

Excavations at 44-46 Cornmarket Street, Oxford, 1970

By T. G. HASSALL

With sections by R. J. CHARLESTON, B. J. MARPLES and FRANCIS SCHWEIZER.

SUMMARY

Observation of the re-building of 44-46 Cornmarket Street, formerly the Cadena Café (SP 512063), produced a series of rubbish pits, including late Saxon pits under the present street frontage. Late Saxon pottery from the site included three sherds foreign to the Oxford region. There was evidence for bone working during the late Saxon period. An early 14th century stone-lined pit produced the top of a glass vessel.

INTRODUCTION (FIG. 1)

IN 1970, 44-46 Cornmarket Street, part of the Cadena Café, was bought by Gordon Thoday Ltd., a Cambridge-based firm.¹ Gordon Thoday Ltd. pulled down the old building and in under a year built a new fabric shop. Thanks to the co-operation of Mr. J. E. Arnold, estate manager of Gordon Thoday, and the contractors, Bartlett Brothers (Witney) Ltd., the Oxford Archaeological Excavation Committee was able to maintain a continuous watching brief on the site during new basement works which lasted from 15 June to 26 July.

Messrs. T. E. Ward and J. P. Sorowka were chiefly involved with observation, Mr. H. Richmond carried out the difficult work of site survey and drew the plans for publication, and Mr. D. Carpenter took most of the photographs. Success of the operation is owed both to the excavation personnel and also to the constant assistance of the contractors.

Gordon Thoday's new shop on Cornmarket Street is the fourth new building in the street to be constructed during the last fifteen years. The process was begun with the building of the new Woolworth's on the Clarendon Hotel site between 1955 and 1957,² Marks and Spencer's followed between 1959 and 1961³ and Littlewoods in 1962.⁴ The medieval frontage of Cornmarket Street on its western side from St. Martin's church to St. Michael's Street was about 185 metres, of which 70 metres has now been destroyed. On the eastern side of the street the devastation is not so great, although the Marks and Spencer's frontage is about 30.5 metres.

On all these sites archaeological excavation and observation has taken place. On the Woolworth's site, Professor E. M. Jope and Messrs. J. Alexander, B. Hope Taylor, K. Marshall, and D. Sturdy found that late Saxon structures traced

¹ The site was acquired by Gordon Thoday from Tesco Ltd. for a figure approaching £500,000, 'apparently a record in real estate deals in Cornmarket', *Oxford Mail*, Saturday, April 11, 1970.

² E. M. Jope and W. A. Pantin, 'The Clarendon Hotel, Oxford', *Oxoniensia*, xxiii (1958), 1-129.

³ Notes and News, *Oxoniensia*, xxv (1960), 134; *Ibid.*, xxvi/xxvii (1961/2), 338; *Ibid.*, xxviii (1963), 92; *Medieval Archaeology*, iv (1960), 149-50.

⁴ Notes and News, *Oxoniensia*, xxviii (1963), 92.

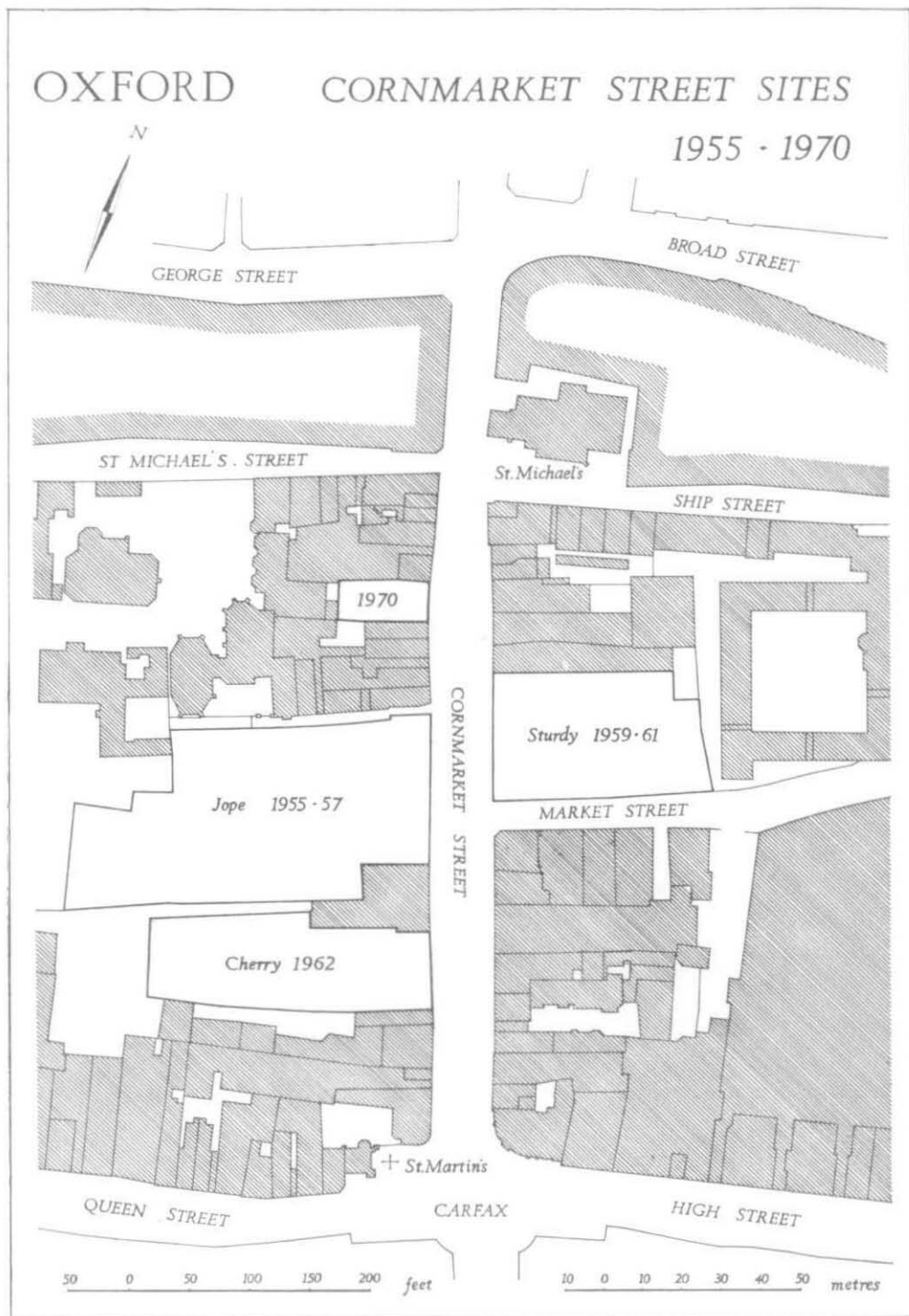


FIG. 1

Based on the City of Oxford Central Area 1:500 survey, by permission of the City Engineer.

through their cellars and pits, extended at least 2.44 metres eastwards under the modern street. By the later Middle Ages general ground level on this site had been raised to nearly the present road level, and it was cut into by later pits, wells, basements and foundation trenches. On the Marks and Spencer's site Mr. D. Sturdy found 11th century and later pits together with 12th century and later structures. Particularly noteworthy was the absence of late Saxon pits any nearer than 7.62 metres from the present frontage. This evidence and that from the Clarendon Hotel site led Mr. Sturdy to the conclusion that early in the 12th century the frontage on the west was set back, while on the east it was brought forward. The excavations by Mr. J. Cherry on the Littlewood site in the basement of Messrs. Grimby Hughes revealed the usual complex of pits from the late Saxon period onwards.

The evidence already accumulated for Cornmarket Street therefore suggested that 44-46 would reveal a similar series of pits, possibly extending under the present frontage.

