# ACCOUNT <br> CELTIC ANTIQUITIES OF ORKNEY, 

INCLUDING THE

## STONES OF STENNESS, TUMULI, PICTS-HOUSES, ETC.

## WITH PLANS.

COMMUNICATED TO THE SOCIETY OF ANTIQUARIES
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## ACCOUNT

## THE CELTIC ANTIQUITIES OF ORKNEY.

## CHAPTER I.

The following Notes have been arranged partly with the view of affording the means for comparing the Celtic antiquities of the Orkneys with their prototypes situated in other countries, but more particularly in the hope of inducing some resident gentleman of more leisure and antiquarian lore to draw up a detailed description of these interesting Landmarks of Time, many of which are fast disappearing before the efforts of rural industry and agricultural improvement. There is, however, but little cause to apprehend any further dilapidation in the greater monuments of the county; an interest in their conservation is daily gaining strength, and we have the faith to believe that in a short time even a peasant will feel ashamed to remove from the inquiring presence of enlightened men an irrecoverable record of the thoughts and feelings of a by-gone race. The antiquities of the Orkney and Shetland groups will be found upon examination to be well worthy of a careful study, not only from being extremely numerous for the small extent of country in which they are placed, but also from the great diversity of their forms, in many places leaving us unable to determine the purpose for which they have been erected.

Orkney is generally supposed to have derived its name from words in the British language signifying Outer-Catti, and to have been inhabited by a branch of the Catti ; ${ }^{\text {a }}$ but, leaving conjecture, we find it stated in the famous diploma drawn up by Bishop Thomas Tulloch, in 1443,b that immediately preceding their conquest by

[^0]Harald the Fair-haired these islands were occupied by two different races, the Pape and Peti (Pets or Picts), and that the Northmen " swa passit on the said nations of Peti and Pape, that the posteritie of thame after remained nocht." ${ }^{\text {a }}$

But though the posterity of these people "passit away," they left behind them records of their social development in their sepulchres, their habitations, their castles, and their domestic and warlike implements; and such of these as have fallen under the writer's notice will be described.

Of the Pape it may be briefly stated that they are supposed to have been a collegiate Irish priesthood, introduced about the time of St. Columba ${ }^{\text {b }}$ the apostle of the Picts ; and, judging from the names, Paplay in South Ronaldsey, Paplay in Holm, Eynhalloza, Papey Stronsey, and Papey Westrey, are places in which they have been located. It has also been pointed out to me by Professor Munch, of Christiania, that the island now known as North Ronaldsha is in Saga literature called Rinansey, which appellation he believes to be after the famous St. Ringan, or Ronan, and to have received that name before the conquest of this country by the Northmen. The Pape seem to have spread as far as Iceland, for, according to the Landnanamabok, before Iceland was colonized from Norway, there were people there who the Northmen called Papa; they were Christian men, and left behind them books in the Erse language. ${ }^{\circ}$

The ruins of many ancient buildings, both defensive and simply domestic, are ascribed by tradition to the Picts, who, instead of being magnified by the haziness of indistinct historical vision into giants or cyclops, have (probably from the very narrow passages in their castles and dwellings, and their small kistvaens), dwindled in the vulgar estimation to a race of pigmies : it is presumed that the controversy concerning their ethnographical position has long been settled, and that they were in fact a geographical division of the Celtic Britons. ${ }^{\text {d }}$

[^1]It is generally imagined by those whose topographical information is limited to the southern portion of Britain that the island becomes more uneven as its northern extremity is approached; this is not, however, strictly the fact, for, after passing the mountain ridges which rise between the neighbourhood of Perth and the Ord of Caithness, we descend upon a simply hilly or undulating country, possessing very few romantic features, but peculiarly adapted to the labour of the agriculturist. The same topographical character occurs upon the northern side of the sea-valley (Pentland, properly Pightland, Firth) which divides the archipelago of the Orkneys from Scotland, where, instead of mountain masses separated by deep valleys, we find a swelling moorland whose mean elevation would not exceed one hundred feet. There are some exceptions to this usually tame appearance, for the hills of Hoy, of Orfer, Ronsey, and Edey have either had sufficient cohesive strength, or have accidentally escaped the denuding influence which has been going on around them; but in general the old red sandstone has been swept away, and the flagstone of the same formation, after the deposition of a few feet of boulder clay, is the floor upon which the present race of men are passing their ephemeral existence.

It is worthy of remark, that there is good evidence of the low grounds having been formerly covered by a forest of birch, hazel, and willow, which, besides forming a covert for the wild boar, red deer, and other extirpated animals, would afford fuel and shelter to the primitive inhabitants. That the native wood had become too scarce for economic purposes about A. D. 92.5, may be gathered from the fact that the reigning earl acquired the title of Torf-Einar from having taught his subjects the use of that substance for fuel, and this is but one generation after the occupation of the country by the Northmen.

That the Celtic or original inhabitants were very numerous is proved by the great number of barrows scattered throughout the islands; I imagine that at least two thousand might still be numbered; and when it is remembered that half as many more have probably been removed or obliterated from within the inclosures, an idea may be formed of the length of time which must have elapsed since the country was first settled. These barrows seem almost posited by accident, for they may be seen upon the very top of a hill, or upon the brow, or halfway down, upon the moor, or by a burn, or by the sea side. They are single, or in confused groups. At

[^2]Stenness and at Vestrafiold there are four posited contiguously in a straight line ; but I have not met with a circular, nor indeed any other, arrangement of barrows, except that they are sometimes twin, not however of equal size, but one about twothirds smaller than the other.

The common form of the Orcadian barrows is the bowl-shape of Akerman's Archæological Index. These barrows present exactly the outline of one-third of an orange cut through its axis. From their depressed figure they do not make a prominent appearance in the landscape. The contrary happens with the conoid barrows, which are at once remarkable from their greater height and size. It will be shewn hereafter, that there is reason to believe the conoid tumuli to be of Scandinavian origin.

There are considerable varieties in the species of bowl-shaped barrows; the simplest is a low mound of earth not raised more than eighteen inches from the ground, and about seven or eight feet in diameter : there is a group of five of these dimensions close to the Great Stenness circle (ring of Brogar), and four of them are posited in line, suggesting a relationship among the occupants in blood or destiny.

Increasing in size, they may next be noticed as about four feet in height, and twelve in diameter; these contain but one grave (kistvaen), formed by four rude slabs placed upright upon the natural surface of the moor, so as to inclose a small oblong cell; and in one opened by Mr. Petrie and myself during the winter of 1848 the burnt bones were simply deposited in a hole scooped in the earth; a flagstone more than large enough to cover the cell was placed above it, and the earth heaped over all.

In the next rank may be placed those barrows which are from six to ten feet in height, and from twenty-five to thirty feet in diameter; one of these dug into by Mr. Petrie and myself, called the Black Knowe, was situated on a wet moor at the foot of the ward of Rhush, in Randal. It had evidently been formed with greater care than was usually bestowed upon these sepulchres; the mound was nearly semicircular in outline, and had a covering of a layer of peat fully one foot in thickness, but whether a sward had been originally placed over the tumulus, or it was simply the growth of time, I am unable to determine, but incline to the former opinion. Beneath the peat we came to a very pure sandy clay without any mixture of stones; but on the surface of the clay flat pieces of stone, about the size of a man's hand, were plastered here and there, evidently for the purpose of keeping the mound in shape. We found no further difference until we came to the grave, the covering stone of which was six feet below the top of the tumulus. This stone was of no deter-
minate figure, and was without dressing of any kind, although much larger than the aperture of the cell. It was so clumsily placed that a little earth found its way into the grave before it was removed. When the covering-stone was lifted, which it required rather a strong man to do, the grave or kistvaen was seen to be eighteen inches long, one foot in breadth, and eight or ten inches in depth. The stone of this country has naturally a slaty ${ }^{2}$ acture, and splits easily, so that it only requires dressing upon the edges; but this had not been done, the sides of the stones did not meet, and schoolboys in their play would construct a neater apartment. Upon an oblong stone which nearly fitted the cell were deposited an urn and burnt bones. The urn had been broken when the covering stone was placed over it, otherwise it was quite fresh and clean; it was of a dirty brick colour, of a very coarse clay, in which there were many bits of stone, and when newly burnt would not have had sufficient tenacity to have been held up by one side without breaking. The urn was about eight inches in diameter, and four in height, and of a simple basin shape. There was about a large handful of fragments of burnt bones and ashes, which had been first placed upon the stone, and the urn inverted over them; upon the outside the urn was banked up by very fine sand or ashes. This would prevent the escape of the contents, as well as keep it from sliding off the stone. Upon the whole there seems to have been but a small degree of skill exerted in proportion to the labour employed in the construction of this tumulus. ${ }^{a}$

The Rev. Charles Clouston in his Statistical Account remarks that "barrows or tumuli are particularly numerous in Sandwick. I believe there are more than one hundred, though it would be neither easy nor useful to count them. Eight of these situated upon the common have been opened during the last year. A minute description of each would be tedious, but a brief account of the most important, which I opened in company with most of the other office-bearers of the Orkney Natural History Society, must be interesting to the antiquarian. The first, which was the largest of a numerous cluster between Vo and 女rying, was fifty yards in circumference, and about seven feet and a half high. It was formd of a wet adhesive clay. On reaching the centre, we found a large flag, which formed the cover; and

[^3]on raising it up, the grave appeared as free from injury, and the pieces of bone as white and clean, as if formed only the preceding day. At its end, which lay north-east by east, was an urn inverted, shaped like an inverted flower-pot, and at its other end about a pot full of bones unmixed with ashes, which had been burnt and broken small, none being more than two inches long and one broad, covered by a stone of an irregular shape about one foot across. It was sprinkled with a peculiar mossy-looking substance of a brown colour, and white ashes, which seemed from the smell, when burnt, to be animal matter. The surface of the urn was dark, not unlike burnt cork, and seemed to be rude earthenware, into the composition of which bits of stone enter liberally. It contained nothing that we could perceive, and soon fell to pieces; but I put them together with Roman cement, and it is now safe in the Society's museum, with part of the bones.
"The next in size of the group of tumuli was thirty-four yards in circumference, about six feet high, and contained six separate graves. ${ }^{2}$ The two nearest the centre seemed the principal ones. A large flag rested against the covers of them on the east side, jutting up about a foot above them. It measured five feet long, four feet two inches broad, and three inches thick. The space under this flag was quite empty. On removing it and the two horizontal covers on which it rested, the two principal graves were exposed to view. The first was formed of a double row of upright flags on all sides except the south, next to the second, where there was only a single row, and small pieces substituted at the corners; the space inside was filled for nine inches with clay, and the corners of this and the second were also cemented with it. Between the cover and clay flooring was a vacant space about a foot deep, into which some fine sand had penetrated or fallen from the cover in wasting, and sprinkled the floor. On removing this, we found a small stone, which covered a cavity in the clay one foot in diameter and nine inches deep, containing the bones, burnt and broken as in the first tumulus, and some little pieces of charcoal. This grave was one foot eight inches square inside; the outside flags were six inches higher than the inner ones, and those on the west and east sides very thick. Outside they were supported by some lumpy stones and the clay.
"The second grave (which was one foot ten inches by one foot three inches across the midçle, but far from square, and two feet deep, was nearly one foot south of the former, and consisted of four flags, set up on a floor of flag, with a heap of bones similar to those in the first. The third was at the south side, close by the west corner of the second, and was very simple, being merely a cavity in the earth,

[^4]covered by a stone on which we were treading; and being so low, without any upright flags about it, it escaped observation till we were about to leave the tumulus. It contained pieces of bone of a larger size than the former two, and a few pieces of a vitrified substance, like a parcel of peas with a vesicular internal structure, and of a whitish appearance, as if it were vitrified bone. The fourth grave lay on the east of the first, with a space of three feet between; internally, it was two feet ten inches long, by two feet three inches broad, the inner row of flags six inches below the level of the outer; nine inches below that was a small cover stone, and at the bottom six inches of peat ashes, with bits of bone. The fifth lay two feet south of the last, and was about three feet five inches by two feet three inches. It was formed by a single row of flags without any cover. On the top was six inches of clay, and below that about nine inches of ashes and bone. The sixth lay three feet from the north-west corner of the first, and was the rudest of all. It measured two feet by one foot two inches. All these graves lay with one end north-north-east, except the sixth, which was directed north-east. This resemblance between the fourth and first is worthy of notice,-that it also consisted of a double row of flags upon all sides except the south, next to the fifth, where it was single."-P. 57.

In the fourth grade of bowl-shaped tumuli may be considered those whose circumference is bounded by a ring of rough blocks of stone, like the first course of a modern stone dyke. This prevents the earth of the tumulus from spreading, and preserves its shape. Many of these, which are almost flat on the top, may be seen on Vestrafiold, in Sandwick; they are about twenty feet in diameter and four in height. ${ }^{\text {a }}$ Another variety of bowl-shaped tumulus is that having a ring of small upright stones standing around the barrow. I am only able to cite one instance, on Vestrafiold, where there are but one or two stones left, about two feet in height.

There is yet another variety of these tumuli, where upright pillars are situated upon the mound, of which the Knowe of Cruston was, and Stoneranda (Stoneround) is (both in Busa), an example.

