SOME SUFFOLK KILNS:

1. A ROMANO-BRITISH POTTERY KILN
AT HOMERSFIELD


FOREWORD

From time to time, agricultural and other activities in the county disclose the presence of pottery-making sites. Several of these have been excavated under 'rescue' conditions and it has not yet been possible to publish the results of these operations. It is particularly desirable that this should be done, as much has been learnt, both by excavation and experiment, about the operation of the 'pedestal' kiln so characteristic of Suffolk, since the account of the kiln complex on Foxledge Common, Wattisfield, was published a quarter of a century ago.

Of the pedestal kilns themselves, no two seem to follow exactly the same pattern, although the principle is the same throughout—an updraught type without a raised floor to the chamber, the pots being arranged around and over the pedestal.

A large kiln of a very different type, with vented floor supported on radial arches, was excavated a few years ago at Grimstone End, Pakenham, close by the site of two much-disturbed pedestal kilns. The pottery made here, indented beakers with rouletted decoration, was closely datable to early in the second quarter of the third century, a date confirmed by the method of archaeomagnetism.

Recently a very small kiln, the chamber being only 2 feet in diameter, with central pedestal and radiating fire-bars, was found not far from the site of the larger kiln. At the time of writing it is in course of excavation.

1 The experiment mentioned by Corder (Arch. Journ., vol. cxiv (1959), p. 22, and note 4) was one of a series conducted at intervals since 1952 by Mr. F. J. Watson and the Ipswich Museum with the co-operation in 1956 and 1958 of Miss M. Bimson, F.S.A., of the British Museum Laboratory, and of Mr. J. C. Belshé and other members of the Department of Geodesy and Geophysics of Cambridge University. The kiln was constructed mainly by Mr. B. W. J. Brown of the Ipswich Museum staff.

In addition to kilns of the Roman period, some of the sites examined may throw light—a somewhat dim light, it must be admitted—on the methods employed by native potters of the period preceding, or possibly coincident with, the Roman occupation. The Iron Age site at Peartree Farm, Wattisfield, produced a pottery-making site, scarcely worthy of the description of a kiln. Close by this site, however, were found the remains of a primitive kiln of late first or early second century date. Pottery may have been made on an Iron Age site at Hinderclay, less than a mile from the Foxledge Common Roman site.

Crude floors, probably clamp kilns, belonging to the Pagan Saxon period, were described from Grimstone End, Pakenham, by the present writer and others in an account of a complex barrow site which included evidence of occupation in Neolithic (Rinnyo-Clactonian), Early Bronze Age, second century Roman, and Pagan Saxon times. An account has already been given by J. G. Hurst and S. E. West of the Middle Saxon pottery (Ipswich ware and Thetford ware) produced by kilns found in 1920, 1928 and 1935 on the site of the Co-operative Society’s present premises in Ipswich. Further material has since been found, extending the area of the potteries, but no satisfactory account of kiln-structures exists so that our knowledge of the kilns themselves must await further discoveries, although Group-Captain Knocker’s work on the Thetford kilns should be relevant.

A mediaeval tile-kiln was found some years ago at Wattisfield, and a dump of pottery sherds of the 15th century, including wasters and fragments of kiln roof, indicated a pottery at Hinderclay, a short distance west of the church, although excavation failed to reveal the kiln. Another kiln site of the same period a few hundred yards away remains to be examined when time allows. Tile kilns of the 18th century were uncovered in the banks of the Orwell at Freston during the floods of 1953.

Other papers relating to kilns in Suffolk are those by Henry Prigg, George E. Fox, and S. E. West, and several new sites have been recorded in 'Archaeology in Suffolk' in these Proceedings during the course of the last few years.

The present series will not follow any chronological order, either of construction or excavation, but will be offered for publication as and when it becomes possible to prepare reports. The
first paper, dealing with a kiln site at Homersfield, has by chance as its subject a kiln of quite unusual type, but it so happens that a normal 'pedestal' kiln is at present in course of critical excavation, and it is hoped to provide a more accurate account in due course than would have been possible from the material appertaining to this type so far available.

