Two Romano-British Potters'-Fields near Oxford

By D. B. HARDEN

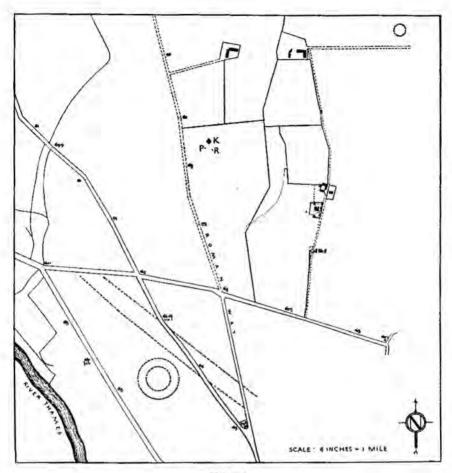
DURING the past year accidental discoveries have led to the location of two hitherto unrecorded potters'-fields of the Romano-British period in the Oxford District. That the industry flourished in Roman times at Headington, Littlemore, and Sandford near Oxford has long been known : we now know that it existed also between Drayton and Burcot in Dorchester parish, and on Rose Hill in Cowley parish. All these potteries were conveniently situated for commercial purposes near the Roman road from Dorchester northwards; some of them, for instance those at Headington and at Dorchester, were only a few hundred yards from that road; others were farther away, but even the farthest, that at Rose Hill, was only two miles from it as the crow flies.

A general account of this industry in Oxfordshire in Roman times will shortly appear in the Victoria County History,¹ in view of which it is particularly apposite that these two finds should have come to light this year, and that a detailed account of them should appear in Oxoniensia.

In regard to the Dorchester site especial gratitude is due to Messrs. John Allen & Sons, and to the foreman and staff of their gravel-pit where the finds were made. Without their ready co-operation, and their keenness to save everything possible from the very teeth of their 'grab'-digger, we should not have been able to record and preserve such a wealth of detail in advance of the gravel-digging. To Major G. W. G. Allen in particular are our thanks due, for he not only kept constant watch, and promptly informed the Ashmolean Museum of each discovery as soon as it was made, but with ready enthusiasm tackled the unenviable task of washing and fitting together the several hundredweight of pottery which came from the rubbish-dump, and also supplied the excellent photographs reproduced on PLATES XVI and XVII.

In regard to Rose Hill, the account here published is based on copious notes supplied by Mr. W. H. C. Frend of Keble College in consultation with Mr. A. H. A. Hogg, M.A., of Cambridge. Such salvage-digging as was possible was carried out by these two gentlemen with the help of members of the Oxford

1 See V.C.H. Oxon., 1.





MAP OF A PORTION OF DORCHESTER PARISH, OXON.

showing approximately the position of the potter's kiln (K, p. 84), the puddling-hole (P, p. 90) and the rubbish-dump (R, p. 93) in John Allen and Sons' gravel-pit.

The ring-ditch excavated by Mr. J. N. L. Myres on Mount Farm (p. 84) is shown in the top right-hand corner; the double ring-ditch described by Mr. O. G. S. Crawford (*Antiquity*, 1, 469) appears in the bottom left-hand corner near the two parallel ditches mentioned by Mr. E. T. Leeds, *Antiquaries Journal*, XIV, 414.

Based on the 6-in. Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

University Archaeological Society, and with the co-operation of the housing contractors, Messrs. Pye Bros., and their staff, during the summer term of 1935.

The plans of both the kilns are the work of Mrs. W. O. Hassall, based on notes and sketches supplied to her; the plans of the Dorchester puddling-hole have been redrawn by Miss Elizabeth Fraser; half of the pot-drawings on FIG. 20 are the work of Mr. Hogg; and the general map of the Dorchester site, which is based, by permission, on the 6 inch O.S., has been surveyed and drawn by Mr. S. G. P. Ward of Christ Church. Mr. Ward also drew the map of the Rose Hill site, which is based on a housing plan kindly supplied by the Engineer's Department of the Oxford City Council. Finally Miss M. V. Taylor and Mr. E. T. Leeds, Keeper of the Ashmolean Museum, have not only assisted in the field-work, but have also given valuable help and criticism during the preparation of this report. To all these the author of the report wishes to express his gratitude.

DORCHESTER

GENERAL DESCRIPTION OF THE SITE AND THE FINDS

The site (FIG. 13) lies in the gravel-pit worked by Messrs. John Allen and Sons to the east of the main Oxford-Dorchester road and a little less than a mile north of Dorchester village. About a quarter of a mile east of the main road the gravel-pit crosses the old N.-S. Roman road from Alchester to Dorchester, and to the east of this line remains of habitation during the Early Iron Age and Romano-British times have been particularly thick in the area already explored by the gravel-diggers. The Early Iron Age finds have been described by E. T. Leeds in the *Antiquaries Journal*, xv (1935), 39 ff., and will be further discussed in *V.C.H. Oxon.* 1. In this paper our only concern is with the Romano-British discoveries, and in particular with three quite recent finds; a pottery kiln, a potter's puddling-hole, and a potter's rubbish-dump.

