Late Saxon Pits under Oxford Castle Mound: Excavations in 1952

By E. M. JOPE

CCUPATION levels sealed off in the later eleventh century have long been sought for excavation in Oxford, as in other English towns. There have been few criteria by which eleventh century pottery could be distinguished from that of the twelfth in this region, and much has in the past been assigned to the twelfth century by a too general analogy with material from known or presumed twelfth century sites, such as mound and bailey castles. This has tended to exaggerate the importance of the effect of the Norman conquest on the minor industries and crafts of the common people. Moreover, the topographical problems of interpreting the Domesday record of Oxford, and in fact the whole early history of the town, can probably now be clarified most through planned excavating. A search for sites in Oxford which might yield late Saxon levels led me to a small triangular space (FIG. 31) on the south of the castle mound (apparently thrown up between 1066 and 1071). Here in the nineteenth century the mound had been cut back some feet at present ground level and revetted with a stone wall. It was hoped, with justification as it turned out, that this cutting back would not have gone deep enough to disturb any pre-mound occupation levels which might have been preserved beneath it. The Oxfordshire County Council readily gave permission for excavation, and the work was carried on for the Ashmolean Museum in July, 1952.¹

In spite of the restricted space, this small excavation was wholly successful in achieving its aims, for a honeycomb of undisturbed late Saxon pits was revealed under the structure of the mound, and these contained much pottery. Although no house structures or post holes were found *in situ*, the remains of daub with wattle marks showed the presence of houses here. This has been one of the most rewarding small excavations carried out in the city; in addition to clarifying the pottery development of the region it has provided new and

¹ I wish to thank the County Architect, Mr. G. R. Hutton, for his help at all times, and the Prison Governor and his staff for their kindness while the excavation was in progress. The excavation was carried out by Mr. P. J. Parr, my wife and myself, with two workmen for part of the time. I am most grateful to Dr. W. J. Arkell, Dr. Norman Davey and my wife for their reports on the stone, mortar and animal bones respectively, and to Mr. H. W. M. Hodges for his drawing of the spout, no. 36.

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FIG. 31 OXFORD CASTLE MOUND

Site plans and sections of excavations, 1952

The north is at the top of the general plan. The city wall passes SW. from the top right-hand corner of this plan, and if extended, its line would pass directly over the pit Nu. 1.

Based on the O.S. 300 map with the sanction of the Controller of H.M. Stationery Office

significant evidence for the extent of the western end of the town in late Saxon times.

The Domesday Survey contains no record of houses destroyed to make space for the castle at Oxford, as it does, for instance, for Wallingford, Shrewsbury or Lincoln. This excavation showed, however, that the Oxford castle mound had been built over a site which had been inhabited, and on the adjacent Canal Wharf (Nuffield College) site evidence of occupation has been shown within the area taken in for the castle ditch.² Similar occupation material has come from under the mounds at Northampton³ and Norwich,⁴ where the Domesday Survey likewise makes no mention of houses destroyed to make space for the castle. Even had the houses in the castle area been derelict (see below) the sites must have belonged to someone : the most probable explanation is, perhaps, that the castle was built upon land which already belonged to the King, and therefore no record was necessary in the Domesday Survey.

The secure dating of these pits depends upon the interpretation of the evidence for the date of construction of Oxford castle mound. The Annals of Osney state that the castle was built in 1071,⁵ and this has, not unreasonably, been taken by many to refer to the great stone tower,⁶ which quite apart from the early style of its masonry, should pre-date the crypt of St. George's chapel (founded in 1074), itself of later eleventh century style.7 The mound must presumably have been built before the tower. It is nowadays generally accepted that, apart from a few known examples put up by the Norman favourites of Edward the Confessor, such castle mounds were a Norman innovation in England,⁸ and it may therefore be assumed that the Oxford castle mound was put up between 1066 and 1071. Even should the Osney Annals be referring to the mound, it cannot be later than 1071.

Oxford first appears in written sources in 912,9 and its status in the next reign is emphasized by the silver pennies issued in the name of Aethelstan (925-

² Reconsideration of the context of pit I on this site (Oxoniensia, XIII (1948), 70-2), and pit II ² Reconsideration of the context of pit 1 on this site (Oxonensia, Xiii (1940), 70-2), and pit 1 published in the present paper, makes it probable that they lay within the area taken to create space for laying out the castle ditch, presumably about 1070. This would explain their curious position in relation to the line of the medieval town wall. Their pottery is comparable with that from the pits under the mound, and they are evidently of similar date.
³ Assoc. Archit. Soc. Rep., XVI, 243-51.

⁴ Norfolk Archaeology, XVII (1910), 42-5.
 ⁵ Annales Monasterii de Oseneia (Ann. Mon., IV (Rolls Ser. 1869), 9) : 'MLXXI. Eodem anno aedificatum est castellum Oxonfordense a Roberto de Oilly primo.'

6 Roy. Comm. Hist. Mons. Oxford City (1939), pl. 211.

7 Ibid., pl. 213.

⁸ I would be the last to suggest that this were not so, but it must be pointed out that we have positive dating evidence for only a very small proportion of our castle mounds, though all those actually datable support this contention. The pendulum of opinion was swung from one extreme to the other by Mrs. E. S. Armitage's work which culminated in her *Early Norman Castles* (1912).

9 Anglo-Saxon Chronicle, sub anno 912.

939) bearing the inscription OX URBIS.¹⁰ The coins of Alfred (871-899) inscribed OXSNAFORDA or OHSNAFORDA must still receive some attention in considering whether the town had already grown to some importance by the later ninth century." Oxford, as a centre of trade and intercourse must, like Norwich,12 have grown rapidly, and national assemblies were held here in 1018, 1036 and 1065. The retrospective evidence of the Domesday Survey suggests that by 1066 Oxford had become one of the more important towns of England.

The general topography of Saxon Oxford is being discussed elsewhere,13 but some aspects relating to the western end of the town must be noted here. This excavation under the castle mound, and those undertaken on the Canal Wharf (Nuffield College) site ¹⁴ show that the occupied area of the town had in the first half of the eleventh century extended to the western limit of the gravel terrace,15 but probably not much before then. The area of earliest occupation in the town must therefore be sought nearer the centre of the gravel terrace around Carfax, though apart from the coins no significant archaeological material so far found in Oxford can be assigned specifically to the ninth or tenth centuries.

The date at which the Saxon town boundary, whatever its nature, may have been laid out as a forerunner of the outline of the medieval walled city, is very obscure. At the western end its line cannot even be inferred, owing to the construction of the castle, and archaeological demonstration of any possible late Saxon defensive work here has been just as elusive as on the north-eastern sector in New College.¹⁶ Hence, it is unknown whether the occupation observed under the castle mound lay within the Saxon town boundary, or outside it. A late Saxon defensive work to which the word *murus* could be applied is inferred from the record in the Domesday Survey (f. 154) tam infra murum quam extra, as well as from the obligation recorded (f. 154a) as existing in King Edward's time upon holders of mansiones murales to repair the wall. It now seems somewhat unlikely that the areas of the Canal Wharf site remaining to be explored will yield more information on this point, for pits I and II make it clear that the line of the western end of the town wall associated with the castle lay-out and construction of c. 1070 probably deviated from any earlier town boundary line.

 ¹⁰ C. L. Stainer, Oxford Silver Pennies, O.H.S., XLVI (1904), 1-4, pl. 1.
 ¹¹ I am greatly indebted to Mr. J. D. A. Thompson for his discussion of these numismatic problems. ¹² Norfolk Archeology, XXX (1952), 287-323.
 ¹³ In Dark-age Britain : studies presented to E. T. Leeds (in the press).

¹⁴ See note (2) above p. 79.
¹⁵ E. W. Gilbert, in *Geog. J.*, cix (1947), fig. 4.
¹⁶ Oxoniensia, XVI (1951), 28-41.

THE EXCAVATION (PL. VI, A, B; FIG. 31)

THE LATE SAXON LEVELS

The original surface of the mound, sloping down into the ditch, was found to be undisturbed in the area available for excavation. Beneath this, 4 ft. below the present ground level, the original gravel surface was found, cut into by a complex honeycomb of pits and hollows reminiscent of those on the late Saxon site at Thetford. These pits had been cut through in making the ditch, the material from which had presumably gone to make the mound. They were filled with a sequence of compacted dirty or yellow-stained gravelly fillings, separated by occupation layers with up to 2 or 3 inches of black ash in places, as well as three hearths, revealing at least three phases of occupation. In this restricted excavation, the exact sequence of these pits was in some instances difficult to determine. These layers (6) to (13), FIG. 31) contained a considerable amount of pottery : they are of late Saxon date and extend back presumably to the beginning of the eleventh or even into the late tenth century, but probably not earlier. It was impossible in the small area excavated to relate any of these pits or hollows to any original superstructures, and in fact no actual post-holes were found, though there was plenty of burnt daub with wattle-marks, fragments of brick, a few small pieces of good quality stone, and fragments possibly of mortar.

THE CONSTRUCTION OF THE MOUND

Above the uppermost occupation level (6) lay a deposit of about 1 foot of dirty gravel with the flat pebbles and cleavage planes lying horizontally (5). Above this, the planes and pebbles in the gravel of a similar texture, were inclined at the slope of the mound surface (4). The sloping sides of the ditch, cut into the natural gravel, had been consolidated with padding of clean blue clay (presumably from the bottom of the ditch), and this extended up a few feet, to act as a stop against the slipping of the sloping gravel layer (4). This clay seems a local feature in the area of trenches 1 and 2, and did not appear in trench 3, where the ditch seemed to have a clean yellow gravel side at this level.