[^5]None of the tumuli previously described are remarkable for height; on the contrary, they are low and broad; nor does the interior arrangement constantly advance with their external decoration; for the Knowe of Cruston, although surmounted by a standing stone four or five feet in height, did not contain any urn, but only burnt bones in a common cell, and in those described by Rev. C. Clouston (ante) it is seen in one instance that the large family-barrow contained no cinerary urns, and in the other, that the bones were deposited in a hole at one end of the grave, while the empty inverted urn was placed at the other.

I have never heard of any gold ornaments, or stone or other implements, being found in Orkney, in the graves of those who burned their dead, though such may yet be discovered.


Knitting-Sheath of wood from Links of Skaill, Orkney, supposed to be of the last Century.

## CHAPTER II.

It is generally known that the Orkneys are naturally divided into the north and the south isles by the island of Pomona, ${ }^{\text {a }}$ which is also very appropriately called the mainland, for it is fully equal in size to one-third of the whole group; but its figure is very irregular; the eastern half is so deeply intersected by several large bays as to be in one place but a mile from sea to sea. The west mainland, that is, so much of the island as lies upon the north side of a line joining the Bay of Firth to the Bridge of Weith, is, on the contrary, bounded by nearly straight coasts, and may be roughly estimated as about ten miles in length and breadth. Parallel, and

[^6]near to the coasts, are ranges of hills of moderate elevation, from 200 to 500 feet, sufficiently high to exclude a view of the sea from a large and tolerably level area, and here the parish of Hana has the solitary distinction of not having the ocean on any side to form its boundary. This district or hered ${ }^{2}$ is in a great measure occupied by two large lakes, yet most unaccountably they are usually considered as but one, and both have been known by the same name, the Loch of Stenness, although their connection is only by means of a narrow ford about 120 yards in breadth; besides the sea occasionally ebbs and flows in the southern lake, and the water is salt, while the northern is tideless and filled with fresh water.

The two promontories dividing these lakes are known collectively as "Stenness" (Stone-ness), but individually as Stenness and Brogar. The latter name, which is applied to the northern point, is derived from the Scandinavian bro or bru, a bridge, and gard, an inclosure. Until lately stepping stones enabled the foot passenger to cross the ford dry-shod ; but a sort of bridge-causeway now supplies a less adventurous mode of transit: this is the Bridge of Brogar.

This neighbourhood has been consecrated ground, or the holy land of the ancient Orcadians; for there are within the distance of two miles no less than two rings or circles with circumferential columns, two others without erect stones, four detached pillars or standing stones, besides about twenty bowl-shaped and conoid barrows, some of them of large dimensions, and presenting great diversity in their proportions and magnitudes; as well as the remains of cromlechs and tumuli too much destroyed to admit of their peculiarities being distinguished.

In the winter of 1848 I undertook a survey of these antiquities, wishing to leave a permanent record of their present state and position, while they were yet in tolerable preservation; but, although a labour of love, it was not accomplished without much difficulty, principally owing to the uncertain state of the weather and the distance of the locality from my residence. After a long ride, there was first to lay out the surveying poles, then shoulder my theodolite, and march from station to station through the most insinuatingly melting snow that I erer remember to have felt, often being obliged to leave my instrument and run for a quarter of a mile to gain a little warmth by the exertion. It was, however, sometimes exceedingly romantic to hear the wild swans trumpeting to each other while standing under the lee of a gigantic stone, till a snow-squall from the north-east had passed over; but, could I have attuned my soul to song in such a dreary situation, instead of raving with Macpherson, my strain would certainly have been something in praise

[^7]" of the bonnie blythe blink o' my ain fireside." Occasionally there is some fine weather even in this inhospitable climate; but I can only remember the many nights, dark, bleak, and cold, in which I have been urging my easy-going quadruped over that weary road while the snow fell into my eyes upon any attempt being made to look a-head. At last, however, the survey was finished ${ }^{\text {a }}$; with Mr. Robert Heddle, the dimensions and an outline figure of every stone in the Ring of Brogar was taken; and Mr. G. Petrie assisted me in measuring the diameters of the circles, trenches, \&c. The General Plan was made by triangulating with staves, and a base measured by a land-chain on the level point of Stenness.

I shall now proceed to describe these antiquities in the order of their rank or development, commencing with the lowest in the series, the bowl-barrow. Around the great circle (Ring of Brogar) there are about ten of these barrows, of which the elevations are given in Plate XII.; they vary in height from eighteen inches to six feet, and in diameter from seven to eighteen feet. Far beyond the limits of the plan they occur in great numbers, and those described by Mr. Clouston, which are but two miles distant, will convey a notion of their structure and contents.

Close by the Ring of Brogar there is a ring or small barrow, about fifteen feet in diameter, but almost obliterated. There is a small standing stone still erect upon the circumference, and the stumps of two others may be seen at the angles of a square, so that it is very probable a fourth originally stood there to complete the figure.

Just without the division dike of the parishes of Stenness and Sandwick, upon the shore of the south lake, there is a small ring, ${ }^{\text {b }}$ in good preservation, of great use when comparing these antiquities with each other, for it is a simple bowl-barrow, but distinguished by being inclosed within a circular embankment of the same height and material as the barrow. The barrow is forty feet in diameter, and not more than three feet in height, and is almost flat on the top. The trench is shallow, and about fifteen feet broad; not excavated, for the bottom corresponds with the natural surface. The ring-embankment (about five feet broad) is almost entire, except on the water side, where the peasants drive their carts over it to avoid the soft ground in the vicinity; it is to be hoped that the fortunate proprietor of this extremely ancient and interesting earthwork (for the common is in process of division) will take care to prevent its further injury. The diameter to the outer edge of the bank is ninety-four feet.

[^8]

At a very short distance to the northward are the remains of two obscure contiguous circles, ${ }^{\text {a }}$ which appear to be of the nature of cromlechs : they are formed by a ring embankment of earth or stones; the interiors of both, corresponding with the natural level, have indications of flag stones arranged in two parallel lines, between two and three feet apart. It is very probable that these were graves from which the covering and other stones have been carried away.

The lesser stone circle of Stenness, called here for the sake of distinction the Ring of Stenness, ${ }^{\text {b }}$ is a remarkable structure upon the low level point at the south


Ring of Stenness and Cromlech from the Northward.


Ring of Stenness from the Westward.
side of the Bridge of Brogar, and, though considerably dilapidated, still presents sufficient of its original form to determine its dimensions without difficulty. It is indeed rather a matter of surprise that so much of it should be left for the delight of the antiquary, when it is considered that this ground has probably been under cultivation for nine hundred years. It is stated in Olaf Tryggvesson's Saga that one of the earls of Orkney was stopping at Stenness about A.D. 970; and I believe the site of the $b_{\text {rut }}^{z_{i}, ~ w a s ~ n o t ~ f a r ~ f r o m ~ w h e r e ~ t h e ~ c h u r c h ~ a t ~ p r e s e n t ~ s t a n d s, ~ a t ~ l e a s t ~ t r a d i-~}$ tion says the palace stood there.

The Ring of Stenness resembles in its earthworks the smaller one formerly
a Marked upon the General Plan.
${ }^{-}$There is a ground plan and elevation of it in Plate XIV.
described, but is much larger, and is besides decorated with standing stones. It is formed by an interior raised mound, which is nearly or quite flat on the top, and slopes almost imperceptibly towards the trench; at the margin there are now three columns, two erect and one prostrate, and the stump of a fourth can be detected. From these it was found, on the assumption that the pillars were at equal distances apart, that twelve would complete the circle. The pillars are massive slabs of flagstone of their natural shape, and without dressing or carving of any kind. They stood in a circle whose radius is fifty-two feet, and about eighteen feet high.

This ring is peculiarly interesting from the presence of a Cromlech ${ }^{\text {a }}$ within the area, but it is not placed at the centre. Though the cromlech is overthrown, it is sufficiently perfect to understand its former shape. One of the legs or supporters remains in situ, and is an mintorn block rising three feet above the ground; another leg of the table, of the same size and figure exactly, has fallen outwards, and lies upon its side, while the covering stone, which is a rectangular slab $9 \times 6 \times \frac{1}{2}$ feet in dimensions, partly rests upon the last; the other two legs have been taken

away. It may be here remarked in the instance of the only other two cromlechs known to exist in Orkney, that they also are overthrown.

[^9]The ruthless plough has been driven by barbarous men over this enduring record of the thoughts and labours of an exterminated people, and even within this century some of the pillars have been destroyed to clear the ground. The unlucky tenant of the adjoining farm has exercised his "little brief authority," and a most unenviable immortality has attached to him in consequence, "for," says Mr. Peterkin, ${ }^{\text {a }}$ " one (of the standing stones) has lately been thrown down; three were in the month of December, 1814, torn from the spot on which they had stood for ages, and were shivered to pieces." As Mr. Peterkin speaks rather apologetically for the man, he is not to be suspected of exaggeration; yet this statement does not correspond with the plates in Barry's History, nor the drawings of the late Marchioness of Stafford. At this moment there are two stones erect, and one prostrate, but perfect; and in the drawings referred to there are but four erect stones; hence the tenant of Barnhouse could have broken up but one of these stones (exclusive of the Odin Stone), and one he prostrated.
The circumscribing ring, which is a raised earthwork of the same height as the included mound, can only be traced for one-third of the circumference, and this has led some persons to imagine that this structure was but a semicircle from the beginning, and I believe a fanciful theory has been founded on that presumption. ${ }^{\text {b }}$

If ever this ring was completed, the massive and approximated pillars must have produced a magnificent effect, particularly if it contained the tombs of those whom men delighted to honour ; but it may have happened that, as with some other great intentions, the design exceeded the means of execution; and this opinion gains support from a fact noticed by the intelligent and scientific minister of Sandwick. Upon the south side of Vestrafiold, which is about six miles to the westward of Stenness, the flagstone of this formation crops out at the surface in parallel ridges of several hundred yards in length, and from these enormous blocks may be detached without any excavation. There are at present several massive stones set free and ready for transport, and, if I am not deceived, their style is that pertaining to the Ring of Stenness rather than to the Ring of Brogar.

[^10]
## Dimensions of the Ring of Stenness.



The bottom of the trench corresponds with the natural surface.
The site of the Odin Stone ${ }^{\text {b }}$ was pointed out to me by a man who had looked through it in his youth; it stood about one hundred and fifty yards to the northward of the Ring of Stenness, but it does not appear to have had any relation to that structure, though it is probable that it was erected at the same era. All that can now be known of it must be learnt from Barry's or the Marchioness of Stafford's drawings, for the unfortunate tenant of Barnhouse cleared it away. The stone, which was of much the same shape as those still left, was remarkable from being pierced through by a hole at about five feet from the ground; the hole was not central but nearer to one side. Many traditions were connected with this stone, though with its name I believe them to have been imposed at a late period; for instance, it was said that a child passed through the hole when young would never shake with palsy in old age. Up to the time of its destruction, it was customary to leave some offering on visiting the stone, such as a piece of bread, or cheese, or a rag, or even a stone; but a still more romantic character was associated with this pillar, for it was considered that a promise made while the plighting parties grasped their hands through the hole was peculiarly sacred, and this rude column has no doubt often been a mute witness to " the soft music of a lover's vow."

Close to the east end of the Bridge of Brogar stands a single gigantic pillar ${ }^{c}$ of about the same size and shape as that marked $a$ in the Ring of Stenness. There is no appearance of earthworks or structure near it, and I have remarked that these

[^11]

bauta stones, of which I can reckon up about a dozen in Orkney, are not distinguished by having a tumulus or barrow near them.

A little way to the eastward of the Ring of Stenness, is a mound called "Big How," but of what nature I am unable to decide, and it would require considerable excavation to make out its details-its position is shown upon the plan : and at the north-west end of the Bridge of Brogar is a large dilapidated tumulus, which appears to be the ruin of an ancient stone building, perhaps a Pict's castle; close by it are two small standing stones.

But the most considerable of all the antiquities of this district, is the great circle of Stenness, or Ring of Brogar. ${ }^{\text {a }}$ This is a deeply-entrenched circular space, with a

diameter of 366 feet, and containing two acres and a half of superficies. No peculiarity is observable in the topographical character of this place. The area is neither level nor smooth, for the natural undulations of the ground traverse the inclosure. Around the circumference of the area, but about thirteen feet within the trench, are single, large, erect stones or pillars, standing at an average distance of eighteen feet apart. These stones appear to be the largest blocks that could be raised in the quarry from whence they were taken, and are without dressing of any kind; hence, their figure is not uniform, and they vary considerably in size; the highest stone was found to be 139 feet above the surface, and, judging from some others that hare fallen, it is sunk about eighteen inches into the ground. The smallest stone is less than six, but the average height is eight or ten feet. The breadth varies from 2.6 to 7.9 feet, but the average is about four feet, and the thickness one foot. No order can be traced in the relative size or figure of the remaining stones; small and large succeed each other indiscriminately. To mineralogists they are known as the flagstones of the old red sandstone formation,

[^12]and are supposed to have once been mud, which has been aggregated into subcrystalline forms by molecular forces.

