

## THE ERME, YEALM, AND TORRY.

BY MR. R. HANSFORD WORTH, C.E.

(Read March 31st, 1892.)

BEFORE proceeding to the subject of the present paper, this evening, I should like to supplement that on "The Moorland Plym" by a few details.

My first addition deals with the nature and use of the spider-like erections to which I drew your attention. I then professed myself unable to explain some of the details of these structures in accordance with the theory I had formed of them, which was that they were fortifications. More careful search has shown that—where not connected with enclosures of small dimensions, but where found either standing alone or in association with the long walls surrounding the warrens—all, or nearly all of them, present the same peculiarity of a narrow channel formed in the centre and provided with a flat cover stone. In some cases the cover stone has shallow holes of about  $1\frac{1}{2}$  inches in diameter drilled partly through it; in others, the sides of the channel are grooved as if for the reception of a sliding shutter. I spare you a repetition of the various theories that were tried and found wanting. Finally, however, it was concluded that these "spiders" must be the vermin traps referred to by Mr. Bellamy, as those in which a number of comparatively rare carnivora had been caught. Reference to the warrener at Trowlesworthy gave positive evidence as to the correctness of this view, and so these remains, although retaining their comparative antiquity, lose the mystery that surrounded them. Still, the method of setting these traps does not seem to be quite clearly understood.

For the time, however, I think we must reserve the so-called fortified entrances to the enclosures on Trowlesworthy. These enclosures were inside the warren, and the traps were uniformly outside. Again, these erections had two entrances, where the traps left only one; none of the crosses had narrow channels in

the centre, and none cover stones. So it is submitted that in these cases a verdict of "not proven" be returned.

Mr. C. W. Dymond, F.R.S., informs me that at Avebury he met with similar traps and had at first a difficulty in accounting for them, but there also the warrener explained the matter.

On the left bank of the Wallabrook there is a kistvaen, the existence of which has not hitherto been recorded. It stands in a mound 8 feet 6 inches in diameter, and its length lies north-west by north. The north-east and two end stones are in place, but the south-westerly stone has fallen aside a little, and the cover stone, which is unbroken, lies on the edge of the mound to the north-west. The original dimensions of the kist were 2 feet 3 inches long by 1 foot 5 inches wide and 3 feet deep. The greatest length of the cover stone is 5 feet, and its greatest width 2 feet 4 inches. This kistvaen lies almost in a straight line between the summits of Hen Tor and of Legis Tor.

There is a blowing-house in the Plym Valley, to which our President has made reference in a previous paper. Mr. Burnard and myself were unwitting competitors for the honour of being the first to photograph the mortar stones. I think that I had the advantage by about four and a half minutes, at the outside it was not more than five. This blowing-house is on the left bank opposite Drizzlecombe, at a spot known as Mill Corner. A mire has somewhat encroached upon it, and perhaps the moulds are hidden under this. There are five fragments of mortar stones, which would have been at Ditsworthy before now had they not been too heavy. Old Mr. Ware considered that they might be useful as troughs from which to feed the ferrets. The wheel pit and tail race are in singularly perfect condition, and there are indications as to the whereabouts of the furnace. A large flat stone of 3 feet 6 inches by 2 feet 9 inches, was probably one of the hearthstones. The walls average 2 feet 7 inches thick, and the inside dimensions of the building are 13 feet 9 inches by 23 feet 8 inches. The largest of the mortars is 8 inches in diameter, but the others do not exceed 6 inches.

The Langcombe brook receives a small tributary on its right bank some half a mile above its junction with the Plym. Some fifty or sixty yards distant to the northward from the junction of the Langcombe and its tributary, lie a group of remains marked on the Ordnance Survey Map as hut circles. Examina-

tion of these remains gives the following results. There is a hut circle of about eighteen feet diameter; thirty-one feet away from the centre of this circle, in a west-north-westerly direction, is a kistvaen, the long sides of which lie in a direction one point west of north. The north, south, and east sides are standing, but the west side has fallen and lies close by, as does the cover stone. The kist measures 3 ft. 2 in. by 2 ft. 5 in., by 2 ft. deep, and the cover-stone 5 ft. 5 in. by 4 ft. 11 in. The peculiarity of this kistvaen is that its mound has been removed and the sides now stand above ground. There are two stones similarly standing above ground near Giant's Basin, which seem also to be the remains of a kistvaen. A circle of fair sized stones, and 20 ft. in diameter, surrounds the kist. At 31 ft. to the northward from this kist, and exactly in the line of its longitudinal axis, is another that has been much disturbed and has partially collapsed. The cover-stone leans over the remains, and the kist apparently when perfect measured 2ft. 6 in. long by 1 ft. 10 in. wide. Immediately adjoining this kist to the northward are the remains of a circle, much ruined.

