EXCAVATIONS ON A ROMANO-BRITISH FARMSTEAD AT ELSTED, WEST SUSSEX

by Mark Redknap and Martin Millett

with contributions from Caroline Cartwright, Helen Porter, Valery Rigby, Amanda Saunders, Tom Blagg, Geoff Marsh, Terry O'Connor, Mike Pitts, Richard Reece and John Shepherd.

Excavations on a plough-damaged Romano-British site just north of the South Downs at Elsted, in West Sussex revealed occupation from the first to late third centuries A.D., together with a scatter of Iron Age pottery. A number of post holes and pits was revealed inside an enclosed courtyard, which was apparently associated with a rectangular building to the north detected by infra-red aerial photography and confirmed by resistivity.

INTRODUCTION

During the summer of 1975 excavations were undertaken on behalf of the Sussex Archaeological Field Unit and sponsored by the Department of the Environment, on a Romano-British farmstead half a mile south at Elsted, West Sussex (Figs. 1 and 2) situated on a chalk outcrop to the north of the South Downs (SU 813 191). The site was discovered in 1974 during a field survey of the area¹ and excavation was undertaken with the kind permission of the owners, the Shaxson family of Elsted Manor Farms Ltd. A total of 520 m² was cleared by hand. This report is concerned with the site and its local area. A fuller version of this report, together with the finds and archive has been deposited at Chichester City Museum. The report was originally submitted for publication in March 1976.

Acknowledgements

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THE ENVIRONMENTAL BACKGROUND by Helen Porter

Man's occupation of the parish can be seen as one exploiting three major zones, defined by the basic geology (Figs. 2 and 3). This in turn gives rise to the soil types and patterns of vegetation. The



Fig. 1. Location of the site in southern England.



Fig. 2. Location of the site in relation to the mediaeval village and its fields.

area was examined during the excavation to build up a picture of the potential of the landscape and how it has been exploited.

About twenty five hedges in the parish were studied in some detail, including species' counts based on Dr. Hooper's method², and all details of the survey are in the site archive.

The Upper Greensand Bench

In this region the stone is known as 'Malmstone', a soft, grey-green calcareous sandstone with a high silica content; and it forms a bench about half a mile wide from the base of the Downs northwards. It is gently undulating, and the village lies on a knoll rising just above 76 m O.D. The bench slopes slightly towards the south, and there is thus a hollow corridor at the base of the Downs, which has been a main routeway connecting the scarp-foot settlements. Many roads still follow this 'Greensand Way'³, and field boundaries also respect it. Hedge counts along various sectors showed between four and eight for the average species number, the high figure representing mature hedges on banks beside sunken lanes.

Before clearance, the vegetation of this area probably reflected the transitional character of the zone, with elements of the chalkland forest, i.e. ash, hornbeam and beech, with elder and whitebeam as a shrub component⁴. None of this remains today, and the area is likely to have been cleared at least since Romano-British times, and although the evidence from the site for cereal production is inconclusive, it is assumed that this area of the Weald was an important corn growing one during during the Roman period.

If the Roman occupation was centered around the excavation site, the emphasis changed later on, with the Saxon village in a more commanding position about half a mile to the north. The three field system of the Mediaeval village may denote the relative prosperity of a mixed economy; sheep pastured on the Downs and arable rotations on the Greensand. The present fields are large and rectangular, a result of eighteenth and nineteenth century Inclosure, but they respect the plan of the open fields, and the strips show as crop-marks in oblique light when seen from the Downs. Around the village smaller 'in-fields' crown the knoll.

The Gault

The Greensand bench forms a scarp where it falls away north of the present village, to a flat vale of Upper Gault clay, an argillaceous variant of the Greensand. Northern and eastern areas of the parish lie on this clay plain, and the straight roads and regular field boundaries indicate the nineteenth century pattern of Inclosure and drainage. The heavy soils are unlikely to have been ploughed before this time, and before complete clearance this area would have supplied pasture or woodland resources to the settlements. Relic woodland areas today are oak-with-hazel coppice (e.g. Elsted Rough) and the thick ground cover of moss, ferns, horsetails and wet grasses indicates the nature of the soil. Domesday Book gives a high figure for swine render at Elsted⁵, which may indicate the importance of this area for pigs.

Not all inclosure was as late as the nineteenth century however, and many of the field boundaries are characteristic of the Tudor period, when a low single bank was planted with standard oaks about 15 m apart. Today the shrub component of these hedges is kept down by modern management, although relic lines of hawthorn remain in places. Several boundaries contained six-nine species, these were either assarts of the mediaeval period, or wood-pasture boundaries running parallel to the stream.

Today, the summer springline is the Gault-Greensand junction due to the lowering of the water-table; but stream valleys cut the Bench right up to the base of the Chalk. There is a mill-site



Fig. 3. Distribution of Romano-British sites in the area, in relation to geology, and parish boundaries. For discussion of their possible estate boundaries see text.



Fig. 4. The excavated area in relation to contours.

on the Greensand, which is presumably the Domesday site, which means that the stream must have been reliable then, although it is now an insignificant drainage ditch; it is the nearest water course to the site.

The Chalk

From the site, on the Lower Chalk, there is a hollow of the Greensand Way before the steep rise of the chalk scarp, climbing to over 200 m O.D. (Beacon Hill is 242 m). Beyond the ridge, the dip slope falls gently away to the Chichester Plain to the south, and there are Roman settlements in the sheltered dry valleys which follow this dip.

The parish stretches southward to enclose one of these valleys, reflecting the emphasis on chalkland grazing in the economy. Sheep remains are well represented on the site, and probably formed an essential part of the villa economy, providing dairy produce, meat and wool as well as manure when turned onto the stubble. The mechanics of this dual-economy are discussed by Applebaum with reference to Bignor⁶.

The Chalk grassland may have been established for over 2,500 years, with prehistoric crossdykes around Beacon Hill attesting division into units which were most likely sheep-runs or pastures. More recently, parts of the Downs have been ploughed up, and from the late nineteenth century, rabbits replaced sheep as the agency maintaining the grassland against woodland regeneration.

Relic yew woods occupy some coombe heads and slopes on scarp and dip slope sides; the former are now part of the mixed plantation covering most of the slope, the latter have in some cases been spreading since the end of pressure from grazing, hawthorn and juniper forming protective low shrubs about the yews. Beech only occurs today as pure stands or 'hangers' on the scarp faces, these islands which are characteristically free of ground cover contrast with the mixed deciduous woods elsewhere.

At the base of the scarp slope, there are relic hedges stretching about 75 m into the woodland, evidence of fields once continuing further back than at present.

Hedge studies along lanes and fields running north from the base of the Downs showed some of the richest and most varied patterns. This may be due to the 'reservoir' of species in the managed woods nearby; although the routes must connect the two most important areas of the Roman and early mediaeval settlements.

It is perhaps not too dangerous to see in the establishment of the village at its present site a movement reflecting a shift in the economy; while prehistoric and Roman settlement exploited the Chalk and Upper Greensand areas, the Saxon and later periods utilised the Gault woods and pastures to a greater extent.

THE EXCAVATION

An area in the plough scatter, just to the east of the brow, was selected for excavation as aerial photography had indicated that the top of the hill, the centre of the plough scatter, had been ploughed to natural (Fig. 5). Initially, a strip 6 m by 33 m was cleared by hand to expose natural subsoil (R-W 1-33, Fig. 5). The natural, which varied from about 200 mm to 400 mm below the surface, was marly Lower Chalk, overlain by a superficial deposit of stiff yellowish brown clay. The exceptionally dry conditions had baked the plough soil and underlying clay which thus tended to break away from the Chalk in large lumps. Over this area and that subsequently cleared to the east (I-Q 18-33, Fig. 6) the only strata surviving lay in features cut into the natural. However, greater



soil depth in the western extension (X-AQ 24-31, Fig. 6, Pl. 3) had the surface stratigraphy though this had also been damaged to the west (AK-AQ 24-31). Excavation took place in three phases; (i) R-W 1-33; (ii) I-Q 18-33; and (iii) X-AQ 24-31, each area being backfilled with the spoil from the next.

Description of the site

As the site was plough damaged, and the majority of the features were stratigraphically isolated, detailed phasing is impossible. However, most of the features produced sufficient pottery for an approximate date to be assigned to them. The pottery report (below) details the evidence upon which these dates are given. The only feature not to produce pottery was feature 1, a pit, which may possibly, on these grounds alone, be Iron Age. Where surface stratigraphy survived, in the courtyard area (Fig. 6) two phases could be isolated:

- (i) layer 35 being the 'cobbled' courtyard surface (Pl. 4) which lay directly on the natural surface. This probably dates to the first-mid second century, and is contemporary with phase i of the ditch (below).
- (ii) Layers 29, 30, 37 and 49 and the lower part of layer 2, which overlay the courtyard surface in the area bounded by the ditch. It was apparently homogenous and seems to represent the build-up of muck during the use of the yard. Because of the difficulty of recognising differences within the layer, it was not possible to tell where post holes and pits were cut from within the layer. This layer was contemporary with the infill of the ditch phase i and the phase ii recut. The pottery from it was mixed and dates from the first to the mid fourth century A.D.