HISTORY OF THE SITE (FIG. 2)

The documentary history of numbers 44-46 Cornmarket Street has been studied by H. E. Salter.⁵ There is a dearth of evidence, since the greater part of the site is the property of Eynsham Abbey. All information on Eynsham's Oxford property is unsatisfactory, since the rents and names of tenants do not appear in the *computus* rolls. The reason for this is that following the regulation of the Chapter of English Benedictines, the Abbey was bound to support a student at the University. This student, in place of receiving an allowance from the monastery, collected and kept the rents of the Eynsham tenements in Oxford.

During the medieval period the only information that can be derived from the site is contained in the Hundred Rolls of 1279 (FIG. 2). Following H. E. Salter's interpretation there were then four tenements occupying the site. From north to south the tenements, using Salter's numbering, were: tenements North-West Ward 69 and 68, the equivalent to the modern 44 Cornmarket Street; tenement North-West Ward 67, the equivalent to the modern 45 Cornmarket Street; and the tenement North-West Ward 66, the equivalent to the modern 46 Cornmarket Street. The evidence of the frontage dimensions given in the *Survey* of 1772, together with the First Edition of the Ordnance Survey, was used by Salter to identify the tenements of the Hundred Rolls with the properties on the ground.⁶

All four tenements may have formed one single property with a total street frontage of 11.02 metres (36 feet 2 inches) and a depth of 29.26 metres (96 feet). The property was probably sub-divided prior to the Hundred Rolls to create four tenements each with a narrow street frontage. Three of the four tenements, North-West Ward nos. 69, 68 and 66, had very little depth to them, probably about 7.3 metres (24 feet). North-West Ward 67, on the other hand, retained

⁵ H. E. Salter, *Survey of Oxford* II, O.H.S., N.S. xx (1969), 172-3.

⁶ For a discussion of Salter's method, see H. E. Salter, *Cartulary of the Hospital of St. John the Baptist*, I O.H.S. (1914), LXVI, Appendix II, 'On the Town Planning of Saxon Oxford', 483-490.

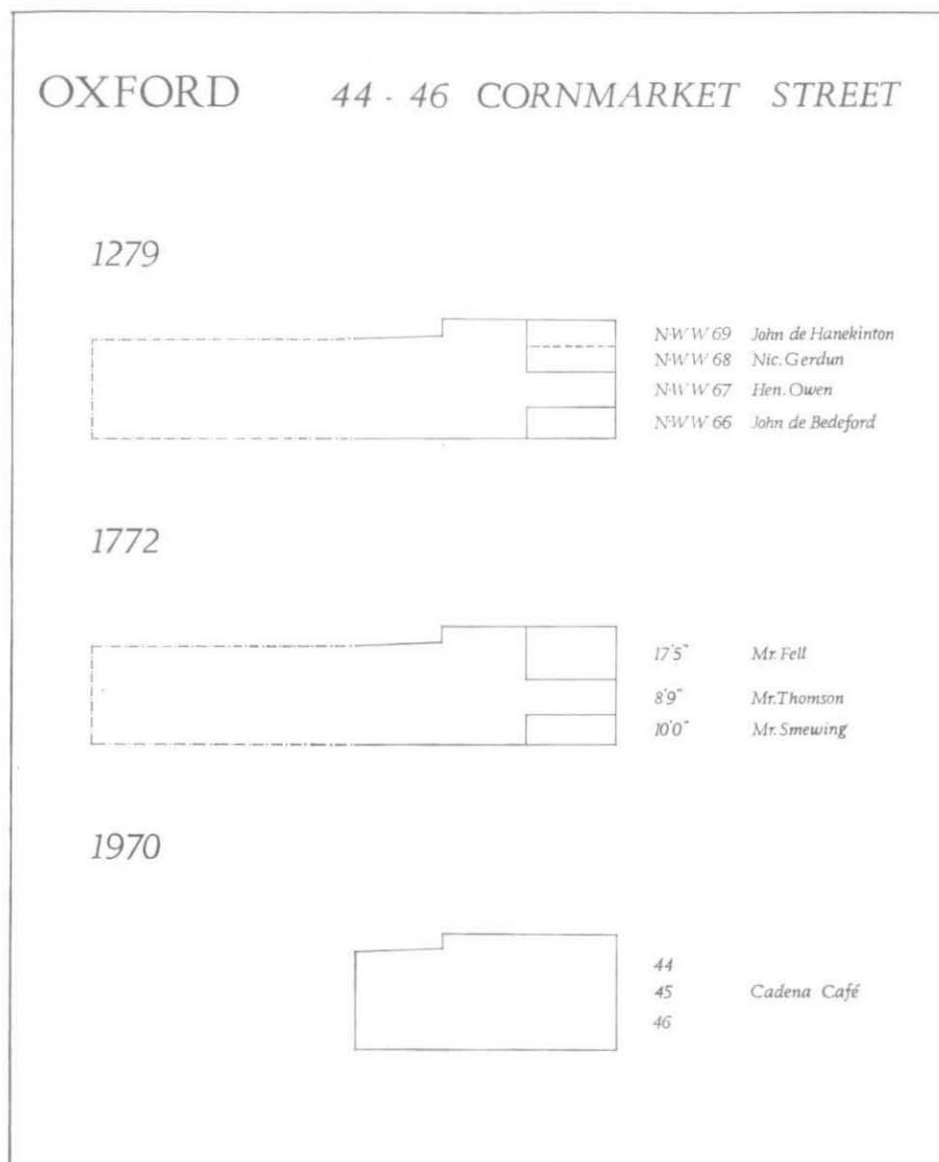


FIG. 2

The development of 44-46 Cornmarket Street as traced through the documentary evidence. The identification of occupiers in 1279 and 1772, the reference numbers and dimensions are all derived from H. E. Salter, *Survey of Oxford*, II, O.H.S., N.S., xx (1969), 172-3.

the full depth of 29.26 metres (96 feet) and the width of 11.02 metres (36 feet 2 inches) at the rear, although the street frontage was only 2.62 metres (8 feet 9 inches). This arrangement of small properties, selds, or shops along the street frontage with a larger property behind, which itself retained a narrow frontage on

the street, is found frequently in Oxford in the more prosperous districts.⁷ The Clarendon Hotel site displayed precisely the same arrangements.⁸

In 1279 North-West Ward 66 is described as a seld in the occupation of John de Bedeford, who paid 4s. to Eynsham, although it was worth 4s. more.⁹ The next reference to the tenement discovered by H. E. Salter is not until the late 15th century; in 1527 the property passed to St. Michael's and the tenements are listed in the Churchwardens' Accounts.¹⁰ The property had a ground floor frontage of 3.05 metres (10 feet) but at first floor level it extended over the next tenement, North-West Ward 67.¹¹

North-West Ward 67, the tenement with the large area at the rear of the site, was more valuable than the others in 1279. It was occupied by Henry Owen who paid 13s. 4d. to Eynsham, but it was worth 6s. 8d. more.¹² It was described as a messuage. North-West Ward 68 and 69 were both described in the Hundred Rolls as selds: the former was occupied by Nicholas Gerdun who paid 4s. to Eynsham and a further penny to Cowley, although it was worth 4s. more; the latter was occupied by John of Hanekinton who paid 5s. to Eynsham, although again it was worth 3s. more.¹³ In the Survey of 1772 the combined frontage of these two tenements was 5.31 metres (17 feet 5 inches).¹⁴ In modern times all four properties were combined to form one building, the Cadena Café.

THE EXCAVATION (FIG. 3, PLATES V A and B)

44-46 Cornmarket Street already had extensive modern cellars before the recent re-construction. These cellars went to a depth of approximately 3 metres below the modern pavement level and continued over the whole site except for two small areas, one in the middle of the site and the other adjacent to the street frontage. Two small cellars also extended forward under the pavement.

