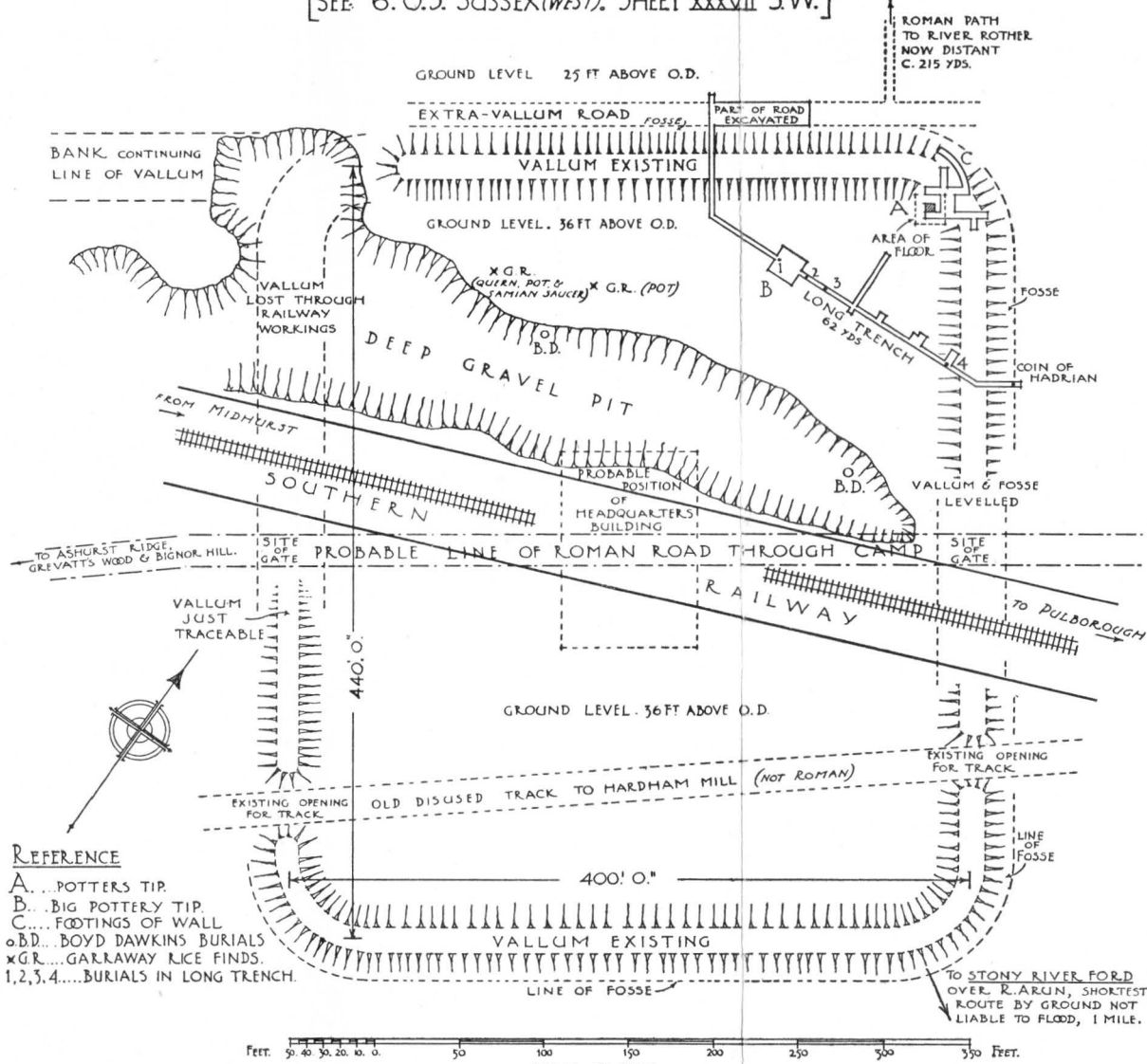


# PLAN OF ROMAN SITE EXCAVATIONS

AT HARDHAM. WEST SUSSEX. APRIL, 1926.

[SEE 6" O.S. SUSSEX (WEST). SHEET XXXVII S.W.]



# EXCAVATIONS AT HARDHAM CAMP, PULBOROUGH, APRIL, 1926.

---

BY S. E. WINBOLT, M.A.

---

ἀνατέτροφας ὅτι καὶ μύσῃ,

Thou hast disturbed anything that *had*  
been lulled to rest. *Soph. Trach. 1009.*

## THE CAMP BEFORE 1926.

BEFORE describing the results of digging at Hardham Camp in April, 1926, it is necessary to look backwards, and put together what had been gleaned previously, chiefly by Peter Martin, Sir Wm. Boyd Dawkins, and R. Garraway Rice.

In *S.A.C.*, Vol. XI. (1859), pp. 137 *sq.*, Martin states that the Camp "measures 360 ft. along the crest of the vallum, and contains an area of about  $1\frac{1}{2}$  acres." This is not correct: the measurement of the north and south valla, which stand complete, is 400 ft. exactly, and the measurement of the east vallum, part of which survives, is 440 ft. The content is an area of  $4\frac{1}{3}$  acres measured from the top of the valla, as compared with the  $2\frac{1}{2}$  acres of the similar station at Alfoldean. Again he writes: "It was never supposed to contain any masonry, and the railway cutting has verified this, though there are broken tiles and other evidence of human occupancy." In the small space explored by me it is true no house walls were found, but in the rounded part of the north-east corner the quite substantial footings, of very big Down flints, of a curved wall were found. Moreover, quite enough roof tiles, both flanged and imbrex, and of ordinary wall bricks with the usual keyed patterns, were found

to make it certain that masonried buildings must have existed within the area. "The 'way' entered through the west wall where the railway now does." This rough-and-ready statement, for which no evidence is quoted, is probably near the truth. "The ground had been disturbed and rifled of any valuable contents." This does not apply to the portion dug by me: for the greater part of the long trench (120 yards) dug diagonally across the north-east angle and through the valla there were three most distinct strata, maintaining within a few inches the same levels. Nowhere were visible traces of previous digging or plundering.

In *S.A.C.*, Vol. XVI., pp. 52 *sq.*, is printed a paper read by Sir (then Mr.) Wm. Boyd Dawkins, in 1863, and this gives us the first palpable facts in connection with this Roman site. He reports on five exceptionally interesting graves, two within the area of the Camp (Plan B.D.), and three outside its limits, and the objects from these burials are to be seen at the Brighton Museum. Grave No. 1 is typical of the others, and my digging confirms it in several points. It was a square chest 2 ft. 4 in. long on each side, and 1 ft. 4 in. high, lined with oak planks. The floor was a platform of flints, on which were a dark-ware cinerary urn, containing burnt human bones, a shallow patera, three horn cores of *bos longifrons*, pigs' teeth, and part of a horse's jaw, one fragment of plain Samian, and two round stones; also a pair of leather sandals. At six feet down we found definite traces of a similar grave, though it had apparently been broken up when the hole for a Roman rubbish pit was dug down through it. The measurements of the Camp are given more nearly correctly, as 420 ft. by 435 ft., the sides facing the magnetic points of the compass. The only coin found was one of Hadrian—exactly our experience. The pottery was of "Roman-Celtic style," a good general summary of our pottery finds. Flint implements and flakes were found in association with the potsherds—again our experience. Sir Wm. Boyd Dawkins draws the inference, which I cannot resist,

that there was probably a prior occupation of the spot by Celts, as there was at the Seaford cemetery and camp.

About 1890 Roman urns were found near Stopham House, close to the bridge which spans the road.

In *Proc. Soc. Ant.*, 2nd Series, Vol. 18, p. 23 *sq.*, is an account of finds made by Mr. R. Garraway Rice in 1898 and 1899. Inside the Camp and near the gravel pit (Plan G.R.) he found a pot, remains of oak boards in the form of a wood-lined grave, three-quarters of a pot of dark ware, nearly the whole of a lower stone of a quern, another dark ware pot, and half a "Samian" saucer. Beyond these were found 2 pots near the railway siding, numerous fragments of pottery, including Samian, on the site of the brick kilns, and others on the site of the brick-drying shed. These finds are at Stopham House, where I saw them in May, 1926. In *Proc. Soc. Ant.*, 2nd Series, Vol. 23, p. 379, Mr. Garraway Rice further reports that near the old ballast hole was found a perfect Roman quern, both upper and lower stones, and half of the upper stone of a beehive quern, of conglomerate or pudding stone,  $13\frac{1}{2}$  in. in diameter. Sir Wm. Boyd Dawkins says that this conglomerate is of eocene age, and occurs in isolated masses and boulders in chalk, and was probably got from the Downs near Pulborough. Beehive querns in Britain are prehistoric, having been found in the late village at Glastonbury, and in the late Celtic settlement near Northampton, and never, apparently, in purely Roman settlements.

The pottery grave furniture found by Sir Wm. Boyd Dawkins (now in the Brighton Museum) consists of ten pots, a big amphora, and a dish. In spite of the fact that five of the pots have bases smaller than their mouths, there is no clear reason for assigning any of them to a date later than the second century; while two of the pots—one light grey with a sharp carination, the other grey, ornamented with patches of applied dots—seem definitely to belong to the first century. The pots now at Stopham House may safely be dated as before 200. The only other pot I have been able

to trace in connection with Hardham is a fine, tall, shapely burial urn found at Hardham Mill about 1840, and now in the possession of a lady at Pulborough. It is of grey ware, has a foot ring, and a cordon on the top of the shoulder, the cordon being rouletted. This looks like an early first century piece. There is also at Pulborough Church a terra-cotta lamp which Mr. Harry Price, of Pulborough, says came from Hardham Camp; it is ascribed to an early period of the Roman occupation.

Mr. Hilaire Belloc in his *Stane Street* writes: "The road is quite plainly visible entering the Camp by its south-western gate." I fear this is a delusion. What one sees is simply the remains of a comparatively recent track to Hardham Mill. The two valla were breached for it so that it runs diagonally across the southern area of the camp, and its slight *agger* is composed of surface soil scraped together and containing plenty of fragments of Roman pottery. Another relevant sentence is: "The relics of buildings which seem to have remained until modern times have now wholly disappeared." I have not been able to find authority for the supposition that buildings have been visible in Hardham Camp in modern times. There is probably something in Mr. Belloc's suggestion that the proximity of Hardham Priory led to the removal of all traces of building within and without the Camp: and more still in the idea that the use of Hardham Camp was mainly to accommodate "a force which served the purposes of a police."

#### SUMMARY OF DIGGING IN APRIL, 1926.

The foregoing sums up briefly what I had been able to put together about Hardham Camp before I was able to begin digging on April 1st, 1926. A number of circumstances made this possible, among them the kind permission of Sir Walter Barttelot and his tenant, Mr. J. Dallyn, the facts that four men from the Stopham quarries were available for digging, that Mr. Newland Tompkins of Pulborough put every

facility in my way, and that a few subscribers—including the Sussex Archaeological Society—provided the sinews of war. It being Easter time, when my colleague and lieutenant, Mr. B. W. Pearce, arrived on the scene, we were soon joined by quite a large contingent of willing helpers, including a field party of the Littlehampton Nature and Archaeological Circle, several undergraduates of Oxford and Cambridge, and a good sprinkling of public-school boys. The ground available was that inside the camp between the railway and the north vallum (a large part of which is deep swamp, remains of the old sand and gravel pit), and the ground east of the Camp and north of the Midhurst railway, down to the Rother levels, and as far as the road leading from Hardham Junction to the Mill. I planned a long trench of three feet wide and 93 yards long, diagonally subtending the right angle of the north-east corner, but turning so as to go through both valla at right angles (see plan). The whole length of this was dug first to a depth of one foot; then similarly another foot was excavated for the whole length, and then a third, and so on. A little testing showed that in general there was no need to go deeper than three feet; but black soil invited deeper digging in two places for another foot, while in another a very big refuse tip (Plan B) had to be opened out, 8 yards in diameter and  $4\frac{1}{2}$  feet deep. Over a part of this latter area indications led to digging to a depth of a little more than 6 feet. Geologically the strata were remarkably consistent all through: on top about 3 feet of brownish sand, below this  $1\frac{1}{2}$  feet of whitish sand with red iron streaks, below this a good foot of red ferruginous gravel, and below this fat yellow clay. In the eastern half of the long trench four headings of varying lengths were driven northward without appreciable result; the longer (centre) one (35 ft.) showed about two feet of black earth with a small quantity of pottery fragments. Of course the trench through the north vallum (at a point 149 ft. from the north-east corner), with its artificially piled

strata, and down the slope to the lower ground towards the Rother, produced different results. But on the whole one could not wish for greater regularity in layers, and it is quite obvious that no systematic excavation or casual digging had ever taken place along the line chosen. The north vallum trench brought us to an extra-vallum road, and it seemed worth while to expend much labour in attempts to find its prolongation towards Pulborough, in the hope that the lost line of Stane Street might be recovered. Indeed, the problem of Stane Street did inevitably account for much thought and labour. Finally, from a point some 10 yards inside the north-east angle two trenches were driven at right angles so as to cut through the two valla, resulting in the discovery of a floor, a rounded section of wall footings, and a big pit, in which potters had thrown their "wasters."