The kiln lay 160 yards E. of the Roman road, 760 yards E. of the B.M. 169.9 on the main Oxford-Dorchester road and 85 yards S. of the N. boundaryhedge of the gravel-pit. The puddling-hole lay 24 yards SW. of the kiln; and the rubbish-dump lay S. of the kiln and about 10 yards ESE. of the puddling-hole. They thus formed a circumscribed group of finds, and their presence indicates that the site was the emplacement of a considerable pottery-factory; almost certainly, more extensive excavation would produce further finds of kilns and the like.¹ Pottery-making must have been in progress

¹ This prophecy has turned out to be true. On September 13, 1936, when this article was already in proof, a second kiln, roughly identical with the first, but less well preserved, was discovered about 16 yards NE. of it. This had been used, like the first (p. 89), for making red colour-coated ware and the two must have been roughly contemporary.

on the site from at least the second century to the fourth or early fifth century A.D. The puddling-hole (see p. 92) is to be dated to the second or early third century; the rubbish-dump contained fragments of ware belonging to the second, third, and fourth centuries (see p. 93); and the kiln was used for making red colour-coated ware of the latest Roman period (see p. 89). Apart from the main rubbish-dump, smaller rubbish-pits and habitation-pits must have existed in the circumscribed area near the kiln and puddling-hole, for almost daily the workmen produced collections of potsherds that had been turned up by the 'grab'-digger. Though this pottery was predominantly Romano-British in date, it also included a certain amount of Iron Age ware, and even one fragment of a Bronze Age pot with impressed pattern. The main centre of habitation in the Early Iron Age, however,-the site described in the Antiquaries Journal (l.c.)-was 70-100 yards SSE. of the kiln; and this latter area, as Mr. Leeds remarks (I.c.), also produced considerable signs of Romano-British occupation in its upper layers. In a word, both areas were perhaps occupied in unbroken continuity by a community of native Britons from the late Bronze Age to the end of the Romano-British period, and this community, in its later years, turned its favourable position beside a Roman arterial road to good use by manufacturing pottery on a commercial scale with which to replenish the stocks of travelling caravans.

It is worth noting that scarcely half a mile ENE. of our kiln a similar settlement-site has recently been excavated by Mr. J. N. L. Myres on Mount Farm, Dorchester.¹ Near a ring-ditch which was perhaps Bronze Age in date (see FIG. 13 top right-hand corner, where the ring-ditch is dotted in), Mr. Myres found a conglomeration of pits and ditches, some of the early Iron Age and some belonging to the Romano-British period, so that the Mount Farm site, like the present one, was occupied in apparent continuity during those periods.

THE KILN² (PLATE XVI, FIG. 14)

All the upper part of the kiln had perished long ago, having been above ground level. Only the footings of the exterior walls of the pot-chamber remained, the top of the extant portion being a little over one foot below modern surface. Most of the floor of the pot-chamber had also gone, having caved in

¹ See Antiquity, VII, 486. It is hoped to publish a fuller account of this excavation in a future number of Oxoniensia.

² The discovery of the kiln was reported by Major Allen to the Ashmolean Museum at the beginning of April, 1936, and its excavation was completed by Mr. Leeds and the writer on April 4th and 6th.

On Romano-British pottery kilns in general, see W. F. Grimes, Holt, Denbighshire (Y Cymmrodor XLI (1930)), pp. 53 ff., who gives a reasoned classification and a full list and bibliography of those found prior to 1930. The Dorchester and Rose Hill (see p. 94) examples both belong to Grimes' class A 1 1-Round or oval up-draught kilns with the oven supported on a central tongue.

owing to the weight of the superincumbent earth and débris. All that was left was a few inches at the edge clinging to the side walls of the furnace-chamber, and about eleven inches at the back, which were *in situ*, supported by the partition wall of the furnace-chamber. The furnace-chamber was well preserved,

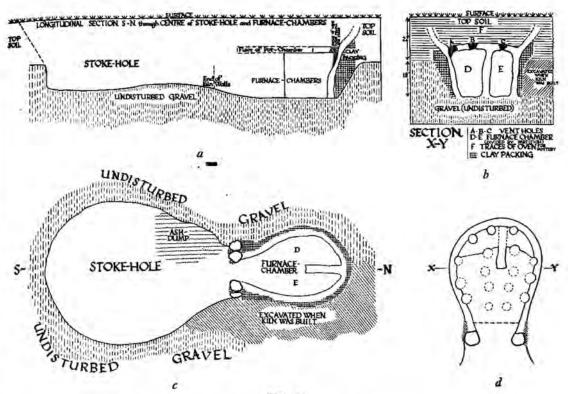


FIG. 14

THE POTTER'S KILN, DORCHESTER, OXON.

a. Longitudinal section s-N through stoke-hole and furnace-chamber.

- b. Cross section x-y through furnace-chamber.
- c. Ground plan of stoke-hole and furnace-chamber.
- d. Ground plan of pot-chamber.

Scale, 1 inch=4 feet.

except on part of its eastern edge, where it was nipped by the 'grab': the stoke-hole was also intact, though it was found to be only a pit in the gravel, without any trace of special walling or flooring.

The furnace-chamber was filled with débris fallen in from the floor, sides, and roof of the pot-chamber, and mixed with this débris was a quantity of sherds of red colour-coated fabrics. Their presence, however, was certainly accidental, and they cannot have been used as part of the walls of the superstructure, as could be seen from their comparative paucity, and their position amongst the débris.

The Kiln lay N.-S., with the stoke-hole to the S. The total length of the structure was about fourteen feet, the greatest width of the furnace-chamber was four feet and of the stoke-hole, six feet. The top of the furnace-chamber was about fourteen inches and its floor three feet below modern surface. The axes of the furnace-chamber and stoke-hole were not quite in line.

Stoke-hole. This was an oval pit excavated about one foot vertically into the gravel, and measuring, as far as could be ascertained, about eight feet long by about six feet wide. Its face above the gravel level is, in the longitudinal section (FIG. 14 a), conjecturally restored as sloping, but it was, of course, quite obliterated. This stoke-hole differed from that at Rose Hill (p. 96) in having no trace of any stone or rubble walling round its sides. A considerable quantity of charcoal and burnt débris on the western edge of the stoke-hole near the SW. corner of the kiln proper revealed the position of the stoker's ash-dump. There was, as was to be expected owing to the accumulation of ash and débris during stoking, a slight rise in the floor of the stoke-hole just outside the entrance to the furnace-chamber.

