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EXCAVATIONS AT ECCLES, 1966

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I. FIFTH INTERIM REPORT¹

INTRODUCTION

A fifth season of work was undertaken by the Eccles Excavation Committee, from late March to the end of October, including a fortnight's full-time work in August 1966, at the site of the Romano-British villa at Rowe Place Farm, Eccles, in the parish of Aylesford (N.G.R. TQ 722605; O.S. 6-in. Sheet TQ 76 SW.).

Permission to continue with this work was readily granted by the landowners, Messrs. Associated Portland Cement Manufacturers Limited and the Reed Paper Group Limited. I am particularly in the debt of Mr. N. M. Adams, the Regional Estates Surveyor of the former company, for much help in this respect, and to the tenant farmers, Messrs. A. A. and A. C. Southwell whose interest, forbearance and practical help have greatly lightened the burdens of the excavation.

The excavation was again generously assisted by financial grants from the Kent Archaeological Society, the Society of Antiquaries of London, the Craven Fund and the Haverfield Bequest of the University of Oxford and by public donations.

My thanks are due to several members of the Lower Medway Archaeological Research Group and the many other volunteers who, though too numerous for individual mention here, made this excavation possible, and in particular to the following for their sustained support throughout a long campaign: Mrs. E. V. Jones, Miss M. B. V. Webster, and Messrs. I. J. Bissett, A. C. Harrison, B.A., T. Hetherington, T. Ithell, D. T. Jones, W. A. Knowles and C. E. J. Martin. I am also especially grateful to Mr. I. J. Bissett for much help with both field and pottery drawing; Mr. A. C. Harrison, B.A., for occasionally deputizing for me; Mr. R. G. Foord for taking charge of the monochrome photography and supplying the prints illustrating this report; Mrs. K. F. Hartley, B.A., for reporting on the mortaria; Dr. J. P. C. Kent, F.S.A., for his identification of the coins, and Mr. E. R. Swain for drawing the small finds. Finally, I owe a large debt of gratitude to my wife and eldest daughter for coping with the large amounts of pottery.

¹ *Arch. Cant.*, lxxviii (1963), 125-41; lxxix (1964), 121-35; lxxx (1965), 69-91; lxxxi (1966), 44-52. I am indebted to Professor S. S. Frere, F.S.A., for kindly reading this report in draft and contributing several valuable suggestions.

THE EXCAVATION

The programme of this season's work had as its aims to complete the examination of those parts of the site which had been previously incompletely explored and to carry out further trenching in the area lying north-east of the earliest bath building² and south-west of the late-Antonine ditch which forms the present limit of the site, where successive workshops are thought to have existed; a secondary object was to locate the site of the earliest villa, though it had become practically certain by the end of the 1965³ season that this structure would have to be sought elsewhere.

As one result, it has been possible to ascribe to different periods of occupation the two ditches considered together in the 1965 report;⁴ this has in turn entailed re-numbering the periods of occupation of the site.

Period I, ? to c. A.D. 43: Ditch I

The length of ditch first exposed in 1965, approximately north of the first baths, seems to form part of an enclosed area of shape as yet unknown and to turn sharply to east some 16 ft. 6 in. from the easternmost point exposed in 1965; in part of this course, the ditch which originally could have been as wide as 8 ft. but only survives to a width of 2-4 ft. in most trenches is intersected by the late-Antonine ditch before it continues beyond the limits of the present investigation. To south-west Ditch I appears to continue along the alignment found in 1965, passing under the stone platform discussed below and beyond the excavated area. A small pit, to south-west of the late-Antonine ditch of Periods V and VI, is likely to belong to this period of occupation. Pottery in the filling of both the ditch and the pit has not been plentiful, but a preliminary examination of the few sherds found suggests that the pit may have been filled in rather earlier than the ditch. Too little of this ditched enclosure is so far known to allow for a detailed interpretation, but many such enclosures are known to have existed in the immediately pre-Roman period at other Romano-British sites.⁵

Period II, to c. A.D. 55: Ditch II

Further trenches were cut across the line of Ditch II which runs below the north-western side of the site and was partly examined in 1965-66.⁶ In all, some 225 feet of this ditch have now been investigated, but no traces have so far been found for any turns; nor were

² *Arch. Cant.*, lxxix (1964), 121-35; lxxx (1965), 69-91; lxxxi (1966), 44-52.

³ *Ibid.*, lxxxi (1966), 45.

⁴ *Ibid.*, lxxxi (1966), 45-6.

⁵ E.g. at Greenhithe; *ibid.*, lxxxi (1966), 136-90.

⁶ *Ibid.*, lxxx (1965), 70; lxxxi (1966), 45-6.

any more post-holes discernible in the new trenches. The filling, however, of this ditch is very different at the present limits; to north-east, it contains much more clay and building débris such as roofing- and/or bonding-tiles whereas, to south-west, the filling consists almost entirely of clay with small flints, subsoil material obviously deriving from construction trenches cut elsewhere on the site. It is also noticeable that the greatest part of the pottery recovered from the filling of this ditch was concentrated north-east of the granary (Fig. 1) in an area of considerable later activity; conversely, this could also suggest that no other early structures are to be found south-west of the long boundary wall of Period IIIa.

Period III, c. A.D. 55-65

Fresh trenches were dug at either known limit of the long wall forming the south-western boundary of the first baths in Period IV. The west corner of this wall was exposed as well as part of its north-eastern line; in both cases, this wall had been robbed down to foundation level, which consisted of layers of river gravel, with scarcely any facing stones remaining *in situ*. This north-west alignment does not appear to be a continuation of the line of foundations passing underneath Room 47, running alongside the granary and reaching as far as the later Room 51; no reason can be suggested for this lack of alignment except, of course, that the two features in question are not contemporary—that this would be likely is further reinforced by the fact that the line of foundations consists of a construction trench filled with loose ragstone chippings, clearly deriving from stone-dressing elsewhere on the site, and very unlike the gravel foundations of the boundary wall mentioned above. At the other limit of this wall, a new trench provided a link between the 1965 length of wall and another first exposed in 1962.⁷ The wall here was preserved throughout the width of the trench to the two lowest courses of ragstone built on the same foundation of river gravel as noted further to north-west; on the other hand, the north-west wall of Room 77 had been completely robbed.

