EXCAVATIONS ON PORTSDOWN HILL 1963-5

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Abstract

PORTSDOWN I was an Iron Age stock enclosure butted on to an earlier ranch boundary of an anomalous type. An 'entrance' through the latter was deliberately blocked on the construction of the enclosure; the surviving entrance to this earthwork was also excavated. Both the layout of the site and the associated pottery suggest some continuity from the Bronze Age and influences both from Wessex and Sussex.

Portsdown II on the south facing slope of the hill was a complex of successive Iron Age fields and associated boundary earthworks. Examination of land mollesca from the site suggests that the land had several times been rested and allowed to become overgrown between successive periods of ploughing and had finally been converted to open pasture.

PORTSDOWN SITE I (fig. 6)

INTRODUCTION

Portsdown Hill is the isolated chalk ridge that rises beyond the upper limits of Portsmouth Harbour and the Langstone Channel. Beyond the foot of its northern slopes belts of London Clay and Bagshot Sands represent the site of the ancient Forest of Bere. Much of the area of the hill that is still free of buildings is at present under the plough. To date seven sites on this hill have produced Iron Age material, and two of these, numbered in the order of their investigation, are reported in this volume.

Site I was discovered from the air by Mr. A. W. T. Rule showing as two subrectangular crop marks in pasture to the north of Hoylake Road (6725o640). In the area immediately to the west a pair of twin barrows, numbers of Roman tiles and a Roman coin hoard were recorded in the 1920's,[1] and more recently a further Iron Age site, Site III, has been discovered and excavated.

On the discovery of this site four trial trenches were dug under the supervision of Mrs. M. H. Rule. Two of these sectioned a V profile ditch but failed to produce any wholly satisfactory dating evidence. Accordingly it was decided to carry out a more extended examination of the site immediately following Christmas 1964.[2] In this work a team of volunteers[3] was supervised by the present writer. Because the progress of the excavation was seriously impeded by wartime disturbances on the site it was found necessary to confine the work to the more westerly of the two features.

[1] Cook – *Tales of Ancient Wessex*, a collection of inaccurate articles first published in the *Portsmouth Evening News*.

[2] The work was undertaken by kind permission of Mr. D. Gauntlett. The writer also wishes to thank Mrs. K. Stanley-Edwards for her hospitality throughout the excavation.

[3] Thanks are also due to all those, particularly sixth formers of Portsmouth High and Grammar Schools, who took part, and to Portsmouth Museum for arranging the mechanical filling of the excavation.

This excavation established the existence of an early Iron Age pastoral enclosure and of an unusual gully and double stockade which is best viewed as an anomalous form of 'ranch boundary'.

The finds from both excavations are now deposited with Portsmouth Museum.

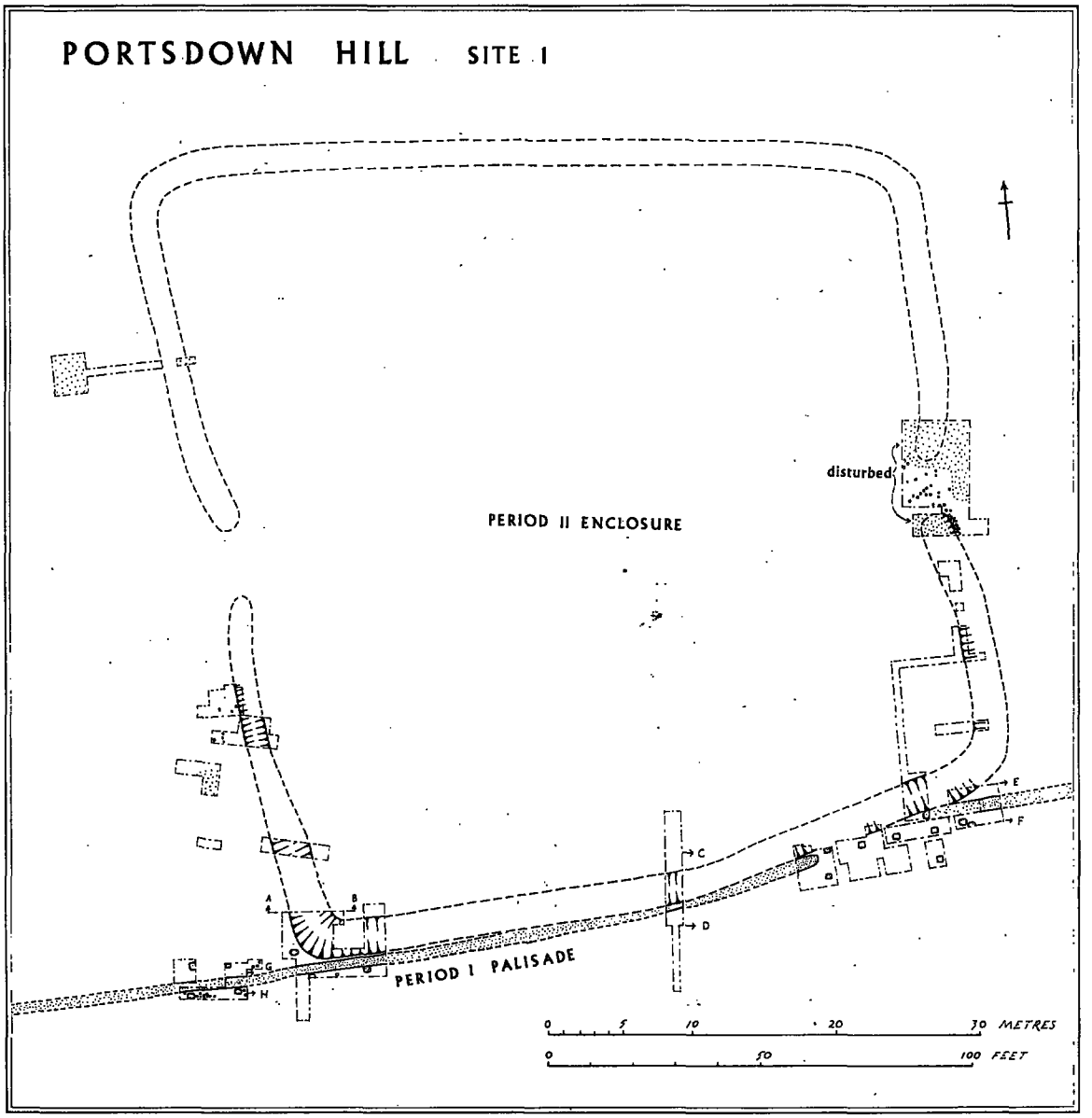

Fig. 6. General plan

Description of the Excavations

The First Period 'Ranch Boundary'

The first period of occupation on the site was represented by an east-west gully bounded on either side by a line of post holes. For much of its length it was partially cut away by the second period enclosure. With one break, to be discussed below, it was traced by excavation for 195 feet, and from air photographs for a further 120 feet beyond the western limit of the excavation.

