

SOME SUFFOLK KILNS:

III. A SMALL KILN AT GRIMSTONE END, PAKENHAM

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The discovery of the disturbed remains of two, or possibly three, kilns of the common Suffolk 'pedestal' type, and of two large floored kilns making colour-coated ware, has already been recorded, and the two latter fully described.¹ It is felt, however, that the kiln which forms the subject of this paper is of such an unusual character as to warrant separate treatment.

In March, 1960, Mr. Basil Brown, then a member of the staff of the Ipswich Museum, reported that quarrying operations had uncovered a small area with indications of burning, and the writers undertook excavation. In accordance with the scheme already outlined for recording the Grimstone End occupation,² the site was measured in at Grid Ref. TL/93576933, and given the site number —140. It proved to be a kiln of unusually small size, smaller indeed than that recorded at Great Casterton by J. P. Gillam,³ which he regarded as too small for a pottery kiln.

In this case, however, the presence of pottery in the chamber seems a clear indication that it was used in the process of pottery manufacture. It has been suggested that it was in the nature of a toy, but the excellence of the ware produced and the structure, proportions and finish of the kiln itself rule this out. It may conceivably have been of an experimental type, calculated to test ideas in construction, or for firing specimens of special design before taking the risk of throwing and firing a large consignment.

The description given below follows the lines of those given in previous papers on Suffolk kilns.⁴

THE STOKE-HOLE

This consisted of a pit about 5 feet long and nearly 3 feet in width at its widest point, with a general depth of 2 feet from the modern surface or about 1 foot 6 inches below the level of the presumed top of the furnace arch where it abutted on this.

¹ *Proc. Suff. Inst. Arch.*, vol. xxviii, part 3 (1960), pp. 203–225.

² *Ibid.*, p. 203.

³ *The Roman Town and Villa at Great Casterton, Rutland* (1961), pp. 37–8.

⁴ *Proc. Suff. Inst. Arch.*, vol. xxviii, part 2 (1959), pp. 168–184 and vol. xxviii, part 3 (1960), pp. 203–225.

There was no distinct stratification except for a trodden layer of ashy silt resulting no doubt from raking out the furnace. The stoke-hole was filled with a deposit of black fill with some sherds.

THE CHAMBER (Plates V and VI)

The kiln-chamber was circular, with a diameter of a little over 2 feet at the top, the sides sloping to give a base of 1 foot 6 inches diameter. Walls and base were of clay, 3 inches in thickness, the interior vitrified to a depth of 1 inch or more.

A central cylindrical pedestal, $7\frac{1}{2}$ inches in diameter and nearly 1 foot in height, supported a number of radiating fire-bars, rectangular in section. The pedestal was burnt white right through and must have been subjected to great heat. Clay from a pit a short distance from the site, when fired in a modern kiln, produced white pottery, and this may have been the source of clay used in the present kiln. There had probably been five or six fire-bars when the kiln was in use. Four remained in position, and a fifth was recovered from where it had collapsed as indicated in the drawing (Fig. 6).

There was no definite indication of a floor laid over the fire-bars, but fragments of 'crust' between some of the bars may have been the collapsed parts of such a structure, but were more probably later thickenings added to reduce the spaces between the bars to prevent small vessels from falling through.

Two complete jars and a flagon (Plate VII and Fig. 7, *a, b, f*) (to be described later) and quantities of sherds from flagons were found in the chamber, the flagon and sherds lying below the fire-bars. These were almost certainly products of the kiln, the jars probably so.

THE FURNACE ARCH

The top of the arch had been destroyed, either by previous ploughing or during quarrying operations. The arch had been 1 foot 3 inches in length and over a foot in height. The walls were of vitrified clay 1 inch to $1\frac{1}{2}$ inches in thickness, reinforced originally by buttresses of clay nearly a foot in diameter. One of these remained and was fired red, and had later itself been reinforced by a wad of unfired clay. The other buttress had evidently disintegrated and been replaced by a substantial wad of similar material. It seems possible that the kiln had been abandoned and not re-fired after these additions.

