"KILLING" PITS.

By J. R. MORTIMER.

"Killing" Pits are some mysterious excavations on the north-west brow of the Goathland Moor, between Scarborough and Whitby, about 1 miles south-west of Goathland Chapel. Of these and others much has been written at various times, and by various authors; and various have been the views given to account for them.

By early writers on antiquities these and others similar have been described as Pit Dwellings and the sites of

British villages.

Professor Phillips thus writes:—

"In several places these pits are associated in such considerable numbers as to give the idea of a village. Such are the Killing Pits, on the gritstone hill, less than one mile south of Goathland Chapel; the pits in Harwood Dale; those which encircle Roseberry Topping; besides many on the site of Glaizdale, and in other situations."

The following abstract is from a rather lengthy paper on Pit Dwellings, by the Rev. J. C. Atkinson, Vicar of Danby (now Canon of York), in the *Gentleman's Magazine* for 1861. After having described several clusters of pits, he adds:—

"The Goathland settlement occupies a space of 600 feet by 150 feet, but the pits are not so thickly clustered as in that last-named. The name by which this site has been known, time out of mind, is 'Killing Pits.'"

He also remarks:-

"Besides these, several others might be named."

The above extract clearly shows that Canon Atkinson, like most other archæologists, firmly believed in the habitation theory. Afterwards, however, he changed his views, and in a letter to the Whitby Times, April 6th, 1889, strongly combats the habitation theory; and in referring to the "Killing" Pits, says that,

"in nearly every case, if not in every case, the so-called British villages were neither more nor less than the traces left by mediæval iron mining."

¹ The Rivers, Mountains, and Sea Coasts of Yorkshire, p. 203.

He also gives from old documents three other instances of "Killing" Pits in the neighbourhood of Danby, viz., Hither Killin Pits, Far Killin Pits, and the Lower Killin Pits.

Again, in another letter to the same paper, May 3rd, 1889, Canon Atkinson further supports his belief that the Killing Pits on Goathland Moor were the shafts or pits sunk for the purpose of extracting ironstone.

Lastly, in his Forty Years in a Moorland Parish, published in 1891, page 170, he still supports this view;

and at page 174 he adds:—

"For my own part, if only the opportunity could be achieved, I should go in for an examination of any of these so-called British villages with very definitely preconceived opinions as to what should be looked for and the way in which the looking for it should be conducted. And for one thing, I should have no more doubt about finding horizontal operations than about the fact that the pits were there. If I did not find the ironstone, it would be because it had been removed,"

This seems strong faith, akin to that of an antiquary of a past age, without the least attempt to prove it by the

simple application of the pick and shovel.

From the several occurrences of the name of "Killing" Pits given by Canon Atkinson from old documents, it seems almost certain that their name was derived from Kiln and Pits—in other words, pits from which material had been obtained for the kiln, such as ironstone for smelting, or, it might be, in some cases limestone for burning into lime. This name would be most natural and expressive, and could hardly have had any other meaning. But then the name might often have been given to similarly-shaped old pits which had not been formed by quarrying for the kiln, and possibly the pits under discussion are an instance of this.

June 10th, 1892, in company with the Rev. E. M. Cole, of Wetwang, I visited the "Killing" Pits. From descriptions of them, and impressed with antiquarian tendencies, we expected they would be found uniformly circular and regular in size, just such as we had been led to think the remains of sunk dwellings of a circular form might be. In this, however, we were undeceived. These pits are very irregular, both in shape and size, and also in arrangement, and we unanimously agreed that few,

if any, of them were the remains of habitations. They measured from 3 feet to 20 feet in diameter, and from 1 foot to 5 feet in depth; and we thought it probable that none of them had originally been more than 10 to 12 feet in depth. Pits most certainly they are; and probably many of the shallow ones were made, at various periods, in obtaining, for different purposes, the slabs of gritstone which were near the surface, and which would be more easily procured at this outcrop of the beds than in most other places on the moors. Most of the slabs of gritstone which are found in the neighbourhood of "Killing" Pits vary from 6 to 12 inches or little more in thickness, and have been no doubt obtainable in all sizes up to 12 and 15 feet square. Were not at least some of these pits excavated for the purpose of removing such slabs, to be cut into the tall boundary stones, several of which we have observed standing on the moors, and which were probably at one time more numerous than now? They are of the same texture as the gritstone slabs remaining in situ at "Killing" Pits. Again, several of the pits may have been made by the Ancient Britons in quarrying to obtain the side and cover stones to form the burial chambers (kistvaens) for the reception and protection of their dead placed in the tumuli of that neighbourhood. For such a purpose the most suitable stones, most readily obtained, would be procured from these outcropping beds at "Killing" Pits, where little more than the removal of the turf would be needed to reach slabs of a suitable size and thickness. It may be noticed that the beds are cracked in every direction, often more or less displaced, broken, and tilted on edge, sufficiently to form separate slabs, so that their extraction would not be difficult. That such slabs were long since used by the Ancient Britons living on the moors round the "Killing" Pits we have ample evidence from the stone cists found in the tumuli, and also from finding several of the boundary posts marked with small "cup," and other engravings, upon them of the Ancient British period. The following drawing is one of the several boundary posts with cup markings that the writer observed on the Peak Moors during a day's ramble in the summer of 1890. These boundary stones, on which are shown similar and

other ancient mystic sculpturing, are most certainly portions of broken-up slabs which have come from

ancient burial chambers. irregular size and form of many of the "Killing" Pits are just such as would be left by the obtaining of boundary posts or slabs suitable for the construction of stone chambers for interring the dead. Slabs of various sizes would be required, and where a large one was raised a large pit would be left, and where a small one was taken the excavation would be small, much in the same way as we now find many of the "Killing" Pits differing in size.