These phase ii deposits were excavated using a 1 m grid to plot the distribution of pottery. This experiment failed to produce any valuable results relating to activity areas within the courtyard. Nevertheless the fact that packing stones were *in situ* around post holes 4, 5, 10, 15, 17, 23, 25, 27-8, 31-2, 36 and 38, and that adjoining sherds of pottery were scattered over less than 3 m squares suggests that the strata had been little disturbed by ploughing. The post holes in this area, and elsewhere proved difficult to interpret (their fill being identical to that of layer 30), but the following alignments are possible:

- (b) 6, 7, 8, 9, 10, 12, 13 and 14
- (c) 19, 20, 21 and 22
- (d) 23, 24, 25 and 26

Although buildings could be 'constructed' from these there is no evidence for their validity, and so the exercise is singularly unprofitable.

The ditch (Figs. 5 and 6, Pl. 2) which surrounded the courtyard consisted of two sections, one running east-west, the other running north-south. The east-west sector continues to the west of its junction with the north-south sector, and seems to be part of a field boundary system as well as the enclosure around the courtyard (see below). The ditch was up to 1 m deep, but had a causeway across it at the junction of the two sectors. There are two phases:

- (i) Deep steep-sided flat-bottomed ditch, layers 20=82, 23=83 and 84) which dates to the late first-second century.
- (ii) Shallow 'U' shaped recut (layers 7=57) which dates to the second/third to mid fourth century A.D.

⁽a) 1, 2, 3 and 4



Fig. 6. Plan of the courtyard with ditch sections.

The other features

These, mainly pits, are shown on Figs. 6 and 7, and are not described in detail. Their dates are as follows:

Features 1 and 12: not dated although feature 1 may be Iron Age.

Feature 4: Pre c. A.D. 150.

Features 6, 8 and 11. Second century A.D.

Feature 5: Second-third century A.D.

Features 2 and 3: Third century A.D.

Features 7 and 9: Contemporary with or later than courtyard Phase (ii).

Feature 10: Later than ditch phase (ii) (which it stratigraphically overlay).

Feature 13: Late medieval.

An infant burial (Pl. 4) came from feature 8 (Pl. 1) of which T. P. O'Connor notes:

Feature 8: Oval shaped hollow which contained an infant burial in a foetal position.

Remains of human infant, of indeterminate sex, aged c.-1 month to 4 months. No teeth were present in the excavated remains. Vertebral elements all ossified, but not fused. Status of petromastoid not clear, due to the condition of the bone. No obvious pathology. The skeleton is small enough, and lacking dental evidence of suitable developmental stage to be of an age between the last month of pregnancy and about the fourth month after birth.

Pottery from the feature indicates a second century date.

Feature 13 is an east-west alignment (c. 800 mm north of grid ST) of large flints and chalk blocks in the plough soil which seems to be a medieval ploughing feature (field boundary?).

The building to the north

During the course of the excavation aerial photography was arranged using infra-red film to take advantage of the ripening barley crop. The results showed a number of field boundaries while a rectangular building was indicated to the north by stunted crop growth. A small slit trench (AJ 36-41) was excavated above the estimated location of its southernmost corner. This established that the courtyard did not extend to the north, but failed to locate the structure. Following the autumn ploughing a resistivity survey was undertaken (Fig. 5). This confirmed that the continuation of the north-south ditch and the westwards continuation of the east-west section. It also revealed anomalies consistent with the presence of the stone footing of the building shown on the aerial photographs.⁷

Interpretation

The nature of the excavated remains together with the presence of a building to the north showing that we were dealing with only the southern edge of the occupied area. The ditches are best interpreted as defining three sides of a courtyard, although the western extension of the east-west ditch suggests an additional function as a field boundary. The north-south ditch was deeper than the east-west, allowing for the greater run-off of groundwater on this side, below the hill-brow. Although the post holes cannot be shown to belong to individual buildings, their presence probably indicates agricultural structures within the courtyard.

The stone building probably represents the living quarters, although the simple three or four roomed plan could also be a bath block. Dating had not been possible although most tile (76 of the 86 fragments) came from late contexts. It is similarly impossible to say whether the whole site went out of use in the early fourth century.



Fig. 7. Sections of the pits.

The pits offered no functional information, but their uniform character suggests a similar function. The exception of this is perhaps feature 4 (Figs. 6 and 7) where a large post (similar in dimensions to post hole 36) seems to have been dug out.

THE POTTERY (by Martin Millett)

Pottery provides the only dating evidence for the site and thus, although fragmentary, has been dealt with extensively. Two basic approaches have been adopted. First, it was divided into groups on the basis of a subjective assessment of the fabric. For each stratigraphic unit the relative amounts of these fabric groups was measured (Table 4). Secondly, a typology was established for each of these fabric groups and the types compared with those from other sites to facilitate dating. The Samian and New Forest wares were dealt with separately with reference to published typologies.

Throughout this work three methods of quantifying the pottery were used and the results from these compared to see whether they altered the pattern. These methods were: a) sherd count; b) gross weight; and c) adjusted weight. This last method was a slight modification of that suggested by Hulthén.⁸ The pottery in each group was taken in turn and each fabric group was divided by thickness using a scale calibrated in 50mm units. Each of these thicknesses was multiplied by the factor to bring them up to a standard thickness of 200 mm. This standardisation of the thickness gave a crude measurement of the quantity of pottery roughly equivalent to the sherd area. This method has the advantage of evening the extremes of diverse thickness and sherd size. The results from a comparison of these methods is published elsewhere.⁹

In order to facilitate comparison, the quantified results have been presented as percentages. In most cases the pottery examined came from the stratified layers (including the courtyard) but in the case of Fabric Groups A and B the material from the ploughsoil was also examined.

Throughout the pottery report the following abbreviations are used:

Fishbourne. B. W. Cunliffe 'Excavations at Fishbourne 1961-1969', two volumes. (Leeds, 1971).

Neatham. D. Graham and M. Millett (ed.) 'Excavations of a Romano-British Small-Town at Neatham, Hants 1969-1980'. Forthcoming.

Portchester. B. W. Cunliffe 'Excavations at Portchester Volume I Roman' (London, 1975). Rigby. V. Rigby. 'Potters' stamps on Terra Nigra and Terra Rubra' in Detsicas (ed.) 'Current Research in Romano-British Coarse Pottery' (C.B.A. Research Report 10, 1973). Tilford. M. Millett 'A Group of First Century Pottery from Tilford' in Surrey Archaeol. Collect. 70, 19-24. 1975.

Wiggonholt. K. Jane Evans 'Excavations on a Romano-British Site, Wiggonholt, 1964' in Sussex Archaeol. Collect. 112 97-151, 1974.

The Fabric Groups

The pottery was divided subjectively into groups of fabrics defined by their visible inclusions and texture. Where possible they have been attributed to a source (e.g. Fabric Group D), but in other cases the grouping probably includes wares from several production centres (e.g. Fabric Group E).

Group A: coarse, hand-made ware, tempered with crushed flint which commonly penetrates the surface. The forms indicate a native, Iron Age, origin, and it has been pointed out that the locally occurring clay which caps the chalk, is very sticky and would thus require much tempering to make it workable. This indicates that this ware was made on, or near the site

Group B: a dark buff to black ware with much crushed flint as a temper. Unlike the Group A ware this has smooth surfaces. Both wheel-made and hand-made types occur. Types of both Iron Age and Roman origin occur and again a local origin is probable.

Group C: fine sand tempered ware with a little mica in the surface and some larger inclusions of crushed flint.

Group D: ware tempered with fine multicoloured sand and having some mica in the surface. This is Farnham ware as defined by the author.10

Group E: other sand tempered ware, some of which almost certainly originated from the Rowlands Castle kilns and some which appears to be from the New Forest. Other origins are also probable.

Group F: ware tempered with fine sand but with frequent inclusions of grog and some visible iron oxide. Most of the sherds are reduced although some, generally the thicker walled types, are oxidised. Examination indicates that the size of the inclusions is smaller in forms which might be later. Some of the types are similar to those from the Rowlands Castle kilns and this suggests an origin there.

Group G: chaff tempered ware.

Group H: orange to red wares with smooth, often burnished surfaces. The ware is generally soft and micaceous. Some sherds contain a little iron oxide. These should be grouped with early Sussex fine wares considered by Dr. Fulford¹¹ to be late first to mid second century in date.

Group J: white or creamy white sand tempered ware.

Group K: amphorae.

Group L: mortaria.

Group M: Rhenish ware, as defined by Brewster.12

Group N: New Forest fine wares, as defined by Fulford.13

Group P: late Roman grog tempered ware (Portchester fabric A), as defined by Cunliffe.14

Group Q: Samian ware or Terra Sigillata.

The Typology

Within the fabric groups identified, a typology was established on the basis of rim sherds and diagnostic fragments. Types were defined at a detailed level as little material had previously been treated in this way in West Sussex. Types are



The Pottery Types (A 1.1 to 1.4). Scale 1:3. Fig. 8.

not dated by association with coins, but by comparison with other sites. To save space, where forms are identical between fabric groups, only one drawing has been provided. The following conventions are used to label the pottery drawings:

A1.2 = Fabric Group A, type 1, variety 2.

CY 30 = Context.

The abbreviations used for contexts are:

+ = unstratified;

CY = courtyard (followed by layer number); D = ditch (followed by (i) or (ii) for the phase);

F = feature (followed by the feature number);

PH = post hole (followed by the post hole number).

Fabric Group A (Fig. 8)

1.1 to 1.4. A series of jars in the 'saucepan pot' tradition closely similar to those from Torberry and Chalton,¹⁵ suggesting a date in the third-second centuries B.C. at the earliest. 2. A larger jar similar to type 1. Not illustrated.