Two interpretations are possible for these upper levels. The horizontally lying gravel layer (5) might represent accumulation over some years before the mound was thrown up, suggesting that the houses on the site had lain derelict for some time before the Norman conquest. This is not necessarily so, however, for it is perhaps more likely that layer (5) might have been an even spread of gravel from the surface of the ditch area over the area of the mound, as the first stage in its construction. The evenness of the layer and texture of the gravel in layer (5) suggested the latter. No evidence can be derived from

the pottery in layer (5), which is indistinguishable from that in layer (6) and lower layers.

The clay padding might also be a primary stage in the construction of the mound, to prevent the soft gravel falling back into the ditch, and against the top of which that in layer did fall. It equally might, however, have been



FIG. 32

LATE SAXON POTTERY FROM UNDER CASTLE MOUND (1-7) AND FROM NUFFIELD COLLEGE SITE (8), OXFORD, p. 101 Nos. 2-8 are ' St. Neot's ' types and ware : no. 1 is of uncertain affinity

Scale : 1

put in sometime later, after slipping of the soft gravel had been detected. On the whole it is most likely to have been put in during the construction of the mound, when increasing weight was putting greater pressure on the lower levels. The finds from layer moreover give little cause to consider this consolidation appreciably later than the mound construction. The one piece of red painted pot from the junction of the gravel with the clay pad is most closely related to the late eleventh-early twelfth century red painted wares of

northern France, but there is not sufficient evidence to suggest that it could not have reached such a position before about 1070. More complete explanation of these layers can only be obtained by further excavation on a larger scale.

The Ditch. The side of the ditch was still sloping down at the end of trench I, and no estimate of its depth can be given from this excavation. The section, and the pottery from the filling strata, showed that it had been largely filled in during the later middle ages, though a hollow still remained, and a stone roadway had been built in it in the seventeenth century,¹⁷ judging by the base of a pot of late sixteenth or early seventeenth century character sealed beneath it. In trench 3 the filling of the ditch seemed again to be late medieval up to fairly near the surface. It contained here much pottery, and coxcomb ridge-tiles of late medieval type with tool-cut serrations.

THE FINDS

POTTERY (PLS. VII-VIII, FIGS. 32-36)18

General considerations. As a result of this excavation, it is now possible to distinguish certain pottery features which were current in the first threequarters of the eleventh century, and this and other recent work enables the whole development of pottery styles in the Oxford region during the eleventh and twelfth centuries to be traced with much greater coherence. We still cannot say precisely, however, how long some of these types found under Oxford castle mound may have remained current, though it is significant that certain features are absent from the pre-mound deposits, such as heavily moulded rims of cooking pots, or the usual Oxford glazed wares as seen on the tripod pitchers. The evidence from the sequence of eight superimposed floors at Deddington Castle, extending apparently over most of the eleventh and twelfth centuries (the lower three or four being pre-castle), suggests that some changes were fairly rapid and decisive, and it should be possible to recognize differences between assemblages of coarse pottery separated by, say, 20 to 30 years. No clear development can be traced through the sequence of pits and floors under Oxford castle mound, however, though such might appear as a result of more extensive excavation. It is probable that in dealing with this material we are mainly defining the pottery in current use here during the eleventh century up to about 1070. Such a conclusion would agree with what little is known about the general development of Oxford as a town.

¹⁷ This roadway appears in Loggan's plan (1675) but not in Hollar's (1643), and may be seen in eighteenth century views (see T. W. Squires, *In West Oxford* (1928), pls. xxxii, xxxiv, xlii and xliii). ¹⁸ The serial nos. on the line-drawings correspond with those in the numbered list of illustrated pottery, pp. 101-6 ff. Not all the sherds in the photographic plates appear in that list ; when they do not, they are marked on the plates with their level-number.



FIG. 33 LATE SAXON COOKING-POTS FROM UNDER THE CASTLE MOUND (9, 11-28) AND FROM RADCLIFFE SQUARE (10), OXFORD, pp. 101-3 Scale : $\frac{1}{2}$

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The smooth shelly 'St. Neot's' pottery of characteristic forms, and eastern English derivation, hitherto the only pottery assignable to the late Saxon period in the Oxford region, is now seen to constitute only about 10 per cent. of the wares in use during the period covered by the pits under Oxford castle mound. In the lower three floors at Deddington castle the proportion is even less. This ware seems to be the main bulk of pottery of that period further east in the Bedford-Cambridge region, in which area the forms and fabrics found on these wares in the Oxford region would be perfectly normal. The low proportion of this ware in the Oxford region strengthens the view that here these 'St. Neot's 'vessels may have been imports from the area 50 miles or so to the E.N.E., as are probably the fine glazed wares discussed below. The Oxford region (Hinton Waldrist, 10 miles west of Oxford) represents the furthest west which 'St. Neot's 'wares are so far recorded.

The major part of the pottery in the pits under Oxford castle mound consisted of the normal baggy 'medieval' cooking pots with convex bases, the everted rims being simple flanges, sometimes decorated with light fingertipping (FIG. 32). Heavier moulded rims and deep finger-tip impressions would in the Oxford region seem to be a development of the later eleventh or twelfth centuries. Few examples of bowls are represented.

Fine glazed wares, like those now shown to have been current in late Saxon times in the Fenland hinterland, as at Thetford, were present in these pits. Such wares had been previously recorded in the Oxford region (Oxoniensia, v (1940), 42-4; xIII (1948), 72, fig. 16, no.1) but had not hitherto been clearly datable to the late Saxon period (though it is now clear that the piece from pit I on the Nuffield College site may be so dated). These fine wares stand in marked contrast to the usual medieval glazed-jug wares of the Oxford region, which are of a coarser, more sandy fabric, and which seem to have come into use during the first half of the twelfth century (e.g. Ascot Doilly Castle, Oxoniensia, XI-XII (1946-7), 165-7; at Old Sarum they are associated with a coin of William I, however—Antiq. \mathcal{J} ., xv (1935), 184-90). The latter were undoubtedly made locally, and local sub-styles may be distinguished. The late Saxon fine glazed wares, on the other hand, may well have been imported to the Oxford region from some area to the north-east, perhaps around Cambridge or Stamford.

The earliest piece of pottery from the site, stratigraphically, is 14, part of a thick base of coarse black shelly ware, such as would also have been quite acceptable among twelfth century deposits. No good parallel can be suggested for the unusual vessel, 1. It does not compare with the local Iron Age wares,¹⁹ and it must provisionally be accepted among the Oxford Saxon

¹⁹ I am indebted to Mr. J. S. P. Bradford, F.S.A., for his comments on this vessel.



FIG. 34 LATE SAXON PITCHERS AND ORNAMENTED POTTERY FROM UNDER THE CASTLE MOUND, AND FROM OTHER SITES IN OXFORD, pp. 103-4

No. 40 is glazed Scale : 1 86

material: as it is quite foreign to the medieval tradition it must be considered early in the period. Coming from level (5), its context has no particular significance.

Some conclusions about Late Saxon pottery in southern England may be suggested. In East Anglia, pottery styles based on Roman forms, as they survived in the Rhineland, reappeared about the ninth century, in hard sandy wares thrown on a fast wheel, the cooking pots usually having flat bases. These shapes, still thrown on a fast wheel but in soft shelly 'St. Neot's ' ware, were soon in use in the Cambridge-Bedford region, where the bases of cooking pots, though sometimes flat, were usually convex, and some characteristic local features appeared, particularly in bowl forms. These vessels comprise only about 10 per cent. or less of the Late Saxon pottery in the Oxford region further west, the main bulk being baggy cooking pots thrown on a slow wheel and subsequently much hand-worked. This 'St. Neot's ' pottery is not found at all further west than the Oxford region, though some influences from it are found in the twelfth century : at Old Sarum, for instance, the late eleventh century pottery was all made on a slow wheel with much hand-working. In spite of the high quality of the 'St. Neot's ' wares, and still more, the hard sandy East Anglian wares, it is these baggy and irregular pots which were the source of the main tradition of English medieval coarse pottery. In some areas, however, such as the hinterland of the Wash, the East Anglian Late Saxon forms had a profound influence on the twelfth century forms (e.g. Antiq. 7., XVI (1936), 402-11; Soc. Antiq. Res. Rep., XV (1948), Jewry Wall, Leicester, 222-9).

Technique of Oxford Late Saxon pottery. Most of the pottery from the pits under the mound appears to have been made on a slow wheel, and to have been considerably hand-worked after throwing. The 'St. Neot's 'wares stand out in marked contrast, however, with their even shape and pronounced internal rilling indicating that they were made on a fast wheel. Even then, in Oxford, as in Bedford, they have convex bases (though sometimes flat in Northampton), which must have been produced by subsequent hand-working from inside. Very few pots from these Oxford pits show any signs of knife-trimming on the body.

Fabrics of Oxford Late Saxon coarse pottery. A number of different fabrics were evidently in use in Oxford during the eleventh century. Beside the smooth shelly 'St. Neot's 'ware, which may have been brought in from the region further east, there is a whole gradation from slightly rougher shelly wares, some fired to a very close texture, through flaking shelly wares, friable sandy wares, harsh hard fired wares filled with shell and crushed flint, to hard fired uniform harsh-surfaced sandy wares, almost approaching the standard wares of Thetford in hardness, though not in fineness. The suggestion





(Oxoniensia, XI-XII (1946-7), 171) that hard sandy wares were first introduced in Oxford during the earlier part of the twelfth century is evidently incorrect, as they make up some 5 per cent. of the pre-1070 material. These fabrics are very local phenomena, however : at Deddington hard sandy wares do suddenly appear half-way up the sequence of eight floors, and in the area to the west of Oxford, at Ascot Doilly, for instance, sandy wares hardly appear at all even throughout the twelfth century. There were also among the pre-1070 pottery six sherds of the fine glazed ware.

