EXCAVATIONS AT NORBURY CAMP, WHADDON CHASE.

[By James Berry and William Bradbrook.]

Towards the north-eastern extremity of the County of Buckingham is a ridge of relatively high ground, which, commencing near Wing, extends in a northwesterly direction through Stewkley and Mursley to Whaddon and Nash. For a distance of close upon five miles this ridge is between 400 and 500 feet above sea level. Together with an extension of high ground to the south-west, in the neighbourhood of Oving. Quainton and Claydon, it forms an area bounded on the north and north-west by the valley of the Ouse, on the east by that of its tributary the Ouzel, and on the south and south-west by the Vale of Ayles-This region is completely encircled by a belt of low-lying country which (with the exception of two small areas at Cheddington and near Bletchley respectively) never attains a height of 300 feet. the northern extremity of the above-mentioned ridge and in the parish of Little Horwood, is an ancient wood marked on the ordnance maps as Norbury Coppice. (See Map, Fig. 1.) This formed part of the woodland tract known as Whaddon Chase, which, until recently, was far more extensive than it is now. Even at the present time, however, considerable areas of Whaddon Chase consist of rough, uncultivated country which has never known the plough.

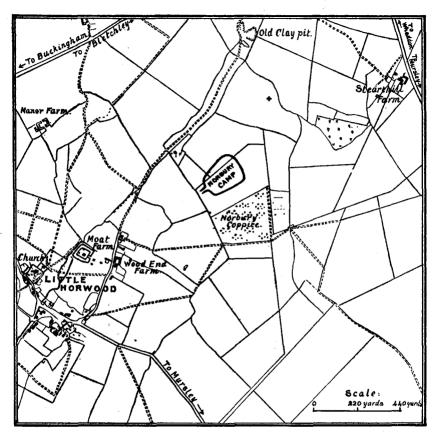


FIG. 1.—Map of a portion of Little Horwood parish, shewing the position of Norbury or Narbury camp. The + to the north-east of it marks the spot where the Whaddon Chase hoard of ancient British gold coins was discovered in 1849. (This map is based upon the 6-inch Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office).

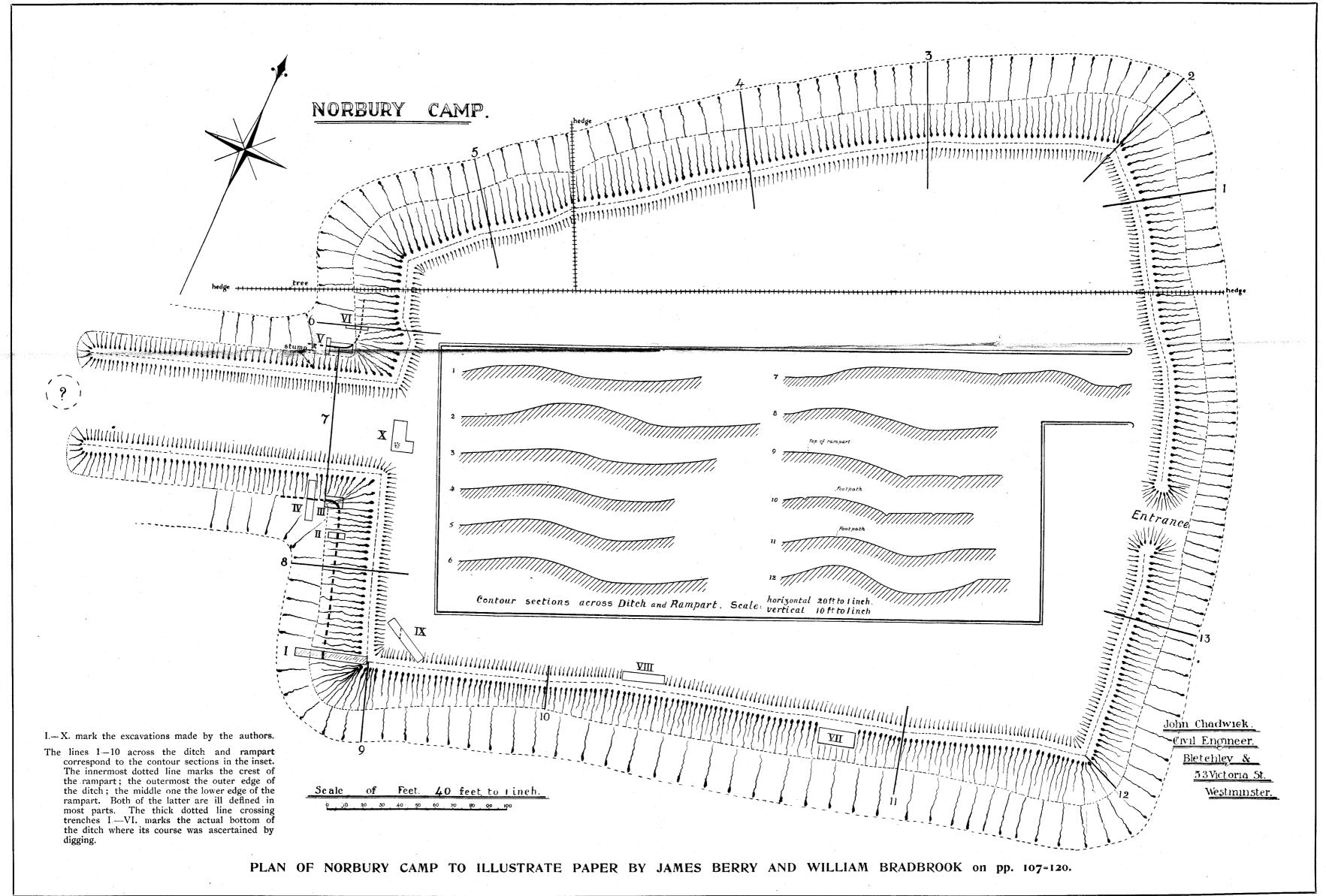
Immediately north of Norbury Coppice are three fields, in which is situated the earthwork known as Norbury* or Narbury Camp, the subject of this communication.