Fabric Group B (Fig. 9)

- 3. Hand-made jar with bulbous body and outcurved rim. Probably late Iron Age 'Southern Atrebatic' type.¹⁶
- 4. Straight necked jar with out-turned rim. Not illustrated.
- 5. Straight sided dish with grooved wall. Not illustrated.

Fabric Group C

Bead rim jar. No dating significance as these types are known to have continued in use in this area from the first 6. century onwards, on Neatham evidence.

Straight neck jar with bead rim. Wiggonholt in first century, but continues through second century at Fishbourne.

Plain rim storage jar.

9. Large curved rim jar.

Fabric Group D

- Dish based on Gallo-Belgic form (Rigby types 21-2). Probably first century, and likely to be Pre-Flavian. 10.
- Shallow dish with footring. Tilford and Neatham indicate a date in the first century. 11

Dish with flat top to rim. Fishbourne type 216 dated to late first-second century, but Neatham indicates that 12. the type continues into third century.

13.1-13.5. Dish with carination below rim, several varieties dated at Neatham to first-late second century.

14. Dish with rim similar to 13 but without carination.

15. Dish with bead rim and curved wall. Fishbourne type 217, early second century, but continues at Neatham into the third century

Plain, straight sided dish. Post c. 150 A.D. at Neatham. 16.

- Dish with groove around wall. 17.
- 18. Straight sided bowl. Neatham indicates this type ceases production by mid second century.
- 19. Bowl with flange level with top of rim. Neatham indicates a late second-mid third century date.
- 20. Flanged bowl which Neatham evidence indicates mid second-fourth century date.
- 21. Strainer (not illustrated) as Neatham type 20 dated to the late third century onwards.
- 22.1-22.2. Bead rim jar with two varieties. Not of any dating value on Neatham evidence.
- 23. Jar with broad cordon below rim dated at Neatham to the second century.
- 24. Plain everted rim jar. Form as F73 (not illustrated) dated to the third century at Fishbourne (313) but continues into the fourth century (Portchester).
- 25. Facetted rim jar dated to late third-fourth century at Neatham.
- 26.1-26.2. Tall-necked jar dated to first-mid second century at Neatham and Fishbourne.
- 27. Necked jar with sloping top to rim, dated at Neatham to first-second century.
- 28. Tall straight necked jar dated to the first-third centuries at Neatham.



Plate 1. Infant in feature 8. 1=skull. 2=face. 3=arm. 4=shoulder blade. 5=hand. 6=spine. 7=pelvis. (Scale in cm.; photo M. Redknap).

Plate 2. The ditch at the western end of the courtyard looking south. (Metric scale, photo M. Redknap).



Plate 3. General view of courtyard looking west. (Metric scale, photo M. Redknap).



Plate 4. Courtyard surface, layer 35. Grid squares AB-AD 29-31. (Metric scale, photo M. Redknap).



Fig. 9. The Pottery Types (B3-D28). Scale 1:4.

29. Hooked rim jar dated at Neatham to third-fourth century.

Cooking pot imitating black-burnished forms. The type dates from the late second to fourth centuries at 30 Neatham, but are not common before the mid third century.

31. Imitation of Gallo-Belgic butt beaker, with cordon around neck. These types are not common but are dated to the first century (pre A.D. 80) at Fishbourne and this date fits with that suggested for a similar type at Tilford.

- Storage jar dated at Neatham to third century onwards. 32.
- Internally grooved lid dated at Neathain to the second-third centuries. 33.
- 34. Flagon.
- 35. Folded beaker with 'squat' shape, probably third-fourth century.

Fabric Group E

- 36. Dish imitating Gallo-Belgic form (Rigby types 12, 16, 19, 21 and 22). First century and probably Pre-Flavian.
- 37. Dish imitating Gallo-Belgic form (Fishbourne 4 and 19) probably first century.
- 38. Straight sided dish dated at Fishbourne to second century onwards.
- 39. Dish with beaded rim, form as D15.2, early second-third century. (Not illustrated).
- 40. Bowl, form as D18. (Not illustrated).
- 41. Bowl, form as D14. (Not illustrated).
- 42. Flanged bowl, form as D20. (Not illustrated). Dated to mid second century onwards at Neatham.
- 43. Large bowl with thick, flat rim.
- 44. Heavy bowl, a variety of Fulford type 7.2 dated to c. A.D. 270-350.
- 45.1-45.2. Bead rim jar of no dating value on the Neatham evidence. (E45.2 Not illustrated).
- Jar form similar to C7, first-second century. 46.1-46.2
- 47. Jar with rim curved over.
- 48.1-48.5 Straight necked jar forms similar to D26-28 dated to first-third century. (E48.1 as D26.2. Not illustrated).

 Hall necked jar form as D28, first-third centuries. (Not illustrated).
 Jar with outcurved rim and slight carination on shoulder, similar to Fishbourne type 84, dated to before A.D.80.
 51.1-51.2. Everted rim jar. Both are similar to the form of F73, and 51.1 which is identical is not illustrated. Thirdfourth century.

- 52. Sloping topped rim with broad cordon below, similar to type D23, dated to the second century. 53. Imitation of a Gallo-Belgic butt beaker similar to Fishbourne type 64.2, first century, and prob.
- Imitation of a Gallo-Belgic butt beaker similar to Fishbourne type 64.2, first century, and probably Pre-Flavian.
- 54.1-54.2. Everted rim storage jar.
- 55. Beaded rim storage jar.

56. Plain lid.57. Hofheim type flagon neck similar to Fishbourne types 113-114, dated to the late first-second century, although

- Base of flagon neck with three narrow cordons.
 Body sherds (not illustrated) of poppy beakers, which are dated at Fishbourne to the second century.

Fabric Group F

- 60. Dish based on Gallo-Belgic type (Rigby types 16-17). First century, and probably Pre-Flavian.
- 61. Dish form as D12 dated to the first-third centuries. (Not illustrated).
- 62. Shallow dish.
- Dish with slightly beaded rim.
 Bowl imitating Dr. form 38, probably late second-third century.
- 65.1-65.3 Beaded rim jar of little dating value on the basis of the Neatham data. 65.1 form as D22.1, not illustrated.
- 66. Jar with flat top to rim.67. Jar with outcurved rim,
- Jar with outcurved rim, similar to Fishbourne type 338, of the third century.

68. Necked jar with moulded rim and cordon around base of neck, probably first-mid second-century.

69.1-69.3 Straight neck jar with beaded rim, similar to type D26, dated to first-mid second century. 69.2 form as D26.2, not illustrated.

70. Large tall necked jar with grooved top, cordons at the base of the neck and on the carination, similar to Fishbourne type 180 dated to the first-second century.

- 71.1-71.3 Curved rim jar.
- 72. Curved rim jar, with undercut rim.
 73. Everted rim jar, Fishbourne type 313, dated to the third-fourth century. The example with the reversed 'n' graffito on the shoulder is paralleled on a number of other Sussex sites and are usually attributed to the Rowlands Castle kilns.¹
- 74. Storage jar rim.75. Beaker(?) with multiple grooves on neck.

Fabric Group H

- 76. Bowl similar to Wiggonholt No. 123, probably second century.
- 77. Small decorated sherds, possibly imitating Samian form 29.
- 78. Globular jar with two grooves on the exterior and everted rim.

Fabric Group P

79. Jar with outcurved rim as Portchester type 123 of the late third-fourth century.



Fig. 10. The Pottery Types (D29-E52). Scale 1:4.

THE SAMIAN (by Geoff Marsh)

Unstratified

- Dr. 37. South Gaulish, showing fragments of leaf tips. A.D. 75-95.
- South Gaulish, showing fragment of leaf. A.D. 75-95. Dr. 37.

Dr. 18. South Gaulish. Flavian.

4 unidentified South Gaulish sherds. First century.

Dr. 18/31. Martres. A.D. 100-130.

4 unidentified Martres sherds. First century.

Courtvard (30 etc.)

- Dr. 29. South Gaulish, fragment of basal border showing V-shaped leaves. A.D. 70-85.
- Dr. 37. South Gaulish, S-shaped gadroons. A.D. 75-90.
- Dr. 37. South Gaulish, divided into panels with wavy line borders and rosette terminals. Panels contain a row of arrow heads and a saltire. A.D. 75-95.
- Dr. 37. South Gaulish, fragment of saltire. A.D. 75-95.
- Dr. 37. South Gaulish, very much abraded ovolo. A.D. 75-95. Dr. 37. South Gaulish, hind legs of running animal, possibly a dog. Fragment of wavy line border and rosette. A.D. 75-90.

Dr. 37. South Gaulish, single bordered trident ovolo. A.D. 75-95.

Dr. 37. South Gaulish, very abraded fragment probably showing foliage, A.D. 75-95.

- Dr. 30. South Gaulish, decorated in panels with saltire and formal foliage. A.D. 55-75.
- Dr. 18. South Gaulish. Flavian.
- South Gaulish Flavian: the clay used for the ivy leaves is different to that of the vessel, same as that from Ditch i. Dr. 35.
- Dr. 35. South Gaulish. Flavian.

Dr. 37. South Gaulish. A.D. 75-95. Mended with lead rivet.

7 unidentified South Gaulish sherds. First century.

- Dr. 18/31. Martres. A.D. 100-130. Dr. 18/31. Martres. A.D. 100-130.
- Dr. 18/31. Martres. A.D. 100-130. Dr. 18/31. Martres. A.D. 100-130. (Burnt).
- 12 unidentified Martres. First century.