Rooms 76-78 are only partially established and their exact dimensions are not yet known; but they obviously formed part of an early building lying below the hypocaust underfloors of Rooms 19-23. Room 77, which was 8 ft. 6 in. wide, had a floor made of lumps of chalk, but further south-east the layers were seen to drop sharply for no obvious reason; as noted in 1962,⁸ the north-west wall of Room 78 had been bedded much deeper into its construction trench than further to south-west. To south-west of Rooms 76 and 77, much of the area

⁷ *Ibid.*, lxxviii (1963), 128.

⁸ *Ibid.*, lxxviii (1963), fig. 3, section E-F.

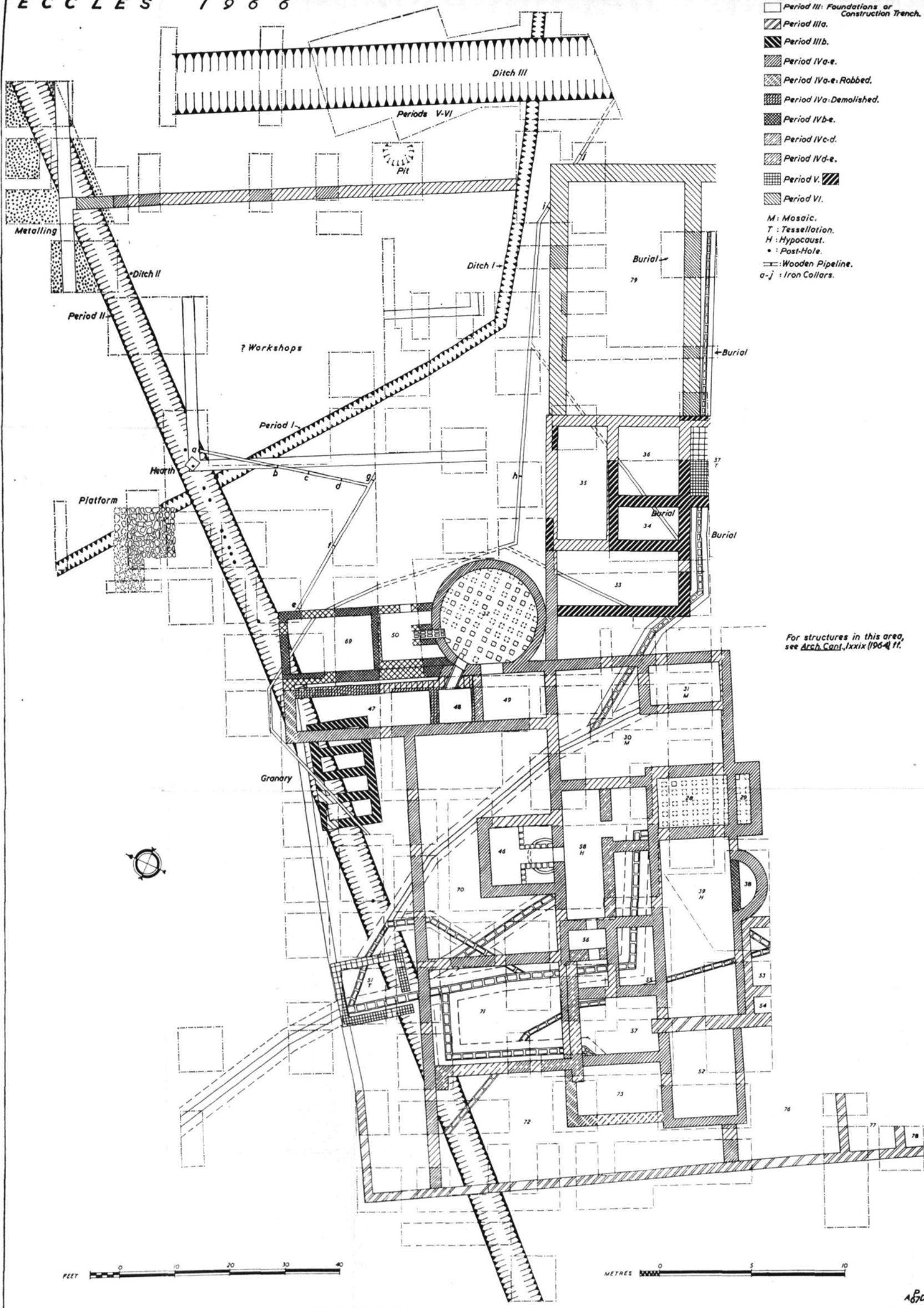


FIG. 1.

excavated seems to have been used for the deposition of building débris and domestic refuse, which had not been put into the usual pits but spread out on the Romano-British plough-soil. A similar deposit was found in 1964 in the area south-west of Rooms 47 and 48, and it is worth noting that sherds from these two deposits conjoin with others found in the filling of the late-Antonine ditch to the north-west of the site; on the basis of the distribution of these rubbish deposits alone, it would appear probable that the main quarters of the villa in its various phases of occupation must lie further to east and south-east of the areas excavated during the last five years, a fact confirmed by ground observation, air photography and some trenching in 1962-63.

Period IV, c. A.D. 65-120

(a) *The First Bath Building.* North-east of Room 35, two trenches cut in 1963⁹ exposed what seemed to be a robber trench running approximately north-west to south-east and turning to south-west outside the west corner of Room 35; this was later thought to be that of a wall probably connected with the villa workshops to north-west. Fresh trenches were cut across the north-east course of this presumed robbed wall and a small trench across the anticipated west alignment; the former trenches succeeded in extending the line of this feature further to north-east, but the latter failed in its purpose in that no evidence could be found for a similar robber trench—quite to the contrary, the successive floors laid in this area had not been cut through by any trench whatever. Moreover, a trench immediately to north-east of the 1963 excavation produced an iron collar (h) belonging to a wooden pipeline and clearly *in situ*. A reconsideration of the evidence as well as the discovery of more undisturbed iron collars (i and j) further to north-east, obviously extending the pipeline in that direction, compelled the conclusion that this long trench had been cut for the purpose of laying a water pipeline only and not for the construction of a wall; also, that this water pipeline is very likely to have been the main water supply to the first baths of the villa, with one branch skirting round Rooms 32 and 47 (Room 69 does not belong to the original plan of the baths) to supply the *testudo* in Room 46, and another to supply the cold plunge-bath (Room 31) of the *frigidarium*.¹⁰

The course of the main sewer for the earliest baths¹¹ was traced

⁹ *Ibid.*, lxxix (1964), fig. 1.

¹⁰ In drawing the 1963 site plan the line of a water pipeline, then described as a drain, was incorrectly shown diagonally across Room 34; its correct position is shown on the present plan.