It appears that the number of standing stones, on the assumption that they were placed at nearly equal distances apart, was originally sixty, but there are now only thirteen erect and perfect; ten others are nearly perfect, but prostrate; and there are the stumps or fragments of thirteen more ; in all thirty-six. So that twenty-four (if the above assumption is correct) have been entirely obliterated. ${ }^{\text {a }}$

The trench around the area is in much better preservation than could have been expected from the lapse of years; the edge of the bank is still sharply defined, as well as the two footbanks or entrances (to the circle) which are placed exactly opposite to each other ; they have no relation to the true or present magnetic meridian, but are parallel to the general direction of the neck of land on which the circle is placed. The trench is twenty-nine feet in breadth, and about six in depth, and the entrances are formed by narrow earth-banks across the fosse. It has been imagined, but without sufficient reason, that the earth or rubbish from the trench has been taken to raise the surrounding tumuli; but had these tumuli been coetaneous with the Ring of Brogar and the materials from that source, some order would have been observed in their position with regard to the great circle. Besides, as we certainly know that they are sepulchres, and are confident that their magnitude is in proportion to the importance of the individual or family they contain, it would follow that an unusual murrain hád occurred among the mighty ones of the day, that so many should want sepulture while the Ring of Brogar was in process of construction.

There are now no indications of structure within the area, nor has it been either smoothed or leveled : but it must be observed that not only has the peat or turf been cut for fuel, but every layer of soil has been removed, as fast as it has formed, to serve as manure for the infield. The general appearance of the country is sufficiently uninteresting; but a barren and desolate aspect, not natural to the place, is produced by the practice of paring the soil from the outfield, ${ }^{b}$ that is, from all the land lying without the inclosures; and the Ring of Brogar has had no sanctity with these barbarous depredators, as the broken and scarified turf will witness.

The surface of the area of the ring has an average inclination to the eastward; it

[^13]is highest on the north-west quarter, and the extreme difference of level was estimated to be six or seven feet: the circumscribing trench has also the same inclination, and it therefore could never have been intended to hold water. In winter, when the lower half is partly filled, the rain water is flowing over the brim before it has reached the foot of the causeways. ${ }^{\text {a }}$

About a mile to the northward of the Ring of Brogar is a large deserted quarry, quite capable of supplying all the pillars or standing stones for that entrenchment (the only man who has attempted to work there of late years gave it up, in consequence of finding the rock so hard and intractable); but it has also been stated by those whose opinion I have reason to respect, that the shore of the south loch, close by the hill dyke of $k$ kin, is the spot from whence the stones were taken; it is also possible that they were brought from the quarry on the south side of Vestrafiold, mentioned in a former page.

## Dimensions of the Ring of Brogar.

| Diameter of circle on which the pillars are placed |  |  |  | - | . | $\begin{gathered} \text { FeET. } \\ 340 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance of pillars from edge of fosse or trench |  |  |  |  | - | $13 \cdot 2$ |
| Diameter to inner e | e of fosse | . . |  |  |  | $366 \cdot 4$ |
| Breadth of fosse | . . | - . | - |  |  | 29 |
| Diameter to outer e | ge of fosse | - - |  |  |  | $424 \cdot 4$ |
| Depth of fosse-av | age | - - |  |  |  | $6 \cdot 0$ |
| Distance of pillars apart-average breadth of causeways . |  |  |  |  |  | $17 \cdot 8$ |
| Highest pillar | . . | - - | - |  |  | 13.9 |
| Lowest ditto | . - | . - |  | . |  | $5 \cdot 9$ |
| Average height | - - | . . | . | . |  | $9 \cdot 0$ |
| Broadest pillar, stump only remaining |  |  |  |  |  | $7 \cdot 3$ |
| Least breadth | . . | . . | . |  |  | $1 \cdot 6$ |
| Average ditto | - | . . | . |  |  | $5 \cdot 0$ |
| Average thickness | - | - - | - | - | - | $1 \cdot 0$ |

[^14]The following are the dimensions of the pillars (see panoramic view), ${ }^{a}$ which are numbered on the assumption that there were originally sixty (thirty in each semicircle). The numbers begin from the south-eastern entrance, and pass towards the south :

SOUTHERN SEMICIRCLE.


NORTHERN SEMICIRCLE.

| PILlar. Height. breadth. |  |  |  |
| :---: | :---: | :---: | :---: |
| 34 erect | . $10 \cdot 6$ | $3 \cdot 3$ | $0 \cdot 7$ |
| 36 erect | . $13 \cdot 6$ | $4 \cdot 6$ | I-3 |
| 39 broken | . $4 \cdot 9$ | $5 \cdot 9$ |  |
| 40 stump |  |  |  |
| 45 prostrate | - $7 \cdot 9$ | $2 \cdot 0$ | $1 \cdot 3$ |
| 46 prostrate | - $9 \cdot 2$ | $2 \cdot 6$ | $0 \cdot 9$ |
| 48 stump |  |  |  |
| 50 erect | - 11.9 | $4 \cdot 0$ | $1 \cdot 3$ |
| 52 broken | . 11.9 | $5 \cdot 9$ | 1-3 |
| 53 erect | - $8 \cdot 6$ | 4-6 | $0 \cdot 7$ |
| 54 erect | - $5 \cdot 9$ | $2 \cdot 6$ | $0 \cdot 9$ |
| 57 erect | - $8 \cdot 6$ | $2 \cdot 6$ | $1 \cdot 6$ |
| 58 prostrate | . $10 \cdot 6$ | $4 \cdot 0$ |  |

We will now pass by the tumuli about the Ring of Brogar for the present, and proceed to the northward for a mile, when we come to the ancient quarry, where there are four or five bowl-shaped tumuli, perhaps the graves of those who have been killed by accident when working for the standing stones, or the facility for collecting a heap of rubbish may have induced their relatives to fix upon this locality, but this is an uncharitable conjecture. The land here rises to about seventy or eighty feet above the lakes, and is known as the Black Hill of Warbuster. Proceeding along the ridge for a quarter of a mile, we arrive at the Ring of Bûkan,

[^15]
which seems to have escaped the notice of all those who had described the antiquities of Stenness, until we find it mentioned in the Rev. C. Clouston's statistical account of the parish of Sandwick; it may indeed be easily passed without attracting attention.

The Ring of Bûkan (in Plate XIV.) is a circular space surrounded by a deep excavated trench, thus far resembling the Ring of Brogar, but it wants the circumferential stones, and besides the interior shews evident marks of superstructure. Many stones of small size are apparently in situ, yet no order could be traced among them; one is erect, about three feet in height, and one foot square. A triangularshaped block, making a comfortable seat, occupies the centre, while another, completely identical in size and figure, is prostrate upon the circumference of the ring. Even this deeply-intrenched spot has been ravaged by the plough, and the industry of the agricultural savage has no doubt been rewarded by as much grain as might fill his cranium, but certainly not his stomach. Within the area there is the appearance of five or six small tangental circles about six feet in diameter, and formed of earth ; within these the stumps of stones are prominent; the whole is too obscure to admit of any statement concerning it to be made with certainty, but I conjecture that these compartments are the remains of small cromlechs long since destroyed, and that the triangular stone lying at the edge of the ring has been dropped there by the boors, who have found it too heavy to be transported further from its original position, which was near to its twin at the centre.

Dimensions of the Ring of Bûkan.

|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| Diameter of internal area | F |  |  |  |  |  |  |
| FEET. |  |  |  |  |  |  |  |

Except on the north-east side, the bank is still sharply defined. This ring appears to have been completely isolated, and without any footway across the fosse ; but the trench will not retain water, for the bottom remained dry in what was, even in this climate, called a rainy winter.

The remaining antiquities of Stenness to be described are the ConoidTumuli. These have been purposely retained to follow the others from the belief of the writer that they are not Celtic, but the tombs of the early Scandinavians. ${ }^{\text {a }}$ The reason for this

[^16]opinion is soon stated: the bowl-barrows, so numerous throughout the Orkneys, are constantly found to contain the ashes (bona fide) of the dead; the conoid barrows are known to be the sepulchres of those who buried their dead entire, and usually in a bent posture. This alone shows a difference of race, although both might be living (or rather dead) at the same epoch; but the argument having most weight with the critical antiquary is this, that silver ornaments have been found in the tombs. Although this paper is intended to be but a dry record of fact, it would be negligent of the writer to describe as Celtic, or without some remark, a monument which he believes to belong to the Northmen. The Conoid Tumuli are few in number; but six exist at Stenness, where they are readily distinguished by their greater height in proportion to their base.

About one hundredyards down the Brae upon the south side of the Ring of Bûkan stands a large tumulus, ${ }^{2}$ just without the hill-dyke of the townland of Warbuster, in the south-west extremity of the parish of Sandwick, which was excavated last summer by Mr. Waly of Skaill, Rev. C. Clouston, Mr. Ame, the officers of Her Majesty's cutter "Woodlark," \&c. It had previously been dug into by Dr. Wab ${ }^{\text {Ǩ }} \mathrm{f}$ Skaill, who had trenched from the south-west side into the middle without finding any indication of structure. We now began by cutting a trench, three or four feet wide, from the south side towards the centre, and, not finding any thing remarkable, the hole at the centre was enlarged to six or seven feet in diameter, but the labour of the day was expended in a useless search.

This tumulus is made of much coarser materials than is usual with the bowlbarrows, there being but little earth in comparison with the many large angular pieces of stone, such as would be thrown from a quarry, or when making a drain; but I entertain no doubt of its being formed fiom the subsoil of the adjacent moor. This tumulus is seventy-one feet in diameter and ten or twelve in height; but it appeared much larger until submitted to actual measurement. On a subsequent occasion, when some labourers who had been making a road hard by were present, they declared it would take half a dozen of them a fortnight to raise such a heap.

We met again on the 31st of July, and the day was nearly expended in digging at the centre, but we came upon the natural surface without finding any grave. We learnt, however, that the ground had received no preparation previous to the
small group of islands like the Orkneys, where, according to the custom of the savage warfare of those times, the conquerors would most assuredly extirpate the conquered; thus Scandinavian rites and observances would at once supersede those of the Picts or Celts.
a Márked upon the General Plan, to the reader's left.
formation of the tumulus, for the heath and moss which had then been growing was the foundation upon which it was erected. Dr. Wa ${ }^{27}$ now directed attention to a few moderately large pieces of flagstone that had been passed when trenching in, when a few strokes of the pick soon made it apparent that we had hit upon some structure, and in a little while we came upon a grave. This was placed about halfway between the centre and circumference of the tumulus, that is, about ten feet from the centre and four feet above the natural surface. The top stone of the grave was a large unsquared slab, not made to fit in any way, but overlapping the sides considerably; this was very carefully cleared to prevent the earth falling in upon its removal. On lifting off the top stone, the grave was seen to contain a human skeleton, which was lying upon the right side, with the legs doubled close up to the abdomen. The large bones of the arms and legs were nearly and the skull was quite perfect; some of the teeth had fallen out, they were much worn but otherwise good. The bones of the spine and pelvis had decayed; no remnants of clothes nor ornaments could be detected. The grave was conjectured to be that of a female of full age, from the small size of the bones (femur, $17 \frac{3}{4}$ inches; tibia, $14 \frac{1}{8}$ inches), the decidedly marked attachments for the muscles, and the worn teeth. Though I do not attach much importance to the circumstance; it is necessary to state that the grave was in the direction of the prime vertical (east and west), and that the skull was in the north-west quarter, with the face towards the east. The sides of the grave were neatly built, but no bottom slab could be detected; it was evident that the occupant must have been squeezed in, probably swathed in the native cloth of the country (wadmal). The capacity of the grave is $36 \times 27 \times 18$ inches.

After our curiosity was satisfied, the grave was re-covered and closed up. This finished our operations for the day; but a short time afterwards this tumulus was ${ }^{3}$ again explored by a party from the "Woodlark," when it was considered advisable to commence operations exactly opposite to where we had been working before; accordingly a trench was begun in that quarter, and almost immediately a grave was found. It appeared to be of a ruder description than that previously described. The walls or sides were formed of single upright flags, and the covering stone, which had fallen in, had disturbed the contents. The grave contained nothing but the displaced bones. These had belonged to a large man, but on a comparison with the graceful proportions of my companion ${ }^{2}$ it was found the latter had undoubtedly the advantage in stature. Although this grave was

[^17]placed opposite to the former, and at nearly the same distance from the centre, it was six or seven feet higher up in the tumulus, and not more than one foot beneath the surface. In the lapse of years, the rain and wind acting upon so steep a mound of earth, must have much reduced its height, and consequently have brought the grave nearer to the surface; in stormy weather pieces of stone the size of a man's fist are set in motion by the wind.

A cut was now made upon the east side, perpendicular to a line joining the graves already found, when another was quickly discovered. It was at nearly the same lerel with the last, perhaps a foot higher, and slightly nearer the centre; it was but one foot beneath the surface. This grave was still smaller than either of the others. The covering stone had fallen in; the sides, less than a foot in height, were formed by two placed stones upon each other. Only a few bones were seen; they had belonged to some young person, perhaps twelve or fourteen years of age.

