V.—Notice of the Excavation of the Brochs of Yarhouse, Brounaben, Bowermadden, Old Stirkoke, and Dunbeath, in Caithness, with Remarks on the Period of the Brochs; and an Appendix, containing a Collected List of the Brochs of Scotland, and Early Notices of many of them.

By JOSEPH ANDERSON, Cor. Mem. S.A. Scot., and now Keeper of the Museum.

[Read before the Society, 9th June 1871.]

## THE BROCH OF YARHOUSE.

The broch of Yarhouse is situated in the southern edge of the loch of that name, on the estate of Thrumster, and about five miles south of Wick, Caithness. Before we commenced its excavation (for the Rhind Committee, by whom the funds were supplied from the Rhind Bequest,) it was a grass-covered mound, about 200 paces in circumference, and 18 to 20 feet high in the centre. It stood on a flat triangular projection of the shore of the loch, and was cut off from the land by a ditch now silted up, and varying from 25 to 30 feet wide.

This mound had been noticed by the late Mr Rhind¹ as a cairn of great size, surrounded by a wet ditch. It appears also, he says, to have been surrounded by standing stones, and he was of the opinion that it was chambered. Its excavation has disclosed the fact that it is a true broch, surrounded by outbuildings of a very remarkable character.

Secondary Interments.—In the progress of the excavations the first circumstance worthy of notice was the finding of the skull and other remains of a human skeleton, from  $2\frac{1}{2}$  to 3 feet under the green turf near the top of the mound on the side next the loch. On the other side, and at about the same level, we found another deposit of human remains, but, singular to say,

<sup>&</sup>lt;sup>1</sup> See "Report to the Committee of the Society of Antiquaries of Scotland, appointed to arrange for the application of a fund left by the late Mr A. Henry Rhind for excavating early remains. By John Stuart, LL.D., Secretary."—Proceedings, vol. vii. page 289.

not a vestige of any of the bones could we find, beyond an imperfectly preserved skull. Down near the base of the mound, in a cavity between two stones on edge, with a covering stone but no end stones, we found remains of another skeleton. Again, in the upper part of the chamber E. [see ground plan, p. 134, about 3 feet under the turf, we found human bones, including the piece of skull now exhibited, and close by them the inscribed bronze brooch (fig. 5), figured on page 141. Once more, within the chamber G, and nearly on a level with the base of the broch wall, at about the same distance under the turf, we found the remains of another human skeleton, among the ashes and refuse of the chamber floor, consisting of bones of the common domestic animals, broken and split, and sometimes half burned, mingled with potsherds of coarse hand-made and badly burned pottery. The inference from these facts seemed to be that at some period, possibly not extremely remote, but long after the broch and its surroundings had become a grass-covered heap of ruins, the green mound had been used as a place of interment.

The practice of burying in the green mounds covering the ruins of similar "pre-historic structures" (which is of ancient origin), is not yet extinct. As to its ancient origin, Mr Petrie records having found a cemetery of short cists, overlying the ruined broch of Okstrow, in Orkney. Mr Farrer records a similar instance at Saverough.<sup>3</sup> Single graves have often been disclosed in the mould overlying the ruins of Caithness brochs when levelled or partially dug into for agricultural purposes. At Thrumster House (not more than half a mile from this broch of Yarhouse), where a mound, covering the ruins of a broch, was partially dug into, a skeleton was found in a full-length cist of flagstones set on edge. A similar burial in the earthy rubbish overlying a broch at Dunbeath was reported to me as enclosed in a long stone cist, and part of the cranium is preserved in the late Dr Sinclair's Museum at Wick. A long grave was found by us at the side of the door of the broch of Brounaben, explored subsequently to the broch of Yarhouse. In none of these instances was there any tradition even of the mound having ever been used as a place of interment.

<sup>1</sup> See page 154 post.

<sup>&</sup>lt;sup>2</sup> See Mr Petrie's paper, antea.

<sup>&</sup>lt;sup>3</sup> See Proceedings, vol. v. p. 10.

<sup>&</sup>lt;sup>4</sup> The interior area of this broch is now laid out as a flower garden.

Then, as to the modern practice,—continued, no doubt, down from ancient times in places where burial-grounds, connected with ecclesiastical sites, were far distant, and roads were neither so common nor so good as they are now, there is a notable instance at Camster, where a green mound, bearing all the external appearance of covering the ruins of a broch, is still used as a place of interment by the people of the district. It is not connected by tradition with any ecclesiastical site; but, even if it were, the next instance which I adduce will show that an ecclesiastical site has been superposed upon a ruined broch. Having long suspected that the church of Canisbay (close to the Pentland Firth, and within sight of John O'Groats) was built on a green mound covering the ruins of a broch, I visited the churchyard in company with the Rev. Mr Macpherson, minister of the parish, and found that one side of the mound on which the church is built showed unequivocal traces of the refuse-heap usually attached to a broch. Mingled with the human remains of recently opened graves was a large proportion of more ancient remains of a totally different character, consisting of the bones of the ox, the sheep, deer, horse, swine, and seal (?), the bones of birds and fish, and the shells of the common shore shell-fish—principally buckies and The long bones of the animals were broken and split, and often half charred; the deer horns cut, sawn, and sometimes split. Pestles or pounding stones occurred here and there; and, on questioning the grave-digger, we also learned that he had been in the habit of exposing drybuilt walling, and at certain places of digging up ashes, deer horns, shells, bones of what he called whales, and which probably were so, and occasionally quern stones. A very good specimen of a pot quern, which he unearthed subsequently to my visit, is now preserved at the manse.

It seems, therefore, that many of these green mounds or "Tullochs," as they are called in the north of Scotland, had been used as places of interment in the early ages of Christianity,<sup>2</sup> and that the skeletons we found overlying the brochs of Yarhouse and Brounaben were those of persons who had been

<sup>&</sup>lt;sup>1</sup> Barry, in his "History of the Orkneys," mentions that St Triduana's Chapel, in Papa Westray, had been built on the ruins of a Pict's house.

<sup>&</sup>lt;sup>2</sup> A curious instance of Christian burial in a Pagan tumulus is recorded in the Annals of Loch Cé, under the date A.D. 1581:—"Brian Caech O'Coinnegain, an eminent cleric, died, and the place of sepulture which he selected for himself was, i.e., to be buried at the mound of Baile-an-tobair," &c., &c. (Annals of Loch Cé, vol. ii. p. 437.)