Decoration of Oxford Late Saxon pottery. In Oxford the 'St. Neot's 'type pottery is undecorated. Decoration is evidently not profuse on Oxford coarse pottery of this period, light finger tipping on cooking pot rims being the most usual, appearing on 30 per cent. of these rims (23-28). No deep finger impressions were found, and these would seem to be a development after 1070. Rouletting is seen on one body fragment (34), exactly paralleled by one from pit I on Canal Wharf, Nuffield College (Oxoniensia, XIII (1948), 72, fig. 16, no. 2). Two individual stamp impressions were found, a simple cross (29) and a rosette (30). The pitcher from Radcliffe Square (37) has rosette stamps all over the surviving parts of the body surface, and no doubt the handle from pit II on Canal Wharf (38) was part of a similar vessel. These individual stamps, especially the cross, were in use over a long period, from pagan Saxon times through much of the middle ages, and they cannot be used for even approximate dating.

Imported pottery. Apart from the sherd of red painted pottery from Northern France reported on below by Mr. Dunning, there are five pieces of hard fine sandy ware with pale whitish-grey core with medium grey exterior and grey-black interior surfaces, the surface colours not penetrating the core appreciably. These are all body fragments and no vessel shape can be deduced. The pottery seems to be hand-worked after throwing on a wheel, and is of variable thickness, from 5 to 9 mm. Such ware is quite foreign to the Oxford region, and wares of this thickness with whitish core are not usual in East Anglia where this general class of sandy ware is usual on Late Saxon pottery. It most closely resembles certain continental wares of the period, from France or the Rhineland, and it is probably imported, though it is impossible to be specific about such pieces, from which no vessel form can be deduced. No other continental wares of the period such as Pingsdorf or Badorf, except the north French painted sherd from the present excavation (see below), have yet been found so far inland in England, but the Rhineland lava querns here and at Deddington show that foreign imports were common articles of trade in the area, and the schist hones (FIG. 38A) may have come from the same region, the Eifel, again across the North Sea.

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Sherd of imported red-painted ware. I am indebted to Mr. G. C. Dunning, F.S.A., for the following note on this imported piece :

'The fragment (PL. VIII, B, f) is made of very sandy ware, fired very hard, pink in the core and along the fractures, with a smooth buff surface. It has two light red painted lines, narrow in width and laid on thinly. The position of the sherd on the vessel can be determined with reasonable certainty, although wheel-marks are not evident on the inside surface. The painted lines converge, and so the sherd would be on the body of the pot either just below the turn of the neck or towards the base. The former position is more likely, since the upper edge as figured is slightly thickened and shows a grey centre to the core, and the painted lines would probably end an inch or more above the angle of the base. The sherd is therefore identified as from the body of the pot, just below the neck, with the painted lines running vertically down the site at intervals. The flatness of the surface and the thickness of the fragment show that the pot was of large size, probably not less than about 12 inches bulge diameter. These indications all point to a large ovoid pitcher of continental origin, since there is no context for red-painted wares locally in the eleventh or twelfth centuries. The characteristics of early medieval red-painted pottery on the Continent have been summarized elsewhere,²⁰ so that it is only necessary to state here that the Oxford sherd belongs to the north French derivatives of the earlier Pingsdorf series of the Rhineland and Low Countries. Spaced narrow vertical lines in red paint are in fact one of the most frequent motifs on pitchers, jugs and cooking pots in Normandy and at Paris. The ware is usually white or yellow-toned, but buff or pink-toned wares occur in both regions. In date the red-painted pottery in north France belongs to the late eleventh and early twelfth centuries, though neither terminal date can be defined closely. Crosschannel trade in the Norman period resulted in the importation of this pottery to England, and its distribution in Normandy and England (FIG. 36) shows that the basis was probably connected with the wine trade of Rouen. Hitherto examples have been found only at ports along the south-east coast, at Pevensey, Dover, and Stonar, near Sandwich. The Dover pitcher²¹ in fact provides the closest parallel for the form of the vessel to which the Oxford sherd belonged. Recent finds, however, show that red-painted pottery reached England by way of another trade-route to Southampton Water. The excavations at Hamwih, the late Saxon predecessor of Southampton, have produced a few sherds of redpainted ware, apparently from late levels of the occupation. One sherd is of white ware with creamy-pink surface, and it has incised grooves and wavy lines as well as streaks of red paint; it is more likely to be of north

²⁰ Antiq. Journ., XXV (1945), 153; XXXI (1951), 184.
 ²¹ Antiq. Journ., XXV (1945), fig. and pl. xii, b.

French origin than from the Rhineland. At Winchester a small sherd was found by Mr. F. Cottrill in 1951 in an excavation behind the medieval city wall in Colebrook Street. This is of fine whitish ware, yellow-toned on both surfaces, and it has irregular broad streaks of dark cherry-red paint ; the stratifica-



FIG. 36

MAP SHOWING DISTRIBUTION OF 11TH-12TH CENTURY NORTH FRENCH RED-PAINTED POTTERY, p. 000

Drawn by Mr. G. C. Dunning after his map in 'Antiquaries Journal', xxx, 186, fig. 3, by courtesy

tion suggests that the sherd is not earlier than the twelfth century. The finds at Southampton and Winchester are welcome additions to the map of imported pottery of the Norman period (FIG. 36),²² and underline the significance of Southampton as a port trading with Normandy. Oxford is the farthest inland

²² Antiq. Journ., XXX (1951), 186, fig. 3. The original map, with additions, is republished here by permission of the Council of the Society of Antiquaries.

for this red-painted ware to be recorded, and it may be suggested as more likely that the pottery reached Oxford through Southampton rather than that it was imported to London and travelled up the Thames.'

'St. Neot's '-type pottery. This is apparently the main pottery used in late Saxon times in the Cambridge-Bedford area, and previous excavations (e.g. Hinton Waldrist, where it was sealed in a pit beneath the old turf-line below the mound; Berks. Archaeol. J., XLIV (1940), 56, fig. 3, no. 3; L (1947), 53, fig. 2, nos. 3, 4) have shown that it was in use in the Oxford region during this period. It is all of a characteristic very uniform fine ware, with black core flecked with white crushed shell, and surfaces ranging from light red to dark purple-brown or black. The forms are also characteristic. The cooking pots are tall (2, 48), with roll rims, often with a slight hollowing on the inner surface, and convex bases : the interior surfaces have a marked rilling preserved, the exteriors being smooth. They are all very regular and well made. These tall vessels, from Oxford and from other sites, are fairly uniform in size, being usually $2 \cdot 7 \cdot 3 \cdot 5$ inches in diameter at the rim and a little less at the base. No. 42 is an unusual larger example from Carfax.

The bowl form is also characteristic, though less common in Oxford than the cooking pots. The fragment 6 is the only example from the pits under the castle mound, though the shallow base 7 may also be from a bowl; 51 and 52are from other sites in the City. No. 8 from Canal Wharf, unstratified, is a fine example with finger-tip decoration in a style which is characteristic of the Cambridge-Huntingdon area (*Proc. Prehist. Soc. E. Anglia*, IV (1924), 228, fig. 4, nos. 2, 4).

Dating evidence for pottery of this class from the City itself is given by the present excavation. The range of this pottery published here (FIGS. 32, 35) together with that already published (*Berks. Archaeol. J.*, XLIV (1940), 56; L (1947), 53; Oxoniensia, V (1940), 48; X (1945), 98) gives a representative view of the forms used in this region. The evidence, especially from Deddington, suggests that this type of pottery did not remain in use into the twelfth century, though the influence of the bowl forms may be seen spreading south and west in the twelfth century (*Berks. Archaeol. J.*, L (1947), 55).

Hitherto this has been the only class of pottery in Oxford which could be recognized as Late Saxon. From this excavation under the castle mound it is now seen that, on this site at least, it made up only about 10 per cent. of the pottery in use in Oxford during the last century of the Saxon period. It appears to make up a much higher proportion of the pottery in use in the region farther to the east, centred on Bedford, and the Oxford region (Hinton Waldrist) is the farthest west it has so far been recorded.

It is at present not possible to say where this class of pottery as used in the

Oxford region was made. It is certainly much more common in the region to the east, round Bedford and Cambridge, and the forms and fabrics of that found in the Oxford region would be perfectly at home in the area of greater incidence farther east. Unfortunately examination of the crushed shell gives little hope of locating the source of the raw materials, but this approach should nevertheless be explored.

Plenty of pottery was certainly being made in the Oxford region in Late Saxon times, for, apart from the evidence of the abundant local coarse wares now recognizable as late Saxon, the Domesday Survey (fol. 156) records a pottery (*ollaria* or *potaria*) at Bladon, worth 10s. annually. Both 'St. Neot's' and coarse wares are known from nearby at Yarnton (*Oxoniensia*, x (1945), 98). While it seems probable that the fine glazed wares were being traded into the Oxford region from an area farther north-east (see below), this forms less than 0.5 per cent. of the pottery represented in the pits under the mound, and was clearly more of a luxury article. Although the 'St. Neot's ' wares were good, they were still only cooking pottery, and it would seem unnecessary to trade such a comparatively large proportion some 50 miles or more, in the face of abundant local production at this time of a rougher, but as later development clearly shows, very adequate range of cooking vessels.

Local coarse pottery. The majority of cooking pots from the late Saxon levels under Oxford castle mound are of the usual 'medieval' baggy form with simple everted rim and convex base. They seem to have been thrown on a slow wheel, and show varying degrees of hand-working after removal from the turn-table. The rims are all simple flanges, and do not show any marked clubbing or moulding at the outer edge, features which would appear therefore to be developments of the late eleventh and twelfth centuries (compare, for instance, the late twelfth-century group from St. John's College, Oxoniensia, xv (1950), 54). Decoration is slight, some pots having light finger-tipping on the rim (23-28), and there is occasional combing (11), and use of individual stamps (29, 30) and faintly incised slanting lines on the rim flange (19, 21). An almost complete cooking pot from Radcliffe Square (10), closely comparable with the pre-mound material, is included to show the complete profile.