The gully was flat bottomed throughout and between 2½ and 3 feet in width, and 9 inches and 22 inches in depth. The post holes to either side were either square or circular and were spaced at irregular intervals between 8 and 18 feet apart. In the intervening spaces irregular clusters of shallow stake holes were found. The line to the north of the gully had been set back from its lip by about 2 feet whereas that to the south came as near as 2 inches; this may indicate some widening of the gully with weathering. Eight of the square post holes excavated showed the impressions of rounded stakes against their sides. Since these did not occur in the circular holes it is suggested that they result from the use of small wedges to anchor the posts in place. The dimensions of all the post holes may be summarised as follows:

Square (10 excavated)	*Circular (4 excavated)*
Diameter 15-16 inches. Depth 6-12 inches.	Diameter 8-16 inches. Depth 8-12 inches.

The gully was laid out along the ridge on two straight and exactly parallel alignments 64 feet apart. At the end of the first alignment the gully veered towards the north for 37 feet, thus leaving a complete gap of 27 feet before a second length took up the new alignment 13 feet to the north of the first (see fig. 7). As a term of convenience this break will be referred to throughout as an 'entrance'. Since the gully was a purely linear feature this should not be construed too literally.

As fig. 7 shows, the western length of gully ended at a point nearly in line with the row of posts to the south of the corresponding length beyond the break. Accordingly these posts were extended across the gap at intervals averaging 8½ feet. About 6 feet to the south of those posts by the ends of either length of gully were two further posts, the more westerly of which was in line with the posts to the south of the gully on that side. (See fig. 7.)

Together with the post holes, a number of stake holes were found within the area cleared, but because some of these were too shallow to be identified with certainty their layout is in some doubt. However, it does seem fairly certain that one line of stakes crossed the entrance from the end of the western length of the gully. Though this line does not altogether relate to the substantial posts to its north, it is hard to see stakes of little over an inch in diameter having any structural function on their own. More doubtfully six possible stake holes were found flanking the end of the western length of the gully. (See fig. 7.)

Three of the original square posts of this entrance 4, 6 and 7, had been replaced in the same sockets by small round posts packed by rammed chalk, perhaps in Phase II. In addition one small pit (8) was excavated. This could have predated the entrance and had been deliberately filled with large flints and 'pot boilers' soon after its initial

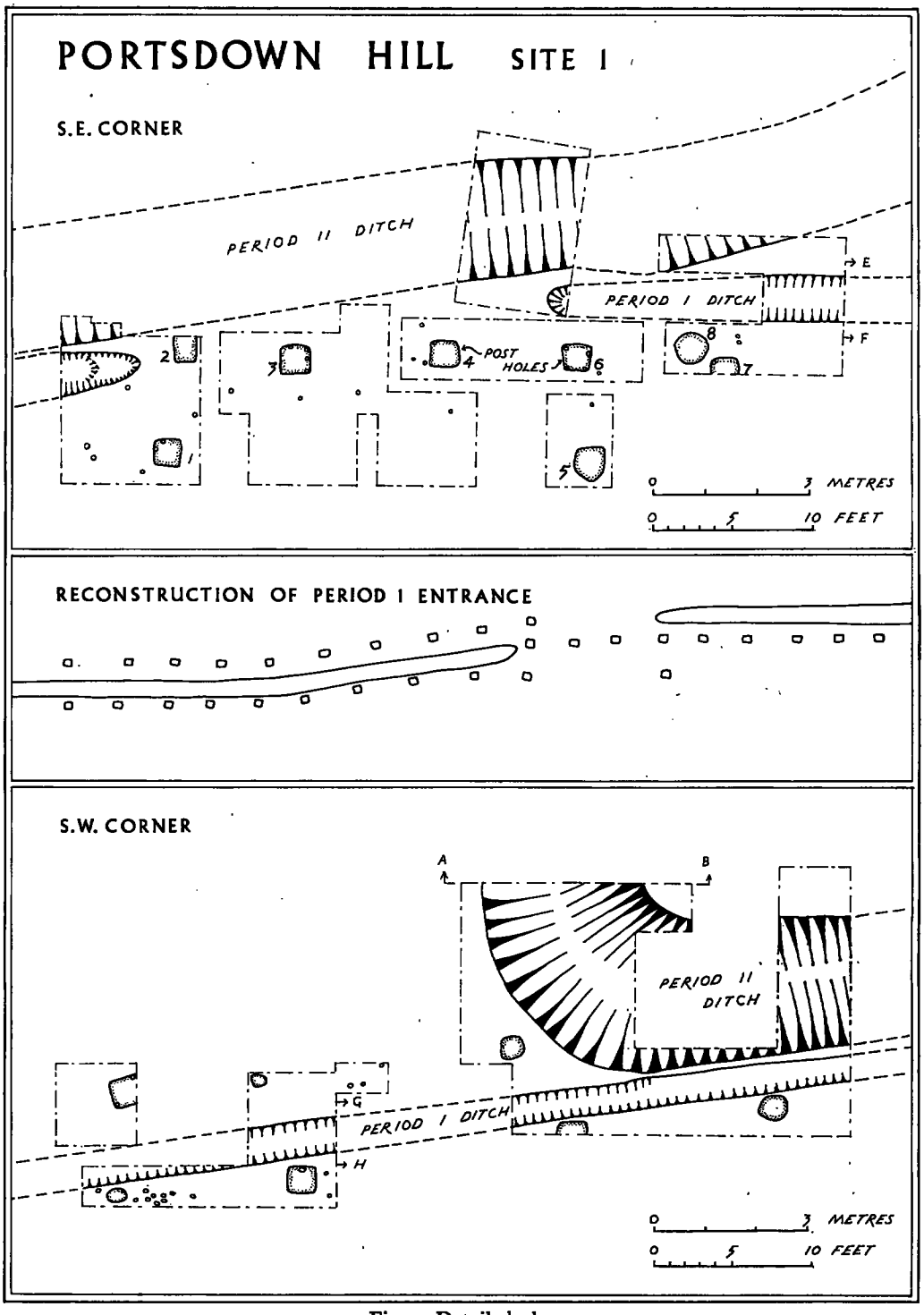

Fig. 7. Detailed plans

excavation to a depth of 19 inches. Over the whole area of the entrance a scatter was found of rounded pebbles suitable for use as sling stones.