#### DETAILED RESULTS.

To come to detail, the examination of which will show that, as at Alfoldean, so at Hardham, the interest centres in the discovery of a great quantity and great variety of pottery, a good proportion of which can be dated within fairly narrow limits. Between the north-east angle and the railway the eastern vallum had been ploughed down and the fosse outside it filled up. In order to get an accurate measurement of this side it was necessary, if possible, to locate the line of both. This was successfully done, as trenches in two places found, about  $2\frac{1}{2}$  feet down, the slightly arched strong gravel foundation of the vallum, 12-13 feet wide, and clear traces of the fosse. In other places it was easy to establish the rest of the line by the use of the sounding rod. Results produced by the long trench were as follows. Starting from the east end and proceeding north-west, we found fairly consistently that the top foot and a half was brown sand, obviously disturbed by cultivation, in which a fair amount of Roman pottery sherds had been worked up. Underlying this was a foot-and-a-half of black soil with a

far greater proportion of pottery. This represents the actual level trodden by the occupants of the camp for about a century. The soil here was originally of the same colour and constituents as the top layer. It was quite easy in the sides of the trench to draw a horizontal line demarcating the occupation level and the top soil which in the course of the subsequent eighteen centuries has gradually drifted and formed on top. This Roman-trodden level ended almost uniformly just over the stratum of whiter, damper sand, which was interfered with only here and there where the Roman-British occupants had deliberately dug down to make refuse pits. Two such shallow pits, originally dug only about 2 feet below the 3-foot level, were encountered before we struck the big one. The permanent buildings, which are indicated by remains of building material, and which we may safely say must have existed towards the middle of the camp area, did not occupy any of this open space towards the north vallum. Here it was that rubbish pits would naturally be. They were filled with fragments of all the usual household crockery—plates, dishes with their lids, beakers, jugs, and cooking pots (*ollae*), of grey, red, buff, creamy, and black body. Before we reached the big tip we found three burials (Plan 2, 3, 4) at varying depths, and these finds raised the problem, how it is that burials should be found within the limits of a habitation site. Sir Wm. Boyd Dawkins characterised the site as a cemetery, and Mr. Garraway Rice in a letter to me seemed inclined to agree; but it has undoubtedly been used for ordinary habitation in both pre-Roman and Roman times. The solution, I think—and one which is not contradicted by any of the evidence—is that as a road station the place was abandoned at a fairly early date (say, by 150 A.D.), and then used for a short time as a cemetery both within and without the valla, though burnt burials were made during the period of occupation.

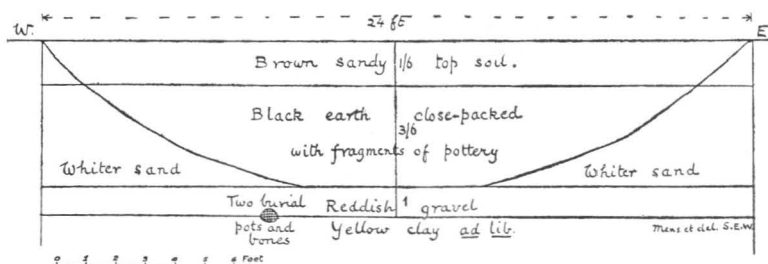
The first burial found (No. 2 on Plan) was found at a depth of 1 ft. 4 in. in the top brown sand, 21½ yds.



from the north-west end of the 61 yds. straight of the trench. It was a biggish buff urn full of charred bones, which were identified by Sir Arthur Keith as those of a small adult, probably a woman. It contained no ornaments. Of the two others, both grey-material pots with black surface, one (No. 3 on plan) was found at 1 ft. down in brown top soil,  $3\frac{1}{2}$  yds. east of the buff pot; the other (No. 4) at 2 ft. 8 in. down,  $7\frac{1}{2}$  yds. west of the east vallum. The first was badly broken in digging: inside it and among the ashes was found a little grey beaker (see page 98). The other was also broken, but was partially reconstructed; by the side of it was found a red-brown saucer (see Plate III, 5), which no doubt had been used to cover the pot. The charred bones were scattered around. The saucer has a meaningless bungled potter's mark, and is false or imitation Belgic, probably dating early in the second half of the first century. The two shallow burials in ordinary top soil had perhaps been dug up casually since Roman times and reburied.

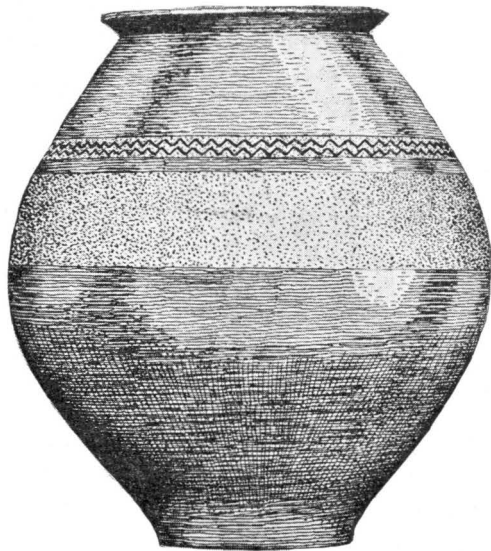
About two-thirds of the distance along the long trench from its eastern end (Plan, B and Diagram of

'SECTION OF BIG TIP (along trench)



Section), we found the black pottery-laden earth beginning at 1 ft. 6 in. down and gradually deepening and widening outside the trench. Broken fragments of all kinds were close together in great profusion, but seldom were there more than two or three fragments which would fit. Ultimately this pit was cleared to a

diameter of roughly 8 yards, and to a depth of about  $4\frac{1}{2}$ –5 ft. It was a very exceptional mass of broken sherds. Right at the bottom of this Roman pit I found a perfectly spherical small clay marble—the clearest evidence I have yet come across that the Romans undoubtedly used marbles. Under the lowest sherds was a thin layer of gravel lying on yellow clay;



BLACK BELGIC BEAKER, FOUND BELOW BIG TIP.

we had reached the floor of the pit. But curiosity prompted deeper digging, and at 6 ft. down and a little lower we found what was undoubtedly the remains of another grave (No. 1) of the Dawkins type, but badly smashed and almost past recognition. One might account for this as follows. In digging out the soil for the pit, the Roman workmen had disturbed the soil below the required depth, and broken and confused the burial beneath. We found the broken remains of a big grey urn, pieces of oak planks, a few bones of horse, ox and red deer, and—almost intact—a unique

polished black beaker of Belgic technique, with a narrow band of double burnished zig-zag lines, each marked independently with a point and bordered by pairs of horizontal burnished lines. Below this a mat zone one inch wide, the lower part again being burnished. The foot-ring had been knocked off, but the slight everted rim was perfect. From the position in which it was found the burial must have been anterior to the



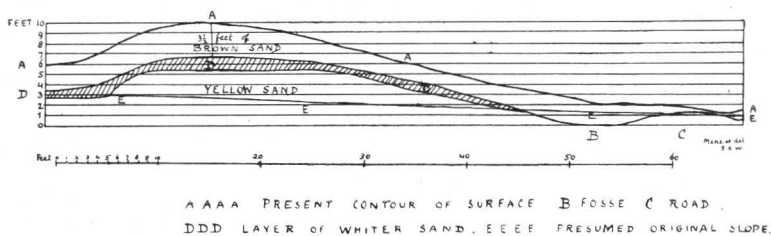
BLACK BEAKER, BUFF URN, AND GREY BEAKER.

digging of the pit, and would therefore probably represent an interment of an early period of the Roman occupation. The black pot was probably originally inside the big grey one, the top of which had been broken off to receive it, and this protected it when the pit was dug. The containing grey vessel has a rim of Roman contour, and is of hard dark grey material, but the black pot is probably of earlier date than its container. (Illustr., pp. 97, 98.)

The north vallum, originally piled at the top of a gentle slope towards the Rother, remains complete in length, though much pared down in places; it has probably lost at least two feet of its original height. I made several attempts to find either post holes or remains of palisade posts, or foundation of a vallum

wall, but without success. It is probable that along the valla, except at the rounded corners, there was no wall, and that the palisade post-holes have been obliterated by the throwing down of the top 2-3 ft. of vallum. This soil was no doubt utilised for filling up the fosse and making more easy the slope of the vallum. Of this vallum two sections were cut, one at the west end where there is an old gravel pit, and one through the middle. The former gave, from top to bottom, the following results: 2 ft. 6 in. of brownish sand, to which, at this point, may be added c. 1 ft. 6 in. to make the original height. Below this 6 in. of blacker soil containing pottery fragments; below this 10 in. of whitish sand; then 8 in. of darker sand. These layers are on undisturbed yellowish sand. I conjecture, therefore, that to make this vallum on

## SECTION of NORTH VALLUM, FOSSE, and ROAD



the top of ground sloping gently north to the river the Romans piled about 6 ft. of soil in all, of varying materials. The middle section (see diagram) gave roughly the same results, namely (at the centre), top,  $3\frac{1}{2}$  ft. of brownish sand, below which  $1\frac{1}{2}$  ft. of whitish sand, below which yellowish sand. Of course, these three layers are slightly arched. Horizontally, the measurement through the vallum from the interior, where it begins to slope up, to the inner lip of the fosse on the outside, is about  $47\frac{1}{2}$  ft.

The fosse, as we were able to define it, seemed not

to be more than 8 or 9 feet wide across the top. Immediately on the outer edge of the fosse we found big stones set as though either for a strong kerbing to the road, or for the footings of a low parapet to divide fosse from road. These were found at intervals all along the road. An extra-vallum road ran exactly parallel to vallum and fosse, and was a little more than 13 ft. across the camber from fosse to fosse. The outer fosse had been found convenient in recent times for the laying of red surface-draining pipes. The make-up of this road was: a base of yellow clay, here in its natural position; on top of this, clay and gravel flints mixed, 7 or 8 ins.; the surface was a good foot of gravel flints. We opened a continuous stretch of this road for 20 yards, all of which was in sound condition. On the surface of the road we found several fragments of grey pottery, one a big base; several flint flakes; and, just inside the surface gravel, one light blue melon bead of paste. This find of an obviously Roman road naturally gave rise to speculation as to whether it might be a by-pass road, branching off from Stane Street before it entered by the west gate, and joining it again outside the east gate. This idea is not disproven; but the railway pits make it impossible to prove it on the west side, and we did not seriously look for it on the east. The road was traceable along nearly the whole length of the north vallum, but just before reaching the north-east corner it gave off at right-angles a path c. 7 ft. wide, going down towards the Rother, which probably in Roman times flowed much nearer the camp. (To-day it is c. 220 yds. from the north vallum.) The line of the extra-vallum road appeared to make for a point slightly to the east of Pulborough Church, and was tested thoroughly with trenches in nine places at reasonable intervals right across the canal as far as the road to Hardham Mill. In the course of this trenching, about 200 yards east of the camp, we came on an isolated solid floor of 9 ft. square, with signs of burning a few feet from it. Of this I could make nothing; but in the first instance

it led us to suppose that we had found the continuation of the road. Finally the idea that this was Stane Street had to be abandoned. It is possible that the north vallum (and presumably the others) had a revetment (or facing) of stones. When the section was being cut, for several feet down the outer slope we came across a great many big stones (probably the "malm" or lime stone of the Bignor ridge), lying loose. This treatment of an earthen bank was not uncommon with the Romans; from the great quantity of very big flints found along its line, I believe the vallum at Alfoldean had such a revetment.

The trenches in the north-east corner revealed a length of 18 feet of substantial flint footings to a wall, which made a curve of a quarter of a circle (Plan, C). It was not an original feature, for under these footings were found many pottery fragments, and particularly pieces of late first-century Samian ware. Vallum and ditch were again proved on both north and east sides. A few yards back from the east vallum was a floor, 1 ft. thick and 20 ft. square. This again had been laid over a well-trodden surface of black earth in which were pottery fragments.

Towards the middle of the south side of this a big hole (see Plan, A) had been cut through, and a great mass of broken pottery, nearly all dark grey, had been thrown in, and eventually, when the hole was full, had been piled up on top and around. A large proportion of these pieces were big parts of "wasters," pots which for some reason had become distorted during firing in the kiln. There must have been a pottery establishment on the site, though we did not happen to light on the kiln or kilns. It is equally obvious that the dark blue-grey gault clay which is still to be found about 2-3 ft. down near the railway line and the brick-yard must have been extensively used in the local manufacture.

Such are the main results of the digging of four men, and many voluntary helpers, for 24 days (and of five men for 5 of these days). It remains to investigate

the less disturbed part of the enclosure south of the Midhurst railway line when the opportunity offers.

