

EXCAVATIONS ON THE SITE OF A ROMANO-BRITISH SETTLEMENT IN JOYDEN'S WOOD, NEAR BEXLEY

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EXCAVATIONS have recently been conducted under the supervision of the writers on the site of a Romano-British settlement in the S.E. corner of Joyden's Wood, National Grid Reference TQ 50137082. The work has extended over three seasons (1951-53) and has revealed features which indicate the former existence at this point of a settlement occupied chiefly during the 2nd century but with some evidence of later habitation in the 4th century. No actual buildings or hut-sites have been found but a number of filled-in ditches have been traced and a small kiln uncovered. These features contained abundant evidence of their Roman age in the form of pottery and other datable material.

Digging in this densely wooded area has been very difficult, and the evidence here presented was obtained at the cost of considerable personal labour. We should like to express our thanks to those friends who have assisted in the enterprise, and for help and encouragement from various quarters.

The Site

Joyden's Wood covers a sandy plateau on the E. side of the Cray valley. It is well known to archaeologists for the numerous earthworks and deneholes it contains, none of which has been dated with any certainty. F. C. J. Spurrell made an extensive survey of the wood and published a plan of the earthworks in *Archaeological Journal*, XXXVIII (1881). Mr. A. H. A. Hogg re-examined the area on the basis of this survey in 1934 and published a plan, together with a summary of present speculation as to the age and purpose of the archaeological features, in *Arch. Cant.*, LIV (1941). The site of our recent digging is S. of the area covered by these former surveys and it cannot be claimed that the present discovery throws any direct light on the age of the earthwork complex in the main part of the wood. A possible relationship of the settlement to a well-marked ancient trackway, shown on the 6 in. O.S. map and noted also by Spurrell and Hogg,¹ is, however, worthy of consideration.

The first evidence of Roman occupation on the site of our investigation was discovered by the second-named writer in the spring of 1951. This consisted of a few sherds of coarse Roman pottery found on a

¹ This is shown as the trackway CD on Hogg's plan in *Arch. Cant.*, LIV.

rabbit-scape a few yards from the footpath between North Cray and Stonehill Green. In order to follow up this clue some trenches were opened at the spot and the features here described, of which there were no surface indications, subsequently brought to light.

The site of the settlement is a slight hill (over 250 O.D.), composed chiefly of Blackheath pebble-beds, rising above the general level of the plateau. To the S.E. the ground slopes away sharply, the chalk out-cropping from beneath the Tertiary beds about $\frac{1}{4}$ mile away. From here a fine view is obtained towards the valley of the Darent with the North Downs beyond. The river Cray is $1\frac{1}{2}$ miles westward and Watling Street runs $2\frac{1}{2}$ miles to the north. Both the Cray and the Darent valleys have produced evidence of intensive occupation during Roman times, but the intervening area has yielded comparatively few remains of this period. The nearest discovery of Roman material to our present site was made within the square earthwork $\frac{3}{4}$ mile to the north, as described in *Arch. Cant.*, LXI, p. 134, and consisted of a few Roman potsherds probably antedating the construction of the earthwork which is of presumed mediæval origin.

A plan showing the disposition of the Roman ditches and kiln in relation to later surface features and the present footpath is given in Fig. 1.¹ These surface features, consisting of a disused trackway, a boundary bank and a small gravel pit, do not appear to be related to the Roman settlement and may be of comparatively recent origin.

The Roman Ditches

There was not the slightest surface indication of these ditches but their dark fillings showed clearly in the sides of our trial trenches and their courses were subsequently traced and their contents carefully examined.

The ditch AB was cleared for a distance of 147 ft. In section it presented a shallow V-shape with slightly hollowed sides. Its outline could only be traced in the clean pebbly sub-soil, the upper part of the sections being composed of about $1\frac{1}{2}$ ft. of dark humus and surface soil which could not easily be distinguished from the ditch filling. At point B the greatest depth of the ditch below the present surface was about 3 ft. and near point A it was a foot deeper. Possibly this difference is due to changes in surface level caused by ploughing over the site at a subsequent period. Its original width is estimated to have been 4 to 6 ft. Apart from a few inches of clean silting at the bottom, the

¹ The position of the area covered by the site-plan in relation to the features of the O.S. 6 inch map may be ascertained as follows: The intersection of the ditch AB with the footpath is 192 ft. N.W. of the point where the path crosses the boundary between the wood and the orchard, as shown on Kent Sheet VIII. S.E. A bench-mark (273.05 ft.) occurs here on a stile in the line of the boundary fence, as indicated on the O.S. map.

filling was a homogeneous dark soil containing many pebbles. Roman domestic rubbish occurred in this filling in great quantity throughout its entire length but was more concentrated N. of its intersection with the modern footpath. Coarse pottery, including much Patch Grove ware, Samian ware of the 2nd century, iron nails, fragments of querns, flint nodules, patches of charcoal, burnt clay and occasional decomposed fragments of bones were recovered. Small pieces of Roman roofing tiles also occurred, mainly in the upper levels. Near A the ditch faded out on the side of a slight hollow which appears to be of natural origin, while the other end, at B, came to an abrupt finish after making a slight unexplainable turn. Its course was resumed after an interval of 10 ft. and its continuation southward, on a slightly different alignment, has not been traced to its full extent.

Near A, another ditch of similar type joined the main ditch. Its filling contained pottery of the same character and in some cases sherds from the two ditches have actually been joined together, thus proving their contemporaneity. The extension of this ditch beyond C appears to have been destroyed by the gravel pit.

