, obviously related in form to the case bottles (Nos. 13-14, 18), as well as a bowl (No. 19), are made of the same good-quality green glass. In contrast, several very thin drinking glasses (No. 15) are of a greyish colourless glass, and one of clear crystal is gilded and engraved. Window-glass is plentiful, and dominated by green diamond-shaped quarries. Although much of the glass seems to be of the mid 17th century, two coins confirm the mid to late 17th-century date indicated by the pottery and clay pipes (a farthing token of c. 1660 was found in L15, but from the bottom of the pit (L2015) came a Charles II farthing minted between 1672 and 1675).31

This assemblage includes a samian sherd and a 3rd-century Roman coin, finds perhaps cherished by an antiquarian. Other unusual finds include a four-armed copper

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30 Ibid., No. 23, M IV A6.
31 Ibid., No. 1, M IV A3.
Fig. 19. A F17, A mid to late 17th-century assemblage.
Fig. 20. A F17, A mid to late 17th-century assemblage (con.).
Fig. 21. W F80, A late 17th-century assemblage.
alloy seal matrix (Fig. 31, No. 1), and a chape and sword pommel of iron (Fig. 37, Nos. 73–74). Domestic material includes iron knives, a saw blade fragment (Fig. 35, No. 28), a padlock (Fig. 37, No. 38), a spoon handle, ivory double-sided combs (Fig. 39, No. 1), at least thirty-five copper alloy pins and lace ends, and a thimble. Two ivory off-cuts (Fig. 39, No. 24) could indicate comb or handle manufacturing nearby.

W F80 Late 17th century (Figs. 14, 21)

This assemblage came from a stone-lined pit which probably lay in the back garden of G26 (16 Church Street, south side, Fig. 10). G26 formed part of the Almont Estate, which was sold to John Smart, carpenter, in 1679, and the contents of this pit may have belonged to him. The coarse wares still retained Surrey-types (Fig. 21, Nos. 6–7, 9) and local red earthenwares (Nos. 8, 10). Regional imports include the occasional ‘Midlands Blackware’ (No. 5) and English tin-glaze earthenwares.

The tin-glaze earthenware products are superior in quality to contemporary assemblages from the survey area (Nos. 2–3) and include an ointment pot dated to c. 1640–90 (No. 4). The clay pipes are in the date-range of c. 1670–1700 (Nos. 11–13).

The glass vessels (Fig. 21) exhibit severe weathering and delamination. Wine-bottles make up an unusually high percentage of the total vessels (Nos. 14–18) of which many are ‘half’ size (Nos. 15–16, 18). One of these bottles has a King’s Head tavern seal, dated 1693 (No. 15). The other glass finds consist of three thin flasks of spherical (No. 19), globular and wide-mouthed form; a medium body phial (No. 20); and the bowl of a stemmed drinking glass.

The stone lining of the pit suggests that the owner was comparatively prosperous, and, despite the small number of finds, the contents appear to bear this out.

W F22 Early to mid 18th century (Figs. 14, 22–23)

This pit lay in the combined tenement N1/N2, in the parishes of St. Ebbe and St. Peter-le-Bailey (Fig. 10), which was leased by Jacob Hayfield, carpenter, in 1725.

Red earthenwares dominate (fifty per cent) (Fig. 22, Nos. 12–18; Fig. 23, Nos. 1–3), but Brill-types represent only eleven per cent of the total. There are no new red earthenware fabrics additional to those found in A F17. Surrey-type white wares continue to account for twenty-five per cent (Fig. 22, Nos. 7–11). Local slipwares with trailed decoration are still present. Regional imports include English stonewares from London (Fig. 22, No. 2) and Staffordshire (Fig. 22, No. 1). Other Staffordshire products are
Fig. 22. W F22, An early to mid 18th-century assemblage.
present: dipped saltglaze stoneware, first manufactured c. 1710, mottled brown glazed wares (Fig. 22, No. 6), and slip trailed vessels (Fig. 22, No. 4). English tinglaze earthenwares increased in popularity (Fig. 22, Nos. 3, 5). An exceptionally large group of chamber-pots, twenty-three in all, was recovered. This might indicate that a member of the household had been ill for some considerable time, or they may have been used as containers in a workshop.
The clay pipes indicate a closing date of c. 1740 (Fig. 23, Nos. 4–6), but they also include a type which parallels pipes of 1683.

Glass bottles (Fig. 23) form a smaller proportion of the vessels than in earlier groups (Nos. 7–10, 13–14). Five are onion-shaped types, probably dating to the early 18th or even the late 17th century, and two are inscribed with their owners' initials 'JB' and 'K' – presumably so that they could be identified at the vintners (Nos. 7, 13). One of the later mallet-shaped type and a continental import is also present. The group also includes five globular flasks (No. 16) and one shouldered flask or 'spirits' bottle (No. 15), and the neck of a round, flattened bottle (No. 14) which would have been encased in wicker-work, of a type illustrated in Fig. 25, No. 8. Glass phials include round-shouldered, short body (No. 11) and medium (No. 12) forms. Six jars with vertical mould-blown ribbing, perhaps for ointments, make up the rest of the vessels (Nos. 17–18). The small amount of window-glass present (fourteen fragments) is predominantly dark-green in colour.

Two ivory cutlery handles (Fig. 40, Nos. 47–48) are noteworthy finds. Others include an iron rod, a bar, a nail and wire, but nothing specifically connected with the carpentry trade of the occupant, Jacob Hayfield.

The clay pipes indicate a closing date of c. 1740, slightly later than that based on the pottery and glass, c. 1720–30.

W F48 Mid 18th century (Figs. 14, 24–25)

The assemblage came from a pit to the rear of tenement G22x on the south side of Church Street (Nos. 11–13; Fig. 10). This property was mortgaged to William Newbury, victualler, in 1721, and after his death in 1739 to Sir Charles Osbaldestone, gentleman. He bought it in 1741, but in 1743 it again changed hands. The unusual and exotic finds are perhaps consistent with the property of a 'gentleman', possibly Sir Charles Osbaldestone, and therefore may have been deposited over a very short period of time, in the early 1740s.

Red earthenwares account for forty per cent of the total (Fig. 24, Nos. 7, 11–12; Fig. 25, Nos. 1–7) with Brill-types representing eighteen per cent. An increase in the use of black glaze on red earthenwares is apparent (Fig. 25, No. 3) and local slipwares are decorated with thick trailed slip, which is sometimes coloured with copper oxide to give a rich dark green colour. Overseas imports include a large Westerwald tankard (Fig. 24, No. 1) with a 'GR' cipher and Chinese porcelain tea wares (Fig. 24, No. 10). Regional imports still include some Surrey-type white wares (Fig. 24, Nos. 5–6), tinglaze earthenwares (Fig. 24, Nos. 2, 4) and stonewares (Fig. 24, No. 3) from London. The dipped saltglaze (Fig. 24, No. 8), white saltglaze stoneware (Fig. 24, No. 9) and slip trailed wares were probably brought by pack-horse to Oxford from Staffordshire. White saltglaze was not manufactured before the 1730s. A commemorative pot, with 'Octobr ye 13 day 1739' slip trailed around the outside (Fig. 25, No. 1) coincides with Sir Charles Osbaldestone's mortgage of the property. Surprisingly few pipe bowls were found, with local types completely absent and nothing later than c. 1740.

The glass (Fig. 25), which includes curious and exotic vessels, consists of four imported continental 'wanded' flasks of pale amber-coloured glass (No. 8); six English wine bottles of c. 1720–40 (Nos. 9, 14); a colourless globular flask base with vertical trailed ribs conjoined by eight loops around the base (No. 10); the top half of a caged bird fountain in

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Bone and Ivory Objects Catalogue Nos. 47, 48, M IV F12.
Iron Objects Catalogue Nos. 114–117 respectively, M IV E4.
Fig. 24. W P48, A mid 18th-century assemblage.
Fig. 25. W F48, A mid 18th-century assemblage (con.).
Scale 1:4 (except Nos. 15–16 scale 1:2).
the shape of a man with a moulded white face, wig and purple tricorn hat (No. 11); a glass
dish or saucer with applied opaque white footring and trailed clear blue rim (No. 12), and
three phials (No. 13). Five fragments of window-glass and eight mirror fragments are also
present.

The higher percentage of coffee and tea wares made in Chinese porcelain and white
saltglaze, the opaque white tea dish imitating porcelain\(^7\) and the bird fountain may
all indicate a wealthy household. A mirror also seems to have been an unusual possession at
this period.

\(W F7\) Mid 18th century (Figs. 14, 26–27; Pl. 2)

The pit which produced this assemblage had two distinct fills (L1, L2). It lay in an area
which may have formed part of the market-garden cultivated by James Tagg (G3). Tagg
had been apprentice to Thomas Wrench, the ‘best kitchen gardener in England’; he
married Wrench’s widow and the family continued as market-gardeners in the area until
the 19th century. Once again, the high quality of the finds suggests that they were derived
from a wealthy household. This may have been the same Tagg family who in 1725 are
recorded as paying their workmen the high rate of £700 a year.

There is a marked increase in the number of finer regional imports, with a
-corresponding decrease of red earthenwares (twenty per cent, with Brill-types, Fabric DG,
representing as little as eight per cent) (Fig. 27, Nos. 1–3) and Surrey-type white
earthenwares (Fig. 26, Nos. 5, 7). Local slipwares are still present in very modest numbers
(Fig. 26, No. 16), as are Rhenish stonewares (Fig. 26, No. 2). Stonewares from Staffordshire
and London occur, and include a quart-sized tankard inscribed ‘John Green 1730’ (Fig. 26,
No. 2). The tinglaze earthenwares are also mainly from London (Fig. 26, Nos. 3–4) but two
pieces are possibly from Spain (M I E7 W F7, Fabrics FJ and FK). Dipped saltglaze
stoneware, mottled brown glazed wares, and slipwares (Fig. 26, Nos. 11–12) from
Staffordshire are also present. The group includes part of a white saltglaze stoneware
dinner service (Fig. 26, No. 14); a wide variety of tea and coffee wares, ‘scratch blue’
saltglaze and red stoneware (Fig. 26, No. 15); Astbury, Jackfield, Agate wares; and a very
fine Whieldon-type teapot of c. 1760 (Pl. 2). The tea and coffee wares include Chinese
porcelain (Fig. 26, Nos. 8–9), Leeds or Liverpool porcelain (Fig. 26, No. 6), and Worcester
porcelain which was not made until c. 1750.

\[^7\] See a contemporary description (1743) of how to tell the difference between imitation and genuine porcelain.
Fig. 26. W F7, A mid 18th-century assemblage.
The majority of the finer wares were recovered from Layer 1, but a Jackfield teapot post-dating 1745 (Fig. 26, No. 13) was found in the lowest layer, Layer 2. This conflicts with the clay pipe evidence which suggests that Layer 2 closed c. 1720, while Layer 1 closed c. 1740-50 (Fig. 27, Nos. 4–6). The Jackfield pot may be intrusive in Layer 2.

Glass finds (Fig. 27) from Layer 1 include twenty-six wine bottles (Nos. 7–8), of which five are cylindrical vessels which probably post-date 1740, and a continental wanded bottle; two thin flasks; one round and one square or hexagonal case bottle; four narrow and medium phials; and eighty-four fragments of window glass. Unusual finds consist of a posset cup spout (No. 12); two colourless wine glasses (No. 13); and a drinking glass bowl and stem with opaque white twist decoration, typical of the period 1755–80 (No. 14). Layer
2 contained twelve onion-shaped wine bottles (Nos. 9–10) of late 17th or early 18th-century date and a later continental wanded bottle; four thin flasks; a square case bottle; three medium phials; narrow tubing possibly from a chemical apparatus (No. 15); four window glass fragments and a mirror fragment. A rare and exotic element to the assemblage is given by the presence of the base of a vessel, possibly a jug, in red-brown glass marvered with white bands (No. 11). It may be contemporary with another coloured vessel from a mid 17th-century group. Jeremy Haslam comments that this fragment shows close similarities to a more complete vessel from Southampton for which a possible Spanish origin has been suggested (below).

Other finds include an openwork copper alloy shoe buckle and a furniture handle, both of fine quality; an iron key (Fig. 37, No. 112) and an ivory cutlery handle (Fig. 40, No. 49).  

W F45 Mid to late 18th century (Figs. 14, 28–29)

This very large pit lay some 30 m. behind the Castle Street frontage, probably within SW159 (Fig. 10). A public house known as the Saracen Head (SW81) was sited within this property, and was leased or owned by the Scudamore family from 1736 to 1779. Charles Scudamore was a scout at Christ Church in c. 1769 and may, like other college servants, have run a public house as well.

Red earthenwares account for thirty per cent of the total ceramic assemblage (Fig. 28, Nos. 15, 18–21; Fig. 29, Nos. 1–4) (with Brill-types, Fabric DG, representing fifteen per cent). As in W F48, the use of black glaze on red earthenwares is not unusual (Fig. 28, No. 16). Surrey-type wares now only represent two per cent of the total (Fig. 28, Nos. 9–10). Tinglaze plates (Fig. 28, Nos. 5–6), Staffordshire slipware platters (Fig. 28, No. 11), local red earthenware platters, and tea wares in white saltglaze stoneware (Fig. 28, Nos. 13–14, 17) were evidently popular. In comparison with other contemporary groups, a higher percentage of drinking tankards in English stoneware (Fig. 28, Nos. 3–4) and dipped saltglaze stoneware is noticeable (Fig. 28, No. 12). The English stonewares include tankards with sprig-moulded public house signs; one with a lion and incised ‘Field’ (Fig. 28, No. 4), probably Charles Field who held the Red Lion in the High Street, c. 1734, or possibly his son of the same address who died in 1778. A second example with a fop and tree incised ‘H... ’ is present (Fig. 28, No. 3). Other tankards include parallels with a London example inscribed ‘Ann Cleland 1748’. Another is dated by Robin Hildyard, on typological grounds, to c. 1770–1780, suggesting that English stonewares, like their German counterparts, often had long ‘life spans’. Noël Hume suggests that after 1730 the dipped saltglaze wares were reserved for taverns. These tankards, together with the large number of local slip trailed platters such as might be used for serving dishes, suggest that this group was associated with an eating house or tavern. Tea wares, made in some of the finer regional imports, include English porcelain, Agate and Astbury types, and indicate a date after 1750. Chinese porcelain is also present (Fig. 28, No 7). This assemblage, although very large, is less varied than W F48 and W F7; for example it contains no white saltglaze plates.

The clay pipes include Chester types dated 1710–30 (Fig. 29, No. 8), and a pipe made

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48 Copper Alloy and Silver Objects Catalogue Nos. 132, 138 respectively, M IV C8.
49 Iron Objects Catalogue No. 112, M IV E4.
50 Bone and Ivory Objects Catalogue No. 49, M IV F12.
Fig. 28. W P45, A mid to late 18th-century assemblage.
Fig. 29. W F45, A mid to late 18th-century assemblage.
Sixty-two glass bottles were found (Fig. 29, Nos. 10-14, 16) and include many of mallet-shape. The latter tend towards a cylindrical form. A smaller number of cylindrical bottles were found; most are mid 18th-century types, but they include three of a later type datable to 1760-70. One onion-shaped bottle has a King’s Head tavern seal (Fig. 29, No. 11), and a cylindrical bottle has a seal with the letter ‘B’ (No. 12). The group includes Continental spa water bottles and seven globular thin flasks with different neck finishes. The assemblage is remarkable for the large number and variety of phials which were probably used for medical potions: short (No. 20), narrow (No. 21), wide (No. 22), long (Nos. 23, 25), long-necked (No. 24) and medium. Four wide-mouthed jars with mould-blown decoration were found (Nos. 26–27). A spectacle lens was another unusual find (No. 15). Window-glass is predominantly pale in colour, and includes rectangular pane fragments as well as quarries and a crown glass edge off-cut.