NORMAN SMEDLEY.
The Homersfield kiln; the kiln chamber from the south. One of the bosses and the raised ridge of the pedestal may be seen, with the furnace; the small scale shows the thickness of the floor in section.
The Homersfield kiln: the kiln seen from the stoke-hole, looking through the furnace arch. One of the pedestal bosses may be seen.
THE HOMERSFIELD KILN

The village of Homersfield lies in the north of the county of Suffolk, on the south bank of the River Waveney. To the south-east of the village lies a gravel-pit (Fig. 28) which has previously yielded mammalian remains relating its deposit to the Third Interglacial. As recently as the 1946 edition of the 6-inch Ordnance Survey map the southern boundary of this pit was only some 500 feet south of the road which runs parallel with, and south of, the river, but quarrying had extended this limit another 900 feet, to a line well to the south of the church of St. Mary.

In February 1959 the removal of topsoil from this area exposed a blackened patch (Grid. Ref. TM/28828529) with sherds of Romano-British pottery. Information to this effect reached Mr. Rainbird Clarke, Curator of the Norwich Museums, on Saturday, 7 February 1959, and he informed the Ipswich Museum. The following day the site was inspected by one of the present writers (N.S.) who obtained the agreement of the manager of the pit, Mr. R. Blakesley, to divert operations for the time being and allow excavation. Work began on 10 February and was continued daily until the 13th, and finally completed by the 20th.

THE KILN (Plates XXIII and XXIV and Fig. 29)

The kiln consisted of a circular chamber with an internal diameter at the surface of 4 feet 6 inches, and 4 feet 9 inches at the bottom; the walls thus tapered very slightly inwards. The depth of the chamber was 2 feet 3 inches. The kiln was built in a pit excavated in the natural sand. The clay of which it, and doubtless the pottery fired in it, were constructed came from a deposit some 500 yards to the south-east. The road to St. Cross South Elmham passes through a large hollow which was obviously a clay-pit in former times.

The chamber-wall was 8 or 9 inches in thickness. The inside, to a thickness of ½-inch, formed a hard-baked black or grey 'skin'. Underneath this the clay was reddened for 4½ inches, the remaining 3 to 4 inches being the raw grey chalky boulder clay. The floor at the rear of the kiln was 4 inches in thickness, the upper two inches burnt hard and black, the next inch or so reddened, and below that one inch of raw grey clay.

In the middle of the floor was a most unusual type of pedestal, of a rounded horse-shoe shape ending on either side of the furnace

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All measurements relate to the surface left after removal of the topsoil by the mechanical excavator, approximately 1 foot 6 inches from the original surface.
Black silt.
Chalky boulder clay.
Reddened clay.
Sand.
Furnace arch—1-inch red with grey-black 'skin'.
Grey ashy deposit.

Fig. 29.—Homersfield kiln; a, plan, b, longitudinal section, c, section across furnace arch.
arch in a large boss. This left a gap, no doubt for draught, of 8 inches or so, between the outer margin of the pedestal and the wall. The rounded ridge of the pedestal was 8 or 9 inches across and was clearly defined, as when exposed it was reddened and not covered by the black layer of the wall and floor. The ridge rose some 2 inches or more above the floor, the terminal bosses being 5 inches high. Between these the floor sloped at an angle of 5° towards the furnace, outside which the slope increased to 20°. The floor under the furnace arch consisted of a 3-inch layer of clay of which the upper inch was black, the remainder reddened.

The fact that sherds of the same type as the pottery found in the chamber and stoke-hole had been incorporated in the pedestal points to its renewal from time to time during the life of the kiln. The battered state of the pedestal seems likely to have been occasioned by firing (thus pointing to the need for renewal) and not after the abandonment of the kiln, as this had evidently been filled in whilst the walls were in good state.

In view of the fact that kilns have not infrequently been used as rubbish pits by later generations, the method of excavation used was designed to ensure accuracy of interpretation of the finds. The southern half of both chamber and stoke-hole were first excavated, leaving the northern half in section, and 6-inch layers were removed and put into separate bags. In fact, however, it was obvious that most of the pottery recovered from the site had been made in the kiln. Sherds of the same pot in several cases came from both stoke-hole and chamber, and from various levels including the trampled layer 4 at the bottom of the stoke-hole, the pottery from which must surely have been made in the kiln. However, the discovery on spoil-heaps in the quarry of kiln-fabric and pottery, and the evidence of members of the staff as to its provenance, showed that there had been a group, and not a single kiln.