While the pottery in both these ditches was chiefly 2nd century in the main filling, the upper $1\frac{1}{2}$ ft. contained a scatter of bead-and-flange rims characteristic of the 4th century. Beyond this the stratification did not appear to have any archaeological significance. From the upright position of many of the sherds and the absence of lines of natural bedding it may be concluded that the main contents were the result of deliberate in-filling rather than slow accumulation. The pottery in the ditch AC was more fragmentary than in AB and the finds less numerous.

From the edge of the gravel pit a third ditch was traced for some distance towards D. It was of similar character to the others, the depth being about 3 ft. and the section generally V-shaped. The southern end did not connect with the pit but was separated from it by a short section of undisturbed sub-soil. Near this point the upper filling was composed of a mass of chalk lumps and flint nodules and further north much wood ash with sherds of pottery occurred. The pottery was fragmentary but of the same character as that in the ditches AB and AC. A large sherd, comprising the rim and side of a mortar, of 2nd century date, came from the lower filling.

The ditch shown on the plan passing from S.E. to N.W. across the kiln was apparently later than the 2nd century features. Its V section suggested a Roman date and it was filled to the surface with clean pebbly loam. The only artifacts from this filling were some small worn sherds including a few 4th century bead-and-flange rims. There is thus a possibility that this ditch was connected with the 4th century occupation of the site indicated by pottery of similar type in the upper levels of the earlier ditches.

The Kiln (Fig. 1)

This consisted of a roughly circular pit 3 ft. in diameter with a flat bottom $3\frac{1}{2}$ ft. below the present surface. The vertical sides were lined to a height of 1 ft. with a facing of burnt clay which had been destroyed on one side by the action of tree roots. Clear indications of the limits of the kiln on the destroyed margins were, however, shown by marks of burning on the floor level. Leading into the pit there was a narrow clay-lined trench representing the lower portion of the firing tunnel, and the plan of the whole feature thus resembles the outline of a flask. It is assumed that the kiln was fired from the ditch AC with which it apparently connected. The superstructure had entirely disappeared but there was probably a clay diaphragm across the top of the clay-lined furnace-pit. No structural support for such a diaphragm was, however, observed. Over the whole there may well have been a clay dome enclosing the vessels stacked for firing on the diaphragm. Many irregular fragments of burnt clay, possibly representing the collapsed superstructure, were found in the kiln, together with a mass of wood ash mingled with sherds of coarse pottery.

No clearly recognizable wasters were found on the site but it seems likely that the vessels numbered 16-21 and 29-32, described below, represent ware fired in this kiln. Most of these were found either in the kiln or in its immediate vicinity and sherds of this distinctive ware were very seldom met with outside this restricted area. Clay for the making of pottery could have been obtained a few yards away and experiments have been made in firing some of this material and matching it against pottery found on the site. While no certain conclusions can be drawn, the results of these experiments tend to confirm this identification.

An alternative suggestion is that the kiln was used for roasting corn to prevent germination in damp storage pits. Fourth century kilns designed for this purpose have been noted elsewhere and the practice may have been of earlier origin.

There is conclusive proof that the kiln is of approximately the same age as the ditches AB and AC for sherds from the kiln can be joined to vessels found nearby in the lower filling of AB, closely associated with Samian ware authoritatively dated to A.D. 130-140.

Surface Finds

Sherds of Roman pottery, pot-boilers and tile fragments occur on the surface of the wood around the site of the settlement. Extensive trial digging and probing was undertaken but failed to locate any structural features to which these finds might be related. This surface scatter seems to lie chiefly N.W. of the ditch AB and extends for at least 150 ft. North of the bank shown on the site-plan the subsoil is

