

THE EXCAVATION OF GURNARD'S HEAD, AN IRON AGE CLIFF CASTLE IN WESTERN CORNWALL

By A. S. R. GORDON

ACKNOWLEDGMENTS :

The excavation of Gurnard's Head in Penwith was undertaken by the Cornish Field Club in April 1939, as a part of its enterprising resolution to examine the cliff castles of western Cornwall. This was made the more possible by the generosity of the Society of Antiquaries and the Royal Archaeological Institute, who made grants to the excavations. Three men were employed for a fortnight, otherwise the work was carried out by members of the club and friends. Mr. A. H. A. Hogg very kindly undertook the survey of the site. Permission to excavate on his land was willingly given by Mr. Harry Rodder of Penzance.

I am much indebted to the committee for asking me to take charge of the excavations, and for its preliminary organization which made the work possible. My gratitude is also due to Dr. Gordon Ward, who examined the horseshoe found in one of the huts, to Dr. Oakley for advice on the geology of the spindle whorls and to Mr. Andrew, Mr. Hawkes, Dr. Hencken and Mr. Dunning who have kindly given me the benefit of their opinions on the material. Finally, I should like to thank Dr. R. E. M. Wheeler for the suggestions which led to the inception of the scheme, and for much help and advice.

THE SITE (Fig. 1)

Gurnard's Head is a rocky promontory projecting for 380 yards into the sea on the north coast of Penwith, $5\frac{1}{2}$ miles west of St. Ives. It is composed of a band of slate between two jagged outcrops of greenstone, the most northerly of which rises to 200 feet approximately. The whole is tilted up sharply on the west side, which is also the most exposed and barren of soil. The eastern side is less steep and slopes down to

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PLATE I.



A. GENERAL VIEW OF GURNARD'S HEAD. THE TENT IS BEHIND THE
MAIN RAMPART



B. HUT B WALLING



A. STEPPED INNER FACE OF MAIN RAMPART



B. OUTER FACE OF MAIN RAMPART

cliffs of not more than 30 feet. The prehistoric dwellings are on this side, in two groups among the masses of detached rocks which cover the outcrops of greenstone, avoiding the 80 yards exposure of rock-free soil overlying the band of slate. The existence of natural platforms in the uneven ground over the greenstone simplified the task of floor-levelling for the hut-builders, also the rocks provided some shelter from north-easterly gales. The open ground may have been reserved for animals.

The eastern side is being eroded by the sea. Some of the huts are partly lost over the cliff and can be seen in section from the rocks below. It is doubtful if there could ever have been a landing place for boats nearer than Treen Cove, 300 yards to the south-east.

There are no springs on the headland. The rainfall is heavy and collects in rock pools, otherwise the nearest source of fresh water is at Treen Cove where a stream cascades over the cliff.

Gurnard's Head is in the heart of the Cornish tin and copper mining area. The junction of greenstone and granite, which renders the ores from the latter more accessible, runs parallel with the coast a short distance inland, and can be roughly discerned by the position of derelict mines. The nearest is a small copper mine at Treen Cove.

THE DEFENCES (Fig. 2)

Gurnard's Head, with its narrow neck and steep cliffs, is naturally suited to fortification. The defences cross the narrowest part of the neck and make every possible use of natural advantages.

The inner rampart is a formidable stone wall, 17 feet wide at the base and 6 feet high at the present day. The inner side, which takes up 7 feet of the width, is made up of three stone-faced steps. Though the masonry is not coursed, the facing of these steps has been built with care, and is still perfectly firm (Pl. ii A). Some of the stones are longer than the rest and extend into the rubble core of the rampart for extra stability. The outer facing was originally perpendicular, but had slipped in the main Rampart