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buried there long after the ruined structures had become grass-covered mounds. $^{1}$ 

Structure.—The broch of Yarhouse (to the description of which we now return) was found, when excavated, to be of the common form (see the

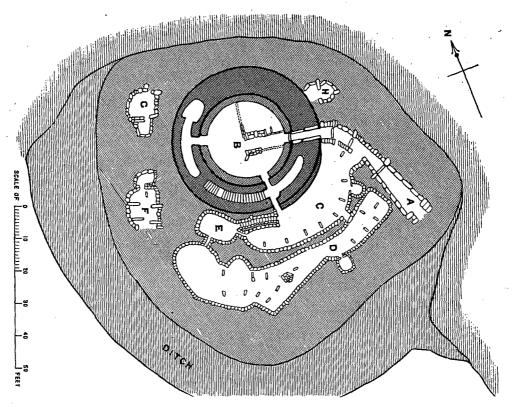


Fig. 1.—Ground Plan of Broch of Yarhouse and its Outbuildings.

annexed ground-plan). The circular wall is 12 to 13 feet thick, and at the highest point about 15 feet high. The area enclosed, B, is approximately circular, and about 30 feet diameter. The chambers, in the thickness of the

¹ Layard found that the mounds covering the ruins of the palatial edifices of Assyria, notably those of Nimroud, Kalah Shergat, and Baasheika, had been used as burial-places both by the ancient and the modern successors of the people who built them. The graves of the modern nomadic tribes were met with immediately under the surface, and below them the sepulchral deposits of a much earlier race, accompanied with vases of pottery having a close resemblance to early Egyptian forms. These, he says, undoubtedly prove that at a very early period the ruins were completely buried and the contents of the mounds unknown.

wall, are about 6 feet high and 3 feet wide, and, with the exception of the squarish one on the side opposite the doorway, they have their roofs remaining entire. They are roofed by flat covering stones, till near the ends, where the roofing is formed by overlapping the stones of the ends and of the side walls to form a kind of rude arching. One of these chambers, as usual, is at the foot of the stair. The stair is 3 feet wide, and extends upwards for 21 feet of sloping height. Sixteen steps up there is a landing, with a light-hole looking into the interior of the broch. Above the doorway, opening from the interior into the staircase, there are three openings in the wall to lessen the weight upon the lintel, as well as to admit light to the bottom part of the stair. (See woodcut, p. 173).

Secondary Structures.—Round the inside of the broch wall an interior wall, nearly  $2\frac{1}{2}$  feet thick, is built against the main wall, and at the doorways is partially bonded into it. This inner wall rises to a height of 8 feet, and forms a level ledge or scarcement all round at that height. The main wall still stands, 7 feet higher. It seems to me that this interior wall belongs to a secondary occupation of the broch, from the following considerations:— Its foundation does not go down to the foundation of the main wall; it terminates exactly at the height to which the partition walls that cross the interior area appear to have risen, as shown by the height of the long stones on end that were found built into them; that these partitions are really later constructions is established by the fact of fully a foot deep of ashes and refuse being found beneath their foundations. One other fact speaks strongly in favour of the later construction of this inner wall. In the floor of the central area of the broch we found a granite rubbing stone nearly 2 feet long; its flat face was well worn. Noticing another granite stone built into the inner wall, about half-way up, we pulled it out, and found it to be also a rubbing stone, which had been used as a building stone. There was also a small square bink or bole in the inner wall, and, though this is a common feature of the later outbuildings round the brochs, I have never seen or heard of it in the wall of a broch itself.

The partition walls, which divided the central area into a passage and several compartments, were partly built and partly formed of long slabs set on end across the wall. Other slabs, set on edge in the direction of the wall, formed a substitute for built walling for part of the length of two of the partitions. Such of these long stones as were unbroken rose to a height

of about 8 feet, which was also the height of the scarcement, and it seemed probable that the whole of the interior walls were parts of one structural plan, designed at some later period of the broch's existence (most likely after the ruin of the upper galleries), to form supports for a roof that would convert into a place of shelter the central area, which in the original structure must have been open to the sky.

Outbuildings.—The outside buildings connected directly with the broch are the two curious, long, and irregularly shaped enclosures C and D with the oval cell E. (See fig. 1, p. 134). C and D have each a small cell off the side furthest from the broch. The walls of all these still stand to a height of from 3 to 10 feet, and the passage, leading from the broch stair into the oval chamber, had the roof on it throughout its entire length, the only instance I know of a roof remaining on any part of the outbuildings of a broch. This passage was less than 3 feet high, and only 16 inches wide at the narrowest part. The whole length of the outer enclosure is nearly 100 feet, and it varies in width from 6 to 20 feet. The length of the other enclosure is 70 feet, and its width about 12 feet.

These places are chiefly remarkable for the way in which standing stones are set round them, and in them, at varying distances from the walls (see ground plan of enclosures C and D in fig. 1, p. 134). One or two of these standing stones appear to have been dressed to shape by blows applied alternately to the opposite sides of the stone along the edge, so as to make it roughly straight. Some of them are slabs, others are long stones as thick as they are broad. The little cells off the outside of each enclosure have slabs contracting the door-way. The outer wall of the outer enclosure seems pieced together in different styles of building. There is an irregularly shaped pillar of masonry in the centre of the floor, rising to the same height as the walls.

The use of long narrow slabs set up across the thickness of the walls, and of broader, thicker slabs set with their broad faces forming part of the face of the wall, which is built over the top of them, is entirely confined to the outbuildings and inside partitions of all the brochs I have seen. Ortholithic masonry, as it is called, is also a striking feature of the chambered cairns, but they are all much more carefully built than these cells and enclosures surrounding the brochs.

The presumption that both the inside partitioning and the outside

buildings were later adaptations of the original structure, is strengthened by the fact that the foundations of other partition walls, dividing the interior of the broch on different plans, were found at three different levels in the course of the excavations, the last sub-division of the area having taken place at a period when upwards of 8 feet of rubbish, derived from the dilapidation of the structure, had accumulated over its original floor. Up to the height of the scarcement, also, the stones which formed its inner face were reddened and rent into small cubical fragments by the action of fire, and the crevices were full of ashes of peat and wood, and refuse of bones. This burned appearance, which is as noticeable as in an old limekiln, is the first thing that strikes a visitor, and is usually accounted for by supposing the broch to have been destroyed by fire. I have seen the roofless walls of an evicted crofter's house in the hills as completely burned all round to a height of three or four feet by the herds and peat-cutters of the district resorting to it as a shelter in bad weather. By kindling their peat fires against that portion of the wall which at the time best suited the direction of the wind, they gradually burned the stones all round.