Antler and ivory cutlery handles include a decorated example (Fig. 40, Nos. 50–51); there is a copper alloy shoe buckle.

No selected assemblages are included for the period 1780–1840. This is because features containing large groups were contaminated by later cuts, for example, A F57 was cut by A F56. A small group of vessels dating from c. 1780–1800 was, however, recovered from a stone-lined pit (A F13). This pit produced mainly early to mid 19th-century material, much of which cross-joined with finds from A F56.

A F13 Early to mid 19th century (Fig. 13, Pls. 3–4)

An assemblage with a late 18th-century horizon (only selected items from the latter are described below). The stone-lined pit lay in the back garden of a property fronting on the north side of Church Street (No. 31, SW82, Fig. 3). Thomas Burrows II acquired the property in c. 1770, and it remained in his family until 1811. It was then occupied by John Robinson, a schoolmaster.

The pottery assemblage includes: a pair of very fine tin-glaze plates (Type 2) (Pl. 3, Nos. 1, 4), with decoration which is almost a direct copy of a Chinese porcelain plate dated c. 1745; a hand-painted chinoiserie-style decorated shallow dish in pearlware (Pl. 3, No. 2), possibly made in Staffordshire or Leeds; a fluted shallow dish in pearlware with an early transfer, in neoclassical style, of Adam and Eve (Pl. 3, No. 3), dated c. 1790; and a fine moulded teapot in red stoneware with applied decoration (Pl. 3, No. 5), probably made in Staffordshire. This assemblage also includes an unusually large number of creamware and pearlware plates with personal names hand-painted in underglaze blue; ‘J. Smith’ (Pl. 4, Nos. 9–10), possibly John Smith, a mercer who served on the city council in the second half of the 18th century and was elected bailiff in 1773. ‘Stockford’ (Pl. 4, No. 11) could be Thomas Stockford, innkeeper of the Wheatsheaf and the Anchor, and also at one time head butler at Trinity College. He too served on the city council, and died in 1787. Two plates with ‘Wm. Musgrove’ (Pl. 4, Nos. 7–8), possibly belonged to William Musgrove, one time cook at Christ Church and coffee-house keeper in the Cornmarket, c. 1778–81. ‘Sadler’ scratched through the glaze of a pearlware plate was obviously added after its manufacture.

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51 Glass Bottle Seals Catalogue Nos. 23, 24, M V A10.
52 Bone and Ivory Objects Catalogue, Nos. 50–52, M IV F12. No. 50 is decorated.
53 Copper Alloy and Silver Objects Catalogue No. 133, M IV C8.
Plate 3. A F13, Late 18th-century material from an early to mid 19th-century pit.

A Mr. Sadler, cook, was fined five guineas for overcharging for a venison feast in 1778. Three plates are marked ‘J.W. Cluff’ (Pl. 4, Nos. 12–14). Unfortunately this name was not traceable in the documents. The name ‘John . . .’ (Pl. 4, No. 6) was written on the reverse of another plate, and is again not traceable. Another plate has a name which ended in ‘. . .hich’ (Pl. 4, No. 15), dated 1778. This very extraordinary collection of rubbish is hard to explain, since there is no evidence of a tavern or eating house on the site which might have acquired these named vessels secondhand.

Ten glass vessels from this assemblage include eight of probable late 18th-century date: four phials, two wine bottles and two drinking vessels.

Other finds of an ordinary domestic nature include a decorated padlock, buttons, a thimble and an annular object, a comb and nailbrush (Fig. 39, Nos. 4, 16), and a large polished paper weight (Fig. 50, No. 4).

B VII F5 Mid 19th century (Fig. 13; Pls. 1, 5–7)

This large stone-lined pit lay in the back garden belonging to a tenement fronting on to Turnagain Lane (G5, Fig. 11). The occupiers during this period include gentlemen who could probably have afforded this elegant assemblage.

The pottery is dominated by mass-produced white earthenwares (Pl. 5, Nos. 2, 9–10, 19–20, 22, 30–31, 35–36), but pearlwares were also very popular (Pl. 5, Nos. 1, 8, 12–18, 20–21, 23–25, 27, 29, 37–39, 41–42). These wares, largely from Staffordshire, were probably transported to Oxford by canal, or possibly even by railway. English porcelain tea wares are now more common. Red earthenwares only account for ten per cent of the total assemblage, with Brill-types, Fabric DG, representing only two per cent. Despite the obvious decline of red earthenware, it includes two new fabric types not previously recognised in Oxford. Two new forms are also present: a flower-pot tray and a paint pot, the latter with much paint still adhering to both surfaces. There are also changes within the white earthenwares, with blue transfer gradually being replaced by black, green and other coloured transfers. These changes are believed to have occurred in c. 1830. Fish-paste jars of varying sizes are particularly popular (Pl. 5, Nos. 30–31). A market favouring children is discernable, with toy vessels being introduced as well as children’s plates (Pl. 5, Nos. 32–34; Pl. 6). The subject-matter of the latter was intended to serve as useful encouragement to Victorian children. It is clear that several sets of dinner and tea wares from discrete factories had been discarded. In contrast, a much wider variety of jugs were found, perhaps acquired as gifts or possibly collected as mementoes of places visited. Other items are a large pearlware bowl with a blue transfer print of Oxford and the Thames, viewed from the south-west, is also present (Pl. 1), and a commemorative Victoria and Albert marriage tankard (Pl. 7).

Only six clay pipe bowls were recovered; these are dated to 1850–70 (Pl. 5, No. 40).

The glass vessels include English and continental hand-blown and machine-made bottles (Pl. 5). One flat red-brown bottle with a handle on the shoulder may be continental (No. 6). Five cylindrical bottles were made in a three-part moulding apparatus, an invention of the early 19th century. Two-part moulding was generally adopted a little later for cylindrical (No. 7), octagonal and egg soda bottles (No. 11), all represented in this
assemblage. Some of these seventeen moulded bottles were for wine, but others contained carbonated drink. The two octagonal bottles possibly contained medicine or hair restorer. A few vessels could be residual late 18th-century material. Conversely two possible mantles or chimneys were probably a 19th-century introduction.

Other finds include ivory and plastic (ebonite) combs, a leather heeled shoe, and a

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38 Leather Objects Catalogue No. 2, M V B2.
slate pencil. Rubber-based plastic, used for the combs, was being developed during the 1840s and articles made of this material were exhibited in 1851.

In addition to the examination of the key assemblages, the pottery report is presented and consists of:

i) Introduction (below)
ii) Method of classification (below)
iii) A summary of the pottery trends, c. 1500–1600 to c. 1800–20 and a little beyond (below)
iv) The main pottery report is divided into wares, which are subdivided into three components:
   a) a description of each ware, outlining the national background where relevant and the key chronological, social or economic indicators where identified;

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39 Stone and Clay Objects Catalogue No. 15, M V B8.
b) a list of the principal sources of publication for each ware;
c) a descriptive catalogue and illustrations of vessels (Figs. 63–111) for each ware, arranged by site in chronological order.

This text is produced in fiche, M I G5–III G2, and the abbreviations used are listed at the beginning of the Finds Report.

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When I began working on this material I knew little of post-medieval ceramics and I am indebted to the many people who offered advice and took time off to visit Oxford to look at the assemblages.

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Introduction

Pottery sequences of the 9th to the 16th centuries have been established at 79–80 St. Aldates and the Hamel. This report extends those sequences from the Dissolution of the Monasteries to the mid 19th century when the railway was introduced to Oxford.

Few continental imports are present, but regional imports are an important component. The latter were biased towards Surrey and London in the 17th century with a gradual increase in trade with the Midlands occurring throughout the 18th century. By the late 18th century the local industry and regional imports from elsewhere were totally overwhelmed by the mass-produced wares from ‘The Potteries’ which may have reached Oxford by canal after 1790.

The study of this large body of pottery (c. 8,217 minimum vessels of 10,408 sherds relating to specific contexts), from three rescue and two salvage sites, had these objectives:

a) to compile a general gazetteer of all post-medieval pottery from the sites, and establish a general chronological framework;
EXCAVATIONS IN ST. EBBE'S

b) to select a few 'key assemblages' for each twenty to twenty-five years from the gazetteer, and analyse the wares more rigorously with a view to isolating a fabric type series;

c) to compare the fabric type series with known kiln sources;

d) to establish whether the quality of pottery differed between pit assemblages in a way which might indicate different usage of the tenements or the level of wealth of the inhabitants;

e) to aid in the comparison of the economic development between the areas north and south of Church Street.

Histograms demonstrating the abundance of the wares within all archaeological contexts (Figs. 13–14), and illustrations of the vessels from the key assemblages (Figs. 15–29; Pls. 1–7) are published in print. These indicate the usage of pottery over the three centuries covered in this study.

Method of Classification

A system of recording pottery attributes for the catalogue was devised based on the method outlined for medieval pottery described in the Hamel report.60

The sherds were sorted site by site into the minimum number of vessels within each archaeological context, and the results for each site are illustrated in the histograms (Figs. 13–14). Sherd numbers quoted in the captions follow the conventions of recent Oxford reports.61 Although the number of sherds was also recorded no detailed analysis has been undertaken.

The names given to form profiles follow the nomenclature established at relevant kiln sites (e.g. tinglaze, 'Norfolk House, Lambeth')62 or from a regional study group (e.g. Surrey White Ware-Types, 'The Pottery Industry of the Hampshire/Surrey Borders').63 Some of the basic shapes, however, were found to embrace several nomenclatures, such as a shallow dish in Chinese porcelain which is the same basic shape as a saucer in pearlware. In spite of this duplication, particularly evident in the catalogue of key assemblages (M I Cl–G3), the original names have been retained. A nomenclature for the local coarse wares of the clay industries of Oxfordshire was devised by the Oxfordshire Department for Museum Services Committee for the clay industries of Oxfordshire.

A Summary of the Pottery Trends

c. 1500–1600 (Figs. 13–14; Fig. 15, Nos. 7, 9–16)

The evidence suggests that during the 16th century the range of pottery vessels was fairly limited and was dominated by red earthenware, largely produced at Brill some twelve miles east of Oxford. The Brill–Boarstall area had long been known for its jugs and pitchers, but

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by the 16th century these types had virtually disappeared and were superseded by a very
limited range of competently made products, including jars of various sizes, usually
sparsely glazed, and drinking vessels glazed internally and externally. Just a few of the
drinking vessels may have been coming from the Midlands, slightly further north. The
recovery of the occasional watering-pot shows that the potters were attempting to diversify
from the production of purely domestic vessels. Red earthenware drinking vessels were
supplemented by Rhenish stoneware tankards and flagons. The occasional vessel of Tudor
Green also occurs in 16th-century deposits; the comparative rarity of this ware has been
noted at other Oxford sites\(^{65}\) and suggests that it was not marketed as a commodity to
Oxford. Possibly it was too fragile to withstand travel overland from Henley. The lack of
ceramic cooking vessels suggests that some other material was used during this period,
perhaps metal cauldrons.

c. 1580–1620 (Figs. 13–14; Fig. 15, Nos. 1–8)

By the end of the 16th or possibly early 17th century, an improvement in the firing
technology began to take place in the production of the local red earthenware, centred on
Brill. Products began to be fired to a higher temperature, giving the 'brick-red' colour so
characteristic of post-medieval red earthenwares. At about the same time the range of
products became wider, with the appearance of more open vessels such as dishes and
bowls. Occasional vessels of continental or English tinglaze were found. Documentary
evidence shows that these wares were available in Oxford as early as 1612\(^{66}\) and the tinglaze
vessels in the Ashmolean Reserve Collection supports this evidence, but very few of the
highly decorated Albarello-types were recovered. Rhenish stonewares continue to be
present and may have been used as drinking vessels or as containers but, as with the early
tinglaze products, the range was relatively limited in comparison with examples in the
Ashmolean Reserve Collection. It is possible that these wares were bought in bulk direct
from the ports (as were the 18th-century Chinese porcelains) by taverns or colleges, and
that they were not readily available at the local market. The evidence from the survey area,
however, suggests the contrary; globular drinking tankards were recovered from almost all
assemblages containing more than twenty vessels, suggesting that these tankards at least
were normal domestic items during the 16th and early 17th centuries.

c. 1620–40 (Figs. 13–14, 16–17)

By the early to mid 17th century the local red earthenwares were beginning to encounter
considerable competition from the superior Surrey white ware industry. The influx of these
wares may be associated with the introduction of pound locks on the River Thames by c.
1635, which enabled barges to pass from Reading to Oxford.\(^{66}\) Alternatively, they may have
travelled by barge to Henley and then overland to Oxford. These white wares include pots
which were almost certainly used in cooking, as carbon deposits are frequently found on the

\(^{64}\) Palmer, \textit{op. cit.}, 179; George Lambrick and Humphrey Woods, 'Excavations on the Second Site of the

\(^{65}\) D.G. Vaisey and F. Celoria, 'Inventory of George Ecton, 'Potter', of Abingdon, Berkshire, 1696', \textit{Journal of

\(^{66}\) I.G. Philip, 'River Navigation at Oxford during the Civil War and Commonwealth', \textit{Oxonieusia}, ii (1937),
154.
external surfaces, but the vessels are small in comparison with medieval cooking pots. The re-introduction of pottery cooking vessels must have necessitated a change in culinary habits. The change was possibly caused by the melting down of a whole generation of metallic vessels for armaments during the Civil War, so creating a demand for ceramic replacements.  

**c. 1640–60**

Very few pits were attributed to this period and no one assemblage was selected for more rigorous analysis.

**c. 1660–80 (Figs. 13–14, 18–20)**

In the mid to late 17th century the use of Surrey white wares increased, but they were no longer thin-walled, the thickness of the wall having increased to c. 5 mm. The utilitarian products of tinglaze earthenware had an assured place in every household and hence every cess pit of the period. New regional imports appeared, for example drinking vessels of London stoneware, probably transported to Oxford via the same routes as the tinglaze earthenware. Porringer and flat wares of Staffordshire slipwares were found occasionally, and probably travelled to Oxford by packhorse. Rhenish stonewares regularly included bellarmines and tankards from the Westerwald, and a pit (A F45) which yielded a concentration of globular flagons and bellarmines might suggest industrial or commercial waste. The local red earthenware industry was beginning to extend its range of products to include large vessels, not supplied by the regional imports, such as panchions and crocks, and also slip-decorated platters and dishes. The style of decoration is one that was copied over a wide area of the south Midlands, but other ceramic influences typical of the Midlands are virtually absent. ‘Midlands Purple’ and white wares, other than Surrey, which may have centred on Coventry, are known at Banbury and Northampton, but very few examples were recovered locally. The black-glazed drinking vessels which were common at Banbury at a slightly earlier period (pre 1648), and at Northampton and Potterspury, were recovered in ones or twos.  

A number of tygs, however, were found in a pit in the north-eastern suburb, and this, together with a mid 18th-century engraving of the public house ‘Antiquity Hall’, Oxford, which depicts three tygs on the ‘coat of arms’, suggests that these drinking vessels were synonymous with drinking parlours and taverns rather than domestic households. The lack of ceramic regional imports from the area to the north-east of Oxford is also evident in the late medieval period when Potterspury wares were at their *floruit*, and it seems that the market patterns between Oxford and the north-east had changed little over four hundred years.