To these fields, and to another which adjoins them still farther north, the name of California is somewhat loosely applied by the inhabitants of the district. The derivation of this name is obvious enough. In 1849 the last-mentioned field, which had recently been woodland, was being ploughed, and the celebrated Whaddon Chase hoard of British gold coins was unearthed. The rush to the gold fields of California, in N. America, occurred about the same time.

The exact spot at which the coins were found was pointed out to us by an ancient inhabitant, who remembered the circumstances of the find. It is 400 yards N.E. of the northern angle of the camp. It is indicated on both the 6-inch and the 25-inch ordnance survey maps, neither of which, however, marks Norbury Camp. Of the coins themselves (several specimens of which are in our County Museum at Aylesbury) it is sufficient to say that those that were examined (between three and four hundred in number) were all uninscribed. Mr. J. Y. Akerman ascribed these coins "to the important period just previous to the annexation of Britain as a Roman province." † Sir John Evans, however, has given reasons for assigning them to a still earlier period, and would attribute them to "about the period of Cæsar's invasion—certainly to no later date." The same authority states that the hoard

^{*}The name Norbury, which is presumably a corruption of Northbury, is pronounced locally Narbury. It is perhaps worth noticing that some 12 miles to the west, on the road from Buckingham to Brackley, is a village of Westbury, but whether this has anything to do with Northbury and whether there is any corresponding south or east bury, we are unable to say.

[†] BUCKS RECORDS, 1858, Vol. I., p. 15.



was very much larger than is generally supposed. He believes that the total number "must have been nearly 2,000." * Mr. Akerman further stated that a "search in a part of the adjacent Chase, yet uncleared," disclosed "a very perfect Roman camp, enclosing an area of about 5 acres." The camp he thus alludes to is apparently our Norbury camp, although its area is only about half of that given by Mr. Akerman, and there is no evidence that it is Roman. Since his time more of the wood has been cleared away, and the site is now pasture. Some 25 years ago part of the area was ploughed, and for a time it was cultivated as allotments.

Mr. Hadrian Allcroft, in his admirable work on "Earthworks of England," † apparently refers also to the same camp when he speaks of a site "near Chase Farm, Whaddon," where the "contour of a rectangular earthwork of about eight acres may still be traced under the turf despite centuries of cultivation. The spot, which is very little known, passes locally as California." He seems to attribute it doubtfully to the Roman period, but remarks very truly that so far as he can learn "nothing distinctively Roman has ever been discovered in the vicinity."

More than three-fourths of the camp lies in the field nearest to the Coppice. In this field the surface has been a good deal disturbed by ploughing, the ridge and furrow lines of which are easily distinguishable. The smaller portions, which lie in the two adjoining fields, have been less interfered with by the plough. (See Figs. 3-11.)

The camp itself is situated on ground that is very nearly level, having only a barely perceptible slope towards the S.W. On the N.W. side the ground falls away to a small brook, 250 yards distant, which runs to the village of Little Horwood. On the N.E.