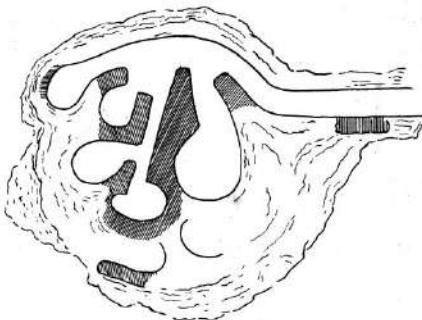
All the evidence I have been able to collect points to the fact that on Dartmoor kistvaens were invariably built on the natural surface, and afterwards surrounded and covered by an artificial mound. There is reason to believe that in some cases the whole mound may have sunk into the peat soil, or that encroaching mires may have covered some, and such instances protected from observation may yet exist in which kistvaens are still undisturbed. But nowhere in the south or west quarters is there evidence of a grave having been sunk beneath the surface and then lined with stone.

Within the past few years a kistvaen has been uncovered at Nuns Cross Farm and totally destroyed. No relics were found. William Hooper told me that the cover-stone of the kist had long been exposed on the surface of the field, and that one day when the necessity for just such a stone arose, he took this up, and, to his surprise, uncovered the kistvaen. Some effort seems to have been made to examine the spot and unearth any relics, but without success.

Leaving the Plym and turning to the adjacent valley of the Torry, we find most of the antiquities of interest to lie on the

slopes of Shell Top and Pen Beacon and Cholwich Down, forming a continuation of the interesting series of remains on Trowlesworthy. The Ordnance Survey of this neighbourhood has been more carefully carried out than elsewhere, and is with some slight exceptions fairly complete and accurate.

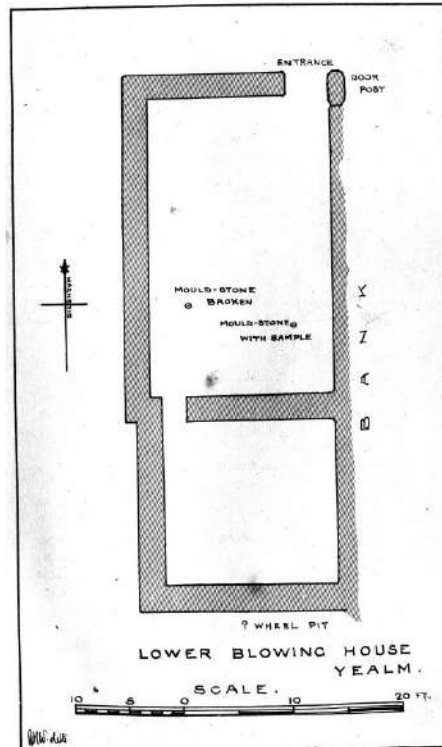
Near Wetter Clay Works and close to the road from Cornwood to Shaugh is a square earthwork, which has not infrequently been referred to as being of Roman origin. That it may have been a camp is quite admissible, but from its size and situation there



HUT CLUSTER, SHELL TOP.

seems more probability of its origin having been residential rather than military. There are farms yet on the Moor surrounded by banks as high and as formidable. It is noticeable too that the mound has not been derived from an outside trench, but in the main from excavation over the general surface within the enclosure.

On the flank of Shell Top, not far from Torry Brook Head, lie the remains of a tumulus which has at some time been chambered. First noted by Mr. Spence Bate, it has since been fully described as a hut cluster, by another member of this Society, in the *Transactions of the Devonshire Association*.



To the westward again and across the river Yealm are two more large enclosures and many hut circles, while another very large pound occurs just above the woods on the left bank of the Yealm, and smaller pounds near Ford Barn on the right bank. All these are well indicated on the Ordnance sheets.