Ditch i

Dr. 37. South Gaulish, decorated in panels with a fragment of a saltire and a bestiarius facing left, 0.1102. A similar design appears on a bowl of Pudens (Knorr, 1919, Taf. 68). A.D. 75-95. Dr. 35. South Gaulish. Flavian: same as Dr. 35 from courtyard.

Ditch ii

Dr. 37. South Gaulish, highly abraded ovolo. A.D. 75-95.

- Dr. 37. South Gaulish, showing a badly smudged trident ovolo, a wavy line border and a fragment of a scroll. A.D. 75-95.
- Dr. 18/31. Martres. A.D. 100-130.

Dr. 27. Central Gaulish. A.D. 125-150. Dr. 27. Central Gaulish. A.D. 125-150.

3 unidentified South Gaulish sherds. First century.

Feature 2

Dr. 30. South Gaulish, with a trident ovolo and decorated in panels with a wavy line border and rosette terminals. A.D. 70-90.

Feature 4

Dr. 18/31. Martres. A.D. 100-130. Unidentified South Gaulish sherd. First century.

Feature 11

Dr. 37. South Gaulish, with a trident ovolo beneath which is a wavy line border and leaf scroll. A.D. 75-95.

Post Hole 36

Dr. 27. Martres. A.D. 100-130.

References

O.-F. Oswald. 'Index of Figure-types on Terra Sigillata' (1936-7). Knorr, 1919. R. Knorr, 'Topfer und Fabriken verzierter Terra-sigillata des Ersten Jahrhunderts'. Stuttgart.

The New Forest Wares Fabric Group N

A total of 36 sherds of New Forest fine ware were recovered, whilst it seems probable that some at least of the Fabric Group E ware was New Forest coarse ware. The fine wares are listed below on the basis of Fulford's typology.¹³



Fig. 11. The Pottery Types (E53-P79). Scale 1:4.

Courtyard (30 etc.) Type 39.7-39.7, decorated. First half of the fourth century. Fabric 1b. Eight Type 27, two in fabric 1a, the rest in 1b. c. 270-350. Type 45.1, probably 300-340 A.D. Fabric 1a. Flagon handle, probably from a Type 12, c. 300-350. Fabric 1a. Body sherds: Fabric 1a, 4 sherds. Fabric 1b, 7 sherds.

Ditch (phase ii) Two Type 27 both in fabric 1b, c. 270-350. Type 41, fabric 41. Probably first half of the fourth century. Body sherds: one, from a beaker (?), in fabric 1a.

Feature 4 (surface, possibly intrusive) Type 27, fabric 1b. c. 270-350.

THE POTTER'S STAMP (by Valery Rigby)

Ditch, phase i, layer 82 (SF 83)

A potter's mark placed centrally on the upper surface of a plain flat-based platter. Fine-grained sandy grits, grey core, orange-brown cortex, grey-brown surfaces, very worn so that no finish survives (Fabric Group E).

No other stamps from this particular die have been identified but three stamps from very similar dies have been found at Wiggonholt and Hardham Camp, Sussex. Considering the proximity of these sites, it seems likely that all the platters, despite being in different fabrics, are from the same, or a closely related, source; the dies may have belonged to one potter.

The 'wheat-ear' motif is one of the few motifs used on locally made coarse wares in Britain to have a strictly limited distribution. To date no examples have been found outside this region of Sussex. None of the stamps is closely dated. The practice of stamping coarse ware copies of imported fine-ware cups and platters began in the early first century A.D., but was more common and widespread later in the century continuing in some areas until the middle of the second century.

FUNCTIONAL CATEGORIES

In an attempt to consider the functions of the pottery and the area excavated, a statistical breakdown of the functional groups of vessel types was carried out. The results are presented below:

Category	Numbers	Percentage
Jars	421	72.586
Storage jars	6	1.034
Bowls	45	7.759 Combined 19 138
Dishes	66	11.379 5 combined 19.150
Flagons	10	1.724
Beakers	26	4.483
Lids	4	0.690
Mortaria	2	0.345

Interpretation of this data is difficult as there is little evidence of this nature from other sites¹⁸. The exceptions to this indicate that the overall pattern, with a predominance of jars, is essentially chronological. However, at least one category, the mortaria, may not be chronologically determined, as the number of mortaria present is very low. There are several possible explanations for this, the two most likely being that either there were no suppliers in the area in the earlier part of the period; the second possibility is that there was no demand for these vessels on the site. If the latter is accepted as an explanation it implies that the site was relatively 'unromanised'. In general terms the results are similar to those from other sites, and as these are from domestic sites it seems likely that the layers we are dealing with are also domestic.

Degree of 'Trampling' of the Pottery

Using the statistics discussed above⁹ it is possible to provide a measure of the degree of fragmentation of the pottery. This is done by dividing the adjusted weight by the number of sherds for each stratigraphic unit. The value of such a statistic is that it gives a measure of the average sherd size which is presumed to be related to the length of time over which the sherds were in circulation. Hence that in the more trampled courtyard has a value of 7.9 which is below that of the average for the pits and ditch. It seems likely that this statistic could be used as a measure of likely dating value, as a deposit with a low value will probably have been 'open' for longer than one with a high value. These values have thus been taken into account in the dating of the features.

Discussion

Before going on to discuss pottery and its significance, the principles used for dating the deposits must be outlined. In nearly all cases the features produced too few pottery forms to suggest a definite date. Thus the date given is that of the overall period indicated by the sherds present. There is scattered Iron Age pottery from the third century B.C. onwards and this is followed by a number of Gallo-Belgic imitations, which probably date to the pre-flavian period. The Samian is all dated between c. A.D. 70 and c. 150, although this is true of many Sussex rural sites¹⁹ and seems to point to a supply pattern rather than a limitation in occupation. The only stratified New Forest ware came from two assemblages (the dich phase ii and the courtyard) and none of it need be later than c. A.D. 350 on the present evidence, indeed the majority of it need not be later than c. A.D. 300. Thus a terminal date on the basis of the pottery seems to be the first half of the fourth

century. The limited number of chaff tempered sherds (fabric group G) may be early Saxon, although this is by no means certain.

The pottery from the site gives a general idea to the relative importance of local suppliers. This information is provided in Table 2. In a quantified, and standardized form, the percentages only give an approximate idea of the importance of the suppliers as, with the exception of the largest groups, the samples were very small. In spite of this some tentative conclusions can be drawn. First, it is clear that the majority of the pottery found was of Fabric Groups D, E and F together with a significant proportion of Fabric Group C. D ware is probably Farnham ware and F ware probably Rowlands Castle ware. The relative proportions of these two types is not constant but shows only slight chronological differentiation. There is more Farnham ware proportionately in the courtyard and ditch phase ii. This is significant as it suggests that by the third century the Farnham industry was beginning to overshadow the Rowlands Castle industry.

The only other observation of value is that there is little Samian (Fabric Group Q) of the second century, although the other pottery indicates a continuity of occupation. The reason for this might be that competition from the Fabric Group H ware (Sussex fine red slip ware) was succeeding in taking this market. However, this lack of later Samian is common to Sussex rural sites²⁰ and probably results from overall supply problems.

The Post-Roman Pottery

A total of 62 sherds of post-Roman pottery was recovered from the ploughsoil, in association with feature 13. Most of the pottery comes from two vessels:

1. Wheel-made straight sided jug (?) with a flat base, in bright orange ware with multi-coloured sand temper. The vessel is well made and the ware hard. The exterior is spotted with brown glaze.

2. Wheel-made globular vessel with the stump of a handle on the shoulder. Fabric similar to (1), but without glaze.

Several other sherds were in the same ware with brown glaze. None of the sherds were suitable for illustration, although their character indicates a later mediaeval or post-mediaeval date.

SMALL FINDS (by Mark Redknap)

Objects are listed according to material in the following order: bronze, bone, iron, glass and stone. In each case, the first number is its publication number, followed in brackets by its feature number, site layer number and original 'smallfinds' number: *indicates illustrated material.

Bronze (Fig. 12)

- 1* (Ditch, 23, 64). Nauheim derivative. Bow is slightly curved, tapering from kick at head to a knife-edge foot. Solid catch-plate, four coil spring. Very common on sites in the area. Though usually dated to the first century A.D., it would appear probable that so simple and cheap a form remained in use well into the second century, and consequently is of limited dating value. Length 40.5 mm.²¹
- 2* (Ditch, 57, 57). Neuheim derivative, as above. Pin missing. Length 44.5 mm.

3* (Courtyard, 30, 22). Wire suspension ring, found in association with (4). Diameter 13 mm.²² 4* (Courtyard, 30, 21). Tweezers, ends missing. No decoration. Length 23 mm.²³

- Coin. (Identified by Richard Reece)

(Unstratified, Square W1)

5 As. Probably of Gordian III (238-244 A.D.). Very unusual in Britain.

Bone (Fig. 12)

6* (Ditch, 57, 85). Piece of trimmed bone, smooth and slightly curved, Spatula? Likely skeletal sources are gomial area of mandible, distal end of scapula, proximal shaft of tibia of distal shaft of femur and humerus (horse or cow). Length 74 mm, width 45 mm.