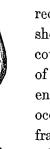
The little cells, F, G, and H, (fig. 1, p. 134), unconnected with the broch bear a close resemblance to the structures described by Captain Thomas as Bothan, and may be of comparatively recent origin. In the little one H, and the larger one F, no manufactured relics were found, the floors, which are roughly paved, being but slightly covered with peat ashes. In the other one G, some fragments of pottery, a piece of a stone vessel, apparently of steatite, and the human bones, probably from an interment, as I have previously noticed (p. 132), were found.

#### CONTENTS OF THE BROCH.

Animal Remains.—The animal remains in the broch of Yarhouse were mostly destroyed by the damming back of the water of the loch many years ago, so that, as we found after we had cleared out the area B, the floor was submerged every winter to the depth of 3 or 4 feet. This will account for the absence of implements of bone in the collection. The bones met with were those commonly found in other brochs, indicating

<sup>&</sup>lt;sup>1</sup> Proceedings, vol. ii. p. 153.

the ox, the horse, the swine, the sheep or goat, the dog, and one or two species of birds, and fish. The shell-fish were the limpet, periwinkle, whelk,





Figs. 2 and 3.—Portions of Reindeer Antlers found in the Broch of Yarhouse.

trochus, buccinum, cockle, and mussel. The horns of the red deer were very abundant, often split and cut into short lengths of 3 or 4 inches. The most interesting discovery in connection with this broch was the occurrence of portions of the antlers of the reindeer in the outer enclosure D, as described in Dr J. A. Smith's paper on the occurrence of the reindeer in Scotland. Two of these fragments of reindeer horns are here figured. They were submitted to Professor Owen, and by him pronounced to be portions of the antlers of Cervus Tarandus.

The relics found in the broch and its enclosures were chiefly obtained from the layer of ashes which covered the whole of the floors. The only difference observable between the character of the relics found within the broch, and those found in the outside enclosures, was that several objects of metal—iron and bronze—were found in the larger outbuildings, and none in the broch itself. The ash-bed was of considerable thickness, and seemed to have

accumulated along with the rubbish to a height, in some places inside the broch, of several feet.

Pottery.—The pottery was of the usual coarse hand-made kind, some fragments indicating vessels of a globularly bulging shape with everted rims, bearing in their form and texture a close resemblance to the hand-made vessels described by Martin as manufactured in Lewis at the date of his visit (1703) by the females of the island, "some for boiling meat and others for preserving their ale, for which they are much better than barrels of wood." A set of this coarse hand-made pottery, which has continued to be made and used in Harris until within the last few years, is exhibited in the Museum, and one of its commoner forms is shown in the accompanying woodcut (fig. 4).<sup>2</sup> In these Lewis crogans, as they are called, we have an

<sup>&</sup>lt;sup>1</sup> Proceedings, vol. viii. p. 200.

<sup>&</sup>lt;sup>2</sup> For the use of this cut, which is taken from "Characteristics of Old Church Architecture in the Mainland and Western Islands of Scotland," (Edinburgh: Edmonston

interesting example of the survival to the present time of the form and fashion of the domestic pottery characteristic of the broch period. One or two pieces marked with the peculiar pattern made by pushing the finger-



Fig. 4.--Crogan from Island of Lewis.

tip obliquely into the soft clay, occurred in the interior area of the broch. This pattern is the prevailing style of ornament on the pottery of the neighbouring sepulchral chambered cairns.<sup>1</sup>

Stone Implements.—The only flint object found in the broch was a small conical core about an inch in length, from which facets had been struck longitudinally all round. One very similar, but scarcely half the size, was found in the chamber of the long sepulchral cairn on the top of the hill. These points of resemblance, though suggestive of a connection between the brochs and the chambered cairns, may possibly be accidental.

Stone pestles or pounders were very numerous. They are simply oblong water-rolled pebbles of all sizes that can be conveniently grasped in the hand. Some of these are abraded by use at one end only, others at both ends.

and Douglas, 4to, 1861,) I am indebted to the author, Mr Thomas S. Muir. See also p. 172, note.

<sup>&</sup>lt;sup>1</sup> It is also the common ornamentation of the pottery of the Swiss lake dwellers, and has been found in the Long Barrows of the South of England.

Of rude mortars and rubbing-stones we found nearly a dozen. Typical specimens of these are among the objects exhibited.

Allied to the pestles or pounders are the stone balls so commonly found in the brochs. There are specimens from the brochs of Yarhouse, Brounaben, Old Stirkoke, and Bowermadden. These stone balls, which are usually about 3 inches in diameter, have often smooth flattened spaces on one or more sides, and one from the Yarhouse broch presents three flattened faces formed by striking off three segmental flakes of equal size contiguously from the globular surface.

Of whetstones, as they are called, we got a few. The smallest of these are more like what are termed touchstones. The largest one I rescued from the window of the farmer's kitchen, in which it had done duty again as a whetstone for several weeks after it had been found in the broch of Old Stirkoke. The thin flattish one from Yarhouse bears a remarkable resemblance to one in the Museum, which was picked up on the Birkle Hill, Keiss, by Dr Arthur Mitchell.

A large number of thin circular discs of slaty sandstone, roughly chipped to a round form, and varying from  $2\frac{1}{2}$  inches to 14 or 15 inches in diameter, were found. These discs, which are found in all the Caithness and Orkney brochs, seem to have served the same purpose for the domestic pottery which was served for the sepulchral pottery by the precisely similar discs which are occasionally found as urn covers, and still more frequently with the urn inverted on them. They are presumably jar covers or pot lids.

A small roundish water-worn pebble of quartz, about an inch and a half in diameter, with a hole not quite a quarter of an inch wide drilled through it, is precisely similar to one found in Kettleburn broch by the late Mr A. Henry Rhind. They were probably worn as amulets.