It is now clear that some of the pottery in the region which has been traditionally regarded as twelfth century could in fact be eleventh century, though caution is necessary, as some changes were slow in effect and the development is intensely local, varying over ranges of 10 miles or so. In the group published from Yarnton, for instance (*Oxoniensia*, x (1945), 98), both the 'St. Neot's ' and almost all the coarse pottery evidently could form a contemporary group of the eleventh century.

The vertical-sided cooking pots with clubbed rims, now well known in the

Oxford-Cotswold region, although apparently originating in the Late Saxon tradition (Oxoniensia, XI-XII (1946-7), 169-70; XIII (1948), 71), were not definitely represented among the rims of the pre-mound material, though they were in the probably contemporary pit I on the Canal Wharf (Nuffield College) site (Oxoniensia, XIII (1948), 72, fig. 16, nos. 8, 9). One sharp-angled base (14) from layer (§-(§) on the mound site was probably from one of these vessels. There is another closely related shape of pot, represented in the pre-mound material (13), in which the rim stands vertical but nevertheless turns out into a definite shoulder, a type intermediate between the vertical-sided pots with clubbed rim, and the ordinary baggy pot with turned-out rim flange. It is evidently a fairly long-lived type, as it occurs here well down in the pre-1070 deposits, and is common among the pottery of about mid-twelfth century from Ascot Doilly Castle.

No recognizable coarse ware bowls came from the pre-mound deposits, nor from the Canal Wharf pits I and II. Such bowls were, however, probably in use in Oxford at that time, and their absence from these deposits is a caution, probably indicating what a large assemblage of pottery from a site is required before it can be regarded as truly representative. Bowls of coarser ware derived from 'St. Neot's 'forms spread south and west from the Oxford region and were common in the twelfth century (*Berks. Archaeol. J.*, L (1947), 55) but these cannot be dated to late Saxon times. There are however, from other sites in Oxford a few bowls in coarser ware which are probably late Saxon by analogy with those from deposits in the Cambridge area (e.g. 53, cp. Southoe, Hunts.; *Proc. Cambs. Antiq. Soc.*, XXXVIII, 1939, 161, fig. 1, no. 11). Bowls of coarser wares are more frequent in the eleventh century levels at Deddington.

Pitchers. The fine glazed wares discussed below were the only certainly recognizable pitcher fragments from the pre-mound deposits. From the contemporary pit II on Canal Wharf site there came, however, a small strap handle (38) of characteristic hard harsh sandy ware containing crushed flint. In fabric, and in notched decoration on the rim, this closely resembles the globular pitcher with free-standing spout and decorated on the body with rosette stamps (37) from Radcliffe Square, already suspected of being late Saxon (*Oxoniensia*, v (1940), 47-8). A plain tubular free-standing spout comes also from the Canal Wharf site (unstratified, 36); it has the top of the spout cut off square in a manner inviting comparison with the handle socket of the bowl found at Wedmore, Somerset, which contained 200 late Saxon coins dating up to 1042 A.D.^{23} A small strap handle (39) of similar fabric, not clasping the neck, but on the shoulder, comes from Radcliffe Square; it is probably part of a similar vessel, and such shoulder handles are not uncommon on large Late

²³ In Taunton Museum: I am grateful to Mr. A. D. Hallam for showing me this vessel.

Saxon vessels in East Anglia. This harsh sandy fabric with crushed flint was also used occasionally for cooking pots (e.g. 25) but the handle (38) from the Canal Wharf site suggests that these spouted baggy pitchers may now be regarded as among the pottery available in late Saxon Oxford. It is difficult to say how late the type continued in use, but probably not far into the twelfth century, when it may have provided part of the inspiration of the characteristic glazed tripod pitchers which became popular from the middle of the twelfth century into the thirteenth (*Oxoniensia*, IV (1939), 96. ff. ; XV (1950), 47 ff.).

These baggy pitchers were in use elsewhere in southern England in late Saxon times (Soc. Antig. Res. Rep., x (1932), Richborough, III, pl. xliii, no. 362; Proc. Hants. Field Club, XIII (1937), 247-250, pl. ii). The type with freestanding spout has received little specific attention, however, though common enough. It is particularly well represented in Winchester, where the spouts are tapering, and two small strap handles from rim to shoulder are usually set opposite each other, at 90° to the spout, the rims often being notched, as 37 and 38. These English pitchers are presumably derived ultimately from the continental spouted vessels, such as those from the Pingsdorf kilns (see R.E.M. Wheeler, London and the Saxons (1035), pl. viii for a complete imported vessel of this type found in London), though these are narrower and often with a footring, the baggy form and convex base being a more English feature. These baggy pitchers with free-standing spout, very comparable in form and decoration to 37-39, seem still to have been in use in the south-west in the twelfth century, as indicated by one from Castle Neroche, Somerset (Proc. Som. Archaeol. Soc., XLIX (1903), 37, fig. 2). The comparative frequency of these pitchers with free-standing spout in southern England emphasizes again the southerly trend of pottery influences and trade from the continent in late Saxon times.

There is, so far, no evidence that the tall jugs in hard shelly ware with strap handles (Oxoniensia, V (1940), PL. xi, C, D; Berks. Archaeol. \mathcal{J} ., L (1947), 53, fig. 2, no. 10) were in use in Oxford in late Saxon times. The evidence from the late twelfth century well filling at St. John's (Oxoniensia, XV (1950), 51, fig. 17, no. 1) suggests that they were still in use at that date, side by side with glazed tripod pitchers; they were probably a development of the century following the Norman conquest, and the evidence from Deddington confirms this.

A small unglazed jug (41) of fine soft shelly fabric, like a poorly-fired version of 'St. Neot's 'ware, is among the group of pottery found in Bulwarks Lane in 1931. Sufficient of the base survives to show that it had small feet (probably three), and its handle, although nearly square in section, has been made up of a U-sectioned strap with wavy strips of clay marvered in. Such handles, in much harder shelly ware and roughly glazed, are among the jugs

from the castle at Ascot Doilly, Oxfordshire, where they are most probably second quarter of the twelfth century. This Oxford vessel is included here as its fabric, and perhaps also its simple rim form, are very much in the Late Saxon tradition. It would thus stand at the beginning of the tripod-pitcher series in Oxford, a most important vessel.

The fragment of red-painted jug, probably an import from northern France is discussed by Mr. Dunning above.

Fine glazed wares. The excavated parts of the pits under the castle mound yielded five fragments of fine hard-glazed wares, and one has already been published from pit I on the Canal Wharf (Nuffield College) site, which, it is now seen, must have been sealed off when the castle area was laid out about 1070. These recent finds are particularly valuable as giving a context to the complete spouted and handled pot of this material from the Angel Inn, Oxford (Oxoniensia, V (1940), 48, fig. 8, no. 3, and pl. xi, A, B). In recent years, largely through the Ministry of Works excavations at Thetford, these wares have come to be accepted as a feature of Late Saxon pottery in eastern England. They are to be found straggling south-west along the clay vale, these Oxford examples being the most westerly so far known. Similar wares come from what seem to be pre-castle levels at Deddington, Oxfordshire.

This fine glazed pottery of East Anglian type was probably not being made in the Oxford region. Mr. Bruce-Mitford had already suggested in 1940 that the Angel Inn pitcher had been made in or near Cambridge, but it now appears likely that the main centre of manufacture may have been north of Cambridge. When locally produced glazed wares, the tripod pitchers, do begin to appear towards the middle of the twelfth century, the fabric is much coarser, sandier and more harsh than that of these earlier glazed pitchers.

The glazes also appear thicker and more uneven than the earlier ones, but that is largely the result of being on a coarser, more pimply-surfaced fabric. All these glazes, both early and later, are lead glazes (shown spectrographically) though that on the sherd from pit I on Canal Wharf site does contain tin of the order 1-2% (see *Trans. Bristol & Glos. Archaeol. Soc.*, LXXI (1952), 88-97).

The glazed pottery is illustrated in PL. VIII, B and FIG. 34, no. 40, and described under 40 on page 104.

Crucibles. Two pieces of crucibles were found in the late Saxon levels, one used and the other unused.

FIG. 37, no. 58, is part of an unused crucible of very hard close textured brownish-grey ware.

Not illustrated is part of a crucible of hard close grey-brown ware, bearing blobs of bronze slag, and signs of a crack down one side. Numbers of crucibles of this type have been found on sites in Oxford. No proof of their early date

has previously been available, and some were found with material of twelfth or thirteenth century or later date, though the associations were in no case good. These Oxford Castle fragments show that this type of crucible was already in use in late Saxon times, and it probably remained so over a long period. Another larger crucible from St. Michael's Church, Cornmarket (64) may be compared with a similar vessel from York which contained ' some hundreds of pennies of Edward the Confessor and a few of the Conqueror' (Elgee, *Archaeol. Yorks.*, 211). The Oxford example has several spots of yellow glaze, giving it a later appearance, but the York pot also carries some spots of glaze.



LATE SAXON AND MEDIEVAL CRUCIBLES FROM UNDER CASTLE MOUND (58) AND FROM OTHER SITES IN OXFORD, pp. 96-7. Scale : $\frac{1}{4}$

One further remarkable crucible (unused) comes from the Angel Inn site at Oxford (A.M. 1886.1679; FIG. 37, no. 59). It is thick walled, and of clayey ware, which in several places where it is damaged can be seen to have been tempered with chopped grass, with which the surface is also marked. The fabric closely resembles that of the bun-shaped loom-weight from Carfax (*Oxoniensia*, v (1940), 49), and this crucible may well be late Saxon.