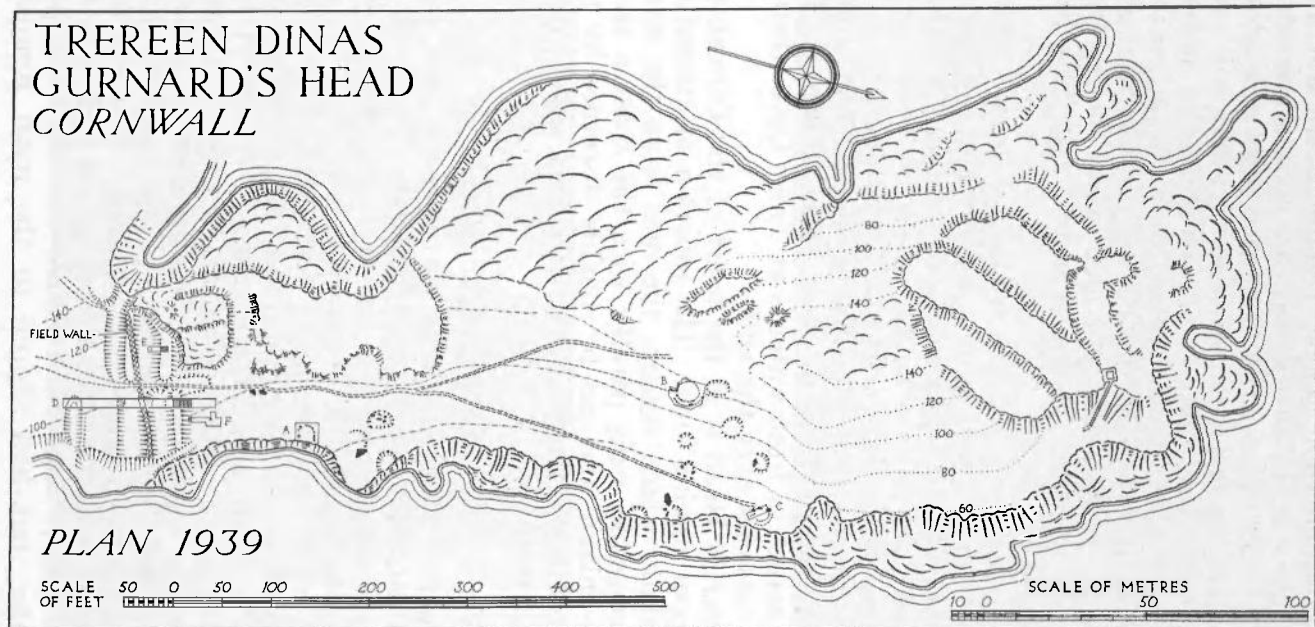


FIG. 1

(Contours in dotted lines are less accurately surveyed)

Cutting where the steps were uncovered. It was found, however, in Cutting E, on the other side of the entrance (Fig. 2), in good condition up to 4 feet and resting on solid rock (Pl. ii B). A large quantity of collapsed stone was cleared away from both sides of the wall, indicating that it was considerably higher when built.

In front of the inner rampart there was a wide ditch, dug in the 3 feet of soil which overlies the rock at this point. The material from this ditch, together with that from the middle ditch, was heaped together to form an earthen bank, now $2\frac{1}{2}$ feet high and capped by a more recent field wall. In marked contrast to the inner rampart this bank has no stone construction, and was clearly not considered an important part of the defences.

The defences so far described run down to the cliff edge on the east, where they are in process of falling into the sea, and terminate against the rocky crest of the headland to the west. The middle ditch, on the other hand, straddles the promontory neck from cliff to cliff. On the west side there is a narrow inlet with cliffs more than 100 feet high. The ditch runs up to meet the inlet, incorporating a natural gap in the rocks at its head.

After a space of 30 feet there is a third and outermost ditch, on the eastern side only. Its end was uncovered in the excavations, and it proved to have steep sides and V-shaped profile.¹ The original entrance through the defences is very much filled up with debris and not evident on the surface, though the present-day path runs over it. It is clear, however, that the banks and ditches on the two sides are not in alignment, but that they are staggered to form an interlocking entrance, which affords more protection than a straight gap.

Dating material was absent from the rampart cutting. Two small sherds came from the accumulation in the ditches, one of which resembles the local

¹ The main rampart section cuts the end of this ditch (Fig. 2). Its full depth is best shown in the inset

section, above, taken 8 feet further along.

Iron Age pottery in texture. An unstratified spindle-whorl with scratched ray decoration was the only other find. It is concluded that the area was not occupied before the ramparts were built, and was abandoned immediately after they fell out of practical use.

Pebbles of various sizes were scattered through the ditch fillings and rampart fall in sufficient numbers to justify the view that they were fetched from the beach on purpose. The site is not particularly suitable for defence by means of the sling because the attackers would be on higher ground than the defenders, but the large size of the inner rampart would to a large extent counteract this failing. Points in favour of the sling are the wide space between the ramparts and, except for the innermost, the emphasis on ditch rather than wall. At any rate it is likely that the sling was the method of defence to which the builders were accustomed.

The construction of these defences very closely resembles that of the small multiple fortress of Ker-caradec, Penhars, near Quimper, Brittany. Here, precisely the same features are met with, a large inner rampart with three steps and two lesser banks and ditches covering a total span of 100 feet, also the certain use of slingstones.¹ The promontory forts of Castel Coz and Castel Meur on the west coast of Brittany are indistinguishable in appearance from Cornish sites but in neither case have the defences been excavated.