ROMANO-BRITISH SETTLEMENT IN JOYDEN'S WOOD

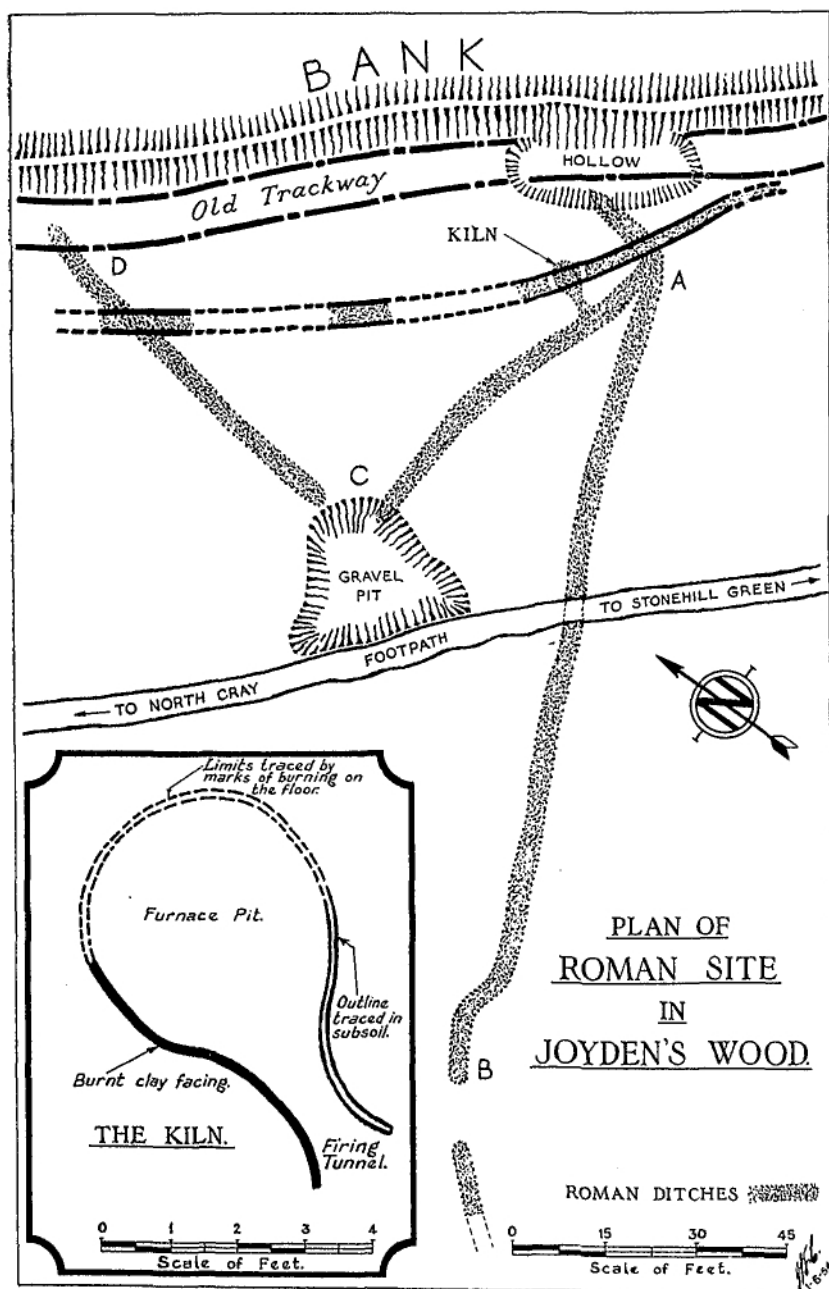


FIG. 1

ROMANO-BRITISH SETTLEMENT IN JOYDEN'S WOOD

heavy clay and the ground waterlogged. There was an entire absence of finds in this area.

CONCLUSIONS

Digging on this site was prolonged in the hope of finding traces of a building, but in this we were disappointed. That there were buildings of some sort in the locality is beyond all doubt for the quantity of finds from the ditches indicates a more than casual occupation, while the fragments of roofing tiles suggest a substantial structure rather than flimsy huts. On the other hand, not a single trace of mortar or plaster was found, or anything to indicate the proximity of a masonry building, apart from a small number of tile fragments with "combed" markings usually associated with flue tiles used in Roman hypocausts.

From a consideration of the general evidence we are inclined to believe that this settlement was at both periods of occupation in the nature of an open village. The elevated position of the site on light soil close to the chalk outcrop supports this conclusion for such situations were favoured for native-type settlements throughout the Roman period in continuance of prehistoric custom. Substantially built wooden huts could have carried tiled roofs and evidence of this practice has been noted at Richborough and elsewhere. Post-holes connected with these buildings could not be traced at Joyden's Wood owing to the deep penetration of tree roots and the impossibility of clearing a wide enough area of the woodland to make a search for these features practicable.

The ditches were possibly for surface drainage rather than defence, and these are usual features of Romano-British village sites. Their size in this instance is, however, remarkable, particularly as the soil is naturally well drained.

The period of occupation is determined by the dating of the pottery. A very small number of coarse sherds found in the ditches might be Iron Age survivals but they are too fragmentary and few in number to indicate an occupation of this period. All the Samian ware from the ditches is 2nd century and although some of the associated coarse ware might be referred on typological grounds to the second half of the 1st century the probability of the persistence of early forms must always be taken into consideration. Two coins found in the upper fillings of the ditches AB and AC belong to the latter half of the 2nd century. The pottery evidence supports the conclusion that these ditches were filled to within about $1\frac{1}{2}$ ft. of the present surface not later than A.D. 200 and thereafter a slight scatter of 4th century material accumulated in the final covering. Absence of finds which can definitely be referred to the 3rd century may indicate a period of abandonment of the site between the two main occupations.

ACKNOWLEDGMENTS

Permission to dig was kindly given by Mr. W. H. Barrett and Mrs. Lennard. Assistance in the digging was given on occasions by friends, including some members of the Bexley Local History and Antiquarian Group. We would like to acknowledge in particular the consistent support of Roger Taylor, who has been with us regularly throughout the three seasons' work. The Guildhall Museum cleaned and identified the Antonine coin and the British Museum (Natural History) identified