^{*} Evans, Ancient British Coins, pp. 73-75.

[†] Macmillan, 1908, p. 310, note. This is a book which should be in the hands of everyone who is interested in this subject.



FIG. 2.—General view of the ridge on which Norbury camp is situated—taken from a point $\frac{1}{2}$ a mile to the N.E. The wood in the centre of the horizon is Norbury Coppice. To the right of this (indicated by an arrow) is the camp (not visible in the photo).



FIG. 3.—The north angle of the camp seen from the north-east. The figure (6 feet high) is standing on the lowest part of the fosse. A handkerchief and a piece of white paper mark the crest of the vallum. The distant white spot to the right of these marks the intersection of the vallum and the northern hedge.



FIG. 4.- The same angle seen from the N.W.



FIG. 5.—The N.W. side from the S.W. The white spot on the left marks the bottom of the fosse; the stick is planted on the crest of the vallum. The figure in the distance is standing at the N. angle.

side also the ground soon begins to fall to a small valley which runs in a southerly direction towards the L. and N.W. (Bletchley to Oxford) railway line, in the direction of Swanbourne and Mursley. (See Fig. 2.)

An observer standing on the camp and looking due east across the lower ground sees the prominent range of the Brickhills, on which the church of Bow Brickhill is a conspicuous object, some eight miles away. In the opposite direction, or more strictly to the N.W., is visible the high ground on the other side of the Ouse, near Buckingham. To the north the view is more restricted. (See Fig. 8.)

It is obvious that the situation is an elevated one, commanding extensive views of the surrounding country.

The camp is situated near the village of Little Horwood, § of a mile to the E.N.E. of the Parish Church. It will be seen from the map (Fig. 1) that it is about equi-distant from three roads, namely, the Bletchley-Buckingham, Whaddon-Mursley, and Horwood-Mursley. The first two of these, and probably all three, are ancient roads, if we may judge from the fact that two of them form parts of the boundary of Little Horwood parish. There is no road to the camp itself.

The camp is enclosed by a single ditch (fosse) and rampart (vallum), the latter lying on the inner side and being formed by the earth thrown up from the ditch. In shape it is an irregular oblong, lying roughly N.E. and S.W. At the middle of the S.W. side there is a rectangular projection which gives the ground plan of the camp somewhat the appearance of a spade with a short wide handle. Both ditch and rampart are clearly defined in every part except at two points. Near the middle of the N.E. side a narrow interruption in the rampart apparently marks the situation of an ancient entrance. At the oppo-



FIG. 6.—The W. corner seen from the west.



FIG. 7.—Shews the junction of the S.W. side with the rectangular portion. Taken from the W. extremity of the latter. The S. angle of the camp is visible on the extreme right.



FIG. 8.—The S. corner seen from the south. The dark disturbed ground in the foreground just beyond the standing figure shews Trench I. after filling in.

site S.W. side, both ditch and rampart are absent for a considerable distance, being turned outwards to form the above-mentioned rectangular projection, apparently the site of a main entrance. Both ditch and rampart are clearly defined along the two longer sides of this rectangle, but at its western end there is no rampart, and the ditch is scarcely traceable.

The total area enclosed by the rampart is about $2\frac{1}{2}$ acres, of which about $\frac{1}{5}$ acre is that of the western rectangular portion.

Within the area of the camp there are no mounds or depressions or other irregularities, excepting those due to the above-mentioned ridge and furrow ploughing. The surface is covered for the most part with coarse grass, affording rough pasture.

The measurements of the four sides of the main portion of the camp are as follows:—N.E. side, 356 feet; N.W., 404 feet; S.W. (including the entrance), 232 feet; S.E., 405 feet. All these measurements are taken from the highest point of each corner. The N.W. and N.E. sides are markedly convex outwards, especially the former; the S.E. side has a slight convexity inwards, while the S.W. side, much the shortest of the four, is practically straight, with a slight indentation between the western angle and the rectangular projection. (See Folding Plan, Facing p. 120.)

The rectangular projection on the S.W. side appears to have been the main entrance, but the ground at this part has been so much disturbed by ploughing that it is not easy to say anything more about the exact shape of this entrance. We thought, however, that we could discern traces of a slight mound in the position marked by a dotted circle on our plan.