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67 V.C.H. Oxon. iv, 81.
70 Thomas W. Squires (ed.), *In West Oxford*, (1928), Pl. LXXXIII.
c. 1680–1700 (Figs. 13–14, 21)

By the late 17th century there was apparently little change in the ceramics, except that local slipwares became more firmly established.

c. 1700–40 (Figs. 13–14, 22–23)

Between 1700 and 1740 Surrey white wares declined slightly, while the drinking vessels of English stoneware and Staffordshire slipwares became more popular. Dipped saltglaze stoneware tankards occur for the first time in assemblages post-dating 1720, some ten years after their introduction in Staffordshire. It has been suggested that after 1730 dipped saltglaze stoneware drinking vessels were reserved for use in taverns. This idea gains some support from two assemblages (W F45, W F67) where these wares are associated with high proportions of English stoneware drinking tankards.

c. 1740–60 (Figs. 13–14, 24–27; Pl. 2)

By the middle of the century southern regional imports were in decline, with the exception of English stoneware drinking vessels which were still in demand for taverns and alehouses. Some innkeepers had their names, or that of the inn, added to the pots during manufacture, for example John Green, 1730, who kept the Crown in Cornmarket, and Charles Field of the Red Lion in the High Street. Several other innkeepers' names, and also the names of some colleges, are found on stoneware tankards in the Ashmolean Museum.

The durability of these tankards would have recommended them to innkeepers, and these vessels may have been handed down through one or more generations. This might explain why some tankards were recovered in deposits twenty or thirty years later than their manufacture. Alternatively, a public house on ceasing business might sell its crockery to other innkeepers, which may explain how a tankard of the Red Lion, High Street, was recovered from a rubbish pit (W F45) belonging to the Saracens Head, Castle Street. The utilitarian wares in tinglaze and Surrey white wares were gradually superseded by the cast and block-moulded Staffordshire white saltglaze dinner and tea wares. These copied many of the basic forms of the tinglaze products, and a few were decorated with cobalt blue and include a commemorative bowl inscribed 'Trin Co ... 1762', (Fig. 29, No. 5). Chinese porcelain tea wares are present in some assemblages, as is English porcelain from Worcester and possibly Leeds, although in very small quantities. Agate, Astbury and Jackfield tea wares are also present and often occur in association with Chinese porcelain. Where this combination occurs it is considered that these assemblages reflect an above-average level of prosperity. The local red earthenware industry, still largely produced at Brill, underwent something of a revival with a wide range of smaller forms, apparently inspired by the mid 17th-century Surrey white wares. The local slipwares with their vivid patterns appear to have been very popular, possibly as serving dishes, particularly in taverns and eating houses.

EXCAVATIONS IN ST. EBBE'S

Plate 8. A F57, a mid to late 18th-century creamware jug.

c. 1760–80 (Figs. 13–14, 28–30; Pl. 8)

By the mid to late 18th century mass-produced wares from Staffordshire were beginning to make their mark, and the demand for the local red earthenware and slipware industry appears to have diminished. It is probable however that rural areas would have been less affected by these fine wares than the towns, and coarse red earthenwares may still have been in much demand. One Brill-type slipware bowl was inscribed on the side with the inverted word ‘Potter’ immediately prior to firing (Fig. 30). Possibly the remainder of the vessel would have supplied the name of the maker. White saltglaze stoneware was more popular than during the previous twenty years. The introduction of creamware and, in particular, creamware plates and decorative tea wares (Pl. 8) to the survey area in about the 1770s affords some interesting insights into the potential owners of creamware, and seems to be associated with more prosperous households (A F57, Fig. 88, M II G4).

Fig. 30. A mid 18th-century red earthenware bowl inscribed ‘Potter’. Scale 1:4.

c. 1780–1800 (Figs. 13–14; Pls. 3–4)

After 1780 creamwares were more popular, and no longer the preserve of a few. A number of vessels display the names of individuals who were high-ranking college servants, coffee-house proprietors, innkeepers or city notables (Pl. 4, Nos. 6–15; A F13, a key assemblage). Some college crockery, marked at the time of manufacture on the underside of the vessel (Pl. 4, No. 1), was also recovered; to this day colleges still mark their crockery with the college crest or arms. This crockery would have been replaced periodically, perhaps as often as each academic year. The old crockery, perhaps of an
outdated style, may have been distributed amongst college servants and retainers, which might account for the individual vessels bearing a college name found within the survey area. The colleges and individuals may have placed their orders with the producers in the Midlands, but by 1769 there were 'chinamen' working in the city who may have acted as middlemen. One such chinaman, Adam Couldrey, was admitted to the Freedom of the City in 1765 and continued on the council until c. 1800. He served on the council with John Smith and Thomas Stockford, two members whose names occur on vessels found within the survey area (Pl. 4, Nos. 6, 9–11). High-ranking college servants may have added their own private order to that of the college. Pearlware plates were beginning to make an impact, and, as with creamwares, some people obviously considered it worth their while to have their names added to the crockery during manufacture (Pl. 4, No. 4). Others, perhaps less well-off or less organised, such as Dodd and Sadler, scratched their names on the vessels after manufacture. The opening of the Oxford canal in c. 1790 probably dealt the final blow to the local industry in supplying the city.

C. 1800–50 and a little beyond (Pl. 1, 5)

The early 19th century saw the introduction of coloured earthenwares for ordinary domestic vessels (Pl. 5, Nos. 4–5), and their period between 1820–40 saw the floruit of pearlwares. Vegetable dishes (Pl. 5, No. 24) and sauce tureens now supplemented the dinner services, which were often decorated with blue transfer prints. White earthenwares began to be mass-produced and included plain jars used for meat and fish-paste (Pl. 5, Nos. 14–16), or ointments sometimes known as 'poor man's friend', or bear's grease for receding hair. At about the time that the railway reached Oxford (1844) a wide variety of transfer prints was used, and towards the end of the period these were printed in black, green, pink, grey and brown. Many of the wares had factory names impressed or transfer-printed onto the reverse of the vessel, and it is clear that a number of Staffordshire factories were supplying the survey area with goods by the mid 19th century. College plates are still present (Pl. 4, Nos. 2–3), as are plates marked with personal names (Pl. 4, No. 5).

Conclusion

The gazetteer of post-medieval finds has enabled the first chronological sequence to be established for an area of Oxford. This general sequence may be expected to occur in other parts of the city, although details may differ, particularly nearer the central commercial area.

A fabric type series of both regional and local wares has emerged from the typological series of 'key assemblages'; these have been compared with known kiln sites and can be correlated with new kiln sites as they are discovered. These key assemblages have also given an insight into the types of rubbish which can be expected from ordinary and more prosperous households, as well as taverns. Careful correlation between documentary and archaeological work will, however, be needed before the range of social and economic horizons has been understood; the presence of the university and its employees undoubtedly raises special problems of status.

The pottery seems to be a reliable trade indicator, for it largely supports the documentary evidence concerning the extensive trade with London. Material evidence of trade with Bristol, though known from the documents, was more elusive, but it is possible that chests of Chinese porcelain may have been purchased at the quayside in Bristol, or
that some of the Staffordshire-type slipwares may have been manufactured at Bristol, rather than Staffordshire. Connections also certainly existed between Oxford and Staffordshire, however, and the majority of these slipwares probably did originate from the north. The very high proportion of apprentices from well outside the region who found work in Oxford during the 17th century, together with the mobile undergraduate population, might account for the occasional artefacts from elsewhere, rather than their being genuine items of trade. The River Thames and canal were obviously instrumental in transporting much of the pottery to Oxford, and it would be interesting to compare Oxford with other towns within the region which were not served by either the Thames or the canal.

COINS, TOKENS, COUNTERS AND COIN-WEIGHTS identified by N.J. MAYHEW, S.E. RIGOLD (NUREMBERG JETTONS), DAPHNE NASH (NOS. 1–2) and MARION ARCHIBALD (NOS. 9, 12)

(Not illustrated) (Catalogue of 54 coins, tokens, counters and coin-weights, M IV A3–9)

Apart from two 3rd-century Roman copper coins, (Nos. 1–2), the fifty-two coins, tokens and jettons from post-medieval contexts are 16th-century or later.

There are twelve jettons (Nos. 3–10, 39–42), mainly from Nuremberg where they were called Rechentgennige or reckoning pennies. Jettons were used by merchants for accounting from the 13th to the 16th centuries. A lead merchant’s token (No. 11) is probably not earlier than the 17th century. Nine Stuart royal licence farthings were found, one of James I (No. 13) and eight from Charles I’s reign (Nos. 14–19, 44–45). Vast numbers of these copper farthing tokens were made under several patents to supply the need for small change. Widespread counterfeiting meant that redemption of their nominal value became almost impossible. A tract of 1644 inveighs against the evils of licensed farthings, and refers to the more acceptable merchants’ tokens of tin and lead issued in smaller quantities.

Charles I’s licensed farthings were discontinued by the Parliamentary government in 1644, and in 1632 Oxford was among several cities which issued official council tokens. The 1652 dies were probably used over several years. Local tradesmen soon took up the idea, and issued farthing tokens advertising their trades and places of business. Three local 17th-century tokens were found: one official Oxford farthing (No. 46) and two of tradesmen (Nos. 20–21): Thomas Combes, a mercer near the East Gate who died in 1661, and John Bishop, a milliner in the High Street. The milliner’s token has a square looking-glass upon it, the same sign that he was licensed to hang outside his premises. Several vintners and ale-house keepers also issued tokens. Two possible late 18th-century halfpenny tokens (Nos. 25–26) are badly corroded.

Seventeen official regal copper coins spanned the reigns of Charles II to Victoria (Nos. 22–24, 28–32, 35–37, 48–50, 52–54) and two French 19th-century copper coins (Nos.

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25 Described and illustrated in Lead andAlloy Objects Catalogue, No. 1, M IV C12.
Fig. 31. Copper Alloy Objects: 1-2. seals; 12. button; 27-29. lace-ends; 57. oval box; 90. betrothal ring; 91. buckle. Scale 1:1.
33–34) were found. An imitation 'Spade' guinea (No. 38) and two coin-weights (Nos. 27, 51) for guineas of George III are not closely datable. Coin-weights were a necessity for every businessman as long as guineas remained in circulation.

COPPER ALLOY AND SILVER OBJECTS by ALISON R. GOODALL; SPURS by BLANCHE ELLIS (Figs. 31–33) (Catalogue and illustrations of 139 objects Figs. 112–22, M IV B1–C8)

The non-ferrous metal objects include a silver betrothal ring (Fig. 31, No. 90) from Greyfriars. It has a pair of clasped hands on the bezel, and should probably be dated to the early post-medieval period. The two seals from Church Street (Nos. 1–2) are personal seals showing general non-heraldic devices; the multiple seal with four matrices joined to a common ring is of particular interest as it may be the only archaeologically dated example of its type.81

Dress fittings include nineteen buttons, one decorated (No. 12), ten buckles and fourteen lace-ends (Nos. 27–29, illustrated). The large buckle from Greyfriars (No. 91) could also have come from a harness.

The numerous pins are almost entirely of the type with a head made from a double coil of wire and stamped to a globular shape. The wire of the head is of about the same

81 Cf. G. Oakley, 'A Note on Multi-armed Seals', Post-Medieval Archaeology, xvii (1983); A.B. Tonnochy, Catalogue of British Seal-Dies in the British Museum, (1952), Nos. 638, 665. I am grateful to Dr. S.M. Margeson for information on unpublished multiple seals from Norwich (Castle Museum) and Norfolk, and to J.G. Pollard for details of an unprovenanced example (Fitzwilliam Museum, Cambridge).
Fig. 33. Copper Alloy Objects: 89., 127. spurs. Scale 1:1.
thickness as that of the shank. Some pins retain their white metal plating. Tylecote gives this type a date range from the mid 16th to at least the late 18th century.\textsuperscript{82} The 118 pins from Church Street (Fig. 32) show concentrations in the 16th and mid-late 17th centuries, the largest number (35 or more) coming from A F17.

The oval box (Fig. 31, No. 57) may be compared with several tobacco and snuff boxes, usually cast and decorated but occasionally of flimsy sheet metal, found in wrecked Dutch ships\textsuperscript{83} of the 17th and 18th centuries. A similar box was found at Sandal Castle.


\textsuperscript{83} P. Marsden, 'The Dutch East Indiaman Hollandia wrecked on the Isles of Scilly in 1743. Archaeological Report', International Journal of Nautical Archaeology, iv (1975), 294, Fig. 18, No. 26; see the discussion by John Russell, 'A group of metal tobacco boxes in the collections of the British Museum', Post-Medieval Archaeology, xiii (1979), 211–26. Mr. Russell comments that the Church Street box because of its small size may have been used for snuff rather than tobacco (pers. comm.); the incomplete and fragmentary nature of the box makes its attribution and dating difficult, however, it could be Dutch or English and datable to the late 17th or early 18th century. Plant material adhering to the box and preserved in its corrosion products was identified by Mark Robinson as gorse (M VI F4).
T.G. HASSALL, C.E. HALPIN, M. MELLOR AND OTHERS

Two copper alloy spurs (Fig. 33) are typologically datable: the finely decorated and gilt fragment (No. 127, c. 1630) belongs to a group which includes an almost identical one from Sandal Castle, and the more complete but plain spur (No. 89) is datable to the second half of the 17th or early 18th century.

LEAD AND LEAD ALLOY OBJECTS by GEOFF EGAN, ALISON R. GOODALL and GWYNNE OAKLEY

(Fig. 34) (Catalogue and illustrations of 18 objects, Figs. 123–24, M IV C11–14)

There were a small number of lead and lead-alloy finds. A merchant’s token (Fig. 34, No. 1) is discussed with other coins and tokens. A disc with markings from Site D (No. 17) could perhaps be a weight or a gaming piece. One of two alloy spoons (No. 3) has an elongated bowl, a typical 18th-century form.

Some of the fragments of window leading from Site B (Nos. 8–15, not illustrated) could derive from the underlying medieval Greyfriars’ church. However, glass finds suggest that similar material must have been used to make up 16th- and 17th-century windows from diamond-shaped quarries for houses on the site or close by.

A bullet (No. 18) from a mid 18th-century pit (W F25) could have been intrusive, but experiments with cylindrical and pointed rather than round shot were taking place during the 17th and 18th centuries, as finds from the Amsterdam and the wrecks of a Dutch East India Company ship and a Russian naval transport vessel may show.

Six pieces of round lead shot found stuck inside a mid 18th-century glass bottle (Fig. 41, No. 11) may have been stored there, or could have been used to clean the bottle. This practice occurred, for an encyclopaedia of 1811 advised against it.

IRON OBJECTS by IAN H. GOODALL; SPUR BY BLANCHE ELLIS

(Figs. 35–38) (Catalogue and illustrations of 119 objects, Figs. 125–33, M IV D1–E4)

The ironwork is comparable with that from Oxford Castle moat, including as it does a considerable number of knives and scissors as well as tools, building ironwork, personal fittings and horse equipment.

The most significant knives are Nos. 11 and 88 with their inlaid bolsters and No. 89 which, like the scissors No. 22, have a mark struck on the blade (Fig. 35). The tools are mainly related to woodworking (Fig. 35, Nos. 28–31, 105), but others are connected with metalworking (No. 102) and building (No. 104). There are also rake prongs (Fig. 36, Nos. 100–101), spade fragments (Nos. 32, 103), and a hoe (No. 33). Lock furniture includes

9. R. Stenuit, 'Eestafæ', International Journal of Nautical Archaeology, v (1976), 231, Fig. 13.
Fig. 35. Iron Objects: 11, 88-89. knives; 22. scissors; 28. saw blade; 29. gouge bit; 30. spoon bit; 31. dividers; 102. hammer; 104. mason’s trowel; 105. file. Scale 1:2.
Fig. 36. Iron Objects: 32., 103. spade fragments; 33. hoe; 100-101. rake prongs. Scale 1:2.
Fig. 37. Iron Objects: 34–36, 92, 112. keys; 37–38. globular padlocks; 39. stapled hasp; 40–41. fixed locks; 73. chape; 74. pommel; 94. hinge; 108. buckle. Scale 1:2.
Fig. 38. Iron Objects: 77-78. bridle bits; 79. currycomb handle; 80-82, 107. horseshoes; 106. spur. Scale 1:2.
various keys (Fig. 37, Nos. 34–36, 92, 112), fixed locks (Nos. 40–41), globular padlocks (Nos. 37–38), and a stapled hasp (No. 39). Notable amongst other building ironwork is a hinge (No. 94). The buckles, but for No. 108, are simply shaped. The chape and sword pommel (Nos. 73–74) are of interest. Horse equipment comprises a spur (Fig. 38, No. 106), bridle bits (Nos. 77–88), a currycomb handle (No. 79), and some horseshoe fragments (Nos. 80–82, 107).