CUTTING F

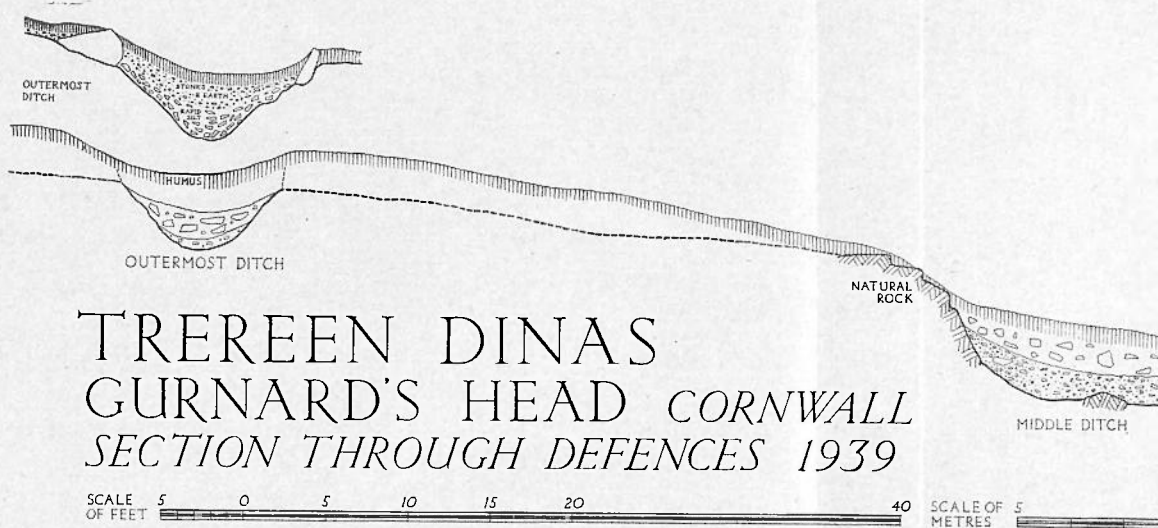
An area was cleared inside the main rampart to the south of the entrance. Pre-rampart ground surface was reached at a depth of 1 foot to 18 inches. Remains of prolonged occupation were not found. At and near a point X on the Plan (Fig. 1) were a number of coarse sherds of which Fig. 7, no. 10 is the only rim.

HUT A (Fig. 3)

Hut A appeared on the ground as a rough rectangle of large rocks surrounding a hollow 20 feet across from north to south and now 16 feet from east to west,

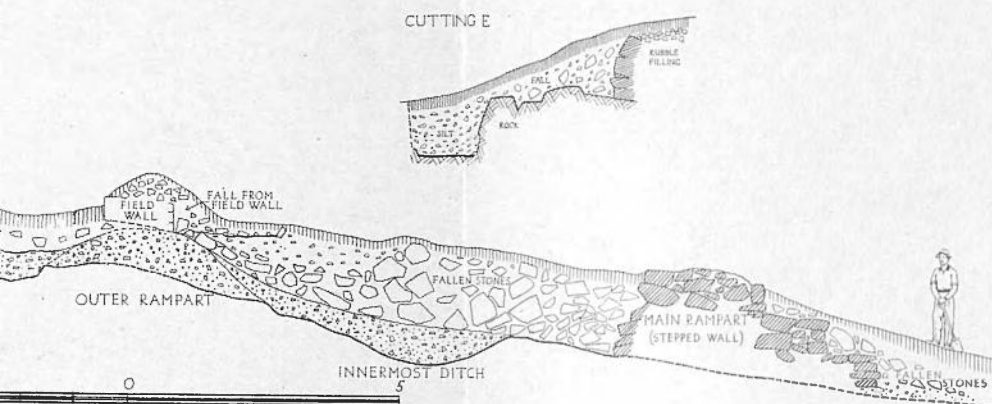
¹ *Antiquity*, March 1939, p. 72.

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TREREEN DINAS
GURNARD'S HEAD CORNWALL
SECTION THROUGH DEFENCES 1939

FIG. 2



but the whole of the eastern side has fallen over the cliff. Several feet of loose stony earth cover the uneven surface of the rock at this point (Fig. 3). The hut consists of a levelled area made by digging into the slope of the hill as far as the rock outcrop. The platform thus produced has been lined with large stones, chosen no doubt for suitability to their purpose, but not

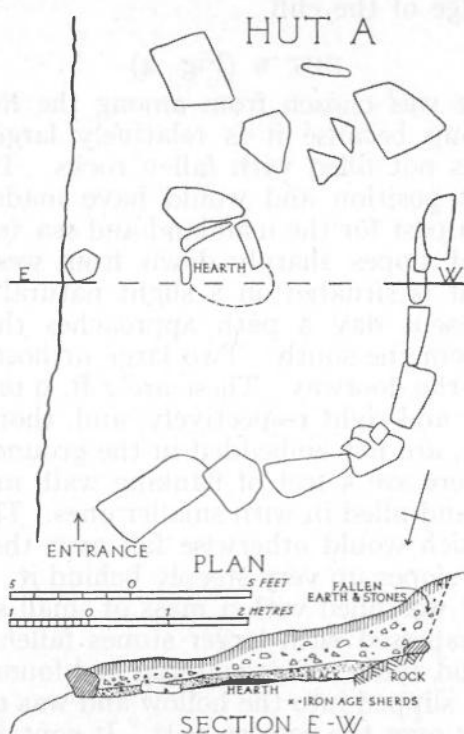


FIG. 3

artificially shaped. These were not, apparently, packed with smaller stones, but formed a simple revetment for the sides of the hollow, and emerge as free-standing rows of stones until cut off by the modern cliff edge. The stones on the north side had fallen into the hut and gave some indication of the floor level at the end of occupation. At a depth of 12 to 18 inches a sparse amount of charcoal and some relics began to appear

in the powdery earth and stones which filled the hut. At 22 inches a thin slither of burned material in the centre was found within and spread around an irregular semicircle of stones. The earth taken out below this level over the whole hut was sterile, so, in default of other evidence, it was taken as the level of the floor at the beginning of occupation. The probable entrance was a gap in the wall on the north side, now at the extreme edge of the cliff.