As the section of the gully beyond either limit of the later ditch indicates, it had been bounded by two low banks to the west of the entrance and by only one to the east. The positions of the lines of posts and the unusual shallowness of their sockets suggest that these banks were largely to give them a firm base and that the gully was thus merely a quarry for material for this purpose. Certainly its depth did vary in proportion to the amount of chalk packing needed. Thus it was deeper to the west where there were two lines of posts than to the east where there was probably only one. This interpretation will also explain the haphazard layout of the stake holes found since had they been set into a low bank many of them would never have driven down as far as the natural chalk.

It seems then that the post holes to either side of the gully may represent the remains of substantial fences. If so, in view of wide spacing of the posts, the verticals must have been joined by horizontal bars. This arrangement was possibly supplemented by smaller stakes presumably supporting orthodox brushwood fencing.

Since the post holes of the entrance were of similar proportions to those bounding the gully to either side, it is unlikely that they represent the site of any elaborate gateway. The layout is reminiscent of that of the Phase I N.E. entrance at Staple Howe,[4] where the continuous line of posts was taken as the support for a movable wicket gate. Another possible interpretation is that the entrance was opened by the removal of detachable cross bars running between the upright posts in a similar arrangement to that used in the fencing to either side. These would be equally effective in controlling the flow of livestock through the entrance. In that case the two isolated posts to the south may have been similarly joined to the ends of this line to cut off a small area in which livestock could be gathered and contained before the entrance was opened.

The Second Period Enclosure

The second period of occupation is marked by the construction of a sub-rectangular enclosure 175 feet from east to west and about 150 feet from north to south. It had two opposite entrances in the centres of its east and west sides some way below the crest of the ridge.

It was butted exactly on to the early gully, which had by this time started to silt over, and in places cut away the north face of this feature and all post holes to that side. Where the western length of the gully left its east-west alignment the later ditch continued to follow it in the same way. This ditch, as fig. 7 shows, was laid out to block the earlier entrance entirely. Immediately to the east of this feature the ditch of the enclosure turned away to the north but at this corner it had been specially widened to cover the first 5 feet of the second length of the gully.

The enclosure was bounded by a V profile ditch cut into the chalk to between 2 feet 9 inches and 4 feet 4 inches and of an overall width of between 6 feet 6 inches and 11 feet 6 inches. It was both shallowest and narrowest on the west side.

[4] Brewster – *The Excavation of Staple Howe*, fig. 10, p. 16 and fig. 12, p. 20.

The Ditch

The ditch contained very little primary silting and showed no evidence of re-cutting. The main part of the filling seems to have been of collapsed rampart material and consisted of even deposits of small pieces of loose weathered chalk. Only a limited amount of occupation material could be found and this occurred evenly throughout the filling particularly at the south-west corner of the enclosure. (See fig. 8.)

Every section of this ditch implied that the rampart had collapsed from the inside of the enclosure. This rampart would seem to have been of ordinary dump construction except on the south side where the line of the first period gully was reused. No trace of internal timbering could anywhere be found.

In each section of the south side of the enclosure a layer of dense black soil mixed with large flints was found sealing the main chalk filling of the ditch. This layer could be demonstrated to have run right up to the south-west corner of the enclosure but to have been absent entirely once the ditch turned to the north. At one point a slight gully was found running along the inside lip of this ditch. Neither its profile nor its filling suggested that it was a palisade trench of any kind (see fig. 8). In both sections the volume of the layer described above was roughly the same and in view of this it is suggested that it represents the remains of a low kerb of turf, perhaps backed by flints, over which most of the rampart would in time have slipped before it itself collapsed into the ditch. Alternatively the flints could have formed the base of the rampart. If the gully described above was the base of such a kerb of turf, then the turves used would have been about 1½ feet square. Since ploughing would have removed any traces of a turf line on the site of the rampart it may be that only turves from the line of the ditch would have been used. This would give the kerb an average height of 1½ feet.[5] If, on the other hand, the view is taken that the rampart had a flint base, a position one may parallel on the hillfort at Harrow Hill,[6] the fact that the dark earth and the flints were so thoroughly mixed together may possibly be attributed to ploughing after the abandonment of the site. Certainly the flints themselves were selected, since they did not occur naturally in the faces of the ditch. They strongly resemble the accumulations of flints found in positive lynchets on Site II and may indicate the proximity of cultivated land.[7]

The East Entrance

Although a large area had been disturbed, it was possible to locate and clear the remaining part of the east entrance. Though further disturbances to the south made the precise line of the ditch very uncertain, it is probable that it turned inwards at this point. In its layout it seems to have reflected in miniature the period one entrance described above.

Immediately along the outside lip of the ditch, a large number of stake holes were found evidently belonging to a light palisade. This feature ended at the edge of the entrance causeway but at right angles to its line it was possible to locate between two and four parallel lines of stake holes running across the surviving area of the causeway

[5] For method of calculation see *Antiq. Journ.*, 44 (1964), 141-2.

[6] *SAC*, 78 (1937), pl. ii, 232 (Section E-F), and 235.

[7] For a similar interpretation of the filling of a prehistoric boundary ditch see *WAM* 60 (1965), 71.

into the enclosure. The spaces between these lines averaged four feet. Over the entire area cleared there were no traces of posts that could have taken a gate and it is suggested that sufficient of the entrance survived undisturbed for this to be of real significance. A small number of stake holes that do not entirely fit the pattern described above may well be evidence of a second (earlier or later) phase, and seem to have formed part of a similar layout in which the lines of stakes ran east-west along the line of the causeway at 130 degrees to the external palisade (fig. 6).