The round flattish water-worn pebbles which occurred in considerable numbers, having short scratched markings in all directions over their flat

Within the memory of persons now living, it was customary in Orkney to use thin slate stones, roughly chipped to a circular or square form, for parching corn to make 'burstan.' The stone was surrounded with a border of soft clay to prevent the corn from falling off into the fire when it was stirred. The name for this curious cooking utensil was "hellio," corrupted from the old Norse "hella"—a flat stone. When the corn had been parched, it was roughly ground by a quern, and eaten with milk or cream. "They'll hae burstan and buttermilk every day," was a proverb expressive of luxurious living.

surfaces, puzzled me much, till one evening, when returning from the broch, I passed by a fisherman's house, at the gable of which sat the fisherman endeavouring to sew a piece of tarry sailcloth with a rusty sail needle. I should have passed without noticing what he was about, had it not been that his vexation, very audibly and forcibly expressed, at the non-success of his efforts, led me to observe him more closely. Then I noticed that he was using just such a stone as this in the palm of his hand, instead of the usual sailor's thimble, and that the needle head was slipping and ripping the surface of the stone, just as this, which I procured as a characteristic specimen on my next visit to the broch, is scratched and ripped. I will not say that these are "thimbles," at least until we get needles of metal from the brochs. There are two bronze needles in the Museum from the shell mounds at Reay, where they are associated with very modern looking pins, but I never saw needles of the period in the brochs, except once when I got from the Old Stirkoke broch a fine bone needle, about 3 inches in length, with a circular eye, bevelled on both sides. It was sent to Sir John Lubbock.

Bronze.—The bronze relics from the broch of Yarhouse, which were all got in the outer enclosures, are—

A ring of bronze of unknown use, half an inch in diameter.

An armlet of yellow bronze,  $2\frac{1}{2}$  inches in diameter. It is made of wire, about  $\frac{1}{16}$ th of an inch in thickness, made square for half of its length, and twisted so that the corners form a spiral pattern, the other half of the circumference being the plain round wire. The ends seem to have been soldered together.

A flat circular bronze brooch (fig. 5), found with human bones in the upper part of the chamber E outside the broch. It is  $2\frac{1}{4}$  inches in diameter, and is inscribed on the upper surface, in rude Roman characters, with the formula



Fig. 5.—Bronze Brooch found with Human Bones at Broch of Yarhouse. (Actual size.)

ISVS NAZAR(?). This inscription, in full, IHESVS NAZARENVS REX IVDAEORVM, occurs on some flat circular silver brooches of mediæval workmanship in the

Museum. A flat copper or bronze brooch, of the same pattern, and bearing the last-mentioned inscription in full, was dug¹ up on the north side of the Little Ferry, in Sutherlandshire.

Iron.—It is difficult to say what the iron relics may have been. Some of those from Yarhouse appear like knives, and one from Old Stirkoke is not unlike the hilt end of an iron sword.

### THE BROCH OF BROUNABEN.

I need not describe in detail the excavation of the Brounaben broch, which is situated about three-fourths of a mile from that at Yarhouse, and close by the cromlech described by Mr Rhind.<sup>2</sup> It is of the usual size and form, but has a stair on both sides, one of which had the entrance built up. In the chamber at the foot of the other stair were found the remains of a human skeleton, and close by the side of the door there was a long grave, shaped like a modern coffin, and constructed partly of stones on edge, and partly built. The skeleton was almost completely decayed. Some human bones were also found in the excavation outside the broch wall, where two standing stones appear. There seemed to have been some kind of enclosure similar to those at Yarhouse, round this broch. It differed from that at Yarhouse in having the interior area paved, and without any partition walls. There was a considerable depth of ashes, however, under the pavement. The site was very wet, and there was a good square drain underneath the pavement, round what had been a hollow fireplace near the centre. Kettleburn, explored by Mr Rhind, had also a drain. The Old Stirkoke broch had a fireplace.

#### THE BROCH OF OLD STIRKOKE.

This broch, which was cut into by the farmer as a convenient quarry to furnish stones for drains, was a grass-covered mound, 120 paces in circumference at the base, about 12 feet high, and nearly 40 feet in diameter

<sup>&</sup>lt;sup>1</sup> New Statistical Account, Sutherlandshire, p. 33.

<sup>&</sup>lt;sup>2</sup> Report on the Rhind Excavation Fund. By John Stuart, LL.D., Sec. S.A. Scot. Proceedings, vol. vii. p. 294.

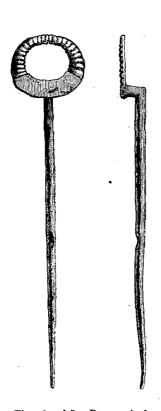
across the somewhat level summit. Owing to the way in which the operations were conducted, no plan of the building could be obtained, but the farmer gave every facility for the preservation of such relics as happened to be noticed during the progress of the work, and collected most of them himself. The broch wall was about 13 feet thick, and the space enclosed about 30 feet diameter. A square drain ran underneath the floor. One long oval-ended chamber in the thickness of the wall was made out. It was 11 feet long, and 4 feet wide. Near the centre of the circular internal area was a cist-like construction, formed of four slabs, with a slab in the bottom. It was slightly wider at one end than the other, and was 4 feet long,  $2\frac{1}{2}$  feet broad in the middle, and 20 inches deep. It was completely full of ashes, with scarcely any intermixture of earth or stones, and nearly a foot of almost pure ashes lay over the top of it, which had no covering stone. We considered it a fireplace.

At the north-east side of the mound there was a pretty extensive refuse heap or kitchen midden, consisting principally of turf or peat ashes, mingled with charred wood, and containing a large admixture of broken and split bones of the usual animals, among which were also portions of a human skull. Fish-bones occurred sparingly, and the common shore shell-fish were abundant. The manufactured relics found were a polished bone needle, 3 inches in length, with a round bevelled eye; the half of a thin polished disc of mica schist, with garnets in it, similar to one in the Museum obtained by Mr Farrer from the broch of Burray, Orkney; a block of red sandstone, having two intersecting hollows in its upper surface similar to one found in the broch of Kettleburn by Mr Rhind; two very rude spindle whorls of sandstone simply chipped to shape, several whetstones, rude stone discs or pot lids, stone pestles, pottery of the usual plain and rudely made kind, a bone bodkin about 8 inches long, several cut and sawn deer's horns, a fragment of bronze, and a piece of iron like the hilt portion of an iron sword.

#### THE BROCH OF BOWERMADDEN.

This broch was trenched over by the farmer after it had been for many years used as a quarry. No plan of the structure could be made out. The central area was roughly estimated as about 30 feet diameter, and near the centre there was a well with twelve or fourteen steps leading down to it.