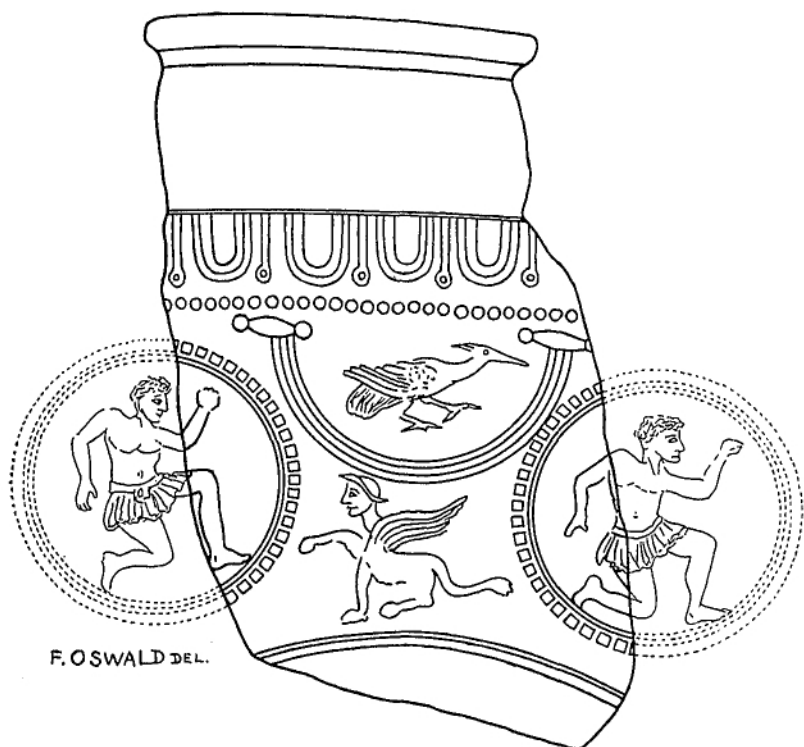


FIG. 2. Decorated Samian ware, form 37 (2)

the charcoals. The Geological Survey and Museum reported on the querns. Dr. Felix Oswald examined and dated the Samian ware.

The writers wish to extend their thanks to these and all others who have helped in various ways.

THE POTTERY

SAMIAN WARE

Decorated (Fig. 2)

Portions of a bowl, form 37, were found close to the bottom of the ditch AB and near its N. end. Dr. F. Oswald has kindly examined the

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sherds and stated that the vessel is the work of Doeccus of Lezoux and its date about A.D. 130-140. The O. & P. figure types shown are the kneeling warrior (O. 204), the crane (O. 2197) and the sphinx (O. 858). The rim diameter of the bowl is approximately 8 in.

Plain (not illustrated)

Form 18/31. Fragments of a vessel too small for accurate dating. Ditch AB.

Form 31. Sherds of vessel of 2nd century date. Ditch AB.

Form 33. (i) Almost complete vessel bearing the stamp QUINTI M for Quintus of Lezoux, a potter of the Hadrian-Antonine period. Rim diameter 4 in. Lower filling of ditch AB.

(ii) Complete side of vessel with rim diameter of 5.6 in. No stamp, but Dr. Oswald dates it to A.D. 140-150. Ditch AB.

Form 46. Base with rosette stamp at centre of bowl. (O. & P., Plate LV, No. 13). Probably Antonine. Ditch AB, southern end.

Ritterling form 8. Base with shallow footring. A rather late variety. From upper levels of ditch AB.

COARSE WARE

The bulk of the coarse pottery consists of common types of Romano-British vessels, chiefly of 2nd century date. An interesting feature however, is the association in the ditch fillings of 2nd century forms, including Samian ware, with Patch Grove and bead-rim vessels which by themselves would be referred to the second half of the 1st century. While the poorly stratified nature of the context makes it dangerous to carry this evidence of association too far, the fact that little independent evidence of 1st century occupation is forthcoming seems to indicate that Patch Grove ware and bead-rim cooking pots were in use here at least as late as the middle of the 2nd century. These two types of pottery are of pre-Roman origin and are commonly found in association on 1st century sites in the Darent and Cray valleys. (See *Arch. Cant.*, LI, 1939, *Excavations on Oldbury Hill, Ightham*, by J. B. Ward Perkins, pp. 176-180.) Their occurrence at Joyden's Wood, situated between these two rivers, is therefore well within the known field of distribution.

1. Large storage jar of corky, brown ware, with zone of stabbed decoration between girth grooves. The form and decoration of this vessel link it with the Patch Grove pottery described below. Bottom of ditch AC.

2. Storage jar of Patch Grove ware. Grey clay with dull orange surface. Rilled neck and zone of stabbing around shoulder. Found in