Iron (Fig. 13)

- 7* (4, 4, 7). Iron socket-ferrule or 'shoe' for attachment to wooden shaft, from a primitive plough or ard. Cf. examples from Slonk Hill, Sussex. Length 97 mm²⁴
- 8* (Courtyard, 30, 30). Knife blade with straight edge, back making continuous curve with tang. Point missing. Length 79 mm²⁵
- 9* (Ditch, 7, 53). Split spiked loop. Driven into wood, head remaining on surface. Ends hammered flat if projecting. Very common. Width 68 mm²⁶.
- 10 (Y30 7, 27). One example of the numerous sandal studs found-their distribution revealed several concentrations suggesting loss while attached to leather.
- 11* (Unstratified) Hob nail? Width 13 mm.
- 12 (Ditch 83). Nail. Length 38 mm. Most examples had square heads, most coming from context 30. Table 3 gives the frequency of nail and stud finds in their stratigraphic contexts. Only complete nails were measured, and no differentiation in size is made.

The results show that nails appear predominant inside the courtyard, while studs occur equally both in and within the ditch. In the absence of a 'nail to volume-of-context' ratio the numbers may simply reflect the size of each deposit.

Only crude distributions of nails within the courtyard were provided, due to the insensitivity of the grid system though several concentrations of shoe-studs were recorded (Ditch, 83, sectors W 2 and E 2; Ditch, 57, sector S 4).

- 13 (Ditch, 57, 81). Fragment of iron, flat and semicircular. Diameter 26 mm.
 14* (Courtyard, 30, 26). Iron object, possibly a plough/ard fragment. Length 55 mm.
- 15* and 16* (Unstratified). (Ploughsoil, 2, 38). Two objects, either heads of type II²⁷ triangular headed nails or tool (chisel?) ends. Incomplete. Lengths 24 mm and 41 mm respectively.



Fig. 12. The Small Finds, Scale 1:1 except for stonework and glass at 1:2.

- 17*, 18*, 19 (Courtyard, 30, 47). (Courtyard, 30, 23), (Courtyard, 29, 46). Iron rings of wound tapering strips, Diameters 16 mm, 21 mm and 22 mm respectively.
- 20* (Courtyard, 29, 42). Iron ring of re-used nail shaft. Diameter 11 mm.
- (Courtyard, 49, 51). Iron fragment, possibly a knife blade. Length 35 mm.
 (Courtyard, 30, 15). Fragment of strap hinge, tapering towards one end. Length 97 mm.
- 23* (Courtyard, 29, 62). Strap hinge, square nail hole at one end. Length 70 mm.
- 24* (Unstratified). Hook. Length 42 mm. Roman?

Glass (Fig. 12). Identifications by John Shepherd.

All the glass comes from layers 1 and 2, within grid squares I-W 1-34, and apart from three abraded fragments of bottle and a dark green splinter, which appear to be post-mediaeval, are all of a similar light bluish-green colour. Technical observations provide no evidence of date.

(1, 1, 3). Neck and rim of flask; bluish-green. Vertical sides and infolded, flattened rim. Form *Isings* 50a/51a.²⁸ (1, 2, 10). Fragment of rim of (27) above. 25*

- 26
- 27 (1, 2, 9). Plain fragment of bottle side; pale green. Abraded, iridescent. Cylindrical body. Isings 51.
- 28 (1, 1, 12). Fragment from body of globular ribbed bowl (*Isings* 67c?). Decorated with a blown thin marvered rib of same colour; tapering section.
- 30-32 (1, 1, 2). Two fitting fragments of vessel side, one fragment plain glass; bluish-green. Flat with single rib. Section thickens in centre. Probably modern; appears to be machine made.
- 33 (1, 1, 4). Fragment of vessel side; bluish-green. Single rib. Section thickening in centre. Kick of shoulder (or corner) at one end. Two air bubbles on inside surface. Probably from same vessel as (30)-(32).
- (1, 1, 5). Dark green splinter of bottle shoulder. Iridescent with abraded outer surface. Mediaeval. 34
- (1, 1, 3). (1, 2, 8). Bottle rim; milky pale green. Abraded surface, lip thickening to bottom, and fragment of pale 35-36 green glass. Machine made: modern.
- Stone (Fig. 5, 12 and 13)

Stonework by T. F. C. Blagg (Fig. 12)

(Courtyard, 30, 40). Fragment of what appears to be an architectural moulding with decoration on two sides: 76 37* mm wide by 81 mm deep by 39 mm high (all maximum). The bottom, back and right-hand side are broken. The top and sides are worn, but the broken underside is less weathered. There are no tool marks. The front and righthand side show traces of exposure to fire. The stone is greensand (identification by Department of Geology, University College, London).

The decoration on the front consists of a raised oval outline in low relief, 38 mm wide, with a central oval boss 23 mm wide in higher relief. The forward part of the left-hand side is curved. Its rear part is cut at an angle of approximately 50 degrees to the front face, the lower edge inclined inwards slightly. It is rather worn but appears to have a similar oval with boss, its long axis vertical, and its lower part is broken off.

The simple decoration is not part of orthodox Roman architectural ornament, though it might derive from the bead element of the bead-and-reel motif. In view of this, and the fragmentary nature of the piece, it is difficult to say with certainty what function it had. It could be part of a projecting string-moulding, of a column capital, or of a table top (though the distribution of these is further west in Britain and their characteristic chip-carved ornament is lacking on this piece). I have not at present found any close parallel.

Whetstones (Table 4, Fig. 13)

Of the whetstones described below only two are complete, having a rectangular cross-section modified to varying degrees by usage (nos. 38-9). The broken condition of the rest may result from some secondary function. The three quern-rubber fragments (No. 53) fit together, indicating contemporaneity of the fill of ditch ii and post-hole 36 (layers 44 and 57).

- 38* (Courtyard, 30, 61). Greensand; smooth concave surfaces, rounded sides. 65 mm by 90 mm by 42 mm.
- 39* (Courtyard, 30, 35). Complete. Greensand. Worn smooth on all except two ends. Slight hollowing on top and bottom. 74 mm by 57 mm by 37 mm.
- 40* (Courtyard, 30, 56). Greensand. Fine grained, speckled reddish-grey. Rectangular. 84 mm by 71 mm by 42.5 mm.
- 41 (Courtyard, 49, 69). Fragment of Greensand, top and bottom worn smooth, traces of exposure to fire.
- 42
- (Ditch, 82, 82). Fragment of Greensand; signs of exposure to fire. (Ditch, 57, 77). Fragment of Greensand, all surfaces except ends worn smooth. Rectangular. 93 mm by 52 mm by 32 43* mm.
- (Ditch, 57, 80). Fragment of Greensand; burnt. Small surviving area of worn surface. 44
- 45
- (Ploughsoil, 2, 68). Fragment of Greensand; fits (46). (Ploughsoil, 2). Fragment of Greensand; possibly whetstone. 46
- (Unstratified, 89). Fragment of Greensand; possibly whetstone. Worn on top and bottom. 47
- 48 (Courtyard, 30, 60). Nut-brown, coarse-grained ferruginous sandstone. Carstone. Possible whetstone. 92 mm by 43 mm by 42 mm.
- 49 (Courtyard, 29, 55). Fragment of Carstone; one worn surface.
- 50
- (Unstratified, 86). Fragment of Carstone. No visible working, but may have belonged to whetstone. (Ditch, 57, 92). Bunter pebble; smooth surface, with traces of exposure to fire. Whetstone? Length 46 mm. 51
- (Unstratified, 90). Bunter pebble; one worn surface. Length 46 mm. 52

Quern-rubber (Fig. 13)

(36, 44, 74). (Ditch, 57, 71). (36, 44, 70). Three fragments of Bunter pebble; mottled pink, hard, fine grained. They fit together to form most of a heavy quern-rubber. The largest face has peck marks—indicating its use as a hammer 53 stone, and possibly explaining its broken condition. Length 150 mm.



Fig. 13. The Small Finds. Scale 1:4.

Quernstones (Fig. 13)

Altogether nine fragments of quernstone and four probable fragments of quernstone, all Greensand, were recovered, two from the packing material of post hole 36. All were of rotary type, unlike a Greensand fragment of saddle quern found while fieldwalking inside Harting Beacon during the course of excavation, and presumably of Iron Age date (Fig. 13, 54).

- 55* (36, 44, 72). Fragment of lower quernstone; well worn, flat and thin in cross-section. Greensand.
- 56* (Ploughsoil, 1, 11). Fragment of lower quernstone; Greensand.
- 57 (36, 44, 73). Fragment of upper quernstone; Greensand. Rounded top surface.
- 58 (Courtyard, 49, 50). Fragment of upper quernstone; Greensand.
- 59* (Courtyard, 30, 19). Large fragment of upper quernstone; Greensand.
- 60* (Ditch, 82, 65). Section of upper quernstone; trimmed top and side, with rough grinding surface.
- 61* (Ploughsoil, 1, 13). Fragment of upper quernstone with section of handle slot; well worn grinding surface.
- 62 (Unstratified, 78). Fragment of quernstone; one worn surface. Possibly from upper stone.
- 63* (Courtyard, 30, 25). Fragment of upper quernstone; one very worn surface, roughly reworked with tool grooves (worn older surface shown in grey stone).
- 64 (11, 60). Fragment of Greensand; one worn surface. Possible quernstone.
- 65 (Unstratified, 79). Fragment of quernstone. No visible worked surfaces.
- 66 (Ploughsoil, 1, 14). Fragment of Greensand; one worn surface. Possibly from quernstone.
- 67 (Unstratified, 84). Fragment of Greensand; possibly from quernstone.