The floor of the furnace sloped up from the stoke-hole at an angle of 10° .

PLATE V

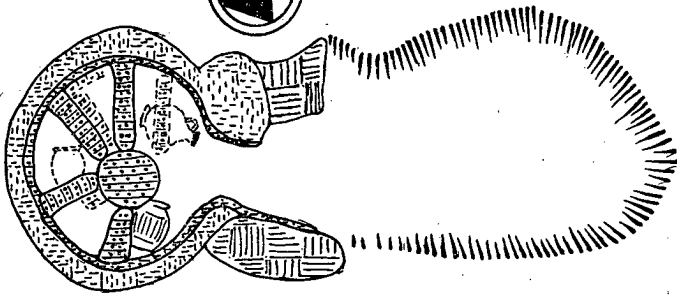


Grimstone End Kiln —140: The chamber, showing fire-bars (one collapsed) and the smaller jar. Note finger-marks on clay lining of furnace arch.

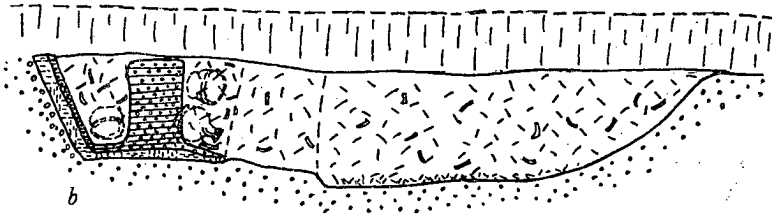
PLATE VI



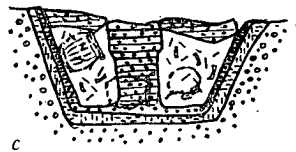
Grimstone End Kiln —140: The chamber and remains of furnace arch, view from stoke-hole. The collapsed bar and small jar have been removed, revealing the flagon.



a



b

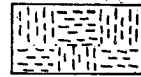


c

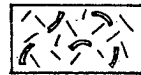
Vitrified clay



Reddened clay



Fill with pottery



Unfired clay



Sand
natural/reddened

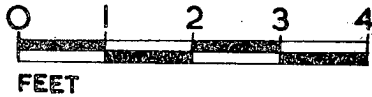


FIG. 6.—Grimstone End Kiln —140.

a. Plan. b. Longitudinal section. c. Transverse section of chamber.