This the farmer filled up. A similar well was discovered in the Kettleburn broch by Mr Rhind. It was left open, and is to this day a serviceable well, supplying the cottars who live close by in cottages built out of the material of the broch. A well, in which the water was beautifully clear, was also



Figs. 6 and 7.—Bronze pin from Broch of Bowermadden, (Actual size.)

found in clearing away the ruins of a broch at Harpsdale, near Thurso, in 1841. Kettleburn and Bowermadden examples it had steps leading down to it. A broch at Skinnet, opened nearly fifty years ago, had a well in it dug in the rock. The Bowermadden broch had, like the others, a considerable refuse heap, from which, however, no collection was made. obtained from the farmer a number of deer horns, cut and sawn; some stone balls, a small mortar, a neatly shaped oval vessel of red sandstone, the hollow measuring 4 inches by 3, and 3 inches deep,—the sides are worked round at the lip, are about an inch and a half thick, and the vessel is blackened externally by fire and split lengthwise; a disc of red sandstone, 7 inches diameter, and 2 inches thick, with a hole of about an inch and a half through the centre; two spindle whorls of stone, well finished, and rubbed smooth, one having a false boring in the middle; a very small and neatly fashioned comb of bone, with an open semicircular handle; a bead of vitreous paste, enamelled with a spiral ornament on three

sides; and a very neatly fashioned bronze pin, 3 inches long, having an open circular head, with ribbed ornamentation on the upper part (figs. 6 and 7); several large stone vessels, or vats, one of which was 3 feet deep, were also found.

# THE BROCH OF DUNBEATH.

I have been favoured by W. S. T. Sinclair, Esq., yr. of Dunbeath, with an account of a very interesting broch at Dunbeath, opened by him at the time we were employed in the excavations above detailed. This broch was a green mound, situated on the apex of a small rising ground in the angle formed by the confluence of the Burn of Houstry and the water of Dunbeath.

I am sorry I have no plan of this broch, which presents some peculiar features. In the main, the plan is the same as that of all the brochs, but the chambers, in the thickness of the walls, are larger than usual—one measuring, according to Mr Sinclair's account, 12 feet 6 inches long, 6 feet 6 inches wide, and about 13 feet to the highest part of the converging sides. This chamber is situated to the east of the entrance to the broch, which is 3 feet wide. On the north side of the building there is another chamber, squarish in form, and having recesses on three sides. It has the roof formed by overlapping the stones of the side walls inwards, and covered at the top by a single flat slab. On the south side of the broch was a pit-like structure resembling a well 4 or 5 feet in diameter. Similar well-like pits, of a conical form, having their sides partly built, and partly faced with long slabs, occur in the interior area of the Carn Liath broch at Dunrobin, opened by the Rev. Mr Joass.

The relics found at the broch of Dunbeath consist of deer's horns; the horny portion of two of the right hoofs of a deer pared down upon the upper edge; a section of an antler about an inch long, ground at both ends; and bones of the ox, a large dog, or possibly wolf (?), sheep, and swine. Fish bones, presumably of the cod and haddock, also occurred in considerable numbers, and there was a pretty large shell-heap, consisting chiefly of buckies and limpets. A piece of freestone was found thickly covered with indentations, that looked as if they had been produced by rubbing or grinding some kind of metal instrument edgeways upon it. One of these "cuts" passed completely through the stone. As in most of the other brochs, the effect of intense heat was discernible on the interior walls, chiefly towards the east side. Mr Sinclair saw reason to believe that some of this might probably have been due to the smelting of iron ore, several nodules of which were found mixed up with the animal remains. We found a nodule of iron ore as large as a man's fist in the floor of the sepulchral cairn at Camster, in which were also found a finely finished flint knife, and on the top of the bed of ashes in which these were imbedded an iron knife, both of which are now in the Museum. It is but recently that the discovery of hæmatite iron ore in considerable quantities has been made in the west of Caithness, but from

many indications which I have observed, I am of opinion that the ancient inhabitants not only knew of the existence of iron ore in the district, but actually smelted it and worked the metal. The most interesting part of Mr Sinclair's discovery was an iron "spear-head" five inches long, and a quantity of burnt grain, bere and oats, which was found close to the wall and on the clay bottom.

### THE PERIOD OF THE BROCHS.

Some years ago, in offering a few objections to the sufficiency of the data on which an extremely high antiquity was assigned to the brochs of Caithness and Orkney by Mr Samuel Laing, F.S.A. Scot., I expressed my conviction that we ought rather to look for the "broch period" among the early centuries of the Christian era than among the undefined and misty periods of primeval times. The evidence in support of this view is twofold, consisting partly of the testimony of the structures themselves and of their contents, and partly of the testimony of our earliest historic records.

If the indications afforded by the investigation of the ruins are to be relied on as sufficiently conclusive, when taken in connection with the scanty notices of the early records, they seem to me to point to the following deductions:—

- 1st. That the brochs were the work of the people who possessed the soil—a people numerous, energetic, and organised for mutual defence.
- 2d. That the most peculiar feature of the brochs—viz., their persistent uniformity of plan and structure—while implying the pressure of necessity rather than the poverty of architectural invention, proves them to have been the product of peculiar circumstances in the history of the people that built them, marking a period of general turbulence and insecurity.
- 3d. That their geographical range implies the possession of almost the whole of Scotland by the broch-builders.
- 4th. That the period of the brochs dates probably not earlier than the fifth, and not later than the ninth centuries.

<sup>&</sup>lt;sup>1</sup> Journal of the Anthropological Society of London, vol. iv. p. 155.

<sup>&</sup>lt;sup>2</sup> Prehistoric Remains of Caithness, p. 57. Proceedings of the Society, vol. vii. p. 56.

The first thing that strikes an observer attentively examining the broch structure is, that it is wholly unique. It resembles no other building, ancient or modern. All round towers, of course, have a certain external similarity, but the internal plan and the structural effect of the broch proper is not paralleled in any other known structure.<sup>1</sup>

Nuraghes of Sardinia.—The nuraghes, a class of round towers of unknown origin and antiquity, of which it is estimated that 3000 remain in the Island of Sardinia, do in some cases present a striking likeness externally

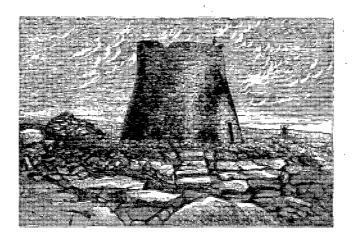


Fig. 8.—Broch of Mousa, Shetland.

to the brochs of Scotland, but the resemblance goes no further. The nuraghes are all built of uncemented stones, but of stones that are hammer-dressed.<sup>2</sup> Hammers of bronze have been found in them. It is only the simplest class of the nuraghes that at all resemble the brochs, and a comparison of the views of the broch of Mousa in Shetland (fig. 8), and the nuraghe of Goni in Sardinia<sup>3</sup> (fig. 9), will show at a glance how striking that resemblance is.