May 12th, 1893, I again visited these pits, and this time in company with Mr. Chadwick, of Malton, and under very favourable conditions, the weather being exceedingly fine and dry, and the ground in a great measure freed of the heather by recent fires on the moors. Under these circumstances the pits were shown to be more varied in size, more numerous, and to cover a greater area than I was led to believe on my first visit. Most of them occupy irregular positions, and are only partially in two rows. Mr. Chadwick called my attention to a large flat stone (which I had previously seen) in the centre of a hole in the ground, about half a mile south of the "Killing" Pits. This large flat stone had been bared and excavated all round, but from some cause or other had not been removed. On my arrival at the place Mr. Chadwick remarked, that if this stone had been removed it would have left an excavation similar to many of those at "Killing" Pits. My reply was that I had come to the same conclusion on my first visit, and showed him the notes I had then made. A few days after Mr. Chadwick sent me the following piece of information he had gathered from residents in the neighbourhood:

"The people living in Goathland, or the freeholders, have a right, from time immemorial, of collecting or quarrying stone on the moors.

The 'Killing' Pits are merely the remains of—or traces left of—such excavations, and probably not Ancient British at all. Stones are to be found in all sorts of positions in different parts of the moor. Some are edge way up; others are flat; but in many cases some depth would have to be dug to lift them from their positions. This process would leave similar cavities to those shown by the 'Killing' Pits."

Thus Mr. Chadwick and myself were at one respecting the probable origin of many of these pits. Besides these "Killing" Pits, similar dish-shaped hollows, produced by the stubbing up of large trees, are often visible on many of the untilled sites of old forests—such as Beverley Westwood and other places; also in numerous places on the Wold hills of Yorkshire, where chalks and flints have been quarried in early times, and are often erroneously believed to be the foundations of pit dwellings.

Since writing the preceding, I have seen the Memoirs of the Geological Survey of the United Kingdom, and at page 236 Mr. C. Fox Strangways, F.G.S., thus writes of

"Killing" Pits:-

"A good deal of mystery hangs over these pits, and various theories have been started to account for their origin, but there can be little doubt that they are ancient workings for this impure ironstone. Similar shallow pits occur at many other places on these moors, but always just over the iron-stone."

After these conflicting opinions and the firm assertions of so able a geologist as just quoted, a re-examination of these pits with the assistance of the pick and the spade seemed desirable. Therefore, on the 26th and 27th of July, 1893, with the assistance of two workmen, I excavated four of the most circular in form, but variable in size. The first was a medium-sized pit, one of the larger After having removed the peaty turf and rubbly soil beneath, which had accumulated to a depth of 18 inches—apparently during a lengthy period—the filling-in of the pit was found to be a mixed-up material, consisting of clay, peat, disintegrated gritstone, and a few gritstone blocks of various sizes, such apparently as had been cast from an adjoining pit in sinking it. These rested on a central depressed bed of almost pure peat-earth, varying from 5 to 10 inches in thickness. This had either

¹ Memoirs of the Geological Survey of the United Kingdom-Jurassic Rocks of Britain. Vol. 1.

accumulated during a considerable period at the then bottom of the pit previous to the casting in of the superincumbent matter, or had been the turf removed from the surface and cast there in excavating an adjoining pit. However, this was not the original bottom of the pit, as we observed under it a very similar mixture to that met with above. This mixture was observed to extend five feet below the layer of peat, and as we proceeded downwards it readily peeled from off the firm sides of the original pit, which had been quite circular, with vertical sides, and had reached 11 feet in depth, with a diameter of 81 feet from top to bottom. The depth penetrated was through beds of disintegrated gritstone (moor grit), divided by beds of more or less clayey and shaley matter (calcareous shale). There was no trace of impure ironstone observable in the sides, or at the bottom of the pit; neither was there tunnelling or even undermining at the bottom, giving the pit the bell-mouth shape so firmly

expressed by Canon Atkinson.

After excavating (clearing out) the other three pits, we found they had originally measured from $5\frac{1}{2}$ to $6\frac{1}{2}$ feet in diameter, and from 4 to $4\frac{1}{2}$ feet in depth. The sides of these were not quite vertical, and the bottoms were more or less roughly dished, just as they would have been made in extracting stone slabs. The outlines of all the pits were very clearly shown by their sides having been stained a dark colour from the percolation of water charged with peaty matter finding its way down the sides of the original pit, between the filling in. We could find no evidence of their ever having been pit dwellings, neither could we find any trace of ironstone having been extracted from the pits we examined. Still, some of the larger and deeper ones may have been made in searching for ironstone, and a little may have even been extracted, as small quantities of this impure stone were observed in the sides of the little gullies, at a little lower level on the escarpment near the pits. Besides, some of the larger may have been made in obtaining calcareous shale to be used as a flux, or to otherwise aid in reducing the ores believed to have been smelted in the bottom of the valley in the immediate neighbourhood—hence their name of "Killing" Pits.

We may therefore surmise that these irregular pits on the edge of Goathland Moor were most probably formed for various purposes, at very different periods—not solely for any one purpose—certainly not for dwellings.