HUT B (Fig. 4)

The site was chosen from among the huts of the farther group because it is relatively large and the interior was not filled with fallen rocks. It occupies the highest position and would have made a useful observation post for the mainland and sea to the east. The ground slopes sharply down from west to east, and the hut is situated on a slight natural platform. At the present day a path approaches the original entrance from the south. Two large orthostats 5 feet apart form the doorway. These are 2 ft. 9 in. and 3 ft. high to left and right respectively, and, though standing upright, are not embedded in the ground. On the left side there are 5 feet of flanking wall, made up of big stones and filled in with smaller ones. This retains the soil which would otherwise fall over the path, as the ground slopes up very steeply behind it.

The hut was filled with a mass of small stones and earth, interspersed with larger stones fallen from the rocky ground above. This material had found its angle of rest as it slipped into the hollow and was 9 inches to a foot thick over the eastern part. It contained a few Iron Age sherds and part of a late third century-early fourth century mortarium. The layer below was differentiated by the presence of charcoal, and towards the bottom (in the 6th to 9th inches) by a larger number of Iron Age sherds. This layer was of an even thickness over the entire hut floor.

Six feet in from the entrance a very black layer with trodden surface surrounded a hearth (Pl. iii B). It was $2\frac{1}{2}$ feet across and neatly ringed with stones except for the part nearest the entrance which enclosed



A. HUT A VIEWED FROM THE SOUTH



B. HUT B FROM THE NORTH-WEST, SHOWING HEARTH AND ENTRANCE

a pit, 7 inches deep. The same black material filled the hearth and it contained a high percentage of sherds (Fig. 8).

The hut floor has been artificially levelled; what

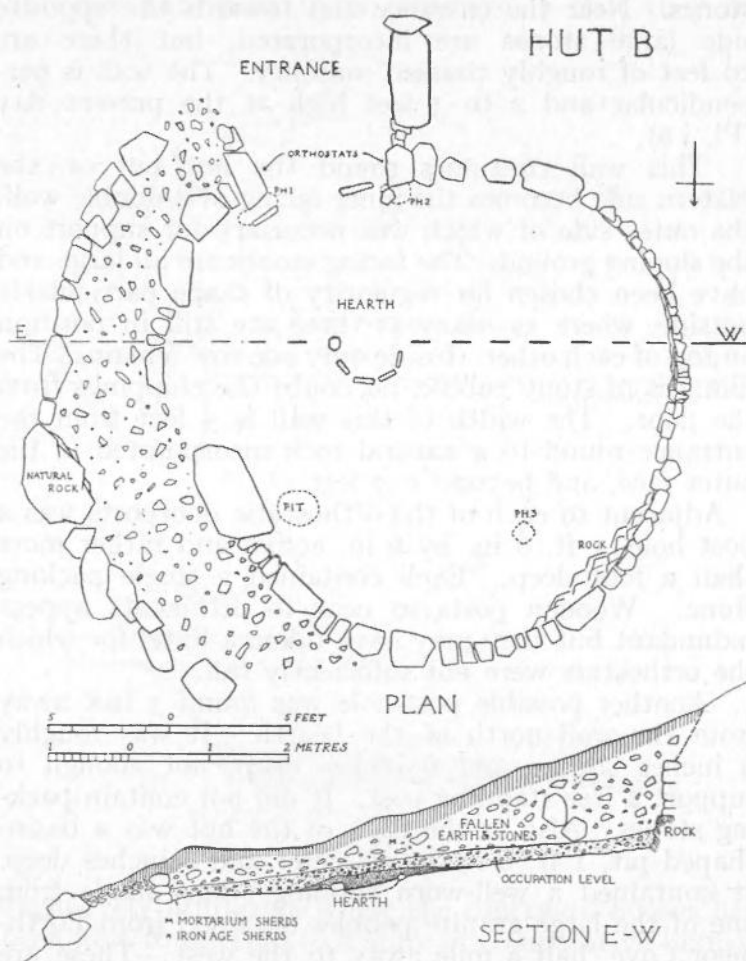


FIG. 4.

would have been a drop of 4 feet has been reduced to 2 feet in a diameter of 20 feet. The rock has been chipped out to a depth of 1 foot in the western part, and cleared over half the hut. The rest of the floor con-

sisted of the tightly packed stones and earth that naturally overlies the rock. It was not further prepared for habitation, and did not appear to be much worn down.