The lower part of the chamber was filled with a fine grey ashy deposit with oyster-shells in profusion and bones predominantly of sheep with pig and ox also represented, the upper part with an intensely black silt with a considerable amount of pottery. A large waster (Plate XXV (B) and Fig. 31, f) was found in the south-west sector of the kiln-chamber. It lay 1 foot 2 inches below the surface, embedded in the grey ash.

For example, the dish illustrated in Plate XXV(A), 2 and Fig. 30, a is made up of four sherds from the stoke-hole layers 3 and 4 and the chamber layers 2 and 4. The fragment illustrated in Plate XXVI, 1 and Fig. 32, c was made of 6 sherds which came from beneath the furnace arch, the top layer of the chamber and the bottom of the stoke-hole.
It appeared in the early stages of the excavation that the wall between the chamber and the stoke-hole had a thickness of some 2 feet. In fact, however, it transpired that a mass of unbaked clay, 8 feet across by about 1 foot 6 inches wide by 1 foot 3 inches deep, was not an integral part of the wall, and when the underlying silt was removed it fell, leaving the original 6-inch wall clear. Whether it was in fact a hood for the extension of the draught area leading to the furnace, or had been dumped in the process of filling in the site later, remains a matter of some doubt, but without such a hood the problem of obtaining sufficient draught might prove a difficult one, and a deliberately built extension to a furnace arch will be described in a later note on an elaborate kiln at Grimstone End, Pakenham.

The wall between the chamber and the stoke-hole was pierced by an arch some 1 foot 6 inches in height and approximately the same in width. (In the photograph (Plate XXIV) the height appears greater, as the scale is resting on the floor of the stoke-hole, and takes in the thickness of the clay floor of the kiln; there has also been a slight fall from the roof of the arch). The sides and roof of the arch were hard-baked, with a grey-black skin overlying one inch of hard reddened clay, surrounded by an area less hardened but reddened, above and outside which is the raw clay of the wall.

The stoke-hole, measured from the firm upright chamber-wall and embracing the 'hood', was 9 feet 6 inches in length and 10 feet 6 inches in breadth. Within it was a more deeply-cut pit, 7 feet 6 inches by 5 feet, in which the stoker would stand. The stoke-hole was thus 3 feet 6 inches in depth at its deepest point. The bottom layer, 1 foot 6 inches in depth, was evidently the result of raking out the furnace from time to time, and the surface of this had been trampled down into a hard crust. Above this was a layer of black silt. Both layers contained a considerable amount of pottery.

The only iron object found on the site, a flesh-hook (Fig. 33), came from the top 6-inch layer of the southern half of the stoke-hole. A description is given below.

THE POTTERY

With the exception of a few specimens of particular interest, this account deals only with the pottery occurring in such quantity as evidently to be the product of the kiln.

All the pottery from Homersfield is hard and well-fired; the clay is slightly micaceous, but the mica content appears to be far lower than that in pots produced at Wattisfield, some miles

No microscopic examination or qualitative assessment has been made.
Fig. 30.—Homersfield pottery (1)
to the south-west. It seems probable that the Homersfield pots were made from clay obtained in the immediate vicinity (see map, Fig. 28), the boulder clay of the Third Glaciation, although a bed of clay at St. Cross has been referred by Dr. Richard West to the same period as the Hoxne bed, a later deposit intermediate between the Lowestoft and Gipping tills. The clay at Wattisfield, at least in the vicinity of Foxledge Common, was evidently derived from the Calke Wood deposit, which is a water-laid clay, and richly micaceous.

Three wares are distinguishable:—

A. Black burnished, dark grey in fracture (bowls, Plate XXV(A), 1 and Fig. 31, a and c, and dishes, Fig. 30, b).

B. Greyish-brown, well levigated and smoothed externally (bowls, Fig. 31, b and d, cordoned jars, Plate XXV(B) and Fig. 31, e and f, and dishes, Plate XXV(A), 2 and Fig. 30, a and c-g). The decorated pieces in Plate XXVI, 1-6 and in Fig. 32, a-j, all belong to this ware.