SECTIONS

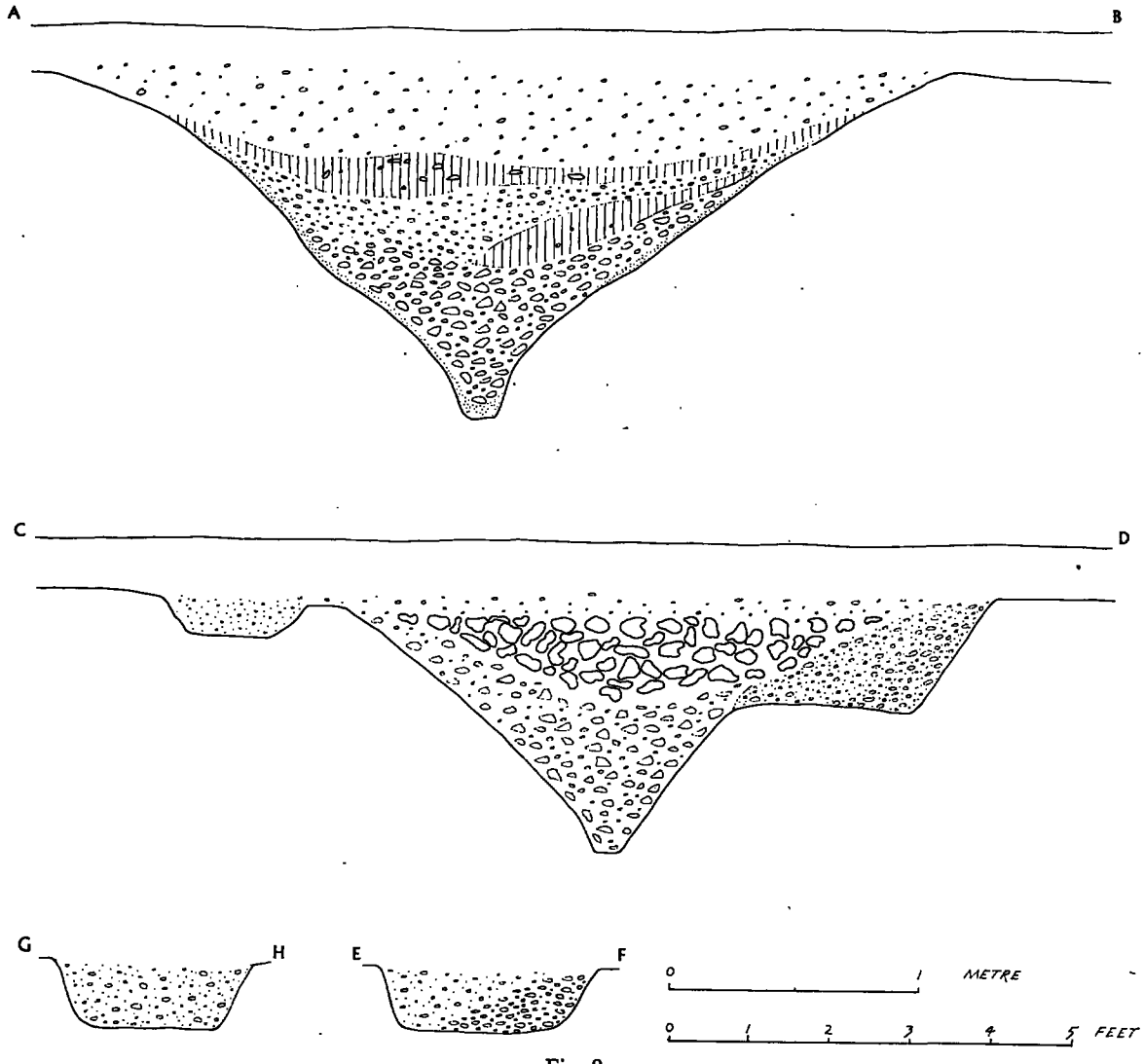

Fig. 8

The similarity of layout to that of the period one entrance has already been noted. It is suggested that the best interpretation of this entrance is that the lines of stakes represent the sites of rows of hurdling, so placed to facilitate the driving of livestock into the enclosure.

General Considerations

From the evidence given above it is clear that the enclosure was carefully laid out with regard to the earlier gully. Since the rampart construction on the south side of the enclosure was more complicated than elsewhere this was evidently still considered as an important boundary. For this reason any interpretation of the site must take account of both features together.

Although in some details the site is anomalous its general affinities are clear. The main earthwork belongs to a well-attested class of sub-rectangular enclosure which is at present held to have its origin in the Wessex of the Middle Bronze Age.[8] This example is of much the same area as similar sites and like many of them has two opposing entrances.

The site is further characteristic in having (for the most part) a rampart of dump construction and an internal entrance which lacks a formal gateway. In this it particularly resembles an enclosure of similar period and profile excavated within the Sussex hillfort of Thundersbarrow Hill.[9] These sites are usually interpreted at stock enclosures.

A number of such enclosures can now be seen to be in close association with a class of linear earthwork commonly described as a ranch boundary.[10] In a growing number of cases it has been shown that stock enclosures were in fact butted on to linear ditches of this type.[11] It is clear too that the exclusively Wessex distribution of such earthworks can no longer be supported. For example, two earthworks of this type can be found in Sussex actually joined on to pastoral enclosures of the type under review, on Bow Hill north-west of Chichester[12] and on Castle Hill south-west of Lewes.[13] We may then look for affinities between the period one gully and such earthworks.

Although this feature, both in its layout and in its use of uniform square posts, is at present unique, four elements can be paralleled individually.

First, the arrangement of the lines of widely spaced posts to either side of the gully, on one side nearer than on the other, reflects in miniature an otherwise unique arrangement to either side of a shallow flat bottomed ditch excavated at Winterbourne Dauntsey in Wiltshire. This ditch which was of early Iron Age date is described as being of ranch boundary type.[14]

Secondly, Pitt Rivers describes a gully of similar proportions to the Portsdown example which ran in long straight lengths on the site of the Angle Ditch, a Bronze Age pastoral enclosure in Dorset.[15] This feature, which Pitt Rivers recorded as a 'drain', was not a palisade trench, and seems closely to have preceded the enclosure in date.

[8] *PPS* 8 (1942), 48 ff.
[9] *Antiq. Journ.* 13 (1933), 112-3.
[10] Hawkes in *PHFC* 14 (1938-40), 137-151.
[11] See for instance *WAM* 47 (1937), 466 ff.
[12] Trenched by Rev. Shaw and, contrary to general belief, held by him to be 'pre-Roman'.
[13] Unpublished excavation by Mr. R. Kyrke suggests an Iron Age date.
[14] *WAM* 46 (1934), 450-3.
[15] Pitt Rivers, *Excavations in the Cranbourne Chase*, vol. 4. pl. 248.