The new basement of the building was dug down to 3 metres below the existing building. The method employed by the contractors was, starting from the rear of the site, to excavate mechanically a strip of ground within the reach of the machine used. The sides of the new excavation were then excavated by hand to allow the adjacent buildings, numbers 43 and 47 Cornmarket Street, to be underpinned. The bottom of the excavation was then concreted and the process was repeated. Much of the digging, particularly of the forward sections, had to be carried out at night in order not to hold up the traffic in Cornmarket Street.

Archaeological work on the site had mainly to be confined to constant observation of the digging out. During this process it was extremely difficult to

⁷ H. E. Salter, *Map of Medieval Oxford*, (1934), Map 2.

⁸ W. A. Pantin, 'The Clarendon Hotel, Oxford. Part II. The Buildings', *Oxoniensia*, xxiii (1958), 84-88.

⁹ H. E. Salter, *Survey of Oxford II*, O.H.S., N.S. xx (1969), 172.

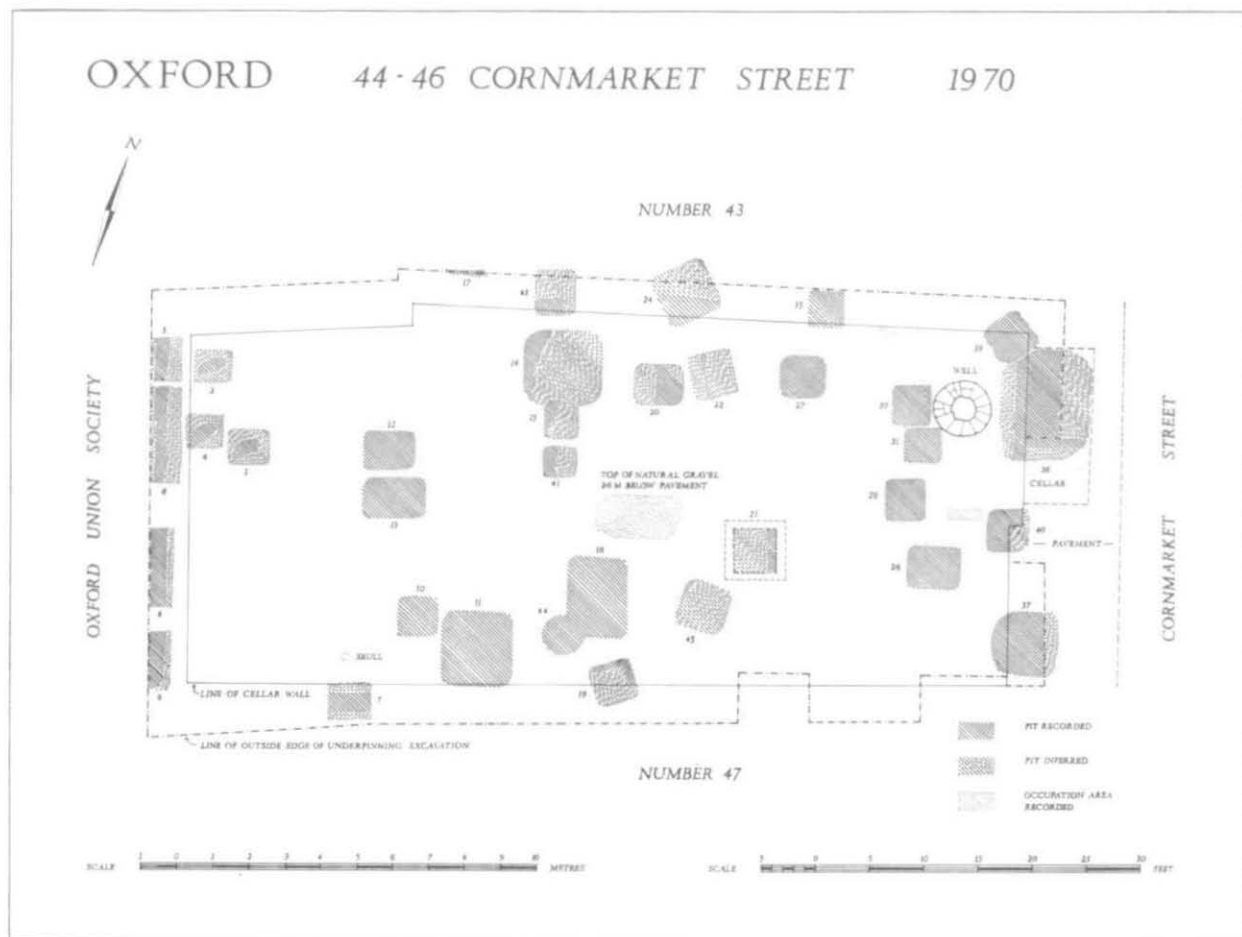
¹⁰ *Ibid.*; H. E. Salter, *The Churchwardens' Accounts of St. Michael's Church, Oxford*, O.A.S., *Transactions* No. 78, 184, 198-206, 208, 212, 259, 260, 271.

¹¹ H. E. Salter, *Survey of Oxford II*, O.H.S., N.S. xx (1969), 172-173; plan, Bodleian M.S. Top. Oxon. a. 57 (R).

¹² H. E. Salter, *Survey of Oxford II*, O.H.S., N.S. xx (1969) 173.

¹³ *Ibid.*

¹⁴ H. E. Salter, *Surveys and Tokens*, O.H.S., LXXV (1920), 47.



The site. Pits 14, 17, 24, 27, 35, 36 and 37 were of late Saxon date. Pit 21 was a 14th century stone-lined pit.

carry out detailed recording. However, the pre-existing cellar had already removed all detailed stratification from the site. The only places where occupation levels were observed were situated in the two small areas unaffected by modern cellaring. There occupation overlay the red brown loam which forms the capping of the natural gravel. The loam was 0.18 m. thick. The top of the gravel was 2.6 m. below modern pavement level. It was not possible to carry out any detailed examination of these levels. The red brown loam and natural gravel were also observed in the gap between the boundary of the site and 47 Cornmarket Street, the adjoining property to the south.

Since the greater part of the site had already been dug away to below the top of the gravel by the existing basement, most of the archaeological work consisted of recording the pits, which, as one would expect from the experience of other

sites in the town, extended throughout the site. There was one stone-lined well in the north east corner of the site. Because of the way in which the excavation was carried out it was usually only possible to obtain a few measurements of the pits, but in all cases at least the width of a pit was recorded although the remainder often had to be inferred. Only the pits appearing in the under-pinning were dug out by hand, and wherever possible this work was carried out by members of the team observing the site rather than by the contractors' men. This fact was particularly crucial in the excavation of pit 36. A total of 36 pits were recorded or inferred (Feature numbers 1-17, 19-22, 24, 26, 27, 29-31, 35-37, 39, 40, 41, 43-45). These pits and their relationships are shown on Fig 3. With the exception of pits 21 and 44, they were all of the usual rectangular plan, cut into the natural gravel without any lining. Pit 21 was exceptional in that it had a stone-lining reminiscent of a post-medieval pit. It was of similar date to the stone-lined pit from 31-34 Church Street, but was far less deep.¹⁵ Pit 21 was considerably smaller and rounder than its fellows.