The western side of the hut was thus dug out of the hill slope and was lined with a wall of small flat stones. Near the entrance and towards the opposite side large stones are incorporated, but there are 20 feet of roughly coursed masonry. The wall is perpendicular and 2 to 3 feet high at the present day (Pl. i B).

This wall continues round the hut but on the eastern side becomes the inner facing of a double wall, the outer side of which was necessary for support on the sloping ground. The facing stones are all large and have been chosen for regularity of shape particularly outside, where as many as three are still in position on top of each other. Inside only one row remains. The filling is of stony rubble, no doubt the chippings from the floor. The width of this wall is 5 feet from the entrance round to a natural rock incorporated in the outer face, and beyond it 7 feet.

Adjacent to each of the orthostatic doorposts was a post hole, 1 ft. 6 in. by 6 in. across and rather more than a foot deep. Each contained a single packing stone. Wooden posts so near to orthostats appear redundant but they may have taken a lintel for which the orthostats were not sufficiently tall.

Another possible post-hole was found 3 feet away from the wall north of the hearth. It was roughly 9 inches square and 6 inches deep, not enough to support a free-standing post. It did not contain packing stones. Also at the back of the hut was a basin-shaped pit, 1 ft. 6 in. in diameter and 8 inches deep. It contained a well-worn rubbing stone, made from one of the large granite pebbles obtained from Porthmeor Cove, half a mile away to the west. These are frequently found in the Porthmeor Romano-British village. The only other finds from this hut, apart from the pottery, were a spindle-whorl from near the door and the usual complement of stone rubbers and pounders.

This hut is quite unlike any other prehistoric habitation in the locality, such as the paved and finely

walled courtyard houses of Chysauster¹ and Porthmeor,² and numerous other unexcavated examples. The change in geology accounts for some of this difference, granite being in many ways better for building than greenstone. However, the Gurnard's Head huts are noticeably more primitive in that they are

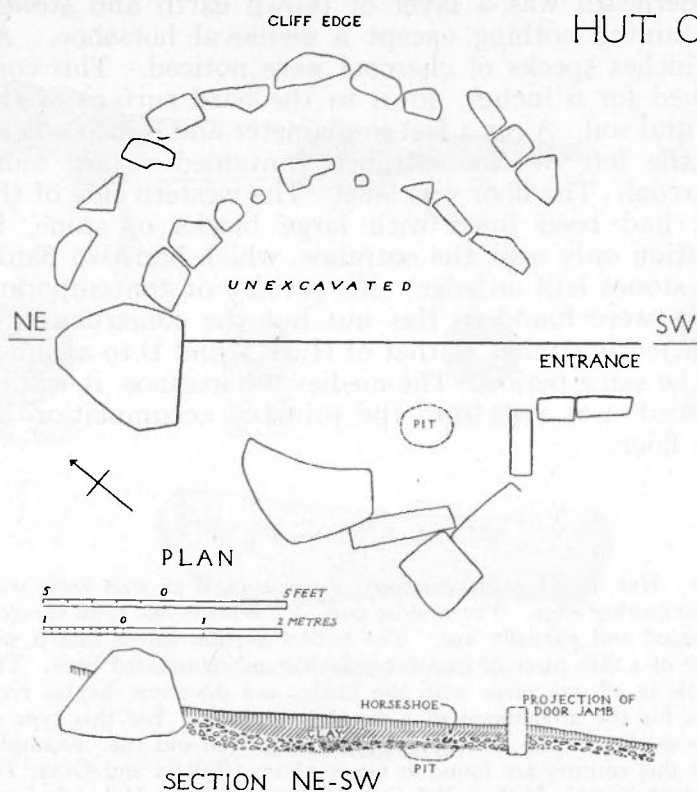


FIG. 5

exclusively utilitarian where the courtyard houses had been able to develop to a state of comparative luxury.

HUT C (Fig. 5)

This site was chosen because it was again comparatively free of debris and showed a fine double wall

¹ *Archaeologia*, 83, p. 237.

² *Report on Excavations at Porth-*

meor, Cornwall, 1933-5, Journ. Royal Inst. of Cornwall, Vol. xxiv.

on the west side, near the present cliff edge, and an entrance to the south. A line was taken through the entrance to the opposite side and the eastern half was cleared to natural. Humus covered a layer of clay. The hut may well have been a waterlogged pocket at some period in which such clay could accumulate. Underneath was a layer of brown earth and stones, containing nothing except a medieval horsehoe. At 10 inches specks of charcoal were noticed. This continued for 6 inches, down to the hard surface of the natural soil. A pit 2 feet in diameter and 6 inches deep to the left of the entrance contained rather more charcoal. The floor was level. The western side of the hut had been lined with large blocks of stone, in position only near the entrance, which had two flanking stones laid on edge. No pottery or contemporary relics were found in this hut but the construction is sufficiently similar to that of Huts A and B to assign it to the same period. The medieval horseshoe, it will be noticed, was not from the primary accumulation on the floor.