BONE AND IVORY OBJECTS by GEOFF EGAN and MARTIN HENIG; IDENTIFICATION OF BONE AND IVORY by PHILIP ARMITAGE and BOB WILSON

(Figs. 39–40) (Catalogue and illustrations of 53 objects, Figs. 134–39, M IV F1–12)

Fragments of eleven different ivory and double-sided combs (Figs. 39, Nos. 1–4, 30–34, 45–46), three of 17th-century and four of 19th-century date, show little variation. Ivory off-cuts (Nos. 24–25) could indicate comb manufacture in Church Street in the 17th century.91 Knife or fork handles were frequent finds (Fig. 40, Nos. 5–14, 35–42, 47-52), though rarely, like No. 50, are they decorated. They are made of ivory (fifteen), antler (six) and other bone (three). Most occur in 18th-century assemblages, though scale tang handles are restricted to the early and mid 17th century (Nos. 13–14).

Bone brushes are present only in 19th-century groups, and it may be significant that only brushes from early to mid 19th-century groups (Fig. 39, Nos. 16–17, 43–44) have grooves where copper alloy wires held the bristles in place.

Bone buttons (Nos. 21–22) are found in a mid 19th-century group, and the off-cut No. 23 (of mid to late 17th-century date) is comparable with objects which have been attributed to button making. Some date from a period when very few buttons seem to have existed.92 Finds from Lincoln which retain some of the objects being manufactured have been plausibly identified as waste from bead-making.93 In contrast, the present example, from a later period, could only have produced thin discs because of the cancellous nature of all but the original surface layer of bone. Such discs could have been used as counters, or been given a central hole for use in composite buttons.

The bone cylinder No. 29 may be compared with a find from the Thames foreshore (recently donated to the Museum of London) which consists of three cylindrical sections, screwing into each other to give a combined length of c. 120 mm., and a separate disc at one end. These objects were presumably containers for delicate objects.

WOODEN OBJECTS by GWYNNE OAKLEY; SPECIES IDENTIFICATION by MARK ROBINSON

(Not illustrated) (Description of 2 objects, M IV G1)

A piece of wooden ?handle (No. 1) was incompletely preserved by being in contact

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92 A similar off-cut from St. Aldates has been published as a knife handle; B.G. Durham, 'St Aldates, Oxford', Oxoniensia, xlii (1977), Fig. 38, 20.
93 C. Colyer, Lincoln, the Archaeology of an Historic City, (1975), 44.
Fig. 39. Bone and Ivory Objects: 1., 3-4., 31. double-sided combs; 16. nailbrush; 17., 44. toothbrushes; 21., 22. buttons; 23-24. off-cuts; 29. cylindrical tube; 43. brush. Scale 1:2.
Fig. 40. Bone and Ivory Objects: cutlery handles. 9., 13. remains of iron knife blade present. Scale 1:2.
with iron corrosion products. A piece of oak board (No. 2) could have been part of a 16th-century bucket.

THE GLASS by JEREMY HASLAM

(Figs. 41-47) (Histograms summarising the percentages of glass vessel types and window-glass of early post-medieval types, for each site, Figs. 140-43, M IV G4-7)

INTRODUCTION

The glass finds from St. Ebbe’s, Oxford, form what must be the fullest sample recorded and published to date of excavated fragments from a range of contexts throughout the post-medieval period from a single place. Finds from other places such as Norwich, Southampton and London also span a long period, and provide contrasts in vessel types and in date range. The series of glass finds from St. Ebbe’s discussed and illustrated here begins with a few fragments from the late 16th and early 17th centuries, with a more complete sample from the mid 17th century onwards. In contrast to the finds from the places mentioned above, those from St. Ebbe’s include few examples of the period from the 15th to the end of the 16th century.

This is not the place, however, to attempt a complete review of post-medieval vessel and window-glass typology and production: this can be done only when the finds from other extensive (for the most part urban) excavations are published – in particular those from London – and when evidence concerning the finds from the excavations of two important early 17th-century glasshouse sites (Denton, Lancashire, 1969-71; Kimmeridge, Dorset, 1980-81) are available. Nevertheless, some preliminary conclusions can be drawn from the material from Oxford.

While any detailed conclusions concerning the development of glass types or manufacturing trends must be qualified by judgments about the social contexts of the users of the vessels of which these finds are the remains, the value of the whole series of finds from Oxford is particularly important for the following reason. From the early 17th century (if not indeed rather earlier) styles of glass artefacts showed little if any regional variation, in contrast to much of the pottery. This was brought about, first, by the itinerant nature of glass manufacturing in the late 16th and early 17th centuries and, secondly, by the centralising tendency of the ‘monopoly’ period of glass making, after the early 17th century, both of which forces would have resulted in uniformity of products. Large groups of finds such as those under discussion here are therefore likely to show close similarities (given similar social contexts) to large groups anywhere else in the country. Given this consideration, the range and size of these groups is, as a sample of domestic refuse contexts, sufficiently large to enable them to be used to determine stylistic and manufacturing trends on a national scale.

84 The glass finds from Norwich are being analysed by the writer for publication. Sixteenth- and early 17th-century finds are common if not ubiquitous. Those from Southampton are published in R.J. Charleston, ‘The Glass’ in C. Platt and R. Coleman-Smith, Excavations in Medieval Southampton 1953–1969, ii: The Finds, (1975), 204–26. The finds from London span the medieval and post-medieval periods, with many good groups from the 13th to the 18th centuries, and all have been examined by the writer.

85 These wider considerations are discussed in Eleanor S. Godfrey, The Development of English Glassmaking, 1540-1640, (1975).
VESSEL GLASS

As with the pottery, the glass finds are presented graphically in two main ways. All the different reconstructable types are illustrated (Figs. 41–45), and their period of use, based on incidence in all datable contexts, is summarised in Fig. 46. A histogram showing the percentage of glass phials of different colours from all contexts is presented (Fig. 47). Selected complete groups of pottery, clay pipes and glass are also illustrated (Figs. 15–29), and detailed catalogues are given in microfiche (M I C1–G3). A few examples from these groups recur in the type series. The glass vessel types present in all datable contexts are shown concisely in microfiche (Figs. 140–43, M IV G4–7). Detailed records are in the site archives.

Wine Bottles (Fig. 41, Nos. 1–13; Fig. 42, Nos. 1–3)

These must represent the largest proportion by weight, as well as numbers, of vessels from almost any group of refuse from the mid 17th century onwards. The finds from St. Ebbe’s have been analysed according to the type series published by Hume. This is not entirely satisfactory, in that a number of distinguishable shapes (for instance the earliest ‘shaft and globe’ type; Fig. 41, No. 1) are not represented, and those which are drawn by Hume are based on single examples only. Another type series published by Leeds is of importance particularly for finds from Oxford, but cannot readily be utilised as a formal type series. The same applies to the series of bottles from All Souls’ College (c. 1750 onwards) published by the writer. Although the wine bottles from these excavations in Oxford have been recorded with reference to Hume’s typology, not all his types are present, and some types differ so little in their distinguishing characteristics that they have here been combined for simplicity. The bottles presented in the glass vessel type series are typical of those excavated in Oxford.

All the wine bottles illustrated in Fig. 41 were hand-blown. A variety of shapes are represented:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Hume Type</th>
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<tbody>
<tr>
<td>1</td>
<td>‘Shaft and globe’</td>
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<tr>
<td>2</td>
<td></td>
<td>1</td>
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<td>3</td>
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<td>3</td>
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<td>4</td>
<td>‘Onion’</td>
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<tr>
<td>7</td>
<td></td>
<td>10/11</td>
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<tr>
<td>8</td>
<td>‘Mallet’</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>

*The description and subdivision of the main classes within the type series as a whole has been drawn up and tabulated by Gwynne Oakley, and is a modified version of the one proposed when the writer first analysed the finds in 1971. It must be emphasised that the scheme is not one which is entirely appropriate for all finds of glass in the period from the early 17th to the early 19th century, but merely comprehends the range of finds from Oxford alone.


It is quite clear from the evidence of the contexts of the present series of finds that the heavy dark-green wine bottles were not manufactured earlier than a few years before 1650, as Hume and others have observed. An analysis of the documentary evidence has recently suggested to Godfrey that these were made at least from the early 1630s. This evidence is, however, susceptible to other interpretations: as will be suggested below, the term 'bottle' could have been applied to types other than the relatively heavy wine-serving bottles.

Because of the fast rate of change in shape from c. 1650 onwards, as well as their ubiquitousness, wine bottles can as a general rule give a very good indication of the latest date of deposition of a particular group. Nevertheless, their thickness would have made them more durable, with the result that the bottles in many groups will show a wide date-range. Such is the case with two of the groups illustrated in full (A F 17 and W F 7, Figs. 20, 27), which contain bottles showing respectively a 40-year and a 60-year range (but note W F 7 had two layers of fill), a situation common amongst post-medieval refuse groups. It means, of course, that the larger the sample of bottles from a single group, the more useful they will be for demonstrating the date of deposition of that group.

The place of manufacture of these bottles, as of all the other glassware from St. Ebbe's discussed here, is difficult if not impossible to determine. This is largely because, as mentioned above, glass products were uniform in style over much of England. Documentary evidence does, however, show that from the mid 18th century onwards All Souls' College was ordering bottles in large quantities from Stourbridge. It may be that this was a favoured source from the 17th century, although Bristol or more particularly London should not be ruled out as possible sources.

While English wine-bottle forms changed more slowly after the mid 18th century, there was a gradual introduction of mechanical processes into bottle-making. In the mid 18th century a few octagonal bottles were produced by blowing into an open mould (Fig. 42, No. 3, Hume Type 17). Early 19th-century groups contain hand-finished cylindrical bottles alongside those made in three-part moulds (like Hume's Type 23). By the mid 19th century, most bottles were made by machine in two-part moulds, in a variety of shapes for a wide range of beverages and other liquids.

From the early 18th century into its third quarter, most assemblages contain pale amber wanded bottles (Fig. 42, No. 1, Hume Type 24) imported with wine from the Continent. These fragile bottles with flat oval bodies were encased in wicker for protection. The glass is usually badly decayed after burial, in contrast to most English bottles. Three contexts of the mid and mid to late 18th century contain fragments of continental spa water bottles which have distinctive necks (Fig. 42, No. 2, Hume Type 25) and bases.

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103 Ivor Noël Hume, 'Glass Wine-Bottle', *Journal of Glass Studies*, iii (1961), Fig. 5.
Fig. 42. Glass Vessel Type Series
1. W G48/0/1 "pan" 6. A G17/2012/14 ol
2. W G25/0/3 gr 7. A G17/2012/15 gr
5. A G1023/0/1 gr 10. W G22/0/26 pbk
11. B X G26/0/7 pbk 16. A G1023/0/6 & 7 pol
12. W G109/0/1 = U/S pbk 17. B XIX G68/0/1 n
13. W G25/0/7 pbk 18. B XIII G0/2/1 t
14. W G45/0/6 bg
15. W G90/0/2 = U/S pbk

Scale 1:3
Case Bottles and Thin Flasks (Fig. 42, Nos. 4–18)

These vessels divide into two principal groups which are generically related, and one miscellaneous group. The two former might be named 'case bottles' and 'spirit flasks'.

The first group (in age as well as importance) comprises thin-walled vessels of dark olive-green glass, with rounded shoulders and simple flaring rims and necks; they are either round, square or hexagonal in section (Fig. 42, Nos. 4–9). They were made in all sizes from over 20 cm in height, decreasing in size to the smallest phials with which they form a single series.\(^{104}\) The whole range of sizes and types is not completely illustrated from the St. Ebbe's finds; further work is needed to establish it. This series also includes the biconical phial (Fig. 43, No. 1). The larger examples may be described as 'case bottles' because at least the square and hexagonal ones would have been stored in groups in cases, for ease both of transport and of storage.\(^{105}\)

The recognition of this generic group is of some interest. Finds from Oxford suggest a date-range of c. 1600–75 for the larger examples. In the first half of the century, these vessels must have formed a significant if not dominant component of the stock of utility glassware in any large household, and must normally have been used for the storage of all sorts of liquids, including wine.\(^{106}\) Assemblage A F17 (Fig. 20), a deposit of the mid to late 17th century, is interesting in containing a large number of these vessels, including the smaller phials, together with globular wine bottles of the earliest type. Though the group was deposited no earlier than the mid 1670s, it seems likely that both the thin- and thick-walled vessels represent the range of glass storage vessels available for purchase between the 1640s and 1660s. From this it might be inferred that the contents of the pit represent a clearing-out of old stock to be replaced by more up-to-date types. In later decades, it appears that the thinner-walled vessels were rapidly replaced by the stronger wine-serving bottles.

The origin of this type, represented both by the smaller phials and by the larger flasks, can on other evidence be taken back to the early 17th century. Small and medium-sized phials and flasks with the same simple out-turned rim, rounded shoulders and olive-green colour were made on both of the early 17th-century coal-fired glasshouse sites so far excavated (at Denton and Kimmeridge).\(^{107}\) At least at Kimmeridge, round, square and hexagonal flasks were made. The form of these, in particular the necks and rims, appears to have evolved with little change from types made at the wood-burning furnaces of the late 16th century,\(^{108}\) although the dark green colour of the 17th-century types was caused by the presence of sulphur in the coal fuel.\(^{109}\) The larger vessels were probably made in increasing

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\(^{104}\) An example of the smaller range from Oxford is illustrated in E.T. Leeds, 'Glass Vessels of the XVI Century and later from the Site of the Bodleian Extension in Broad Street, Oxford', Oxoniensia, iii (1938), Pl. XII, D.1 (height 10 cm); there are other complete vessels in the Ashmolean Museum, e.g. AM 3033. 1887. Other examples from Waltham Abbey are illustrated in P.J. Huggins, 'Excavations at Sewardstone Street, Waltham Abbey, Essex, 1966', Post-Medieval Archaeology, iii (1969), 86.


\(^{106}\) Ivor Noël Hume, op. cit., 97, No. 4.

\(^{107}\) The writer was present on both excavations, though has not examined the finds from Denton in detail. Those from Kimmeridge are being analysed and prepared for publication by the writer.


\(^{109}\) Godfrey, op. cit., 149, has suggested that this characteristic colour is due to the presence of carbon in the smoke. Since however the wood-smoke used to make the pale greenish-blue glass vessels in the late 16th century and earlier also contained carbon, this seems unlikely. The dark green to black colour must have been caused by the presence of sulphur in the coal which was used exclusively as a fuel after Mansell took control of the industry c. 1615.
quantities throughout the first half of the century; gradually, with the standardisation of products and ‘industrialisation’ of glass-making by Mansell, they usurped stoneware hollies as the desired liquid storage and serving containers, and by the late 1620s they cut out the importation of glass bottles from the continent.\(^\text{10}\) It is suggested, therefore, that it is vessels of this type, rather than the thicker wine-bottles, which were referred to as ‘bottles’ in contemporary accounts before 1650, and that the latter type became increasingly common after this date.