Thirdly, there is a certain affinity between ranch boundaries and the so-called 'cross-dykes' of downland areas.[16] Both Curwen[17] and Williams Freeman[18] record examples in Sussex and Dorset where such earthworks turn through 'double bends', each example taking up a new alignment parallel to its original one. Several of these earthworks are interrupted at this point and Williams Freeman considered this layout as a form of 'entrance'. One such earthwork, that on Glatting Down in Sussex, has been dated to the Bronze Age.[19]

Finally, where their layout has been examined in detail ranch boundaries are commonly found running along the crest of a ridge of downland, often with branches running off down one or both sides.[20] In some instances they may have partly canalised droveways. It is perhaps significant that the Portsdown example follows the line of a well-attested ridgeway.[21]

Earthworks of this type seem generally to have divided off tracts of grazing land, often forming the boundary between arable and pasture. We should here remember both the numbers of flints incorporated in second period rampart and the evidence for Iron Age agriculture from Portsdown II to the south-east.

If we apply this view to the site it is interesting to note that the gully divides the fertile southern slope of the hill from the more shaded land to the north of the ridge. It is within this area that we now have evidence of one, perhaps two, pastoral enclosures and it is into this area, and not the land to the south, that their entrances are facing.

Pottery (fig. 9)

A total of 1.48 lb. of pottery was found during the excavation. With the exception of only two shards all of these were of Iron Age date.

Only five shards were associated with features of the first phase, one in the primary filling of the gully, two in its secondary filling, and one in post hole 1 of the entrance. A further, Romano-British, shard was found in post hole 3, but its position in the loose filling may well be the result of the action of both roots and worms. Otherwise the dating for the first phase rests entirely upon its stratigraphical relationship to the ditch of the enclosure.

Although no shards were found in the limited primary silt of the ditch attributable to the first effects of weathering, over four sections thirty-one Iron Age shards were found within the main filling which had resulted from the initial collapse of the rampart. In a further five sections Iron Age shards were found in the secondary filling. One Romano-British shard found above the turf line separating these two layers of filling at the south-west corner provides a *terminus ante quem* for the complete disuse of the ditch. (See section fig. 8.)

A further 4 oz. of pottery were found in the filling of the small pit, 8. From the absence of weathering on its sides and silt on its bottom it is evident that it was soon refilled, and so these shards may be regarded as a small group. The function of this pit is however uncertain and there is no stratigraphical evidence upon which it may

[16] Hawkes, *op. cit.*, 145.
[17] Curwen in *Aspects of Archaeology*, ed. Grimes, 96.
[18] *Antiquity* vi (1932), 28.
[19] *SAC* 59 (1918), 57-8.
[20] Hawkes, *op. cit.*, fig. i facing p. 141.
[21] Cook, *op. cit.* Also Williams Freeman, *Field Archaeology as Illustrated by Hampshire*, 436-7.

be attributed to either phase. On the other hand the body shards from this pit are identical in fabric and finish with those from the remainder of the site. We may therefore provisionally accept the three decorated shards within this group as being contemporary with the rest of the site.

The shards from the site fall into five groups, two of which each account for approximately a third of the total found. Thirty-six per cent of the shards are of the dark grey to buff ware with medium sized flint filler. Many of these are unevenly fired. Thirty-two per cent of the pottery belongs to a dark grey to buff light sandy fabric again with medium flint filler. One much broken shard with a high chalk content represents part of the bottom of a light grey storage vessel and contains large pieces of ground flint and chalk. Eighteen per cent are in a hard well fired black to light brown fabric. These are well finished and contain only a very little medium to small flint filler. Eight per cent of the material is in a rough dark grey or red orange fabric with large flint filler, while the remaining six per cent comes from well finished black burnished vessels with only a little powdered flint. Only five shards of this last type were found, four of them in disturbed layers and one in the secondary filling of the ditch.

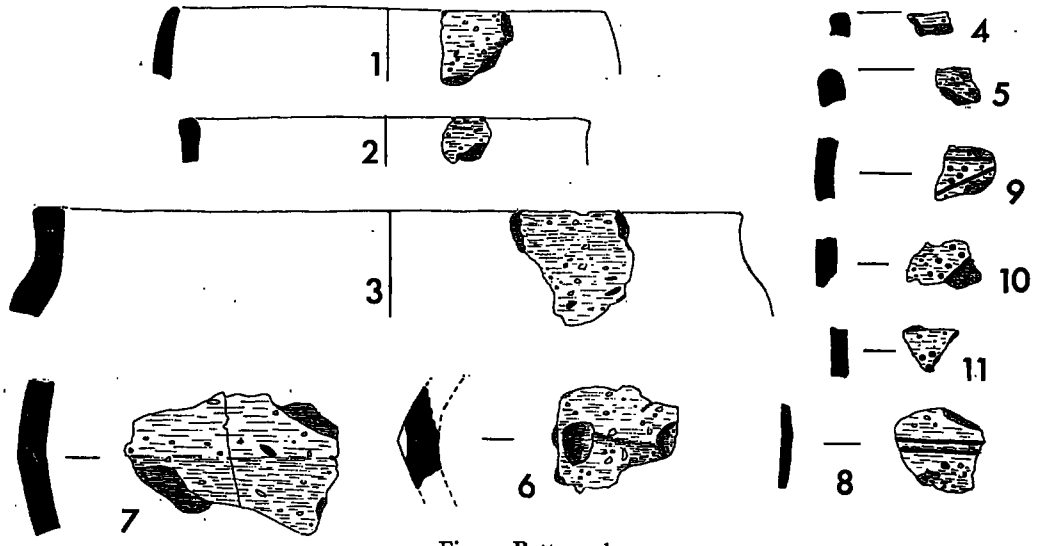

Fig. 9. Pottery, ½

Eleven of these shards are illustrated (fig. 9).

1. Dark grey exterior, dark grey to buff interior. Well finished hard fabric with medium flint filler. Secondary filling of enclosure ditch.
2. Black exterior, dark grey interior. Hard grey fabric with medium flint filler. Secondary filling of enclosure ditch.
3. Black exterior, black to light brown interior. Well fired hard fabric with only a little medium to large flint filler. Secondary filling of enclosure ditch.
4. Fragmentary rim in black fabric with medium flint filler. Topsoil.
5. Fragmentary rim in grey fabric with medium flint filler. Pit 8.