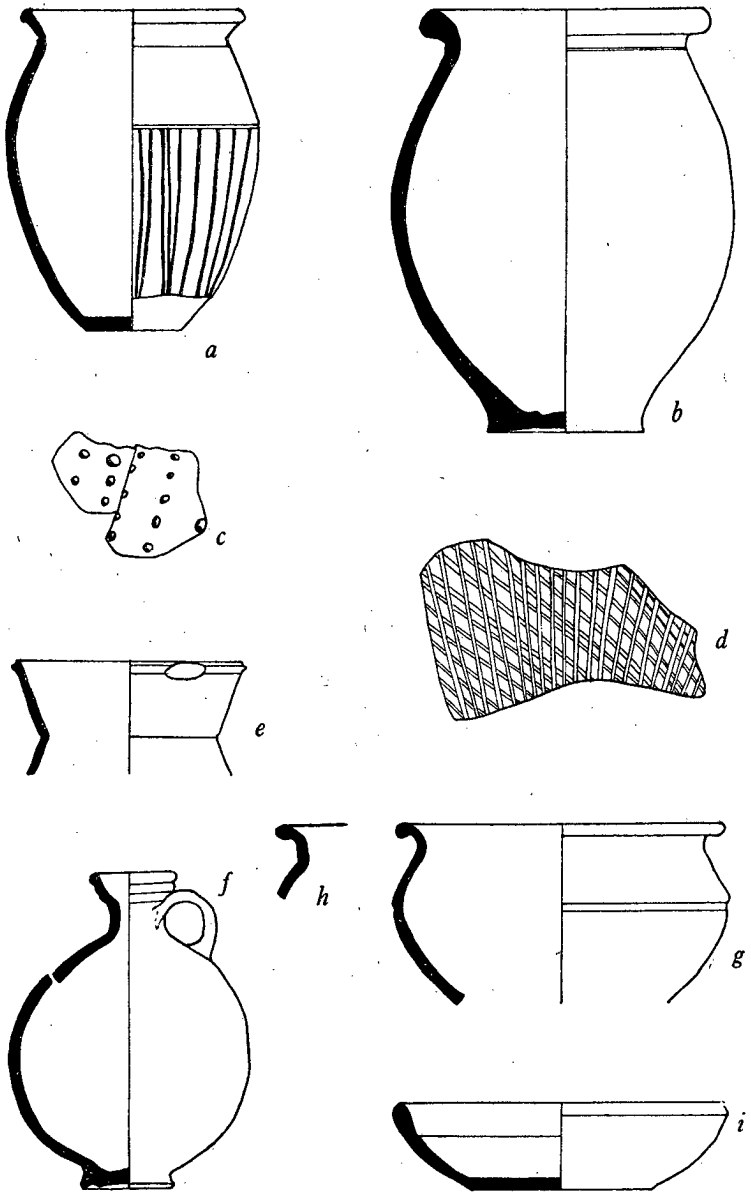
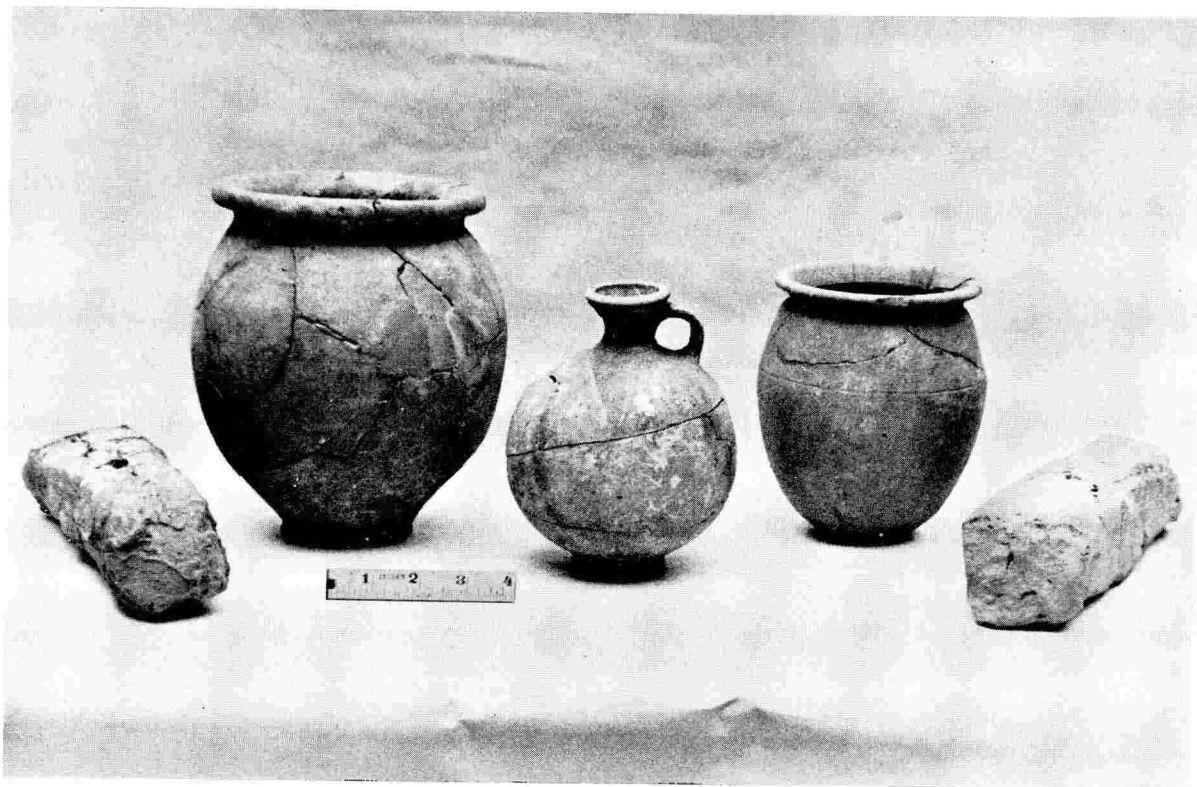