The second group of flasks, which is relatively frequent in post-medieval deposits, comprises vessels which are of similar shape to wine-serving bottles but are smaller and thin-walled. Examples are illustrated in Fig. 42, Nos. 10–14. The first (No. 10), though from a mid 18th-century context, is similar in shape to a wine-bottle of c. 1680, and may be of the same date. It is distinguishable from the wine-serving bottles by its pale bluish-green colour and small size. Later versions of this type of flask (Nos. 11, 12), generally from 18th-century contexts, show variations in the method of application of the string rim.\(^\text{11}\) In function, these must have served any purpose requiring the storage of small amounts of liquid, such as spirits, cooking-oils and other culinary aids such as wine lees, or chemicals.

The third group is a miscellaneous collection of types, some of which were perhaps more akin in size and function to the phials (below). Variations included the biconical flask (Fig. 42, No. 15) and a small long-necked vessel with oval body diagonally ribbed.\(^\text{12}\) The pear-shaped vessel (Fig. 42, No. 16), one of two from the same deposit, was probably one half of an hour glass.\(^\text{13}\) Spherical flask fragments with very thin bodies could have been urinals, but Fig. 42, No. 17, from a 19th-century context, was possibly part of a chemical apparatus. Wide-mouthed flasks (such as Fig. 42, No. 18) were usually decorated with vertical ribbing, and seem to have been current during the second half of the 17th century.

**Phials** (Fig. 43, Nos. 1–21)

These vessels, though generally small, show a wide variety of shape and size but have in common a narrow neck, usually short, which was probably intended to be sealed with a cork. In one form or another they formed a staple output of the glass industry from the 15th century onwards, and the later versions are amongst the commonest glass finds from 18th-century groups. In the early 17th-century groups, as observed above, what may be termed round-shouldered phials (Fig. 43, Nos. 2–4) comprise the smaller members of the range of case bottles, differing from them very little in method of manufacture (in particular of the rim and neck) or in colour. As with the larger bottles, hexagonal and square versions are not uncommon.

From the later 17th century onwards these olive-green vessels were supplanted by phials in pale bluish-green glass (Fig. 43, No. 7), indicating a refinement in manufacturing techniques (See Fig. 47). These show many variations in size and shape (see groups W F22, Fig. 23 and W F45, Fig. 29 of the early to mid 18th century). In general they have

\(^{10}\) Godfrey, *op. cit.*, 231–32.  
\(^{11}\) There are several complete vessels of this type in the Ashmolean, eg. AM 1886–575; 1921–253; 1938–242.  
\(^{12}\) Present from this series only in a small fragment, but illustrated in Oxford in E.T. Leeds, 'Glass Vessels of the XVI Century', *Oxoniensia*, iii (1938), Pl. XII, D.2.  
Fig. 43. Glass Vessel Type Series

1. B III G4/2/1 gr  
2. A G17/15/21 ol  
3. A G17/2012/20 ol  
4. A G17/15/19 gr  
5. A G1023/0/9 rbMw  
6. B IX G1/0/1 kg  
7. W G22/0/31 pbg  
8. W G45/0/2 pbg  
9. W G45/0/3 kg  
10. B X G26/0/9 pbl  
11. B X G27/0/2 pbg  
12. B I G27/0/2 n  
13. B IV G44/0/4 pbg  
14. W G45/0/8 t  
15. B X G26/0/6 n  
16. W G68/0/1 kg  
17. W G45/0/4 t  
18. B IV G44/0/3 gr  
19. W G48/0/7 gr  
20. B X G27/0/1 n  
21. A G1023/0/5 kg  
22. B IV G44/0/1 pbg  
23. B IV G44/0/2 pgr  
24. W G25/0/5 kg  
25. A G45/0/9 kg  
26. W G45/0/10 kg  
27. B VII G5/0/1 n  
28. A G55/55/5 ol  
29. A G45/171/2 ol

Scale 1:4
flattened rims, a style which became common from the early 18th century onwards. The following forms are illustrated (Fig. 43): biconical (No. 1), round-shouldered (Nos. 2–4), short body (Nos. 5–8), narrow body (No. 9), medium body (Nos. 10–12), long body (Nos. 13–14), long neck (Nos. 15–17), wide body (Nos. 18–20) and medium neck (No. 21).

**Jars** (Fig. 43, Nos. 22–29)

These are wide-mouthed vessels, the smaller varieties (Fig. 43, Nos. 22–27) made of similar coloured glass to the phials but, in contrast with them, almost invariably with mould-blown decoration. The larger jars (Fig. 43, Nos. 28–29) are unusual finds. The long neck of No. 29 and the absence of a string rim suggests that this might be part of a distilling apparatus rather than a storage vessel.

**Drinking glasses** (Fig. 44, Nos. 1–22)

Two main types are present: beakers and stemmed wine glasses. Of the beakers, two 16th-century types are shown in Fig. 44, Nos. 1 and 2. The former is probably a goblet of Venetian origin, made in two pieces with traces of possibly white marvered spiral trials; the latter has a pushed-in base similar in all respects to common late 16th-century types. Four olive-green beakers of the early to mid and mid 17th century (Fig. 44, Nos. 3–6) are interesting in showing decorative features normally associated with the 16th-century pushed-in foot type, but with simple bases. Two fragments of colourless beaker with chequered spiral trail found associated with these green beakers (Fig. 44, Nos. 5–6) might also be of English manufacture.

The earliest of the stemmed wine-glasses (Fig. 44, Nos. 7–12) are of the common 'cigar-stem' type of the mid 17th century, frequently found in, for instance, London. Fig. 44, No. 13 is of interest in being the only decorated wine glass from St. Ebbe's. In its decoration and style it shows affinities with late 16th- and early 17th-century examples. Two glasses (Fig. 44, Nos. 14–15) show evidence of crizzling – a fault which bedevilled attempts to make crystal glasses in England in the mid 17th century. The problem was allegedly solved by George Ravenscroft at his experimental glasshouse at Henley in the 1670s, but these glasses could be a little later. Later wine glasses are too fragmentary and infrequent to illustrate the development of styles through the later 17th and 18th centuries. However, two glasses with opaque white twist decoration in the stem (Fig. 44, Nos. 20–21) came from contexts of mid and mid to late 18th-century date.

**OTHER TYPES** (Fig. 45, Nos. 1–16)

Bowls are uncommon finds in glassware, since they could be made rather more easily (and doubtless more cheaply) in pottery (Fig. 45, Nos. 1–3). Two bowls in olive-green glass

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112. *Ibid.*, Figs. 60, 64.
113. A. Oswald and H. Phillips, 'A Restoration Glass Hoard from Gracechurch Street, London', *The Connoisseur*, cxxiv (1949), 30–36, Fig. 5.
114. See for example Eleanor S. Godfrey, *English Glassmaking*, (1975), Pl. III a, b.
115. Ivor Noel Hume, 'Glass' in *Colonial Williamsburg's Archaeological Collections*, Colonial Williamsburg's Archaeological Series, ii (1969), 13, Fig. 3.
were, however, found: No. 1, of the mid 17th century, is of uncertain form; No. 2 must have been a large fruit or possible punch bowl\(^{29}\) for use at table. The foot (No. 4) with lion-mask and paw\(^{30}\) came from a bowl or jug imitating a common design in silverware of the 1740s. The folded foot of a vessel of large diameter but of uncertain form with wide white


marvered vertical trails, from A F68, may have been imported (cf. Venetian or Dutch latticinio).\textsuperscript{122}

Jugs are scarce amongst the St. Ebbe's finds. One is a colourless jug decorated with white marvered swags (Fig. 45, No. 5); another, tentatively identified, is the base of a vessel in red-brown glass marvered with white bands, from the early 18th-century group W F7 L2

\textsuperscript{122} E. Barrington-Haynes, Glass through the Ages, Pls. 13b, 16d.
EXCAVATIONS IN ST. EBBE'S 243

(Fig. 45, No. 6). This shows close similarities to a more complete vessel from Southampton129 for which a possible Spanish origin has been suggested.

Further examples of unusual types include a stopper (No. 7), posset pots of which only the spouts have survived (Nos. 8–9), a decorated globular flask base (No. 10), a bird fountain130 (No. 11), a dish in opaque white glass (No. 12), spectacle lenses (Nos. 13–14), and fragments of narrow tubing, usually tapering, possibly from chemical apparatus (Nos. 15–16). A blue glass jewel and five beads of various sizes and shapes are either unstratified or from 19th-century contexts.131

Mirrors

Fragments of thick, flat, greyish colourless glass with traces of reflective coating, now corroded, came from eight contexts of the mid to late 17th century onwards (Fig. 46, bottom). Surviving edges, which are bevelled and carefully ground to fit into frames, suggest that these were from rectangular mirrors.

WINDOW-Glass (Fig. 45, Nos. 17–21)

Most groups include a few fragments of window-glass; several contain large quantities (details in fiche, Fig. 143, M IV G7). By their nature, discarded fragments of used window-glass within otherwise dated refuse groups are unlikely to give any clear indication about the date either of manufacture or installation of the glass. Nevertheless, certain trends of manufacture and use of different types of glass can be discerned. Some groups contain pieces trimmed for new windows, which include edge offcuts of large-radius crown glass, and distorted straight flame-rounded edge pieces from cylinder glass (Fig. 45, Nos. 17–20).

Apart from some residual fragments of medieval painted glass, probably from the Greyfriars' church, the earliest window-glass finds (called early post-medieval or EPM in the histogram, Fig. 143) are a few pale bluish-green fragments which show the characteristic pitted weathering of the late 15th- or early 16th-century vessel and window-glass from both glasshouse sites132 and excavations.133 These almost certainly predate the introduction of improved manufacturing methods by the immigrant glassmakers in 1567.134 All except two pieces came from trenches on the site of the medieval Greyfriars' precinct, and may have been from late windows in their church.

Several thin, greenish-blue window-glass fragments of high quality (less than 1 mm in thickness), several of them clearly from diamond-shaped quarries, survived in a mid to late 17th-century pit (A F17); these are probably of the later 16th or early 17th century, and the

130 G. Egan, 'The Glass Bird Feeder', in A.G. Vince et. al., 'The Contents of a Late 18th-Century Pit at Crosswell, City of London', Transactions of the London and Middlesex Archaeological Society, xxxii (1981), 170; Fig. 10, No. 63. Geoff Egan notes (pers. comm.) that the example from W F48 is the only one he has seen with an opaque white head.
131 M IV G10.
132 For example from the many sites in the Weald of Kent discussed in G.H. Kenyon, The Glass Industry of the Weald, (1967) and illustrated, Pls. XII, XIII.
133 See for example the numerous finds of the period from London.
134 Kenyon, op. cit., 41; Eleanor S. Godfrey, English Glassmaking, (1975), 16f.
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**Fig. 46.** Top A histogram showing the percentage of glass vessel types from all contexts of each period. + indicates 2% or less, – indicates intrusive material. Bottom A histogram showing the incidence of mirror- and window-glass types. X indicates the occurrence in one context of the period.
Fig. 47. A histogram showing the percentage of glass phials of different colours from all contexts of each period.

The same group contains a number of fragments of darker olive-green glass with either a yellowish or a bluish tinge, generally thicker (1–1.5 mm) than the earlier type already described. There are fragments from both diamond-shaped quarries (Fig. 45, Nos. 17–19), and rectangular panes (Fig. 45, No. 21). The darker colour of this glass suggests a date of manufacture after the introduction of coal-fired furnaces in c. 1615.\(^{129}\) In the later 17th century, this surprisingly dark green glass was replaced by a type with a rather paler yellowish-green colour. A number of fragments of this type, varying in thickness and

\(^{129}\) These factors are discussed more fully in Godfrey, *op. cit.*, 207–15.

\(^{130}\) See the comments under the section on case bottles, above.
quality, come from a mid 18th-century group (W F45). Smaller quantities are scattered throughout most of the 18th-century groups.

By the mid 18th century, however, manufacturing techniques had improved sufficiently to enable glass of a higher quality to be produced. Most of the mid and late 18th-century groups (such as W F45, W F25, and W F7 L1) contain many fragments of thin glass with a slightly bluish tinge, which had lost both the pale-green colour as well as the capacity to resist corrosion while in the ground. These must have formed quite large panes, probably in the sash windows of the period. This type is absent from groups earlier than the early 18th century. The general trend from darker to lighter colours is shown in Fig. 143 (M IV G7). Ten edge offcuts indicate that both cylinder and crown processes were used to make the green and pale-green window glass, but there is evidence only for crown glass in the later pale blue-green windows.

GLASS BOTTLE SEALS by GWYNNE OAKLEY

(Figs. 48-49. Not illustrated Nos. 4, 6, 8, 11-12, 14) (Catalogue and illustration of 26 glass bottle seals Figs. 144-48, M V A3-12)

The twenty-four bottle seals found represent four types of user (taverns, eating houses, private individuals and colleges), and three types of beverage (wine or port, spa waters and beer or porter).

Eight bottles came from Oxford taverns and alehouses (Fig. 48, Nos. 1-3, 9-11, 22-23, No. 11, not illustrated), the former licensed to sell wine in bottles by retail. Tavern bottles were sealed with the sign of the hostelry, accompanied by the name or initials of the licensee and in five cases by a date (Nos. 3, 9-11, 22). E.T. Leeds131 used such dated bottle seals to elucidate the chronological changes in form of the English wine bottle from 1650 to 1720, after which taverns generally ceased using their own marked bottles. The licences issued in Oxford enabled Leeds to assign broad dates to bottles marked only with initials, and a more complete list of tavern licensees was published by J. Haslam.132

Two bottles with seals (Nos. 1 and 2) not previously published are typologically the earliest wine bottle seals found in these excavations. Both were found in the same mid to late 17th-century group (A F17). They are tentatively identified here. Leeds133 discussing two bottles identified with Oxford inns, may be correct in suggesting that they served as decanters, as neither inns nor alehouses were licensed to sell wine in bottles for consumption off the premises. An earlier work by Leeds134 led to the identification of No. 1 as an alehouse seal. Bottle seal and token135 each bear the same initials in triangular arrangement (surname above the forename initials of husband and wife below). The token advertises a tennis-court run by Thomas Butler, who also held an alehouse licence from 1670 to 1675. Leeds136 traces the tennis-court to the entrance to New College Lane, behind the octagon chapel, and the alehouse may have been nearby. Butler’s token closely copies those of his master, Thomas Burnham, and that of Thomas Wood,137 who was a dancing

135 Ibid., No. 33.
136 Ibid., 394-5.
137 Ibid., Nos. 32, 112.

(and perhaps fencing)138 master, a tennis court proprietor and a tavern licensee. Wood’s bottle seal, typologically one of the earliest from Oxford, shows tennis players.139 Bottle seals and tokens were issued by several other tavern proprietors, usually with the tavern sign. Dated seals were altered for re-use (Nos. 3, 25).

A Crown Tavern bottle seal found in recent contractors' excavations at All Saints' (No. 25) and another from St. Helens Passage (No. 26) are included here for comparison. Thomas Swift (No. 12, not illustrated) may have run an eating house at No. 47 Broad Street in the 1690s, using bottles with seals as decanters. No. 1 from an alehouse might also have been used as a decanter inside the establishment but sent out to taverns to be refilled.