We had good reason to imagine that a fourth grave would be found opposite to the last, but the very large quantity of earth thrown on that side from the interior of the tumulus discouraged any attempt to search for it. ${ }^{\text {a }}$

The peculiarities of this tumulus are, 1. that no object should occupy its centre, which is contrary to former experience; 2 . that the graves should be placed at the cardinal points of the compass; but this must be regarded as accidental, for at the time this tumulus was erected the deviation of the compass-needle was very different to what it is now ; they must therefore be considered as placed in a circle in the

[^18]tumulus; it appears to have been a family tomb for father, mother, and child; and 3. that the bodies were not incinerated, but interred in a bent posture.

Several bowl-barrows are near, and scattered about the moor are many lumps of cramp or vitrified stone, some of which are built into the hill-dyke of the adjoining townland of Warbuster.

A large conoid tumulus (6) fifty feet in height, and twenty-nine feet in diameter, stands 150 yards to the westward of the Ring of Brogar. ${ }^{a}$ It has been explored at some former period, and it is not improbable that this is the one to which Wallace alludes when he says that " in one of these hillocks, near the circle of high stones at the north end of the Bridge of Stennis, there were found nine fibulæ (armillæ) of silver, of the shape of a horse-shoe, but round." From the drawing they appear to have had the same form as those figured in plate vii. of Arch. Index, and probably met the same fate.

A short distance to the northward of the Ring of Brogar, and near to, but not at, the shore, there is another tumulus of peculiar form. ${ }^{b}$ It may be aptly compared to the shape of a plum-cake, for it is circular, and rises nearly perpendicular for five feet, when it becomes almost flat on the top, or rather is surmounted by a very depressed cone. Its diameter is sixty-two feet, height nine feet. This has never been explored, though I believe the gentleman upon whose property nearly all these antiquities are situated, and who is also a zealous antiquary, proposes to do so shortly.e

The only example of the elliptical or long barrow existing in Orkney (that I am aware of) occurs upon the shore of the North Loch, 100 yards to the eastward of the Ring of Brogar. It measures 112 feet in the direction of its major axis, while its minor is but sixty-six feet, that is, it is twice as long as it is broad.d The level ridge on the top is twenty-two feet, and its height twenty-two. The west side is so steep as to be difficult to clamber up. On the opposite side it has been dug into, but not recently, and it may be that from this one the fibulæ mentioned by Wallace were obtained. There is a fine spring of water at the foot of the tumulus upon the loch side, and not unfrequently in summer a group of hungry antiquaries may be seen gazing with fixed attention not into the musty recesses of a kistvaen, but the still more interesting interior of a provision-basket. All these large hillocks are covered by a short green turf, which renders them picturesque and pleasing objects.

But the most remarkable tumulus in Orkney is situated a mile to the north-east

[^19][^20]of the Ring of Stenness, and is called M'eshoo or Meashowe. ${ }^{a}$ This is a very large mound, thirty-six feet in height, and ninety-two in diameter, and is of a bluntly conical outline. The mound occupies the centre of a raised circular platform, which has a radius of eighty-six feet. This is surrounded by a trench twenty feet in breadth, and a circular bank probably inclosed the whole. Many attempts had been made to explore it, as there are several small heaps upon its sides; but at last sufficient force and perseverance was brought to work, and a huge mis-shapen mass upon the east side shews the explorers were successful. ${ }^{\text {b }}$ Unfortunately no inventory was published of its stores; and such will too generally be the case, so long as the possessor sion of a metal ring or bracelet is liable to be hunted an official (like a kittywake by the Skoutie-allan) till the precious bait is disgorged. The law of treasuretrove fuses nearly all antiquities of gold or silver ; they find their way to a watchcobler, and thence to a crucible. It is a mere fiction to assert, that either Queen, Government, or nation can derive any pecuniary benefit from the few articles that are occasionally turned up; in fact, neither of these parties ever see them; and the only way to prevent their conversion is to let it be known that they are the property of those who find them, and that the lucky individual is to get the largest amount of sterling money that the articles will fetch in open market. The more they cost the purchaser, the greater will be the chance of their ultimate preservation.

Such is the distribution of the antiquities in the immediate neighbourhood of Stenness, of which the writer, at the risk of being tedious, has endeavoured to render an exact account. Their written history, as may be supposed, is meagre enough. The Orkneyinga Saga, presumed to be compiled in the thirteenth century, does not mention or refer to Stenness. In the Saga of Olaf Trygvesson it is said, "Havard var p̃a ó Steinsnessi i Rossey ; p̃ar var fundi oc Bardagi peina Havards, oc ei langt ade Jarl fell, heiter nú Havards teigr," which my friend Professor Munch thus translates: "Havard was then at Stenness, in Rossey ; there Havard and the other (Einar) met and fought, and in a short time the Earl fell, which (place) is now called Havard's teigr." Teigr is thus explained: Cultivated ground of indefinite size, inclosed within a turf or stone dyke, is a tûn, or town-land. The tûn is often occupied by several families, who annually re-divide by lot the arable land between them, and, for greater fairness, the good and bad land is divided into many small

[^21]pieces or shares, and any of these is a teigr, and may be called after the present possessor, as Willie's teigr, or Magnus' teigr, \&c. It is very probable that Earl Havard was buried beneath one of the Stenness tumuli.

The first direct notice of the stones of Stenness is in "Descriptio Insularum Orchadiarum anno 1529, per me Joan. Ben, ibidem colentem," where he says, "Stenhouse is another parish, where there is a great lake twenty-four miles in circumference. There, in a little hill near the lake, were found in a sepulchre the bones of a man, which indeed were joined, and were in length fourteen feet, as the reporter stated, and a coin was there found under the head of that dead man; and I, indeed, saw the sepulchre. There, near the lake, are high and broad stones, of the height of a spear, in circumference half-a-mile." The reporter seems to have been guilty of the very common fault of exaggeration.

In Wallace's History of Orkney, published in 1700 , at p. 58, we find, "At Stennis, in the mainland, where the loch is narrowest, in the middle, having a causey of stones over it for a bridge, there is, at the south end of the bridge, a round, set about with high smooth stones or flags, about twenty feet high above ground, six feet broad, and each a foot or two thick. Betwixt that round and the bridge are two stones standing, with that same largeness with the rest, whereof one has a round hole in the midst of it ; and at the other end of the bridge, about half-a mile removed from it, is a large round, about one hundred and ten paces in diameter, set about with such stones as the former, but that some of them have fallen down; and at both east and west of this bigger round are two artificial (as it is thought) green mounds. Both these rounds are ditched about." There is a figure of one of these circles appended, but, il purely imaginary.

In "A brief Description of Orkney, Zetland, Pightland Firth, and Caithness, by John Brand," published at Edinburgh in 1701, it is stated, "At the Loch of Stenness, in the mainland, in that part thereof where the loch is narrowest, both on the west and east side of the loch, there is a ditch, within which there is a circle of large and high stones erected. The larger round is on the west side, above 100 paces diameter. The stones, set about in form of a circle within a large ditch, are not all of a like quantity and size, though some of them, I think, are upwards of twenty feet high above ground, four or five feet broad, and a foot or two thick; some of which stones are fallen, but many of them are yet standing; between which there is not an equal distance, but many of them are about ten or twelve feet distant from each other. On the other side of the loch, over which we pass by a bridge laid in the manner of a street, the loch there being shallow, are two
stones standing, of a like bigness with the rest, whereof one has a round hole in the midst of it; at a little distance from which stones there is another ditch, about half a mile from the former, but of a far less circumference, within which also there are some stones standing, something bigger than the other stones on the west side of the loch, in form of a semi-circle, I think, rather than of a circle, opening to the east, for I see no stones that have fallen there save one, which, when standing, did but complete the semi-circle. Both at the east and west end of the bigger round are two green mounts, which appear to be artificial; in one of which mounts were found, saith Mr. Wallace, nine fibula of silver, round, but opening at one place like to a horse-shoe."-p. 43.

In vol. iii. of Arch. Scot. there is a rude woodcut from a drawing, and extracts from a description of the stones of Stenness, communicated by the Rev. Dr. Henry, in 1784. In the drawing we have an amatory couple exchanging vows at the shrine of Odin, but unfortunately the Odin stone is drawn standing upon the east instead of the west side of the Stenness Ring. There are eight standing and two fallen stones in the Stenness Ring, which forms an exact semi-circle, and the cromlech is removed from the north side to what is intended to be the centre. Upon the cromlech is a kneeling damsel supplicating for the power to do all that is wanted from her by her future lord, while he is standing by, and seems to be rather intoxicated, but whether from love or wine is not to be determined from the drawing. I quote the following account, which I believe to be extremely exaggerated. "There was a custom among the lower class of people in this country, which has entirely subsided within these twenty or thirty years, when a party had agreed to marry, it was usual to repair to the Temple of the Moon, where the woman, in presence of the man, fell down on her knees and prayed the god Woden (for such was the name of the god whom they addressed on this occasion) that he would enable her to perform all the promises and obligations she had made and was to make to the young man present; after which they both went to the Temple of the Sun, where the man prayed in like manner before the woman. Then they repaired from this to the stone north-east of the semi-circular range; and, the man being on the one side and the woman on the other, they took hold of each other's right hand through the hole in it, and there swore to be constant and faithful to each other. This ceremony was held so very sacred in those times, that the person who dared to break the engagement made here was counted infamous, and excluded from society." p. 119. In the description of the before-mentioned drawing, the Ring of Stenness is called " the semi-circular hof or temple of standing stones, dedicated
to the moon, where the rights of Odin were also celebrated :" but my witty friend, Mr. Clouston, is of opinion that it was only the lunatics who worshipped here. The Ring of Brogar is called "the Temple of the Sun :" unfortunately, the Ring of Bûkan, which was of course the Temple of the Stars, seems to have escaped notice, or we might have learned of some more ante-nuptial ceremonies performed therein.

Principal Gordon, in "Remarks made in a Journey to the Orkney Islands" in 1781, gives the following sensible account of the Stenness antiquities. "From Kirkwall I went to Stromness, and in my way thither visited the semicircle and circle of stones near the Lake of Stenhouse. This lake is of fresh water, and runs into the sea at Stromness. It extends for about ten miles south-east; at Stenhouse is almost divided into two separate lakes by a neck of land, where the water is so shallow that it may be passed at any time, even when the tide flows.
"From this neck of land the lake runs north-west for about six miles, leaving an intermediate space of dry ground, which, from one-eighth of a mile, widens to about a mile towards the manse of Sandwick.
"The semicircle stands opposite to the place where the lake begins to wind to the north-west. The stones have been originally seven, four of which are still standing, and seem to be about fourteen feet high; one, however, is eighteen complete; their breadth about five feet; their thickness varies. This semicircle has been formed with some degree of art; for, were we to form it into a complete circle, the diameter would be one hundred and four feet, and, upon examination, the diameter of the semicircle as it was at first designated is exactly fifty-two, a clear proof that the planners of this semicircle were not unacquainted with mathematical proportions.
" At some distance from the semicircle to the right stands a stone by itself, eight feet high, three broad, and nine inches thick, with a round hole on the side next the lake. The original design of this hole was unknown till, about twenty years ago, it was discovered by the following circumstance : a young man had seduced a girl under promise of marriage, and she, proving with child, was deserted by him. The young man was called before the session; the elders were particularly severe. Being asked by the minister the cause of so much rigour, they answered, You do not know what a bad man this is, he has broke the promise of Odin. Being further asked what they meant by the promise of Odin, they put him in mind of the stone of Stenhouse with a round hole in it, and added that it was customary when promises were made for the contracting parties to join hands through the hole, and the promises so made were called the promises of Odin.
"The complete circle stands upon the intermediate space betwixt the two branches of the lake, and this space or promontory, being a rising ground which forms at last into a plain of some extent, is seen at a considerable distance. There are sixteen of the stones standing, eight more are fallen to the ground; the original number is uncertain. Their height differs from nine to fourteen feet above the ground. The diameter of the circle is 366 feet. Round the circle is a ditch thirty-five feet broad, and from nine to fourteen feet deep: round the ditch, at unequal distances from one another, are eight small artificial eminences. The entrance is from the east, with an opening of equal size to the west. The altar stood without the circle to the south-east: to the left of the circle looking eastward, you perceive a solitary stone, and two or three more such in a direct line with it on to the semicircle. There is no inscription upon any of the stones either of the circle or semicircle.
" Different reasons have been assigned by different people for the circular and semicircular form of the Scandinavian ${ }^{\text {a }}$ temples, for such they certainly have been, as appears from the explication given above of what is called in Orkney the promise of Odin. Some have pretended that the semicircular temple was in honour of the moon, and the circular one in honour of the sun; others that the semicircle and circle were emblems of the different phases of the moon. Pocock bishop of Ossory, who visited Orkney several years ago, found out in the different stones composing the circle and semicircle a very minute astronomical description of the various motions of the sun, moon, and planets, but these fancies have no foundation, as far as I could see, either in the arrangement of the stones or in the Scandinavian mythology. It does not appear from the Edda of Iceland, where we have a very full account of the Scandinavian divinities, that either the sun, moon, or stars had any place among them. I do not pretend to give a better reason for the circular or semicircular shape of these temples than what has been given by others. Indeed, it is impossible to give any good one at this distance of time ; however, we see that in different nations the circular shape was a favourite one in building temples; witness the Rotunda at Rome, and many others on a smaller scale in other parts o the heathen world."