THE FLINT ARTEFACTS FROM ELSTED²⁹ (by Mike Pitts)

The 267 pieces of flint submitted for examination fall into two groups: those from the excavation (111; 42%) and those from the surface of the adjacent field (156; 58%). Of these, 37 of the former, and 21 of the latter, have been identified as artefacts (in the broad sense of being man-altered). All these have been treated together; there does not appear to be any significent locational clustering within the excavation trench.

There are problems in distinguishing true artefacts from products of the general rolling and battering to which any disturbed material is liable to be subjected. All the illustrated pieces have been included in the count of artefacts. Most of these 58 items are heavily damaged flakes, and many have retouched edges. The nature of the retouch ranges from very fine and regular (cf. Fig. 14, 68-72) to extremely coarse and irregular. Until evidence is forthcoming that certain forms of 'retouch' cannot be produced by the action of soil movement, the passage of farm machinery, etc., there seems little justification in separating those flakes with retouch at the regular end of the continuum as representing flake implements damaged in use or deliberately blunted.³⁰ The collection also includes four irregular and somewhat battered cores (of which Fig. 14, 70 is one).

The most interesting piece for consideration is shown in Fig. 14, 72. This small flake (of pale creamy brown flint) has had its butt removed by inverse retouch, which extends down the two sides of the piece: the tip of the flake has been squared off by direct retouch. Flakes retouched on the butt end are rare in the English literature (this may be partly a product of this feature not being considered worth noting). The affinities of this piece seem to lie with relatively recent 'gun-flints' and 'strike-a-lights'. In 1917, Chandler³¹ claimed to have found evidence for a gun-flint factory in Kent, although he does not seem to have found any actual finished pieces. About a decade later, Clay³² described similar material from Wiltshire, illustrating one 'finished strike-a-light or gun-flint'.³³ In its general size and shape, and particularly in the way its butt has been removed by inverse retouch, Clay's flint is closely comparable to the one from Elsted. The evidence for attefacts has yet to be done. The most comprehensive work on the subject was written by Mr. S. B. J. Skertchly in the later nineteenth century.³⁴ Skertchly had a Brandon knapper make a collection of gun-flints for him. Most of these were of the well-known rectangular wedge-shaped type, but he also illustrates a few others, including what he called an 'English strike-a-light'.³⁵ Fig. 14, 71 illustrates an example of this type from the Coastal Plain, east of Chichester, West Sussex.³⁶ This could be seen as a better made specimen of a general type also represented by the Elsted example. There are six of these in Barbican House, Lewes, one of which is contained in a tied cloth bag, along with eleven other flints of the traditional gun-flint type, the whole being described as 'gun-flints in original bag'; this would suggest that Skertchly's 'English strike-a-light' could also be a gun-flint. Skertchly also illustrates a 'French strike-a-light' and a 'German gun-flint'.³⁷ but it appears that the first of these at least was actually made in

In conclusion, there is clearly insufficient material to indicate any pre-Roman settlement on the site of the excavation. If we are to avoid assigning the struck flint to the Roman occupation, we could perhaps invoke the agency of field manuring in the third or second millennia B.C.³⁸

SUMMARY OF ENVIRONMENTAL EVIDENCE (by Helen Porter) (with charcoal identification by C. Cartwright)

Due to the base-rich, shallow soil covering the site, very little organic material was preserved in any context. Table 5 summarises investigations carried out on soil samples collected. Only the seed identifications are shown in full; soil descriptions, results of mechanical analysis and pollen counts are with the site notebooks. Pollen was sparse and badly preserved. Only carbonised seeds are listed: all samples contained numbers of sub-fossil specimens.

Charcoal samples discussed and shown in Table 6 were collected during the course of excavation, and are not included in Table 5.



Fig. 14. The Small Finds, Scale 1:4 and flints, Scale 1:2.

Charcoal analysis (see Table 6)

The largest and greatest variety of species was found in the layers of the courtyard area. This was the only feature, except for two postholes (Features 2 and 10) which contained *Quercus* sp. (oak). Although there was no great amount of charcoal found anywhere on the site, the absence of oak from most of the postholes is interesting.

The possible presence of *Calluna* (heather) is an unusual one, it is more typical of light, acidic soils. However, it could have been a component of some stage of scrub growth.

There is not enough evidence to make any comments about the assemblage of species. *Corylus* (hazel) and *Craetegus* (hawthorn) are ubiquitous in the area, and would have served a great variety of purposes on the site. *Betula* (birch) is well-represented, and *Alnus* (alder) too, neither of which are found in the vicinity of the site today. They may have flourished in disturbed, open areas close to human occupation.

THE ANIMAL BONES (by Amanda Saunders)

All the bone fragments excavated (1,915) were examined. A large number of fragments (1,056) were unidentifiable because they had been broken up, probably by butchery and subsequent trampling. The bone was fairly well preserved (soil pH in pits 6.8-8.9). Fragment and minimum numbers are tabulated below in Table 7: unstratified bones are omitted. For fragment numbers, teeth in mandibles and maxillary fragments are not counted and madibles are counted as skull fragments. For minimum numbers, bones within layers were fitted together wherever possible, and ages were taken into account. Minimum numbers were calculated within stratigraphic units, several layers being combined where other evidence, such as pottery, suggested that this was permissible. The 1 m squares would give an unnaturally high minimum number count, while to ignore what little stratigraphy there is and combine all the bones would also be unrealistic, giving very low counts.³⁹ Goats may have been present but were not distinguishable, so the sheep/goat group will be referred to as sheep throughout.

Skull and tooth fragments occur in large proportions, suggesting that animals were butchered on the site and that a fair amount of bone erosion has taken place. A few cut marks were observed on certain mandibles (cattle and sheep) and on some long bones and ribs. Cut bones are more easily weathered and this may explain why more butchered bones did not occur. Long bones do not appear to have been split for marrow. One or two long bones of cattle appeared to have been chewed by a dog. The weathered surface pattern of other cattle long bones gave the false impression of having been gnawed by rodents. The only pathology to be found was an unevenly worn cattle maxillary molar, presumably caused by variation, not pathology.

The lack of complete mandibles made age estimation unreliable in most cases. Where possible, dates of epiphyseal fusion were used to test the information, or to add to it.⁴⁰

These ages give little information as they are so imcomplete. No bones showing arthropathic changes due to old age were found.

It is hard to draw valid conclusions from such a small assemblage of bones. Sheep and cattle are well represented throughout. It is interesting to note that from bone fragment numbers it would appear that cattle are more numerous than sheep, while from minimum numbers sheep predominate. Pig is present but not numerous. It is impossible to say whether or not the dogs were eaten. The animals appear to have had healthy teeth and jaws show no signs of malnutrition. A list of measurements of the more complete bones is available with the notebooks.

GENERAL DISCUSSION

The flints recovered possibly indicate activity in the Neolithic or Bronze Age but the first settlement evidence is of third to second century B.C. date. This is later than Beacon Hill⁴¹ and may imply a shift in emphasis from the Chalk to the Chalk and Upper Greensand. Although there are no Iron Age features the pottery shows that the site continued to be occupied from then on into the Roman period.

The location at present seems inhospitable; as the hill is very exposed, and both water supply and communications are distant (Fig. 2). These factors would not have been so severe in the Roman period as the water table has probably fallen, causing the springs to the east and west of the site to recede from it. There has also been a shift in communications; the present roads are the result of mediaeval developments and the now defunct Greensand Way, probably a Roman road, ran close to the site. The position on the Chalk/Upper Greensand boundary is at the centre of the site's potential resource area as it is probable that the Gault to the north was still wooded (see above). This can be seen as a stage in a longer term progression; the Iron Age settlement initially on the Chalk, the Roman on the Chalk/Upper Greensand boundary and the mediaeval village in the centre of the Greensand bench, This change probably being the result of an increase and diversification in land use.

In an attempt to estimate the area farmed from the site, all known Romano-British sites in the region were plotted (Fig. 3). If it is assumed that they lay in the centres of their resources areas, their boundaries can be suggested (Fig. 3). In the absence of sites on the Gault, this area is assumed to have been unoccupied. This method gave a potential resource area of c. 450 ha., which probably represents the maximum of exploitable land for the site. A problem is posed by the sites on the Downs (Fig. 3) which may simply be shepherds' huts on the open downland, dependent on the Greensand settlements. Whichever applies, the economic importance of sheep to the site is confirmed by the excavation (see above). The coincidence of parish boundaries with those suggested by this method may support the validity of the approach. Whilst this might represent an unchanged pattern, it cannot be used as evidence for continuity of settlement from Roman to Mediaeval as it may only have been determined by the same environmental factors.

If the above is adopted the limited environmental and bone evidence fits the pattern. Most of the livestock (predominantly sheep) was on the Downs, with the pigs also in the woodland, and the extremely fertile Upper Greensand as arable supporting wheat and probably other crops. This pattern has remained relatively unchanged in this area until the present century.

The bias of the area excavated precludes detailed discussion of the degree of 'Romanisation'. There are, however, a few notable features which are worth mentioning. Firstly, the presence of imitation Gallo-Belgic forms of pottery indicates an early Romanising influence, already noted on other Sussex sites⁴², though no increase in its intensity can be traced after this. Indeed the only evidence (however slight) of stone buildings is of third century date (see above), this does not confirm Cunliffe's conclusions about early villa development.⁴³ The evidence for a terminal date is inconclusive owing to the ploughing, however, the area examined *need not* have continued beyond the early fourth century. This negative evidence has little value in refuting theories of continuity into the Saxon period.