Furnace-chamber. The furnace-chamber was divided internally into two portions by a wall built of puddled-clay slabs; this wall, four inches thick, extended about one-third of the way out from the end wall, and served as a necessary support for the floor of the pot-chamber. The floor of the furnacechamber was simply the natural gravel, but it had over it a coating one inch thick of solidified ash and gravel hardened by use to such an extent that it first seemed that some more determined attempt had been made at flooring the chamber. The walls within were reddened by fire, proving that the kiln was an open one for making red ware, and not a smother-kiln like the Rose Hill example, whose walls were grey (see p. 97). The chamber proved to be completely filled with fallen débris, earth, and potsherds. The pottery was not as plentiful as might have been expected (only about 10 or 15 lbs. of sherds occurred—far less than was found in the stoke-hole). The only fabric represented was red colourcoated ware of the fourth or early fifth century A.D., thus confirming the evidence of the reddened walls concerning the variety of pottery made in the kiln.

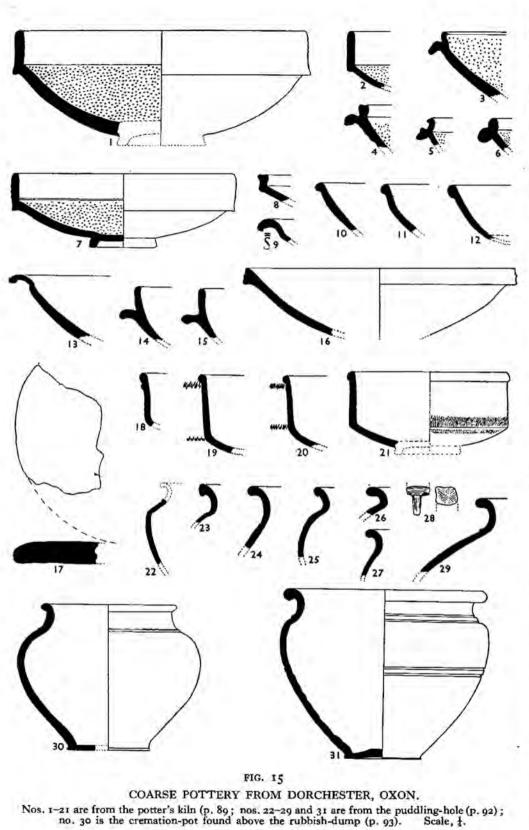
The walls, not only of the furnace-chamber but of the superstructure as well, were built of rectangular, hand-made slabs of puddled clay about two by

three by nine inches, which had been welded together by heat, to form a serviceable wall, averaging three inches thick. They were lined on the interior with a coating of clay about half an inch thick. Towards the bottom of the furnacechamber the walls were almost vertical, but towards the top they sloped out considerably so that the chamber was much wider, and a bit longer at the top than at the bottom. This sloping of the walls with its consequent sloping of the vent-holes round the sides, had the effect of improving the draught. The entrance to the chamber was narrow, about sixteen inches at the top and nine inches at the bottom, and its side-posts were built up of large stones about nine inches in diameter (compare the posts at the entrance to the Rose Hill furnacechamber, FIG. 18). There was no trace of the stone seat in front of the kiln, noticed in several reports of Romano-British kilns.¹ The stone visible at the end of the W. wall in PLATE XVI B, is only the bottom stone of the wall, the higher courses having been removed before the photo was taken.

Round the outside of the walls of this chamber there was a packing of clay which, though originally grey, had been reddened by fire almost throughout. This was never less than two or three inches thick, and in parts, *i.e.*, on the W. side and near the entrance, both on the east and west, was much thicker (FIG. 14c). The kiln had evidently been built up starting from the west side. West of the W. wall the face of the undisturbed gravel was found to slope downwards, being nine inches from the kiln wall at the top, and only two or three inches at the base. East of the E. wall, on the other hand, gravel had been excavated away for a width of at least eighteen inches, suggesting that the builders of the kiln had dug the hole bigger than was really needed in order to have space to work in. This enlargement finished, quite symmetrically, at the long axis of the kiln (FIG. 14c).

Pot-chamber. The floor of the pot-chamber, which was three inches thick, and made of hand-made blocks just like those of the walls, had caved in and fallen into the furnace-chamber, except at the N. end, where it was held up by the central supporting wall. It was therefore impossible to find out the plan of the floor and the total number of vent-holes it possessed. Three holes at the extreme N. end were completely preserved ; traces of three further holes were to be seen on each of the walls of the kiln, and that there were two central rows as well, as marked on the plan (FIG. 14 d), is suggested by the traces of two other holes that were to be seen on the broken edge of the floor to cast and west of the supporting wall. These holes were about four inches in diameter at their narrowest point, and splayed out above and below to six or seven inches. As indicated in the vertical sections (FIG. 14 a, b) the holes round the walls of the kiln

¹ E.g., at Compton, Berks.; see W. E. Harris in Berks. Arch. Journ., XXXX (1935), 93-5, describing a kiln similar to the present one both in date and in details of construction.



had concave sides running up the walls in order to create a better draught, and to pull the heat inwards into the centre of the pot-chamber when it rose above the holes.

It was not possible to tell exactly where the front edge of the floor of the chamber was, but the dotted lines on the plan(FIG. 14 d), indicate its approximate position. It cannot have been much farther advanced than the most southerly vent-holes, otherwise the furnace-chamber would have been too deep and narrow for ease of stoking.