THE FINDS

POTTERY

Pottery was recovered from the pits as follows :

- PIT 1 Medieval : 13th-14th century. *Sandy coarse wares* : 1 base angle sherd, 3 body sherds.
- PIT 5 Medieval : 12th-13th century. *Sandy coarse ware* : 1 sherd ; *Sandy wares* : 5 body sherds from the same vessel, with applied vertical wavy strips, parallel horizontal grooves, yellow glazed, of tripod pitcher type.
- PIT 8 Medieval : early 13th century. *Shelly coarse wares* : 1 rim sherd, described below (Fig. 4, 8/1), 1 base angle sherd, 3 body sherds ; *Gritty coarse wares* : 2 rim sherds, one of which is described below (Fig. 4, 8/7), 8 body sherds ; *Sandy coarse wares* : 5 rim sherds, one of which is described below (Fig. 4, 8/4), 2 base angle sherds, 17 body sherds ; *Sandy wares* : 1 base angle sherd, 4 body sherds, 1 body sherd with applied pinched strip, all yellow glazed of tripod pitcher type, also in the same ware and with the same glaze but on the internal surfaces : 1 rim, described below (Fig. 5, 8/8), 1 body sherd, 1 base angle sherd ; *Buff sandy ware* : 1 body sherd with red painted stripes and orange glaze.
- PIT 9 Medieval : 12th-13th century. *Sandy coarse wares* : 1 rim sherd, 4 body sherds ; *Sandy wares* : 1 neck sherd, 3 body sherds from the same vessel with applied, pinched, wavy strip, all sherds yellow glazed of tripod pitcher type.
- PIT 14 Late Saxon : 11th century. *Shelly ware* : 1 rim sherd, described below (Fig. 4, 14/1) ; *Sandy coarse ware* : 10 body sherds, from two pots.
- PIT 16 Medieval : early 13th century. *Gritty coarse wares* : 1 rim sherd, 2 base angle sherds, 4 body sherds ; *Sandy coarse wares* : 2 rim sherds, 5 base angle sherds, 42 body sherds ; *Sandy wares* : 1 neck sherd, 24 body sherds,

¹⁵ T. G. Hassall, 'Excavations at Oxford 1968: First Interim Report', *Oxoniensia*, xxxiv (1969), 14-19, Plate II A.

one with a decoration of dots, all sherds yellow glazed of tripod pitcher type ; in a similar fabric were 9 other sherds, including a plain strap handle, four ?neck sherds with horizontal grooves and 4 body sherds with broad stripes of red clay pigment in a chevron pattern, all sherds glazed yellow/green. The four body sherds, at least, probably came from a baggy-bodied pitcher, similar to one from the Bodleian Extension^{15a} ; *White sandy wares* : 4 body sherds, probably from the same ovoid jug.

- PIT 17 Late Saxon : 11th–12th century. *Gritty coarse wares* : 1 base angle sherd of straight sided pot, 2 body sherds ; *Sandy coarse wares* : 1 rim sherd, 2 body sherds ; *Winchester ware* : 1 rim and handle sherd, described below (Fig. 5, 17/1).
- PIT 19 Medieval : ?12th century. *Gritty coarse ware* : 1 rim.
- PIT 21 Medieval : early 14th century. *Gritty coarse ware* : 1 base angle sherd ; *Buff sandy ware* : 1 baluster jug with top missing, described below (Fig. 5, 21/2), 2 bases of baluster jugs, 1 lower half of biconical jug, described below (Fig. 5, 22/1).
- PIT 22 Medieval : 12th century. *Shelly ware* : 1 rim sherd described below (Fig. 4, 22/4) ; *Gritty coarse ware* : 3 rim sherds, one possibly from a lamp, 2 base angle sherds, 7 body sherds ; *Sandy coarse wares* : 3 rim sherds, 14 body sherds ; *Sandy ware* : 1 rim sherd and spout, described below (Fig. 5, 22/3), 1 rim sherd with triple row of impressed dots on upper surface, 1 body sherd with the same decoration as the previous sherd, but also decorated with combing, 1 base angle sherd, 8 body sherds, all the sherds yellow glazed of tripod pitcher type.
- PIT 24 Late Saxon : 12th century. *Coarse shelly ware* : 1 base angle sherd.
- PIT 27 Late Saxon : ?11th century. *Shelly coarse ware* : 1 rim sherd, described below (Fig. 4, 27/2) ; 2 body sherds ; *Fine sandy ware* : 1 rim sherd possibly an import from East Anglia, described below (Fig. 4, 27/1).
- PIT 35 Late Saxon : 11th century. *Shelly coarse ware* : 1 base angle sherd, 4 body sherds ; *Fine sandy ware* : 1 body sherd, identical in appearance to 27/1 and possibly an import from East Anglia.
- PIT 36 Late Saxon : 11th century. *Shelly ware* : 1 rim sherd, described below (Fig. 4, 36/1), 1 base angle sherd, 1 body sherd.
- PIT 37 Late Saxon : 11th century. *Shelly coarse ware* : 1 rim sherd, described below (Fig. 4, 37/1).
- PIT 45 Post-medieval. Late 18th–mid-19th century. *Stoneware* : large wide flat handle, brownish yellow glaze. *Cream coloured earthenware* : base sherd of hollow vessel, external black, brown and blue horizontal stripes, with diagonal stripes above composed of bands of small black horizontal stripes. *Blue printed earthenware* : 3 sherds, one with a classical design, one floral and one with a Willow pattern type border. *Porcelain* : 1 sherd with a violet glaze externally and a white raised moulded design.

^{15a} R. L. S. Bruce-Mitford, 'The Archaeology of the Bodleian Extension', *Oxoniensia*, iv (1939), Fig. 23 B.

Glass : bottle neck, Haslam tsring-rim type 2.^{15b}

Unstratified Late Saxon : 11th century. *Shelly coarse ware* : 1 rim sherd, 1 base angle sherd ; *Gritty coarse ware* : 1 rim sherd, 1 spout, 1 base angle sherd.

Medieval : 12th-13th century. *Coarse sandy ware* : 2 rim sherds with finger tipping along the top, 1 body sherd with wide applied strip decoration.

Post-medieval : 17th century. *Buff earthenware* : rim sherd of a hollow vessel, internal green glaze, rim diameter 16 cm. *Stoneware* : sherds from a Bellarmine jug, sherds from jug, described below (Fig. 5, us/6) ;

Clay pipe : Oswald Type 4a (c. 1620-1650).

The nature of the excavation made the recovery of meaningful pit groups almost impossible. Only those pits in areas being under-pinned could be excavated by hand and they were not all very fruitful. For instance, pit 36, the very large late Saxon cellar pit on the street frontage, was over half excavated and, although it produced a very large quantity of animal bones, there were in fact only three sherds of pottery. In this particular instance, the dearth of pottery might be taken to reflect a more general reliance on material other than pottery for domestic utensils. Large groups of pottery were only recovered from pits 8, 16, 21 and 22.

The late Saxon pits produced the usual range of fabrics : shelly wares, both coarse and fine, the latter of St. Neot's type, as well as gritty wares. Three sherds of the coarser shelly ware are illustrated in FIG. 4 :

27/2 Rim sherd of cooking pot, fired buff grey throughout ; the external

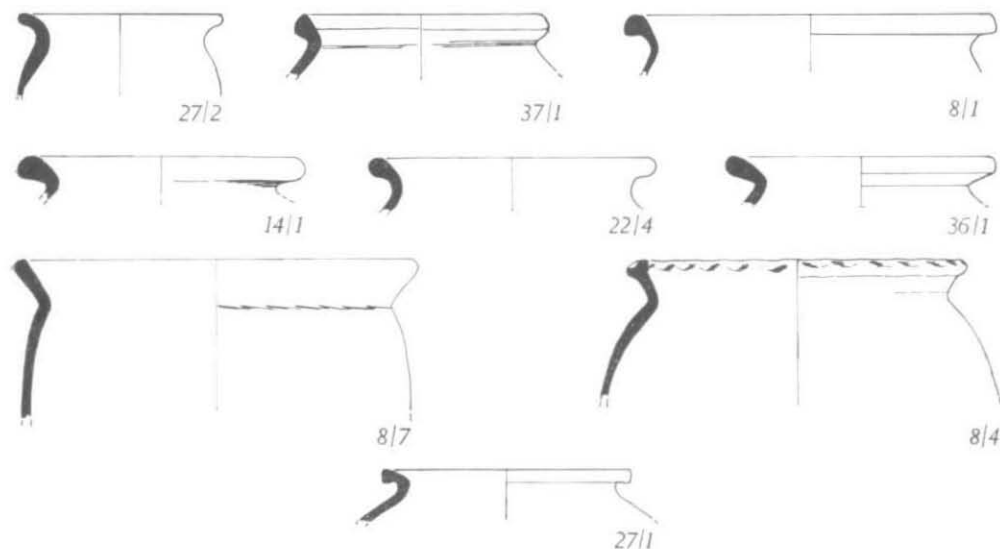


FIG. 4

Late Saxon and medieval unglazed wares. Coarse shelly ware : 27/2, 37/1, 8/1 ; St. Neot's ware : 14/1, 22/4, 36/1 ; gritty coarse ware : 8/7 ; sandy coarse ware : 8/4 ; hard sandy ware : 27/1. All 1 : 4.