The map, however, marks a hut circle on the crown of the hill between Broadall Lake and the river Yealm, while omitting a very fine specimen which exists close to Broadall Lake and just outside the enclosure known as Hawns. The first-mentioned hut circle is probably so labelled because it apparently is not one, but possibly a circle round the remains of a kist. Its diameter is 15 feet, and its eastern side is complete, while the western is defective. Nine stones are still standing and one has fallen—the largest stone still standing is 3 feet 10 inches high, and measures at the ground 1 foot 2 inches by 2 feet 1 inch. The members of this circle are much too openly spaced for it ever to have been a hut. One hundred and seventy yards to the northward are the remains of another circle 35 feet in diameter, with six stones still in place, and one displaced.

The Yealm, at a distance of about two-thirds of a mile above Dendles Wood, makes a very rapid descent from the higher moorland over a remarkable collection of gigantic boulders. This forms a fine feature in a valley which, for its length from its source to the sea, is one of the most beautiful in Devonshire. From the head of this abrupt descent a splendid view of the whole lower valley of the Yealm is obtainable. For the purposes of distinction in this paper, I have christened this spot Yealm Falls, ignoring for the time the lower falls in Dendles Woods.

Immediately below Yealm Falls, on the left bank, are the remains of the lower blowing-house, which have already been referred to in this hall. I have prepared a plan of this blowing-house, showing its two compartments; the one 28 ft. by 19 ft., the other 17 ft. by 18 ft. The doorpost at the northern end is an especial feature: standing 7 ft. high, and measuring 1 ft. 3½ in. thick by from 3 ft. 1 in. to 1 ft. 9 in. wide. On careful examination, I very much doubt whether the unbroken mould-stone with the channel between the moulds was ever used for purifying the tin; in fact, I can see no method by which it could be used to separate the dross from the purer metal. The higher mould in this stone measures 15 in. by 9 in. at the top, and

12 in. by 6½ in. at the bottom; it is 4 in. deep, and has a notch, of which the purpose is unknown, on the right-hand side.

The lower mould is 17½ in. by 11 in. at the top, and 14½ in. by 7 in. at the bottom, and is from 6 in. to 6½ in. deep. These moulds are 3½ in. apart, and connecting them is a notch, the bottom of which is on a level with the bottom of the upper mould. There is also a third mould in this stone for a sample ingot, which measures 4 in. by 2½ in. by ½ in.

In the broken stone, the mould on the right-hand is perfect, and is 10 in. wide at the top, with its length of 17 in. in the direction of the length of the stone; its greatest apparent original depth is 6½ in., and its dimensions at the bottom 12 in. by 6½ in. There is an interval of 5½ in. between this mould and the next, which is imperfect, and has its length across the length of the stone at right angles to that of the last. It measures on the top 16 in. by 9½ in., and in the bottom 13½ in. by 6½ in., depth 5½. It is now impossible to say whether there was here any sample mould.

A little above Yealm Falls, and on the right bank of the river, is the upper blowing-house. This has no second compartment, and measures 29 ft. by about 10 ft. inside, with walls 2 ft. 7 in. thick. At its south-eastern end there is a small chamber 6 ft. 2 in. long, and 3 ft. wide inside, which may very probably have been the furnace. One mould-stone lies just outside this chamber, the other is now some little distance away from the house.

I much regret that I have not yet been able to take casts of these moulds. Both present a peculiarity not previously, I believe, observed on Dartmoor. Each stone was evidently designed to give an ingot of the well-known astragalus shape. This feature is best marked in the mould inside the ruined house. The width of this mould at the top is varied from 11½ in. at one end to 12½ in. at the other, its length being 16½ in. The depth is 4½ in., and at the bottom the measurements are 12½ in. by 9½ in. From the centre of each end a broad ridge projects into the mould. This ridge is between 3 and 4 in. wide, and has evidently been much reduced by the disintegrating action of the molten metal, followed by subsequent weathering. The outside dimensions of the stone are 2 ft. 6 in. by 2 ft. 7 in.

The mould which lies outside the house is not in such perfect condition, but it, too, shows the remains of this same central ridge; in this case, however, all that is left is a slight elevation

1½ in. wide. The dimensions are: the stone 2 ft. 6 in. by 2 ft. 6 in., and 1 ft. thick; mould 1 ft. 6 in. by 12½ in., 4½ in. deep, and 12 in. by 8½ in. in the bottom. Much of the stone used in the construction of the upper blowing-house is well squared, and the position of the entrance can be traced beyond doubt.