The sides of the pot-chamber were almost completely destroyed. There was, however, enough left in parts to indicate that the inward bend in the walls did not begin for some inches at least above the floor of the chamber. Owing to the quantity of débris of hand-made bricks found in the furnace-chamber, it was assumed that not only the floor of the pot-chamber, but its walls as well, were made of that material. Its roof may have been of wattle-and-daub, for many fragments of daub were found mingled with the débris of hand-made bricks.

The pottery. Only a few words are needed in explanation of the sherds found in the kiln and stoke-hole, illustrated in FIG 15, nos. 1-21. The pottery is essentially homogeneous, and it all belongs to the red colour-coated ware so typical of fourth and early fifth century sites in the Oxford district. It has, therefore, been considered unnecessary to differentiate between the pieces found in the kiln proper and those found in the stoke-hole. A more exact dating of the kiln, in the absence of finds of greater chronological value, such as coins, is not possible. Some of the sherds, e.g. no. 3, are from unfinished pieces which have not been coated with colour; others, e.g. no. 9, are overfired to a grey tinge; all are either stray wasters, kiln-supports, or sherds used for packing.

The types may be classified as follows :--

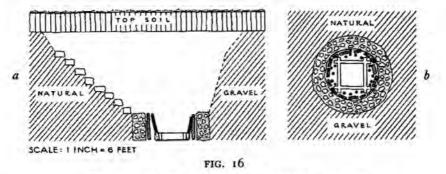
- I. Nos. 1, 2, and 7 : straight-sided mortaria.
- II. Nos. 3-6: flanged mortaria.
- III. No. 8 : a shallow bowl of somewhat unusual form ; cf. Archaeologia, LXXII, fig. 1, 5 (Sandford) and Richborough II, pl. XXXII, 174.
- IV. Nos. 9 and 13: bowls with flanged rims.
- V. Nos. 10-12 : bowls with beaded rims.
- VI. Nos. 14-15: bowls with flanges below the rim.
- VII. No. 16 : a shallow bowl with moulded rim of a somewhat unusual form to which parallels are not forthcoming.
- VIII. Nos. 18-21 : straight-sided bowls with beaded rims.

All these types, with the exception of nos. III and VII are exceedingly common on late Roman sites in southern England, and it is superfluous to cite parallels.

No. 17 is a fragment of a circular tray of hand-made buff clay, apparently used as a pot-support in the kiln. Fragments of similar trays were found in the Rose Hill kiln-dumps (see p. 99).

THE PUDDLING-HOLE¹ (PLATE XVII, FIG. 16)

The approach to the hole, from the surface, was destroyed by the 'grab' before it was realised that anything of archaeological importance lay beneath. It appeared, however, from what the workmen told us, to have been of a somewhat makeshift type, consisting of a series of steps cut in the gravel on the south side of the hole, and supported and strengthened by stones about six or nine inches square laid flat upon them (FIG. 16a). On this south side the slope



THE PUDDLING-HOLE, DORCHESTER, OXON. a. Vertical section, s-N.

b. Ground plan at the bottom of the hole.

of the pit was about 45°, on the other three sides it was somewhat steeper. The diameter of the pit at the top of the gravel (eighteen inches below the modern surface) was fourteen feet, and at the bottom six feet : its total depth to waterlevel was ten feet. It must be understood that, owing to circumstances, accurate measurements were not obtainable.

The construction at the bottom, which was admirably preserved, consisted of a wooden framework within a rough wall of loosely-packed stones and rubble about two feet high. It is easiest to describe it in the order in which it must have been built. After the pit had been excavated to a diameter of six and a half feet at water-level, the wall of loose stones and rubble, one foot thick, was built up to a height of two feet, and the interstices between it and the gravel

¹ The discovery of the puddling-hole was reported by Major Allen to the Ashmolean Museum on January 30th, 1936, and its excavation was forthwith undertaken by members of the O.U.A.S. under the direction of Mr. E. T. Leeds,

nacked with clay and smaller rubbish : in this packing numerous potsherds, including many Samian, were found. This supporting wall effectively prevented the face of the gravel, which at this depth must have been cut vertically or nearly so, from caving in. The internal diameter of this circular wall was about four feet, and this space just left room for the square framework laid horizontally (PLATE XVII B) which formed the basis of the wooden portion of the construction. This frame was made of four logs joined together by half-mortise joints with projections just like those of the old 'Oxford' picture-frames.1 Each log was $2\frac{3}{4}$ feet long by 4 inches wide by 3 inches high, the projections were each 3 inches, and each side of the frame measured 2 feet internally. Between the supporting wall and this framework was a lining of vertical staves (PLATE XVII A), about 4 inches by 11 inches by 2 feet high, themselves supported by round stakes standing upright at intervals between them and the horizontal frame. Between the lining and the supporting wall was more clay packing mixed with sherds. Although much of the woodwork, especially the horizontal framework, was remarkably well preserved, many of the staves and supporting stakes had perished, and others had fallen out of position, so that it was not possible to obtain an exact plan of their original lay-out; enough, however, was preserved to make the tentative ground plan (FIG. 16 b) at the base of the hole reasonably accurate. Some parts of this wooden framework must have been held together by iron nails, one of which was found (FIG. 15, no. 28) though it had unfortunately fallen out of its original position. The filling within the wooden framework consisted of a conglomerate of gravel and grey clay which had in parts become exceedingly hard; mixed with it were large stones, which had presumably fallen from the supporting wall, and a few sherds (all Samian), snail-shells, and animal bones. When this conglomerate had been removed a floor of undisturbed gravel hardly, if at all, concave, was disclosed at the level of the bottom of the horizontal frame-work.