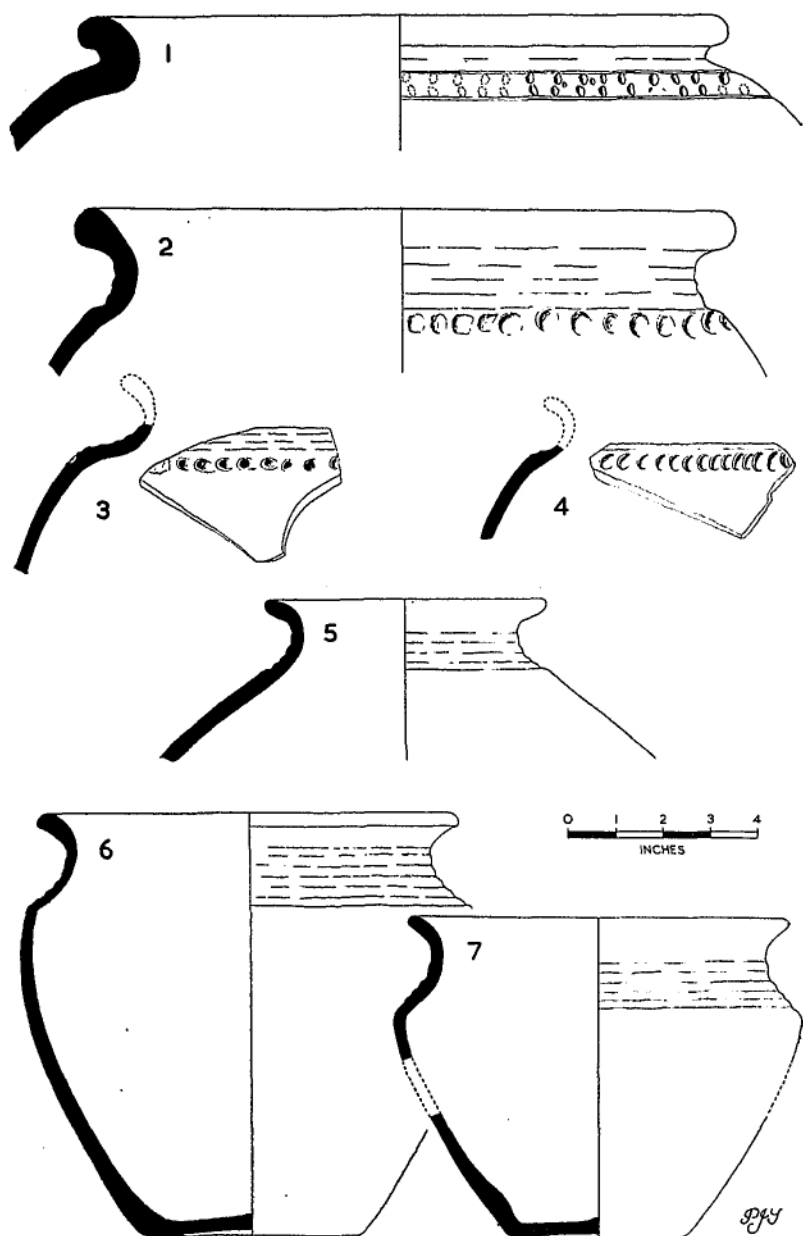


FIG. 3. Coarse Pottery

lower filling of ditch AB in very close association with the Samian form 33 bearing the stamp of the Hadrian-Antonine potter Quintus of Lezoux. Another large sherd of this jar, which actually joins with that illustrated, came from the filling of AC. Very similar vessels from the Otford villa and Orpington, associated with 1st century pottery, are illustrated in *Arch. Cant.*, LI, p. 179.

3 and 4. Patch Grove vessels similar to the last. Lower filling of ditch AB.

5. Upper part of Patch Grove vessel of unusual form. Brown, leathery surface. The surviving portion suggests a resemblance to *Richborough III*, No. 248, which is dated A.D. 50-75. Lower filling of ditch AB.

6. Patch Grove vessel of the form most commonly represented at Joyden's Wood. Grey, porridgy clay with leathery brown surface. Slight unevenness and distortion with pitting of the interior surface are common features. This example came from the primary silting of the ditch AB near its junction with AC, but portions of many other similar vessels occurred at higher levels throughout the entire length of these ditches and also in CD. Cf. *Arch. Cant.*, LI, p. 175, No. 14, from Otford villa and dated A.D. 50-75. Also, *Arch. Cant.*, LXV, p. 57, Nos. 68 and 69, from Lullingstone, which occurred in an Antonine context.

7. Similar to last but with orange surface. Lower filling of AB.

8. Bead-rim cooking pot of hard, gritty ware. Fumed surface but lower part reddened by constant burning. Like the Patch Grove ware, with which it is associated here and on other sites, these vessels are of pre-Roman origin and survived for a considerable time. Lower filling of ditch AB. Cf. *Arch. Cant.*, LXIII, p. 15, Nos. 2, 3, 4, and 5, from Lullingstone.

9-12. Series of bead-rims similar to the last. The tendency to internal projection is characteristic of 1st century bead-rim vessels in N.W. Kent. (See *Arch. Cant.*, LI, p. 178, and p. 175, Nos. 15-18, from Otford, Crayford and Limsfield. They are noted also to occur at Charlton and Orpington.) From ditch fillings.

13. Olla with bead-rim slightly recessed inside. Grey clay containing coarse grit, with brown-black surface. From lower filling of AC. Cf. *Richborough III*, No. 245, A.D. 80-120.

14. Wide-mouthed olla of hard grey ware. Cordon at base of neck and scored wavy line around shoulder above girth groove. This form is a Belgic survival. From upper part of 2nd century level in ditch AB. Cf. *Ospringle*, No. 420, which was associated with late 2nd century Samian ware.

15. Small olla with outbent moulded rim. Hard, grey, fumed ware. Main filling of ditch AB. Cf. *Richborough III*, No. 264, A.D. 80-120.