Later pottery from the site. Medieval pottery was found scattered through the middle and upper filling of the mound ditch, in trenches 1 and 3 (layers 18 and 19). Sealed under the road built over this ditch were a green glazed strap handle, probably fourteenth century, a sherd of fine orange-buff fifteenth century Oxford ware (*Oxoniensia*, VII (1942), 76-9, especially fig. 20, no. 13) and some pieces of fine cream Tudor wares with lemon yellow glaze (cp. *Oxoniensia*, XV (1950), 61, fig. 22, no. 4). The only pieces of later pottery with intrinsic interest are the fifteenth century piece and a rim of sandy brown ware, made on a fast wheel, with sharply undercut moulding, a type being made at

Brill probably in the late thirteenth or fourteenth century (Oxoniensia, VII (1942), 74-5; x (1945), 96).

STONE OBJECTS (FIG. 38)

Two pieces of shaped chalk came from the pre-mound levels. FIG. 38, C (from layer (6)) is a small part of a hexagonal rod 1.2 cm. across; FIG. 38, B (from layer (5)) 4-5 cm. long, is more irregular, but faceted along its length. These may perhaps be compared with a 'Saxon Stone Stamp of chalky material



FIG. 38

SMALL OBJECTS OF LATE SAXON TYPES A. Mica-schist hone, from pit II, Nuffield College site (p. 98); B-C, objects of chalk and E-H, objects of iron, from under Oxford castle mound (p. 99); D. Chalk stamp from Putney Hill, Surrey (p. 98)

Scale : 1

from Putney Hill, Surrey', now in the Pitt-Rivers Museum at Farnham (FIG. 38, D; sketch only).

From layer (6) came (not illustrated) a small piece of quern stone 1 inch thick, of black Rhineland lava. Some similar pieces came from pit II on the Canal Wharf (Nuffield College) site, and from the earlier levels at Deddington. This Rhineland lava was extensively exported in late Saxon and medieval times for querns.

From pit II on Canal Wharf came a mica-schist hone, FIG. 38, A, of a type already known from Saxon and medieval sites (*Soc. Antiq. Res. Rep.*, xv (1948), *Jewry Wall, Leicester*, 230-232). It is useful to have this Oxford example in a precastle context.

METALWORK

No recognizable bronze objects were found, though occasional traces of bright green powder indicated that there had been some, which had decayed away in these deposits.

The only recognizable pieces of iron work (FIG. 38) were a part of a strap handle (FIG. 38, E, from layer (6), presumably of a bucket; part of a small knife (FIG. 38 F, from layer (6); a hook, probably for suspension of a door (FIG. 38, G; from layer (12)-(13) (a similar iron object came from a door position in a building of the late eleventh or early twelfth century at Deddington); and a large flat-headed nail (FIG. 38, H, from layer (6)).

STRUCTURAL MATERIAL

Evidence of dwellings. No remains of late Saxon structures or post holes were found in situ. Some burnt daub, with wattle marks about $\frac{1}{4}$ inch in diameter, from levels (5), especially (6), and (7)-(8), indicate that there had been buildings in the area. Most of the excavated hollows were long in shape, and had floors in them, and it was clear that levels (6), (8) and possibly (1) were levels of occupation debris resting on good clay or gravel floors. These were therefore not rubbish pits, as was perhaps pit III, but were either the cellars of houses with a wooden superstructure now entirely vanished (the postholes of which might have been found had a larger area been available for excavation), or perhaps the remains of the houses themselves, continuing a pagan Saxon tradition (e.g. Antiq. 7., XII (1932), 284; Archaeologia, LXXIII (1924), 147 ff; LXXVI (1927), 59 ff.; XCII (1947), 79 ff.). This honeycomb of pits and hollows is very comparable with the picture from the recent excavations of late Saxon Thetford, where again interpretation is difficult. This type of half basement house has been recorded in the twelfth century (Aylesbury; Rec. Bucks., IX (1907), 282 ff.) and a similar, most primitive dwelling was still in use at Athelney in Somerset into the present century (Proc. Somerset Archaeol. Soc., LV (1909), 175-180).

Brick. There were found in layers (5), (6), and (8)-(9) a number of pieces of red brick, hard but poorly kneaded, $1\frac{2}{3}$ inches thick. These bricks had been made in a sanded tray and swiped off across the top. It is customary to regard all brick found in Saxon contexts as taken from Roman buildings, but the question of the manufacture of brick in late Saxon times in England has recently been discussed in connection with these bricks and with some from late Saxon pits in Norwich (*Norfolk Archaeol.*, xxx (1952), 287-323) and from Hamwih. True brick, as opposed to thick tile, is not common among the material from Roman buildings in the country near Oxford, but I have recently obtained brick of a very similar character and thickness from an apparently undisturbed Roman level at Woodperry, 5 miles east of Oxford. Although these bricks do not seem to have been commonly used in Roman houses in this area, and there can hardly have been an abundant supply available locally in the

eleventh century, there is at present no positive reason why the material from these late Saxon levels in Oxford should not have been taken from the remains of Roman buildings. The question requires much further study.²⁴

Stone. Some fragments of fine quality limestone from layers (6) and (8)-(9) were reported by Dr. W. J. Arkell as being derived from the Great Oolite of Taynton type. The quarry at Taynton, in this formation, is recorded in the Domesday Survey, and the stone could have come from that area. The pieces were very small, and are not certainly fragments of building stone, however. Similar stone has been identified by Dr. Arkell among late Saxon stonework in Oxford, such as the broken slab from St. Aldate's, now in the Ashmolean (Roy. Comm. Hist. Mons., Oxford City (1939), pl. 9, bottom left), and it is used in the imposts of the tower windows of St. Michael's Church at the North Gate (mid-eleventh century, *ibid.*, pl. 199). Outside Oxford, it has been found in eleventh century or earlier work at Langford, Northleigh and Bicester, Oxon.; Wantage and Wickham, Berks. and Ramsbury, Wilts. (the latter perhaps from Haselbury near Box rather than the Taynton area).

Mortar. Samples, from several layers, of material which looked like mortar were sent to Dr. Norman Davey at the Building Research Station, Watford, who kindly reported on them. Only two were large enough to warrant analysis, and of these, one (from (15)) was not mortar, but a coarse aggregate from a bed of sandy limestone. The report from Dr. Davey on the other, from layer (8-(9), is as follows :

'The sample is described by our chemists as being composed essentially of quartz sand with scattered fragments of a shelly oolitic limestone in a porous matrix of finely-crystalline calcite. The quartz is mostly in the form of small angular grains, but there is a proportion of larger and less angular grains. The sample may be presumed to be a lime mortar with a sand aggregate, in which the lime has been converted by carbonation into calcite, though it is not possible to deduce that lime was in fact used : it could equally well be a mixture of sand and a limestone mud. The limestone fragments may have been added intentionally as part of the aggregate, or they may have originated from the use of an incompletely calcined lime.'

Thus, although there are fragments on this site which could have been chipped from the finest quality building stone, there is no absolute evidence for the use of mortar, though the specimen from layer (8)-(9) makes this probable. No stone and mortar domestic structures of the late Saxon period have so far

²⁴ Some remarkable brick-like objects, square in section, long and tapering, were found under the Norman north transpt of Peterborough Cathedral. They have a grey to black surface colour, and black fracture showing many marks of vegetable-matter tempering, reminiscent of much Saxon pottery. From evidence shown me by Dr. Philip Corder, however, they are clearly the fire-bars of a Roman pottery kiln. They are preserved in the cathedral.

been recorded in England, and even should these fragments be accepted, they might have come from a nearby church building.

DESCRIPTIONS OF POTTERY ILLUSTRATED

COARSE POTTERY FROM UNDER THE CASTLE MOUND WITH SOME PARALLELS FROM ELSE-WHERE IN OXFORD (PLS. VII-VIII, FIGS. 32-34)

Vessel of soft friable fabric

1. This unusual vessel is of a soft friable ware with ochreous surface layer 2 to 4 mm. thick, and grey core : it is gritted mainly with small water-worn pebbles, up to about 1 mm. across with occasional larger ones. The fabric and vessel are quite unusual in the Oxford region, and no reconstruction is attempted : shallow vessels with a not dissimilar profile have been found in the Saxon levels at Thetford.

' St. Neot's' wares

2. Parts of a tall cooking pot in smooth black fabric flecked with crushed white shell, and dark purple-brown to black surfaces. Although these pieces may not all have come from the same vessel, these vessels were fairly uniform and this represents the type. Layers (2)-(3).

3. Cooking pot rim of fine dark brown ware, containing less shell than the usual 'St. Neot's 'ware. It has a less smoothly rounded moulding, and might possibly be not late Saxon but local Romano-British ware (good quality red imitation sigillata came from the same deposit). Layers (8)-(9).

4. Roll rim of a cooking pot of 'St. Neot's 'form and fabric, the latter the same as 2. Layer (5).

5. Large part of base of cooking pot of 'St. Neot's 'fabric, as 2, but more baggy form (compare that from the pit sealed beneath the turf-line below the mound at Hinton Waldrist, *Berks. Archaeol. J.*, XLIV (1940), 56, fig. 3, no. 3). Layer (5).

6. Small piece of outer edge of inturned rim of bowl, of 'St. Neot's 'ware, as 2. Sufficient survives to suggest the form of the whole vessel. Layer (3).

7. Part of base with very shallow angle, probably of bowl; 'St. Neot's 'ware as 2. Layer 3.

8. Part of inturned rim flange of a bowl in shelly 'St. Neot's 'ware, with black core flecked with white crushed shell, and light brown surfaces. Finger-tip impressions round the outer edge of the rim. From Canal Wharf (Nuffield College) site ; upper filling of castle ditch.

Cooking pots

9. Simple rim flange of hard fired grey ware flecked with white powdered shell, and containing also some water-worn quartzite particles; black exterior and purplish brown interior surfaces, not so smooth as 'St. Neot's 'ware. A little lightly scored diagonal decoration on outside. Layer (9).