It may be expected that the writer of these remarks should offer some conjecture concerning the age and purpose of these interesting monuments of antiquity, and indeed it would be difficult after having been so long engaged with them to avoid forming a theory on the subject; and it may at once be stated that he considers the

[^22]whole of them to have been originally intended for sepulchral monuments, though they may subsequently have been used as places for council, feasting, or sacrifice. The cromlech within the Ring of Stenness is conclusive in that instance; and, though nothing can be seen within the Ring of Brogar to determine the purpose of its erection, the Ring of Bûkan, which is evidently of the same genus, if not of the same species, contains indications which are now constantly recognised as sepulchral. These monuments have undoubtedly been erected by the same race of people who have made similar ones in other parts of Britain; their age is consequently nearly the same as that of Stonehenge, Avebury, \&c., but more learned antiquaries must decide upon the exact epoch. That the Orcadian circles were already existing on the introduction of Christianity will be readily admitted, though this was as early as the middle of the sixth century, when St. Colomba sent Cormac, one of his disciples, to these islands; and though a period of paganism ensued after the conquest by Harald Harfagre in A.D. 875, to the forced conversion of the second Sigurd, about A.D. 998 (which is but one hundred and twenty-three years), there is nothing in the northern annals to lead us to the opinion of their having been constructed in that interval.

This closes the account of the Stenness antiquities; but it will be proper to notice here some interesting remains that were I believe first described by the Rev. C. Clouston, in his Statistical Account of Sandwick. One of these is a cromlech, known by the name of the Stones of Vea (Ve signifying holy or sacred),

situated about half a mile to the southward of the manse upon the moor. The cromlech, which has been overthrown, but not otherwise destroyed, is formed by four square short pillars, three feet in height, supporting a square slab ( $5 \mathrm{ft} .10 \mathrm{in} . \times$ $4 \mathrm{ft} .9 \mathrm{in} . \times 1 \mathrm{ft} .0 \mathrm{in})$. Upon one side there lies a smaller square slab; but whether it was originally placed on the top of the other, or formed a small supple-
mental cromlech like that represented in plate i., fig. 10, of Akerman's Archæological Index, is not to be determined.

Another ruin of a cromlech of a far more complex character, called Holy Kirk, stands upon the brow of Vestrafiold, which Mr. Clouston describes "as a curious collection of large and ancient stones; and a gentleman residing in that neighbourhood recollects one of them, now prostrate, supported by those that are still perpendicular." It would be well if this gentleman would put his recollection upon record, for Mr. W. Wałt and myself puzzled for more than an hour over these remains without being able to divine its plan: there appeared to have been either two or three covers originally.

A very interesting but obscure remnant of antiquity exists upon the south foot of Vestrafiold, which I believe must be classed with Celtic remains; it is a large irregular inclosure, approaching to a square in outline, and fenced by large fiags where they have not been carried away. It is stated to be 800 yards in circumference. A water-course runs through the area, and there are indications of interior sub-division by ranges of flags. No reason can be detected for choosing such a site; the greater part of the area I should imagine has always been very swampy; on the north-west side the line of demarcation runs up and along a rather steep brae (perhaps twenty feet higher than the average level). The great size of the inclosing flags, uselessness for keeping out cattle, \&c., and the barren piece of land, which has never been of any agricultural value, are the proofs of its antiquity, and I commend this inclosure to the notice of practical antiquaries. The Dwarfie Stone of Hoy, of which there is a drawing and description in Barry's History of Orkney, is probably a sepulchral monument of the Pictish period; and I am informed by Professor Munch that there is a romantic story in the elder Edda, which occurs in Hoy, but the name is so commonly given to high islands by the Northmen, that we cannot be certain that it refers to one of the Orcadian group.

The round tower and church of Egilsey are in all probability the erection of the christianized Picts; and at the Brough of Birsa the foundation of such another church and cylindrical tower are to be seen. The Brough of Deerness is also a station of great antiquity; and in several of the islands there are the ruins of old churches which would, I believe, be of considerable interest to the ecclesiastical antiquary.


Glass Beads dug out of a moss near Caldale, parish of St. Olaf, June, 1845.

## CHAPTER III.

We have now to consider a Class of Antiquities deserving much greater attention than they have hitherto recejved. I allude to those structures which the general traditions of the North of Scotland have ascribed to the Picts. These may be divided into Picts Castles and Picts Houses; but, though the first term may be allowed to pass without much argument, the propriety of the second may by some be considered to be hardly substantiated by the known facts.

The Pictish Broughs may be generally described as circular towers of sixty feet in diameter, and forty or fifty in height, and are either formed of one cylindrical wall of great thickness in which small chambers or cells are left in the interior of the wall, or of two concentric walls, the interspace being formed by flagstones into circular galleries, to which there is a communication by means of a winding staircase. Much information concerning these broughs may be gathered from Pennant's Scottish Tour, Cordiner's Remarkable Ruins of North Britain, Hibbert's Shetland, \&c.; but I shall limit my remarks to the little that is known of them in Orkney.

In Orkney the site of a Picts castle may be generally known by the name of "Broúgh" being bestowed upon the place, and a grassy hillock most frequently points out the exact spot where it has stood; this term does not however apply exclusively to an artificial elevation, but includes every place of defence. The prefix " bur" is a contraction of "brough," as Burwick in South Ronaldsey, and in Sandwick, where the ruin of the brough at either place may be seen. Burra, formerly Borgarey, means the castle island; Burgher in Evie is the place of the castle; and at Burroston, in Shapinsey, Mr. Balfour informs me, are the remains of extensive entrenchments and fortifications. The position of the Pictish broughs is generally not peculiar for natural strength; they are either built along the sea-shore, as in Evie, \&c. \&c. or upon a small island or point in a lake; but we do not find them upon those natural defences which are seen along the coast, where a small piece of land is separated by a chasm from the main, as at the Broughs of Deerness, Biggin, \&c., or upon an easily defensible peninsula, as at Burrow (Brough) Head in Stronsey, though at all these places the remains of a wall or a ditch may be traced upon the landward side.

Though nearly all the Pictish Broughs in Orkney are greatly dilapidated, good service might yet be done by clearing away the rubbish which surrounds the original tower, and I am here enabled to give plans of two which have been partly disinterred; one of these, situated upon an isthmus in the northern part of South Ronaldsey, has given the name of Ha $z^{z z} \mathrm{z}_{\mathrm{s}} \mathrm{el}^{\alpha^{2}}$ to the place, that is, "the isthmus of the hillock;" but it is now corrupted into Hoxa. Principal Gordon, in his Journey to Orkney in 1781, describes it as "what the Orkney people call a Pictish fort. This fort has been of a circular form, with a wall round it, and perhaps two, the one surrounding the other at the distance of perhaps three feet. Some remains were still to be seen of this double wall. The building is certainly the work of a rude and consequently early period. It does not appear that any kind of cement has been used to tie the stones together. They are laid one upon the other in their natural state, rough and unpolished, with little regard to art or symmetry. Its extent, as far as I could guess, did not exceed twenty feet in diameter. The outer wall enclosed a considerable part of the small eminence on which the fort stood. This eminence has certainly been surrounded formerly by sea, and perhaps at no very distant period was still so at high water. For to the north-east of the eminence there is to this day a small lake of sea-water, which is only separated from the sea by a beach of sand and small pebbles cast up by the sea, and the ridge itself is not twenty feet broad. At the foot of the eminence, to the north, is a small bay or landing place, and on a point of land on the north of the bay, facing the eminence, there has been another fort of the same kind with the one I have now described. I was told there were many such forts in the different islands. Some of these I saw ; their situation and structure have been exactly the same with the above-mentioned one. They are all upon a rising ground close to the water's edge, on small points of land projecting into the sea or lake nigh which they stand." ${ }^{\text {b }}$

Since the above was written, the brough has been partly excavated, and has yielded very interesting results, as may be seen by the following account which my friend Mr. Robert Heddle has favoured me with : - "The How of Hoxa, or Hangseid, is a small hillock of considerable steepness, situated on the narrow neck of land which connects Hoxa Head with the main island of South Ronaldsey. This isthmus is washed on the south by the waters of Widewell Bay, while, on the other side, an artificial beach of rounded stones skirts the shore, and has evidently existed in connection with the neighbouring fortalice now to be described.

[^23]" On the summit of the hillock abovementioned, late excavations have exposed the remains of a circular building apparently of the same class as the Tower of Mousa in Zetland. Of the walls but eight feet of elevation now exist; but their immense thickness, and the quantity of stones found in the rubbish, show that the original height must have been very considerable.
"The interior diameter of the ruin varies from twenty-nine to thirty feet, while the thickness of the walls is no less than fourteen feet, giving a sectional diameter of fifty eight feet. The ground-plan below will give an idea of the great proportional thickness of the building. The entrance has been drawn from description, having been destroyed to make room for an atrocious green gate. The building is composed of two concentric walls, the interspace being, however, as far as we could learn, entirely filled with rubbish and loose stones. Unless the small apartment at the entrance be accepted as such, no appearance of a chambered or spiral internal structure, similar to that displayed in the borg of Mousa, was observed. From the thickness of the wall, it is, however, far from improbable that such may still exist; but a structure of yesterday's perpetration, erected on the top of the old inside wall, and the replacement of the rubbish upon the rest of the building, effectually prevents the requisite search.

"The plan of the entrance, from description, was somewhat as represented at $A$. The passage was much contracted at $B$, by two slabs of stone set upright on the earth. Within the wall, and opening towards the interior of the edifice, was a chamber C of small size, communicating with the passage by a neatly constructed slit D , wide enough to admit the convenient insertion of a spear, or similar weapon, into the person of any one who might wish to make good an entrance at B: no vestige of this ingenious decoy has been allowed to remain. The old wall rises inside to a height of from six to eight feet. From the accumulation and replace-
ment of débris on the outside of the structure, nothing can be said of the external surface of the wall, which in no part rises above the surrounding soil.

In consequence of the erection of the new wall, a little inspection is necessary in order to perceive where the antique leaves off. In the "View" this is shown by a dark line.

Round the interior circumference of the wall are set upright flag-stones from three feet and a half to seven feet in height. Of these only six now remain, fixed at a distance of six feet from one another; but from the fact of one or two similar slabs having been removed, and broken pieces existing among the débris, we may presume that the remaining portion of the wall formerly exhibited the same appurtenances. In two parts of the building, at the level of the heads of these stones, the wall has been constructed so as to form two recesses, but no hint of their use can be gained from the study of one example; their ruinous condition will not permit the observer to remark more than the fact of their existence.

Between the bases of each pair of upright flagstones was found a corn-crusher of primitive simplicity. Each consisted of two pieces of sandstone, one slightly hollowed on the upper surface, the other smaller and horizontally convex below. These implements were buried in rude boxes composed of flagstones set together, exactly resembling the coffins or kistvaens in which burnt bones are usually found when exploring tumuli. For what purpose they were sepultured in such an honourable manner, we cannot pretend even to conjecture. They are various in shape and size, being, however, more or less oblong. The lower stones are between eighteen inches and two feet in length, while the upper ones, which may be grasped in the hand, do not exceed half that dimension. I enclose sketches representing the various forms of these implements. The largest is the only one found here on the fabrication of which any pains seem to have been bestowed, it being of a regularly oval shape, and hollowed in a careful and equal manner.

One or two stones of a form much resembling that of a modern mortar were also shown us; and, as one was accompanied by a pestle, most probably they have been used in the same way. One is about seven inches in length, by six inches in breadth, with a depth exteriorly of four inches and a half. Though in the one there is the form of a spout, there is no groove through which anything could be poured.

At the left side of the sketch of the interior of the tower may be observed two upright stones built in the wall. These have a lintel and a door-sill, and have all the appearance of having been doorposts. They do not project in the least from the


Plan and Elevation of Picts House at Quanterness.
building. Below, and to the right hand side of those stones, a step projects, which may have rendered ingress or exit more easy. This doorway is now closed up, as it was when first found.

Leaving the How, we walked round a neighbouring hill. On its side we were shown many rude dykes which had been exposed when cutting off the peat from the surface: they stretch over the island in several directions. From the shape and appearance they still retain, and from the indubitable fact that they saw the light of later days only when the turf was removed, there can be no doubt that these rugged boundaries were built before the growth of peat in this island, or perchance when the first surface of that material had been, like its successor, entirely pared away. Near this spot, a man was actively engaged in opening tumuli, with no antiquarian interest, but with the view of employing the stones thus found to the erection of a farm-steading. He had, as usual, turned up the coffins made of slabs of stone, with their accompaniment of burnt bones, and in addition, a corncrusher of exactly the same shape as the largest mentioned in the preceding page. This circumstance would seem to assign the same date to these tumuli as to that of the neighbouring How. Here also we observed in the rubbish two stones of a rather peculiar form. Both had on their surface evident marks of having been used for tying cows or horses to ; but the purpose of burying them is not so clear. They were worn exactly as a
 rope wears a post, and in that direction of a strain such as would be applied by an animal of considerable size. Nothing else of interest occurred.