SMALL FINDS: Fig. 6

1. *Hut A.* Occupation layer. Fragments of an iron knife with single cutting edge. The middle part of the blade has been severely damaged and partially lost. The hollow section shows that it was made of a thin piece of iron bent double and hammered back. The handle is all one piece with the blade, and does not display rivet holes for the attachment of a wooden addition. For this type of knife see Déchelette, *Manuel* (1927) iv, Figs. 596 and 598. Examples from this country are found at Glastonbury (Bulleid and Gray, *The Glastonbury Lake Village*, Vol. ii, p. 365), and Wookey Hole (*Archæologia* 62, Pl. lxxviii, no. 16). Such knives were of domestic rather than warlike use.

2. *Hut A.* Occupation layer. Iron buckle, consisting of a D-shaped frame and a tongue twisted once round bar of frame.

3. Rampart. Unstratified. Flat spindle-whorl with scratched ray decoration on one side. The sides of the hole are not vertical. The outside edge has been polished with use. Made from a stone which is apparently an altered schist and may be non-local.

4. *Hut B.* Occupation layer. Squat spindle-whorl of acid tuff or weathered tuffaceous sandstone. Though riddled with holes the rock is hard and not particularly light. The sides of the hole are vertical.

5. *Hut A*. Occupation layer. Small flat spindle-whorl with vertically-sided hole. Outside edge well polished with use. Also apparently an altered schist.

6. *Hut A*. Occupation layer. Spindle-whorl made from a re-used potsherd. Similar in texture to pottery on Fig. 7, no. 6. The outside edge is smoothed from use.

7. *Hut A*. A long-shaped rubbing stone, worn concave on two sides.

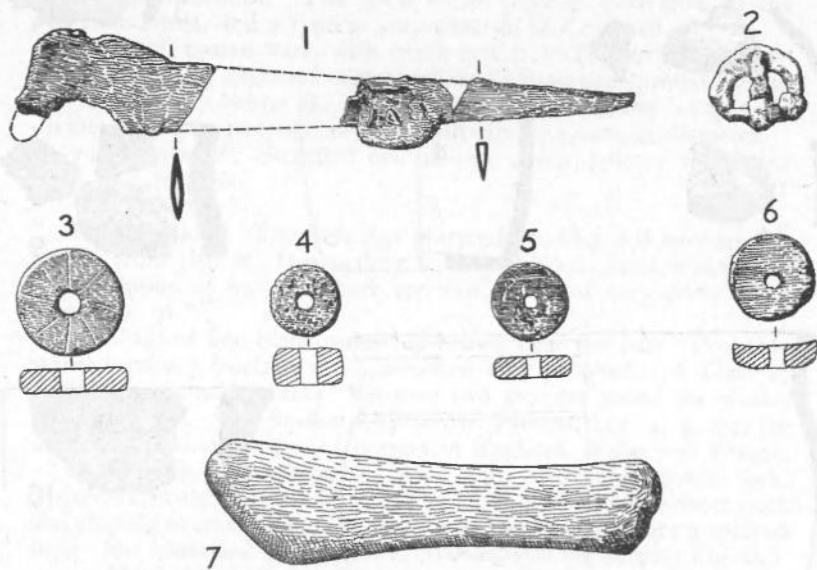


FIG. 6. SMALL FINDS ($\frac{1}{3}$)

THE POTTERY

By F. M. PATCHETT and A. GORDON

Fig. 7. *Hut A*. The pottery from Hut A consists mainly of thin, dark-brown to black ware with a polished surface, hand-made except in one case (no. 2). There are also groups of sherds of reddish sandy ware (no. 8), and hard, coarse ware (no. 9). All these groups were found in the occupation layer.

1. Sherds of thin brown ware, finely polished. Straight rim and neck, slight shoulder and rounded body. Shoulder groove and spiral decoration in burnished lines, executed without great precision. (See Castle Dore, *Cornwall Excavation Committee Interim Report*, 1936.) The spiral is a common motive in Brittany, and was found on a pot from Kercaradec.

2. Highly-polished, dark brown ware, wheel-turned. A well-defined, upstanding neck and everted rim on a rounded shoulder. For shape see Castle Dore (*ibid.*), the Glastonbury pot from the Treveneague fougou (Hencken, *Archaeology of Cornwall and the*