¹¹ *Arch. Cant.*, lxxx (1965), 69-91; lxxxi (1966), 44-52.

further by cutting two trenches north-west and west of Room 51. In the former little had survived of the sewer channel itself, except for part of its superstructure which, as far as could be established in the deep robbing of this area, was vaulted over the sewer channel and constructed of ragstone bonded with the standard bright yellow mortar of this period; the channel itself did not possess the well-built sides of mortared ragstone faced with *opus signinum* it had elsewhere along its course,¹² nor was its bottom lined with tiles. Although the possibility of robbing has to be borne in mind, it would seem unlikely since part of the vaulted roof remained in place; it is more probable that outside the area of the baths, the main sewer was constructed as a simple channel cut into the subsoil and provided only with a cover—drainage within such a channel cut in clay would be just as efficient without the walled sides which the sewer would obviously need in its course below the various rooms of the baths suite. In the more westerly of these two trenches, only the construction trench for this sewer survived. The course of the main sewer has not been explored beyond this point, but it seems very likely that it continued to the west down the gentle slope, possibly to outfall into the Medway whose present course further away to west of the site is of comparatively recent date.

(b) *The Platform.* The stone platform partly exposed north of Room 69 probably also belongs to this period on the evidence of a Form 24 samian sherd of pre-Flavian date found stratified immediately below its stones (Plate I). This platform was discovered in a trench whose main aim was to explore the line of Ditch I beyond the point reached in 1965. Immediately below the topsoil and the usual layer of dark brown soil found in practically every trench on the site was exposed a fairly thin layer of bright yellow mortar which was both too compacted to be a mere débris layer and not sufficiently solid to suggest a mortar floor; when this layer was removed, it was seen to cover an area of stones, mostly large river boulders, showing no signs of wear which must mean that the mortar layer had been laid down both to fill the gaps between adjacent stones and to give a fairly flat surface to this platform. These stones extended across the width of the trench and had been laid on yellow-brown clayey soil; they were not present at the south corner of the trench and the regularity of their line immediately to north-west of this corner strongly indicates that they were never laid in that area. Stones such as these had been recorded in 1965 in two trenches further to south-east of the present one, and their alignment there appears to be their south-eastern limit. An effort was made to trace the north-western limit of this platform and it was established that it did not extend as far to north-west

¹² *Ibid.*, lxxix (1964), 124.

as the trench cut for this purpose; nor is its south-western limit known. For, though another trench did expose some similar stones at a comparable depth, the layer of mortar was absent and the stones were so disturbed that it is by no means certain that they formed part of this platform. More work is to be undertaken in this area in 1967 and, until the shape and limits of this platform are known, no useful purpose can be served by attempting to interpret its probable function.

Periods IV-V, c. A.D. 65-180: The Workshops

Although more trenching was carried out in the area south-east of Ditch II, it is still too early to attempt an interpretation of the various structures and successive floors present at this part of the site; it is hoped, however, to complete the excavation of this area in 1967 and to describe the probable workshops of the villa as a whole in the next report.

This part of the site seems delimited to north-east by a narrow wall which had been partly robbed at its known south-east limit; where surviving, this wall was 2 ft. thick and had been built of clay-bonded ragstone and into a shallow construction trench; this indicates that this wall was not intended to be load-bearing. Originally, the wall had been brought to a stop a little short of the line of the filled-in Ditch II, leaving a gap, 6 ft. 9 in. in width (Plate II); beyond the gap is the foundation trench of a wall at right angles, running north-east to south-west. This line is, however, partly conjectural as the area to north-west of the gap in the wall had been completely levelled when the metalling was subsequently laid down. The gap in this wall, clearly a boundary wall, could be a gateway into the area of the workshops; that it was not the result of robbing was clearly shown by the regular finish of the boundary wall at the point where it came to an end. Whatever its purpose, this gap had been blocked with mortared bonding-tiles after the deposition of a layer of débris to make up the level where some subsidence had occurred over the line of Ditch II. The pottery in this make-up layer belongs mainly to the last quarter of the second century A.D., and it suggests that this presumed gateway was blocked about the beginning of Period VI.

Periods V-VI, c. A.D. 180-290: Ditch III

Excavation has traced this ditch some 17 ft. 6 in. further to south-east than the point reached in 1965. Its outline continues to be a flattened U-shape and, if anything, its filling contained much more building débris than hitherto. It is worth observing, however, that little, if any, pottery among the vast amount of sherds recovered from the filling of this ditch can at present be dated much later than the

closing decade of the second century A.D.; it would appear very probable that the ditch had been completely filled in by the beginning of Period VI. If this conclusion can be definitively maintained, when the pottery is examined in detail, then it will indicate that by the end of the second century A.D. or thereabouts this north-east part of the site had ceased to be occupied. Furthermore, the blocking of the presumed gateway into the workshops compound, provisionally dated to about the same time as the filling of the ditch, would point to the same conclusion.

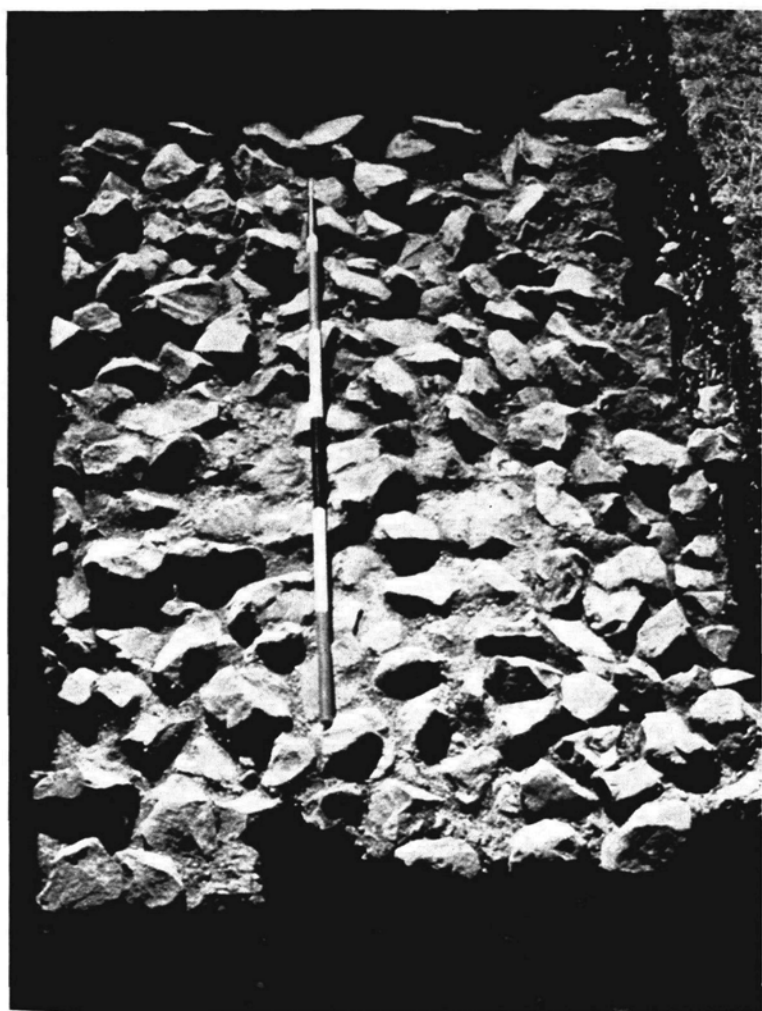
Period VI, c. A.D. 180-290: The Living Quarters