In 1825, Mr. Peterkin sent a comb, part of a deer's horn, and some fragments of a skull, from a Pictish brough, which had given the name of Burgher to a property in Evie ; and some years afterwards Mr. Gordon, the late proprietor, made considerable excavations, and found a skeleton, with some bracelets, \&c.a This must have been the second grave situated among the ruins of the brough; but there is no reason to suppose them to have had any other than an accidental relation to the place. I had some conversation with the man employed by Mr. Gordon, and who was present when the second skeleton was found; he assured me the grave was placed promiscuously among the ruins. There must have been some fancy among the early Northmen for burying in the Pictish broughs (which, if in ruins, would be ready-made tumuli), for in Caithness, articles of the Scandinavian period have been frequently taken from them. The Brough of Burgher is, as usual, of a circular form,

[^24]and sixty feet in diameter; upon one side the wall is still fourteen feet high, and is about five feet thick: the inner concentric wall is of the same thickness, and separated from the outer by a distance of seven feet, the interspace being formed into numerous chambers, as may be seen by reference to the Plan.

Another ruined Picts' castle stands upon the isthmus which connects Lamb Head with the mainland of Stronsey : like all the rest, it is circular, and contains many cells within the thickness of the wall. One of these can be entered from the top, when it is found that, in addition to the usual form of the cells, there is a raised bench at the further end; and, as so little is known of the architectural arrangements of the Picts, the plan and section of these cells, drawn by Mr. R. Heddle, will be a useful addition. At this brough, there yet remains the ruin of an ancient pier, which is, I believe, coeval with it. ${ }^{\text {a }}$

Nearly every stronty hillock in Orkney is called a "Picts house;" but a broad distinction must be made between the Pictish brough, and those structures for which the name of Picts houses must be reserved, and these again may be divided into two kinds, viz., the superficial, or those built upon the natural surface, and the subterranean, or those excavated beneath the surface.

A very good example of the first kind discovered at Quanterness is given by Barry in his History of Orkney, and I have constructed the plan and elevations from his measurements, for the place is now so nearly filled up with stones that I was only able to slide about half-way down into one of the chambers; sufficiently far, however, to get an idea of the character of the interior. He describes it as " situated on a gentle declivity under the brow on the north side of Wideford Hill, and a little more than a mile west from the road or harbour of Kirkwall. Externally, it bears the form of a truncated cone, the height of which is fourteen feet, and the circumference at the base 384 ; it stands alone at a distance from the shore. Internally, it consists of several cells or apartments, the principal one of which is in the centre, twenty-one feet six inches long, six feet six inches broad, and eleven feet six inches high, built without any cement, of large flat stones, the one immediately above projecting (slightly) over that below, so as gradually to contract the space within as the building rises, till the opposite walls meet at the top, where they

[^25]are bound together by large stones laid across, to serve as it were for keystones. Six other apartments, of an exactly similar form, constructed of the same sort of materials and united in the same manner, but of little more than half the dimensions, communicate with this in the centre, each by a passage about two feet square on a level with the floor ; and the whole may be considered as connected together by a passage of nearly the same extent from without, which leads into the chief apartment. So far as can now be discovered, there does not appear ever to have been either chink or hole for the admission of air or light ; the earth at the bottom of the cells, as deep as it could be dug, was of a dark colour, of a greasy feel and of a fetid odour, plentifully intermingled with bones, some of which were almost entirely consumed, and others had, in defiance of time, remained so entire as to show they were the bones of men, of birds, and of some domestic animals. But, though many of them had nearly mouldered into dust, they exhibited no marks of having been burnt, nor were ashes of any kind to be seen within any part of the building. In one of the apartments, an entire human skeleton, in a prone attitude, was found; but in the others the bones were not only separated from one another, but divided into very small fragments."

A gentleman who was present shortly after this Picts house had been examined, informed me that the skeleton was of small size, apparently of some young person; and I regard its presence there to be altogether unconnected with the original intention of the structure. It is from the sum of all the evidence that a correct conclusion must be arrived at, and it is very rare indeed to find human remains within these buildings; but, just as the hillock formed by the ruin of a Pictish brough has been the chosen site for sepulture in the early Scandinavian period, this Picts house may have been selected for that purpose, if (which is not improbable) it was not used for the concealment of the body rather than the sepulture.

Another Picts house of the same style and character was examined by Mr. G. Petrie in the autumn of last year ${ }^{\text {a }}$ (1849), and I am indebted to him for the following observations.
" About half-way up the western declivity of Wideford Hill, and overlooking the beautiful Bay of Firth, stands a green knoll, contrasting pleasantly with the surrounding heather; but, being on a steep and unfrequented part of the hill, it seems hitherto to have attracted little notice. In October, 1849, my attention was directed to it by Dr. Duguid, who had accidentally observed the knoll, and having visited the spot, I subsequently employed a couple of men to make a section into it, and super-

[^26]intended the operation, which was both laborious and tedious, from the large stones and great quantity of clay used in the construction of the building.
"The Tumulus, which is of a conical shape, stands on a steep slope of the hill, and is about 140 feet in circumference around the base, and forty-five in diameter. The work was commenced by making a cut, six feet in breadth, upon the north side, and after removing the layer of turf on the top, the stones and clay were cleared away in the direction of the highest part of the tumulus. On penetrating about half-way through it, and six feet below the top, a stone was found placed on edge, about eighteen inches long and nine inches thick, and on removing it and another of smaller dimensions, a hole about a foot square was discovered, being at the top of the cell marked $D$ in the accompanying plan. It was now evident the structure was of the description so generally known by the appellation of a Picts house. Having enlarged the opening, one of the labourers descended to explore the cavity, which was found to be a chamber or cell (D) five feet nine inches in length from north to south, four feet eight inches in width, and five feet six inches in height. On the west side of the cell, a small opening or passage was found, appearing to communicate with another chamber, but it was so blocked up with stones and rubbish that the man could not get into it. The excavation on the top was therefore resumed, and after working for an hour or two, on removing the large stone marked $m$ in the elevations, an opening into the chamber A was effected. This chamber was nearly full of stones and rubbish, heaped up under the opening at the top, marked $i$, and intermixed with the rubbish were the bones of the horse, cow, sheep, swine, \&c., and some which were supposed to be those of deer. I was particularly careful in examining the stones and rubbish thrown out from the interior of the chamber, but without finding anything remarkable.
"When cleared out, the chamber A was found to be of an irregular oblong shape, ten feet long, five feet wide in the middle, and seven and a half feet high from the bottom to the lower edge of the stones, marked $l l$, having an opening ( $i$ ) at its top extending about twenty-one inches higher, and covered at its upper extremity with the layer of turf which forms the outer covering of the tumulus.
"At the north end of A is a passage ( $e$ ) leading to the cell C ; the cell is five feet seven inches long, four feet wide, and six feet high. On the east end of $C$ is the mouth of a passage which is in all probability the eastern entrance of the structure, but it was found unsafe to enter it, from its dilapidated state. The passage $h$ communicating with the cell $D$ is on the east side of $A$, while at the south side is another passage ( $a$ ) leading to the cell B , and on its west side a fourth passage
appears to have formed an entrance to the building from the west side of the tumulus. The cell B is six feet long, three feet seven inches wide, and six and a half feet high.
"The cells are so constructed that the walls gradually converge, closing in on all sides towards the top, which in the main chamber (A) is seven feet long and two feet wide, and in the other three only about a foot square. The top of A is covered by stones set on edge, and lying flat alternately, while B and C appear to be roofed by stones placed on edge, similar to what was found at the cell D before described.
"The passages are about fifteen inches in height, and twenty-two in breadth; the western passage $h$ in chamber A, and the passage $g$ in cell C, have not yet been traced to their extremities. ${ }^{a}$ All the cells were free from rubbish except $A$, and the only things found in them were a few bones of domestic animals. The stones and

[^27]rubbish with which A was nearly filled had the appearance of having been poured down through the opening $(i)$ at the top; it is not easy otherwise to account for the rubbish being found in the chamber, as no part of the structure had fallen in with the exception of the passage $g$ before referred to, the materials from which could not have reached the chamber $A$; and we are led to believe that some erection of a more temporary nature has at one time stood on the top of the tumulus, and that its ruins have been precipitated through the opening into the apartment beneath.
"A site for the structure has been scooped out of the side of the hill, and the height, from the bottom of the cells to the top of the tumulus, is about twelve feet. There is no appearance of any sculpture upon the stones composing the structure, nor were any human bones discovered in or near the building."

Another specimen ${ }^{\text {a }}$ of this class of Picts house was excavated by the officers and crew of H. M. cutter "Woodlark," at the request of Thomas Traill esquire, the enterprising proprietor of the Isle of Papey Westrey. This is situated upon the highest part of the holm of Papey, a small green island, which rises gently from the west side towards the east, when it terminates abruptly in a perpendicular cliff about sixty feet in height. The Picts house is twenty or thirty yards from the edge of the cliff, and, contrary to usual experience, is a mound of elliptical form ; the largest diameter being about one hundred and fifteen, and the shorter fifty-five feet, and the height is ten feet above the natural surface.

The mound was apparently circumscribed by a low stone wall, two or three feet in height, at least such was traced for a short distance upon each side of the doorway. The entrance was by a long, low, narrow passage $b, z$ (thirty-two inches high, twenty-two broad, and eighteen feet in length) ; it entered upon a very long but narrow main-chamber (B) of an oblong square figure, from which, at either end, is a small square chamber ( $A$ and $C$ ) cut off by a wall running across. In the middle chamber (B) are the entrances to six smaller chambers or cells, and in each of the end-chambers are three more cells; thus there are five upon the sides, and one at each end, making twelve in all. The sides of the main entrance are made by a smoothly built wall, the stones of the ordinary size now used for the purpose, but it is roofed by large flagstones, most of which are placed on edge, while some are horizontal ; the lintel over the inner end of the passage is a large square block, four feet in length, two feet and a half in breadth, and about a foot in thickness.

The middle chamber (B) is forty-five feet in length, and on the floor is five feet

[^28]
in breadth; the side walls, which are of unhewn stone without any cement, rise perpendicularly for five feet, when they gradually approximate (but still preserve a smooth surface), until, at the height of nine feet from the floor, they are within two feet eight inches of each other (see elevation). The roof-stones had fallen in, and had filled up the chambers with the rubbish, but it was easy to perceive from the angle of inclination that the internal height was either ten or eleven feet, when flagstones set on edge, with perhaps two or three apertures for the admission of air -this being the usual arrangement-completed the roofing of the structure. ${ }^{\text {a }}$

The end chambers (A and C) are not symmetrical; the northern (A) is nearly square, about seven feet in length and five in breadth; but the southern (C) is more oblong, being twelve feet in length and not quite five in breadth.

When the rubbish was cleared out of these chambers, it was found that the floor was covered for an inch or two with fine white sand, and beneath it six inches of a very tenacious clay: this serves to keep the place dry, and is an attention to cleanliness and comfort which was little to be expected; the clay is purely mineral, and of the usual clay colour. No implements or organic remains were found in the excavation excepting a few bones of sheep and rabbits, evidently quite recent; but on the side wall near the entrance, and about six feet from the floor, there is a neatly-engraved circle about four inches in diameter; there is also another stone with the appearance of having two small circles, touching each other, engraved upon it; but it is so common to find geometrical figures upon the Orkney flags, from a semi-crystallization of the pyrites which they contain, that I am unable to decide whether those seen in the Picts house are natural or not.

It will be difficult to convey an idea of the rudeness of the construction of the little cells or chambers which surround the main apartments. The doorways to enter them are upon the level of the floor, and are only twenty inches or two feet in height, and the breadth from eighteen to twenty-four inches.

The cells are something like a bee-hive, or sugar loaf in outline. They are only separated from the main chamber by a wall which is but a single stone in thickness; but as the smooth side is always turned outwards, it follows that the wall of the cell is as rough and uneven as can well be imagined on that quarter, while the other sides begin to approximate, almost from the ground course, to form the roof by the rudest jumble of masonry.

Two of the cells ( H and K ) of the middle chamber are double; all the rest are single. The single cells are of an irregular oval at bottom : some of them would

[^29]hold two, and others three or four men, but it is not to be supposed that they were ever used to live or sleep in; they average between four and five feet in length, and three in depth, exclusive of the entrance, and the height varies from three feet and a half to five feet and a half.

The double cells are much the same as if two single cells were separated by an interior stone wall, as will be seen by reference to the plan. In that marked K , the interior aperture or entrance is but ten inches wide, owing to a pointed stone projecting partly across it, and indeed, when taking the dimensions of this cell, I was particularly careful to avoid disturbing the crazy supports, not being ambitious of an antiquarian martyrdom. As for the ventilation of these cells, it is to be observed that there would be no want of such as the middle chambers might afford, for the candle by which I was endeavouring to read off "that horrid yard measure" could be plainly distinguished through the chinks of the wall.