No. 13 was sealed only with the owner's initials, 'JS', made up from two separate letters mounted on a die. This was most likely a private individual who could readily be identified at the vintner's, as were probably 'JB' and 'K' who scratched their monograms on Miller's Durham, 'All Saints Church', forthcoming.


and initials on bottles at the end of the 17th century.\textsuperscript{144} No. 24, a cylindrical bottle, has a seal below the shoulder with the letter ‘B’. It was usual to send one’s own sealed bottles to a tavern to be filled with wine as Samuel Pepys observed on 23 October 1663.\textsuperscript{145}

Eleven bottles of Oxford colleges were found (Fig. 49, Nos. 4–7, 15–21). All Souls College (not represented) purchased sealed bottles from Stourbridge in the mid 18th century, to be filled with wine or port in the newly-established college wine-cells, and used their own common-room initials (‘AS CR’).\textsuperscript{146} If this had been the case in every college, bottles should not have left college premises. However, bottles could have been sent out to vintners to be filled in the usual way.\textsuperscript{147} Bottle seals of five different colleges were found: one or two bottles from each of the colleges represented, except Christ Church which is nearest to the excavations and produced six examples. Two college seals were dated: 1763 (or 5) partially erased from one matrix (No. 19 from Magdalen), and Nos. 6 and 17 from Christ Church, which were sealed with the same flawed matrix as Nos. 4 and 6 and 16 but with the date 1771 added. From its shape one of the Christ Church bottles (No. 15) could be contemporary with the Exeter College seal dated 1744.\textsuperscript{148}

German spa waters were sold in imported sealed bottles. The seal (No. 14, not illustrated) from one bottle, and neck from another (Fig. 42, No. 2), were found with mid 18th-century material (B IV L20, W F25, respectively).

Finally, the changing methods of bottle manufacture and liquor supply in the first half of the 19th century are illustrated by a three-part machine-moulded bottle with added Bristol Brewery seal (No. 8, not illustrated).

**LEATHER OBJECTS by Gwynne Oakley**

(Catalogue and illustrations of 2 shoe sole fragments, Fig. 149, M V B1–2)

Two shoe sole fragments found illustrate different techniques of manufacture: a turnshoe (No. 1, from a mid 18th-century deposit) and a welted shoe with sprung heel (No. 2, from a 19th-century deposit).

**STONE AND CLAY OBJECTS by Geoff Egan, Gwynne Oakley and Martin Henig; Petrological Identifications by H.P. Powell**

(Fig. 50) (Catalogue and illustrations of 15 objects, Figs. 150–51 M V B5–8)

Ornamental stones were used to make three objects: a possible paper weight (No. 4), a dish (No. 11) and a knife-handle (No. 12). Nos. 4 and 11 are of 18th-century date. The knife-handle was found in the topsoil with 17th-century finds. It is made of red jasper, a fashionable alternative to ivory. Four hones (Nos. 1–3, 13) from post-medieval contexts include two of quartz mica schist, a type common among the medieval finds from these and other sites; they could be residual, though trade in Eidsborg schist from Norway continued well into the present century.

Five playing marbles of chalk and clay (Nos. 6–10), both plain and decorated, came from mid to late 18th-century and 19th-century contexts.

\textsuperscript{144} Illustrated in print with Selected Assemblages, Fig. 23, Nos. 7, 13.
\textsuperscript{145} George Berry, *Taverns and Tokens of Pepys’ London*, (Seaby, 1978), 65.
\textsuperscript{146} Jeremy Haslam, ‘Cellars of All Souls’, *Oxonimia*, xxxiv (1969), 70.
\textsuperscript{147} Ibid., 69.
A small amount of coal was found in contexts of early to mid 18th-century date and later in the same century.

PLASTIC COMBS by GWYNNE OAKLEY

(Catalogue and illustrations of 4 combs, Fig. 152, M V B11–12).

Four different black plastic combs (Nos. 1–4) were found in mid 19th-century contexts. These show the beginning of mass-production techniques by machine, just as machine-moulded glass bottles replaced those blown individually by craftsmen. Plastic combs became cheap alternatives to natural materials like tortoiseshell and ebony because they could be made by swift mechanical processes. The black plastic was called ebonite or vulcanite, and was made from rubber heated with sulphur. One comb incorporates a crude wire reinforcement along the back which could be a sign of early experimentation.
CLAY PIPES by ADRIAN OSWALD, WITH A CONTRIBUTION ON CHESTER PIPES by JANET RUTTER

(Figs. 51–56) (Gazetteer of Clay Pipes M V C1–7; List of Principal Sources M V C7)

The large quantity of pipes from these excavations contains nothing earlier than c. 1620. Some earlier London pipes might have been expected in view of the presence of these at such places as Newcastle, Doncaster, Coventry and Worcester, not to mention ports such as Southampton and Plymouth. Likewise there are no Dutch pipes.

A local industry seems to have emerged in perhaps the decade c. 1630–40, (Fig. 51, Type A). Judging by the numbers of pipes (Type B) found, it would seem to have flourished in the second half of the 17th century, ousting outside competitors. Local products continued in the 18th century (Types C and D) but their loss of dominance is shown by the appearance of Broseley, Shropshire, Wiltshire and Hampshire pipes, (Figs. 51–54).

The number of marked Broseley pipes so far from their place of origin is unusual. They may well indicate the taste of the University for what in the 18th century were superior products; the proportion is certainly higher than in non-academic towns such as London. London and Bristol again are hardly represented, there being no London armorial pipes; however, Chester stem decorated examples were found.

Local makers again predominated in the 19th century, marked pipes of the Huggins family and George Norwood being found in most deposits (Figs. 55 and 56). At least five tobacco pipemakers are recorded in St. Ebbe’s parish in c. 1851: Robert Smith, of Gas Street, aged 50; George and Robert Norwood, of Bridport Street, both aged 27; William Steventon, aged 38; James Collins and Henry Steventon, apprentices, aged 20 and 13 respectively; and John Hone, aged 30. All lived in Blackfriars Road, and may possibly have worked for William Steventon. A pipe-trimmer, Martha Burchill of Friars Street, is also mentioned.

The dating of the assemblages rests mainly on bowl typology, and in some cases on identification of marks with makers. Nearly all the contexts contain bowls for typological dating. Statistical methods based on the bores of the pipes were not employed, with one exception (B IV F44), since this method demands larger samples (more than 800) than were available. The validity of statistical methods is in any case questionable in view of recent excavations in America.

In the 18th-century groups, the method of finishing the top of the bowl changes. Up to c. 1720 the top was bevelled by the use of a button inserted in the top. Probably after this date, the practice of trimming the top of the bowl with a knife, leaving a flat edge, seems to have been used. Similarly, in the 19th century the mould-line at the base of the spur was trimmed flat until c. 1820, after which the practice was dropped to save labour; the mould-line can easily be distinguished.

Local Types: A–D, Fig. 51

A. These are allied to a London Type 3 and 4G, but have big round bases flared on each side. Some have flat bases, some pedestal. The clay is white and smooth and

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149 1851 Census, 86/16; 86/114; 86/116; 80/22; 80/103.


Fig. 51. Local Clay Pipe Types: A–D; Clay Pipes Pre-dating 1650; Nos. 1–6.
A. B X PP29/0/a; B. B X PP28/0/a; C. B IX PP1/0/a; D. B X PP27/0/d; 1. B X PP1023/1135/a;
the whole pipe well-made. Bowl sizes can be somewhat larger or smaller than shown. Bores 7–8/64". Suggested date range 1630–55.

B. These are easily identified by the angular profile of the bowl about halfway down its length. The angle is distinctive to the touch, and quite different from the smooth flowing lines of spurred London types (16–18G). Similar angled bowls were found on local Plymouth pipes of the latter part of the 17th century.\textsuperscript{132} The clay of these pipes varies from white to grey, and they are often well-finished with stroke polishing. The size shown is the medium. Bores range from 7–8/64". Suggested date range 1650–90.

C. These are closely paralleled by London Type 10G, but have rather thick narrow bowls, often greyish in colour. The top line of the bowl is sometimes at an acute angle to the line of the stem. The lip of the bowl is button trimmed.\textsuperscript{133} Bores are usually 6/64". Stroke polishing occurs. Date range c. 1690–1720.

D. In profile these bowls fall within the Southern Types 12–16S, but the foot is distinctly splayed. These splayed bases occur occasionally in the London area between c. 1760–80,\textsuperscript{134} but at Oxford in groups of c. 1750–90. They were relatively common in the excavation deposits, and on this account are held to be of local manufacture. The spur or base tends to lean forward. Bowls are of medium thickness (2 mm at the greatest width for medium bowls), clay is white and the stems vary from medium to thin. Bores are usually 6/64" or less.

Pipe-bowls

\textbf{Nos. 1–6: Pre-dating c. 1650, Fig. 51}

1. Type 4G marked P.C. in relief. Duplicate marks from London (Temple, The Jewel Tower, Westminster and Queenhithe, the latter in the Cheminant and Elkins Collections). Similar types from many London sites and from Stoney Stratford, Wincanton and Gloucestershire. Possible maker Peter Cornish of London, who signed the Company charter of 1634. (B X F29).

2. Type 3/4G. Marked H incuse. Similar incuse marks on same type occur from London (Queenhithe), Salisbury, Poole, Winchester c. 1630–50. (B III L2; W F7 L1 and St. Ebbe's U/S).

3. Type 4G marked B/C in relief. Similar marks from Oakham Castle, London (British Museum, Bankside, Queenhithe in the Atkinson Collection, Southwark Bridge in the Cheminant Collection), Carlisle and Ripon College, Yorkshire. Possible maker Belier Sacheverell and wife, who signed the Company Charter of 1634. (A F1023, L1135).

4. Type 5G. Marked Jeffrey Hunt, in relief, Marlborough c. 1650–70. (two examples from St. Ebbe's U/S).


\textbf{Nos. 7–10 1650–1700, Fig. 52}

7. Type B. Marked RP incuse, on the stem. Maker uncertain. This is the only marked pipe of this type, but for similarity of mark see No. 10. Polished. Length 9 1/2" and broken. Bore 7/64". In a group with twenty others unmarked. Date-range 1660–80. (B IV F101).


\textsuperscript{132} A. Oswald and J. Barber, ‘Marked Clay Pipes from Plymouth, Devon’, \textit{Post Medieval Archaeology}, iii (1969), 132; Fig. 55, No. 33.

\textsuperscript{133} Up to c. 1700 the top of the bowl was trimmed by rotating a plunger called a button, after that date the tops were knife trimmed and are flat instead of bevelled.

Fig. 52. Clay Pipes 1650–1700: Nos. 7–10; 1700–1750: Nos. 11a–15
Gadney was assessed for Hearth Tax during 1667–77 when working in St. Giles, Oxford.\textsuperscript{135} Robert Gadney father and son were defendants in a case for injuries brought in 1722 by Sedgwick Harrison of All Souls College (Northants Records). Marks of Robert Gadney have been recorded from Oxford on Type B bowls (Ashmolean Museum), Aylesbury and Salisbury, but this stem with its decoration is 18th-century in character. (B X F26).

\textbf{9.} Broseley Type 3A.\textsuperscript{136} Marked RL in relief. Probably Richard Legge (1), c. 1650–70. (St. Ebbe's U/S)\textsuperscript{137}

\textbf{10.} Type 8/9G. Marked MC incuse on the stem. Maker uncertain. Stroke burnished. Buff white clay. Bore 7/64". In a group with Type B. c. 1665–90. Possibly a local maker, as found with five others of the same type but unmarked. The type is known with dated marks of 1683. (W F22).\textsuperscript{138}

\textit{Nos. 11a–15: 1700–1750, Fig. 52}

\textbf{11a–b.} Pipes of Type C. Marked in relief R/G on sides of base. Two dies of the mark of different sizes. Button top bowls of medium thickness 1.5–2.25 mm, stroke burnished. Perhaps Robert Gadney senior or junior. c. 1720. (W F22 and B IX F1).

\textbf{11c.} Marked G/R, but probably the same maker (B IX F1).

\textbf{12.} Type 12G. Incised on stem THo/Wid (Do?). Thomas Widows of Marlborough took an apprentice in 1718 (Apprentice Rolls). Very white highly polished bowl. c. 1720–40. (B X F26).


\textbf{14.} Type 14G. Marked R/G in relief, on sides of base. Thin bowl (1.5 mm). In a group of c. 1740–80. Maker uncertain. (W F45).

\textbf{15.} Type 14/16G. Marked Will/Pearce, incuse on stem. William Pearce was a Marlborough maker working c. 1700–40. (W F25).

\textit{Nos. 16–18: 1700–1750, Fig. 53}

\textbf{16.} Type C, marked ?OC, incised on stem; this may be merely decorative or a marking point of balance. c. 1700–20. (A F60, closing date c. 1760, and decoration only B VII F4).

\textbf{17.} Stem only, marked RICH/ARD.S/AYER (Richard Sayer), incised on stem. Richard Sayer was married in 1696 at Winchester, and was working at West Wellow, Hants., probably until c. 1720. (B IV F44; St. Ebbe's U/S).

\textbf{18.} Stem only, marked WIL/LIAM/LARN (?William Larner), incised on stem. Wiltshire or Hampshire style of mark. c. 1700–40; maker unknown. (St. Ebbe's U/S).

\textit{Nos. 19a–19c: Chester Pipes, Fig. 53}

\textbf{19a.} Stem only, oval stag stamp. A Chester type, but not recorded elsewhere. (St. Ebbe's U/S).\textsuperscript{140}


\textbf{19c.} Stem only, lozenge stamp, pinnacle and dot border. Chester-type but unparalleled amongst Chester-types. The fleur-de-lys within the lozenge design, and letters (T L) separated by a pellet are closest overall to lozenge No. 1 in the series from Chester.\textsuperscript{141} The Crown, though smaller, is nearer that in lozenge No. 3.


\textsuperscript{137} Cf. A. Oswald, \textit{Clay Pipes for the Archaeologist}, B.A.R., 14 (1975), Pl. 13, No. 11.

\textsuperscript{138} Ibid., Fig. 1, No. 10.


\textsuperscript{141} Davey, \textit{op. cit.}, 144–145.
Fig. 53. Clay Pipes 1700-1750; Nos. 16-18; Chester Pipes. Nos. 19a-19e
Fig. 54. Clay Pipes 1750–1800: Nos. 20–25b
Scale 1:1.
Fig. 55. Clay Pipes Post-dating 1800: Nos. 26a-30
26a. A PP72/82/a; 26b. A PP66/74/a; 26c. A PP66/74/b; 26d. B VII PP5/0/a; 26e. PPU/S/k;
Scale 1:1.
EXCAVATIONS IN ST. EBBE’S

The nearest counterparts to the border are Nos. 6 and 10, but the example from St. Ebbe’s is a more jagged design and is divided asymmetrically. Stems with this type of decoration fall into a group ranging in date from 1690 to 1715. No manufacturer is known in Chester at this date with these initials. (St. Ebbe’s U/S).

19d. Stem only, oval ‘Spread Eagle’ stamp, No. 10 in Chester series, with border No. 76. Marked WW in relief, on each side. c. 1710–30; maker unknown. (W F45; W F70; St. Ebbe’s U/S).

19e Type 10G. Oval arms of Chester stamp. Previously unrecorded die. Border No. 57; dating 1720–60. Bowl medium (2.5–2 mm). Bore 7/64". (W F70; St. Ebbe’s U/S).

Nos. 20–25: 1750–1900, Fig. 54

20. Type 13G. Oval ‘Spread Eagle’ stamp. The engraving is inferior to the Chester examples, which are different in style. The nearest parallels are from Salisbury (Atkinson Collection) and Ross-on-Wye, but have different borders. The bowl is typically southern in style and the source of origin is probably Wiltshire or Hampshire. The stems are polished, medium thick bowl. Bore 5–6/64". (B X F27; A F60; B X F26, closing c. 1750).


23a. Stem only. Marked JOHN/BRAD/LEY, and unrecorded die. John Bradley worked c. 1740–60, (B I F27). Another two marks across stem in square frame JOHN/BRAD/LEY (Atkinson die 2), bore 5/64". (B X F26; St. Ebbe’s U/S).

23b. Stem only. Marked JOHN/BRADLEY/BENTHALL (Atkinson die 4), bore 5/64". (St. Ebbe’s U/S).

24. Stem only Marked GEOR/BRADLE/BENTHALL. Children baptised 1727 and 1731. (St. Ebbe’s U/S).


25b. Broseley Type 7b. Marked BEN/ABB/OTT in relief in square frame. Abbott, of Ramsden, Oxon., took an apprentice, W. Hopkins, for £7 in 1758, but the style of the mark is pure Broseley. Well-finished, highly polished pipes. (B X F22, closing c. 1780; B X F27; W F7 L1; W F45, closing c. 1780; St. Ebbe’s U/S).