^{15b} J. Haslam, 'Sealed Bottles from All Souls College', *Oxoniensia*, xxxv (1970), 29, Fig. 15.

surface feels soapy and is light buff coloured. The shape is comparable to a sherd C2A1, from the Clarendon Hotel.¹⁶ ?11th century.

- 37/1 Rim sherd of cooking pot with a few gritty inclusions, fired grey throughout. Simple everted rim, slightly thickened. 11th century.

- 8/1 Rim sherd of cooking pot with grey interior and pinkish buff exterior; everted and clubbed. ?11th century, but found in a 13th century context.

The Oxford version of St. Neot's wares, the fine shelly ware with finely crushed shelly particles lying parallel to the surfaces, was present in pits 14, 22 and 36.¹⁷ This fabric was introduced to Oxford by the 11th century, and is usually thought to have been out of use in Oxford by the late 11th century, but it may be significant that a sherd described below from pit 22 was found in association with sherds from tripod pitchers, which are not thought to have been made until after c. 1120. Three sherds of St. Neot's ware are illustrated in FIG. 4:

- 14/1 Rim sherd of cooking pot, fired grey with lighter interior surface. The rim form is typical and can be compared with a sherd, B2.2, from the Clarendon Hotel.^{18a} 11th century.

- 22/4 Rim sherd of cooking pot, fired grey with light interior surface. The form of the sherd is similar to a sherd from B4 at Logic Lane.^{18b} 12th century.

- 36/1 Rim sherd of ?jar, interior surface very dark. A jar with this rim form came from a late Saxon cellar, A1C, at the Clarendon Hotel.^{18c} 11th century.

The other sherds of gritty and sandy coarse wares from the site were unremarkable. Two sherds from pit 8 are illustrated in FIG. 4 of each ware:

- 8/7 Rim and shoulder sherd of cooking pot in gritty coarse ware, crudely made with simple everted rim. Early 13th century.

- 8/4 Rim and shoulder sherd of cooking pot in sandy coarse ware, fired evenly light buff/grey, everted rim with strong thumb impression. This sherd can be compared with A4.2 from the Clarendon Hotel.^{18d} Early 13th century.

Two sherds came from pits 27 and 35, both of late Saxon date, which do not appear to fit into the local range of fabrics. They were most likely imported from East Anglia, since they seem to belong to the fine hard sandy ware tradition of Thetford, rather than to the local sandy coarse wares. One sherd is illustrated in FIG. 4:

- 27/1 Rim sherd of cooking pot in very fine sandy ware, evenly fired light grey with dark exterior surfaces, very well potted with an outward folded and squared rim with marked undercutting. 11th century.

¹⁶ E. M. Jope, 'The Clarendon Hotel, Oxford. Part I. The Site', *Oxoniensia*, xxiii (1958), Fig. 12, 65.

¹⁷ *Ibid.*, 54.

^{18a} *Ibid.*, Fig. 12, 65.

^{18b} Fabian Radcliffe, 'Excavations at Logic Lane', *Oxoniensia*, xxvi/xxvii (1961/2), Fig. 9, 12.

^{18c} E. M. Jope, 'The Clarendon Hotel, Oxford. Part I. The Site', *Oxoniensia*, xxiii (1958), Fig. 10, A1C.2, 62.

^{18d} *Ibid.*, Fig. 18, 70.

Like the coarse wares the glazed wares from the site all fall within the well-established sequence of Oxford pottery. One sherd, Fig. 5, 17/1, was foreign to Oxford and represents the first piece of Winchester ware identified here.^{18e}

- 17/1 Rim sherd and handle, probably from single-handled, spouted pitcher in Winchester ware; the rim and small strap handle with raised edges belong to the late Saxon tradition, associated in Oxford with Stamford ware and not paralleled in tripod pitchers; the sherd is glazed externally with a thick, glossy crackled glaze, basically olive green, but locally orange on the handle; the glaze has run down the inside of the vessel. An almost identical sherd, but decorated, has been found at 11-17 Southgate Street, Gloucester, from trench III, layer 23.^{18f} 11th-12th century.

Sherds of tripod pitcher with the usual applied strip decoration were well represented on the site and were found in pits 5, 8, 9, 16 and 22. The last pit produced a characteristic spout, illustrated in FIG. 5:

- 22/3 Part of a tubular spout and neck in sandy ware, poor yellow glaze of tripod pitcher type; body sherds from the same pit had applied and pinched strips, and combed decoration. 12th century.

Part of a dish or pan in the same ware came from Pit 8:

- 8/8 Rim sherd of a dish or pan in sandy ware, outward folded and thinly glazed on the internal surfaces. Early 13th century.

Only two pits, 1 and 21, could be dated to the late 13th-early 14th centuries. Pit 21 was particularly rich and 2 vessels are illustrated:

- 21/1 Base and part of body of biconical jug in buff sandy ware, slightly concave base with internal rilling; the whole jug has an uneven green speckled glaze and the belly is decorated with vertical ribs of red clay terminating at their base with a single horizontal strip.^{19a} Early 14th century.

- 21/2 Base, body and lower handle of baluster jug in buff sandy ware, rilled internally, slightly concave base, slashed strap handle; the jug has a mottled olive green glaze unevenly applied with an open trellis work decoration in red clay. Early 14th century.

Mrs. Josephine de Goris has supplied the following description of the unstratified stoneware jug:

US/6 Sherds of a stoneware jug, German, mid-17th century, bearing a seal with coat of arms containing a church and the date 1651. There is a seven-pointed star or floral motif at intervals around the neck. A similar jug with a different seal and with leaves instead of stars at the neck was excavated in 1937 from the site of the Bodleian Extension in

^{18e} I am grateful to Mr. Martin Biddle and Miss Katherine Barclay for their comments. For Winchester Ware see: J. G. Hurst in M. Biddle, 'Excavations at Winchester 1962-3, Second Interim Report', *Antiquaries Journal*, XLIV (1964), 195.

^{18f} Personal communication from Henry Hurst and John Rhodes.

^{19a} For these jugs see: E. M. Jope, 'Medieval Pottery' in H. E. O'Neil, 'Whittington Court Roman Villa', *Trans. Bristol & Glos. Arch. Soc.*, LXXI (1952), 71-75, Fig. 11.