A series of trenches cut this season at the south-east limit of the area under excavation revealed parts of the walls of a large structure (Room 79) which had been mainly robbed, except for parts of the north-west wall. It had been trench-built to a width of 3 ft., with ragstone set in yellow mortar for the inner surfaces; the core of the wall had also contained a large proportion of building debris and lumps of tufa. As the excavation progressed, it became clear that the north-west line of this wall must have ended against the walls forming the north corner of Room 35 which were found, in 1963,¹³ to have been completely robbed; examination, however, of the drawn section at that point showed a pit to be recorded in the appropriate position; this can now be accepted as the robber trench of the north-west wall of Room 79 at the point where it abutted against the earlier wall of Room 35. The south-east counterpart of this wall is now clearly the length of wall examined in 1963-64,¹⁴ so that the whole area occupied by this structure measures no less than 21 ft. × 41 ft. 6 in., which would seem far too large an area for a single room in the sense of a living quarter. There could have been at least one partition wall dividing this area into two smaller units, but no evidence for such a division was forthcoming in any of the trenches nor, in view of the siting of these trenches, is it likely that one existed; however, more trenching in 1967 should settle this point. The whole area enclosed had been laid with a floor, varying from about 4 in. to 1 in. in thickness and consisting of white mortar laid directly upon a make-up layer of re-deposited subsoil. The function of this structure is rather difficult to assess at this stage; if it is eventually shown to be a single room, its large size and poor flooring would suggest a storage or work area rather than part of the villa's living quarters.

Renewed activity would seem to have taken place during this period at the opposite limit of the excavation area in the vicinity of the presumed gateway into the earlier workshops; the beginning of

¹³ *Ibid.*, 130.

¹⁴ *Ibid.*, 133.



Period IV: Stone Platform.

Photo: A. P. Detsikas



Photo: R. G. Ford

Period VI: Metallurgy.



The Tilery: General View from South.

Photo: R. G. Foord



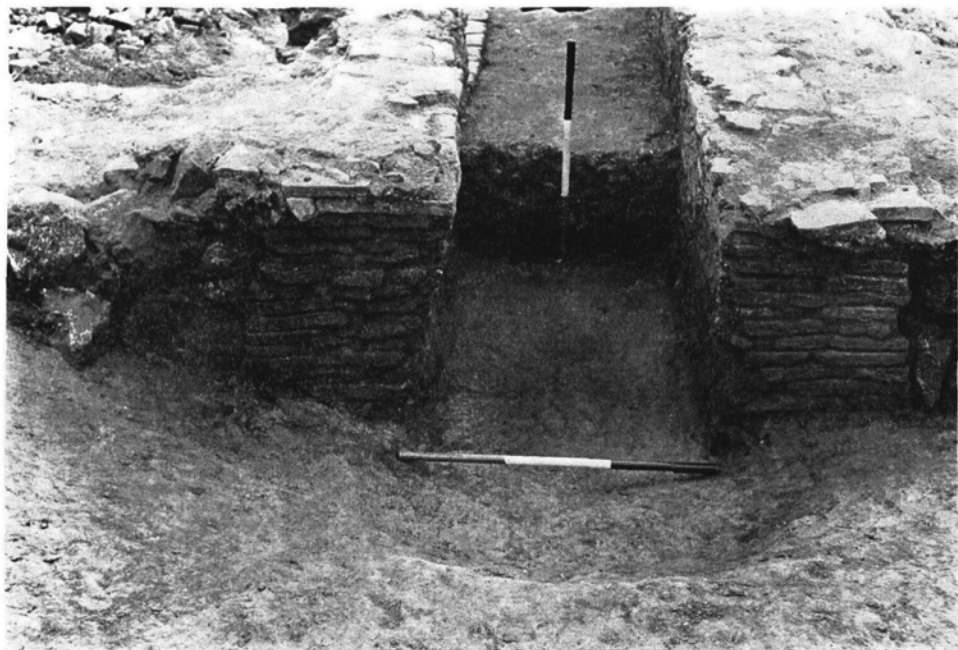
The Tilery: General View from East.

Photo: R. G. Foord



The Tillery: The Central Flue.

Photo: R. G. Foord



The Tilery: The Stokehole Pit and Firing-Tunnel.

Photo: R. G. Foord

this new occupation cannot at present be closely dated, but there is little doubt that it post-dates the blocking of the gateway. The evidence for the re-occupation in that area is the metalling (Plate II) exposed at the north corner of the workshop compound; this metalling consisted of small stones, cobbles and the occasional small piece of tile, all closely packed together and set into bluish clay, possibly deriving from the Medway. The metalled area extended south-east some 2 ft. 6 in. beyond the line of the filled-in ditch of Period II which it closely followed to north and south of the examined area; care had clearly been taken to level down the blocking of the presumed gateway and the metalling had been carried to north and south of this wall over the bottom course of blocking tiles. The extent to north and south of this metalling is not yet known, but a layer similar to that finally deposited over it was recorded in 1965 in the trench immediately to the south-west of the present limit of the metalling and it is possible that the latter extended that far to south-west. Whatever its purpose, the area seems to have fallen once more into disuse and filled in with a black deposit containing much ash, soot, charcoal, clay, building débris, animal bones and pottery which suggests final abandonment of this part of the site about the end of the third century A.D. and coinciding with the provisional closing date for Period VI.