It only remains to hazard an explanation of the use to which this hole was put, and of the date of its construction. There is no reason to assume that the water-level has changed appreciably here since Roman times; if any change has occurred it is probably in the nature of a rise rather than of a fall, owing to the construction of locks and weirs on the rivers. We cannot therefore call the hole a well, despite the Richborough analogy for the framework, for it can never have had more than a few inches of water in it. It seems more likely to have been a puddling-hole used by potters for mixing their clay, as Major Allen was the first to suggest, as soon as the discovery of the near-by kiln proved the site to have been a pottery-works.

¹ For a similar framework found 34 feet below the surface at the bottom of a well at Richborough, see Bushe-Fox, *Richborough* 1 (Res. Rept. Soc. Antiq., VI), p. 22, pl. xi.

The Samian pottery found by us in and around the lining and supporting wall is consistently of the second century, and this must have been the date at which the hole was in use. The few later sherds noted below (e.g. the imitation Samian mortaria and bowls) were all handed to us by the workmen, and may well have come from the upper filling of the hole. The interest of this conclusion lies in the fact that it supports the evidence of the rubbish-dump (p. 93) that pottery-making was in progress on this site from the second century onwards, and not only during the later part of the Roman occupation to which the only kiln that has so far been found belonged (p. 89).

The following is a brief list of the more important pieces of pottery discovered :

I. In and around the lining and supporting wall.

Fragment of an imbrex roofing-tile.

Fragments of at least 2 Samian bowls, Dr. 18/31.

Fragment of a Samian base, (?) Dr. 27.

Numerous other Samian fragments, indeterminate in shape. Fragment of base, grey ware, burnished outside.

II. From the fill, exact position uncertain.

do.

A. Second century ware

Fragments of several	Samian	bowls,	Dr. 31.	
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do.	do.	Dr. 33.
do.	do.	Dr. 35/36

Fragment of 1 Samian bowl, Dr. 37.

do. Dr. 79.

Fragmentary olla, hard grey ware, encrusted with light brown lime deposit (FIG. 15, no. 31). Round the neck of this pot were traces of what may have been a leather thong.

Rim of burnished black olla, softish native ware (FIG. 15, no. 23). Carinated shoulder of a similar olla (FIG. 15, no. 22).

4 rim-fragments of ollae, hard grey native ware (FIG. 15, nos. 24-7). Rim-fragment of olla, hard whitish native ware (FIG. 15, no. 29).

B. Later ware

Fragment of mortarium, imitation Samian.

2 rim-fragments of bowls, do.

2 base-rings of bowls, do.

Fragment of mortarium, white ware, colour-coated.

Fragment of large and heavy coarse storage jar.

Fragment of rim and side of bowl of burnished black ware, sides vertical.

THE RUBBISH-DUMP

During the winter of 1935-6 Major Allen reported that the 'grab '-digger had unearthed a pot containing a cremation-burial, which was discovered at a depth of a few feet from the surface. The pot (FIG. 15, no. 30), when found, was intact, and lay bottom upwards in the earth : it has now been restored and put on exhibition in the Ashmolean Museum. Further work by the 'grab' disclosed the fact that this pot apparently lay in the topmost layer of a large pit, about ten feet deep and ten feet in diameter at the top, containing a quantity of potsherds and not a few tolerably complete, though badly broken pots. Amongst the fragments were considerable numbers of kiln-wasters, chiefly of grey, smother-kiln ware. Owing to the time of year and other causes, it was not feasible to excavate the pit scientifically in advance of the 'grab'-digger, but the workmen were instructed to collect such pottery as they could and the success of their efforts can be judged by the fact that they handed over, within a few days, several hundredweight of potsherds to Major Allen. The latter, in his turn, washed the whole consignment, and with great care and diligence pieced together some dozen or more pots, chiefly ollae of grey ware, before handing the material over as a gift to the Ashmolean Museum. The result is that the Museum has now placed on exhibition some fifteen of the completer pots, and has besides, in store, several box-loads of more fragmentary examples.

It is hoped that, at some future date, a fuller description of this important material will be published in the pages of Oxoniensia. It must here suffice to say that the group, though predominantly consisting of grey smother-kiln ware, both hard and soft in texture, contains also a certain amount of wasters of other fabrics, red, white, brown and the like, as well as some Samian and fragments of Castor ware. In date the types are spread out over the period from the second to the fourth century A.D.

The cremation-pot (FIG. 15, no. 30) is of softish grey ware, and has the tall high-shouldered body and constricted neck which are so typical of Romano-British pottery of the first and early second centuries A.D.¹ What are we to say of its appearance in the top layer of a rubbish-pit containing pottery of the second to the fourth century A.D.? The most probable explanation is that the workmen's observation was not quite exact and that the cremation-pot lay slightly to one side of the pit, and was not disturbed when the pit was dug. That it should have been buried upside down, though peculiar, might possibly be paralleled in Roman times, and such a position is quite frequent for Bronze

¹ Many examples could be cited ; it will suffice to refer to Bushe-Fox, Wroxeter 1 (Res. Rept. Soc. Antiq., 1), p. 75, no. 37, fig. 18 (80-120 A.D.); and *id.*, Richborough 1 (Res. Rept. Soc. Antiq. V1), p. 94, no. 16, pl. xxv and p. 101, no. 82, pl. xxvii (both Claudian). It should be remarked that the present example, when found, had a large hole, one inch in diameter, in the centre of the base.