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Category of ware	Form	Courtyard (30, etc.	Courtyard (35, etc.	Ditch (phase i)	Ditch (phase ii)	Feature 2	Feature 3	Feature 4	Feature 5	Feature 6	Feature 8	Feature 11	Post Hole 15	Post Hole 25	Post Hole 36	Ploughsoil	Total
A	1.1 1.2 1.3 1.4	2 3 	_		1 				<u> </u>							$\frac{1}{\frac{1}{1}}$	4 4 1
В	2 3 4 5	_			 1					_					1	1 1 	1 1 2 1
С	6 7 8	5		_	<u> </u>	_	-		_			1	_			1	1 1 6
D	10 11 12	1 1 1				_								_	_	_	1 1 1
	13.1 13.2 13.3 13.4	1 2 4 1	_	1					1			1				_	2 2 6 1
	13.5 14 15.1	1 7 2	_	$\frac{1}{1}$	_	_	_	_	_			1	_			=	1 8 3
D	16 17 18	3 1 1	_		_	_			_	_	_	_				_	3 1 1
	19 20 21 22.1	2 12		$\frac{1}{1}$	1 1 2	_		_	_			 2			_	_	1 1 3 17
	22.2 23 24 25	1 3 48	_	_	$\frac{1}{1}$	_	_	_	_	_	_	_		_	_	_	1 4 49 5
	26.1 26.2 27	2 16 10	_	1	1 2 1	_		_	_		<u> </u>	2	_	_	_	_	4 19 14
	28 29 30 31	8 1 9		$\frac{1}{1}$	$\frac{1}{5}$	_		_	_						_	_	10 1 15 1
	32 33 34	1 1			1	_	_	_		_	_	_	_	_	_	_	1 1 1
E	35 36 37 38	2 2 9	_	1	1	_	_	1		$\frac{-}{1}$		$\frac{-}{1}$	_		_	_	Soth from one 5 2 11
	39 40	1		_	_	_	_	_	_	_	_	_	_	_	_	_	1

TABLE 1. Occurrence of Coarse Pottery Types in the Features

tc.) tc.)

TABLE 1. Occurrence of Coarse Pottery Types in the Features

Category of ware	Form	Courtyard (30, etc.)	Courtyard (35, etc.)	Ditch (phase i)	Ditch (phase ii)	Feature 2	Feature 3	Feature 4	Feature 5	Feature 6	Feature 8	Feature 11	Post Hole 15	Post Hole 25	Post Hole 36	Ploughsoil	Total
F	41 42 43 44 45.1 45.2 46.1 46.2 47 48.1 48.2 48.3 48.4 48.5 50 51.1 51.2 52 53 54.1 54.2 55 55 56 57 58 59 60	4 2 1 16 5 9 5 1 1 3 2 4 3 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1		$ \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{5} \frac{1}{1} \frac{1}{1} $	1 3 2 1 3 2 1 4 2 1 1 1 1 1 1 1 1 1												4 2 1 1 22 6 10 5 1 2 20 15 7 5 6 3 5 8 2 from same 16 3 1 2 2 3 1 1 2 3 1 1 2 2 1 5 5 6 3 5 8 2 1 2 2 1 5 5 6 1 5 5 6 1 5 7 5 6 6 1 5 7 5 6 6 1 5 7 5 6 6 1 5 7 5 6 6 3 5 8 8 8 8 8 8 8 8 8 8 8 8 8
	61 62 63 64 65.1 65.2 65.3 66 67 68 69.1 69.2 69.3 70 71.1 71.2 71.3 72 73 74 75	$ \begin{array}{c} 1 \\ 3 \\ 1 \\ 3 \\ 1 \\ 1 \\ 3 \\ 4 \\ 27 \\ 1 \\ 9 \\ 4 \\ 2 \\ 1 \\ 4 \\ 7 \\ 5 \\ \end{array} $		$\frac{1}{3}$	$ \begin{array}{c} - \\ - \\ 1 \\ - \\ 1 \\ - \\ 1 \\ 1 \\ 1 \\ 1 \\$	2					2						1 3 1 2 6 1 4 5 4 2 30 2 10 7 4 3 1 5 12 7 1
	77			1									_				1
D	/8	1			2											_	2

	Percenta	age of F	abric C	Groups	in Feat	ures and	d Lay	ers (co	prrect	to on	e deci	mal pl	lace)			
Feature/layer	Α	В	C	D	E	F	G	Н	J	K	L	Μ	N	Р	Q	Total adj.
Courtward/30	1.1		47	20 1	476	16.0	0.1	0.6	0.1	04	0.1	0.1	03		0.2	55 121
Courty ard/35	15.7		4.7	10.4	22.2	26.1	0.1	0.0	0.1	25.2	0.1	0.1	0.0		0.2	0.575
Ditch i/20	37		27	22.5	51.0	19.2		0.8		20.2						0.725
Ditch i/23	3.2		0.6	27.7	42.4	24.8		0.0	13							0.314
Ditch i/82	0.8		6.0	45.8	35.1	10.6		03	11						0.3	3,531
Ditch i/83	0.0		0.0	5.3	88.9	5.8		0.5							0.0	0.377
Ditch i/84				0.0	88.2	0.0									11.8	0.051
Ditch ii/7	2.1	0.2	3.9	33.1	42.1	16.6		0.3		0.1			1.5			2.948
Ditch ii/57	0.3		7.0	34.5	39.2	17.1		0.8	1.1				0.2	0.1	0.9	8.787
Feature 2/8	3.8			3.8	44.0	25.2	4.4								18.9	0.159
Feature 2/27			72.7		27.3											0.022
Feature 3/11	5.6		12.8	23.0	19.1	37.0		2.6								0.392
Feature 4/12	9.9		2.8	3.6	41.1	39.7							1.4		1.4	0.705
Feature 4/19	33.7		20.7		10.1	35.5										0.169
Feature 4/25	8.7		4.4		17.4	69.6										0.230
Feature 5/3	5.0		4.5	5.0	46.4	39.0										0.992
Feature 6/5			2.7	2.5	75.7	16.4		2.6								0.951
Feature 7/61				100.0												0.020
Feature 8/42				28.6	28.6	42.9										0.140
Feature 9/50			50.0		16.7	16.7		16.7								0.060
Feature 10/85					100.0											0.020
Feature 11/60			12.7	34.4	44.4	7.4									1.1	0.945
Feature 12/59			40.0		20.0	40.0										0.050
Post Hole 4/4					100.0											0.025
Post Hole 7/70			100.0													0.010
Post Hole 14/63		100.0														0.004
Post Hole 15/32				75.5		15.1		9.4								0.053
Post Hole 18/41						100.0										0.025
Post Hole 19/74				100.0	100.0											0.020
Post Hole 22/33				27.0	100.0	10.0										0.025
Post Hole 25/48			15 5	51.0	44.4	18.5										0.108
Post Hole 21/4/			45.5	54.5	100.0											0.033
Post Hole 28/12		4 1	6.6	12.2	100.0	14.0									16	0.007
Post noie 30/44		4.1	0.0	13.2	39.5	14.9									1.0	0.005

 TABLE 2

 entage of Fabric Groups in Features and Layers (correct to one decimal place)

TABLE 3. Occurrence of nails within features

Layer	Broken	Complete	Details	Total	Studs
1	7	_		7	1
2	13			13	7
Ditch i	4	2	30mm. bent 38mm.	6	9
Ditch ii	12	1	37.5mm.	13	9
Courtyard (30)	43	2	68mm. 23mm.	. 45	23
44	2			2	1
12	2			2	
19	1	—	_	1	3
Total	84	5		89	53

TABLE 4. Occurrence of Whetstones on site

Layer No. Topsoil	Greensand	Carstone	Bunter Pebble
Courtyard	4	2	
Ditch i	2		1
Ditch ii	1		
2	2	_	
Total	10	2	2

TABLE 5

Constructed Longer 20	Seeds	Charcoal	Mech. An.	Pollen
Ditch Layer 23	Rumex? acetosa	NID	*	*
Laver 82		NID	*	
Feature 1 Laver 18		NID	*	*
Feature 2 Layer 8		NID	*	*
Layer 27		3 bits	*	*
Common Conference of the Confe		Quercus sp.		
Feature 3 Layer 11		NID	*	
Feature 4 Layer 12	4 Triticum vulgare	NID	*	
-	1 Triticum dicoccum			
	5 Rumex? acetosa			
	2 Polygonum? perspicaria			
	6 Chenopodium alba			
Feature 5 Laver 24		NID	*	
Post Hole No. 15**	1 ?Triticum vulgare			
	2 Polygonacaca			
	5 Chenopodiacaca			
	and a second			

Key

Mechanical analysis or pollen analysis done.
 NID No identifiable charcoal present.
 Result of on-site flotation carried out by D. Williams.

Layer 12 is the top of a pit, and a 250 g sample produced the only appreciable number of seeds. The weed species are all common to cultivated, disturbed ground, and only one cereal could be positively identified as Emmer (T. dicoccum) as all were poorly preserved and incomplete.

TABLE 6

Feature	Layers	Hazel	Hawthorn	Birch	Oak	Alder	NID	
Ditch (i)	2, 29, 30					*		Calluna
Ditch (ii)	7.57	*	*	*			*	cumma
Feature 2	8.9						*	
Feature 4	12, 25	*	+	*		*	+	
Feature 5	3		*					
Feature 7	61						*	
Feature 10	85				*			
Feature 11	60		*					
Post Hole 3	14	*						
Post Hole 4	4		*				*	
Post Hole 25	48		*					
Post Hole 29	80		*					
Post Hole 36	44			*		*		
Post Hole 37	52			*				

NID=No charcoal could be identified.