C. A coarser ware, with a greater admixture of grit, giving it a 'pimply' appearance. It is somewhat similar in colour to B, though with a slightly browner (khaki) tinge (rusticated type jars, Plate XXVI, 7 and Fig. 30, i-k, and dishes, Fig. 30, h).

The pottery falls into four main types:—

1. Dishes of various kinds 46.5%
2. Rusticated type jars 32.5%
3. Shouldered bowls 16.6%
4. Cordoned jars 4.4%

(Percentages refer to rims).

DISHES

These may themselves be divided into the following sub-types:—

(a) Dishes with plain rims (Plate XXV(A), 2 and Fig. 30, a-d). These comprise 70% of the total, with dimensions as follows:— Internal diameter: 5" to 9½". Depth: About one-third are 3" or more in depth, the remainder 1¾"-2½".

The distribution according to ware is as follows:—

A: 11% B: 80% C: 9%

In a few cases the insides and outsides of the walls and bases are decorated with scored parallel lines (Plate XXV(A), 2 and Fig. 30, a and b) and spirals (Fig. 30, a and d) respectively. Decoration is more common in ware A than in ware B; dishes of this type in ware C are undecorated.
(A) Shouldered bowl, and dish with plain rim and scored decoration.

(B) The large waster; a cordoned jar.
Decoration patterns.
(b) **Dishes with flat rims**—18%.

Dimensions:
- Rim-width $\frac{3}{8}''$ (Fig. 30, f). Diameter: $6''-7\frac{1}{2}''$. Depth: $2''-3\frac{3}{4}''$.
- Rim-width $\frac{3}{4}''$ (Fig. 30, e). Diameter: $7''-9''$. In this rim-width few complete sections survive, but all these are 4'' in depth.

Several dishes of this type have groups of parallel scored lines externally. All were made in ware B.

(c) **Flanged dishes with beaded rims.**

These comprise two varieties, according to the width of the flange. Dishes with a flange of $\frac{1}{2}''$ in width (Fig. 30, h) range in diameter from $4\frac{1}{2}''-9\frac{1}{2}''$, most being within the range 8''-9''. Depth: $1\frac{1}{2}''-2''$. All in ware C. Dishes with a flange of $\frac{3}{8}''-1''$ in width (Fig. 30, g) have diameters of from $7''-9\frac{3}{8}''$. No complete sections are present but the depth was probably 3''-4''. All in ware B.

**JARS OF RUSTICATED TYPE** (Plate XXVI, 7 and Fig. 30, i-k)

As noted above, these comprise over 32% of the rim fragments. External diameter of rims: $4\frac{3}{8}''-9''$ (mostly $5\frac{3}{4}''-6\frac{3}{4}''$). Diameter of bases: $2\frac{1}{2}''-4''$. No complete sections were found. Most of these pots are entirely undecorated but about one in seven has Icenian rustication, rather small and indefinite. The bases are plain and show clearly the mark of the ‘cheese-string’.

**SHOULDERED BOWLS** (Plate XXV(A), 1 and Fig. 31, a-c)

These were all made in wares A and B. The neck is upright, with a simple out-turned rim. The largest fragment found (Plate XXV(A), 1 and Fig. 31, c) was evidently intended to be black burnished, the right side having a fine glossy surface which gradually tails off so that the left half is indistinguishable from ware B. Rim Diameter: 6''-11'' (mostly 9'').

**CORDONED JARS** (Plate XXV(B) and Fig. 31, e and f)

These have a rolled rim similar to type 2, but with a cordon at base of neck. As they are sturdier than type 3 the rim fragments on the whole are larger, and the percentages are therefore slightly misleading. In all probability there were nearly as many cordoned jars as shouldered bowls. Rim diameter: $5\frac{1}{4}''-6\frac{3}{4}''$.

The only fairly complete jar of this type is the large waster (Plate XXV(B) and Fig. 31, f) found in the kiln chamber. This unhappily lacks both rim and base, but when complete must have
Fig. 31.—Homersfield pottery (1)
A

(A) Sherd of mortarium with stamp.

B

(B) Stamped ware; imitation of Form 30.
been about 13" high. The distortion was evidently due to clumsy handling in the unfired state as it is laterally compressed with indentations which fit the hands when it is lifted.

The bases which may belong to types 3 or 4 are carefully finished off with a slight foot-ring (Fig. 31, d). All type 4 jars are in ware B.