At the opposite end of the camp is a very distinct but much smaller gap in the rampart, which also appears to be an ancient entrance. Here the rampart is completely absent for about 6 feet, but as the sides of the opening slope gradually upwards and outwards the width of the entrance measured on a level with the crest of the rampart is about 30 feet. rampart itself does not turn either inwards or outwards at this portion of its circuit. It is noticeable also that the ditch along this side of the camp is particularly well marked, and that there is no trace of any causeway across it, such as is so often seen opposite the entrance to an ancient camp.

It will be noticed that the main entrance of the camp faces the village of Little Horwood. We were unable to detect on the surface any traces of a road leading to either entrance. On the N.W. side the rampart is so well preserved that it is practically certain that there never was any entrance on this It is, at least, extremely unlikely that any such entrance should have been subsequently filled up so carefully as to leave no trace of its presence.

The middle of the south-eastern side of the rampart is so much denuded that it is difficult to state positively that there never was any entrance at this part. There is, however, no evidence, either in fosse or vallum, of there ever having been an entrance here.

The contours of vallum and fosse at various points are shown in the centre of the plan. The numbers correspond to the lines 1-12 drawn across vallum and fosse, beginning with the north corner.

With the view of obtaining more information as to the original form of fosse and vallum, and of ascertaining details which might throw light upon its date, impossible to determine merely from its present shape, we undertook a series of small excavations at various points. These excavations were made by the kind permission of W. Selby Lowndes, Esq., Lord of the Manor, and of Mr. Chapman, the tenant of Moat Farm, who afforded us every facility for our work. This extended over six days (August 1-6, 1910), six men being employed on the work of digging. The first of these days was occupied in surveying the ground, the last in filling in, so that

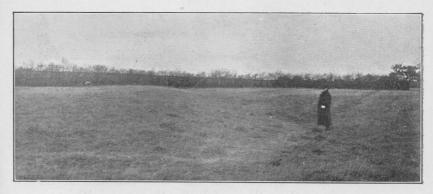


FIG. 9.-The E. corner seen from the S.E.



FIG. 10.—The S.E. side looking towards the S. angle, at which the distant figure is standing. The white flag is planted on the E. angle. The two sheep on the right are within the area of the camp; two other sheep stand in the fosse.



FIG. 11.—The N.E. side seen from within the camp, shewing the N.E. entrance (marked by a sheep in the centre of the picture). The distant figure is standing in the fosse beyond the vallum.

only four days were spent in actual digging. Ten trenches were cut (shown in the plan I-X). The excavation was conducted by carefully removing the earth in layers so that the relative situation of any objects found could be accurately ascertained.

Our main object was to ascertain the original depth and width of the fosse, and especially to find out whether the western rectangular projection beforementioned was an integral part of the original earthwork or was merely a later and possibly accidental addition. It will be seen that it was conclusively proved to have formed part of the original structure.

Beneath the usual superficial layer of surface mould the ground consisted of chalky boulder clay—that is, a stiffish clay containing numerous nodules of chalk, the product of glacial times when an icy sea covered the land. The stiffness of the clay made it impossible to sift any of the excavated material; the excavated lumps of clay were, however, broken up as much as possible. Some care was required to distinguish between the undisturbed boulder clay, the disturbed boulder clay, and the blue clay that formed the filling of the deeper part of the fosse.

The uniformity of this latter, however, and the complete absence from it of any chalky nodules, served as admirable guides. The difficulties of the excavation were naturally greater than they would have been in the case of an excavation in chalk and Our difficulties were also somewhat dark earth. increased by the rain, which on the last day was so heavy as to compel us to suspend operations. sections were all made in the southern half of the camp. Six of them (I-VI) exposed the fosse of the S.W. side, two more (VII-VIII) were on the outer and inner slopes respectively of the vallum, the remaining two (IX-X) were within the area of the camp. All the trenches extended into the undisturbed clay below the original surface. We will fully describe each of these sections,

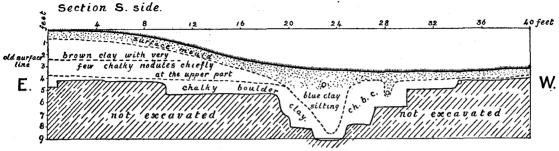


FIG. 12.—Trench I. Section across ditch and rampart at the S. angle of the entrenchment.

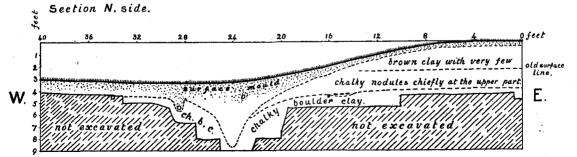


FIG. 13.—Trench I. The opposite side.