Cattle	al	66	2	16	30	1	1	3	3	1	1	1	1			1	í I
	ь	114	16	71	1				1	1							1
	c	63	5	15	10				3								
	d [10	1	1				1									
	e	16	5	3						1							
	g													+	1		<u> </u>
		2(0	20	107					-			<u>.</u>					<u> </u>
total		269	29	106	41			4	1	3		1		+	1		
minimum		0	2	2	1			2	2								
Sheep	a	54	5	6	1	1		+	2		1						1
	b	52	4	3	3	1	2	2	2			2					
	d	100	5	11	1	1	3	1	2	1	4	3					
	e	17	5					1									
	f	15				-		-		1							-
total		236	17	20	5	3	3	4+	6	2	5	3					
minimum		11	4	2	2	-		2			2						-
Pig	a	6		1		-						ł	1				-
0	b	3		1	1												-
	c	20	1	1	1												
	e	1														1	
total		30	1	3	2								1			1	
minimum		2															
Dog	a	4															
	b	4															
	c	1	1														_
	a	1															
		16	1														<u> </u>
		2						L									
Horse	a	14	1			2											<u> </u>
	C	5				1											-
	d	5				-											
	e					1											
	f					1											
total		20	1			5											
minimum		1															-
Deer	a																
	b																
	c			3													
TOTAL		571	49	132	48	8	3	8	13	5	6	4	1	+	1	1	2
Unident.		690	104	50	83		16	68	15	5		7		7			
		Courtyard 30, etc.	Ditch phase i	Ditch phase ii	eature 2	ourtyard 35, etc.	eature 3	eature 4	eature 5	feature 6	eature 8	eature 11	ost Hole 9	ost Hole 15	ost Hole 25	ost Hole 27	ost Hole 36
		C	Dit	Dit	Fe	Co	Fe	Fe	Fe	Fe	Fe	Fe	Po	Po	Po	Po	Po

TABLE 7. Cocurrence of bone in features: a=longbone fragments, b=skull fragments, c=teeth fragments, d=ribfragments, e=vertebral fragments, f=scapula fragments, g=pelvis fragments, h=horn-core.holes 7, 18 and 35 each contained one or two pieces of unidentified bone

TABLE 8

Cattle	Sheep	Dog
Courtyard 30, etc. 1 at 15-18 mo. (30 mo.)* 2 under 36 mo. (42 mo.) 3 over 28 mo. (42 mo.)	1 under 24 mo. (40 mo.) 9 over 18 mo. (36 mo.) 1 foetal	
Ditch phase i 1 at 18-30 mo. (30 mo.)	1 under 24 mo.	1 over 3 mo.
Ditch phase ii 1 under 60 mo.	1 under 24 mo. (40 mo.) 1 over 18 mo. (36 mo.)	
Feature 3	1 under 24 mo. (40 mo.)	
Feature 5	1 over 18 mo. (36 mo.)	
Feature 4	1 foetal	
Feature 8	1 foetal	

*The first age (in months) refers to modern breeds (usually improved) and the second (in brackets), in the case of cattle, to nineteenth-century Chaveau cattle. In the case of sheep, the second age refers to semi-wild, hill sheep (from 1790).⁴⁰

Footnotes

Note:

¹ M. Bell and T. Tatton-Brown "A field survey of the parish of Elsted and adjacent areas, West Sussex", Bull. Univ. London Inst. Archaeol. 12 (1975), 58-66.

² M. D. Hooper 'Hedges and Local History' (London, 1971).

I. D. Margary 'Roman Ways in the Weald' (London, 1948), first used this term.

Tansley 'Britain's Green Mantle: past, present and future'.

⁵ P. 451 in S. H. King's contribution to H. C. Darby and E. M. J. Campbell's '*The Domesday Geography of* South East England' (Cambridge, 1971). ⁶ S. Applebaum "Some observations on the

economy of the Roman villa at Bignor, Sussex", Britannia 6 (1975), 118-32.

We would like to thank Mr. A. C. Braithwaite for arranging the resistivity survey and aerial photography, and Mr. A. Clark for discussing the results of the latter.

⁸ B. Hulthén "On choice of element for the determination of quantity of pottery", Norwegian Archaeol. Rev. 7, 1 (1974). 1-5.

See pp. 77-81 in M. Millett (ed.) 'Pottery and the Archaeologist', Occasional Paper No. 4 of London Institute of Archaeology (1979).

M. Millett "The Dating of Farnham (Alice Holt) Pottery", Britannia 10 (1979), 121-37. ¹¹ Thanks to Dr. M. G. Fulford for discussing these

sherds with me.

¹² N. H. Brewster "Corbridge—its significance for the study of Rhenish ware", Archaeol. Aeliana (3) 50, 205-216.

¹³ M. G. Fulford 'New Forest Roman Pottery' (Oxford, 1975).

¹⁴ B. W. Cunliffe "The Saxon Culture Sequence at

Porchester Castle", Antiq. J. 50 (1970), 67-85. ¹⁵ B. W. Cunliffe 'Iron Age Sites in Central Southern England' (London, C.B.A., 1976) Fig. 19, nos. 69-70; Fig. 20 no. 86 from Torberry and Fig. 36, nos. 26-28, Fig. 38, nos. 51-5 from Chalton.

Op. cit. note 15, fig. 20, no. 83; also B. W. Cunliffe 'Iron Age Communities in Britain' (London, 1974), Fig. A28, no. 16.

17 I. Hodder "The distribution of two types of Romano-British pottery in the West Sussex Region", Sussex Archaeol. Collect. 112 (1974), 86-96.

See now Millett op. cit. note 9 (pp. 35-48) for discussion of these figures in relation to other sites.

¹⁹ M. Millett "An approach to the Romano-British pottery of West Sussex" in Freke (ed.) '*The Archaeology* of Sussex Pottery'. Sussex Archaeol. Collect. 118, this volume.

20 Op. cit. note 19.

21 B. W. Cunliffe 'Fifth Report on the Excavations on the Roman Fort at Richborough, Kent' (Oxford, 1968), 77.

²² S. S. Frere and J. R. St. Joseph "The Roman Fortress at Longthorpe" in *Britannia 5* (1974), Fig. 32, No. 79.

²³ B. W. Cunliffe 'Excavations at Portchester Castle Vol. I: Roman' (London 1975), Fig. 113, 54-5.

R. Hartridge "Excavations at the prehistoric and Romano-British site on Slonk Hill, Shoreham, Sussex",

S.A.C. 116 (1978), Fig. 11, nos. 4 and 15. ²⁵ A. C. C. Brodribb et. al. 'Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part I' (Oxford, 1970), note 20, Fig. 41, Nos. 16-17. ²⁶ A. Robertson, et al. 'Bar Hill: A Roman fort and

its finds' (Oxford, 1975), Fig. 31, No. 1; and S. S. Frere 'Verulamium Excavations Vol. I' (London, 1972), Fig.

68, No. 90. ²⁷ H. F. Cleere "Roman Domestic Ironwork, as illustrated by the Brading, Isle of Wight, Villa" Univ. London Inst. Archaeol. Bull. 1, 55.

28 C. Isings 'Roman Glass from dated finds' (Groningen, 1957).

²⁹ I would like to thank Dr. M. H. Newcomer for helpful comments on technological and other matters concerning flint assemblages. The opinions expressed are my own.

The situation is very different when dealing with undisturbed material in its original stratified context, cf. R. Tringham et al. "Experimentation in the formation of edge damage: a new approach to Lithic analysis", J. *Field Archaeol.* 1 (1974), 171-196. The potential and some of the problems of surface collections will be considered by the author in a forthcoming article.

³¹ R. H. Chandler, "Some supposed gun flint sites",

Proc. Prehist. Soc., East Anglia 2 (1918), 360-65. ³² R. C. C. Clay "A gun-flint factory site in south Wilts.", *Antiq. J.* 5 (1925), 423-26.

Op. cit. (note 36), Fig. 1. S. B. J. Skertchly, 'On the manufacture of gunflints (etc)' Memoir of the Geological Survey of England and Wales, H.M.S.O.

Op. cit. (note 31), Fig. 20.

³⁶ Found during field-survey work directed by the writer (see Sussex Archaeol. Soc. Newsletter, 15 (1975), 68). 37

Op. cit. (note 31), Figs. 21 and 61.

38 Cf. J. Radley and L. Cooper, "A Neolithic site at Elton: an experiment in field recording", Derbyshire Archaeol. J. 88 (1969), 37-46.

³⁹ For discussion of this see D. K. Grayson "On the methodology of faunal analysis" in American Antiquity

38, 432. ⁴⁰ J. M. Ewbank *et al.* "Sheep in the Iron Age: a ^{Brahist} Soc. 30, 425 and also I. method of study", Proc. Prehist. Soc. 30, 425 and also I. A. Silver in E. Higgs and D. Brothwell (eds.) 'Science in

Archaeology' (London, 1969), 283. ⁴¹ B. W. Cunliffe, *Iron Age Communities in Britain*' (London, 1974). Fig. 13.21 suggests that Harting Beacon Hill went out of use in the first century B.C. See also O. Bedwin, Sussex Archaeol. Collect. 116 (1978), 225-240.

 ⁴² B. W. Cunliffe '*The Regni*' (London, 1973), 94-95.
 ⁴³ See review of Cunliffe op. cit. note 47 by Rivet in Britannia 5, 490-491 for criticism of his views on the early development of villas in Sussex.