When speculating upon the probable use of this extraordinary structure, it must be borne in mind that it is situated most conspicuously upon the highest part of a very small island; it could not therefore have been intended either for concealment or defence, as nothing would have been easier than to have buried the inmates in the ruins of their hiding place; the most reasonable supposition is that they were the temporary habitations of a nomade people.

A Picts house, evidently of the kind described above, is referred to by the Rev. C. Clouston in Stat. Acc. Orkn p. 55. "During last summer, a man who built a habitation for himself between this and Isbuster, in Birsay, found what seems to have been a Picts' house, in a knowe from which he took the stones. It consisted of a chain of four circular cells, connected together by passages too narrow and too low ever to have formed an abode for men. It seems more probable that the rubbish above the cells was the ruins of their residence, and that these were used as cellars or places of security.
"This building was unfortunately demolished before I heard of it; but the following dimensions which I had from recollection are probably nearly correct. Cells four feet in diameter and four feet high; passages two feet wide, two and a half feet long, and three and a half feet high; walls one foot thick, or more, according to the size of the stone, covered with large flags, the lowest across the passage and the highest across the middle of the cell, with one between."

Another class of Picts house much more rarely met with is characterised by being subterranean wholly or in part. One of the simplest form was accidentally discovered upon the Links of Pierowall, in Westray, (see Plate XVIL) about a year ago. The




Plan of the first and vecand marser of die mof stones. Plan \& Section of subtamanean Pidis House sithuted in the Livkis of Riammall


Ground Plan and Elevations of both sides of a Picts Howse at Savrock near Kïkwall, Orkney.

Links are remarkable for showing the great depth of sand which has been removed by natural causes, for a shard or sand hill is left upon the highest part, which is sixteen feet in height; and it is evident that subsequent to the excavation of this Picts house this body of sand has been deposited, and afterwards removed.

In this place great numbers of graves of the Scandinavian period have been found, some of them containing arms, brooches, combs, \&c., and bauta-steins, now prostrate, may be seen in many places. Subjoined are the notes of Dr. Randals; and it is near these graves that the Picts house is situated. It consists of a single subterranean chamber, communicating with the surface by a short steep passage.


The chamber-the floor of which is nine feet below the level of the surface-has been excavated through the clay, and, for the last two feet, through the rotten sandstone; hence the sides are not formed, as at Sarrock, by stone walls, but by the natural rock.

One-half of the roof is covered by two large flags, $y, z$; these are supported by short pillars, which are either single stones or square blocks piled upon each other to the requisite height, and flags ( $b, e, h$ ) are placed perpendicularly against the sides
of the chamber to prop up the inner edges. One of these flags is of great size, for the length is nine feet, and breadth about six ; the second is nearly as large.

The roof on the opposide side of the chamber is commenced by oblong square blocks projecting from the wall to the pillars, as may be seen by the diagram; flagstones are then placed upon these. The roof was probably completed by a single large flag resting upon those before mentioned, and a trilith at the doorway or entrance.

The floor of the passage rises very abruptly; the sides are rudely built, and about two feet and a half in height. The roof is formed by flags placed scalarwise, by which means the roof is raised equal to the thickness of each succeeding stone. Within this passage, a hollowed stone, or quern, was found-an implement very usually met with in these structures. The floor was covered with a layer of sand; but there were no indications of bones or ashes. We dug down upon the entrance to the passage, in hope of getting a clue to other chambers, but without success, as all trace of structure was lost when the passage reached the surface. There was no accumulation of stones or rubbish about this Picts house.

Some years ago, a subterranean chamber was accidentally discovered at Savrock, ${ }^{\text {b }}$ about a mile to the westward of Kirkwall, and by the sea shore. The coast here is generally low, but at Savrock it rises to a small cliff, between twenty and thirty feet in height, so that the position could not have been chosen for concealment. In the hope of tracing the entire plan of this structure, the crew of H. M. cutter Woodlark were employed in excavating here in the winter of 1848, and Mr. Petrie and Mr. R. Heddle also lent a very ready assistance.

The principal and only chamber (A) at the Picts house of Savrock ${ }^{c}$ is an excavated hole, of which the floor is nine feet below the natural surface of the ground. It is of an irregular pentagonal figure, and may be roughly stated to be nine feet in diameter, though it measures eleven feet across where it is widest. The height of

[^30]the inclosing walls varies from three feet to four feet six inches. The space within the chamber is very much reduced by the method taken to form the roof, which is by placing stone blocks or pillars (five in number, two and a half or three feet high, and one foot square) from six to eighteen inches from the walls. Triangular flags are then laid with one angle resting on the pillars; other flags, projected a little forwards, rest upon these, and so on, till by continued over-lapping, a rude conicalshaped roof is formed, which, at the centre, would be five or six feet in height.

A large lintel, five feet in length and eighteen inches square, rests upon two pillars at the entrance of the chamber ; from thence the passage $B, I, G$ extends in a straight line for thirty feet; then, turning a little to the right, it continues for twelve feet further, to I-forty-two feet in all; but it is only perfect for twenty feet, to F, where it is two feet seven inches in height and breadth. The roof is level, and formed by oblong-square flags, butting against each other, and reaching from side to side. The floor of the passage is quite level for twenty-five feet, when it rises to pass over a natural elevation of the rock, and then again sinks to nearly its former level.

A little without the entrance to the main chamber (A) another passage (C, D, E) branches off at nearly right angles to the principal one. Its floor, which is formed by the native rock, is raised at the entrance (C) two feet above the level of the floor of the long passage ; it then rises rather abruptly for a few feet, when it again becomes horizontal.

The roofing of this passage is accomplished by the roof-stones (flags) being laid horizontally across the passage, but the under side of the upper stone rests upon the upper edge of the lower, and in this manner the roof vaults over the undulations of the rock.

The passage C, E, which is not quite straight, is twelve feet long, and the roof is perfect for half that distance; the passage is rather smaller than the main one at its entrance (C), and it gradually decreases in width to about eighteen inches, when it is abruptly terminated (at E) by a flagstone placed perpendicularly across it. My fellow-labourer, Mr. R. Heddle, was very industrious in this quarter, and, undeterred by the broken roof-stones, some of which were only suspended by one end, he earthed himself till only his boots were visible; we had great hopes of finding a new chamber here, and it was with some surprise that on a future day we were brought to a full stop by the upright flag, which we were now inclined to believe formed the door of the entrance to the building.

The excavation of the main passage, or rather of what had been the main passage, was a very laborious and disagreeable work, for the continued wet weather had
made the ground extremely muddy, and the rubbish, \&c. had to be thrown up from three to nine feet. We followed the course of the walls from F to I for twenty-one feet, when they ceased in what appeared to be another chamber ( $\mathrm{K}, \mathrm{J}, \mathrm{I}$ ) ; we also found what had been a passage $(\mathrm{H}, h)$ branching to the left; but the quarrymen had been there before us, and the walls were almost entirely destroyed.

It will be seen by reference to the Plan, that at our furthest limit we were met by a perpendicular wall about six feet in height; beneath this, at $I$, there appeared to be the entrance to another subterranean passage; the roof-stones had fallen in, and it would require a cut down some four or five feet behind the wall to determine whether it is a passage or not.

A few important facts, bearing upon the probable use of the Picts house, were elicited in the progress of the excavation, the most remarkable being the enormous quantity of the bones of domestic animals scattered about the place; those of the sheep were certainly the most numerous, and it was interesting to observe that the breed at that time must have been of the same kind as the hill-sheep of the present day. The skulls of cattle were also numerous, and there were some that appeared to be those of horses; there were also the head and several pieces of the horns of a deer; and a large bone of a whale. A great quantity of shell fish must also have been consumed upon the spot, and from these it would appear that the taste of former times very much resembled that of the present, for the periwinkle decidedly formed the staple or bulk of the mass, though the shells of all the edible mollusca were present, such as the oyster and scallop, neither of which are plentiful in Orkney; the common whilk, the purpura, and the limpet; the latter certainly not much esteemed, any more than at present. These shells formed, in some places, a layer six inches in thickness, though they were also scattered generally through the rubbish. At $h$ a very bright, brick-red clay was seen which would even now be no despicable pigment, and was probably the result of fire upon the spot, for coal or charcoal may also be seen there; but where is the gallant who would not rather believe it to be a cosmetic, from the toilet of some Pictish beauty?

We were also fortunate in finding examples of the rude state of the arts among the people who dwelt in this extraordinary place; for, besides an antler, which had evidently been cut from a horn, three bone implements turned up in the course of our work. One of these, formed apparently from the thigh bone of an ox, is of a nearly triangular or spear-point shape, six inches long and two inches broad at the base, where it has been ground flat towards the end; the sides are also slightly levelled by grinding or cutting. Upon the upper or convex side, at half an inch
from the base, are some deep notches, apparently for the reception of a lashing, and about the middle of the bone on the same side are a few shallower cuts. I cannot believe it to have been a spear-point, as the bone curved upward considerably, but imagine it to have been the handle of a chisel, to which the cutting blade of stone or metal was lashed.

Another implement of the same dimensions as the last, has likewise had notches at its lower end, but differs in being nearly flat, and in having a deep sinus on one side for the reception of the thumb. (?) It is also ground smooth upon that side, and it altogether fits the hand with great convenience.

A third, shorter and broader ( $5 \times 2 \frac{1}{2} \mathrm{in}$.), is nearly flat, with the remains of notches on the nearly convex side, and is not ground to a point. The drawings of my friend Mr. Jamieson convey a better idea of them than any written description. It will be generally conceded that they are the handles of rude chisels.
The impalpable ash of fuel could be very generally detected around and among the débris of this Picts house, and in many places it formed a cernent by which large lumps of earth, thickly studded with periwinkle shells, could be lifted from the soil. ${ }^{\text {. }}$

These subterranean buildings appear to be by no means uncommon in Orkney; in the Calf of Edey are the ruins of some circular chambers, and another was found at Marwick, which, from the description, was of the same plan as that at Pierowall (p. 45). A lady ${ }^{b}$ distinguished for her researches in natural history informs me that, when a child, she distinctly recollects "going down some small steps near Crantit, Kirkwall, into two apartments, from which there was a long subterranean passage, leading in the direction of Kirkwall. In one of the rooms there appeared to be the remains of whitewash, and, if $I$ am not mistaken, there was a small chimney and marks of soot."

At Skara, near the house of Skaill, in the west mainland, there is a Picts house which has not yet been explored, though at a slight preliminary excavation there was found a small ruinous chamber. But this place is remarkable for an immense accumulation of ashes, several feet in thickness, plentifully mixed with shells and the horns and bones of deer and other animals, but principally of sheep.c A great
a "In South Yell, Shetland, there are a few Pictish buildings, and some dwellings of the Shetland aborigines, in which last have been found some stone adzes and knives, with drinking cups, lamps, and hammers of the same material."—Stat. Acc. p. 87.
${ }^{\mathrm{b}}$. Mrs. Moffat.
c " Under the head of antiquities may be mentioned those circular ruins commonly called Picts" houses. That they were at one period inhabited seems probable from the quantity of shells still found around them." —Stat. Acc. of Evie, p. 201.
many relics have been procured at various times from the débris, ${ }^{\text {a }}$ among which I confess my interest to have been most excited by a genuine Pictish plate. This extremely necessary article of domestic economy, in whatever state of civilization, is a circular disk of slate, quite flat, and chipped very regularly round the edge : it is about half an inch thick, of the same size as our common plates, and when I saw it, had lately been used as such. Mr. Wah says, "There were several thin slates, very perfectly rounded ;" and I can vouch for there being a great number of broken ones-these accidents happening in every family.

It will not be so easy to assign a use for about two dozen oyster shells, which were nicely stowed away in a kistvaen, or loose stone-box, every one being pierced through the middle with a hole as big as a shilling. Oysters are not common in Orkney, though formerly taken at three different places; they now only occur at Deer-sound and Firth, and the latter place is eight miles from Skaill.

Another great curiosity is a large tusk of a wild boar, its presence taking us back to a very early period; the horns of the red deer were also gathered from the débris; these must have soon become extinct, for there is no tradition or record of their ever living in these islands, though one headland still bears the name of Deerness.

Several manufactured articles occurred among the ashes. One is "a piece of bone, oblong and flat, remarkably like a bit of brown soap nearly rubbed away ;" as one end is ground to an edge, it may have been an instrument for scraping or cutting. It is $2.5 \times 1.2 \times 0.1$ inches.

A bone supposed to be the leg-bone of a fowl or goose, Professor Goodsir
 ferior articular surface has separated, owing to the youth of the animal," was also found. The shaft of the bone is divided upon the front side, by seven deep notches, into nearly equal parts; whether it is a rude measure of length, or a calendar of the days of the week, or answers some other purpose, is undetermined. It is 4.4 inches long and 0.4 inches broad at the narrowest part. ${ }^{\text {b }}$

We have little difficulty in finding a use for five other bone implements; they are pins in different states of elaboration.

That represented in the first drawing is by far the largest and most ornamental. It is "the outer half of the lower portion of the left metatarsal bone of an ox, of

[^31]small size." The articulation has been ground into a semicircular head, from whence it tapers to a point. On the front side there is a rude carving, formed by transverse notches and scratches, meeting at a right angle at the medium part of the pin; it is $5 \cdot 5$ inches long, and $1 \cdot 1$ inch at the broadest part.