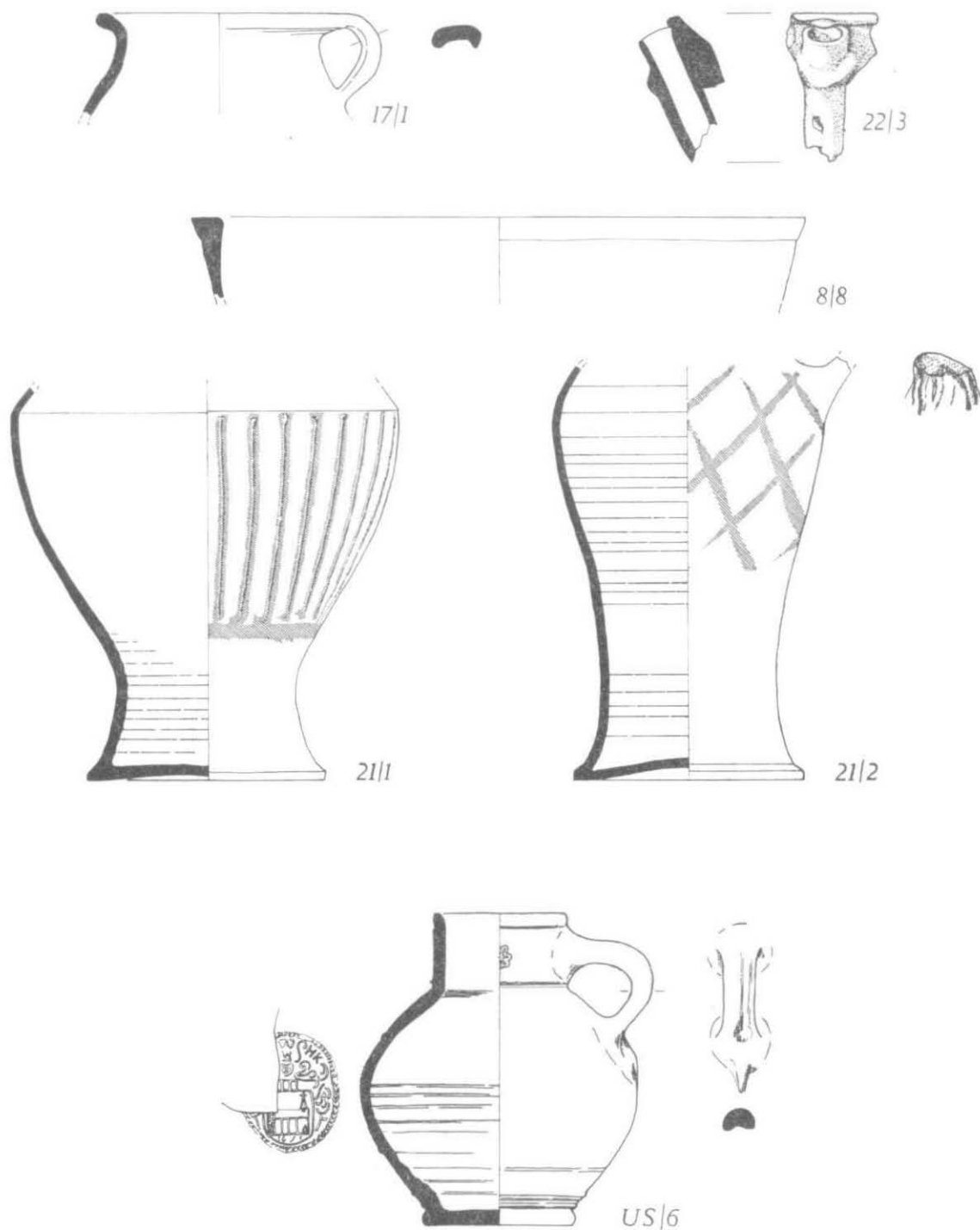


FIG. 5

Late Saxon, medieval and post-medieval glazed wares. Winchester ware : 17/1 ; sandy ware, yellow glazed of tripod pitcher type : 22/3, 8/8 ; buff sandy ware : 21/1, 21/2 ; stoneware : us/6. All 1 : 4.

Broad Street.^{19b} Also the rim and neck of another from Basing House in Hampshire.^{19c}

GLASS

By R. J. CHARLESTON, Keeper, Department of Ceramics, Victoria and Albert Museum.

Neck- and rim-fragment with pouring lip, of a jug with diagonal ribbing, probably originally green glass, now almost completely devitrified, from the 14th century stone-lined pit, 21 (FIG. 6, 1).^{19d} Height $3\frac{1}{4}$ " (8.5 cm.). Diameter of rim : $2\frac{1}{8}$ " (7.5 cm.).

The form and fabric of this fragment permit no firm conclusions as to its date. A jug with somewhat wider rim and more pronounced lip was found in Southampton in a group of material dating from the first half of the 14th century. The glass of this jug, however, was markedly better preserved, and it was in addition decorated by means of a trail of opaque-red glass. It had a handle with a loop at

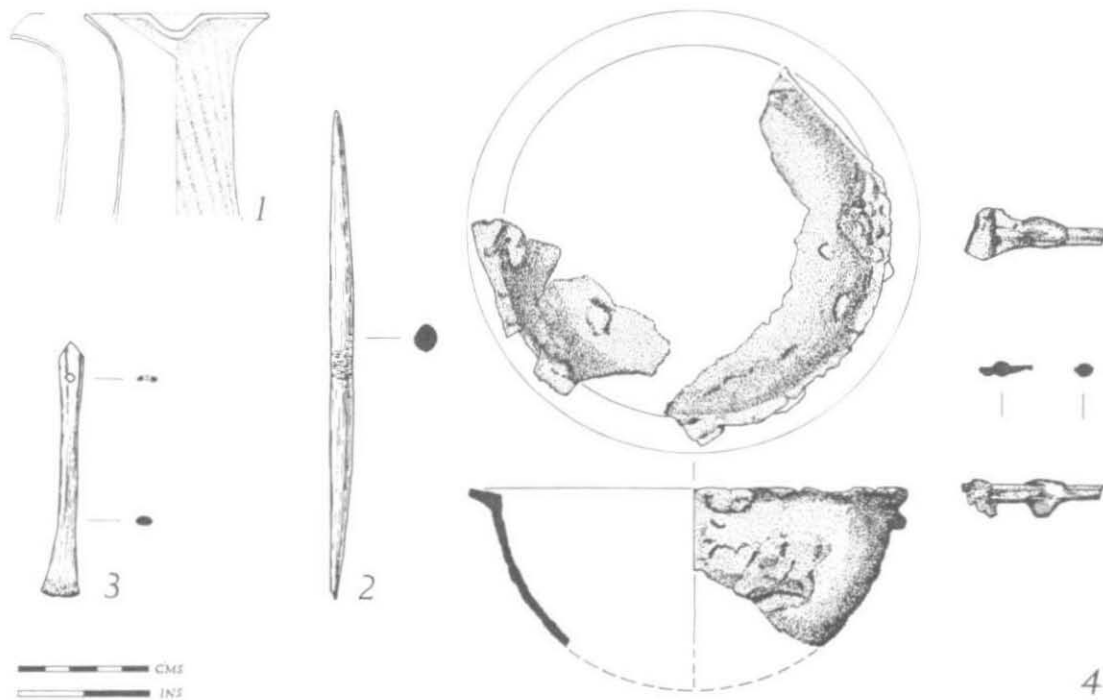


FIG. 6

Small finds. 1. 14th century glass jug; 2. 11th century pin-beater from pit 35; 3. Early 13th century bone awl from pit 16; 4. 11th century iron bowl from pit 36. All 1 : 3.

^{19b} R. L. S. Bruce-Mitford, 'The Archaeology of the Bodleian Extension', *Oxoniensia*, IV (1939), 132, Plate XIV, 4.

^{19c} Stephen Moorhouse, 'Finds from Basing House, Hampshire', *Post Medieval Archaeology*, Vol. 4, 1970, 80, no. 27, and Fig. 22.