<sup>&</sup>lt;sup>1</sup> For the internal plan and details of the structure of the Broch of Mousa, see the plates to Sir Henry Dryden's paper in a subsequent part of this volume.

<sup>&</sup>lt;sup>2</sup> Notice sur les Nuraghes de la Sardaigne, par M. L. C. F. Petit Radel. Paris, 1826.

<sup>&</sup>lt;sup>3</sup> For the use of these two cuts, which are from an excellent little treatise on Archæology, entitled, "Monuments of Unrecorded Ages," forming part of their "Miscellany," I am indebted to the Messrs Chambers, through the good offices of Dr Findlater.

But for the most part the nuraghes present a much more complex external structure, consisting of a central tower, conically domed, rising



Fig. 9.-Nuraghe of Goni, Sardinia.

from a square base or plinth, flanked at the four corners by four smaller conically-domed turrets. Each of these turrets contains a dome-roofed chamber, and the central tower has three such chambers disposed vertically above each other. The access to the upper chambers is by a winding stair which traverses the thickness of the wall completely round the central chambers (fig. 10). This, taken in conjunction with the low doorway,

and the general absence of external openings for light, are features suggestive of the similar arrangements in the brochs, but the structures are totally unlike. In its half-ruined state, when the conical cap of the building is gone, as in the case of the Goni example (fig. 9), the simple nuraghe, erected on the ground, without a plinth or flanking cones, has a remarkable

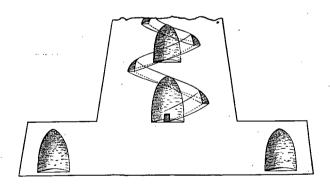


Fig. 10.—Section of a Nuraghe, showing form of chambers and spiral stair.

(From Tyndale's Sardinia.)

likeness to a broch externally; but it differs entirely in its internal construction, and has nothing about it suggestive of the broch except that it is an ancient tower of a round form built without mortar, though built of hammer-dressed stones.

Round Towers in the Valley of the Danube.—Another class of round towers in Germany, of which that of Sternsberg, near Sinsheim, in the Grand Duchy of Baden, may serve as the type, have some slight features of resemblance to the brochs. They are sometimes as much as 80 feet high; the only entrance is about 20 feet above the ground; the walls are of great thickness, and there is a spiral stair leading straight up a circular well in the wall on one side of the castle, instead of traversing round the whole building, as in the nuraghes and the brochs. four chambers in the central space, disposed vertically above each other, with vaulted stone roofs, and in the lower story is a well. One of these towers at Donau-stauf, on the Danube, below Ratisbon, has the usual proportions of a broch, being 60 feet in total diameter, and the wall 15 feet thick, enclosing a central area of 30 feet diameter. The walls of these buildings, however, are faced outside and inside by stones chiselled round the border and set in mortar, the interior of the wall being filled with a grouting of mortar, in which are laid small unhewn stones. Some have regarded these towers as of the Roman period, but the Dean of Sinsheim maintains that the Sternberg Tower is merely the keep of a mediæval castle.

Scandinavian Towers.—I shall refer further on to the supposed resemblance of the ruined towers of Ymsburg and Sualsburg, in Westrogothia, to the Scottish brochs, which led M'Culloch to assign a Scandinavian origin to the Scottish structures. The analogy they bear to the borgs of the Norse Sagas and the burghs of the Anglo-Saxon period will also be discussed in its proper place.

Towers of the Caucasus.—Vallancey states,¹ on the authority of Gulden-staedt, who explored the regions of the Caucasus by order of the Empress Catherine, that among the tribes of the Kisti and Ingushti many of their villages have a round stone tower, which serves them in time of war as a retreat for their women and children. In their purpose these towers are exactly analogous to the Scottish brochs, but I have been unable to obtain a description of their plan and structure. There seems no reason, however, to suppose any community of origin for them and the Scottish brochs.

In the meantime, it is sufficient to clear the ground of the notion of a foreign origin, by showing that none of the foreign structures which are

<sup>&</sup>lt;sup>1</sup> Collectanea de Rebus Hibernicis, vol. vi. p. 124.

round towers have the slightest claim to be considered as the source from whence the plan and peculiar structure of the brochs have been derived.

Characteristics of the Broch Structure.—But if the peculiar architecture of the brochs is of purely native origin, copying neither the style of its masonry, nor the constructive plan of the building from any external source, it is a very remarkable feature of the broch structure that it does not seem to have been developed from any simpler or earlier style of the native "dwellings of strength." The amplification of a hut-circle into a "lofty stone-screen drawn round the council fire of the tribe" might produce a circular tower having some external resemblance to a broch, but the stairs, the galleries, the chambers in the thickness of the walls, and the ranges of windows looking into the interior space, would all be wanting. Neither is there any transition, easily perceivable, by which the broch passes into the more advanced type of the castellated structures of succeeding ages. It stands entirely alone among the relics of the past, marking a period in the history of our country, the traces of whose beginning and ending appear to have been totally lost.

This seems the more unaccountable, when we consider that the period of the brochs must necessarily have been one of very great importance in the early history of Scotland. No other period in that history surpasses it in the number and magnitude of its structural remains.<sup>1</sup> And if it be the fact—as the recently discovered examples of Hurley Hawkin<sup>2</sup> and The Laws<sup>3</sup> in Forfarshire, Coldoch<sup>4</sup> in Perthshire, Torwood<sup>5</sup> in Stirlingshire, and Edin's Hall in Berwickshire<sup>6</sup>, would seem to indicate—that the scanty testimony which is now borne to the former existence of the brochs over the area of the central and southern districts of the country is chiefly due to the uncontrolled and remorseless energy of the practical agriculturist, then, beyond a doubt, the broch period must have been one of no ordinary activity and importance in the history of Scotland; and while in their structural features they afford unequivocal evidence of the constructive skill and energy of their builders, the extraordinary number of their ruined sites in districts

<sup>&</sup>lt;sup>1</sup> See the Appendix to this paper, in which a list of upwards of 300 brochs is given.

<sup>&</sup>lt;sup>2</sup> Proceedings, vol. vi. p. 210.

<sup>&</sup>lt;sup>3</sup> Proceedings, vol. iii. p. 440, and vol. v. p. 321.

<sup>&</sup>lt;sup>4</sup> Proceedings, vol. ix. p. 37.

<sup>&</sup>lt;sup>5</sup> Proceedings, vol. vi. p. 259.