SUMMARY AND DISCUSSION

After five seasons' work at this extensive site, the sequence of its occupation can be tentatively summarized as follows:

The earliest period seems to be represented by the ditched enclosure (Ditch I), in occupation probably early in the first half of the first century A.D. and lasting to about the time of the Roman conquest; the form of this occupation is not yet determined, but it seems to have ended about the time the long rectilinear ditch of Period II was cut. Nothing positive can be suggested about the form occupation took in this following period either, except to establish its presence and probable chronological limits.

Occupation of the site in true Roman manner, i.e. rectangular structures built in stone and mortar, followed upon the preceding period but here, too, the evidence is very fragmentary and, at present, out of reach. Period IV, with its probable workshops and large bath building is firmly established, though it is possible that future work at the site may bring about some modifications in matters of detail; it is clear now that the dwelling to which this bath-house belonged must be sought in the opposite direction from where the last two years' work has been concentrated. No more features belonging to Period V have come to light, but Room 79 of Period VI points again to the direction where further investigation will be fruitful. It has been

known from the very outset of work at the site that the centre of gravity, as it were, of the villa lay to south-east and south-west of the areas explored in 1962-6, and it is only the need both to complete the baths and to explore for signs of other occupation to west and north-west that has delayed the investigation of the main buildings.

Whatever may develop in future seasons, it can only serve to underline the established fact of an extensive site in occupation before and throughout the Romano-British period (it is worth noting in this respect that not a single sherd of post-Roman pottery has been found so far); whether size is necessarily in this case an indication of importance only future work will establish.

II. THE TILERY

INTRODUCTION

Excavations were undertaken during Whitsun 1966 and the following weekend at a site close to the villa on land belonging to Messrs. Reed Paper Group Limited and used as a waste-paper storage yard; they resulted in the recovery of the plan of a rectangular tile-kiln (Fig. 2 and Plate III). This work could not have been carried out without the willing co-operation of the landowners and their local management to whom grateful acknowledgment is here made for suspending their operations in order to allow for the excavation and recording of this tiler.

THE SITE

The site of the tiler (N.G.R. TQ71736047; O.S. 6-in. Sheet TQ 76 SW) is situated on the junction of the Gault clay and terrace gravel¹⁵ some 484 yards to the south-west of the villa complex and was discovered in the course of bulldozing operations in advance of an extension of the waste-paper storage yard; unfortunately, it is virtually certain that some of the evidence was lost before bulldozing was suspended and with it an opportunity of recording a tiler preserved to some height. The site is now concreted over and incorporated in the paper yard.

THE EXCAVATION

By the time the examination and recording of the site was begun, the bulldozer clearance had reached a depth of over 3 ft. below ground level and the whole area was covered with a mass of tile fragments and burnt clay; furthermore, most of what remained of the tiler had been badly eroded by the bulldozer, the entire superstructure completely

¹⁵ Information from Dr. R. P. S. Jefferies, F.G.S.

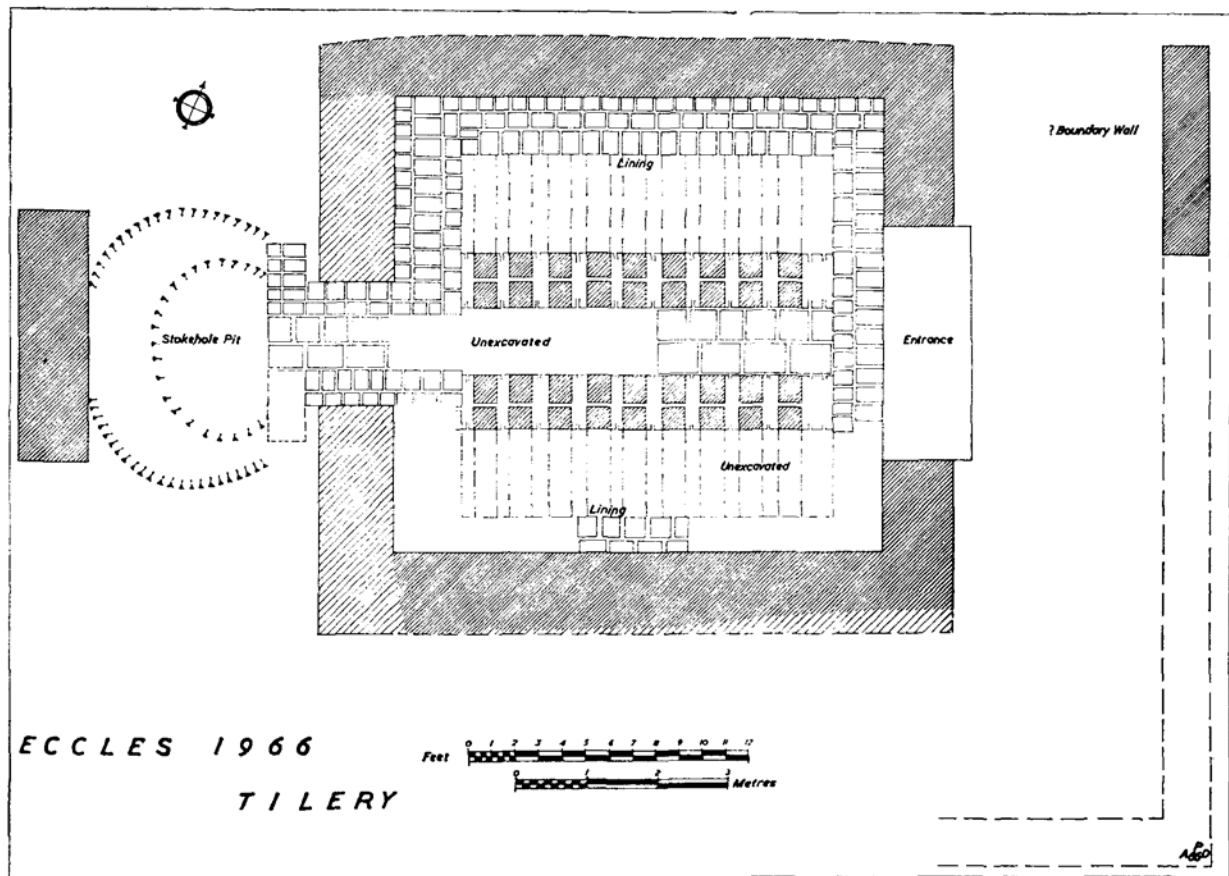


FIG. 2.

destroyed and the oven and stokehole pit filled with material deriving from other parts of the site and packed into them by the bulldozer. However, complete stripping of all this débris eventually yielded both the plan of the kiln and sufficient undisturbed material on which to base a tentative dating.