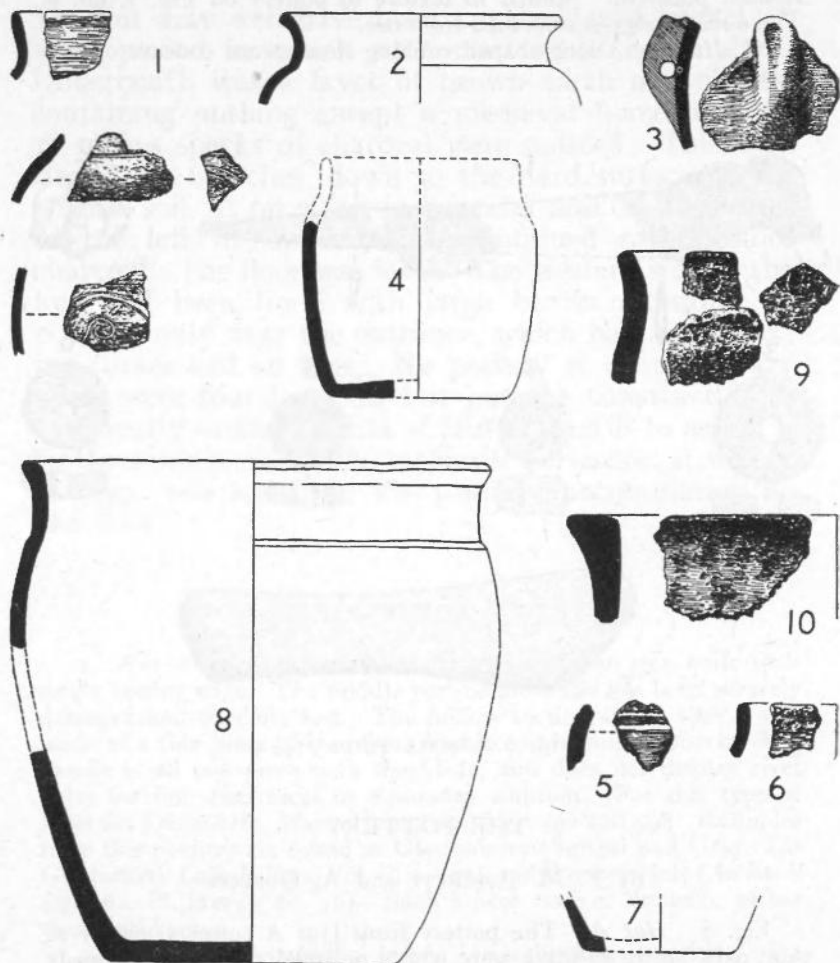


FIG. 7. POTTERY FROM HUT A AND CUTTING F (1)

Scilly Isles, p. 145, Fig. 42), and a sherd from Chun Castle in the Truro Museum.

3. Hard, polished, dark brown ware, with coarse grip of pounded granite. A horned lug applied to the pot. It has been modelled with the thumb and fingers and pierced horizontally through the lower part with a round stick.

4. Hard, black ware with a high proportion of micaceous grit. Well polished exterior. A solid base with marked roundness of junction between base and side.

5. Sherd of similar paste, with two coarsely-incised grooves on the shoulder.

6. Straight rim going to thickened shoulder, of paste similar to 4.

7. Hard, dark brown ware, coarse and gritty. Blunt angle between base and side.

8. A large pot of reddish ware with very little grit and the remains of a smooth surface. The form is an ultimate derivative of the Hallstatt Situla, and a type as yet unknown in Cornwall.

9. Hard, coarse ware, with much grit of shell, quartz and mica. Greyish surface, smooth but not polished. Stamped (probably with a hollow bone) below the rim, with a row of circles 12 mm. in diameter, and an irregular row of small circles 3 mm. in diameter.

10. *Cutting F.* Bevelled rim of very coarse pottery containing large granite grits.

Fig. 8. *Hut B.* The Iron Age pottery from Hut B is very similar to that from Hut A. It is mainly fine, black ware, hand-made, with the exception of no. 1. There are also sherds of very gritty black ware (no. 9).

1. Bowl of fine black ware, red-brown near the base. Probably wheel-turned. Surface well smoothed and polished. A band of S-shaped stamped 'ducks' between two grooves round the widest circumference. See Bredon Hill (*Arch. Journal*, xcv, 1, p. 93) for inventory of duck-patterned pottery in England, Wales and France.

2. Smooth, reddish-brown ware with shell and granite grit. A derived situlate form with fairly pronounced shoulder, short neck and slightly everted rim. The body narrows a little before a splayed base. For bases see Chun Castle, *Archaeologia* 76, p. 221, Fig. 8.

3. Hard, black ware with much grit. Surface roughly tooled. Straight rim at sharp angle to round body. See Chun Castle, *loc. cit.*, p. 221, Fig. 7, and Carn Euny Fougou, Hencken, *op. cit.*, p. 135, Fig. 39b.

4. Fragment of rim of highly-polished black ware.

5. Rim of hard brown ware.

6. Sherd of similar ware with two incised grooves on shoulder.

7. Coarse black ware with high proportion of grit. Straight rim and slight shoulder. A horizontally-perforated lug applied immediately below the rim.