<sup>&</sup>lt;sup>6</sup> Proceedings, vol. viii. p. 41.

where these are yet undisturbed by cultivation, testifies as unequivocally to the fact of their having been the work of a large and settled population.

That they were the work of the people of the soil, and not of an invading race striving to establish themselves in an enemy's country, seems also to be clearly deducible from a consideration of the character of the structures themselves. "The castle," says Dr John Hill Burton, "belongs to the feudal period alone. It is not a work of refuge, but of aggression, and was reared, not by the people of the country for protection against invaders, but by strangers who came among them, and held rule over them." Now, the very opposite is the case with the brochs. They are eminently and peculiarly structures of defence and not of aggression. The castle holds a threat in every loophole of its embattled walls, but the broch is the architectural embodiment of passive resistance. Its leading idea is simply that of a perfectly secure place of refuge for men and cattle. This idea seems to me to be the explanation of the remarkable uniformity of style and plan which they exhibit, though ranging over such a wide area of country. Such uniformity could only have resulted from the deliberate adoption of a peculiar type of structure, because of its peculiar suitability to the purposes for which it was required; and the universal adoption of such a completely effective system of purely defensive structures, implies that it must have been the product of peculiar circumstances in the history of the people.

Irish Round Towers.—We have a remarkable instance of this in the origination by the ecclesiastical communities of Ireland, of an equally peculiar type of architectural structure, also marking a period of general insecurity.<sup>1</sup>

Like the brochs of Scotland, these Irish "Cloictheachs" stand alone, being neither developed from any species of structure that preceded them, nor passing by any transition into the later architecture of the country, while the striking uniformity of plan and construction is a feature quite as remarkable in them as it is in the brochs. The Irish towers being built with lime-cement, the builders were able to use a thinner and loftier wall, and in other respects they show an advance upon the ruder architecture characteristic of the Scottish brochs. But while a similarity of purpose is plainly discernible

<sup>&</sup>lt;sup>1</sup> See the able and exhaustive elucidation of "The Origin and Uses of the Round Towers of Ireland," by Dr Petrie, which shows conclusively that these singular structures were the product of the peculiar circumstances of the times.—(Trans. Roy. Irish Academy, vol. xx.).

in both, the dissimilarity of the structures seems more a question of materials than of date. The broch being constructed of stones uncemented, required a thicker wall and a larger area to give it the requisite strength and solidity.

Uncemented Building.—Although it seems at first sight a perfectly natural classification to place uncemented structures before those that are lime-built in the order of time, it is obvious that this will only hold good for the style of building, and not for the structures. The Romans used lime-mortar in their buildings; and though it may have been used earlier in the south of Scotland, in a few instances, for ecclesiastical buildings, it seems conclusively established from the facts mentioned by Bede, that the mode of building with lime was either not known or not practised among the northern Picts in the eighth century.

The Brochs unknown to the Romans, and later than the Roman Period.—Again, the fact that the brochs appear to have been entirely unknown to the Romans, may be taken as prima facie evidence of their being later than the Roman occupation of Scotland. It may be said that the Romans never occupied the districts where brochs are most abundant; but Coldoch and Torwood are close to the wall of Antoninus, and Edin's Hall is a long way south of it. The Romans, moreover, were so well informed on most subjects which it behoved them to know as invaders seeking to subdue the land, that we cannot conceive them to have been ignorant of this remarkable style of defensive structure, had it been then in existence. The "Cathairs" or "Caers,"

<sup>1</sup> Of the Round towers of the Irish type in Scotland, that at Brechin (as we know from the curious notice in Boethius, first pointed out by Sir J. Y. Simpson—Proceedings, vol. ii. p. 526, note) was standing about A.D. 1012; and the Abernethy tower is referred by Dr Petrie to the eighth century, when, as we learn from Bede, Nectan, king of the Picts, sent messengers to Abbot Coelfrid of Jarrow, requesting that architects should be sent him,—"Qui juxta morem Romanorum ecclesiam de lapide in gente ipsius facerent." If Egilshay in Orkney be admitted to be of Irish origin, it may probably be of not much later date, as it seems from the name that there was a church on the island when the Norsemen came to Orkney in the ninth century. Munch adopts this view, on the ground that the name Egilshay [Eaglais-ey or Kirk-island], is not from the Norse proper name Egill, but from the Latin *Ecclesia*, corrupted in Irish into *Eccles or Eaglais*; and he further adds, that the tower exactly agrees with similar ones in Ireland of the eighth century.

<sup>&</sup>lt;sup>2</sup> It is greatly to be desired that some one would do for the Scottish caers and early hill-forts, what Sir Henry Dryden is doing, with such laudable perseverance, for the brochs. Few, if any, of these hill-forts have been either properly examined or accurately planned, so as to show

which were simple ramparts of great stones drawn round the brow of an eminence, were well known, and are described by Cæsar and Tacitus. But the only Roman testimony we have regarding such structures as the brochs, is the negative statement of Dio, who, speaking of the Meatæ and the Caledonians beyond the wall, says, "Each of them inhabit mountains very rugged, and wanting water, and also desert fields full of marshes; they have neither castles nor cities, nor dwell in any."

It may be remarked also, that the character of the broch structure itself must refer them to a later period. They are not defences against the assaults of a regular army, but simple refuges from the attacks of predatory bands. They are most numerous in those parts of the country to which the Romans never penetrated; and if they were ever numerous in the districts of the Roman occupation, they are plainly not constructed to resist the attacks of such a military power as that of the Romans. It may indeed be open to question whether any of those "prehistoric" refuges—underground or above-ground structures—are earlier than the date of the Roman occupation of Britain. Samian ware has been found in the "cave-dwellings" of England and in the yird-houses or weems of Scotland, proving their occupation during or after the Romano-British period. It would be an inversion of the ordinary method of archæological induction to place the broch structure before these underground shelters in the order of time and progress.

The Brochs as known to the Norsemen.—Having thus obtained the close of the Roman occupation of Britain, or about the commencement of the fifth century, as an approximate limit beyond which we cannot push the antiquity of the brochs, we have now to look for a limit on the other side, beyond which the period of the brochs cannot possibly have extended.

the details of their structure. Judging by the analogy of the Irish Cathairs and Cashels, some of which show certain features of resemblance to the broch structures, e.g. the hollow passage or gallery in the circular wall, it is by an examination of these structures that the "missing links" in the development of the broch structure are most likely to be obtained (see Mr G. V. Du Noyer's paper on the Cloghauns and Forts of Kerry, in the "Arch. Journal," vol. xv. p. 10).