The tilery was rectangular (Plate III) and belongs to a well-known type. Externally, it measured 26 ft. 2 in. \times 25 ft. and, internally, 16 ft. \times 15 ft. 6 in. Its walls were trench-built into the subsoil with ragstone and yellow mortar, very reminiscent of the construction of the villa walls in Period VI (c. A.D. 180-290); the thickness of these outer walls varied from 2 ft. 6 in. to some 3 ft. 6 in. Most of the west and some of the south walls had been completely demolished by the bulldozer, though their alignment could easily be traced. The west wall was pierced by the firing-tunnel, and there was also a gap, 10 ft. 6 in. wide, in the east wall which must have been the entrance through which the kiln was loaded and emptied; presumably, this entrance would have been blocked with tiles to be removed at the end of each firing. Indeed, the wall at this point was littered with many tile fragments which must be the remnants of such a blocking.

The oven consisted of a centrally-placed flue, traversed by nine cross-walls, and two chambers; of the latter, the northern was the least disturbed by the bulldozer and was fully excavated but, in view of the time available for this work only the outline of the southern chamber was traced—it would be very improbable for both chambers not to be identical in all essentials.

The northern chamber (Plate IV) was lined internally by several courses of bonding-tiles (how many exactly it could not be established because the floor of the oven had not survived), but also including some *pila*-tiles serving both as heat absorbers and to prevent thus the decay of the ragstone walls through heat. The coursed tiles of these linings were set in a mixture of brown soil and clay, burnt red and acting as bonding agent; no mortar was observed in these linings which varied in thickness from 1 ft. 6 in. to 2 ft. 10 in. (Unless bulldozer clearance is responsible, the linings in the southern chamber appear less thick.)

The nine cross-walls had been completely demolished and traces of them remained only across the width of the central flue; they were probably built entirely of tiles to a width of 1 ft. and some 6-7 in. apart. The remaining tiles of these cross-walls were very friable, and it could not be seen whether they had been clay-bonded or mortared. There were also some indications that these cross-walls may have been rebuilt at least once, but bulldozer action precluded certainty. Nothing survived of the arches upon which the cross-walls would have been carried across the central flue; the bulldozer driver reported, however, noticing several archways but, though closely questioned on this point,

it is not clear whether these arches were intact *in situ*, collapsed through decay *in situ* or collapsed as a result of bulldozing.

The central flue (Plate V) was 13 ft. long and 2 ft. 9 in. wide; its sides, approximately 1 ft. 6 in. thick, had been built of bonding-tiles and backed for greater stability by large sandstone blocks which had become brittle and burnt a deep red colour. Internally, the flue was faced with clay which had been baked to a brilliant brick-red colour and, in the vicinity of the firing-tunnel, was vitrified. A section was cut through the north side of the flue (Plate V), and this showed that the side had not been bedded quite to the depth of the floor of the flue; instead, its coursed bonding-tiles stopped about 1 ft. above the floor level and, below this depth, a single row of bonding-tiles had been set upright against the subsoil and faced with baked clay.

The floor of the flue was exposed in two places, below the entrance and along about one-half of the firing-tunnel where it had been badly disturbed; it had remained undisturbed, however, below the entrance of the tilery (Plate V) underneath a thick deposit of burnt debris tightly packed by the bulldozer, and it was here that its construction could be recorded. The floor consisted of three layers of clay-bonded tiles which had baked red: the bottom layer consisted of bridging-tiles set into a red-baked layer of clay laid on sand and gravel; the middle layer, likewise bonded, consisted of roofing tiles-placed with their flanges uppermost so as to contain the red-baked clay serving as bonding for the upper layer of bonding-tiles, one line of which was laid lengthwise and the other along their width.

The firing-tunnel of the oven (Plate VI) was 8 ft. 1 in. long and 2 ft. 5 in. wide, slightly narrower than the central flue owing to the projection of the cheeks; the latter, like the chamber linings, were built of bonding-tiles and a few *pila*-tiles; they were about 1 ft. 6 in. wide, but heat had baked them to such an extent that it was impossible to establish whether the bonding agent was clay or mortar. These cheeks projected some 6 in. beyond the west wall of the kiln and then continued for some 2 ft. 9 in. to north and south of the mouth of the firing-tunnel on a foundation of loose ragstone (Plate VI) which had also been used to fill the gap between the inner face of the cheeks and the outer surface of the kiln's west wall. The southern projection of the cheeks had been entirely removed by the bulldozer. The floor of the firing-tunnel was identical in construction with that of the central flue.

The stokehole pit (Plate VI), immediately to west of the firing-tunnel, was cut into the subsoil and its maximum diameter was very nearly 12 ft.; it was deepest immediately in front of the firing-tunnel where a rather deeper pit, some 8 ft. in diameter, had been dug. The whole area was filled in with debris deriving from the bulldozer

action but, fortunately, this had not reached very far into the deposit of soot, ash and charcoal filling the pit.

Immediately west of the stokehole pit, indeed touching its perimeter, was a length of wall, 2 ft. 6 in. wide and 11 ft. long, built of ragstone and yellow mortar and symmetrically placed opposite the mouth of the firing-tunnel. Only the two lowest courses of this wall survived, but it was possible to ascertain that it had neither been robbed nor demolished by the bulldozer beyond the limits shown on plan (Fig. 2); its function is clearly similar to that of a modern baffle-plate to prevent a direct draught into the firing-tunnel and so to minimize the risk of an uncontrolled surge of flames into the flue.

To east of the tilery and some 9 ft. beyond its eastern wall were recorded remains of another wall; this had survived only as foundation courses, was built of ragstone and yellow mortar to a thickness of only 1 ft. 6 in. and could only be traced for a length of 9 ft. 6 in., ending to north against the natural slope. The area between this wall and the kiln was very likely paved with tiles; indeed, many of these were found undisturbed and support this conclusion. The bulldozer driver reported that this wall had survived much further to south than seen and continued to west as shown on the plan (Fig. 2); on this point, the driver was quite certain, even complaining on the difficulty his machine had met in demolishing this wall! If this can be relied upon, and it seems to fit the evidence of some indentations and mortar in the ground about the area of the reportedly demolished wall, then it is almost certain that the tilery had been enclosed to east, south and west by a boundary wall, the western wall lying beyond the stokehole pit in an area which was not explored in view of the limitations of time and the vast amount of overburden accumulated by the bulldozer; to north, the natural slope would make an enclosing wall quite unnecessary.