Trench I. (40 feet × 4 feet, Figs. 12 and 13) showed that the bottom of the ditch was 8½ feet below the that the bottom of the ditch was 8½ feet below the top of the rampart. The sides formed an acute angle, the outer edge being somewhat steeper than the inner. The actual floor of the fosse was about one foot wide. To a depth of about 3 feet the fosse was filled with a homogeneous blue clay, which passed upwards into brown clay and dark surface mould. With the exception of one small fragment of coarse dark brown pottery without any ornament or other markings, no objects were found. This fragment was found within six inches of the surface on the outer slope of the sampart.

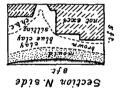
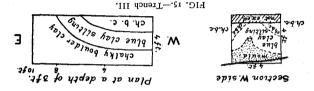


FIG. 14.-Trench II.

Trench II. $(8 \times 4$ feet and 5 feet deep, Fig. 14) exposed a similar section of the fosse.



Trench III. (Fig. 15) was a very important one, as it determined clearly the turn of the ditch to the W. along the outer side of the rectangular projection. Special care was taken to examine the ground on the inner or convex side of the curve. The ground here was undisturbed clay, showing that the ditch had never been carried in a straight line along this side of the camp, and that the rectangular projection of the camp, and that the rectangular projection consequently formed an integral part of the original structure. In the surface mould, at a depth of 6 structure. In the surface mould, at a depth of 6

inches, was an iron cowshoe, apparently of no great

antiquity or any importance.

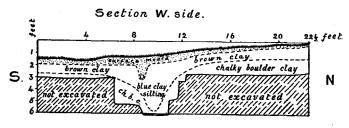


FIG. 16.-Trench IV.

Trench IV. $(22\frac{1}{2} \times 4 \text{ feet, Fig. 16})$ demonstrated the continuation of the fosse along the side of the rectangular projection.

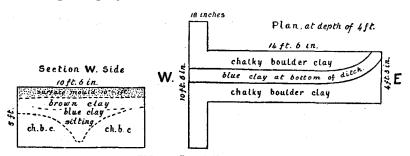


FIG. 17.-Trench V.

Trench V. (T-shaped, $10\frac{1}{2} \times 16$ feet, Fig. 17), on the northern side of the rectangular projection, was also an important one, as it demonstrated a curve of the fosse similar to that of Trench III. At the eastern extremity of this trench, the silting of the ditch, which hitherto had been uniformly of the same nature, namely, a blue clay, suddenly changed its character and became a brownish black friable earth resembling decomposed vegetable matter.

Trench VI., a few feet further north, showed exactly the same kind of brown material. This trench was the last that was made before the excavations had to be discontinued.

Trench VII. $(20 \times 8 \text{ feet})$ was a comparatively superficial one on the outer slope of the S.E. side of the vallum. It was carried to a depth of one foot only, and disclosed nothing but a rounded block of

flint some 8 inches in diameter uniformly chipped all over its surface apparently by the plough. It was not a flint core. No fragments of pottery were found.

Trench VIII. $(25 \times 4 \text{ feet})$ was a similar one on the inner slope of the same side, and no finds were made in it.

Trench IX. $(30 \times 4 \text{ feet})$ was just inside the S. angle of the camp, and was also a superficial one, being only a foot deep. It extended into the original undisturbed boulder clay, and disclosed nothing but three undressed stones, each about as large as a man's fist. They were lying a few inches from the surface in a line parallel with the S.W. side of the camp, as shown in the large plan. They might have formed the edge of a rough path, but their lineal disposition was more probably accidental.

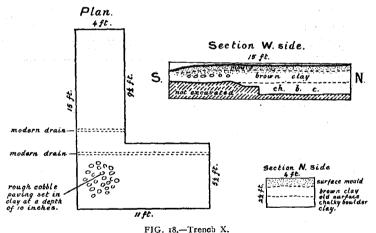


FIG. 16.—Hence A

Trench X. (15 × 11 feet, Fig. 18) was a shallow L shaped excavation carried down to a depth of $2\frac{1}{2}$ feet. The undisturbed chalky boulder clay was reached at a depth of $1\frac{1}{2}$ feet. Besides modern agricultural drain pipes this excavation showed nothing but a layer of rounded pebbles, each about as large as a hen's egg, at a depth of one foot from the surface. They were all lying near each other on one place and embedded in stiff brown clay. They appeared to form a very

rough kind of cobble pavement, such as might be found in a modern farmyard. They were found in one small patch only, some 2-3 feet in diameter. Elsewhere similar stones were found which had been disturbed and distributed by the plough.