**DECORATION ON BOWLS AND CORDONED JARS**

This also is all in ware B, and it is impossible to determine whether any particular fragment is derived from type 3 or 4.

The commonest decoration is in the form of wavy lines, burnished or combed, and burnished zones or scored lines with occasional bands of rouletting.

Decorated sherds outnumber undecorated, and often at least two patterns are combined (Plate XXVI, 2, 3 and 5 and Fig. 32, a, d and f); they must have been handsome pots.

The large waster (Plate XXV(B) and Fig. 31, f) is unusually plain, having nothing but a series of barely distinguishable burnished bands, and two scored lines on the shoulder, while the black burnished bowl (Plate XXV(A), 1 and Fig. 31, c) has only a girth groove.

At least eleven pots bore a series of scored over-lapping spirals (Plate XXVI, 1 and Fig. 32, c).

**OTHER COARSE POTTERY**

The following sherds were found in the kiln chamber and stoke-hole; it is open to doubt whether they were made in the kiln.

1. Three fragments of an imitation of T.S. form 30 must have come from a bowl about 4" high and 7" in diameter. Of two rim-sherds from the upper layer 1 of the kiln chamber, one fits a body-sherd from layer 3 of the stoke-hole (Plate XXVII(B), 1 and Fig. 32, g), and the other is obviously from the same bowl (Plate XXVII(B), 2 and Fig. 32, h). The decoration consists of three rows of stamps which have raised corresponding bosses on the inside.

*Row* 1. Alternating stamps of 'feather', and circle enclosing horizontal bar and four pellets.

*Row* 2. Impressed circle, alternating with shield enclosing seven pellets arranged 3 : 3 : 1.

*Row* 3. Raised circle enclosing four pellets.
The stamps are overcrowded, unevenly spread and crookedly applied. Dr. Corder suggested an affinity with 'Parisian' ware, but comparison with examples of the latter seen by the writers, that from Ancaster, showed the Homersfield pot to be of far cruder workmanship and quality, and, to judge by the associated finds, considerably later. It is more likely to be an imitation of New Forest ware. The ware is hard and grey; it may have been made in the kiln, though the fact that so little was found could point to another origin.

2. Sherds of mortaria included three rims. Two of these, one from beneath the furnace arch and the other from the bottom layer 4 of the stoke-hole, make a join. They are warped and over-fired and definitely form part of a waster. As in the case of the stamped ware, this would point to the possibility, though with a margin of doubt, that they were made in the kiln. Near the spout is an impressed 'feather' stamp (Plate XXVII(A) and Fig. 32, i) resembling that on the stamped ware described above, though not from the same die. Mrs. Kathleen Hartley states that she has not previously seen any stamp from this die, and would date the mortar on rim form to the second century. Examination of material in the Colchester Museum, however, shows that this form continued until quite a late date. Moreover, this mortar and another rim (Fig. 32, j) from the stoke-hole 2 are from small vessels, with diameters respectively of 7" and 8" internally. Mr. Hull would place them possibly as late as the fourth century.

IMPORTS

1. Two fragments of Samian were found, a Form 30 and a Form 37 which was identified by Mr. Brian Hartley as being by CETTUS (c. A.D. 160–190).

2. The base of a colour-coated beaker (Fig. 32, k), with a band of rouletting, is either Rhenish ware or a close British imitation; it cannot be earlier than the last few years of the second century.

DATING

On the evidence of the Rhenish colour-coated base, the kiln cannot be dated before the end of the second century. The Icenian rusticated ware, which has been discussed recently by Mr. F. H. Thompson, is found only in East Anglia and Essex. It is dated exclusively to the third century by Atkinson; but it

11 *Ant. Journ.*, vol. xxxviii (1958), pp. 28-30, Pl. IX, a, b; and Fig. 4, 20 and 21.
Fig. 32.—Homersfield pottery (4)
was found at Brancaster in the third and fourth century levels,\textsuperscript{13} and M. R. Hull considers that it goes on into the fourth century at Colchester.