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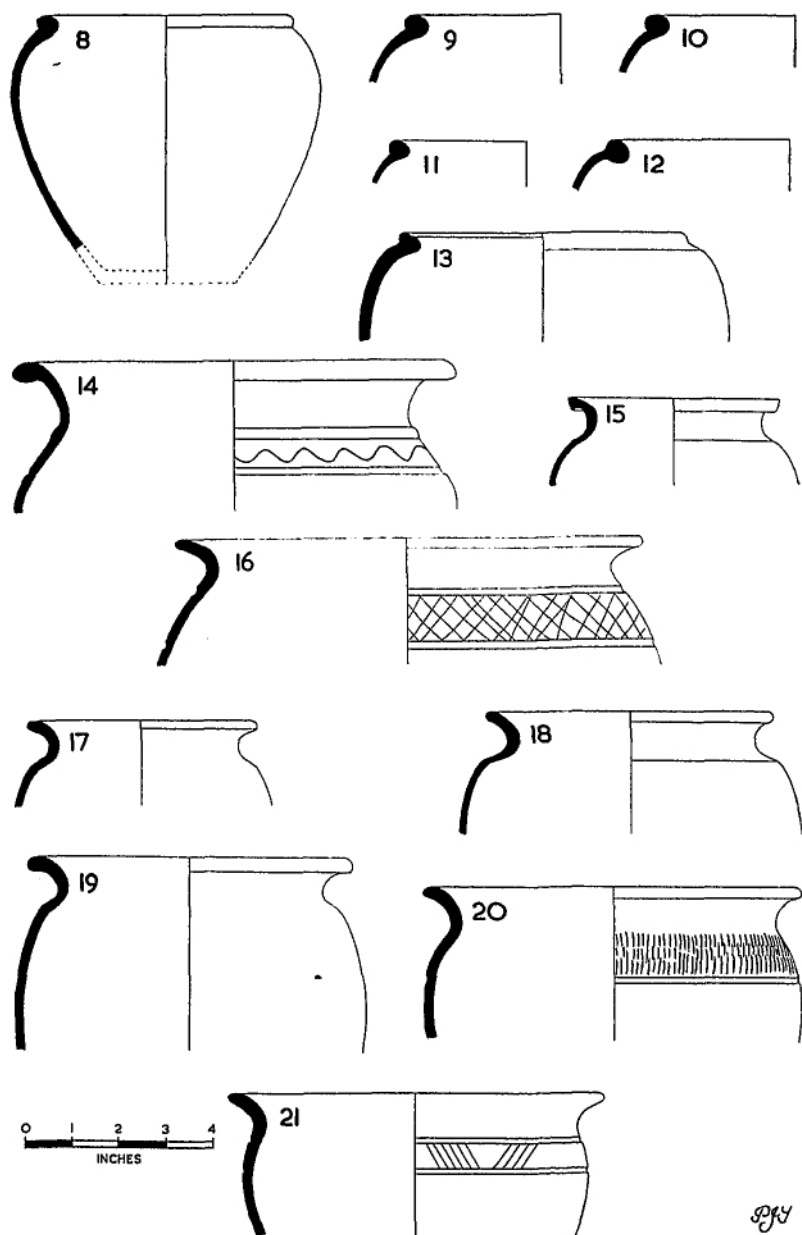


FIG. 4. Coarse Pottery

16. Large olla with zone of scored lattice decoration around shoulder bordered by girth grooves. Reddish-brown clay with grey core and fumed black surface. Lower filling of AB. Possibly a local product as other sherds of this ware occurred frequently in the kiln or in its immediate vicinity. This type of pottery bears a resemblance to the so-called Upchurch ware. Cf. *Ospringle*, No. 512, associated with Samian ware of A.D. 140-190.

17. Olla from kiln furnace. Similar ware to the last, but surface eroded.

18. Olla of similar ware to 16. Found at bottom of ditch AB at its N. end near the kiln, in very close association with the Samian vessel of A.D. 130-140.

19. Olla of similar form to the last two examples. Part of the rim is distorted and this may be a waster. It was found in the kiln furnace. Dark grey ware with brownish surface.

20. Bowl-shaped olla with S profile and zone of rouletted decoration around shoulder above groove. Similar ware to 19. Found in close association with 18. A vessel of very similar form and decoration came from the kiln.

21. Olla resembling the last, and of similar ware to 16. Zone of scored lines between girth grooves. The decoration is worn and only the part remaining visible is illustrated. Found in kiln with 17 and 19. Possibly this vessel and the last are derived from a pre-Roman type represented by *Swarling*, No. 20.

22. Olla with outbent rim. Hard, grey clay with reddish-brown surface. Probably late 2nd century. From the main filling of ditch AB.

23. Small olla or beaker with outbent rim, similar to last. Orange-brown ware. From lower filling of AB.

24. Small olla with short, outbent rim. Grey clay with black varnished surface and decoration of scored vertical lines. Bottom of ditch AB and at S. end. Cf. *Ospringle*, No. 359, which was found with 2nd century Samian ware.

25. Mortarium of hard, grey ware with traces of buff coating. No grits remaining. Lower filling of ditch CD. Cf. *Arch. Cant.*, LIII, p. 121, Nos. 8 and 12, 2nd century.

26. Mortarium rim of white ware. Its age is uncertain as similar forms occur elsewhere in 2nd and 4th century contexts. Cf. *Caerleon*, No. 290, Hadrian-Antonine, and *Arch. Cant.*, LXIII, p. 20, No. 32, from Lullingstone, 4th century. This example came from the ditch AB at the junction of the 2nd and 4th century levels, 17 in. from the surface. The sherd is larger and less worn than most of the 4th century material.