Tiles of four kinds were recorded; all, except for an *imbrex*, had been used in the construction of the linings, flue sides and floor, and must have originated at another kiln. The raw material used would seem to be a mixture of sand and clay, firing almost without exception buff in colour: (i) *Pila*-tiles measuring $8\frac{3}{4}$ in. \times $8\frac{3}{4}$ in. \times $1\frac{3}{4}$ in. or 2 in. and one base tile for *pilae*, measuring 11 in. \times 11 in. \times $2\frac{1}{2}$ in.; (ii) Bonding-tiles varying in size from a maximum of $17\frac{1}{2}$ in. \times $11\frac{1}{2}$ in. \times $1\frac{3}{4}$ in. or 2 in. to a minimum of $15\frac{3}{4}$ in. \times $10\frac{3}{4}$ in. \times $1\frac{3}{4}$ in.; (iii) Bridging-tiles, measuring 22 in. \times 22 in. \times 3 in.; and (iv) a single *imbrex* tile, $15\frac{1}{4}$ in. in length.¹⁶

No certain evidence could be rescued to establish what sort and size of tiles were fired in this kiln as distinct from those used in its construction. The bulldozer driver reported clearing away at the time

¹⁶ These materials can be matched with tiles used at the villa.

'stacks of bricks' but, as none of this material could be examined, no reliance can be placed upon this statement; in fact, it is more than probable that the 'bricks' in question were precisely that and derived from the nineteenth-century brick-kilns known to have been sited in the immediate vicinity of the tillery.

DATING

The material recovered was not plentiful, and most of it had to be discarded for dating purposes as it was clearly not securely stratified. However, enough stratified pottery was found (see Appendix) to date the construction and probable life-span of this kiln.

The few sherds stratified below the lining in the northern chamber and floor of the central flue confirm the evidence of the mortar used in the building of the tillery; this would date the construction of the kiln late in the second century A.D. The pottery recovered from the filling of the stokehole pit and the firing-tunnel indicates that the tillery had a long life and continued in use until the late third century A.D. Its dating must, therefore, fall within that of Period VI at the villa site, i.e. c. A.D. 180-290.

DISCUSSION

Tile-kilns are not very common in Kent. Canterbury has produced two, one in 1952¹⁷ which shows some affinities with the Eccles tillery, the other in 1956;¹⁸ more recently, two pottery kilns from Slayhill Marshes, Upchurch, were published in 1963¹⁹ and of these Kiln 2 could be a tile-kiln. A rather close parallel to the Eccles kiln was recently excavated at Brampton, Cumberland,²⁰ and shows a similar arrangement but lacks the tiled linings of the Eccles structure. Broadly speaking, kilns of this kind belong to Grimes' Type 3 from the legionary kilns at Holt, Denbighshire.²¹

A tillery at such close proximity to the extensive villa was probably intended for the production of building materials to be used at the villa; if so, and there can be little doubt about this, then it is almost certain that tiles for the villa Period VI were manufactured here. It is also equally certain that another tillery must have existed in this area or not too far away from it; not only for the production of the tiles used in earlier periods at the villa, but also for the construction of the tile-kiln itself: this earlier kiln remains to be found.

¹⁷ *Antiq. Journ.*, xxxvi (1956), 40-5, esp. fig. 2.

¹⁸ *Arch. Cant.*, lxxiv (1960), 154-5.

¹⁹ *Ibid.*, lxxvii (1962), 192.

²⁰ *JRS*, liv (1964), 155; *OW*², lxxv (1965), 133-68.

²¹ *Y Cymmrodor*, xli (1930), 59-60.

APPENDIX

THE FINDS

Abbreviations and References

<i>Colchester</i>	M. R. Hull, <i>The Roman Potters' Kilns of Colchester</i> , Oxford, 1963.
<i>Gillam</i>	J. P. Gillam, 'Types of Roman Coarse Pottery Vessels in Northern Britain', <i>AA⁴</i> , xxv (1957), 1-40.
<i>Greenhithe</i>	A. P. Detsicas, 'An Iron Age and Romano-British Site at Stone Castle Quarry, Greenhithe', <i>Arch. Cant.</i> , lxxxi (1966), 136-90.
<i>Leicester</i>	K. M. Kenyon, <i>Excavations at the Jewry Wall Site, Leicester</i> , Oxford, 1948.
<i>Ospringe</i>	W. Whiting, W. Hawley and T. May, <i>Report on the Excavation of the Roman Cemetery at Ospringe, Kent</i> , Oxford, 1931.
<i>Richborough I-IV</i>	J. P. Bushe-Fox, <i>Excavations of the Roman Fort at Richborough, Kent</i> , Reports I-IV, Oxford, 1926-49.
<i>Southwark</i>	K. M. Kenyon, <i>Excavations in Southwark</i> , 1959.

Finds in general were not at all plentiful and consisted almost entirely of coarse pottery found mostly in a layer of ashes, soot and charcoal filling the stokehole pit and extending some 18 in. into the firing-tunnel; all the sherds in this deposit were badly burnt. A few fragments of bone, probably from a sheep, an unstratified scrap of samian, of Form 27 and Central Gaulish origin, and a few nails complete the inventory of the finds.

COARSE POTTERY

(Not illustrated.) From the clay bonding below the lowest tiled course of the lining in the northern chamber: Two sherds, both badly burnt; one of these probably belongs to the same bowl as the other which is from the lowest portion of the vessel. Though the surface is badly worn by heat, parts of a latticed decoration are discernible ending about three-quarters of an inch above the base of the pot; here firing has removed all traces of the usual burnished band. Quite clearly, this sherd belongs to a bowl or cooking-pot from the well-known series of such vessels with cavetto rims and burnished lattice decoration which are ubiquitous on Romano-British sites from the late-second century A.D. onward. Dating: later than c. A.D. 170.

EXCAVATIONS AT ECCLES, 1966

From the bonding clay below the tiles forming the upper floor layer in the central flue: Two sherds from different vessels, no rims; one of these shows slight remnants of a burnished decoration of parallel lines and belongs probably to a thin-walled bowl or jar. Dating of these sherds cannot be precise, but they would broadly agree with a date in the late-second century A.D.