### FINDS: COINS AND POTTERY.

The outstanding result is the great quantity of pottery found, which it is necessary to describe in some detail and examine mainly from the point of view of dating the inhabitation. Apart from pottery, the finds were few, but not uninteresting.

#### COINS.

Only one coin was found, and that one foot down in the long trench, just outside the east vallum, above the fosse; it was probably thrown there in the process of levelling the ground.

Hadrian, c. 120 A.D. Dupondius.

*Obv.* Imp. Caesar Traianus Hadrianus, Aug.P.M.Tr.P.Cos. III.  
Bust with Radiate head.

*Rev.* Virtuti Augusti S.C. Virtus standing r. with left foot on helmet, holding spear and parazonium. (Cohen, 1470, with rev. as 1468.)

The only other coin recorded for this site is also a Hadrian.

[It is to be noted that the coins found in the near neighbourhood include:—Germanicus, A.D. 19 (Pulborough), Nero (Borough), Claudius (Borough), Vespasian, A.D. 70 (near Soper's Cottages, Pulborough, 1907), Domitian (Borough), Hadrian (Borough), Allectus, 296 (Borough).]

Like Constantine coins for the early fourth century, Hadrian coins are very common in Roman-British sites for the second. Thus at Woodcuts, Pitt Rivers found more of Hadrian (eleven) than of any other single emperor from Caligula to Magnentius.

#### SAMIAN WARE (TERRA SIGILLATA).

No whole vessels were found. Datable fragments number 22, and beyond these there were 15 other fragments. For the purposes of description I take the term Flavian (F) to represent the years 70-100 A.D.; Vespasian (V), 70-80; Domitian (D), 80-100; Trajan (T), 100-120; Hadrian (H), 120-140; Antonine (A), 140-160. The fragments are recorded in chronological order, and their approximate dates given by the above letters. In many cases the glaze, best preserved in clay, has perished from contact with gravelly soil. [For help in description and dating I am indebted to Dr. Felix Oswald.]

1. Form 27. Half foot-ring and base, and part of wall; groove on exterior of foot. Rather a large cup. Date V.  
(See Pl. I., No. 1.)
2. F. 27. Rim and top curve, with fine incised line parallel and close to tim. A small cup; rim small; glaze fair. V.

3. F. 27. Rim, top curve, and part of lower curve; groove on top of lower curve. Small cup, with thin wall; rim of slight mould; good glaze. V.
4. F. 27. Rim, top curve, and part of lower curve. Small cup with thin wall, and small rim of slight mould. V.
5. F. 15. Lower part of side with groove and incised line above it; good glaze and paste. V.

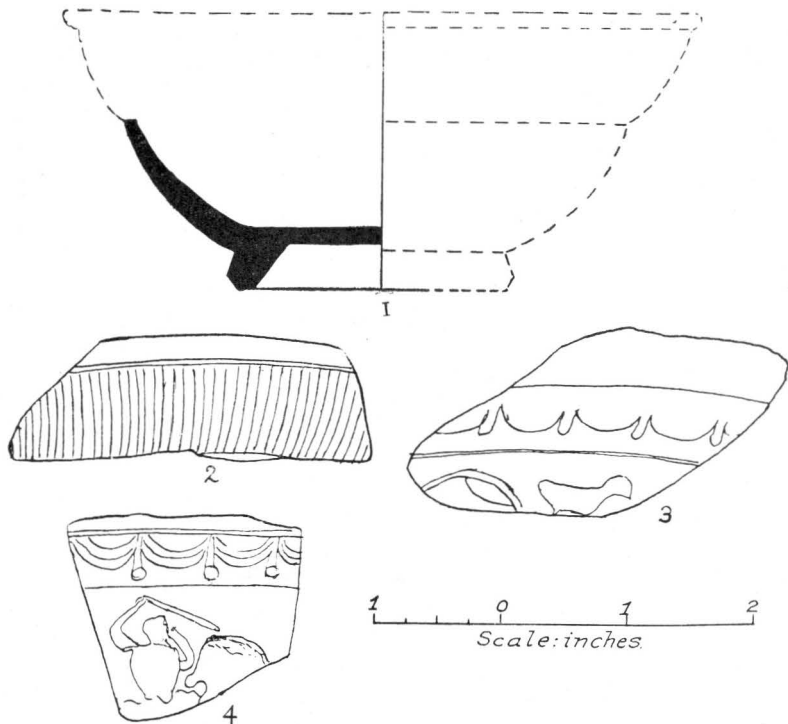


PLATE I. TERRA SIGILLATA.

6. F. 18. Rim, side and part of slope to base; a "set-off" at the internal junction of wall and base. V.
7. F. 18. Rim and part of side; fine groove under rim; good glaze and paste. V.
8. F. 18. Part of footstand and base; thin, with hard paste and good dark-red glaze; inside base, which is flat, two incised concentric circles, and outside these a circle of rouletted dots. V.
9. F. 29. Rim and rouletted zone. Orange glaze and paste. (See Pl. I., No. 2.) D.



10. F. 37. Part of top plain zone, ovolo, and decorated zone. Ovolo with blunt tassel attached nearer to right, and wavy line below: bird (? duck) to right above a scroll, similar to Déchelette 1034. Probably S. Gaulish. (See Pl. I., No. 3.)  
D.
11. F. 18. Rim and part of side, with incised line  $\frac{5}{8}$  in. below rim. Thin wall; good glaze. F.
12. F. probably Curle 11, but the flange is missing. Short collar, place for flange, below which a groove. Short collar as May's *Silchester*, Pl. XXXIII., 38, and Oswald and Pryce, Pl. LXXI., 12. The flange would be ornamented *en barbotine* with long pointed leaves. F.
13. F. 18. Part of footstand, base and beginning of side; base domed underneath. F.
14. F. 15 (a shallow dish, with footstand). Part of side and interior quarter-round moulding. Hard paste of greyish-pink colour. F.
15. F. 18. Part of side and base. A slight ridge at the internal angle of the side and base; good glaze and paste. F.
16. F. 27. Part of curve. Good glaze and paste. F.
17. F. 27. Rim and top curve. Thin walls. F.
18. F. 37, probably. Part of footstand and base, slightly up-curved at centre. Footstand rather small. Pre-Antonine. Probably D or T.
19. F. 37. Rather thin. Part of top plain zone, ovolo, and decorated zone. Ovolo with rosette terminal attached left, above a zig-zag line. Figure of horseman turning sideways with sword over head, and horse's head turned towards rider (Déchelette 157), as used by Albucius, Banuus, Eppillus, Paternus, Sabinus, and others of Lezoux, all potters of Antonine or Hadrian-Antonine date. But also on a F. 37 of Luxeuil ware at Heddernheim (E. Pölzer, *Die Bilderschüsseln der ostgallischen Manufakturen*, 1913, Pl. I., 48). This specimen is of Luxeuil type, and is probably Trajanic, say 100-120. (See Pl. I., No. 4.) T.  
[15 other fragments of "Samian" probably belonged to the period 70-160 A.D.] F.T.H.A.]
20. F. 33. Complete footstand, base, and part of side. Stamped OSBIMA/ SF = OSBIMANVS·F with ligatured ANV. Lezoux potter of Antonine age, represented at Colchester, Lincoln, Cirencester, and Wroxeter. The footstand being rather low, the vessel is probably Hadrianic. H.
21. F. 31 (a shallow cup with footstand). Part of footstand and base. Inside, a rather coarse band of rouletting. Orange glaze; rather thick. Similar to ware of Heiligenberg of Hadrianic date. H.
22. F. 37. Part of decorated zone. Vine leaf in scroll; rather large and coarse, similar to vine leaf used by Cinnamus. A.

## ANALYSIS OF SAMIAN FORMS. (Order of frequency.)

F. 27, six pieces.	F. 29, one piece.
18, six "	31, one "
37, four "	33, one "
15, two "	Curle 11, one "
	= 22 pieces.

All of these forms, except 31 and 37, had their chief vogue in the first century; the exceptions were made in the first century, but were most popular in the second.

## DATING EVIDENCE FROM SAMIAN.

Of 22 datable fragments of Samian, 17 may safely be assigned to the last quarter of the first century. One dates c. 100. Four between 100 and 150-160 (at the latest). It may be fairly inferred, therefore, from the Samian ware finds, that Hardham Camp was occupied from about 75 A.D. to about 150-160 A.D. The one coin found (Hadrian, 120) is in agreement with this. Among thousands of pottery fragments there is not one specimen either of ordinary hard vitreous New Forest ware or of Castor ware. Among the coarse ware there is not one fragment that necessarily dates after about 150-160.

## EARLY IMITATIONS OF SAMIAN WARE.

Coarse ware vessels, chiefly of the same contour as Forms 29, 30 and 37, and mostly ornamented with rouletting, are known to have been made in the Domitian-Trajan period (i.e. 80-120 A.D.). See Bushe-Fox, *Wroxeter*, I. (1913). Messrs. Oswald and Pryce (p. 221) say that "the practice of rouletting coarse ware is frequently found throughout the first century." The following 31 fragments found at Hardham (27 red, 4 grey) may be dated between 50 and 120 A.D., and are worth recording as confirmation of Mr. Bushe-Fox's dating of his Wroxeter finds. I describe them in detail in the hope of adding something to the knowledge of the *early imitations* of Samian ware (as contrasted with late third and fourth century so-called pseudo-Samian, mostly rosette-stamped).

I. *Red*.

1. F. 27. Diameter of mouth c. 4 in. Rim slightly everted. On one side of fragment burnt red right through, but on the other showing the grey core. The orange-red colour, therefore, is due not to slip, but to firing. The surface is rough, neither glazed, nor polished. (See Pl. II., No. 1.)
2. F. 27. Top curve, 1 inch over; rim slightly everted,  $\frac{7}{10}$  in. Body and surface as No. 1.
3. F. 29 (approximate). Everted rim and plain zone (separated by groove) of equal widths,  $\frac{1}{2}$  in. Then three cordons, the top  $\frac{1}{5}$  in. twice the width of the other two,  $\frac{1}{10}$  in.; then curve to base, with pronounced carination. Grey core, red surface. No glaze or polish. (Found in 4th foot down.) (See Pl. II., No. 3.)

4. F. 29 (approximate). Cf. *Wroxeter*, I., Fig. 17, No. 9. Rim everted at angle of 45 degrees. On shoulder four lines of rouletted points and 3 grooves. Drab core, red slip.
5. F. 30. Part of side,  $2\frac{1}{4}$  ins. Rim and upper part lost, but below, zone of rouletted points,  $\frac{5}{8}$  in. wide; then counter-sunk cordon,  $\frac{1}{5}$  in., with a similar rouletted row ( $\frac{3}{8}$  in. wide) below; beneath this a groove; then a narrow band ( $\frac{1}{5}$  in. wide) of oblique rouletted points, and a groove; then the plain zone (or soffit) sloping away to the base. Grey core; no glaze, but on exterior a distinct polish on a thick red slip nearly resembling Samian red. (Found in 4th foot down.) (See Pl. II., No. 5.)

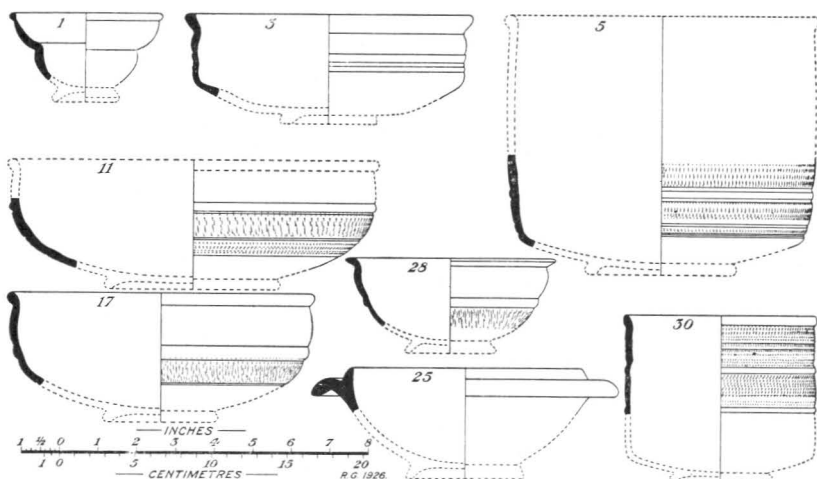


PLATE II. EARLY IMITATIONS OF SAMIAN WARE.

6. F. 30. Top plain zone; beneath, countersunk cordon, and then a band of rouletted vertical lines.
7. F. 30. Rim very slightly everted, counter-sunk cordon ( $\frac{3}{10}$  in.); then rouletted zone ( $1\frac{3}{10}$  in.), a cordon, beneath which rouletted dots.
8. F. 30, similar to No. 6. Rim lost; two rouletted zones, the upper 1 in. wide, a counter-sunk cordon; then another rouletted zone ( $\frac{3}{5}$  in. wide), groove, and curve to base.
9. F. 30. Grooves and rouletted points. Just above carination, an incised line, beneath which a line of rouletted chevrons with point to right. Blue-grey clay; thick red slip.
10. F. 37. Everted rim, under which three fine grooves; plain zone  $\frac{1\frac{8}{10}}$  in. wide; groove with fine oblique rouletting, and a rouletted cordon. Core grey, fairly hard; exterior and interior of Samian red, a thick slip. Remains of a polished surface on exterior, but not interior. No glaze. (Cf. No. 5.)