6. Shoulder with finger indentations in rough red orange fabric with large flint filler. Collapsed rampart material.
7. Shoulder. Black to light brown exterior, hard black fabric and red brown interior. Well finished with only a little medium flint filler externally. Collapsed rampart material.
8. Romano-British. Decorated externally, light grey sandy fabric. Secondary filling of ditch above turf line at south-west corner of enclosure.
9. Light grey exterior, dark grey interior. Medium flint filler. Decorated with incised lines up to 0.5 mm., and impressed holes up to 1.0 mm. deep. Pit 8.
10. Mottled black-red-brown externally, grey internally. Much small flint filler externally. Impressed holes up to 2.0 mm. deep. Pit 8.
11. Well finished black fabric internally and externally with small flint filler. Impressed holes to 1.0 mm. deep. Pit 8.

The Iron Age shards from the site point to a comparatively early date in the period. Among the illustrated shards the rim, 1, and the shoulder, 6, are of types represented among the early material from the Trundle.[22] No. 3 belongs to a group of flattened rims which similarly appears in early contexts at St. Catherine's Hill,[23] and is very similar to shards of this type found within a large group at Paulsgrove at the head of Portsmouth Harbour.[24] Of greater interest is the shoulder, 7. This belongs to the Caburn I series which appears at an early date in Sussex.[25] The three decorated shards nos. 9, 10 and 11 are of a type found in association with this series at West Stoke in Sussex.[26] This type is found in early contexts throughout Wessex. The West Stoke shards of this type at first appeared to be isolated from this main distribution but these three shards help to fill a gap which was suggested then to be more apparent than real. Like West Stoke, then, the Portsdown pottery reflects influences from both east and west. The same has been shown to be true of the earthworks excavated.

Material of the West Stoke-Hollinbury series has been suggested to be of a late Bronze Age ancestry.[27] In addition, it was argued that the Caburn I culture to which it is attributable is the origin of a group of sub-rectangular forts with timber-cased ramparts in Sussex including Highdown, Thundersbarrow Hill and Harrow Hill.[28] At Thundersbarrow it has been suggested above that the first earthwork on the site was a stock enclosure closely similar to the Portsdown example,[29] and some parallels between Harrow Hill and Portsdown I have also been noted.[30] It is interesting to consider whether the plan of the 'forts' like the pottery associated with them, reflects some continuity with the late Bronze Age. Certainly such continuity has been shown between the Portsdown site and excavated Bronze Age earthworks in Wessex.

Animal Bones

This section is based upon the examination, by Messrs. A. Outen and A. Williams, of the bones recovered. Table II is based upon Mr. Outen's work and Tables I and IV upon that of Mr. Williams. I am most grateful to both for their help and advice.

[22] *SAC* 70 (1929), 33 ff. and 72 (1931), 100 ff.
[23] *PHFC* 11 (1930).
[24] Publication by the writer forthcoming.
[25] Cunliffe in *SAC* 104 (1966), 109 ff.
[26] *ibid.*, 109-13.
[27] *ibid.*, 119.
[28] See generally Cunliffe *op. cit.* and Curwen, *Archaeology of Sussex*, 227-30.
[29] *Antiq. Journ.* 13 (1933), 109 ff.
[30] *SAC* 78 (1937), 230-6.

Exactly 4 lb. of animal bones were recovered from Iron Age levels during the excavation. All came from the filling of the ditch on the south side of the second period enclosure. Almost no bones were complete and the fragmentary condition in which they were found makes them unsuitable for measurement or calculation of age. The bones of which enough survived to allow identification were as follows:

Table I

OX – 1 femur, 2 tibiae, 2 humeri, 1 ulna, 2 radii, 1 cuboid, 1 epicondyle, 1 clavicle, 2 fragmentary ribs, 1 fragment of pelvic girdle including acetabular cavity, 7 fragments of mandible, 6 molars and 2 other skull fragments. Immature – 1 femur, 2 premolars and 3 maxillae.
SHEEP/GOAT – 3 mandible fragments, 1 radius.
PIG – 1 tooth.
BADGER – 1 humerus, 1 ulna.
This evidence is best summarised in tabular form:

Table II

Type	Weight of of bones recovered	Number of of bones identified	Probable number of individuals	Percentage of total individuals
OX	2.95 lb.	38 (6 of these immature)	11	65%
SHEEP/GOAT	1.25 oz.	4	4	25%
PIG	0.10 oz.	1	1	5%
BADGER	0.25 oz.	2	1	5%
Unidentifiable	15.00 oz.	—	—	—
TOTAL	4.00 lb.	45	17	—

It is suggested that the relative numbers of types represented shows clearly the connection between this enclosure and cattle farming. In support of this it is possible to show a similar statistical summary of the bone evidence from three of Pitt Rivers' much fuller excavations on earlier enclosures of this type:[31]

Table III

	S. Lodge Camp	Martin Down	Angle Ditch	Portsdown I
OX	48%	66%	67%	65%
SHEEP/GOAT	16%	13%	13%	25%
DEER	15%	—	—	—
DOG	9%	1%	—	—
RED DEER	8%	8%	7%	—
BADGER	3%	—	—	5%
PIG	1%	9%	—	5%
HORSE	—	3%	7%	—
OTHER	—	—	6%	—

[31] Pitt Rivers *op. cit.* S. Lodge Camp 1ff, Martin Down 185ff, and Angle Ditch 58ff.

One problem does however merit some discussion. Although only a limited number of bones were recovered among them were no vertebrae, almost no ribs, and very few skull fragments. This cannot be attributed to destruction in the ground since a number of smaller and more fragmentary bones were recovered. If we take account of all those cases in which two fragments may have formed part of one bone, we may summarise the types of ox bone as follows:

Table IV

Long bones	(Mandible	Teeth)	Skull	Ribs	Pelvis	Vertebrae
11	5	5	3	2	1	—

Even among the bones of which too little survived to allow certain division into species, there were no possibly vertebrae or ribs and only 0.75 oz. of the 15 oz. of these bones could possible represent skull fragments.