REMARKS.

It is not our intention to speculate on the exact age of the entrenchment that we have described, as the evidence that would enable us to do so is unfortunately wholly insufficient. The finding of a single piece of pottery and a single iron cowshoe at a depth of six inches from the surface in ground that has been turned over by the plough is obviously of no value at all in the determination of the age of the entrenchment, even if these objects could be accurately dated. A few comments may, however, be made on some of the points of interest about the camp.

The shape is certainly peculiar and unlike that of any other camp with which we are acquainted. Its very great irregularity and the presence of the peculiar rectangular projection on the S.W. side are remark-Mr. Hadrian Allcroft, in his excellent book, which contains some two hundred plans of ancient camps, does not give a plan of any similar camp. Although it is known that Roman camps do not invariably have the absolutely straight sides which are usually seen in them, yet the very great irregularity of this camp and marked convexity of two of its sides are not features that we expect to meet with in any Roman work, and suggest earlier origin. especially is the great western projection very unlike that of any Roman camp. The shape of the ditch, with its slightly convex sides inclined to one another at an acute angle and with a flat narrow bottom, suggests a pre-Roman period. Ditches of exactly the same shape occur, for instance, in camps of the Bronze age. The shape of the ditch is quite unlike that of the wide, flat-bottomed ditches which are not uncommon in Norman types.

The homogeneous blue clay that filled the ditch to a depth of three feet or more can only have been

formed under water, and very slowly. This lonely fosse, buried in thick wood, must for many centuries have formed a silent pool, in which the clay gradually and imperceptibly accumulated. As the ditch became thus silted up the amount of water in it steadily decreased, until at last, no doubt, it dried up wholly or partially, and vegetation began to cover its surface. This period would be represented by the surface mould and the brownish clay immediately beneath it.

If any conclusion at all were to be drawn from the scarcity of pottery, it would be that the camp was probably occupied for only a short period.*

It is tempting to associate the hoard of gold coins with the camp, and to assign the latter also to a period not later than the first century B.C. But there is no necessary association between the two except the fact that they occur in close proximity to one another in what was until recently a remote and desolate part of the country. The utmost that can be alleged is that there is nothing that we have seen about the camp that is inconsistent with a date as early as that of the coins.

General Pitt-Rivers, † describing his excavations in a small Bronze Age camp, mentions that little or nothing was found in the first three sections (each 10 feet wide) that he made across ditch and rampart. He gives the very useful warning that "very false conceptions are liable to be formed by merely digging one or two sections in a camp." In his case, even complete excavation of the whole of the ditch, which was 622 feet in length, yielded only seven articles of bronze, although fragments of pottery were numerous.

It is obvious from the folding plan facing p. 120 that the few sections made at Norbury exposed only an infinitesimal portion of the whole area. It is to be hoped that further excavations may yield better results as regards finds than we have at present

†Excavations in Cranbourne Chase, Vol. IV., p. 4. Excavation of the South Lodge Camp, Rushmore Park.

^{*}The extreme paucity of pottery in these excavations is in marked contrast to the profusion which was found in a single trench $(50\times4\times6$ feet) made by one of us in the preceding year across a ditch and mound in Bedfordshire. No less than 246 fragments of pottery were found.

obtained. If we are able to prosecute further investigations in this camp we shall examine next the neighbourhood of the two entrances.

Although the investigations that we have been able to make are but slender and insufficient to enable us to date the camp, we think it is well to put them on record in the hope that they may perhaps be of some slight use to others. Buckinghamshire abounds in ancient earthworks, about many of which very little is known. Some of them like Norbury do not even appear upon our ordnance maps. We venture to think that systematic description is a work that might well be performed by some of the members of our Society who have more leisure than ourselves. Actual digging, however, is not to be encouraged unless it is done with care and some knowledge of the subject, as it is very easy to destroy valuable archæological evidence. We venture to think that such small diggings as we have ourselves made should always be accompanied by careful and accurate plans of the excavations. It need hardly be said that the surface of the ground should be carefully restored as far as possible to its original condition.

In conclusion, we would express our great indebtedness to our fellow member, Mr. John Chadwick, of Bletchley, who kindly surveyed the camp and prepared most of the accompanying plan. The photographs of the surface of the camp were taken for us by Messrs. Anderson and Co., of Leighton Buzzard.