11. F. 37. Part of plain zone, beneath which a cordon; then between grooves a band,  $\frac{5}{8}$  in. wide, of rouletted points; then another band of same width with four rows of rouletted triangular dots; then the plain zone (or soffit) sloping to base. Blue-grey clay with yellowish red, very thin coat (or slip). From fourth foot down. (See Pl. II., No. 11.)
12. F. 37. Part of top plain zone; below, and separated by a groove, a band of rouletted points, 1 in. wide; a groove; then the decorated zone represented by arcades ( $\frac{4}{5}$  in. high and  $1\frac{1}{2}$  in. at base), semicircles of three concentric incised lines. Grey core; burnt red on exterior and interior. No glaze or polish. From 4th foot down.
13. F. 37. Paste soft, but yellowish. Surface smooth and polished, not glazed. A good imitation of Samian colour.
14. F. 37. Rim; plain zone, 1 in., between grooves; counter-sunk cordon  $\frac{3}{10}$  in. wide, with row of fine dots in lower groove; then, curving to base, a plain band  $\frac{7}{10}$  in.; groove. (Cf. No. 17.)
15. F. 37. Slightly everted rim, with groove below; then plain zone of 1 in. groove. Grey core; Samian colour; polished on exterior, but not interior. No glaze.
16. F. 37, small. Rim everted; plain zone of  $\frac{1}{2}$  in.; a flat-topped cordon; rouletted zone,  $\frac{3}{5}$  in. incised line, and zone beginning to curve to base, ornamented at intervals of about 1 in. with finely incised oblique lines in groups of three. The interior is ornamented  $1\frac{3}{10}$  in. down from lip with a band ( $\frac{7}{10}$  in. wide) of 8 grooves. Body and interior of orange-pink; exterior of Samian red produced by slip. Polished, but not glazed.
17. F. 37, large. Rim, grooves, plain zone of  $1\frac{1}{5}$  in.; groove, cordon  $\frac{3}{10}$  in.; groove with dots; rouletted zone with groove below, sloping to base. (See Pl. II., No. 17.)
18. F. 37. Similar to No. 17. Instead of plain zone, a band ornamented with very finely incised vertical lines in groups of seven at distances of  $\frac{7}{10}$  in.
19. F. 37. Similar to No. 18. Everted rim, plain zone,  $\frac{7}{10}$  in.; cordon; below, row of rouletted dots.
20. F. 37., small. Everted rim, groove, rouletted instead of plain zone,  $\frac{7}{10}$  in., deeper groove; below, rouletted dots, and beginning of soffit.
21. F. 37. Similar to No. 20. Everted rim, and two plain zones divided by counter-sunk cordon.
22. F. 37. Similar to No. 21. Under rim a roulette line, repeated at bottom of plain zone.
23. F. 37, large. Plain zone,  $1\frac{1}{10}$  in., and cordon  $\frac{2}{5}$  in.
24. F. 37. Similar to No. 23. Everted rim; plain zone slightly outcurved; cordon  $\frac{3}{10}$  in., below which rouletting.

25. F. 82. Wroxeter, Curle (Newstead), 11; May's *Silchester*, Pl. XXXIII., type 38. Flavian mortarium type, an adaptation of Drag. 35 and 36. Part of side, rim, and flange. Grey core. The grey clay has been fired to a thin red surface; this was coated with orange-red slip, on which was painted (?) a coat of Samian red. No glaze or polish. (See Pl. II., No. 25.)
26. F., doubtful. Small hollow base of cup. On one side of fragment light-red all through, on the other showing grey core. A thickish light-red slip, polished to a good imitation of Samian red. Smooth surface.
27. F. doubtful. Base with rouletted circle inside, as on Samian bases.

### II. Grey.

28. F. 29 (approximate). Everted rim; rounded plain zone; cordon  $\frac{3}{10}$  in.; rouletted zone. (See Pl. II., No. 28.)
29. F. 29. Similar to No. 28, but with angular cordon.
30. F. 30. Upright side, with rim, rouletted band  $\frac{9}{10}$  in., groove, cordon; another rouletted band  $\frac{9}{10}$  in. and another cordon. An imperfect pot, pressed in at a point in the top rouletted band. (See Pl. II., No. 30.)
31. F. 30. Top zone lost. Cordon, rouletted zone  $\frac{4}{5}$  in., grooved cordon; then sharp carination to base with two rows of rouletted dots.

### ANALYSIS OF SAMIAN FORMS IMITATED IN THE FIRST CENTURY IN COARSE WARES, RED AND GREY.

F. 27	=	2	F. 37	=	15
F. 29	=	4	F. 82	=	1
F. 30	=	7	F. doubtful	=	2

Total 31

Order of frequency:—37, 30, 29, 27, 82 (Wrox.).

This result strikingly bears out the remarks of Messrs. Bushe-Fox and Oswald and Pryce on first-century imitation Samian.

Form 37, which began its career about 60 A.D. may well have been imitated during the last 30 years of the first century.

F. 30, began about 20 A.D., and may have been imitated from about 30 A.D. onwards.

F. 29 was made at La Graufesenque, certainly as early as 20 A.D., and was, like F. 30, certainly likely to be imitated from about 30 A.D. onwards.

F. 27 is also a well-established first century form, made at La Graufesenque, and therefore imitable (like Fs. 29 and 30) from 30 A.D., and not likely to be imitated after about 150, when it ceased to be made.

F. 82 (Wrox.), dating about 70–100 A.D., was imitable from, say, 80–100 A.D.—perhaps a little later.

*There is, therefore, a strong probability that all these Hardham fragments were produced in the first century.*

In the red pieces, the imitation is of Samian forms, and of Samian colour, with grey clay as the body; however, the ornament is produced not by moulds as in the case of Samian, but by the manipulation of tools and the roulette. In the case of the grey pieces, the imitation is of form only. These coarse-ware imitations of Samian shapes were themselves imitated by Samian potters from the beginning of the second century in so far as rouletted ornament is concerned, the method having been proved to be simpler than that of moulding, and at the same time very effective. The early red imitations of Samian ware are, of course, to be distinguished from those made after about 260, when the chief ornament was stamped rosettes. To these later imitations exclusively has been given by some writers, somewhat misleadingly, the name of pseudo-Samian, which might with equal reasonableness be given to first century imitations. Probably the best nomenclature would be for all: Imitations of Samian (or Terra Sigillata); the sub-divisions being (a) early, (b) late.

Early characteristics of the pottery of the third and fourth feet, associated with the Hardham imitation Samian pottery, are:

- (i) First-century incised ornament; concentric semi-circles over vertical parallel lines.
- (ii) Graphite-coated pieces: lids and carinated bowls.
- (iii) Many cordoned vessels of red and grey.
- (iv) Globular bowls in red and grey.
- (v) Carinated bowls in several kinds of clay.
- (vi) Rusticated applied studs on red and grey ware.
- (vii) Dotted-chevron ornament.
- (viii) Shallow dishes moulded inside with  $\frac{1}{4}$ -round fillet (i.e. false Belgic).
- (ix) Four-reeded handles.
- (x) Rectangular jug handles.

With these associations added to the evidence stated above, there can be little doubt that these imitation Samian pieces were made in the first century.

#### LOCAL MANUFACTURE OF IMITATION SAMIAN.

Other forms of pottery were manufactured at Hardham, where there is grey gault clay in abundance; and there seems to be no good reason why early imitation Samian should not have been manufactured on the spot. Later imitations (late third century onwards) were also probably made in many places, the New Forest potteries not having a monopoly of the supply of rosette-stamped (or daisy-stamped) ware. A piece of daisy-pattern imitation Samian was found by Dr. Felix Oswald at Margidunum, associated

with a coin of Valentinian (c. 370), on the floor of a late house; and it is very unlikely that so late as this New Forest imitations would find their way so far north. It was probably of local make.

#### COARSE WARE.

Of the great quantity found it is possible to record only pieces of special interest.

#### I. *Red.*

1. Upright rim of a vessel, the top of which had a diameter of  $6\frac{1}{2}$  in.; grey core.
2. Several fragments of thin red ware of a soft paste, with groups of applied dots.
3. Fragment of "thumb pot." Only three pieces of indented beaker were found.

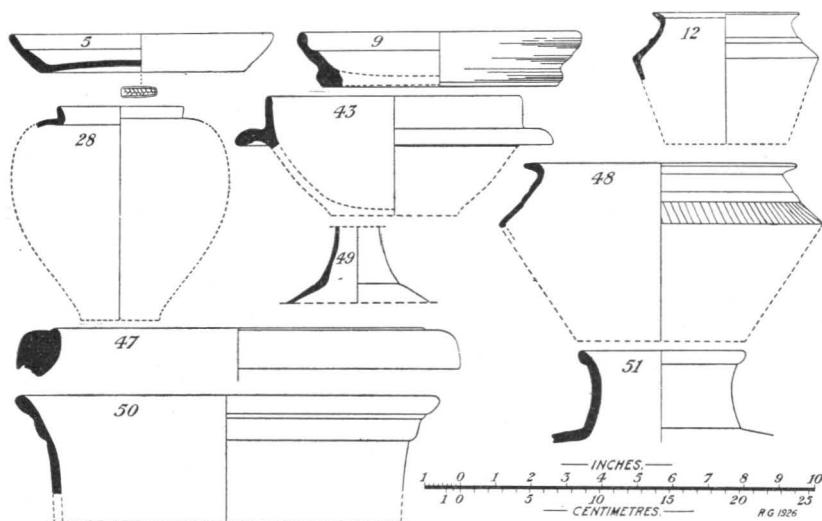


PLATE III. COARSE WARE, RED.

4. Between grooves, sets of five incised lines, sloping in first and third rows right to left from top to bottom; in the second row, alternately right to left and left to right. A plain band separates rows two and three. This interesting piece strongly suggests Bronze Age ornament on a pot in the British Museum, traditional for many centuries. (See Pl. IV., No. 4.)
5. Seven pieces of base of dishes or saucers of thinnish sandy red ware, moulded inside with  $\frac{1}{4}$ -round fillet, having meaningless potters' marks, probably British imitations of Belgic potters' marks. The stamp is like honeycomb, in two or three lines. (See Pl. III., No. 5, and Pl. IV., Nos. 1 and 2.)

6. Small 3-reeded handle.
7. Bright red ware, with flat rim rilled in 3 rows on top, and rilling over shoulder.
8. Big 3-reeded handle,  $1\frac{3}{8}$  in. across, almost rectangular to meet the neck of the jug.

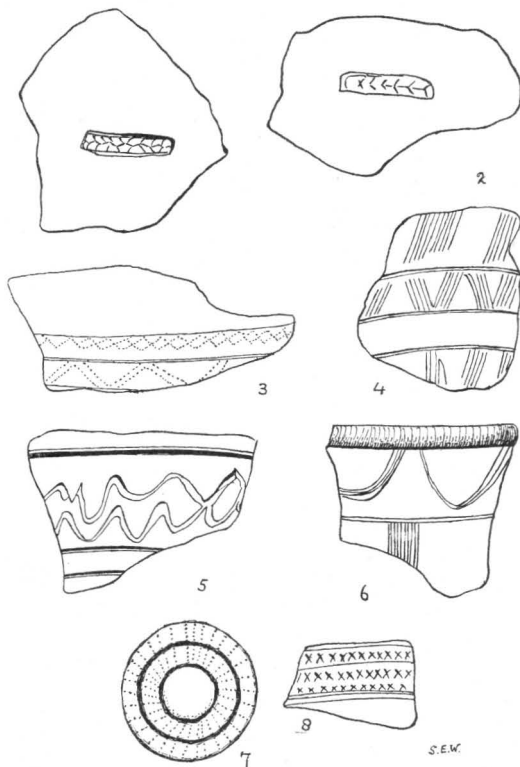


PLATE IV. RED, NOS. 1-6; BLACK, NOS. 7, 8.

9. Heavy dish, with wide exterior groove above base, and concave moulding inside to correspond. (See Pl. III., No. 9.)
10. Coarse red base, hollowed underneath, with hole sunk in centre.
11. Dish with side  $2\frac{1}{2}$  in. high, the rim turned over towards inside.
12. Fine red carinated bowl, with slight cordon above the carination. This is typical of the Hardham pottery. (See Pl. III., No. 12.)
13. Third of a bowl,  $6\frac{1}{2}$  in. diameter across the top, with groove below lip on interior and exterior.