^{19d} The glass was conserved by Mr. David Armitage.

the top and a kink at the bottom, and this type of handle, with the addition of an extra kink towards the top of it, is found on a jug neck of bluish-green glass in the Guildhall Museum, London. This fragment does not have the pouring-lip, which is a feature of the Oxford and Southampton jugs. It has been dated to the 15th century, but since it was found with a stem of a type now known to have been in use in the 14th century, it is quite possible that both are of earlier date than the context in which they were found.²⁰ A jug of green glass with opaque-red threaded decoration like that on the Southampton jug, having a handle similar to those described, was found at Pevensey Castle, also apparently in a context suggesting a date not later than the end of the 15th century. Like the Southampton jug, this example was of remarkably unweathered glass. The Guildhall example is considerably weathered, but in this respect the Oxford jug-fragment is farther gone. Glass with this degree of decomposition, however, is not infrequent from the earlier Wealden sites,²¹ and it is reasonable to suppose that the Oxford jug is an English product. A date in the 14th century seems eminently likely.

BONES

By PROFESSOR B. J. MARPLES.

The material from the Cadena site consisted of 252 bones, in addition to 110 unidentified fragments and parts of 34 ribs (Table I). Listed as bones are both complete bones and identifiable portions of bones, and so one structure, such as a skull, may be counted several times if broken to pieces. As this is an urban site,

TABLE I
WHOLE BONES OR IDENTIFIABLE PARTS

Pit No.	Date (Century)	Horse	Ox	Sheep	Pig	Fowl	Goose	Cat	Oyster	Cockle
8	13th		5	8	3	2			2	
9	12-13th		3						1	1
16	13th		5	6	2		2			
17	11-12th		7							
19	?12th		4		2					
22	12th		3	6	1			1	1	
23	?				1					
24	12th		4	6		2				
27	?11th		3	6						
30	?		1	5	1	2				
35	11th	2		4	3					
36	11th		98	15	6	3			1	
37	11th	1	1		6					
39	?		10	6	4					
40	?			1						

²⁰ D. B. Harden, 'Medieval Glass in the West,' *Proceedings of the Eighth International Congress of Glass*, 1968, Sheffield (1969), 107, Fig. 19; Jenny Charleston, *Catalogue of an Exhibition of finds of glass in the City of London*, Guildhall Museum (mimeographed 1968), Nos. 19-20.

²¹ G. H. Kenyon, *The Glass Industry of the Weald*, Leicester (1967), 44.

where whole animals are presumably not in question, no attempt has been made to estimate the number of individuals involved. The bones came from 15 rubbish pits, but 134 of them, approximately half the total number, came from pit 36, the late Saxon cellar pit on the street frontage. The next highest number was 22 from pit 8, an early 13th century pit, and two pits yielded only one bone each. Pit 36 contained 69% of all the Ox bones, 20% of those of Sheep, and 18% of those of Pig, but, as the number from the other individual pits was so small, it was not thought significant to treat them separately and so the whole assemblage has been considered together (Table II).

TABLE II

TOTAL BONES OR IDENTIFIABLE PARTS OF BONES. VERTEBRAE OF SHEEP AND PIG ARE NOT SEPARATED

	skull	horn core	jaw	vertebra	scapula	humerus	radius	ulna	metacarpus	phalanx	pelvis	femur	tibia	metatarsus	astragalus	calcaneum
Ox	24	11	36	11	3	2	1	4	19	3	11	2	4	20	2	2
Sheep	1	1	8	6	1	3	13	0	3	1	4	2	7	8	0	0
Pig	6	—	2	—	2	0	4	5	4	0	0	0	3	—	0	1

OX The majority of bones (155 or 61.5%) are those of Oxen. The skull, as it yields many fragments, naturally plays a large part, but its remains are conspicuous. There are 24 skull fragments, 11 horn-cores and 36 whole or fragmentary jaws. Among the long bones, the metapodials are numerous, 19 metacarpals and 20 metatarsals, but few foot bones are present (Table III). To judge from teeth and missing epiphyses 28 of the Ox bones came from immature individuals. There was considerable variation in size, and the dimensions of the metapodials are summarized in the table.

SHEEP The bones of Sheep and Goats are not readily separable, and an attempt to do this disclosed only 2 radii which appeared to be those of Goat. As no others were found these are neglected as doubtful and are included with Sheep. There were 58 Sheep bones, 23% of the total, and 9 of them showed signs of immaturity.

PIG Only 27 bones of Pig were found, 10.7% of the total and 5 of them were from immature individuals. Mr. R. Harcourt was kind enough to examine two pathological Pig vertebrae and diagnosed a condition of ankylosing spondylitis.

BIRD Bird bones were uncommon, only two of Goose, a tarsus and part of a clavicle, and 8 of Fowl were found. Those of the Fowl consisted of 2 humeri, 2 femora, 1 tibia and 3 tarsi. One tarsus had been broken and healed and another showed pathological changes, apparently due, according to Mr. Harcourt, to an ossified subperiosteal haemorrhage.

TABLE III

Dimensions of Ox metapodials. (in mm.)

A. Total length.

B and C preaxio-postaxial width and dorso-ventral thickness at proximal end.

D and E middle of shaft.

F and G distal end.

METACARPUS

<i>Dimension</i>	<i>No. of measurements</i>	<i>Mean</i>	<i>Limits</i>
A	7	182	710-206
B	12	49.4	45.5-58
C	12	31.5	27-37
D	8	28.5	26-34
E	8	21.0	19-25
F	9	53.6	48.5-63
G	9	29.0	26.5-33

METATARSUS

A	7	206.8	193-218
B	13	41.4	39-48
C	13	40.1	37-45
D	8	24.8	23-29
E	8	25.5	24-29
F	10	49.1	45.5-56
G	10	28.7	26-31.5

MISCELLANEOUS In addition to the ordinary food bones, there were present the astragalus and part of the metapodial of a Horse, and one metapodial of a Cat. There was also a more or less complete Human skull, no teeth, jaw or other bones being found. One wondered whether this might have belonged to a criminal whose head had been exposed on the nearby North Gate, but Professor W. E. Adams was kind enough to examine it and is of the opinion that it belonged to an elderly person, probably a female. There were also 5 oyster shells and one cockle shell.

The bones were examined for markings. 2 Ox and 1 Sheep bone showed traces of having been chewed by dogs, while 1 Fowl bone had been gnawed by a mouse. 24 bones (16 Ox, 4 Sheep and 4 Pig) showed marks of having been chopped, sometimes repeatedly, by the butcher, and this together with the number of broken or fragmentary bones, suggests that cooking was by means of stewing in a pot. If roasting had been extensively practised, one would have expected some charred bones to be found, but there were only 2 fragments, both of Sheep and both from pit 22.

The most interesting examples of the manipulation of bones are afforded by 4 horn-cores of Ox from the late Saxon pit 36 (PLATE VI A). In 3 of these the tip of the horn, and of its bony core, had been sawn off completely. In the fourth the saw-cut had been carried all round through the horn, but only slightly into

the bony core. The conical piece of horn obtained in this way may have had a variety of uses, but the obvious one which comes to mind is the manufacture of horn tips for bows. The ends of Ox horns have been used for this purpose down to the present day and the advent of plastic bows. Two of the horn-cores showed a saw-cut running round the base, penetrating only a little way into the bone and 2 showed signs of cutting round the base. These cuts did not separate the horn-cores from the skull, but presumably freed the horn covering so that it might be removed for use perhaps as a cup, if one end was stoppered, or for the manufacture of small objects.

Bones have been recovered from rubbish pits in Oxford on the Clarendon Hotel site and at Logic Lane.²² At the Clarendon site the relative percentages of Ox, Sheep and Pig (60-40%, 40-25%, 20-5%) were similar to those at the Cadena (61%, 23%, 10%), but at Logic Lane the ratio of Sheep to Ox was more than 2 to 1. The ratios found at Seacourt²³ again were similar (44%, 38%, 12%), but in this more rural site there were also a few remains of Horse, Red Deer and Roe Deer.

SMALL FINDS

BONE OBJECTS. Apart from the bones discussed above, which had been marked during the process of manufacturing articles, there were 2 finished, worked bones: a *Thread picker* or *Pin beater* (FIG. 6, 2) of the 11th century from Pit 35 and a fibula of a Sheep whose end had been pointed and then perforated to make an *awl* (FIG. 6, 3) from Pit 16, an early 13th century pit.