10. Almost complete cooking pot of somewhat harsh sandy ware, not very hard fired and a little friable, with almost black core and black to brown surfaces. Decorated with grooves of square section round the shoulder, made with a comb with square-ended teeth. Thrown on a slow turn-table, the final shape being somewhat lop-sided. From Radcliffe Square (A.M. 1915.54).

11. Part of shoulder of vessel similar to 10 above, with square sectioned grooves, in somewhat friable harsh ware filled with much small crushed and water-worn pebble; greyish buff core, and dark grey surface layer about 1 mm. thick. Layer (6).

12. Small piece of simple undecorated rim flange in harsh sandy ware containing some crushed flint, with grey core and buff surface layer. Layer (2)-(3).

13. Rim of cooking pot of smooth but rather bumpy surfaced shell filled ware ; dark grey uniformly through fracture and on surfaces, with a tendency to flake. Layer @-(3).

14. Part of sharp-angled base of vertical-sided cooking pot type (see Oxoniensia, XIII (1948), 71) in moderately hard shell-filled ware, dark brown to black throughout, with shell dissolved out on interior surface to give a fine corky appearance. Layer (\$).

15. Part of thick cooking pot base, of lumpy shell-filled ware containing some rounded pebbles as much as 5 mm. across : grey core, grey interior and black exterior surface. Stratigraphically the earliest piece from the site. Layer (D).

16. Rim flange of soft shelly smooth-surfaced ware, with grey core, light red surface layer about 1 mm. thick, though actual surfaces blackish. Layer (5).

17. Rim flange of badly flaking shelly ware with some water-worn pebbles up to 1.5 mm. across ; grey core and light red surface layer ; exterior surface somewhat blackened. Layer (5).

18. Rim flange of fairly fine shell-filled ware, with a few water-worn pebbles up to 1.5 mm. across, dark grey core and surfaces. Layer (6).

19. Rim of flaking rather friable shell-filled ware, as 18 only softer and with some pebbles up to 3 mm. across : grey core, and light red surface layer 1 mm. thick, blackened on actual surface. Slanting incised decoration on outside of rim. Layer (6).

20. Simple rim flange of fabric as 9 above, but shell particles a little coarser : all surfaces black. Layer 6.

21. Rim flange of friable ware with grey core and a light red surface layer about 1 mm. thick, dark brown on actual surfaces : filled with numerous crushed and water-worn particles but comparatively little crushed shell : this gives a slightly harsh surface. Lightly incised slanting decoration on outside of rim. Layer .

22. Top part of cooking pot of soft flaking ware filled with crushed shell, with grey core and light red surface layer about 1 mm. thick, which has a tendency to flake off from the grey core, presumably owing to the different physical properties of the red and grey layers. The ferric silicate of the red layer, formed by penetration of air during cooling of the pot after firing, is less fusible than the ferrous silicate of the grey core, and these probably expand differently with changes in temperature, hence tending to break away from each other. This flaking is not uncommon on pottery from this site (e.g. 17, 19 above) and other pottery of the period in Oxford. Layer (6).

23. Rim flange in fairly hard rather sandy ware containing a little crushed shell, with dark grey core and brown to black slightly harsh surfaces. Decorated with light finger tipping on the top outer edge. Layer (6).

24. Rim flange of rather soft smooth-surfaced shell-filled ware with grey core, light red surface layer 1 mm. thick, and black surfaces. Decorated with light finger-tip impressions on both inner and outer edges of rim. Layer (6).

25. Rim flange of harsh rather coarse fairly hard fired ware filled mainly with crushed flint and pebble; grey core and buff surfaces. Light finger-tip impressions on top edge of rim. Layer @-().

26. Rim flange of fairly hard sandy ware containing a little crushed flint, with grey core and light red surface layers 1 mm. thick ; actual surfaces reddish. Light finger-tip impressions on top edge of rim. Layer (6).

27. Ware as 26, with slightly more knobbled surface. Finger impressions diagonally across top of rim. Layer (5).

28. Rim flange of ware with grey harsh core but smooth light red surface layer : gritted with small stone and crushed flint up to 3 mm. across. Decorated along the top of the rim with light well spaced finger-tip impressions. Layer (5). A similar rim, but grey throughout, came from layer (6).

Fragments of pitchers or cooking pots

29. Shoulder of pot in hard grey ware with fairly fine crushed shell. Decorated with individual stamps in the form of a cross and faintly incised girth lines above. Layer (5).

30. Fragment of individual rosette stamp, the complete pattern consisting of an impressed circle containing probably six dimples round a central one : an unusual stamp. Fairly hard blackish ware with some finely crushed shell. Layer (6).

31. Part of the side of a 'St. Neot's' ware cooking pot, bored for use as a spindle-whorl : a similar example is among the Late Saxon pottery from Fyebridge, Norwich (*Norfolk Archaeology*, xxx (1952), 287-323, fig. 10, no. 11).
32. Shoulder of pot with pronounced flattening below rim, in hard-fired

32. Shoulder of pot with pronounced flattening below rim, in hard-fired pimply-surfaced sandy-grey ware. Layer (5).

33. Shoulder of pot in hard sandy buff surfaced ware with grey core. Layers (2-(3).

34. Body fragment of cooking pot in hard sandy harsh surfaced ware, with grey core, and blackish to brown exterior and black interior surfaces. Decorated with horizontal bands of rouletting made with a toothed wheel, or a comb. (Compares exactly with one from Nuffield College pit I, *Oxoniensia*, XIII (1948), 72, fig. 16, no. 2). Layer (5).

35. Body fragment with rilled outer surface, in friable ware filled with a little shell and crushed flint, with grey core and light red surface layers about 1 mm. thick. Layer 6.

Pitchers

36. Spout of a pitcher in fairly harsh grey sandy ware, with no trace of glaze. The rim impression at the top shows clearly that it touched the rim here, and was not completely free-standing. The top was sliced off square and there are parallel grooves made by drawing a tool across the top. The cutting off square invites comparison with a similarly finished socket for a handle on a bowl from Wedmore, Somerset, which contained 200 Late Saxon coins dating up to 1042 A.D. (Taunton Mus.). From Canal Wharf site, unstratified.

37. Parts of a spouted pitcher in harsh sandy ware containing crushed flint particles up to 4 mm. across : grey core and light red surface layers, flaking on inside. Top of spout sliced off, and this and top of rim decorated by diagonal incised grooves.

Body decorated with individual rosette stamps. From Radcliffe Square (A.M. 1915. 91a, b : previously published, *Oxoniensia*, v (1940), 48, fig. 8, no. 1).

38. Strap handle of a baggy pitcher; in lumpy hard ware with crushed pieces of flint up to 5 mm. across, almost identical with the ware of 37 above; grey core and inner surface, light red outer surface. Decorated with incisions along the top of the rim and edges of handle, and three jabs at the top of handle; traces of scored lines on body. From pit II, Canal Wharf (Nuffield College) site.

39. Shoulder-handle, probably of baggy pitcher; in hard sandy ware, with light grey core and buff surfaces. Decorated on the handle with jabs with a point of square section, and on body with scored lines from a 3-toothed comb with square-ended teeth. From Radcliffe Square (A.M. 1915.91c).

40. Part of shoulder of pitcher in fine hard buff ware, with orange interior surface and fairly thick pale brownish glaze on exterior : this glaze has crackled. Decorated with incised parallel girth grooves. This ware is not so fine nor so hard as the creamy ware of the Canal Wharf piece. The average grain size of the grits in these buff wares is 0.2 mm., though some surprisingly large pieces of stone are occasionally included. Layer (3). PL. VIII, a.

The following glazed sherds also appear in PL. VIII.

(b) Fine pale buff hard ware 3 to 4 mm. thick, with orange exterior surface and streaks of very thin olive glaze on exterior ; two pieces joining. Layer (6).

(c) Two pieces, probably from same pitcher, of fine orange slightly friable ware, 3.5 to 4 mm. thick, with even orange glaze on exterior. One piece has parallel girth grooves spaced about 1 cm. apart. Layers (6) and (2)-(3).

(d) Small piece of hard fine whitish fabric with a light green glaze on the exterior. Layer (5).

41. Major part of a small jug in soft flaking fine shelly ware, with dark grey core and brown to light red surfaces, reminiscent of 'St. Neot's 'ware, but softer. It has no decoration, though the handle has been made by insertion of clay strips into a strap of U-section. There remains part of one foot on the surviving part of the base, and originally there were probably three. From the site at the SE. corner of New Road and Bulwarks Lane, Oxford.

POTTERY OF LATE SAXON TYPES FROM OTHER SITES IN OXFORD (FIG. 35).

42. Large cooking pot roll-rim of smooth 'St. Neot's 'ware with grey core and purple-brown to light red surfaces. From near the site of St. Martin's tower, Carfax, 1896.

43, 44. Roll rims of standard sized 'St. Neot's 'type cooking pots, in black ware flecked with evenly crushed white shell, with surfaces blackish varying through purple-brown to light red. 43, from Lincoln Hall, Turl Street, 1938 (Oxoniensia, IV (1939), 198). 44, from Oriel Second Quadrangle, 1941 (Oxoniensia, VI (1941), 90; Oriel Record, Jan. 1942).

45. Part of shoulder of 'St. Neot's 'type cooking pot, in hard fine ware filled with fine evenly crushed shell; grey core and exterior, light red interior surface. The pronounced interior rilling shows that it has been made on a fairly fast wheel. From All Souls, Cloister Quadrangle, 1941 (Oxoniensia, VI (1941), 89).

46. Lower part of body of 'St. Neot's ' type cooking pot, in medium hard shelly ware with grey core and fairly smooth purple-brown surfaces. Again pronounced internal rilling. From Oriel Second Quadrangle, as 44.

47. Roll rim of 'St. Neot's 'ware and purple-brown to light red surfaces, from York Place, St. Clement's (*Oxoniensia*, x (1945), 97).