14. Part of a big coarse globular pot, with rim pressed down to shoulder showing a thumb mark. A "waster."
15. Biggish lid with groove near edge;  $6\frac{3}{4}$  in. diameter.
16. Big heavy store jar with overhanging rim marked by finger impressions into a rope pattern;  $\frac{5}{8}$  in. thick. The grey core burnt red on both surfaces.
17. Big shallow dish with oblique side,  $1\frac{1}{2}$  in. high; moulded inside.
18. Fine rim with pronounced bulge below. (Cf. No. 28.)
19. Several saucers with inturned rim, moulded inside with  $\frac{1}{4}$ -round fillet. (Cf. No. 5, and grey ware, No. 12. See Pl. III., No. 5.)
20. Complete side of bright-red dish of coarse, sandy ware.
21. Neck of big red jug.
22. Dish with rouletted band on side.
23. Ornament of zig-zag in groups of lines finely incised, over oblique rows of dots.
24. Big coarse bright-red flange with groove on inner side.
25. Brownish-red, with bold cordon  $\frac{5}{8}$  in. wide, and a groove inside corresponding to the cordon.
26. Big pot with everted rim, cordon under rim, and two cordons on shoulder.
27. Wide oblique rim, with groove inside, completely overhanging the bulge of a small rounded vessel, with rilled horizontal lines all down the body.
28. Smooth-surfaced light-red ware, of soft red paste. Common in third foot down. A thin-walled beaker with short slightly-everted rim and bold bulge. (See Pl. III., No. 28.)
29. Heavy red pot,  $\frac{5}{8}$  in. thick in centre of bulge, with rilling all down, separated irregularly by flattish cordons.
30. Coarse sandy bright-red lid with long wavy pattern between grooves.
31. Base of colander with four or five biggish holes just above base.
32. Delicate zig-zag ornament in double line of minute punctured dots, above which lattice in single line, on the shoulder just below the carination. (See Pl. IV., No. 3.)
33. Light-red fine carinated beaker, with incised line just above carination.
34. A similar beaker, with oblique rim, cordon and carination.
35. Light-red base, perforated by wear with one hole.
36. Red handle, showing keying by means of a tongue (or tang) into side of vessel.
37. Light-red slip over grey body; rim and part of side of a vertical-sided vessel. The ornament is of semi-circles or loops of concentric incised lines in the top band; below, a cordon; then sets of vertical lines opposite the spaces between the loops. (Cf. *Brit. Mus. Guide to Roman Britain*, p. 114, and *Cranborne Chase*, Vol. III., Pl. 178, No. 16, found in Bokerly Dyke, Woodgates. See Pl. IV., No. 6.)

38. Part of thick red store jar with V-shaped double lines between grooves.
39. Rim and zone ornamented with irregular zig-zag made by a point. (See Pl. IV., No. 5.)
40. Ornamented with dotted chevrons. (Cf. Grey Ware, No. 6.)
41. Lid with concentric incised lines.
42. Free zig-zag above a groove.
43. Parts of two flanged bowls. (See Pl. III., No. 43.)
44. Some fragments of horizontal rilling interrupted by oblique incised lines.
45. Soft soapy surface with V-shaped pattern of fined combed lines.
46. Two pieces of irregular studded ornament, probably of first century.
47. Very thick collar rim with interior groove and grey core; greatest diameter  $1\frac{1}{10}$  in. (See Pl. III., No. 47.)
48. Flat rim and oblique side with cordon; beneath which parallel oblique lines, and carination. (See Pl. III., No. 48.)
49. Neck and shoulder of conical-topped jug. (See Pl. III., No. 49.)
50. Big vessel with everted rim, understepped, with small cordon between rim and under step. (See Pl. III., No. 50.)
51. Neck and everted rim of a big jar, below which the body of the vessel comes out at a sharp angle, almost a right angle. (See Pl. III., No. 51.)

## II. *Grey.*

1. Fragment ornamented with O's joined by wavy lines. (See Pl. V., No. 1.)
2. Jug rim of two steps, the lower projecting further than the upper. Typical. (Cf. Buff, No. 8.)
3. Inside a dark grey base, over the centre, 6 roughly parallel incised lines. Probably a potter's mark. (See Pl. V., No. 7.)
4. Ornament of two separated bands of lattice of punctured dots. (See Pl. V., No. 8.)
5. A half of a typical grey bowl, measuring: base footring,  $2\frac{3}{4}$  in. diameter; rim, flattish everted,  $6\frac{1}{4}$  in. diameter; height,  $6\frac{1}{4}$  in.; round greatest bulge, 22 in. Height and rim diameter of same measurement.
6. Chevron ornament in two bands of punctured dots. Several pieces with slight variations from the fourth foot down. This ornament of small incised dots in chevrons, lattice and in diagonal rows, is common in Bronze Age pottery. (Cf. *Cranborne Chase*, II., Pl. LXXXVI., No. 7.) (See Pl. V., Nos. 3 and 4.)
7. Reddish-grey carinated beaker with pairs of parallel incised lines on shoulder.
8. Carinated beaker with cordon below rim, and band of diagonal burnished lines below cordon.
9. Base of colander, with holes in the side of the base (of red ware).

10. Graphite-coated lid rising to a knob.
11. Two small globular *ollae*, quasi- or sub-carinated, the external angle being rounded over in the interior.
12. Dish with inturned rim, side  $1\frac{1}{2}$  in. high, with  $\frac{1}{4}$ -round fillet moulding inside. (Cf. Red Ware, Nos. 5 and 19.)
13. Big grey bulge with red slip inside, and slight carination.

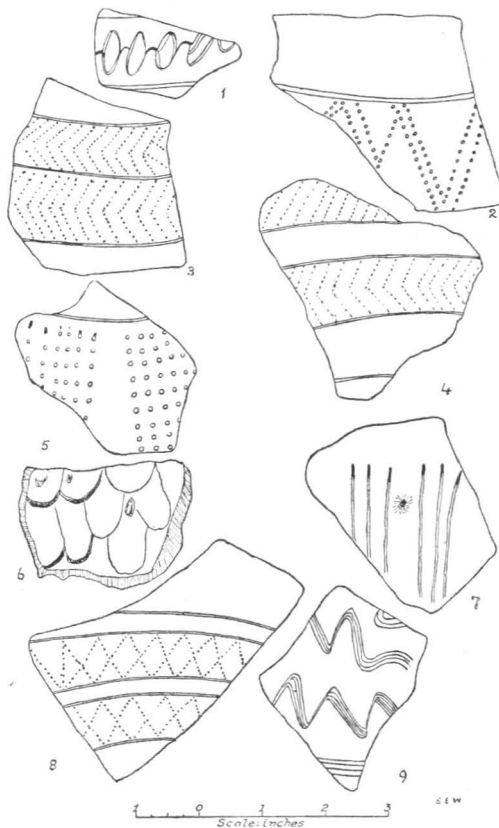


PLATE V. GREY.

14. Grey core; grey slip outside; red slip inside.
15. A specimen of the grey "wasters" found in the potter's tip in the north-east angle of the Camp. Its base is round and the pot also was intended to be round, but from half way up the bulge the top part and rim have become elongated in one direction and narrowed in the other. Base diameter  $2\frac{3}{4}$  in.; greatest diameter of lip,  $6\frac{1}{2}$  in., but it should have been about  $5\frac{3}{4}$  in.; shortest diameter of lip, 5 in.; height,  $6\frac{1}{2}$  in.; greatest bulge, 21 in. (Cf. No. 36.)

16. Several pieces ornamented with groups of applied dots, probably of first century. (Cf. *Wroxeter*, 1913, Pl. 15.) (See Pl. V., No. 5.)
17. Poppy-head beaker, with 6 or 7 vertical lines of applied dots in groups, about 10 dots to each line (fourth foot down).
18. Two pieces ornamented with irregular applied studs—rusticated ware, probably of first century.
19. Part of shoulder ornamented with groups of 4 vertical incised lines.
20. Delicate carinated beaker with oblique everted rim, and two narrow rouletted bands between rim and carination.
21. Two pieces of ornament of free zig-zag above broad cordon. (Cf. *Cranborne Chase*, II., Pl. 113, No. 11.)
22. Fine dark-grey graphite-coated thin rim sloping inward; one fine cordon just below rim; plain band, and then a thin band of vertical rouletted lines.
23. Three-reeded handle, keyed (fourth foot down).
24. Dark-grey lid.
25. Rim, with rouletted dots in a groove below.
26. Big grey jar with V-shaped group of lines.
27. Grey lid with pink slip inside, and 2 lines of rouletted dots near rim.
28. Two rows of lattice separated by grooves.
29. (From the surface of the extra-vallum road.) Piece of heavy grey pot with rilled ornament.
30. (Also from the road.) A grey base.
31. Parts of several big sandy store jars.
32. Parts of graphite-coated grey jars.
33. (From north-east potter's tip.) Rim and shoulder of grey jar with inch-wide band of lattice roughly incised between grooves, with other grooves parallel round shoulder.
34. Two grey three-reeded handles.
35. (From sixth foot down.) Side of a big dark-grey bowl, with a circular (3 in. diameter) patch of perforated holes arranged roughly in concentric circles. Why were the holes on the side? Perhaps for squeezing honeycomb.
36. Several dozens of big pieces of mis-shapen vessels, spoilt in firing; found in north-east potter's tip. (Cf. No. 15.)
37. Strongly-rilled horizontal lines, with incised oblique lines interrupting. (Cf. Red Ware.)
38. Dark-grey collar rim.
39. Two pieces of fine rim above big-bulged globular body.
40. Dark-grey upright rim, below which a sharp angle inward to the curve of the body.
41. Dark-grey rim of a thick vessel, with 2 sharp angles inside and 2 grooves.
42. Four-reeded handle, the two inner reeds smaller.

43. Big jar with band,  $1\frac{3}{4}$  in. broad, of dotted zig-zag lines in pairs, and groove under everted rim. (See Pl. V., No. 2.)
44. Thick grey rim, of fine grey paste, with incised line on top of shoulder.
45. Upright lines in sets of four at intervals between grooves.
46. Several specimens of brownish-grey sub-carinated beakers. This is a prevalent form at Hardham.
47. A grey burial urn. Height, 7 in.; rim diameter,  $5\frac{1}{2}$  in.; base diameter, 3 in.; greatest bulge, 24 in.
48. Heavy ware with rows of finger marks inside vessel perhaps for the easier mixing of the contents by shaking, or for more easily gripping the vessel inside the rim. (See Pl. V., No. 6.)
49. Parts of three small grey beakers, globular, but sub-carinated.

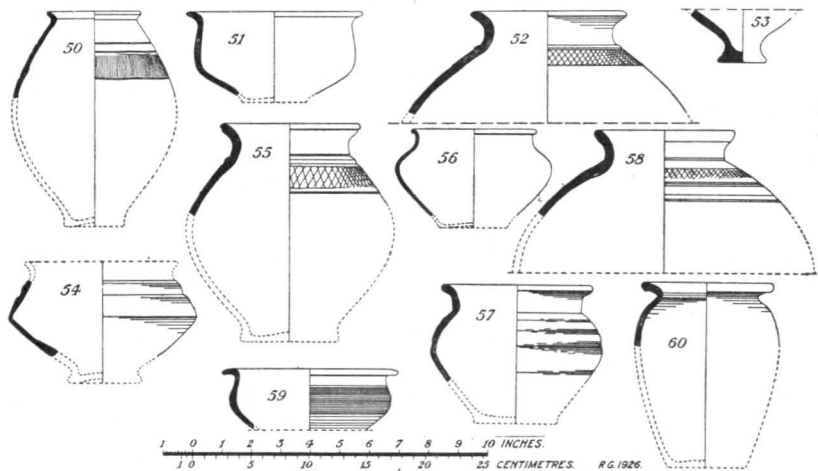


PLATE VI. GREY.

50. Conical top of a beaker with small oblique rim; beneath which a plain zone 1 in. wide, then a cordon, and then a band of closely parallel vertical incised lines bounded by a groove. From the sixth foot down. (See Pl. VI., No. 50.)
51. Small bowl with everted rim and sub-carinated side. From the potter's tip. (See Pl. VI., No. 51.)
52. Beaker with pronounced bulge. Below rim a cordon, and band of lattice incised, suggesting a metal exemplar. From the potter's tip. (See Pl. VI., No. 52.)
53. A plain base (diameter  $1\frac{3}{8}$  in.), from which the bulge runs out at a sharp angle—a top-heavy beaker. (See Pl. VI., No. 53.)
54. A small bowl (c. 4 in. high). Below rim (lost) a cordon, and then bold carination. (See Pl. VI., No. 54.)