DAUB (PLATE VI B). From Pit 36, the late Saxon cellar pit, on the Cornmarket Street frontage came several pieces of burnt daub with impressed wattle marks. These could have come from a wall, chimney or oven. Similar burnt daub was found at the Clarendon Hotel in the filling of the late Saxon cellar A1B and of the 11th century well B1B.^{24a}

IRON BOWL (FIG. 6, 4). A heavily corroded, hemispherical iron bowl or dipper with a flanged rim and handle came from the late Saxon cellar pit 36.^{24b} The bowl has an internal diameter of 145 mm.; the rim flange is 14.5 mm. wide and the estimated depth is 75 mm. Because of the corrosion it is difficult to assess the thickness of the metal. Found with the bowl and clearly belonging to it, was a small iron tang which would originally have been fitted into a wooden handle. The tang was broken at the end and its surviving length was 54 mm. It was probably attached to the flange of the bowl. The tang was expanded to form a web near the flange end and had fragments of wood adhering to it. The wood has been identified by Mr. A. A. Shaw of the Department of Forestry, University of Oxford, as a hardwood, no closer identification being possible.

²² E. M. Jope, 'The Clarendon Hotel, Oxford. Part I. The Site', *Oxoniensia*, xxiii (1958), 79-83; Fabian Radcliffe, 'Excavations at Logic Lane, Oxford', *Oxoniensia*, xxvi/xxvii (1961/2), 64-67.

²³ Martin Biddle, 'The Deserted Medieval Village of Seacourt, Berkshire', *Oxoniensia*, xxvi/xxvii (1961/2), 197-201.

^{24a} E. M. Jope, 'The Clarendon Hotel, Oxford. Part I. The Site', *Oxoniensia*, xxiii (1958), 78.

^{24b} The bowl was conserved by Mr. Ahmed Shishtawi, conservation officer of the Oxford City and County Museum, Woodstock.

SLAG

By FRANCIS SCHWEIZER, Research Laboratory for Archaeology and the History of Art, Oxford University.

A single piece of slag was recovered from one of the late Saxon pits, pit 35. Four different areas of the slag were sampled which differed in their appearance :

TABLE IV.

Sample	LIST OF SAMPLES	
	Appearance	
1	red clay, coarse crystalline	
2	yellow clay, fine crystalline, soft	
3	grey-black clay, hard	
4	brown-black metal lump	

The samples were analysed by the standard spectrographic technique using a Hilger Large Quartz Spectrograph. The application of this technique to pottery and ceramic-like materials has been described by various workers, the most comprehensive accounts being those of Catling, Blin-Stoyle and Richards.²⁵ The finely-ground samples (10 mg.) were mixed with a fixed proportion of a mixture of graphite, ammonium sulphate and lithium carbonate (internal standard) and arced under controlled conditions. The light emitted was recorded on a photographic plate, the relative intensities of the analysis-lines were measured with a non-recording Hilger microphotometer, and the percentages were read out of calibration graphs. The calibration graphs were prepared using standard rock samples.

The difference in composition between the calibration standards used and the samples analysed may lead to some error in the absolute concentration of iron. For these values a range was quoted, rather than an absolute percentage. The results are expressed in terms of the oxides and are the results of single determinations.

Sample 4 was analysed *in situ* using the 'milliprobe', a curved-crystal X-ray spectrometer with an area of analysis less than 1 mm. square.²⁶ A suitable spot was cleaned of any corrosion layers and a scan was carried out to see what elements were present. Any non-metallic content of the sample was not investigated.

The optical emission spectroscopy results are represented in Table V.

TABLE V

Sample	OPTICAL EMISSION SPECTROSCOPY RESULTS							
	Al ₂ O ₃ %	MgO %	Fe ₂ O ₃ %	TiO ₂ %	MnO %	Cr ₂ O ₃ %	CaO %	Na ₂ O %
1	10.7	0.9	11.8	1.0	0.1	n.d.	1.3	0.9
2	2.7	0.3	60-70	0.1	0.1	n.d.	2.7	0.9
3	9.2	1.1	50-55	0.7	0.1	n.d.	7.0	0.8

n.d. = not detected

²⁵ H. W. Catling, A. E. Blin-Stoyle and E. E. Richards, *Annual of the British School at Athens*, 58 (1963), 94-115.

²⁶ M. Banks and E. T. Hall, 'X-ray fluorescence analysis in archaeology, the "milliprobe"', *Archaeometry*, 6 (1963), 21-36.

Sample 4, which was examined by X-ray fluorescence, was found to be iron with approx. 0.3% copper and traces of calcium.

The slag lump analysed proved to be very inhomogeneous. It was only possible to estimate its composition for the samples taken and they do not necessarily represent an average composition. Sample 4 is a fairly pure iron lump, whereas samples 1-3 do contain a high proportion of iron incorporated in a rock-like matrix.

It was not possible to carry out an accurate chemical analysis for the iron lump (sample 4) in order to look for impurities at trace levels. Such analysis would probably not give much more information about the type of iron produced at this site as the composition of the iron lump in the slag could well differ from the composition of the iron produced.

BIOLOGICAL REMAINS

Insect Pupae. In Pit 21, the 14th century stone-lined pit, there were many pupae which were examined by Professor C. C. Varley, Head of Department, Hope Department of Zoology (Entomology), University of Oxford. He reports that they were brown and brittle and hard to clean up for examination, but two types of insect pupae were recognizable :

1. Brown objects 3-4 mm. \times 1 mm. pupae of moth flies—*Psychodidae*.
2. One pupa, possibly that of the fungus gnat—*Sciara*.

Botanical material. Mr. Andrew Brown reports that the fruits of *Potentilla palustris* (marsh cinquefoil) and seed of *Ficus* were found in pit 21, the 14th century stone-lined pit. The presence of the fig seed together with the glass vessel and jugs would seem to indicate a higher standard of living than is usually reflected in Oxford rubbish pits.

CONCLUSION

It was not possible to recover dating evidence for twenty of the pits actually recorded, but of the remaining pits, seven were of late Saxon date (nos. 14, 17, 24, 27, 35, 36 and 37). The distribution of these pits is striking, since they are concentrated along the street frontage and along the northern side of the site. The existence of late Saxon cellar pits projecting forward into the west side of Cornmarket Street causes no surprise in view of the Clarendon Hotel site evidence.

Equally significant are the three pits (nos. 17, 24 and 35) lying directly under the boundary wall between the site of numbers 44 and 43 Cornmarket Street. Their presence must show that this property boundary can only have become static in the 12th, or indeed, the 13th century. The distribution of the remaining pits seems to be random and it is not possible to deduce any meaningful conclusions as to the uses of the sites as reflected by the presence or absence of pits of a particular period, although the evidence for late Saxon bone and iron-working is interesting.

The Society acknowledges with gratitude a publication grant from the Department of the Environment, and a generous donation from Gordon Thoday Ltd., towards the cost of publishing this article.



A. The middle of the site showing the existing basement and the depth of the excavation with pits 19, 20 and 45. Between the two arrows is an area of occupation resting on the brown loam which caps the natural gravel.



B. The street frontage showing late Saxon pits 36 and 37 in the underpinning on the street frontage. Scale = 2 m
Photos : D. Carpenter

PLATE VI



A. 44-46 Cornmarket Street, Oxford. Late Saxon horn cores from pit 36, showing L-R : 1. core with saw-cut carried all round the top, 2. core with top cut off and saw-cuts running round the base, 3. horn with top sawn off and cuts round the base, 4. core with top cut off, saw-cut and cuts round the base.



B. Late Saxon burnt daub with impressed wattle marks from pit 36.

Photos : D. Carpenter