27. Mortarium rim of orange clay with traces of buff slip. From top of 2nd century levels of ditch AC and associated with the coin of

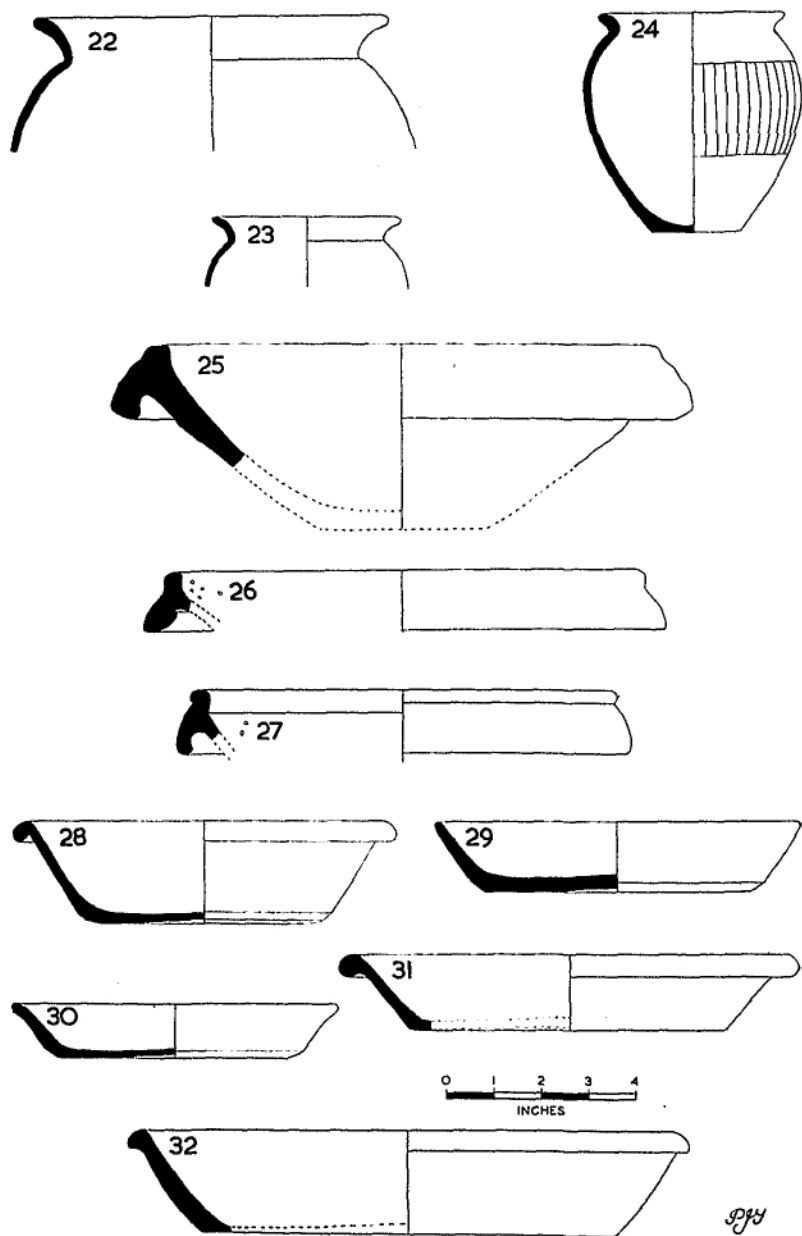


FIG. 5. Coarse Pottery

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Commodus (A.D. 180-192). Cf. *Caerleon*, No. 297. Possibly late 2nd century, though this form is usually regarded as later.

28. Bowl or platter of common 2nd century form. Many vessels of this type occurred on the site. Grey ware. Bottom of ditch AC near junction with kiln firing tunnel.

29-32. Bowls and platters of common type. Reddish-brown ware with grey core and black fumed surface. These are further examples of possible local kiln products and may be grouped with Nos. 16-21. 29, 30 and 32 came from the bottom of the ditch AB near the kiln and were associated with the Samian vessel of A.D. 130-140. 31 came from the lower filling of AB further S.

33. Castor ware hunt cup of a well-known type. Orange clay with black coating. Decorated *en barbotine* with figures of two hounds pursuing a stag. Vessels of this type make their first appearance in the latter part of the 2nd century and from its associations this cup is unlikely to be later than that period. Found in the main filling of the ditch AB.

34. Castor ware beaker, similar in form to the last. Plain lip with slight internal thickening. Orange clay with dark, bluish coating. Decorated with two zones of rouletting. Found in many fragments at bottom of ditch AB closely associated with Samian ware of A.D. 130-140, though a date similar to No. 33 would be more generally accepted.

35. Poppy-head beaker. Grey clay with black surface and characteristic decoration of raised studs, some of which are worn off. From upper 2nd century deposit of ditch AB. Cf. *Richborough I*, No. 54, Antonine.

36. Small flask of grey ware with cordon at base of neck. Ditch AB. 2nd century.

37-39. Flanged bowls with oblique straight sides. Fragments of these vessels occurred commonly in the upper 1½ ft. of the ditch sections but never in the lower levels. Cf. *Richborough I*, Nos. 121 and 122, 4th century.

40. Fragment of moulded 4th century rim of pink clay. Surface soil.

41. Mortarium rim of red-coated ware. Surface soil over AB. Cf. *Richborough I*, No. 102, mid-4th century.

42. Fragment of rim grooved to receive cover. Ditch AB. 1½ ft. deep. Cf. *Richborough III*, No. 346, 4th century.

MISCELLANEOUS FINDS

Apart from the pottery, finds have been very few and of slight interest. The following objects, are, however, considered worthy of record :