55. Dark grey rim, neck, and shoulder, suggestive of a metal exemplar. The rim has a groove at the side. Below neck a cordon, under which a band of incised lattice and a groove. From the potter's tip. (See Pl. VI., No. 55.)
56. A little bowl (c. 3 in. high), sub-carinated. Sandy ware, buff inside and grey outside. From sixth foot down. (See Pl. VI., No. 56.)
57. A thick-walled bowl, with everted rim, short vertical neck and globular body; three grooves on shoulder, of which the centre one is most pronounced. From potter's tip. (See Pl. VI., No. 57.)
58. Like 55, suggesting a metal vase. Groove at base of rim, and band of incised lattice between two grooves. From potter's tip. Sandy ware. (See Pl. VI., No. 58.)
59. Light grey bowl, with fine horizontal rilling all down the side. From third foot down. (See Pl. VI., No. 59.)
60. Flat rim sloping inward, separated by minute neck from a body with slight bulge. (See Pl. VI., No. 60.)
61. Thick grey ware ornamented in zig-zags with a five-toothed comb, which was turned on its side for some of the up-strokes. (See Pl. V., No. 9.)

### III. *Buff and Creamy.*

1. Creamy buff base, ridiculously small for its sharply outcurved body.
2. Tapering neck of a flagon, with 2 grooves below lip;  $3\frac{1}{2}$  in. to groove on shoulder. (See Pl. VII., No. 2.)
3. Very shallow saucer, with upright side  $\frac{3}{4}$  in. high; base  $4\frac{1}{2}$  in. diameter.
4. Rim and part of side; the rim covered with rouletted dots; below, a bold groove; below, delicately combed vertical lines in groups of 6 or 7.
5. Delicate flat-rimmed pot, with single narrow band of diagonal lines of dots.
6. Four-reeded handle.
7. Big jug neck with flat rim.
8. Several tops of jugs, with double rim, the lower protruding farther than the upper, and hollowed underneath. (See Pl. VII., No. 8.)
9. Burial urn, found 2 ft. 8 in. down in long trench. Ovoid, with short neck, and outcurved rim ending in a beaded lip. Height,  $8\frac{1}{4}$  in.; rim diameter, 6 in.; base diameter, 3 in.; greatest bulge, 23 in. Ornamented with a depth of 4 in. (in centre of bulge) of burnished lattice lines. Flat base with incised groove near the edge. Body, brownish-grey clay, coated with a slip of brown buff. This urn probably belongs to the period of Celtic revival in the early second century. (See Photograph, Illust. No. 4.)

10. Reddish-buff base and bulge of a flagon, of coarse sandy material. Diameter of base,  $2\frac{1}{4}$  in.; circumference at angle of bulge, 18 in.
11. Two buff handles with tongued keying, or tang by which they were fastened to the vessels. (Cf. *Cranborne Chase*, Vol. II., Pl. 113, No. 2.)
12. Handle and part of neck of jug moulded inside into two steps.
13. Strong base of mortar, gritted with coarse pieces of local red flint; hence probably made locally.

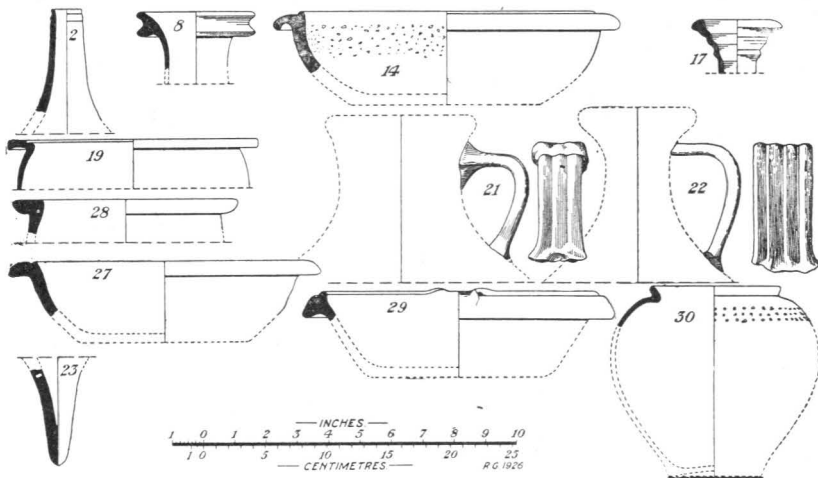


PLATE VII. BUFF AND CREAMY.

14. Light-buff flanged rim of mortar. (See Pl. VII., No. 14.)
15. Light-buff cooking dish, rim bevelled off from exterior;  $\frac{1}{4}$ -round fillet moulding inside.
16. Part of vessel. Creamy buff slip on a brownish-red surface; soft grey paste.
17. Several 3- and 4-stepped necks of jugs. (See Pl. VII., No. 17.)
18. Several 4-reeded handles.
19. Buff wide-overhanging rim, flat, with interior groove. (See Pl. VII., No. 19.)
20. Neck and shoulder of flagon.
21. Larger creamy buff rectangular 3-reeded handle. (Cf. *Cranborne Chase*, Vol. II., Pl. 113, No. 3.) (See Pl. VII., No. 21.)
22. Another rectangular handle with 4 reeds. (See Pl. VII., No. 22.)
23. Pointed base of amphora, 3 in. long, perforated on one side only with a hole at top end. (See Pl. VII., No. 23.)
24. Light-buff flat rim, with an inner groove, and thick side running straight out obliquely.

25. Light-buff neck of jug with pink slip inside and out.
26. Light-buff vessel, ornamented with semi-circles and oblique lines below. (Cf. Red Ware.)
27. Light-buff everted rim (of a dish) with inner groove. (See Pl. VII., No. 27.)
28. Flat rim, 1 in. wide. (See Pl. VII., No. 28.)
29. Heavy rim of mortar, roughly triangular in section, with groove on top, and hollowed underneath; 1 in. across the bottom. Broken off at mouth. (See Pl. VII., No. 29.)
30. Beaker with slightly everted rim and bold bulge. Thin ware with smooth surface, ornamented with applied dots, probably first century. (See Pl. VII., No. 30.)

#### IV. *Black.*

1. Graphite-coated, with ornament of parallel horizontal incised lines.
2. Small fumed base of top-heavy beaker; grey core.
3. Fine rim with black lustrous coat; dark red core.
4. Rolled-over rim of coarse cooking pot.
5. Sub-carinated side of pot.
6. Very small base, hollow underneath, with lines irregularly radiating from a small circle at centre. Diameter,  $\frac{7}{8}$  in.
7. Small base. Underneath, 3 concentric circles at different levels, ornamented with radiating lines of small dots. Diameter,  $1\frac{5}{16}$  in. I have never seen its analogue. (See Pl. IV., No. 7.)
8. Fragment of fine black (Attic) glaze, ornamented with two minute lines of lattice, with two grooves below; softish red paste. (See Pl. IV., No. 8.)
9. Small upright base, diameter  $1\frac{3}{16}$  in., of a beaker of "thumb-pot" type.
10. Parts of several black globular beakers.
11. Saucer (or dish) with oblique side 1 in. high.
12. Dish with rim overhanging and coarsely rilled.
13. Several black lids.
14. (From north-east potter's tip.) Black side with single broad cordon; burnished surface, like *bucchero nero*.
15. Cooking dish rilled inside; coated with bitumen.
16. Black beaker found in sixth foot down. A thin-walled pot covered with black lustrous glaze, and ornamented with thin double band of zig-zag, drawn freehand with a point. Very small out-turned lip; the mouth bigger than base. The form is ovoid with greatest bulge below the middle. The only pot of similar shape known to me is a rather bigger one from Weymouth in the Brit. Mus. Roman-British room. The Hardham example belongs probably to the early years of the second half of the first century. Height  $5\frac{1}{4}$  in. (without base), diameter of lip 3 in., diameter of bulge  $5\frac{1}{4}$  in., base



(which has probably lost its foot-ring) 2 in. The Belgic black coating was produced by dipping the vessel while hot into bitumen, and by hot polishing while it was turning on a table. (May, *Silchester*, p. 5.) (See Illustr. pp. 97, 98.)

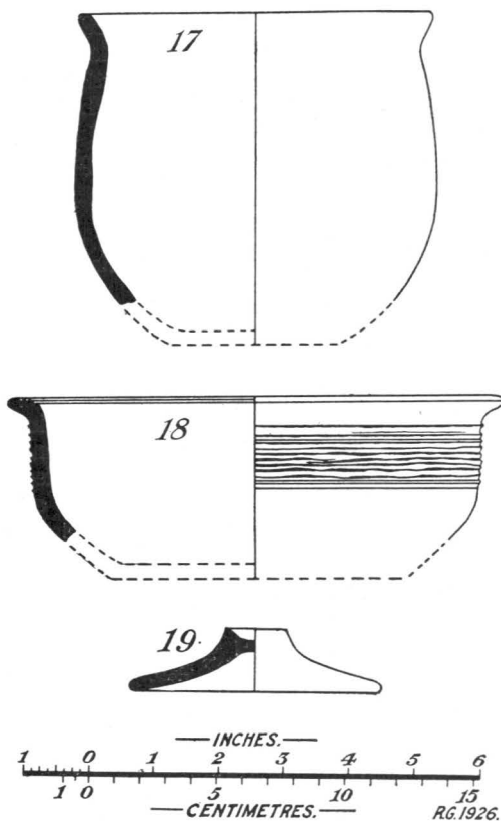


PLATE VIII. BLACK.

17. A clumsy-looking cooking pot with mouth of diameter c. 5 in., with slightly everted rim and almost straight side. Probably Claudian. (See Pl. VIII., No. 17.)
18. A cooking dish nearly 3 in. high; the rim and upper half of the side roughly rilled. (See Pl. VIII., No. 18.)
19. Graphite-coated lid with knob. c. 4 in. diameter. (See Pl. VIII., No. 19.)

CASTOR AND NEW FOREST WARES.

Of Castor or New Forest Wares not one fragment was found.

## THE POTTER'S TIP IN THE N.E. ANGLE.

As this heap almost certainly represents local manufacture, it deserves special notice. Its outstanding features are as follows:

1. The majority of the pottery is grey ware of various shades—bluish, brownish and lighter grey.
2. The ornament is, mainly, flattish cordons.
3. The carinated or sub-carinated profile is common.
4. Other common ornaments are: lattice incised below cordon; burnished lattice; burnished oblique lines.
5. Flat rims turned right over on to the shoulder, admitting of no neck.
6. A fair proportion of sandy red ware, with cordon ornament predominating.
7. A few creamy-white vessels, cordoned.
8. A few pots of bright red colour and sandy texture.
9. No roulette ornament at all appears on these pots.
10. The majority are big pieces, about  $\frac{1}{3}$  or  $\frac{1}{2}$  of a pot.
11. The majority are well-rounded vessels of globular shape.
12. Nearly all the pieces show some fault; they are "wasters," pots spoilt in baking. The faults are, chiefly, pressing in of part of a rim, or part of the bulge, and distorted bases.

It seems probable that a large proportion of the pottery used on the site was made there, and that much of the product was exported to Alfoldean, the next station on Stane Street, where no sign of pottery-making, but much of the Hardham type was found. The smooth-surfaced, dotted, ware, sometimes called Upchurch, is probably not local. The Hardham site had clear advantages for the manufacture of earthenware, a fact realised about 30 years ago by the then Sir Walter Barttelot, who established a manufactory of bricks and concrete blocks, the reasons for the failure of which do not affect the pottery question. Two sorts of sand are present in great quantities fairly near the surface; first, a brownish sand, and second, a greyish stickier sand. There are also two kinds of clay available; a yellow and a dark grey gault clay, a stratum of which, several feet thick, I found near the railway and the brick-yard. It is the latter that the Roman-British potters seem chiefly to have used.<sup>1</sup> There is, of course, also an abundance of gravel flints on the spot, and of Down flints close at hand. For cooking utensils, which need special fire-resisting qualities, Hardham supplied excellent materials; viz. strong fat clay, both yellow and grey, sand and crushed flint. Add to this that there were plenty of trees for fuel, and of red iron oxide in the gravel and ironstone of Coates, Fittleworth and Petworth, and two rivers for transport—

<sup>1</sup> In the long trench was found a big lump of grey potter's clay, which, when burnt, gave the dark exterior and grey core which characterise so much of the pottery found.

the Arun and the Rother—and we have very good potter's conditions indeed. The factory system of pottery-making was thoroughly organised by the Romans, and native talent, which was considerable, was probably under Roman supervision.

#### DATING OF THE COARSE WARES.

A very large proportion of this pottery can certainly be dated to the second half of the first century. On the other hand, there is no pottery which necessarily belongs to a time later than c. 200 A.D. Mr. J. P. Bushe-Fox thinks that "a large proportion is pre-Flavian, and some might well be Claudian"; i.e. largely before 70 A.D., and, in cases, between 41 and 54 A.D.

To come to detail.