Nos. 26a–30: Post-dating 1800, Fig. 55

26a–c Pipes of George Norwood, 1852–63.

26a. Marked G/N in relief on spur. Polished very thin bowl and stem. No mould-line on spur. (A F72 L82; B X F27).

26b. Marked G/N in relief on spur. Polished oval bowl, decorated with oak-leaves on front, back mould-line. (A F66 L74; B VII F5).

26c. Marked G/N in relief on spur. Leaves and swellings on front and rear mould-lines. (A F66 L74).

26d. Marked G/N in relief on spur. Norwood on relief decorated stem, very thin. (B VII F5).

26e. Marked G/N in relief on spur. Grapes and vine-leaves in relief. Thin white bowls. (St. Ebbe’s U/S).


28. Marked T/F in relief on spur. Prince of Wales feathers and ICH DIEN in relief on back of bowl. Perhaps Thomas Frost of Southampton, 1803–44. Similar types and designs occur at Southampton and Jersey. (3 examples B V F11 L3).

29a/b Marked W/T in relief on spur. Maker uncertain. No mould-line on base, c. 1820. Medium bowl (2 mm). (B V F11; B IV F8 L1).

163 Cf. Gardeners and Buttons Directories.
165 Cf. Banbury Directories.
Fig. 56. Clay Pipes of the Huggins family cl850: Nos. 31a-35; ?Thomas Abbott Pipe: No. 36.
33. B VII. PP5/0/a; 34a. B X PP27/0/e; 34b. W PP15/0/c; 34c. A PP56/56/a; 34d. B X PP27/0/f;
EXCAVATIONS IN ST. EBBE'S

30. No mark, flowers and leaves in relief. (W F19; B VII F5).

Nos. 31a-35: Pipes of the Huggins Family c. 1850, No. 36? Thomas Abbott, Fig. 56

Benjamin Huggins, 1841–76, 76 Observatory Street. Tobacco pipemaker and coal merchant.

Samuel Huggins, 1852, Banbury; S and T Huggins, 1851–55, Banbury. Thomas Huggins, 1805, member of Tobacco Pipemakers Company.

31. Marked B/H in relief on spur – Benjamin Huggins: Nos. 31a-31c.

31a. Oak-leaves on front mould. (B VII F1 and F5).
31b. Marked B. Huggins incuse on back of bowl. (B VII F5).
32. G. Huggins (unrecorded).
32a. Incuse on back of bowl similar to No. 31b. Marked G/H on spur. (B VII F5).
32b. Marked G/H or possibly E/H in relief on spur. (B X F27).
34. All marked T/H in relief on sides of spur. There are clearly two or three T/H makers here, not all of whom may be Huggins.
34a. Three different types of H. Type suggest a date c. 1770. (A F72 L82; B X F27).
34d. Type 12S. (B X F27).
34e. Oval thin bowls. Probably T. Huggins. (A F56 L56; B IV F8, L1).
34f. Oval thin bowl. Probably T. Huggins. (A F56 L56; B IV F8 L1).
36. Type 13G. Marked A/T; but the A had been formed by altering a W, suggesting an adaptation of the maker W/T’s mould (see Nos. 29a. and b.). Possibly Thomas Abbott of Banbury, 1833–35, altered the mould. If read normally (i.e. surname on the right when bowl of the pipe points away from the body) the mark would be T/A, but possibly the rule was ignored for convenience. The mould-line at the base of the spur had not been removed, implying a date of c. 1820. Other cases of mould alteration have been noted from Brentford excavations and Stony Stratford,171 and there are Dutch examples.172

Oxfordshire Clay Pipemakers

No kilns have been found in Oxfordshire, but a number of pipemakers are known from wills, inventories, apprentice rolls, directories and rentals. More documentary work is needed to locate the 17th-century pipemakers in the county.

<table>
<thead>
<tr>
<th>Town</th>
<th>Name</th>
<th>Mark if Known</th>
<th>Date</th>
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<tbody>
<tr>
<td>Abingdon</td>
<td>G.H. Bryant</td>
<td>GB</td>
<td>1843–64</td>
</tr>
<tr>
<td></td>
<td>John Thornton</td>
<td>IT</td>
<td>1684 (ob.)</td>
</tr>
<tr>
<td>Banbury</td>
<td>Thomas Abbott</td>
<td>TA</td>
<td>1833–35</td>
</tr>
<tr>
<td></td>
<td>George Carter</td>
<td>GC</td>
<td>1876</td>
</tr>
<tr>
<td></td>
<td>J. Carter</td>
<td>IC</td>
<td>1861–74</td>
</tr>
<tr>
<td></td>
<td>Samuel Carter</td>
<td>SC</td>
<td>1857–75</td>
</tr>
<tr>
<td></td>
<td>Thomas Draper</td>
<td>TD</td>
<td>1714 (ob.)</td>
</tr>
</tbody>
</table>

162 Cf. Gardener’s Directories.
163 Cf. Censuses and Directories.
165 Cf. A. Oswald, Clay Pipes for the Archaeologist, B.A.R., 14 (1975), Pl. IV, Fig. 15.
Hair and wig curlers did not become popular in this country until the second half of the 17th century. They were often made by clay pipemakers, who were sometimes also pastry-cooks and bakers. A recession in the clay pipe industry between 1670 and 1740, caused by the popularity of snuff-taking, forced many clay pipemakers to diversify and produce other objects in clay.

Comparatively few curlers were found in the survey area of St. Ebbe’s; only five were.
recovered from closed pit groups. These curlers were compared with the typology devised by Richard le Cheminant. Most interesting, a Type 10 was found, (Fig. 57, B I F27). This type is dated to c. 1750; however, it has stamped marks on both ends, incuse IB, which parallels one from London, dated to c. 1800. These solid curlers probably had a long 'span of life', and may not have been discarded for a considerable time after their manufacture.

TILE by SIMON ROBINSON

(Figs. 58–59) (Description of fabric types M V D1–2; Site-by-site account of the incidence of each fabric type M V D3–5; Discussion of floor and roof tiles and conclusion M V D6–9)

Six hundred and three roof-, and two hundred and two floor-tile fragments were examined to establish whether medieval tile production centres continued operating in the post-medieval period, and to determine if there are any differences between this post-medieval collection and the medieval tiles from the Hamel.

Two new fabric types (VIIB and VIIB) were identified and could have been produced locally. Haberley and Bicester Priory Type floor tiles were recognised. The concentration of floor tiles from the Greyfriars site probably represents residual demolition material following the dissolution of the Priory.

There is no significant increase in the quantity of roofing material, despite a City Council Act of 1667 which states that thatching is not allowed on houses within the city.

One decorated tile fragment from a 17th-century context (B IV F4 L1) is of particular interest (Fig. 59). It is a corner fragment with mortar present on the edges, suggesting it has been used as a wall tile for decoration such as one might find surrounding hearths. The decoration is tinglaze, and the design appears to be a plant within a shield-like border.

178 Ibid., Fig. 2.
179 Palmer, op. cit., 196; M 2 DD09.
180 Description, M V D1–2.
181 Discussion, M V D9.
183 D.A. Hinton, 'Bicester Priory', Oxoniensia, xxxiii (1968), 45, Type F.
185 Full description, M V D8.
Fig. 58. The post-medieval tile fabric types from dated contexts from each site, 31–34 Church Street (A), Greyfriars and Littlegate (B), Westgate (features north of Church Street) (C), and Westgate (features south of Church Street) (D). A histogram showing the sherd numbers in each fabric as a percentage of the total in each context. + Indicates 5% or less.
Fabric IB is no longer as common as it was in the medieval period, and the fragments present are probably residual. Residual material, the re-use of tiles and their longevity of use inhibited the study, and possibly the only way of identifying which manufacturing centres were in operation in the post-medieval period is by further documentary research.

MEDIEVAL AND POST-MEDIEVAL ANIMAL BONES AND MARINE SHELLS by BOB WILSON

The full reports on bones are produced in fiche and consist of the following sections:

<table>
<thead>
<tr>
<th>Section</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>M VI A4</td>
</tr>
<tr>
<td>Post-Medieval Bones and Shells from Church Street (Site A) by Bob Wilson</td>
<td>M VI A4</td>
</tr>
<tr>
<td>Bones and Shells from Greyfriars (Site B) by Professor B. Marples</td>
<td>M VI A11</td>
</tr>
<tr>
<td>Further Aspects of Bones and Shells from Greyfriars (Site B) by Bob Wilson</td>
<td>M VI A13</td>
</tr>
<tr>
<td>Preliminary Report on the Cattle Horn Cores from Greyfriars (Site B) by Philip Armitage</td>
<td>M VI B2</td>
</tr>
<tr>
<td>Bones and Shells from Littlegate (Site D) by Bob Wilson</td>
<td>M VI C3</td>
</tr>
<tr>
<td>Medieval and Post-Medieval Bones from Westgate (Site W) by Bob Wilson</td>
<td>M VI C4</td>
</tr>
<tr>
<td>Bird Bones from Church Street (Site A), Greyfriars (Site B) and Westgate (Site W) by Roger Jones and Bob Wilson</td>
<td>M VI C6</td>
</tr>
<tr>
<td>Post-Medieval Age Data, Butchery and Rubbish Disposal in the Survey Area by Bob Wilson</td>
<td>M VI D3</td>
</tr>
</tbody>
</table>

Despite interpretive problems, the post-medieval bones and shells provide interesting insights into urban life in the parish of St. Ebbe's and the area surrounding Oxford. The skeletal debris of mammals, birds, molluscs and crustaceans were found largely as domestic wastes, buried in rubbish pits and other features adjacent to the foundations of former tenement buildings at Church Street (Site A), Greyfriars (Site B) and Westgate (Site W).
Butchery patterns. On these sites the cranial remains of cattle and sheep feet among the bone debris were relatively few. Such parts of the carcass are thought to be early by-products of slaughtering, tanning or other associated processes. At other sites sheep feet were chopped up and boiled to extract tallow, glue or other derivatives. Metapodial waste from the process has been discovered for the medieval and early post-medieval periods at the site of the Old Clothing Factory, Abingdon and for the 16th- to 19th-century period at the Causeway, Bicester.\(^{183}\)

Similarly, heads of cattle appear elsewhere put aside from the mainstream of carcass butchery, at least in part to obtain the horns. Most cattle skull debris would seem concentrated away from domestic refuse.\(^{184}\) Although the presence of slaughterhouses or related trades is not obvious from the fragmented bones from the survey area, a deep late 18th-century pit at Greyfriars (B I F27) was lined with horn-cores of cattle. Philip Armitage suggests that these were brought from the 17th- to 19th-century tanneries which were sited some 50 and 100 m. south-west of the pit.\(^{185}\) The concentration of horn-cores and the more general separation of cranial debris is emphasised by the prominence of calf among the cranial elements which were found on the tenements. Clearly the heads of hornless juveniles were butchered or consumed differently from those of older cattle. Perhaps calf carcasses passed largely intact with the skinned, quartered(?) carcasses of older cattle to the butchers' shops, and then, disjointed, to the tenements. Alternatively, some calves may not have been brought to markets and sold with other cattle, but butchered independently; for example, part-time butchers may have killed calves of milking cows kept locally, possibly even on the tenements.

Bones from the main carcass of cattle show that the bulk of beef eaten was obtained from older cattle. Therefore the epiphyses of bones, not the mandibles, give a better general estimate of the ages at which cattle were killed. The epiphysial fusion data is evidence that the slaughtering patterns of domesticated mammals did not alter much from the late medieval period onwards. It may be simply that the dismemberment of carcasses became more highly organised or specialised.

Occasionally the bones indicate waste from butchery at shops or stalls. Quantities of split sheep skulls occurred in the 18th-century pit W F22 at Westgate, and smaller deposits were noticed in 17th-century contexts, A F1529 and B IV F13. Unhelpfully all these features contained fewer bones than a convincing collection from a large 16th-century pit at the Hamel, Oxford,\(^{186}\) but still may be waste from the butchers' shambles which occupied Queen Street during the 16th to 18th centuries.\(^{187}\)

Most bones from the St. Ebbe's sites are elements from the main meat carcass and, as presumed from their final resting-places, were carried to tenement houses as meat joints. Thus some heads of calves appear to be cooked in kitchens, but their cranial bones in pit A F1529 at Church Street are associated with the sheep heads which are supposed to be butchers' waste. Since this feature has abundant small bones and marine shells, which seem unlikely to be butcher's waste, this assemblage could also be regarded as domestic refuse of a different type or refuse with several origins.

Diet. In addition to the larger domestic animals, rabbit, domestic fowl, goose, duck, oyster, mussel, and cockle are characteristic post-medieval foodstuffs. Apart from marine

\(^{183}\) R. Wilson and D. Bramwell, reports in preparation on bones and shell from the Clothing Factory, Abingdon, Oxfordshire and R. White, The Causeway, Bicester, Oxfordshire, manuscript held by the Oxford Archaeological Unit.

\(^{184}\) R. Wilson in Palmer, op. cit., M 2 E10.

\(^{185}\) R. Wilson in Palmer, op. cit., M 2 E10.


\(^{187}\) R. Wilson in Palmer, op. cit.
shellfish, wild species (fallow deer, hare, and birds such as rook, crow, jackdaw and magpie) are scarcely represented. Seventeenth-century fragments of edible crab (*Cancer pagurus*) and North American turkey (*Meleagris gallopavo*) appear to be innovations in local diet.

The food debris does not suggest great prosperity, although the diet is quite varied and all parts of the main meat carcass are abundantly represented. The following features contained debris which appears less typical: A F17, A F1023, A F1529 and B IV F13 (dated to the 17th century); A F60 and W F22 (dated to the 18th century). Possibly, as argued previously, the bones are connected with intermediate stages of butchery, but they could also have been rubbish dumped by poor people. Either interpretation risks confusing the nature of the evidence. First, concentrations of butchery waste need not reflect the prosperity of any butcher living on the premises. Secondly, although metapodials of cattle were not part of meat joints they could be esteemed as marrow-bones by both wealthy and poor people.

**Animal skeletons.** A variety of skeletons are from animals which seem unlikely to have been eaten. Nevertheless the commonest of these, the cats, seem to die prematurely and some may have been killed deliberately. Probably two polecats, possibly ferrets, from 17th-century pit A F17 were skinned for their fur, but there are not cut-marks on the bones to show that cats were exploited in the same way.

**Pig keeping.** A 'broad-headed' pig of 16th to early 19th-century date was buried at 34 Church Street (A F90). It appears to be a sow which died approaching maturity. Two methods of constraint are indicated by bone deformation. First, accreted bone on the medial side of the left distal tibia may have accumulated under the pressure of a tethering strap around the hock. Secondly, the front of the cranium shows bone outgrowth which might be caused by butting against the walls of a pen. Other pathology of the spine and ribcage, particularly fractures of neural spines, suggest further injuries from maltreatment or traumatic attempts to escape from a sty. Metastatic ossification within soft tissues also occurred.

Probably the pig died of disease. The corpse was not butchered, and it seems likely that it was buried close to where the pig had been kept. A reference in 1834 to the pigsties of Mr Cooke at 32–34 Church Street confirms the rearing of pigs on the tenements.188

**Breeds of late 18th-century cattle.** In the microfiche Philip Armitage reports extensively on the 336 horn cores of cattle from B I F27 at the Greyfriars site. A heterogeneous group of short- to long-horned cross-bred cattle is suggested from the variability of the lengths of horn cores (200–410 mm.). The horns are of the outward-curving form and do not include any bow-shaped horns from the Leicester Longhorn, which was bred from previous longhorn stock around 1800 and largely replaced it during the 19th century.