Age cremation-urns.¹ It cannot surely have been that the pot was disturbed when the rubbish-pit was dug, and afterwards carefully reburied, for it should in that case have lain at the bottom and not at the top of the pit.

ROSE HILL, COWLEY

GENERAL DESCRIPTION OF THE SITE AND THE FINDS

The site (FIG. 17), lies behind the old Allied Arms² public house to the W. of the road from Oxford to Littlemore on the top of rising ground called Rose Hill, and is just inside the W. boundary of Cowley parish. The finds, which consisted of a potter's kiln and various habitation-pits, hut-floors, and ditches, came to light in 1935 during the building by Messrs. Pye Bros. of a new housing estate, comprising Courtland, Annesley, Ellesmere and other neighbouring Roads. Owing to the building operations it was unfortunately not possible to do more than salvage work in connexion with the chief discoveries, and in particular any attempt to excavate the whole or even a portion of the site in advance of the builders' trenches was for more than one reason ruled out. Chief credit for the recording of the site must go to Mr. A. H. A. Hogg, M.A., of Cambridge, who not only advised members of the O.U. Archaeological Society about the discovery, but directed them in their subsequent exploration of the finds.

THE KILN³ (FIG. 18)

Apart from some destruction to its central portion wrought by a sewertrench, the kiln was as well and as completely preserved as the Dorchester example (p. 84). The pot-chamber had perished, but the substructures were tolerably intact. The kiln lay across Annesley Road, E.-W., with the stokehole to the W., some 60 yards S. of its junction with Ellesmere Road. It was smaller than the Dorchester kiln, the total length being eleven feet eight inches,

¹ See, for example, B.M. Guide to the Antiquities of the Bronze Age, p. 96, fig. 100; Abercromby, Bronze Age Pottery, 11, 82.

² This was formerly called the King of Prussia, but during the late war its name, not unnaturally, underwent a transformation. Until 1936 the house stood at the top of Rose Hill; but in that year, when the main high road was straightened and widened, it became necessary to move the licence to a new house some 25 yards or so farther south.

³ The kiln was found during the early summer of 1935, in laying the main sewer down the centre of what is now called Annesley Road. The sewer-trench cut through the front of the furnace-chamber obliquely (FIG. 18). By courtesy of the contractors, Messrs. Pye Bros., members of the O.U.A.S. were enabled to excavate and record what remained.

Amongst about 1 cwt. of Romano-British pottery collected for the O.U.A.S. by a workman on the site during the Long Vacation of 1935, there was a disproportionately great amount of white ware—jugs with so-called screw-necks, bowls with flanged rims, ollae, and mortaria—as well as a few white-ware wasters, and some daub reddened by fire, so that it is probable that a second kiln, for light-coloured wares, also existed at Rose Hill ; but its emplacement was not found.

and the width both of the furnace-chamber and stoke-hole four feet. The top of the furnace-chamber was one foot and its floor three feet below the modern

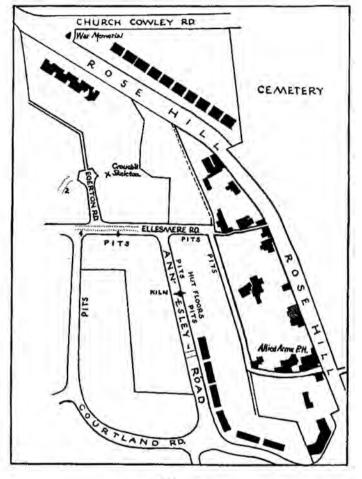
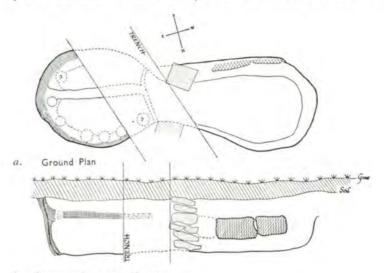


FIG. 17

MAP OF A PORTION OF COWLEY PARISH, OXFORD showing the position of the potter's kiln and habitation-site at Rose Hill. Scale, 16 inches = 1 mile. Based on the 25-in. Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

surface. The axes of the stoke-hole and furnace chamber were, as at Dorchester, not quite in line.

Stoke-hole. This was much smaller than its Dorchester counterpart, being an oval six by four feet instead of eight by six feet. Its floor, which was slightly concave, was of hardened gravelly sand, with traces of charcoal mixed with it. Over the floor was a layer of blackened soil, six inches thick, containing, especially near the sides of the hole, much broken pottery and wasters, contemporary with the kiln. Above this layer the stoke-hole was filled with pottery



b. Composite Longitudinal Section

FIG. 18

THE POTTER'S KILN, ROSE HILL, COWLEY, OXFORD.

a. Horizontal plan at level of top of furnace-chamber.

b. Composite longitudinal section.

Scale, 1 inch=4 feet.

and débris of the fourth or early fifth century A.D. (colour-coated wares, imitation Samian, and the like), suggesting that after the disuse of the kiln the hole at some later time was used as a rubbish-dump.

This stoke-hole, unlike that at Dorchester, had walls which were built of rubble; possibly some of the wasters found near the walls had been used for strengthening them. The rise in the floor level of the stoke-hole as it approached the furnace-chamber that was noticed at Dorchester also occurred here, though the sewer-trench had largely destroyed its traces.

Furnace-chamber. This was identical in shape and pattern with that of the Dorchester kiln, and needs no special description therefore. It only

PLATE XVI



A. View looking South.



B. View looking North.

THE POTTER'S KILN, DORCHESTER, OXON. Pkh. Major G. W. G. Allen.