At Ashwicken, rustic ware was found overlying a disused iron-smelting site which was dated by pottery, and archaeomagnetism, to the late second century.\textsuperscript{14}

A jar with decoration similar to our Plate XXVI, 1 and Fig. 32, \(c\), was found in the bottom layer of rubbish tipped into the 'Mithraeum' at Colchester;\textsuperscript{15} the latest coin from this deposit was one of Constans as Augustus (337-350).

The beaded flanged dishes (Fig. 30, \(g\) and \(h\)) are of the type attributed by Brian Hartley to the late third/early fourth century in his account of the pottery from a Roman well at Exning, Suffolk.\textsuperscript{16} J. P. Gillam\textsuperscript{17} dates the type A.D. 310-370, and Mr. M. R. Hull prefers a fourth century date.

A date in the late third century or early fourth century seems therefore probable for the Homersfield kiln.

OTHER FINDS

1. The sawn-off tine of a red deer antler may probably have been used for producing the scored and burnished lines which are so common a feature of the decoration.

2. A two-pronged flesh-hook of iron (Fig. 33) with a series of twists on the stem was found in the stoke-hole (layer 1). The remaining portion is 8 inches in length, but the beginning of another series of twists just above the break probably indicates a length of at least a foot. It bears some comparison, though not a very close one, with a flesh-hook, 10½ inches in length, found on a second century villa site at Capel St. Mary, though this specimen ends in Ant. Journ., vol. xvi (1936), p. 454.

\textsuperscript{13} Norfolk Archaeology, (in press).

\textsuperscript{15} M. R. Hull, Roman Colchester (1958), p. 137, and Fig. 65, 64.

\textsuperscript{16} Proc. Camb. Ant. Soc., vol. lII (1959), p. 19, Fig. 2, 34 (and in liitt.)

\textsuperscript{17} Archaeologia Aeliana, 4th series, vol. xxxv (1957), p. 24 and Fig. 228.
a spatulate expansion. Mr. Norman Cook informs us that he has recently obtained specimens from the Walbrook site in the City of London; these are datable to the second century.

Flesh-hooks or pot-hooks were used for extracting lumps of meat from the stew-pot. The curvature of the tips was designed to prevent damage to the bottom of the cauldron, whilst at the same time securing the meat. They were in use continuously from the Iron Age to Mediaeval times and an illustration of one appears in the 16th-century 'Doom' at Wenhaston.

ARCHAEO-MAGNETISM

Samples for the purpose of dating by this method were taken by Dr. Roy Hodson, then working with the Department of Geodesy and Geophysics of the University of Cambridge.

The results were, however, unsatisfactory, and so similar to the present field that it was thought they might have been contaminated by it.

For the sake of completeness the data available for two samples are given:

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<th>Inclination</th>
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<td>B.S.</td>
<td>2°W</td>
<td>69½°</td>
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<tr>
<td>B.T.</td>
<td>8½°W</td>
<td>67½°</td>
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The indication would be for a date in the mid-late second century.

ACKNOWLEDGMENTS

Thanks are due to a number of individuals who have in various ways made it possible for the investigation of this site to take place, to Mr. R. Rainbird Clarke, Curator of the Norwich Museums, who apprised us of the initial finds, to Mr. R. Blakesley, the manager of the gravel pit, who not only gave permission for the work to be carried out, but diverted quarrying operations from the site for the period necessary for complete excavation. Mr. T. Pointer, the foreman, and Mr. Goff, the operator of the drag-line, also co-operated in every way. We are grateful to Capt. and Mrs. Hamilton and the Rev. E. P. Whalley for kind hospitality on the cold February days, and to the Rev. and Mrs. A. H. Denney, Major J. Steuart-Gratton, Mr. L. O'D. Cross, Dr. B. Levy and Mr. G. R. Ransome, who helped at various times with the excavation.
We are indebted to Mr. M. R. Hull for information on the comparative material in the Colchester collections, to Mr. Brian Hartley for identification of the Samian ware, and comments on the pottery in general, and to Mrs. Hartley for examination of the mortarium sherds, and to Dr. Philip Corder for much helpful advice. We are grateful, too, to Miss Joan Jeffrey for the drawing of Fig. 31, b, and to Mrs. H. B. Miller who provided the drawing of the flesh-hook (Fig: 33), and Mr. F. W. Simpson who prepared the photographs of the pottery.

Finally, we must thank the Ancient Monuments Department of the Ministry of Works for generous financial help.