- (i) Rough copies of Belgic plates, in red ware, with  $\frac{1}{4}$ -round mouldings: of these Mr. Bushe-Fox says: "I should hardly expect them to be much later than mid-first century"; and Mr. Reginald Smith says: "The flat dishes are debased Belgic, with quarter-round moulding like Hofheim VI., 2 (say late first century)." The Belgic dishes themselves were imitation of Arretine ware (see May's *Silchester*, Plate 74, No. 186).  
The imitation potter's marks found on some of these plates has a modern analogy. In the eighteenth century English potters, e.g. the Elers brothers, used to do their best to imitate the red stoneware of the Chinese, and added a faked Chinese mark to complete the illusion.
- (ii) The ornament of groups of vertical, finely scored lines headed by concentric semi-circles, is assigned to the first century in the British Museum *Guide to Roman-Britain Antiquities*, and also by Mr. May (*Silchester Pottery*), Plate 71 (p. 170), where it occurs on a F. 37. It has been found in the Upchurch Marshes and at Tilbury.
- (iii) The counter-sunk cordon (i.e. cordon with groove on each side), which is so common a feature of the Hardham pottery, appears to be a first century survival of pre-Roman Celtic ornament. [Of course it persists for many years and its lower limit is uncertain.]
- (iv) Lines of lattice pattern combined with cordons are obviously a continuation (and probably at a small remove in time) of the ornament described as pre-Roman by General E. Fox (*Archaeologia*, LVII., p. 102), who dates similar vessels as probably 25–50 A.D.
- (v) The biconical (carinated or angular-sided) pots are also recognised by General Fox and others as an early feature.
- (vi) "Rusticated" ware, with ornament of irregularly applied studs or blobs of clay, belongs to the first century. Dated at Wroxeter 80–120 A.D., and probably never later than

130. Also at Corbridge and Newstead, only in the earlier periods. "Not so common in south England as in the north."—Bushe-Fox. But fairly common at Alfoldean and Hardham.

- (vii) Plates with meaningless honeycomb potter's marks are probably British imitations of Belgic potters' marks, but made during the early years of the Roman occupation.
- (viii) The ornament of bands of dotted chevrons is strongly suggestive of British ornament traditional from the bronze age.
- (ix) The ornament of wavy lines, single or in pairs, done free-hand with a point, is of the first century.
- (x) Jug rims with four steps are early.
- (xi) Rectangular jug handles are regarded as belonging to the first century. "A sure sign of first-century date," J. P. Bushe-Fox, *Wroxeter*, 1912, p. 69. See also *Corbridge*, 1911, Fig. 1, and *Newstead*, p. 262, Fig. 33, Nos. 1-4, there assigned to 80-110 A.D.
- (xii) All the "wasters" and other fragments from the north-east potter's tip appear to have a distinctly early, as well as a local, character.

[For characteristics of early vessels compare May's *Silchester*, Plate LXXVI., and p. 184.]

While the coarse wares of Hardham are very similar to those of Alfoldean, they are very different in texture, colour, and even shape, from those of the Roman villa at Ashted, which is some mile-and-a-half away from Stane Street, and probably had a local supply, both of pottery and tiles and bricks. Here again there was an abundant supply of clay, chalk flints, and gravel.

#### A COMPARISON OF THE POTTERY TAKEN FROM EACH OF THE FEET 1-6.

*First Foot.*—In this stratum the pottery fragments, which I take to have been worked up from the latest Roman habitation level by cultivation and earthworms, were comparatively few, but they are of early character. N.B.—Broad flat rims, grey zig-zag ornament, chalky-white sandy ware, brown carinated bowl, 3-reeded handle, globular grey beaker, neck with angular shoulder. One coarse tessera, which means a laid floor.

*Second Foot.*—Jug handles with 2-, 3-, and 4-reeded handles, in red and grey; several 2-stepped jug necks; pseudo-Samian red; buff mortar; chunky flat rims; coarse grey ware with dotted lattice; rilled grey and red; very small bases to big pots; fine smooth-grey with panels of applied dots; rouletted grey; black graphite surface on grey clay; black cooking dishes.

*Third Foot.*—This layer produced the most interesting pottery, especially smooth delicate rims of grey, light brown, buff and red; many carinated beakers of red and grey, some with cordons above the carination; many jug handles (4- and 3-reeded) of buff, cream, and red, and 4-stepped necks; buff "thumb pot," and mortar rim; thin red vessel with conical neck; some red pseudo-Samian; rectangular jug handles. Ornament of oblique combed lines, chevrons of dots and lines; roulette; rilling; pattern of dots *en barbotine*; zig-zag, single and combed; vertical lines leading up to concentric semi-circles.

*Fourth Foot* (i.e. in the big pit).—The same jug handles and necks as above. A special feature here is the shallow false Belgic dishes with  $\frac{1}{4}$ -round moulding inside. Rilled, rouletted, and dotted ware in red and grey as before. A very bright red sandy ware is prominent in dishes, bowls and mortars. Rusticated studs in red and grey. Carinated bowls and grey dotted chevrons as before; globular beakers in grey and red, especially one, grey outside, with pink and red slip inside. Imitations of Samian shapes in grey and red, especially of F. 29. Some good black-glazed fragments. Cordons fairly often, red and grey, with roulette underneath, or oblique burnished lines; several graphite-coated pieces, both lids and carinated sides; upright lines leading up to concentric semi-circles as in Foot 3.

*Foot 4 $\frac{1}{2}$ –5 $\frac{1}{2}$*  (i.e. in the big pit).—Parts of big store jars of grey and bluish grey ware; one fumed black with plain base; one piece of rim, black, bitumen-coated; one sub-carinated side of bitumen-coated ware; grey plate with moulded interior, as above. The majority of fragments are of sandy red or sandy grey, and bitumen-coated. No ornamentation in this foot, except one piece of very free, small, irregular wavy pattern, done with a point. Practically all here looks like urns and burial furniture, e.g. the plates for covering urns.

*Foot 5 $\frac{1}{2}$ –6 $\frac{1}{2}$*  (i.e. under the big pit).—No ornamentation whatever except one piece of a conical top of a fumed grey sandy ware, with flattish cordon and band of fine vertical lines, with thin everted rim. One remarkable, clumsy pot of thick hard grey ware, fumed outside. Several small sub-carinated grey beakers. One side of big grey (fired black) bulge with concentric circles of perforated holes; one grey, with long burnished lines, roughly vertical, and one brown with same ornament.

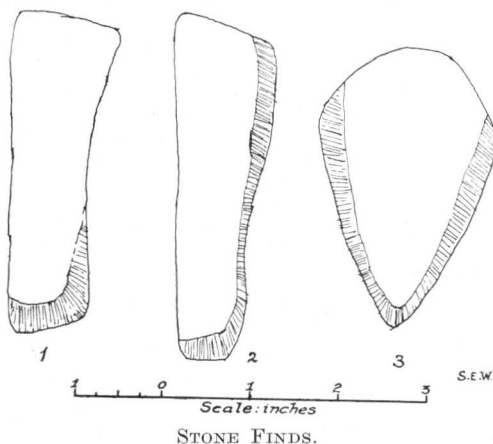
There is not much distinction in the pottery of the different feet 1–4, but feet 3 and 4 have the pseudo-Samian shapes, dotted chevrons, vertical lines leading up to concentric semi-circles, the Belgic imitation dishes, and the bright red sandy ware. Feet 4 $\frac{1}{2}$ –5 $\frac{1}{2}$  and 5 $\frac{1}{2}$ –6 $\frac{1}{2}$  are practically devoid of ornament, and grey and red sandy wares predominate. On the whole it is safe to say the generality of pottery in feet 3 and 4 is earlier than that in feet 1

and 2, and that the fragments in feet  $4\frac{1}{2}$ – $5\frac{1}{2}$  and  $5\frac{1}{2}$ – $6\frac{1}{2}$  are earlier than those in feet 3 and 4. The lowest 2 feet seem to represent the very earliest Roman deposit; the middle two feet represent first century wares; and nothing in the top two feet could be dated after c. 150 A.D.

My apology for the length of this account of Hardham pottery is this sentence of Gen. Pitt Rivers: "The study of the ceramist is a serious one, well worthy of taking its place by the side of that of the numismatist."

#### MISCELLANEOUS FINDS.

*Stone.*—Four flint scrapers, a flake  $2\frac{1}{2}$  in. long, and a pot-boiler. The probability is that these were on the surface of the ground before the Roman occupation, as Pitt Rivers conjectures at Woodcuts. However, flint implements are of frequent oc-



STONE FINDS.

currence on Roman-British sites. Red-hot flints for boiling food were used by people of the Roman as well as of the Bronze Age.

The larger part of an upper quernstone, diameter 12 in.

Half of a hone of hard sandstone.

An ironstone maul, rounded over the top for use with the forefinger—probably used for chipping. (See *Illust.* above, No. 3.)

Two burnishers of hard sandstone from the Upper Greensand, shaped for holding with the forefinger along the flat side, and with the thumb along the next surface; the broader end is pressed against the base of the thumb. Length,  $3\frac{3}{4}$  in. The rubbing surfaces have become concave. Two very similar examples were found by Gen. Pitt Rivers at Woodcuts (see illustration in *Excavations in Cranborne Chase*, Vol. I., Pl. LI.,

p. 144). Such rubbers may well be either of pre-Roman or Roman age. One was found by Pitt Rivers in a dwelling pit at Winkelbury Camp (in which nothing Roman was found), in association with pre-Roman relics; and another in Angle Ditch, Handley Down, along with Bronze Age relics. (See Illust. p. 125, Nos. 1 and 2.)

*Iron*.—Several nails of flat-headed type.

*Glass*.—Half of base of a glass vessel, of greenish colour.

Part of rim of an amber-coloured vessel.

Piece of curved side of a bowl, dark green (fourth foot down).

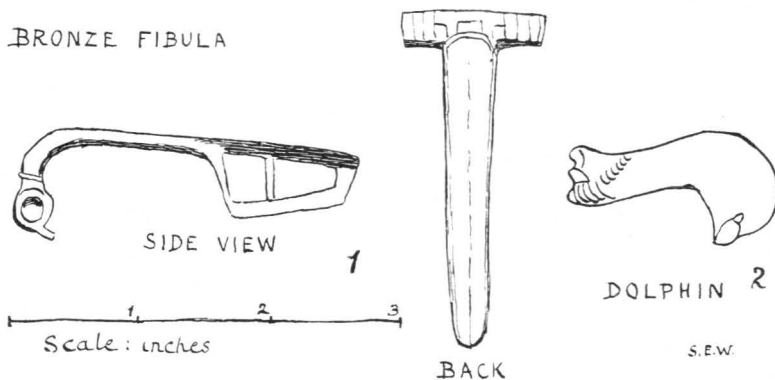
*Earthenware*.—One light-blue melon bead, found on the surface of the extra-vallum road.

One small clay marble, from the bottom of the big Roman pottery tip.

Several pieces of grey-clay daub with impressions of wattles.

*Bronze*.—One rather solid fibula with open catch-plate, crossed by a bar, of La Tene III. type. The pin was broken off and missing.

#### BRONZE FIBULA



BRONZE FIBULA AND DOLPHIN.

It measures  $2\frac{1}{2}$  in. along the curve, has a coiled spring, and a raised ridge in the middle of the bow. (See Illust. above, No. 1.)

Parts of two other fibulae; one has the coil inside its sheath.

A neatly-moulded bronze Dolphin, an applied ornament, flat on one side, with pretty green patina; probably off a wooden casket. Length  $1\frac{9}{16}$  in., greatest width  $\frac{7}{8}$  in. (i.e. across the head). (See Illust. above, No. 2.)

One bronze-coated iron finger ring.

#### Bones.

Sir Arthur Keith kindly reported on the bones submitted to him.

The cremated remains found in the buff urn found at a depth of 2 ft. 8 in. are those of a young adult of small stature, and possibly those of a woman.

The other bones found 5–6 ft. down in the big pit are

- (i) Ox. Part of a lower jaw, molars, and lower end of a right radius.
- (ii) Horse. Part of a right *scapula* (shoulder blade), the head of a thigh bone, and a rib.  
[The Romano-British ate horse flesh; see Pitt Rivers.]
- (iii) Red deer. Lower end of a canon bone.

(i) and (ii) belong to breeds known to have been domesticated in Britain during the period of the Roman occupation.

Apart from these bones, which I take to be parts of burials, there were found no bones of food and not a single oyster shell—a thing “much to be merveilled at.”

#### THE DATE OF HARDHAM CAMP.

One coin: date 120.

Samian Ware. Mostly in the last quarter of the first century; a few pieces between 100 and 150–160 A.D.

Coarse Wares. The larger part between 50 and 100 A.D. Nothing apparently later than about mid-second century. No Castor or New Forest ware.

From datable material, therefore, we get as the limits of occupation, c. 50 to c. 150 or 160 A.D.