8. Base of hard brown ware, smooth but not polished.

9. Extremely gritty ware. Rounded angle at junction of base and side.

10. Fragments of a small red mortarium with hammer-head type of rim of the late third—early fourth century.

The search for analogies of the Gurnard's Head pottery in south-west Britain has led to the discovery of a number of partial resemblances, but the group as a

whole is not closely paralleled. There is nothing in the paste which marks it out from other Cornish ware ; Chun and Castle Dore have produced very similar pottery. The bowl form with upstanding neck (e.g., Fig. 7, no. 2) is typical of the south-western Iron Age B culture. In Cornwall it has been found in both the above-mentioned sites and in the Treveneague fougou.

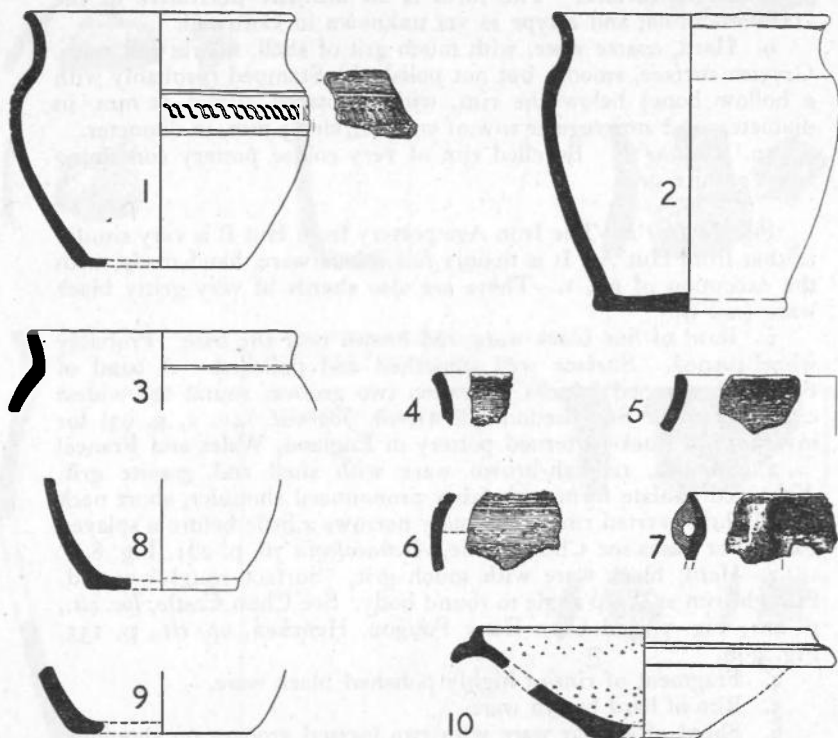


FIG. 8. POTTERY FROM HUT B (1)

The 'duck' patterned pot, which has this form, thus differs from the rest of the Brittany-Cornwall-Severn 'duck' pottery sequence. Other differences of detail in this pot are :—(1) On all the Cotswold examples the pattern is stamped immediately below the rim, whereas this is decorated round the widest part of the body, and (2) The two grooves which enclose the stamped ducks do not occur in the Cotswolds, except in

one case at Cleeve Hill.¹ At Chun Castle a row of 'ducks' is found in conjunction with other curvilinear decoration. The spiral pattern, lugs and rounded bases are familiar features of the south-western B culture.

Strabo tells us that the Veneti of south-west Brittany had control of trade with Britain up to 56 B.C., when they were subdued by Caesar.² The mining area of Cornwall is the most likely part of Britain to have been affected by this trade. The similarity of rampart construction between the two areas has already been observed (p. 100). In support of these facts, certain features of the pottery are also comparable. The most important of these is the presence of wheel-turned ware at Gurnard's Head. The wheel was not generally known in this part of Cornwall until the first century A.D., whereas in western France it was used from La Tène II (300 B.C.) onwards.³ In Brittany, graphite was commonly used to achieve a metallic polish on pottery. This was not possible in Cornwall, where graphite does not occur naturally, but the highly-polished surface of much of the Gurnard's Head pottery may indicate an attempt at a similar result. Decoration is more profuse in Brittany than in Cornwall; the spiral pattern and stamped 'ducks' can be directly compared, but small stamped patterns other than 'ducks' did not apparently penetrate the latter region.

The 'duck' pattern arrived at Bredon Hill (Glos.) about 100-50 B.C., having come up the estuary of the Severn probably in connection with the iron industry of the Forest of Dean.⁴ The tin and copper trade of Cornwall must have been well established before this extension of trade. By the time it reached Gloucestershire the 'duck' motif had been translated from its original type of pot to Iron Age A and bead-rim pot forms, which also indicates a certain lapse of time.

Close dating of the site is not possible, but existing evidence indicates that a date before rather than after the middle of the second century B.C. is more likely for the initial occupation of Gurnard's Head.

¹ *Trans. Bristol and Gloucs. Arch. Soc.*, Vol. 58, p. 161, Fig. 4, no. 2.

² Strabo, *Geography* iv, 4, 1.

³ *Antiquity*, March 1939, p. 74.

⁴ *Arch. Journ.*, xcvi, p. 92.