Is it not possible that here we have some evidence of systematic butchering and that an equally disproportionate number of ribs or skulls may have been dumped elsewhere on the site? This would be quite in order on a later site and, if we can resist a connection with the Celtic head cult,[32] is there not a parallel with the very large number of ox skulls found in areas of the interior of the fort on Harrow Hill?[33]

Land Mollusca

I am most indebted to Messrs. A. Outen and M. Venables, F.G.S., for examining the material discussed below.

Only a limited quantity of mollusca remains was found during the excavation. These are summarised below in the form of a table. So few examples were recovered from features attributable to Phase 1 that any comparison with the later material would be meaningless. Attention should be drawn to the preponderance of *Cepaea nemoralis* although 42 of the 48 examples found in the main filling of the ditch occurred within one small colony in which the predominance of Formula 00300 is worthy of note. In only one trench was material obtained from both the main filling of the ditch and the secondary filling, and here there was no difference at all in the relative proportions of each type, even though the two levels were separated by a turf line.

Unfortunately the types found are not very informative. The preponderant type, *Cepaea nemoralis*, is an ubiquitous species, and of the three remaining types little can be said but that they favour a damp habitat.

Table V

	Helix aspersa	*Cepaea nemoralis*	*Cepaea hortensis*	*Helicella striolata*
Period I:				
Gully fill	3	3	—	—
Post hole 1 (of entrance)	1	1	—	—
Period II:				
Primary ditch fill	1	48	6	2
Secondary ditch fill	1	5	—	2

[32] Ross, *Pagan Celtic Britain*, 61ff.

[33] *SAC* 78 (1937), 248 and 250.

Loose Archaeological Material

1. Five fragments of fired clay were found during the excavation. Four of these were of an orange sandy fabric and came from the main filling of the enclosure ditch. The fifth was unstratified and of a yellow marl. So little survives that it is uncertain whether they represent hearth lining, burnt daub or fragments of loom weights.

2. Fifteen rounded pebbles were found over the area of the first period entrance and concentrated over the western half of the area excavated. Five of these are of a type available either from an outcrop of rounded flints at the foot of the hill to the north or from the shoreline to the south. The remainder had a natural origin within the chalk but were not present within the rock at the point at which they were found. We should therefore regard all of them as being deliberately selected, probably for use as sling stones.

In view of all this all have been weighed and measured. The five from non-calcareous deposits are elliptical while the remainder are roughly spherical. Unfortunately the two largest of the former group are broken and must therefore be omitted from the calculation.

Both with and without the three remaining elliptical pebbles the average weight of of those excavated is 0. 8oz. The three elliptical examples average 2.7 x 3.2 mm., while the average diameter of the spherical pebbles is 2.5 mm. The well-known examples from Maiden Castle weigh on average between 0.5 and 2.0 oz.[34]

PORTSDOWN SITE II (fig. 10)

This site lies in the angle between Portsdown Hill Road and Gillman Road, 50 feet south of the crest of the ridge and 500 yards east of Site I (SU 68180625). The features to be discussed were all exposed in section below a recent positive lynchet during the widening of the latter road in 1965 at a point where it climbs the ridge obliquely from south-east to north-west. The thickness of topsoil cover precluded any investigation of the site by excavation and so only this section, 120 feet long and up to 6¼ feet high, will be considered here. A sequence of overlapping lynchets, a boundary bank and two ditches, all of Iron Age date, were recorded,[35] and five samples of associated land mollusca were obtained.[36]

Because of the unusual thickness of topsoil cover, in places as much as 5 feet, the early plough levels were clearly recognisable and had escaped the usual disturbance from modern agriculture. A scatter of Iron Age body shards, unfortunately not closely dateable, were associated with the features exposed, in particular with Ditch I and with the latest of the sequence of lynchets. Although a 1st century A.D. site exists only 150 yards to the north-west shards of this date were entirely absent.

At six points the natural chalk showed scarps which had been caused by early ploughing. Four of these six apparent field boundaries had been superseded, and as a result the material associated with the first exploitation of the site had been largely dispersed by later ploughing. The surviving levels were those to the west of the two ditches respectively. The limit of the more easterly of these two layers was sealed by a

[34] Wheeler, *Maiden Castle*, 49.

[35] My thanks are due both to Mr. M. Moore and Mr. G. R. Thompson for their assistance in this work.

[36] I am very grateful for Mr. A. Outen and Mr. M. Venables, F.G.S., for kindly examining and commenting on this material.

much disturbed boundary bank composed mainly of flint nodules. This may have formed the boundary of the field represented by the other surviving layer but, if so, the crucial stratigraphy had been later cut away by Ditch I. Though it is then probable that this ditch postdated the bank this cannot be certain without excavation. All that one can say is that the material of the bank was not derived from the ditch and that the field layer had ended at some point short of the boundary. From the field level Sample I was obtained and from the filling of the ditch came the second sample.

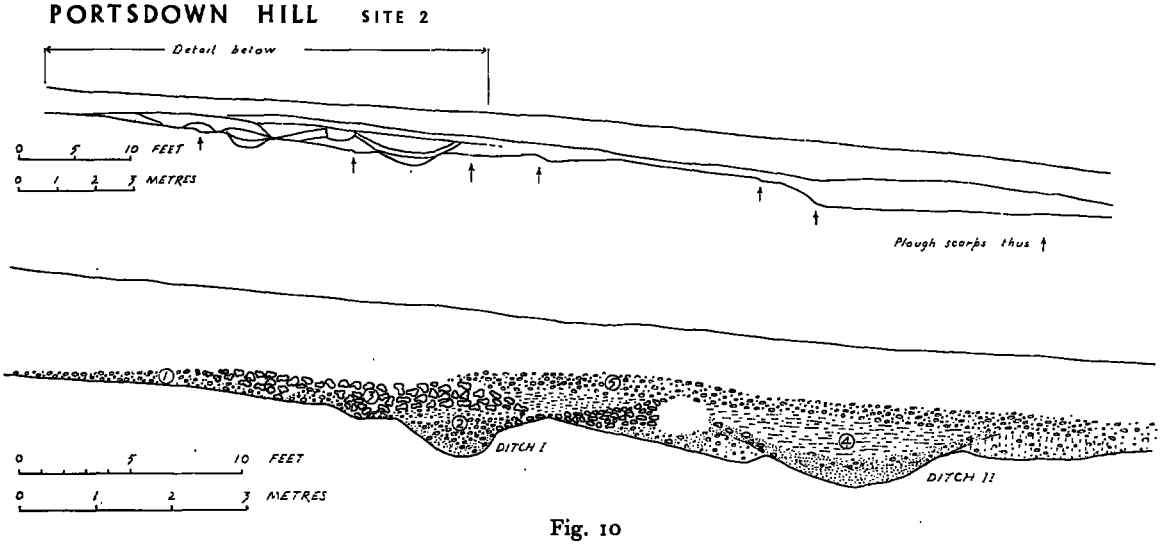

Fig. 10

Both the boundary bank and the field level sealed below it were also partly cut away by a second ditch which in addition cut through a plough level to the east. Since this latter layer was quite distinct in texture from that sealed by the bank it in turn must belong to a field which had begun somewhere on the lower side of the boundary. The nature of the second ditch was not clear from so oblique a section but it is not impossible from the finely powdered chalk on its base that it had been used as a track-way at the field edge.