#### HISTORICAL RECONSTRUCTION.

The probable history of Hardham Camp is as follows: Within ten years of the conquest of the south-east of Britain by Aulus Plautius, an administrative (perhaps semi-military or for a time military) station was established (on a site previously occupied by Belgic Celts) at the junction of the rivers Rother and Arun, and on a road which, following a pre-existing track, was made good at that time from at least Chichester (Regnum) to Pulborough. This station served much the same purposes as a modern frontier road station in India. First and foremost it was a station on a road which was a vein in the arterial system of communication which Augustus had established for the Roman Empire. This has been well described recently by Sir Wm. Ramsay in the *Journal of Roman Studies* (Vol. XV., p. 1, 1925, pp. 60 *sq.*). Both Stane Street and, consequently, its *mansiones* (rest stations) were, perhaps, for a few years mainly military; but by the time of the governorship of Agricola they were

- (i) The chief symbols of an adequate police system, true, of a military type;
- (ii) The means by which an efficient official courier system was maintained;
- (iii) Links in a strong commercial chain.

The analogy of Roman roads in Britain and British roads in



India<sup>2</sup> is so informing as to deserve at least brief reference. Primarily constructed to meet military requirements, both served to open up the country and civilise it; but as the Pax Romana, like the Pax Britannica, was not the creation of a day, the conquest of a province was generally followed by risings, which necessitated good police arrangements, especially for the protection of roads. The Roman Mansiones, like the principal camping grounds in India, were a day's march apart. Each *mansio* was a small fortified post, enclosing barracks for the *mancipes* who patrolled the road, accommodation for travellers, quarters for the *veredarii* (postilions), stabling for the *agminales* (post horses), and sheds for the *cisia*, *essedæ* and *carpenta* (gigs, mailcarts and carriages) maintained there for the convenience of messengers (*tabellarii*) and travellers (*viatores*). To within a few years ago almost exactly the same organisation existed in India, railways having now made the roads of secondary importance. Each camping ground on the Grand Trunk Road from Delhi to Peshawar was in the immediate vicinity of a thâna, which, like the *mansio*, had a defensible enclosure, including barracks for the road police, quarters for the drivers of dâk ghâris and other vehicles, stabling for their horses, sheds for ekkas, tongas and dâk ghâris (the *cisia*, *essedæ* and *carpenta* of the Romans), and a sarai for Indians with a dâk bungalow for Europeans, where the traveller could obtain rest and refreshment. Between the mansiones and the thânas on Roman and Indian roads respectively, were *mutationes* and *chowkis*, marking stages where horses were changed, fed and watered, and where refreshments could usually be obtained from some wayside taberna or bungalow. What all this certainly implies in the way of kaleidoscopic scenes on the roads, the inter-marriage of soldiers and native wives, the dog-Latin and the Chee Chee English of the camps, the "patcheries" and the *cannabæ* (family lines outside), and almost identical scenes among the soldiers of both Roman and Indian camps—this must here be left to the imagination of the reader. *Aut viam inveniam aut faciam* is a motto which belongs equally well to the Roman cohort and the famous Indian pioneer regiment which carried it.

This area of four acres was enclosed, in the early years, between 43 and c. 50 A.D., by the usual fosse, vallum and stockade. Its position was admirable. It was a comfortable march of about 12 miles from Regnum, mainly over the Downs. This part of the way over the Downs was over open ground, but ground where the pre-Roman Belgic inhabitants chiefly lived; and it was here therefore, in the early years before their allegiance to Rome could be relied upon, that the new strategic road had to be made strongest. Two parallel military roads were made with a central protective bank. In case of an attack from the east, the Roman troops could march on the west side of this bank; and *vice versa*. Further,

<sup>2</sup> I am indebted for much of the matter in this paragraph to General Sir A. H. Bingley, of Cranleigh, Surrey.

this station at Hardham commanded the head of the tidal waters of the Arun and the Rother confluence. The actual soil was a splendidly dry plateau between marshes; several feet of sand over gravel, below which was clay. Water was no difficulty; it could be got at 6 or 7 feet. I failed to find the Roman wells inside the Camp, but one was found during the process of digging the tunnel for the Arun and Wey Canal about 1820. Again, the Rother itself—the embanked course of which is now some 200 yards from the north vallum, but which in Roman times probably flowed close under the north slope—provided excellent water communication. The extra-vallum road on the north side took a turn down to the river as a path apparently about 7 ft. wide, and it can hardly be doubted that there was a quay there against which shallow-draught boats were moored. It is unlikely that the Romans did not use water facilities which the Briton used before him, as is plenteously proved by the finding of at least three long dug-out canoes in the bed of the Arun. For down-stream traffic the nearest practicable point of the Arun was less than a mile away. To the north also was the shortest crossing of the Arun marshes for the Pulborough ridge, undoubtedly cultivated and well populated by the Belgae before the Roman conquest.

At this convenient spot, therefore, the first Roman earthwork was thrown up. It was improved, when it became a permanence, by the addition of masonry walls at the four rounded corners. [Plenty of Roman pottery (including Samian) found under the footings in black soil, shows that the walls were not original.] Permanent buildings of red brick and tile must have existed, probably in the centre of the site. These consisted of an official building or two, and permanent stables and carriage sheds. Other buildings of the wattle-and-daub order also must have existed. A few store sheds completed the establishment. The officer in charge represented the governor, whose business it was, among other functions, “to hunt out plunderers of temples, highwaymen, kidnappers, and thieves.” No doubt there was a shade more of a military character in the police system of the Roman Empire than in the comparatively modern system to which we are to-day accustomed in Great Britain. Probably the Indian and Rhodesian police forces are nearer analogies. But the system was efficient, and in the matter of protection of communications “things were better under the Roman Empire than they were until quite recently.”<sup>3</sup>

There is an embankment outside the camp to the north-west which must be noticed. It looks very much like a wing defence. After being interrupted by a gravel pit, the north vallum apparently continues westward outside the Camp in a straight line for some 80 yards, and then takes a slight turn towards the south. It was cut through by the railway, beyond which signs of it peter out.

<sup>3</sup> G. H. Stevenson in *The Legacy of Rome*.

It is of the same structure as the vallum. If it is Roman work, as I think, it served as a wing defence of the Camp and as a kind of barbican to the road entering the Camp. It runs along the top of a slope which rises quickly from the Rother marshes. It seems probable that the extra-vallum road also continued parallel and was conterminous with the embankment on its river side.

After a few years, the police functions were little more than nominal. The business of the place was to welcome the coming and speed the parting guest. Imperial couriers, provided with a diploma by emperor or provincial governor, were treated with special attention, and were entitled to requisition carriages; and the *tabellarii* of commercial companies and wealthy men had their meed of respect. The presence on the spot of clay and other pottery ingredients suggested the expansion of the pottery work which may well have been established there long before 43 A.D. A few Romans, chiefly in control, and many natives, worked in an organised factory, and produced mostly strong grey wares, with some red and black. What more natural than that these Belgic folk should imitate the plates and other vessels made in Belgic Gaul, or the Samian shapes which were made at Lezoux and distributed all over Gaul and imported freely into Britain? Along Stane Street, completed from Chichester to London (or *vice versa*) by the time of Agricola, if not before, the bagmen sold the Hardham wares, and stations like Alfoldean and Dorking bought them and retailed them. In the cupboards of the Bignor Villa, built about the time of Agricola's governorship, were probably stowed specimens of Hardham crockery along with foreign hardware imported *via* Chichester harbour.

Flint and stone implements, the former manufactured on the Downs at Cissbury, were still in use during the rest of the first century, especially among the Celtic inhabitants. Beside the north road, an eastern branch struck off over the ford of the Arun at Stony River, and made, through Wiggonholt, for the way that skirted the Downs on the north side, which it joined not far from Storrington. Along this latter way the traveller from Winchester, Petersfield and the Duneton and Bignor villas travelled eastward past the settlements at Wiston and Buncton, through Steyning (past the "Heathen Burials"), over the old bridge at Bramber, and so over the Downs by Thundersbarrow, past the Roman villa at Southwick, to the Roman port at Portslade.

If it be objected that the hypothecating of Roman roads here, there, and everywhere tends to be excessive, the sufficient answer is that between 400 and 1800 A.D. roads were terribly neglected, and that a bare century of improvement has not yet dispelled from our minds the false idea that the Roman road system in Britain could not have been better than that obtaining, say, at the Restoration. It is hard to realise what the Roman Empire did during four centuries for communications. The truth is stated well by Mr. G. H. Stevenson (*The Legacy of Rome*, Oxford Press). "There is

no doubt that until the nineteenth century communication between one part of Europe and another was never so rapid and so safe as during the early centuries of the Christian era, when the whole civilised world was united under one beneficent government." Apart from the main roads, of which we know something, but which have, with the exception of certain chance-saved stretches, completely gone under, there must have been a complex network of secondary and tertiary roads of which still fewer traces remain. When Rome annexed new territory, she immediately got to work on the roads, straightening old ones and improving their surface, setting up mile-stones, improving or making new bridges, and establishing stations—of course always largely accepting "the directions of nature and the experience of earlier peoples" (Jullian). Even the pre-Roman ways of S.E. Britain, like those of Gaul, cannot have been very bad. Without such thorough communication as is here postulated, it is impossible that the homogeneous civilisation which we know to have existed in S.E. Britain could have been so rapidly disseminated.

After a Roman occupation of, say, a century, the station was moved to a higher and far better site on the Pulborough Ridge. A bigger station was planned and built close to the east of the church, about the centre of which station is the modern Rectory of Pulborough. Such, at least, is the theory of Canon Baggallay, the late Rector—a theory which has some evidence to support it. The station being there, the whole of the ridge became thoroughly Romanised in a way that I hope to describe in a future paper. But while the station was at Hardham, there was evidently a fair-sized Roman settlement in the near neighbourhood. I have myself picked up enough Roman building material and pottery fragments in several fields to show that Roman buildings stood there: first, in a field at the Hardham end of the present causeway across the marsh; second, in the field west of the Camp, on Hardham Gate Farm; and third, between the farm house and the Portsmouth line, where the pottery fragments are of an early type. Hardham Mill and the brickyard have also produced Roman remains.

After Hardham Camp became derelict, I suggest that the site was used for a time as a cemetery.

The question of the line of Stane Street between Grevatt's Wood and Pulborough still wants settling. Peter Martin thought that its entrance to and exit from the Camp had been destroyed by the railway, and this idea, in my opinion, holds the field. The present two breaks in the vallum and the diagonal track across the south of the site have nothing to do with Stane Street. The line given by the 6 in. O.M. for the road as it leaves the camp to the north-east is probably incorrect. As to the width of Stane Street, though probably 18 ft. is a rough average, I believe it varied considerably in various stretches. John Hawkins, of Bignor Park, reported it (early nineteenth century) as only 12 ft. wide in Grevatt's Wood.

There has been much speculation (but no proof that I have seen) about the line of Stane Street between the Ashurst ridge and Hardham Camp. I cannot deal with this adequately here in an article already far too long. It has been assumed, without proof, that one or other of the three cuttings driven through the sand quarry is the line of the Roman road. One or other has been made (e.g. by John Hawkins) a fixed point for determining the north-east continuation; but *non probatur*. At my suggestion, Capt. Alban Head has had many trenches dug across the Waterfield cricket field (off the pitch!), where the O.M. gives the conjectural line, but hitherto nothing of the road has come to light. Untiring search with the spade may yet find Stane Street in a few places, sufficient to establish the line. Meanwhile there is nothing in the nature of the intervening *terrain*, which I have explored on foot many times in both directions, to prevent a straight line having been taken from whatever point is the correct one on Ashurst ridge to within a few yards of the entrance of Hardham Camp. The O.S. 6 in. map gives a frankly conjectural change of direction in this section; and Sir Julian Corbett goes only on surmise. *Per palam solvendum est*.<sup>4</sup>

It remains to excavate the other (south) side of Hardham Camp when opportunity offers. All the trenches were duly filled in again as agreed.

#### ACKNOWLEDGMENTS.

I am much indebted to Mr. Hugh Breach, of Horsham, for the plan of Hardham Camp, and to Mr. Robert Gurd, of Portslade, for his careful drawings of pottery; for help in digging to many friends, but especially to Mr. B. W. Pearce, Mr. Leo Botting, and members of the Littlehampton Nature and Archæology Circle.

#### LOCATION OF HARDHAM SPECIMENS.

*S.A.S. Museum, Lewes.* Belgic beaker and plate, small grey beaker, La Tène III. fibula, bronze dolphin, potter's wasters, fragments of Samian (Flavian-Antonine).

*Corporation Museum, Worthing.* Potter's wasters, fragments showing late Celtic ornament, fragments of early imitation Samian, sandstone rubbers and a maul, rectangular jug handle.

*Littlehampton Nature and Archæology Circle.* Brown burial urn with charred bones, potter's wasters.

*Cowdray Park.* Potter's wasters, early imitation Samian, and grey pots (incomplete).

*British Museum.* A false Belgic plate.

<sup>4</sup> John Hawkins says that the only evidence for this stretch in his time was that of the farmers, who noticed a "line of aridity and comparative barrenness." This must mean that there was enough of the road material below the surface to produce this effect; and yet we hear nothing of any attempt to dig a few sections and set the matter at rest. [At last (July, 1927) it has been located. But this will be another and a long story.]