FIG. 7.—Grimstone End Kiln —140: Pottery (½).

PLATE VII



Grimstone End Kiln —140: Pottery and fire-bars.

THE POTTERY
(Plate VII and Fig. 7)

a. Jar with cavetto rim; orange fabric with a blotchy surface orange and grey; foot and shoulder smoothed, body decorated with roughly parallel burnished lines. Waster. *cf. Gillam*, 127 (A.D. 130-170) and *Jewry Wall*, Fig. 42 (A.D. 125-130).

b. Jar in orange fabric; surface grey, rough and undecorated.

c. Body sherd of grey ware, slightly micaceous, decorated with rows of barbotine dots.

d. Body sherd of large jar in orange fabric with grey slip, decorated with an irregular lattice pattern of burnished lines.

e. Neck of large jug or flagon; pale cream paste, traces of handle. No close analogy noted but *cf. Gillam*, 22 (A.D. 80-130).

f. Small ring-necked flagon with reeded handle, cream fabric. Waster. *cf. Colchester*, 155A (A.D. 70-130, especially common in Trajan-Hadrian period).

g. Bowl of grey ware, slightly micaceous. *cf. Gillam*, 187 (A.D. 140-180), *Newstead*, 46 (probably Antonine) and *Colchester*, 299 (common by A.D. 150).

h. Rim of bowl in pale orange micaceous clay, smoothed externally; the angular neck resembles a. (Diam: 7 in.)

i. Dish of grey ware, highly micaceous. The shape is comparable with *Jewry Wall*, Fig. 44, 13 (A.D. 150-160) but a closer parallel was found at Long Melford⁵ with a poppy-head beaker of the type of *Richborough IV*, 418 (A.D. 90-125).

All the pottery was encrusted (to a greater or lesser degree) with a dark deposit of sand and soot which indicates that it had been subjected to several firings in the bottom of the kiln-chamber.

Some 50% of the sherds found in the kiln and stoke-hole were flagons, 40% plain grey jars and bowls and 10% miscellaneous.

DATE

A date in the first half of the second century seems indicated, probably about A.D. 120.

ARCHAEO-MAGNETISM

A report received from J. C. Belshé, of the Cambridge University Department of Geodesy and Geophysics, and R. M. Cook and G. E. Connah of the Museum of Classical Archaeology, gives figures obtained for seven samples taken from this kiln.

Declination
24½° W.

Inclination
66½°

⁵ *Proc. Suff. Inst. Arch.*, vol. xxviii, part 3 (1960), Fig. 47, h. and f.

'These results were badly scattered. It is not possible to make any chronological deductions. Although not visible at time of sampling, non-uniform movement is indicated by the data. It is possible that the proximity of the structure to the modern surface had rendered it vulnerable to movement by the heavy earth-shifting equipment which had stripped the top-soil prior to gravel digging and in the process only missed the top of the kiln-wall by inches'.

SUMMARY

Quarrying operations at Grimstone End, Pakenham, exposed a Roman pottery kiln possessing a number of unusual features, the chamber having a diameter of little more than 2 feet, with fire-bars supported by a cylindrical central pedestal.

The kiln appeared to have been used largely for the manufacture of flagons, although other pottery present may have been produced in it.

On archaeological grounds, a date in the early second century seems probable.

As on previous occasions thanks are due to Messrs. Allen Newport, Ltd., for permission to excavate on this site.

REFERENCES

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