A least exactly opposite this house on the other bank has a small clapper bridge still standing across its course. The Yealm valley above this point presents no objects of especial antiquarian interest. Geologically speaking the constant occurrence of well formed crystals of quartz in the peat over a large area near Yealm Head is worthy of notice.

Yealm Head is not situated in ground favourable to the pedestrian, but is well worthy of a visit, not from any interest of its own, but on account of the extremely fine view, extending around three quarters of the distant horizon, from Sheepstor northwards, eastwards, and southward to Plymouth Sound.

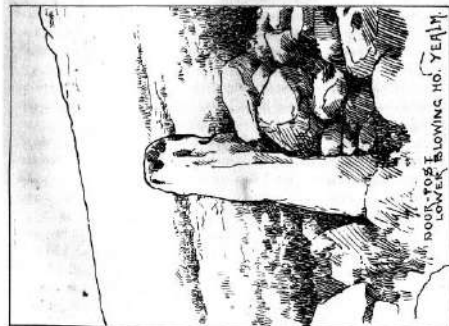
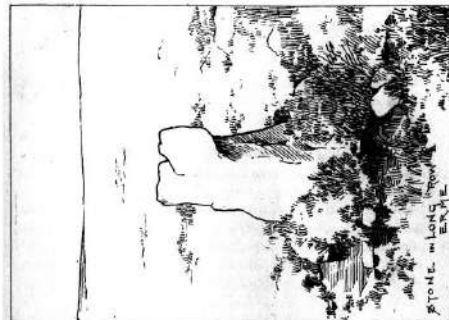
I now find myself with the greater part of my subject before me, and very little time in which to deal with it. Themes such as the present have an awkward habit of occupying much more paper than allowed for in one's original calculations, and in expansion from the note-book grow most alarmingly in dimensions. I must therefore ask to be excused from entering into minute details now, and propose merely to make a hasty survey of some of the more important features of the Erme Valley, omitting such as are of minor interest.

Of stone rows there are three, one near Yadsworthly, another near Erme Pound and Hook Lake, and another commencing on Erme Plains and ending on Green Hill.

At the southern end of the first of the above rows is a circle of about 33 feet in diameter surrounding a barrow, which has at some time been opened. From this the single row is well defined until it meets a new-take wall, after which it is very imperfect and difficult to trace.

Exactly in a line between the circle at the end of this row and the mass of rocks crowning the tor to the eastward, and 280 feet nearer the tor, is a smaller but more perfect circle, of 18 feet diameter with nine stones still standing, and apparently one side of the kistvaen enclosed in place.

The second stone row, mentioned above, has a circle at its



northern end, and then extends southward until lost in the wall of a pound which lies in the same direction. The stones in this circle and row are somewhat larger than usual.

The third stone row originates on Stalldon Moor, on the right bank of the Erme, with a circle of large diameter. From this circle it runs northward, passing a little to the east of a cairn at a third mile, dipping down a deep gully—or rather getting lost in the bottom of the gully—at a little under the half mile. This gully has been streamed, and the fact that the row is destroyed here proves that the streaming operations have been subsequent to its formation. At a little over the half mile the row becomes imperfect, the stones being found further apart. But wherever its course is crossed by a turf-tye it becomes distinctly visible, and all the stones are found to be in place, thus showing that the gaps elsewhere have been formed, not by the removal of the stones or original imperfections, but by their sinkage and withdrawal under the peat surface. This is a somewhat important point to note.

Descending to the Erme the row crosses the river just above Erme Pound, continues along the low land, crosses Red Lake and ascends Green Hill. At this point it ceases on the Ordnance sheet, after having extended over a length of one and a third miles. As a fact, however, it is quite well defined as it passes upward on the slope of Green Hill and for some distance past Middle Mire. It is somewhat less well defined as it nears its end, but is still distinctly traceable until the tumulus on Green Hill is reached. Its whole length is thus more than two miles.

This tumulus on Green Hill most likely contains the remains of a kistvaen. A broken stone lies on the surface, which has either been a small menhir or a kist cover. As this long row passes over the hills it does not maintain an exactly straight course, the difficulties of alignment having been apparently found insurmountable.

I have in hand a complete survey of this row, which will, I hope, soon be completed. Such a monument as this, unequalled in Great Britain or, to the extent of my knowledge, on the Continent, deserves more recognition than a casual reference.