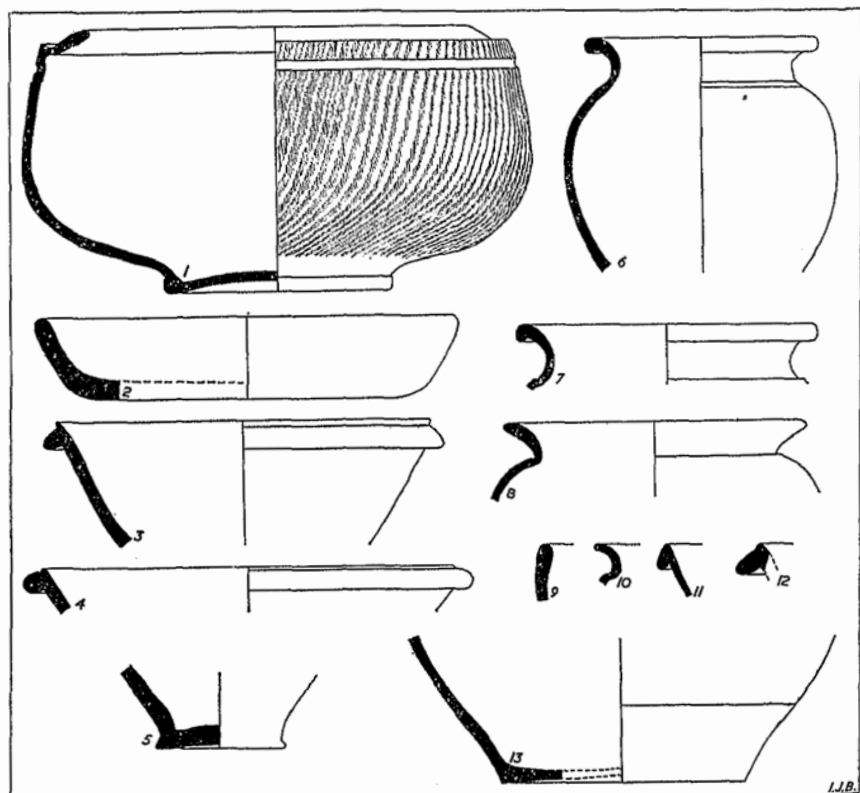


FIG. 3. Except for No. 2, all the pottery illustrated was found in the filling of the stokehole pit and firing-tunnel. (Scale: $\frac{1}{4}$)

No. 2 is represented by three sherds, two of which were found in the débris filling the central flue at a depth of about 2 ft. 6 in. and the other in similar débris on top of the flue wall; clearly this is the result of packing by the bulldozer and no dating reliance can be placed on these pieces. It is a very coarsely-made dish in yellow clay containing a large admixture of sand and is hand-made; very likely, it was made

at the site from the raw materials used for tile-making. Its general shape can be paralleled from several sites (e.g. *Osprunge*, 47, 244, etc.; *Leicester*, fig. 20, no. 4, ? fourth century A.D.; *Richborough I*, 106, and III, 344, both mid-fourth century A.D.), and its usefulness lies in suggesting that activity at the tilery site must have continued into the fourth century A.D.

1. Several fragments conjoining from a bowl, probably in colour-coated ware; very badly burnt and flaking. The fabric of the vessel is now grey; both outer and inner surfaces show clear signs of contact with fire, and the paste is now grey. In shape this vessel, which may have had a lid, is less angular than the Colchester bowl, its lip much more inclined (*Colchester* 308B, A.D. 180-200/300; cf. *Gillam* 342, A.D. 180-320).

3. Flanged dish in black-burnished ware; badly burnt. No burnishing survives (*Colchester* 305A, A.D. 250-400; *Leicester*, fig. 22, no. 13, A.D. 200-250; *Southwark*, fig. 24, no. 10, third century A.D.).

4. Dish in black-burnished ware; badly burnt, though some of the burnishing survives. This is a type transitional between the classical late-second century A.D. dish and the fully developed flanged dish.

5. Complete base and part of the wall of a very coarse pot, probably a cooking-pot, in a sandy fabric and paste, now burnt a brick red.

6. Cordoned jar with a rolled rim, sandy paste; originally probably grey, now burnt mostly brick-red (*Southwark*, fig. 16, no. 10, second-third century A.D.; cf. *Greenhithe* 236).

7. Cordoned jar in grey fabric and paste, partly burnt; traces of burnishing survive on the inner surface of the rim and it is very probable that the whole neck was burnished (*Colchester* 277B, late-second century A.D.; *Southwark*, fig. 16, no. 10, second-third century A.D.).

8. Cavetto-rim jar in black-burnished ware; traces of burnishing survive on the inner surface of the rim suggesting the usual burnishing of neck and shoulder of the vessel and a probable burnished lattice decoration; vessels of this type had a very long life (*Colchester* 278, A.D. 100-350; *Leicester*, fig. 26; *Southwark*, fig. 24, no. 2, third century A.D.).

9. Dish, rimless, badly burnt but very likely in black-burnished ware; a well-known type, with or without decoration, which lasted for a long time (*Southwark*, fig. 24, nos. 7 and 8, late-first to fourth century A.D.; *Colchester* 39 and 40, A.D. 120-300; *Gillam* 327, A.D. 130-180; *Leicester*, fig. 49, no. 5, to c. A.D. 220; *Greenhithe* 170, A.D. 120-150/170).

10. Jar, probably cordoned and in black-burnished ware, with burnishing traces inside the rim.

11. Dish in black-burnished ware, in grey fabric and paste; a rather thin-walled vessel, probably decorated with a latticed pattern and more upright than shown on the drawing (*Colchester* 37, A.D. 70-170; cf. *Greenhithe* dishes).

12. Flanged dish, badly burnt but very probably in black-burnished ware and much more upright than as shown (*Colchester* 305A, A.D. 250-400; *Southwark*, fig. 26, no. 10, third century A.D.; *Leicester*, fig. 19, no. 21, later than A.D. 220).

13. Several fragments conjoining from the base and wall of a large bowl, in grey-brown fabric and grey paste, with a band of burnishing partly surviving round the bottom of the wall of this pot.

Also from this deposit: Several body sherds, mainly from bowls and cooking-pots, some of which may belong to the vessels illustrated above, all dating probably not earlier than the third century A.D. Dating: The majority of the vessels present in this deposit lasted for a long period of time and is not very helpful towards a close dating; nevertheless, it is clear that a date of about A.D. 250-300 would cover all probabilities.