48. Lower part of 'St. Neot's' type cooking pot, with pronounced internal rilling and some knife trimming round outside of base angle : the base survives complete, and shows the shape beyond all doubt. From Logic Lane (A.M. 1936.43 : *Oxoniensia*, v (1940), 48, fig. 8, no. 6).

49. Upper part of pot with simple rim flange, in smooth rather soft shelly ware, with signs of hand working inside ; grey core, blackened outer surface, and light red interior. From 24 feet deep on site of new buildings of Jesus College, Ship Street, 1906. From this site are also some body fragments of typical 'St. Neot's 'cooking pots with marked internal rilling.

50. Upper part of cooking pot in shelly ware slightly coarser than 'St. Neot's', blackish core and purple-brown surfaces. The form of this vessel, with clubbed rim, may be compared with one from the pits under the castle mound at Northampton. From the site at the SE. corner of New Road and Bulwarks Lane, 1931 (as 41).

51. Rim of small bowl of blackish 'St. Neot's ' ware and form. Same site as 41 and 50.

52. Rim of small bowl of 'St. Neot's 'ware and form, with grey core and light red surfaces. From the Bodleian Quadrangle, 1941 (*Oxoniensia*, VIII-IX (1943-4), 202). Some body fragments of similar ware also come from this site.

53. Much of the rim and outer part of the base of a large shallow dish with slightly inturned rim; pimply slightly friable ware containing some crushed shell; double grey core and light red to brownish-black surfaces, similar to ware of 20. From All Souls, Cloister Quadrangle, 1941, as 45.

54. Small pottery lamp of spike type, of hard dark grey ware with crushed shell and some crushed flint; some brown patches on surface. For type, compare *Oxoniensia*, xv (1950), 58-9. From Oriel Second Quadrangle.

55. Large squat pedestal type lamp, of dark shell-filled ware, with much carbonized matter on interior. From St. Mary's Entry (*Oxoniensia*, xv (1950), 59, fig. 21, no. 3).

56. Lamp of squat type of rather uneven shelly black ware, with reddish outer surface, and much carbonized matter on interior. From lower floors at Deddington Castle (probably eleventh century).

57. Lamp of tall pedestal type, of close-textured blackish shell-filled ware, fairly hard. From site of Town Hall (*Oxoniensia*, xv (1950), 59, fig. 21, no. 2).

CRUCIBLES FROM THE OXFORD CASTLE MOUND AND ELSEWHERE (FIG. 37)

58. Part of rim of crucible, very hard fired and close-textured, almost like a stone-ware; grey with brown outer surface. From deposits under Oxford castle mound, layer (9-10).

59. Thick unused crucible in buff to grey clayey ware, with chopped straw marks on surface and *in* fracture, showing that the clay had been truly grass-tempered, and not merely placed on chopped straw to dry. From site of Angel Inn (A.M. 1886.1676).

60. Complete crucible of harsh sandy grey ware, used for bronze until rendered useless by the penetration of a hole under furnace conditions. Badly twisted and covered with slag. Found at a depth of 16 feet close to Radcliffe Camera steps (but stoneware was found as deep as 12 feet). (A.M. 1912.30).

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61. Crucible of harsh very brittle grey ware, very much used for bronze, and covered with slag of all shades from red to green ; walls not penetrated, however, as in 60. From Angel Inn site, as 59 (A.M. 1886.1679).

62. Crucible of grey brittle harsh ware, much used for bronze. From excavations for Marks and Spencer's, 18-20 Cornmarket (A.M. 1935.12). (Two glazed pitchers were found at the same time, but there is no record of association with the crucibles.)

63. Small crucible, unused, of bright orange-buff harsh surfaced uneven ware. From site of Angel Inn, as 59 (A.M. 1886.1679).

64. Large crucible, unused, of hard fairly fine pale buff fabric, lightly gritty, with signs of finger working after turning on turntable ; carefully made lip : three spots of pale yellow glaze on outside. From St. Michael's Church, Cornmarket, 1906 (A.M. 1896-1908, M9).

APPENDIX I

DISTRIBUTION MAP (FIG. 39) SHOWING EVIDENCE OF INHABITED AREAS IN LATE SAXON OXFORD AND SUMMARY LIST OF LATE SAXON FINDS.

In FIG. 39 all the evidence of occupation, both archaeological and documentary, which can be precisely located, has been mapped. The archaeological evidence consists mainly of pottery of Late Saxon types, particularly 'St. Neot's ' wares and their close derivatives. There is a little metal work, such as spurs and keys, and some carved stones of the period, probably tomb-slabs. It is remarkable that the four coins from Carfax, one of Edward the Elder (899-925), and three of Aethelstan (925-939) appear to be the only coins of the period recorded from Oxford, except one of Offia from the site of the Martyrs' Memorial.²⁵

The documentary evidence is less, but each property which can be identified naturally carries great weight. Of all the 225 mansiones murales of the Domesday Survey of the City, only five can now be precisely located. To these may be added the property (Drapery Hall, now no. 16 Cornmarket) given by Aethelwin to Abingdon Abbey in 1034.

The churches have been included, based upon the evidence of Dr. H. E. Salter (*Medieval Oxford* (1936), 113-18). Only two are recorded with certainty before 1066 —St. Frideswide (*Oxoniensia*, I (1936), 105-6) and St. Martin at Carfax (1034; *Chron. Abingdon*, I, 439), and St. Michael at Northgate has a tower probably of the first half of the eleventh century. Five churches are mentioned or implied in Domesday—St. Frideswide and St. Michael, already mentioned, St. Mary-the-Virgin, St. Peter-in-the-East and St. Ebbe, and the implication of the record is that these already existed in 1066. St. George in the Castle was founded in 1074 and to it then was given St. Mary Magdalen, outside the Northgate. Six further churches

²⁵ Num. Chron., xx (1920), 74-5. I am grateful to Mr. J. D. A. Thompson for bringing the facts about this coin to my attention. It is a silver penny of Archbishop Jaenbert of Canterbury striking under Offa of Mercia (766-790), of a type noted by G. C. Brooke (*English Coins* (2nd ed. 1942), p. 19, no. 2) obv : +IAENBERHT 7REP in 3 lines. Rev. : OFFA REX between limbs of cross. Weight 18-8 grains : somewhat worn. This was found in digging the foundations of the Martyrs' Memorial in the 1840's ; it was first owned by Captain Murchison and then in 1886 passed to Mr. Rashleigh, and finally to the R. C. Lockett collection (now immobilized in the vaults of a London bank).



FIG. 39. DISTRIBUTION-MAP SHOWING EVIDENCE OF INHABITED AREAS IN LATE SAXON OXFORD (pp. 106-110)

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are mentioned in the confirmation by Pope Honorius (1124-30) of Henry I's refoundation charter to St. Frideswide's (the original does not survive). St. Clement suggests a pre-Norman dedication under Scandinavian influence. St. Giles seems to have been founded during the 1130's.

The significance of this map will be discussed in the forthcoming Dark-age Britain: studies presented to E. T. Leeds). All the evidence of Saxon occupation is concentrated within the area enclosed by the medieval walls, and distributed fairly evenly over that area. But as the evidence refers almost exclusively to the eleventh century, that cannot be used as an argument against any earlier core to the town. with extension of the enclosed area say before the beginning of the eleventh century. The stone walls (thirteenth century) can be shown to have been preceded by an earthen bank in the twelfth century and probably before, though there is no evidence of this surviving. It is at present completely uncertain what was the shape of the Saxon boundary on the west of the town. Apart from the hint of an eastern suburb across the Cherwell (the east bridge existed by 1004) there is no evidence so far of any late Saxon occupation on the gravel terraces outside the walls. It is still impossible to say where were the 'houses outside the wall' recorded in Domesday (this is argued in my paper in Dark-age Britain).

The significance of the Late Saxon material has been emphasized by mapping all those sites outside the walled area which have produced twelfth century pottery and evidence of habitations. These are numerous, especially to the north, and a northern suburb can be traced growing during the twelfth century and extending as far as St. Giles.

INDEX OF SITES AND FINDS

HABITATION-SITES AND ISOLATED POTTERY

- 1. Pits sealed under castle mound, pre-1071 (this paper).
- Two pits on Canal Wharf site, on direct line of extrapolation of city wall SW. of the north end of 2. Bulwarks Lane (Oxoniensia, XIII (1948), 70-2; this paper, no. 38 and FIG. 38A).
- Canal Wharf; pottery of late Saxon types from the primary silt of the castle ditch, in section cut by K. Marshall, 1951 (to be published in a forthcoming *Oxoniensia*; this paper, nos. 8, 36). Bulwarks Lane; pottery from the SE. corner of New Road and Bulwarks Lane, 1931. (A.M.; 2.
- 4.
- 5.
- this paper, nos. 41, 50, 51). St. Ebbe's, 36 Church Street ; some fragments of cooking pots of 'St. Neot's 'type came from this site in 1938, collected by Mr. John Daniell (A.M. ; *Oxoniensia*, 111 (1938), 172). Carfax, site of St. Martin's church, 1896 ; pottery of 'St. Neot's 'type (this paper, no. 42) and four Saxon coins were collected from building operations on the old tower here in 1896 (Ash. 6. tour Saxon coins were collected from ounding operations on the oid tower here in 1090 (ASN. Mus. Report, 1896, p. 9). The coins were silver pennies, one of Edward the Elder (899-925) minted at Leicester, and three of Aethelstan (925-939), one minted at Chester and two from unnamed mints. I am grateful to Mr. J. D. A. Thompson for notes on these coins (A.M.). From here also in 1896 came a circular disk decorated with grey and blue champlevé enamel possibly eleventh century (M. Chamot, *English Medieval Enamels* (1930), 24, pl. I, E.). Carfax, SW. corner ; a complete bun-shaped loom-weight of late Saxon type (probably ninth-
- 7. eleventh century) came from building operations here in 1931 (A.M.; Oxoniensia, v (1940), 46).
- Site of new Town Hall, St. Aldate's; a tall pottery lamp came from this site in 1894 (A.M. 1921.210; Oxoniensia, xv (1950), 59, fig. 21, no. 2; this paper, no. 57).
 Jesus College, garden on corner of Ship Street and Turl Street; fragments of pottery found, 1906
- (A.M. ; this paper, no. 49). Lincoln Hall, Turl Street, corner of Turl Street and Market Street ; among the pottery recovered 10. by Mr. E. M. Hawes during foundation digging on this site was a rim and several body fragments of 'St. Neot's ' type cooking pots (A.M.; Oxoniensia, IV (1939), 198 ; this paper, no. 43).