ROMANO-BRITISH SETTLEMENT IN JOYDEN'S WOOD

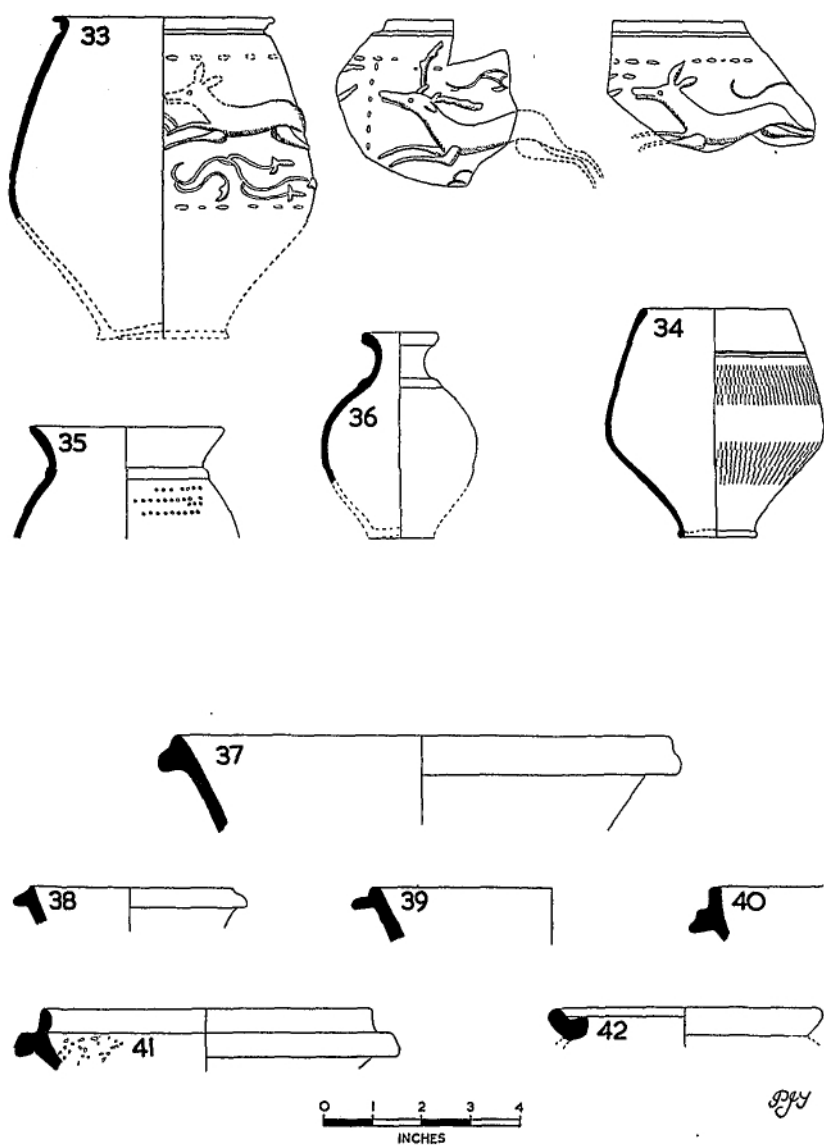


FIG. 6. Coarse Pottery

ROMANO-BRITISH SETTLEMENT IN JOYDEN'S WOOD

Coins

Only two coins were found. The better preserved is recognizable as a *sestertius* of Commodus and was found in the upper 2nd century level of the ditch AC. The other bronze coin was badly corroded but on cleaning was identified by the Guildhall Museum as of Antoninus Pius. It came from the upper 2nd century level of the ditch AB.

Iron Objects

Many typical Roman nails were found in the 2nd century deposits. Clinched hob nails also occurred in concentrations. A punch and a small sickle or curved knife came from the ditches and an arrow head occurred 1 ft. from the surface.

Bone

Only a few fragments of bone were recovered owing to the acid nature of the soil. None of these is sufficiently preserved for identification.

Querns

Samples of eight quern stones were sent to the Geological Survey and Museum for identification. None of the fragments recovered from the site is big enough to enable anything to be determined as to the size or form of the querns, except that marks of smoothing on some suggest that they were rotary querns of normal type. The rocks identified were Niedermendig lava, Millstone grit, Ferruginous grit or Carstone of probable Wealden origin, and Sandstone probably derived from the Lower Greensand. Four of the eight samples could be of Kentish origin, the three of Millstone grit may have come from outcrops of that stone occurring in the western, central and northern areas of England, while the lava originated in Germany.

Tiles

Pieces of red imbrex and tegula came from the surface soil and also from the higher levels of the ditch fillings, as described above. All the fragments are small, up to 6 in. in length, but their identification as Roman roofing tiles is beyond dispute. A few fragments of tile bearing impressed parallel markings of the type commonly found on flue tiles came from similar situations, but it would be unwise to base any general conclusions on such scanty and uncertain evidence.

Charcoals

Samples of charcoals from the ditches and the kiln were identified by the Department of Botany of the British Museum (Natural History)

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as oak and ash. Both of these are well represented among the trees in Joyden's Wood at the present time.

REFERENCES AND ABBREVIATIONS

Arch. Cant.—*Archæologia Cantiana*.

Caerleon—*The Roman Legionary Fortress at Caerleon in Monmouthshire, Part III—The Finds of Pottery*. Published by the National Museum of Wales, Cardiff.

Ospringe—*Excavation of a Roman Cemetery at Ospringe, Kent* (1931). Report of the Research Committee of the Society of Antiquaries of London.

Richborough—*Excavation of the Roman Fort at Richborough, Kent*. Reports of the Research Committee of the Society of Antiquaries of London.

Swarling.—*Excavation of the Late-Celtic Urn-field at Swarling, Kent* (1925). Report of the Research Committee of the Society of Antiquaries of London.