Some time after it had completely filled with silt Ditch I was sealed by an accumulation of large flints marking a positive lynchet. This respected the base of the surviving boundary bank. From this lynchet Sample III was obtained. The site then seems to have been disused for some time while deposits of loose loam accumulated in the hollows left both by Ditch 2 and the space between the latest lynchet and the boundary bank. From this level came Sample IV.

Finally the site was again ploughed, the field end overlapping the positive lynchet described above. This level cut away the crest of the boundary bank and at least the eastern lip of Ditch II. It continued across a substantial negative lynchet lower down the slope, presumably obliterating a corresponding positive lynchet; this would account for the unusual thickness of the plough layer below this point. From this level the final sample was taken.

From this tentative interpretation we have been able to show some evidence of the shifting boundaries of Iron Age fields on the site and some of the different features which may have been used to mark them;[37] but these views rest upon an oblique section which was not in every respect satisfactory. Part of their importance is however that they form the background for the evidence of the land mollusca.

This evidence is presented in the form of a histogram and a table. The table summarises the relative proportions of each type within the five separate samples, while in the histogram only those examples which indicate vegetation as opposed to humidity are given.

In summary each of the first four samples indicates land going to waste, characterised by the growth of short scrub and wild clematis. Only in the third sample is there any slight indication of lush grass. This apparent disuse of the site appears to have reached a peak in Sample IV while the final sample indicates that the area was now largely open grassland.

It will at once be noticed that these results are hard to reconcile with the continued ploughing necessary to produce lynchet formations in places up to 3 feet thick. On the other hand if ploughing had been quite continuous it would surely not be possible so clearly to define distinct Iron Age plough levels. It seems clear that two of the three successive lynchets were deserted and allowed to go to waste before the site was again used as arable land and that in the third phase the land may instead have been turned over to grass.

Can it not be the case that here we have land being deliberately disused to restore its fertility before a fresh phase of ploughing? It could very well have been used in the interim for rough pasture like so many comparable areas of downland today. This is a procedure which has been suggested as inevitable in the past,[38] but one which it has not been possible to demonstrate from physical evidence before. The finding of suitable evidence here has depended upon the two contingencies of early plough levels being well protected from modern disturbances and of satisfactory land mollusca remains occurring in profusion within them.

This single fortuitous section has thus produced useful evidence of shifting field boundaries and changing land usage in Iron Age exploitation of the site.

The table given below summarises all land mollusca remains recorded. (See also fig. 11.)

Sample	*Pomatias elegans*	*Cepaea hortensis*	*Helicella itala*	*Helicogona lapicida*	*Goniodiscus rotundatus*	*Cepaea nemoralis*	*Helicella caperata*	*Helicodonta obvoluta*	*Helix aspersa*	*Oxychilus cellarius*	*Hygromia striolatus*	*Retinella nitidula*
I	14	2	2	1	1	1	1	–	–	–	–	–
II	9	–	2	–	–	–	–	–	–	–	–	–
III	34	2	4	–	–	–	–	–	–	–	–	–
IV	203	3	–	2	–	1	–	7	1	1	1	1
V	5	–	11	–	–	–	–	–	–	–	–	–

[37] Compare Fowler and Evans in *Antiquity* 41 (1967), 295-9.

[38] See generally Bowen, *Ancient Fields*.

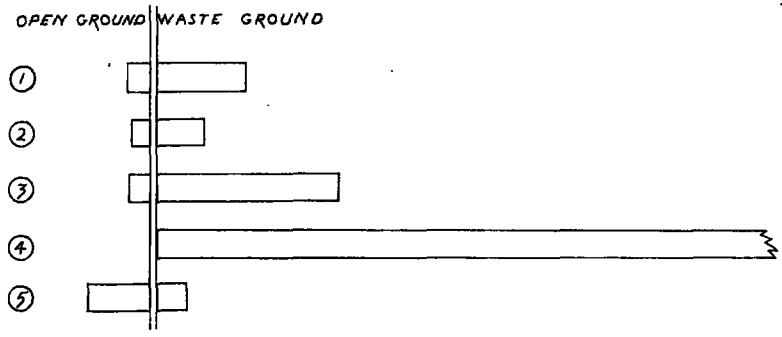

Fig. 11. Histogram showing relative percentages of snails

Appendix

I am indebted to Mr. Bari Hooper for the following summary of the 1st century site north-west of the features discussed above.

The site (SU 683062) was exposed by mechanical digging during pipe-laying operations on Portsdown Hill in October 1965.

A pit was revealed in the north face of the pipe trench. The south face showed the periphery of the pit high in the section, the distance between the two faces being 5 feet. The contractors delayed work whilst the section was drawn and the fill removed.

The fill consisted of a large number of flints, and chalk debris. Most of the flints were broken and strongly patinated milky white to blue. Occasional burnt flints and struck flakes were noted. Shards of the late Iron Age date (probably 1st century A.D.) were found mixed with and laying on top of the flints. Other finds were: one horse molar and three fragments of animal bone, one exhibiting saw cuts; one pyrites nodule; a small fragment of Wealden sandstone; a flint hammerstone; and 33 round pebbles, possibly slingstones. The pit had been filled shortly after it had been dug.

Examination of the remainder of the trench revealed another four features (three shallow depressions and a small gully) all within 300 yards of the pit, but no finds came to light.

A further 17 round pebbles, one Romano-British and one Iron Age shard were picked off the spoil heap and a bronze coin of Claudius was found by a workman.

Bari Hooper