PLATE XVII



A. The lining of vertical staves in position at the bottom of the hole. *Ph. Major G. W. G. Allen.*



B. The square framework and some of the vertical stakes in position, the staves shown in A having been removed.

Ph. Capt. C. Musgrave,

THE PUDDLING-HOLE, DORCHESTER, OXON.

differed from the Dorchester one in that its walls were built, not of hand-made bricks, but of puddled clay, plastered up, cement-like, *in situ*, and strengthened and bound together with wasters. Owing, however, to the impossibility of destroying the newly-made road and clearing the kiln completely, it was not possible to obtain full details of the construction of the walls of this chamber, especially on the exterior. All that could be ascertained was that the downward taper of the walls that occurred at Dorchester was also in evidence here ; this was, in fact, the regular method of producing draught in Roman kilns of this type. It should be remarked also that the walls were uniformly grey both outside and in, a fact which confirmed the evidence of the wasters that the kiln was of the 'smother 'type and used exclusively for making grey wares. At Dorchester the inside of the walls was reddened by fire. The floor of the chamber was of clay resting on bed-rock, and red-baked and hardened by the furnace-fire. The fill of the chamber contained mostly débris from the superstructure, mingled with earth and general rubbish.

Pot-chamber. The floor of the pot-chamber was even less well preserved than its fellow at Dorchester, presumably because, being made *in situ* of plastered clay like the furnace-chamber walls, it was more fragile. Only a small portion at the very back, with one complete vent-hole, was still standing. Traces of other vent-holes, however, round the walls of the furnace-chamber, suggested that their plan was much the same as at Dorchester. The vent-holes were four to five inches in diameter at their narrowest point. The rest of the pot-chamber was completely destroyed. Fragments of daub, and fragments of hardened blue clay with impressed reed-marks, suggested that its walls had been of blue clay over a reed frame, and that its roof was of wattle-and-daub : but the evidence was not absolute. Traces of the footings of a central partition-wall to support the roof were seen along a line corresponding to that of the partitionwall of the furnace-chamber.

The Pottery. The pottery found in and around the furnace-chamber and stoke-hole was mostly extremely fragmentary. Two groups are to be distinguished and specimens typical of each have been illustrated (FIG. 19, nos. 1-11 and 12-19).

1. Fragments of grey ware made in the kiln ; these were found in the furnacechamber or in the lower filling of the stoke-hole. Very few pieces of value for dating purposes were found, but the general impression left by the group as a whole is that the kiln must have been in use during part of the second or less probably of the third century A.D. Fragments of five ollae (nos. 1-5), three bowls (nos. 6-8), and two mortaria (nos. 9-10) are figured as well as a considerable fragment of a thumb-indented beaker (no. 11), all of hard grey smotherkiln ware.

2. Fragments of various wares found in the upper part of the filling of the stoke-hole. Nos. 12-14 are of red colour-coated imitation Samian, no. 14 having in addition a decoration of white scrolls; no. 15 is of white colour-coated ware, tricked out with brown paint on the rim; nos. 16-17 are of white

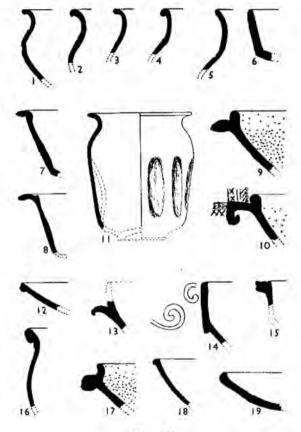


FIG. 19

COARSE POTTERY FROM THE KILN AT ROSE HILL, COWLEY, OXFORD.

Nos. 1-11. Grey ware made in the kiln. Nos. 12-19. Various wares from the upper fill of the stoke-hole. Scale, $\frac{1}{4}$.

ware; no. 18 is micaceous grey ware; and no. 19 is of uncoated light brown ware. All these fragments as well as many others not illustrated can be readily dated to the fourth or early fifth century A.D. by form or technique or both, and

it seems therefore, as if the stoke-hole was employed as a rubbish-dump by later dwellers on the site after the kiln had fallen into disuse.

THE HABITATION-SITE¹ (FIG. 17)

Apart from the actual kiln, there was much evidence of Romano-British habitation in the area covered by the houses of Annesley and Ellesmere Roads, and there was also found one sherd of Early Iron Age ware of Glastonbury type with spiraliform decoration (to be figured in V.C.H. Oxon. 1) as well as a few other rims and sherds (e.g. FIG. 20, no. 1), of hand-made ware indicative of occupation during the transition period between the Early Iron Age and Romano-British times.

The centre of occupation was apparently a rectangular area about 140 yards from N. to S., and at least as much from E. to W., lying across the northern half of Annesley Road. It was bounded on the N. and S., and possibly on the E. and W. also, by ditches of considerable breadth and depth. Such vestiges of these ditches as were found are indicated by dotted lines on the sketch-map (FIG. 17).

Within this area several groups of occupation-pits came to light during building operations. The main group, from which most of the pottery came, was in the gardens of the houses on the E. side of Annesley Road, N. of the kiln, and as the finds here included numerous wasters, specially of grey ware, and some fragments of pottery trays like the Dorchester piece (FIG. 15, no. 17), it is probable that at least some of these pits were used as dumps for kiln rubbish. Other pits were probably used for cooking purposes, for they contained a layer of flat, burnt stones, about six inches above the bottom, as well as potsherds, animal bones, and other refuse. The size, shape, and depth of the pits varied considerably. Outlying groups of pits occurred along the S. side of Ellesmere Road, W. of Annesley Road, and again along the E. side of Courtland Road.