**Game cocks.** Two tarsometatarsi of domestic fowl from B IV F44 have the spurs sawn off. The bones may date from the early to mid 18th century, but may possibly be associated with intrusive material of the early 19th century. Almost certainly, the truncation of spurs occurred during the preparation of the birds for cock-fighting with metal spurs.189

**Tenement environments.** Scavengers and other foragers on the tenements include pigs, cats, an occasional dog, black rats, hedgehogs, birds such as crows and tawny owls; possibly fowls, rabbits and even cows were kept. Some of these species indicate trodden and perhaps malodorous yards or animal pens.

Cover for wild species must have been within buildings, on wasteground or in gardens. Adjacent vegetation is indicated by bones of various birds, the polecats, and particularly, a

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few-months'-old hedgehog from 16th-century pit A F1528 at 33–34 Church Street. This property possessed gardens at least during the 15th century and in 1834. There was a late 16th-century orchard further east along Church Street.\textsuperscript{180} In summary, the bones supplement the documentary evidence, and indicate a variety of quite different micro-environments on the tenements, including pigsties, rubbish dumps and gardens. Further documentation on the area is given elsewhere in these reports and by R.J. Morris.\textsuperscript{191}

A SUMMARY OF PLANT AND INSECT REMAINS FROM THE POST-MEDIEVAL PITS AT CHURCH STREET (SITE A) by A.P. BROWN and M.A. ROBINSON

(A more detailed account and a report on the late medieval samples from the Oxford Castle Barbican Ditch is produced in microfiche, M VI E1–F3). Soil samples from the post-medieval pits were examined for plant and insect remains. The samples were not waterlogged, and the majority yielded nothing or very scant remains. Some, however, contained seeds and insects which had been preserved by calcium phosphate mineralisation which indicates that either these particular features were cess pits or that they had been back-filled with soil derived from cess pits. The remains themselves confirm this interpretation; all the mineralized seeds were from culinary plants, and the insect remains were mostly puparia of latrine flies (\textit{Fannia cf. scalaris}) and sewage flies (\textit{Sphaeroceridae}). The limestone gravel substrata to Church Street is very free-draining and this is probably the reason why mineralized remains were not abundant from the site.

Carbonised seeds were few, but organic survival of seeds had also occurred. In most of the deposits decay was very advanced, and only the most resistant seeds such as elder had survived, but in some of the cess pits, preservation was better and a more diverse range of unaltered seeds were present.

The plant and insect remains give little general information about the environment of Church Street, although elder bushes probably grew on neglected parts of the tenements. A single seed of sweet violet from a 17th-century cess pit was perhaps from a plant grown for its flowers, possibly even picked to sweeten the smell in the privy.

The cess pits do, however, provide dietary information which shows that the post-medieval occupants of some of the tenements enjoyed more than a mere subsistence diet. Black mulberry, fennel and fig seeds were present in A F41, a 16th-century pit. Blackberry pips were the most abundant seeds in A F57, a mid to late 18th-century cess-pit in the back garden of SW81, but the family which used the pit enlivened their diet with a rich variety of other fruits:

- grape
- raspberry
- strawberry
- plum
- pear or apple
- red currant
- black currant
- gooseberry
- fig
- black mulberry

\textsuperscript{180} Ibid.
\textsuperscript{191} R.J. Morris, \textit{op. cit.}, 72–98.
As well as being able to afford luxury fruit, the users of the pit evidently ate from good quality tablewares.191

CONCLUSION

THE ARCHAEOLOGY, HISTORY AND TOPOGRAPHY OF ST. EBBE'S FROM THE DISSOLUTION TO THE LATE 19TH CENTURY.

By combining the evidence presented in this report with the unpublished documentary survey, it is now possible to summarise the history of the northern part of St. Ebbe's from the Dissolution to the late 19th century. The results are shown in the accompanying three plans (Figs. 60–62).

By the Dissolution the general topography of this survey area was well-established. The block of tenements bounded by St. Ebbe's Street, Church Street, Newmarket and Castle Street was of late Saxon origins. The property boundaries had been fixed firmly by the 13th century, particularly the east-west boundary which formed the backs of the properties fronting onto Church Street and Castle Street. This was also the boundary between the parishes of St. Ebbe's and St. Peter-le-Bailey. To the west Newmarket was largely open and 'ripe' for development. South of Church Street, apart from St. Ebbe's church itself, lay the precinct of the Greyfriars. The precinct consisted of all the land contained by Church Street to the north, St. Ebbe's and Littlegate Street to the east, the Thames to the west and the Trill Mill stream to the south. The buildings lay in the eastern part of the precinct; to the west was the Greyfriars' orchard known as Paradise (G29) and across the Trill Mill Stream to the south was their meadow, called Boteham (G30). The City wall bisected the Greyfriars from Littlegate in the east to the Westgate, where the wall joined the Castle. As with Newmarket, the site obviously held great development potential once it came onto the property market.

The tenements north of Church Street formed just one part of the inner ring of poorer parishes on the fringe of the central trading area. The relative poverty of this part of the city had been accentuated by depopulation following the Black Death. This poverty is reflected in the excavations at 31–34 Church Street, Site A, where something like a third of the total street frontage was undeveloped. The land was garden ground and rubbish pits were found right on the street frontage which would be unusual at an earlier or later period. The evidence of the wild animal bones also indicates the presence of waste grounds or gardens. Another indicator of the general poverty of the area is that Newmarket, which had been established to relieve the pressure on the central markets, was closed by the mid 16th century. The City divided the site into two, marked it out with merestones, and began to lease the ground as gardens: the eastern half in 1578 (N1/N2) and the western half with a home in 1588 (N3/N4). Pit W F66 presumably belonged to this original home. The City clearly recognised the value of this land, since it was a condition of the lease of N3/N4 that a second tenement was to be built within five years. The intention was not, however, achieved immediately. The open aspect of St. Ebbe's in the late 16th century is clear in Agas's map. Although the details may not be accurate, the impression that he gives of scattered houses and unbuilt-up gardens agrees with all the other evidence.

South of Church Street, the openness of the ground formerly occupied by the Greyfriars was even more marked. Already before the Dissolution, in 1538, the Greyfriars' buildings were in a state of dilapidation; the friars had also begun to lease large areas of

191 M II G3–4.
Fig. 60. St. Ebbe's c. 1620. A plan, not immediately post-dissolution, showing the division of the Greyfriars site into large estates (not shown are the internal divisions of these estates i.e. the tenements, workshops and gardens). Though owning land north of Church Street, the colleges and parish churches acquired no part of the Greyfriars site.

their site. In 1537 William Thomas of Oxford, plumber, leased Paradise and Botchem meadow, and he still held these leases in 1544. In that year the eastern half of the Greyfriars site, i.e. the area of excavation Site B, came onto the market. The site had already been stripped before the sale. How much of the buildings were left standing at this time is unclear. Certainly one long range of buildings, which was orientated north-south and
which reached down to the Trill Mill Stream, had not been taken down. This building appears on Agas's and Hollar's maps of 1578 and 1643 respectively, but not on Loggan's map of 1675. Of the rest of the buildings only two walls were retained: the north wall of the choir together with its western continuation in the form of the blocked arcade between the east end of the nave, and the west wall of the north nave. The excavations showed for the first time that these walls belonged to the church, and they were to survive thereafter as major property boundaries until swept away by 20th-century development.

The man who acquired the Greyfriars was Richard Gunter. His home was in South Wales, but he had moved to Oxford and become manciple of Gloucester Hall in 1524. He entered the Council as Chamberlain in 1525. In 1526 he had acquired SW82, part of Site A. He continued to work as a manciple and brewer (he had married the widow of a wealthy brewer) and to hold civic office. By 1544 his brother, James, was lessee of a close at the north-east corner of the Greyfriars site known as 'le churchyarde'. At the same time William Frere and John Pye also leased a 'little grove of 5 acres'. Frere and Pye had wanted to acquire the freehold of the entire site but were outbid by Richard Gunter.

The first subdivision of the eastern block of the Greyfriars site occurred in 1570, when G16, held by Richard Pratt of Radley, was given to St. Ebbe's church. G16–19 were already possibly let as separate tenements at this date. In 1571 the remainder of the freehold was owned by Thomas Norwood, who leased the site to Roger Taylor and Richard Williams. By the early 17th century the holding had been divided into four estates: the Littlegate Garden Estate (G6), the Almont Estate (G20), the Wilson née Stevens Estate (G3) and William Wickes's Estate. This fourfold subdivision was to pave the way for the development of the street frontages for the housing of all but the Wilson née Stevens Estate. That estate, together with Paradise, was to remain garden ground.

In the 17th century the appearance of St. Ebbe's was to change dramatically. Although no new streets were laid out, all the pre-existing street frontages became exploited to the full. In Church Street the vacant spaces on the north side were filled up, and on the south side the frontage of the former Greyfriars precinct was also built over; the site of Newmarket was further divided, and a lane was created at its eastern side; the west side of St. Ebbe's and Littlegate Street and Turnagain Lane (formerly the site of the main entrance to the Priory) were fully developed. Some of the Turnagain Lane houses still survive. The process was fully complete by the time of the 1772 Survey of Oxford. The plan (Fig. 61) indicates the properties in existence by that time, when all the width of street frontages were recorded. The plan demonstrates just how extensive the changes were, but at the same time it understates the physical development which actually took place. What does not appear on the plan is the extent of the building-up of the frontages and the use of back gardens.

The lack of information can be supplemented to a degree by the archaeological material. As is explained in the archaeological description of the report, the recording of post-medieval pits was fairly arbitrary, since most of the examination of the area was designed to answer questions relating to the medieval development of St. Ebbe's. However, the distribution of pits and the examination of their contents, when related to individual properties, adds a further dimension to the documentary record of property ownership. This is particularly true of 31–34 Church Street, Site A, where the street frontage became fully exploited by the second half of the 17th century. The back gardens contained many rubbish pits whose contents provides some information both on the standard of living of the individual households and on the individual classes of material. Apart from the domestic material, there is also some evidence for the small-scale trades which were probably being carried out such as butchery, bone comb and button manufacturing, and carpentry. Such trades are typical of the service industries which one would expect in this comparative
backwater. By contrast, the assemblage from W F45 from 10 Castle Street (SW158), which backed on to 31–34 Church Street but fronted on to the busier thoroughfare of Castle Street, demonstrates the amount of debris which could accumulate in a pit belonging to a prosperous public house.

South of Church Street, the four estates which had been established by the early 17th century on the site of the Greyfriars were relatively short-lived. The northern part of the
William Wickes Estate was sold off in 1639 as six messuages. The Littlegate Garden Estate was one of the victims of a devastating fire in 1644, which destroyed most of the houses in St. Ebbe’s and Littlegate Streets (cf. below, p. 294). The estate was sold off in c. 1645. The Almont estate was divided up in 1679. Once the estates had been divided they were built upon.

The deeds give some examples of this process. For instance, in the 1720s Richard Hawkins and Richard Simons built several houses within G19 and G29, and in 1749 John Smart built three messuages in place of one existing within G26. As part of the general improvements to Oxford in the 1770s the remains of the Littlegate were taken down. Stretches of the City Wall remained, however, as property-boundaries.

While the northern part of St. Ebbe’s was being developed, much of the remainder continued as open ground. In part this must have been because it was low-lying and liable to flood. The Greyfriars had had problems with flooding, and a flood is recorded in 1663. From the late 17th century the former Wilson née Stevens Estate (G3), and Paradise (G29), were leased and exploited by market-gardeners, who, with the breweries, were the main employers in St. Ebbe’s until the mid 19th century. The most important of these market-gardeners were the Wrench (G3/29), Tagg (G29), Penson (G2) and Treadwell families. A mid 18th-century pit (W F7) came from the Taggs’ property.

The water of Trill Mill Stream was exploited by tanyards, some of whose waste products were found in pit B I F27. The friars meadow, Boteham (G30) still remained meadow-land.

During the 19th century, population pressure on St. Ebbe’s grew severe.193 Within the areas already built up, the solution to the demand for more housing was the opening-up of the back gardens of tenements for housing. Within the area of original medieval tenements between Castle Street and Church Street, Frederick Place and Castle Place are examples which are shown in the first edition Ordnance Survey (Fig. 62). Similarly, on the former site of Newmarket Franklins Row was built by 1880. It was the same situation on the former Greyfriars site, where Church Place, Paradise Place, Turner’s Yard, Godfrey’s Yard and Chaundy’s Yard all appear. The archaeological record from 31–34 Church Street gives an indication of conditions in these tenements. Pigs were kept, while cats, dogs, black rats, crows and owls scavenged in the gardens.

The real scope for new housing obviously lay in the open ground to the south. Although previously occupied by the Greyfriars, it still remained an area unsuited to building until the problems of flooding and drainage could be solved. The problems did not deter the developers. The actual development began with a series of auctions in the 1820s, largely conducted by William Fisher, builder and auctioneer of Littlegate. Boteham meadow (G30) was sold in 1820 to Charles Day of Euston Square, Middlesex. Two years later it was divided into forty-nine building lots, and Friars Street was laid out. In 1822, the Wilson née Stevens Estate and G1/2 were auctioned by Fisher. One lot of G3 was bought by Fisher himself and combined with G2 for resale to John Broadwater. Another lot from G3 became the west side of Pensons Gardens and was bought by John Hunt, whose father had bought G26 in 1819. Five houses were built by the Hunt family on this newly-acquired land. The remainder of G3 was sold to Charles Lane, builder, who developed the site, and after whom Turnagain Lane was renamed Charles Street (Charles Street has now reverted to its original name): G2, similarly auctioned, was developed by George Wood. In the mid 1820s Bridge Street, Pensons Gardens, Orchard Street, and Wood Street were constructed. Finally in 1838, G29, then owned by the Taggs, the market-gardeners, was auctioned in lots for development. Paradise Square was laid out by

John Chaundy in 1838 and 1840. The houses were mainly built by Chaundy and John Broadwater before 1847.

The large number of newly-erected houses were of poor quality and equipped with inadequate water supplies and drainage. The shallow wells were easily infected by seepage from cess pits. Unlike the cess pits and wells on the higher ground such as 31–34 Church Street, a proper separation between wells and pits could not be achieved. Trill Mill Stream was a constant cause of complaints, since it served in effect as an open sewer. St. Ebbe's suffered badly from the cholera outbreaks of 1832, 1849 and 1854. Even the parish cemetery was overcrowded. In spite of several purchases of small pieces of extra land to the south of
the existing churchyard, the cemetery was reported as offensive to passers-by in 1843.

By 1880 St. Ebbe’s had assumed the physical shape which it was to retain until the late 1960s. It formed a tightly-knit community of small traders and artisans. Unlike other parts of the city, it was not dominated by institutional landlords. The St. Ebbe’s landlords usually owned only a few houses and lived in the area themselves. They were often no better-off than their tenants. However, the way in which St. Ebbe’s had been developed meant that the area contained within itself the seeds of its own destruction. The cramped housing conditions and the poorly constructed houses meant that after the Second World War the area was considered by successive City Councils for development which the City alone could hope to achieve. A policy of urban renewal might have been appropriate, and would have preserved the community intact. Instead the people of St. Ebbe’s were relocated, the houses were demolished and an entirely new St. Ebbe’s has been created with a new road network, the Westgate shopping centre, the multi-storey car park and only limited housing. The new buildings of St. Ebbe’s reflect little of the earlier topography, although the south-western side of Westgate is aligned on the line of the City wall (whose foundations were removed to make way for it) and fragments of the Greyfriars have been incorporated into the basement. Holy Trinity House, Nos. 7-10 Turnagain Lane and St. Ebbe’s church itself are the only tangible reminders of the parish’s past; otherwise, all that remains of the area’s post-medieval history is the archaeological and historical record.

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