- Bodleian Quadrangle ; among the group of pottery, mostly late medieval, from the digging of the static-water tank here in 1941 were several fragments of 'St. Neot's 'type cooking pots, and a bowl (A.M.; Oxoniensia, VIII-IX (1943-4), 202; this paper, no. 52).
- 10 Radcliffe Square, 1915 : the late Saxon pottery from here consists of a cooking pot and spouted jugs of the type found on Canal Wharf and under the castle mound (this paper, nos. 10, 37, 39).
- 12. St. Mary's Entry, 1894; from this site came a small pedestal-type pottery lamp (A.M.1895.7 Oxoniensia, xv (1950), 59, fig. 21, no. 3; this paper, no. 55). Also from here came a small roundel decorated with champlevé enamel, probably twelfth century (M. Chamot, English Medieval Enamels (1930), 25, pl. 3, B).
- 14. Oriel College Second Quadrangle, 1941; several rims and body sherds of 'St. Neot's ' type cooking pots came from the construction of the static-water tank here (this paper, no. 44, 46, 54; Oriel Record, Jan. 1942, 178; Oxoniensia, VI (1941), 90).
- All Souls, Cloister Quadrangle, 1941; several rims, bases and body sherds, and large part of a 15. shallow dish, found in digging for construction of the static-water tank here (this paper, nos. 45, 53; Oxoniensia, v1 (1941), 89-90).
- Logic Lane ; lower part of a cooking pot of 'St. Neot's' type (A.M.1936.43 ; Oxoniensia, v 16. (1940), 45-8, fig. 8, no. 6; this paper, no. 48).
- Site of the Angel Inn, now the Examination Schools ; from here came the well-known complete 17. glazed pitcher (Oxoniensia, v (1940), 42-4), now known to be of a late Saxon type, and much other material when the new Schools were built in the 1870's (Archaeologia Oxoniensis, 1892-5, 7-14 and pl. facing p. 1, especially no. 1, the base of a lamp; this paper, nos. 59, 61, 63).
- 18.
- New College ; excavations 1949 (Oxoniensia, XVI (1951), 35-8, fig. 15, no. 8). York Place, St. Clement's ; rim and several body fragments of a 'St. Neot's' type cooking pot 10. (Oxoniensia, x (1945), 97; this paper, no. 47).

METAL WORK

- Hythe Bridge ; iron key with pear-shaped handle of late Saxon type. 20.
- Queen Street ; iron spur (tinned), probably eleventh century (A.M.1869.33 ; compare Lond. 21. Mus. Med. Cat. (1940), 98, fig. 29, no. 4).
- 22.
- Butcher's Row, now part of Queen Street; gold ring (Oxford Times, 1907 : then in private hands). St. Aldate's churchyard, opposite Christ Church gate; gold ring in coffin (Brit. Mus.). 23.
- In bank of island in River Cherwell at Magdalen Bridge, 1884 ; two elaborately decorated 24. River Cherwell, under easternmost arch of Magdalen Bridge, 1884; late Dark Age spurs and
- 25. stirrups, shield-boss and spear (Oxoniensia, xv (1950), 31-3).

CARVED STONE WORK

- Opposite Town Hall, 117-18 St. Aldate's ; fragment of a carved tomb-slab, eleventh century 26. (A.M.1938.386 : Oxoniensia, 111 (1938), 172 ; Roy. Comm. Hist. Mons. Oxford (1939), xix, xxx, pl. 9). St. Frideswide's church, now the Cathedral; a late eleventh century tomb-slab is preserved in
- 27. the S. transept (Roy. Comm. Hist. Mons. Oxford (1939), 42, pl. 9).
- Site of New Examination Schools, 1882 ; a carved tomb-slab, eleventh century (A.M.; Roy. 28. Comm. Hist. Mons. Oxford (1939), xix, xxx, pl. 9).

IDENTIFIABLE PROPERTIES

29-33. Identifiable Mansiones Murales (H. E. Salter in Essays presented to James Tait (1933), 299-303). 34. No. 16 Commarket, given to Abingdon Abbey about 1034 (Chron. Abingdon, 1, 440).

CHURCHES

- St. Martin at Carfax. 35.
- 36. St. Frideswide, now the Cathedral.
- St. Michael at Northgate. 37.
- 38. St. Ebbe.
- St. Mary-the-Virgin. 39.
- St. Peter-in-the-East. 40.
- St. George in the Castle. 41.
- 42. St. Mary Magdalen. St. Peter-le-Bailey.
- 43. St. Mildred. 44.

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45. All Saints.

46. St. Edward.

47. St. Aldate.

- 48. St. Michael, outside the Southgate.
- 49. Holy Trinity, originally over the Eastgate.
- 50. St. Clement (moved to its present site from the Plain (junction of Headington and Cowley Roads) in 1828).

51. St. Budoc.

52. St. Giles.

APPENDIX II

ANIMAL BONES FROM DEPOSITS UNDER OXFORD CASTLE MOUND

By MARGARET JOPE

The animal bones from the late Saxon layers consisted entirely of domestic animals. The vast majority were ox, sheep and pig; there were a few domestic fowl bones, two goose humeri, and six shells of edible oyster. There were no deer bones and no remains of fish. This evidence, as far as it goes, suggests that late Saxon Oxford derived its food supplies largely from domestic animals and that hunting, fowling, fishing, contributed little. Cat was represented by one radius from a young animal and one femur was possibly dog.

The sheep bones suggested a more slender breed of animal than the modern and agreed well with specimen bones of Soay sheep. One scapula belonged to a young lamb and one humerus showed osteophytic outgrowth indicating local damage in life. The pig bones also were more slender than the modern and must have represented the long-legged more active breed usual for this period. The domestic fowl bones were small, indicating a smaller breed of bird than the modern. The two goose humeri probably represented domestic goose rather than any of the wild species.

The bones were on the whole well preserved and only a small proportion of them could have been split for extracting marrow.

1. Layers (6) and below : undisturbed late Saxon deposits

Ox—mandible, 6; phalanx, 8; metacarpal, 2; calcaneum, 2; pelvis, 1; teeth, 5; radius, 4; metatarsal, 2; tibia, 3; ulna, 1; femur, 2; caudal vertebrae, 8; humerus, 1; ribs (from animals the size of ox), 7; vertebrae (from animals the size of ox), 12.

Sheep—mandible, 11; metacarpal, 6; tibia, 7; radius, 6; pelvis, 7; scapula, 8 (one very young); metatarsal, 7 (2 cut to prong); upper jaw, 2; phalanx, 6; ulna, 3; calcaneum, 3; femur, 2; humerus, 5 (one osteophytic); horn core, 1; ribs (from animals the size of sheep), 30; vertebrae (from animals the size of sheep), 15.

Pig—metatarsal, 4; pelvis, 1; mandible, 4; upper jaw, 2; phalanx, 1; metacarpal, 1; fibula, 1; femur, 1; ulna, 1; calcaneum, 1; tibia, 1.

Dog (?)—femur, 1.

Cat—radius, I (young animal).

Domestic fourl—tibia, 1; metatarsal, 1; radius, 2; humerus, 2; ulna, 1; vertebra, 1.

Goose-humerus, 1.

Edible oyster—3.

There were also numerous fragments of bone, mostly from animals of the size of sheep or larger, too small for definite identification.

2. Layer (5), late Saxon material, disturbed in building the castle mound

Ox-metacarpal, 1; phalanx, 3; metapodial, 1; radius, 1; teeth, 2; ribs (from animals of the size of ox), 4; vertebrae (from animals of the size of ox), 4.

Sheep—radius, 2; mandible, 2; metatarsal, 1; teeth, 4; tibia, 4; scapula, 3; metacarpal, 2; upper jaw, 2; ulna, 1; humerus, 1; ribs (from animals the size of sheep), 11; vertebrae (from animals the size of sheep), 5.

Pig-radius, 1; fibula, 1; humerus, 1; femur, 1.

Domestic fowl-humerus, 1.

Goose-humerus, 1.

Edible oyster-3.

Numerous bone fragments too small for identification.

3. Medieval filling of mound ditch

Human-proximal end of a medium-sized radius.





CASTLE MOUND, OXFORD A, B. Views of excavations in 1952 in late Saxon levels at the base of the mound, on the south side. Phh.: E. M. Jope OXONIENSIA, VOL. XVII/XVIII (1952-3) JOPE, CASTLE MOUND



B LATE SAXON POTTERY FROM OXFORD (1/2) A. Unglazed pitchers from Radcliffe Sq. (nos. 37 and 39) and Canal Wharf (no. 38) (pp. 103 f.) B. Unglazed cooking pots of St. Neots and other wares from Castle mound (pp. 101 ff.)

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Phh. Ashmolean Museum JOPE, CASTLE MOUND





LATE SAXON POTTERY FROM OXFORD (†) A. Sherds from Castle mound, showing variety of ornament and texture (pp. 101 ff.). No. 58 is from a crucible. B. *a-e*, Lead-glazed sherds from Castle mound and Canal Wharf (pp. 96, 104); *f*, imported red-painted sherd (p. 90 f.).

Phh. Ashmolean Museum JOPE, CASTLE MOUND