A series of hut-floors also came to light E. of Annesley Road and near the kiln. These floors, which were only seven inches below the surface, were either cobbled with rounded pebbles, or made of two or three layers of roughly-shaped limestone slabs. Among the finds on the floors were pot-boilers, pottery, and animal bones, and two coins, one Constantius II, one a radiate.²

Outside this main area, the only traces of occupation were a deep ditch

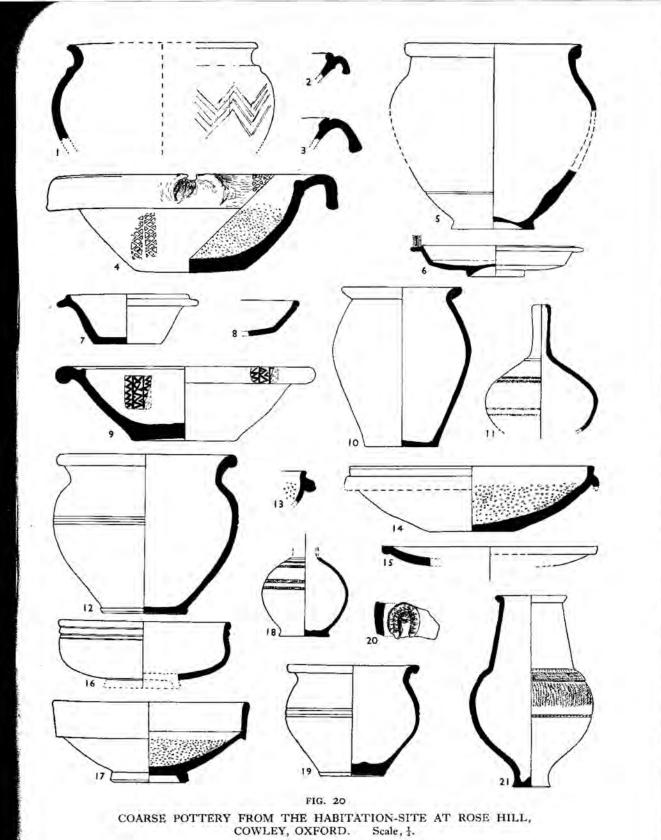
² This was never seen by members of the O.U.A.S., for it was lost by the workman after he had noticed that the head ' had spikes on it ! '

¹ No systematic excavation was attempted on any portion of the habitation-site, though in one or two instances Mr. W. H. C. Frend and other members of the O.U.A.S. were enabled to clean out individual pits. The remainder of the information contained in this section is derived from personal observation by members of the O.U.A.S., supplemented by reports given by the workmen.

W. of Egerton Road, and a crouched (and presumably therefore pre-Roman) skeleton E. of it, on the hill slope.

The pottery. Specimens of the pottery found in these various habitationdeposits are illustrated in FIG. 20. Apart from no. 1, which is a fragment of an olla of native British type, probably to be dated to the early part of the first century A.D., the pieces illustrated are fairly evenly spread out in time over the second to fourth or early fifth centuries A.D., and they indicate that the site was intensively inhabited during those centuries. Owing to the scattered and incomplete nature of the finds it has not proved possible to attempt any more elaborate or detailed dating of the individual deposits.

- 1. Fragment of olla : softish smoky-grey ware, with cordon at base of neck and faint zig-zag burnishing marks on body. Early first century A.D.
- 2.-4. Two rim-fragments and a complete mortarium—the last with bogus potter's-mark; buff ware, with hooked rims. Second century A.D.
- 5. Fragmentary olla : softish grey ware, fired red-brown within ; horizontal groove near base. Probably second century A.D.
- 6. Fragmentary dish : hard grey ware, imitation of Drag. 18; flanged rim, with rouletted decoration. Second century A.D.
- 7. Fragmentary bowl : hard grey ware, burnished ; flanged rim. Second to third century A.D.
- 8. Rim-fragment of dish, buff brown, burnished, imitation of Drag. 18; beaded rim. Second to third century A.D.
- 9. Fragmentary mortarium with bogus potter's-mark : buff ware ; 'knobbed ' rim. Second to third century A.D.
- 10. Fragmentary olla : white ware, fired grey in parts. Probably second or third century A.D.
- Fragmentary flask : reddish ware with brown colour-coat ; rouletted lines on body. Third to fourth century A.D.
- 12. Fragmentary olla : brown ware with red colour-coat, fired grey in parts ; two horizontal grooves at greatest diameter. Probably third or fourth century A.D.
- 13-14. Fragments of two mortaria: buff ware; flanged rims. Third to fourth century A.D.
- 15. Rim-fragment of dish : brown ware (probably an unfinished example of colour-coated ware). Third to fourth century A.D.
- 16. Fragmentary bowl : reddish ware with red colour-coat, imitating Drag. 37. Fourth to early fifth century A.D.
- 17. Fragmentary mortarium : ware as no. 16; vertical rim. Fourth to early fifth century A.D.



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- 18. Fragmentary head-flask (?): white ware with cream wash fired brown in patches; four lines of brown paint round body. For the probable shape of the upper part of the vase, with a female head moulded in relief, see, *e.g.*, *Richborough* 11, p. 104, no. 184, pl. xxxiii. Fourth to early fifth century A.D.
- 19. Fragmentary olla: brown with red wash, hardly a true colour-coat; two horizontal grooves at greatest diameter. Probably third or fourth century A.D.
- 20. Fragment of olla or flask (?): buff brown with dark brown colour-coat; horse-shoe ridge in relief on which a band of broad arrows impressed with a stamp; within the horse-shoe an impressed rosette. Fourth to early fifth century A.D.
- 21. Tall beaker : reddish ware with red colour-coat ; rouletting on body. Two restorable examples of this type were found. Fourth to early fifth century A.D.