Another is a smaller pin, distinguished by being pierced with a very well-formed hole or eye at its upper end; it was perfect when first found, but has since been broken by accident. This implement is nicely polished throughout; it is 3.5 inches long, and the circular eye is 0.1 inch in diameter.

A much ruder and smaller pin, made from "the lower end of the metatarsal bone of a sheep," the articular portion forming the head of the pin; it is 2.9 inches long, and 0.5 broad at the head.

Another is a rude piece of bone, apparently in process of manufacture, and of which I can say no more than that it is exactly like what Mr. Wilson's accurate drawing represents it to be; and the same remark applies to the broken implement.

I now conclude this sketch of the Orcadian antiquities, in which I have received the most liberal assistance from my friends, not only by the loan of interesting specimens, but also from the ready manner in which they undertook to make drawings of them to illustrate the subject. During last winter the trunk containing the original manuscript and such drawings as I could collect was stolen from the North British Railway, on my journey to London; but, though this has in consequence doubled my labour, the friendly aid I have experienced from all quarters has added materially to my information.

The object of this paper is to put the archæologist in possession of a store of facts which are free from certain sources of confusion from their occurrence in an isolated district. In Orkney it is believed we have neither Roman nor Saxon element to interfere with our investigations; and from the industry of the northern archæologists we have so much information of the manners and customs of the Scandinavians from the tenth century, that we are in no danger of confounding their (the Scandinavian) antiquities with the Celtic.



[^0]:    a " Which are said by a certain old manuscript to be so called (Orkney), as if one should say Argat, that is (for so it is there explained), above the Getes; but I had rather expound it Above Cat; for it lies over against Cath, a country of Scotland," \&c.-Camden, p. 1073.
    ${ }^{\mathrm{b}}$ In Barry's History of Orkney: it has since been printed by the Bannatyne Club, in the 3rd volume of their works.

[^1]:    ${ }^{\text {a }}$ Reperimus itaque, imprimis, quod tempore Haraldi Comati primi regis Norwegie, qui gavisus est per totum regnum suum hac terra sive insularum patria, Orchadie fuit inhabitata et culta duabus racionibus, scilicet Peti et Pape, quæ duæ genera naciones fuerunt destructæ radicitus, hac penitus per Norwegiences de stirpe sive de tribu strenuissimi principis Rognaldi, qui sic sunt ipsas naciones aggressi quod posteritas ipsarum nacionum Peti et Pape non remansit.-Barry, p. 399.
    b "St. Columba meeting one day with a prince of the Orkneys at the palace of King Brude, he told the King that some monks had lately sailed with a view of making discoveries in the northern seas, and begged he would strongly recommend them to the Prince who was then with him, in case they should land in the Orkneys. They did so, and owed their lives to the recommendation of Columba."-Smith's Life of St. Columba, p. 55.
    ${ }^{\text {c }}$ Adur Island bygdist of Nordmönnum varo p'ar p'eri menn er Nordmenn kalla Papa, p'eri varo menn kristner, \&c.-Johnstone's Ant. Celto-Scan., p. 14.
    d "After an interval of many years, when Brito reigned in Britain, and Posthumus his brother over the .

[^2]:    Latins, not less than 900 (about 256 в.c.), the Picts came and occupied the islands which are called Orcades; and afterwards from the neighbouring isles, wasted many and not small regions, and occupied them in the left part of Britain, and remain to this day. There the third part of Britain they held, and hold till now."-Nennius, C. 5, quoted by Ritson, Annals of Caledonia.

[^3]:    a "Several other tumuli have been opened, which had much the same appearance. In some of these were found stone chests of about 15 or 18 inches square, in which were deposited urns containing ashes; in others of these chests were found ashes and fragments of bones without urns.
    " In digging for stones in one of these tumuli was found an urn, shaped like a jar, and of a size sufficient to contain 30 Scotch pints ( 15 gallons English). It contained ashes and fragments of bones. The colour on the outside was that of burnt cork, and on the inside grey."-Old Stat. Acc. p. 459.

[^4]:    ${ }^{\text {a }}$ See the accompanying Plan, IV.

[^5]:    a "I lately made excursions to St. Andrew's and the farm of Wideford in this parish (St. Ola), and opened two graves at the former place, and three at the latter; they all appear to be of the same date. I opened one of the largest, which was of greater diameter than the one we explored in Rendal (the Black Knowe), but not quite so high. It had a sort of circle or ring of burnt stones about a foot in breadth, and the thickness of one stone, immediately within the edge of the base. In the centre, embedded in clay, was a layer of burnt bones mixed with charcoal, about three inches in thickness. There was no kist-vaen, nor any stones near the bones."-G. P.

[^6]:    ${ }^{\text {a }}$ It is very singular that the Scandinavian name of this island should be so entirely forgotten. In the Orkneyinga Saga it is usually called Hrossey or Rossey, and it is so named in a map appended to Camden's Britannia; it appears to mean "the Island of horses."

[^7]:    a Herped, jurisdiction, district, hundred.

[^8]:    ${ }^{\text {a }}$ See General Plan, Plate XII.
    ${ }^{b}$ This ring is marked upon the General Plan; and there is a ground plan and elevation in Plate XIV.

[^9]:    a In the old descriptions of Druidical (?) circles, there is generally mention made of an altar (cromlech) standing within them, either in the form of a stone table or a single upright pillar.

[^10]:    ${ }^{\text {a }}$ Notes on Orkney and Shetland, p. 20.
    ${ }^{\text {b }}$ A very amusing account of the Stenness antiquities will be found in a paper on the "Tings of Orkney and Shetland," in vol. iii. of Arch. Scot.

[^11]:    ${ }^{2}$ This is computed to weigh 10.71 tons.
    b "At a little distance from the temple is a solitary stone about eight feet high, with a perforation through which contracting parties joined hands when they entered into any solemn engagement, which Odin was invoked to testify." (Arch. Scot. vol. iii. p. 107.) This agrees with the description of Mr Leisk; but Barry's plate would lead us to imagine that the height was at least double that given above.
    c It was called "The Watchstone."-Arch. Scot. vol. iii. p. 108.

[^12]:    ${ }^{\text {a }}$ See the General Plan, and Plate XIII. for an enlarged Plan and Elevation.

[^13]:    a "The number of stones which originally formed the temple is supposed to have been thirty-five, but this is uncertain ; sixteen were standing in the year 1792, and eight had fallen to the ground."-Arch. Scot. p. 108.
    ${ }^{b}$ As the division of the common is now taking place, it is probable this destructive practice will cease,

[^14]:    ${ }^{\text {a }}$ See General Plan.

[^15]:    ${ }^{\text {a }}$ See the upper part of the General Plan, Pl. XII.

[^16]:    a In a large district or country, presenting great difference in topographical feature, it is possible that the antiquities of two co-existent races may be found together ; but this is not likely to occur in a comparatively

[^17]:    ${ }^{2}$ Rev. C. Clouston.

[^18]:    a "A tumulus containing three stone chests was opened in the parish of Sandwick, by Sir Joseph Banks, in the presence of Dr. Solander, Dr. Van Tioch, and Dr. Lind, on their return from Iceland in 1772. In one of these chests or coffins was found a human skeleton lying on its side with the knees bent; in the hollow of which was found a bag which appeared to be made of rushes, and contained a parcel of bones bruised small, and also some human teeth." It was supposed by Sir Joseph Banks and Dr. Solander, that this bag contained the remains or ashes of his wife, or of some near relation, after burning.(?)
    "' In the second of these chests was found a skeleton in a sitting posture, as if seated on the ground, and the legs stretched out horizontally. To keep the body erect, stones were built up opposite to the breast as high as the crown of the head. The whole was covered with a large stone.
    "In the third chest was found in one end the bones of a human body thrown together promiscuously; in the other end, a quantity of chesnut-coloured hair, covered with a turf, and under the hair about four dozen of beads, flattened on the sides, lying as if on a string, about the middle of which was a locket of bone, and underneath the beads a parcel of bruised bones like to those found in the bag in the first chest. When the hair was first touched, it appeared rotten, and the beads friable; but when exposed to the air, the hair was found to be strong and the beads hard. The beads were black, but it could not be discovered what they were composed of."-Old. Stat. Acc. p. 459. I think there is some account of these explorations in the Transactions of the Royal Society.

[^19]:    a For its elevation see the General Plan.
    c David Balfour, Esq. of Balfour.

[^20]:    b Ibid.
    ${ }^{d}$ See General Plan.

[^21]:    a Its elevation is marked upon the General Plan.
    b " An artificial mound, with a large trench thrown up at the foot of it, said to have been raised for archers to shoot at. Some of Oliver Cromwell's soldiers are reported to have dug tolerably deep into the mound ; but it is added, they found nothing but earth."-Arch. Scot. p. 122.

[^22]:    ${ }^{\text {a }}$ I need scarcely remark, that there is not the slightest evidence of these circles having been made by the Northmen.

[^23]:    ${ }^{a}$ This name goes far to prove that the place was already a ruin when the Scandinavians arrived here.
    ${ }^{b}$ Arch. Scot. vol. i. p. 257.

[^24]:    ${ }^{\text {a }}$ In the possession of the Earl of Zetland.

[^25]:    a There are two relics of antiquity not mentioned in the old account (of Delting). One of these is the remains of a wet dock or harbour at Burravoe (Brough-vaag), which, from its proximity to the Pictish castle that stood there, must have been built as a place of security for such small craft as belonged to it.-Stat. Acc. Shetland, p. 57.
    ${ }^{\mathrm{b}}$ Plate XV. fig. 3.

[^26]:    ${ }^{\text {a }}$ See plan and elevations, Plate XV. fig. 4.

[^27]:    a "The weather has been so bad since I received your letters, and my own health not very good, that there has been but one day that I could avail myself for a further exploration of the Picts' house. We commenced on the west side on a level with the base, and as nearly opposite to the western passage (b) as possible. On paring off the turf and removing some of the stones and clay, we came to what proved to be a piece of wall exactly opposite to the inner end of the western passage. The wall is five or six feet in height from the edge of the base; and, as there appears to be a corner or angle in the wall, I am led to believe that the opening or mouth of the passage may be there, but it got so dark that we were obliged to 'strike work.' The wall appears only to run for about five feet to the northward. From the peculiar position of this Picts house, and the nature of its site, I do expect to find a continuous wall around it. I dug a few feet around its upper edge, and found it faced up with flat stones to about eighteen inches in depth beneath the surface; I then came to stones projecting at right angles to the upright ones, but had not time to ascertain whether they formed the top of a wall or not.
    " The body of the tumulus cannot be said, as you suppose, to be a confused heap of stones and earth, but is made up of stones built generally with considerable regularity; in some cases without clay, and in others with more than a due proportion.
    " The opening at the top ( $l$ ) is a regularly-built hole, and particularly attracted my attention from its resemblance to the top of a chimney. The roof was otherwise continuous, and the opening extended above, as shown in the Plan. The top of the hole was on a level with the stone structure, and was merely covered with a layer of turf." Subsequently Mr. Petrie informs me, "I have now got the Picts house explored as far as it can be done, unless the whole be demolished. I have succeeded in tracing the western passage to its opening at the western extremity. There is a wall of about two feet in height surrounding the building; this wall follows the rise of the hill, and in this way always maintains the same height. The passage to the eastward appears never to have been completed, as it only extends for six or eight feet, and then terminates. A thorough and careful investigation convinces me that a sufficient quantity of stones has been quarried out of the side of the hill to erect the building, and that in the hollow or cavity thus formed the building has been made. I found the face of the rock projecting into the building, and to within a few feet of the cells," -G. Petrie.

[^28]:    ${ }^{\text {a }}$ See plan and elevation, Plate XVI.

[^29]:    ${ }^{a}$ Mr. Traill remembers when part of the roof was entire.

[^30]:    a When excavating the Picts house at Pierowall, a Shetlander who was present informed me, that he had been in some underground passages at Voe, near Sumbrough, in which a man could crawl about till he lost himself, and I also heard of a place of the same kind at Walls, Shetland.
    b "In the spring of 1826 , while removing some large stones which impeded the operations of the plough, near the foundations of a chapel in Overbister, in Sandey, a long subterraneous passage was discovered, which terminated in a circular cavity. The bottom and sides of this passage were formed of the solid rock, as well as the cavity at its extremity, which has likely been intended for a well (?) The top or roof of the passage was carefully covered with flagstones, and above was the natural soil. The entrance to the passage was by two steps cut in the rock. The length of the passage was nineteen feet and a balf, height three feet, widtl about one foot nine inches; diameter of the well three feet; from the roof to the bottom of the well, three feet six inches. Several small pieces of decayed oak were found in the passage. The well (?) contained a very little water and mud."-Stat. Acc. p. $141 . \quad$ © See Plan, \&c. in Pl. XVII.

[^31]:    a These have been beautifully drawn by Mr. D. Wilson, F.S.A. Scot., to whom I am indebted for much valuable assistance.
    b There was one white bead found, long-shaped, apparently of glass, besides horse-teeth and the bones of cattle and sheep.