Hut circles and enclosures are very numerous in the Erme Valley, and are, for the most part, fairly indicated on the Ordnance maps. In many cases the circular foundations of the huts are most substantial, walls being from four to six feet thick, and in not a few several courses of well-selected flat-bedded

stones still stand. Generally speaking, all hut circles in the Erme Valley are of large diameter, and have been built in courses; usually the stone door posts still remain—frequently standing—sometimes fallen. Some beehive huts too are to be found, notably one on the left bank just above Piles Wood. The beehive hut on the right bank, referred to by the late Mr. Spence Bate, has very properly been placed in the list of tool-houses or caches by our President—and I have nothing to add to his description, except to point out that Mr. Bate's model shows a flat stone barring the entrance, and this is not now to be found. I think, too, that although its present height is only three feet, it has originally been somewhat loftier.

Another beehive hut of exactly similar build, but somewhat smaller, is to be found on the lower of the two Dry Lakes which join the Erme on the left bank.

Did time permit, an interesting point to discuss would be the various forms of hut construction, as exemplified in the Plym, Yealm, and Erme valleys.

Of pounds or enclosures, the most important is Erme Pound, which has frequently been described. Near Erme Pound are two square buildings. One with a porch and pointed gable stands to the west, and immediately outside the pound wall; and the other, a sort of oblong ovoid, is just outside the entrance to the pound, and has a curious stone bench or seat running all round it. Both were probably shelters used at the time of the cattle and pony drifts.

Adjoining the pound are a number of old enclosures of almost equal size.

Square buildings are most frequent throughout the valley, and nearly always in conjunction with tin works. One on the right bank below Dry Lake has double walls. Another in Hortonsford Bottom had a fireplace. Others again occur in Red Lake, Erme Plains, Middle Mire, etc., etc. One of great age exists in the woods on the right bank below Harford.

Kistvaens are not so numerous in the Erme as in the Plym Valley. There is a fine example on the left bank, about a mile and a half above Harford, which has a circle of stones around it, one exceptionally broad. The stone circle is 14 feet in diameter, and consists of seven stones still standing, the largest being 4 feet 3 inches wide by 3 feet 3 inches high. The kist itself is 3 feet 11 inches long, 2 feet wide at the south-eastern end, 1 foot

4 inches at the north-western, and 3 feet deep. A hundred feet up the hill, in the direction of the length of the kist, is a single large stone—and one hundred feet down the hill, in the exact line of the last-mentioned and the largest stone in the circle, is the centre of a barrow of 20 feet diameter. Another kist exists near Erme Pound, and another on the hill above Hortonsford Bottom—this last in a mound with a circle of stones surrounding it.

Now, as to the question of mining remains and blowing-houses. The building in Hook Lake is the only recognised blowing-house as yet; but there are other buildings on the Erme to which strong suspicion must attach. No mortar stones had been noted until a fortnight ago, when I found one with the remains of two mortars, in the bed of the river Erme, near the left bank between the lower Dry Lake and Piles Wood. It was too weighty and bulky, and too firmly set among other stones, for me to bring it to shore. The mortars were two in number, and each about 9½ inches wide by 7 deep. It is about 200 yards below the stream on which is Mr. Bate's beehive hut. I have my eye on several suspicious buildings in the valley, and this discovery stimulates me to fresh exertion.

The neighbourhood of Mr. Bate's beehive hut has been worked for tin, and a shallow level has been driven into the hill from the right bank of the stream on which the hut stands.

At the lower Dry Lake recent attempts have been made to obtain tin, both on the right and left banks of the Erme. The date of these workings is limited by the remains of a tramway trolley with cast-iron flanged wheels, as probably within the last half century. Very extensive old workings also exist here. All the smaller valleys have been worked, and costeaning or shodding has been carried on upon Green Hill.

Erme Pits are the deepest workings in the valley, and when it is remembered that the old workings must of necessity extend many fathoms below the bottom of the present pits, some idea of the work done at this point may be formed. Workings at Hexworthy have been cut at 11 fathoms, which were under a surface gully of not more than two to three fathoms in depth, and although the same proportion could not be applied to Erme Pits, it may serve to give some indication of the scale on which open tin workings have been executed on the Moor.

[The lecture was illustrated by lantern slides from photographs taken and prepared by the lecturer.]