<sup>&#</sup>x27; One of these underground structures at Newstead, Roxburghshire, had its walls built of hewn stone, and the shoulder of the flat arch of the roof of bevelled stones. Roman mouldings appeared on some of the stones found near the entrance. (Proceedings, vol. i. p. 213).

If there is one thing more strikingly brought out than another by the recent investigations among the ruined brochs, it is the fact that there was an earlier and a later period of their occupation. They were frequented and occupied long after their original purpose had been rendered inoperative by decay. Outer walls of defence of hasty construction, and extensive ranges of outbuildings, were added to the original structure, and frequently so added as to show that they were not only built out of, but built upon, the ruins of the central tower. The interior area was adapted for this later occupation by the erection of a wall, usually about 8 feet in height, round the inside wall of the broch, and partition walls, evidently intended to support a roof at that height, were rudely run across the area. Sometimes these partition walls are found to have several feet of the debris of the older structure, and of the food remains of the older occupancy, intervening between their foundations and the original floor. It was in this condition of halfruined and wholly ruined structures that the Norsemen found them in their descents on the northern coasts in the eighth, ninth, and tenth centuries; and probably, in many cases, they may have thus occupied and utilised them. That they did find some of them capable of being thus utilised we know for certainty, from the Saga records; and that others were in the condition of total ruin we are led to infer from the fact, that they were indistinguishable from the cairns or barrows of the neighbourhood, and were used by the Norsemen as "hows" for the interment of their dead.\(^1\) Bronze brooches of the "tortoise" form, and iron swords, both of unquestionably Scandinavian type, have been found deposited with such interments in the mounds of ruined brochs.

But there are other indications which point to the fact of a considerable number of the brochs having been still in a condition to be utilised for other purposes than as cairns for the burial of the dead during the period of the

¹ Many mounds, now known by excavation to have been originally brochs, have been thus used, and in consequence, are known to this day as hows, from haugr, a barrow or cairn. The How of Hoxa is the reputed burying-place of Earl Thorfinn Hausakliffer, who died about A.D. 960, and may have been "hoylaid" not in a cairn specially constructed for him, but in the cairn which existed ready made from the ruins of the broch. In 1786 a broch in the parish of Olrig was cleared away, and in the upper part of the mound there was found an interment, with two tortoise brooches, one of which (presented by Mr Traill) is now in the Museum. These brooches are distinctively Scandinavian.

Norse ascendency in the north of Scotland. There are two sites in Caithness, known by the names of Hall of Bowermadden and Old Hall of Dun. former is known by excavation to have been a broch. The latter, from its name, was presumably so. "Hall" was the old term for the seat of residence of an earl, and was used in this sense both by the Norsemen and Saxons. Búr in Old Norse signifies a storehouse, and was applied to the "meat-hall" of an earl or rich odaller, where open table was kept for his followers and The local pronunciation of "Bower" in Bowermadden to this day is boor, and it is spelled "Bouer" in Bishop Gilbert's deed of constitution of the cathedral chapter of Caithness, A.D. 1243-45. When Earl Moddan<sup>3</sup> disputed the earldom with Thorfinn Sigurdson, about A.D. 1028, we are told that Thorfinn had his residence at Dungalsbae; 4 and though Moddan's residence is not mentioned, yet the name still attached to this old broch suggests that he may have occupied it, and perhaps adapted and refitted it as his Búr or "Hall" of residence. No remains of the many "seats" of earls and vikings, alluded to in the Sagas (specifically distinct from native structures) are now recognisable, and this makes it the more probable that they may have utilised the half-ruined native strongholds of the country.

Again, wherever we find the Celtic term "dun" attached to a defensive position, we conclude that it marks its occupation and use as a Celtic fortress. On the same principle, the Norse term "borg" attached to one of these ruined Towers records the fact that it was a fortress, and was known as

<sup>&</sup>lt;sup>1</sup> See ante, p. 143.

<sup>&</sup>lt;sup>2</sup> Munch en Mémoires de la Société Royale des Antiquaries du Nord, 1845-9, p. 245.

<sup>&</sup>lt;sup>3</sup> There was a later Moddan, who lived in the Dales of Caithness early in the twelfth century, and is said in the "Ork. Saga" to have been the most considerable man of his day.

<sup>&</sup>lt;sup>4</sup> Orkneyinga Saga, p. 30.

<sup>&</sup>lt;sup>5</sup> The búr or "hall" or earl's seat at Örfyara (Orphir) in Orkney, is referred to in the "Orkneyinga Saga" (p. 144) as Earl Harald's residence, and as Earl Paul's residence (p. 186). It is described as having a large "drink hall," in which as you entered on the left hand were large ale-vats of stone, which may have been similar to the large stone vessels (one of which was 3 feet deep) dug up at Bowermadden (see antea, p. 144). Swein Asleif's búr in Garecksey (Gairsay) in Orkney had a drink-hall so large that there was none like it in the islands, and in which he maintained eighty followers ("Ork. Saga," p. 396). He had also a búr at Thraswick (Freswick) in Caithness, which seems from the context to have been the same as the stronghold or "borg" elsewhere called by the Saga "Lambaborg," now Bucholly Castle.

such to the people who called all fortresses "borgs." And, still on the same principle, a fortress called by such a name as Dun Skudborg¹ (in Skye) seems to me to bear record to the fact that it was known both as a "dun" and as a "borg;" that is, that it was known as a fortress both by a Celtic and a Norse-speaking people. Such a name could not have been given to a Celtic dun previous to the Norse invasion of the Hebrides. It is to be regarded, therefore, as an indication that this broch was still used as a fortress at some period within the eighth, or at latest, the tenth century.

Looking at the fact, that the Norse term borg<sup>2</sup> is so thickly scattered over the area occupied by the Northmen, we cannot resist the conclusion that it must have been intelligently applied, and must mean that the structures so named were fortresses at the period when this name was given to them—a period which could not have been much earlier than the last quarter of the ninth century.

It seems probable that the brochs of Yarhús, Warhús, and possibly Burnthús (Norse, Brenthús) in Caithness may owe the names by which they are still known to the Norsemen. If so, they tell us that the structures were still in a condition to be occupied when the Norsemen came I have sometimes wondered whether the curious name of to Caithness. Kettleburn<sup>3</sup> by which the broch near Wick is known, might not be an indication of its occupation by that Ketilbiorn, who was one of the earliest Norse colonists, and a branch of whose family, through the marriage of his great-granddaughter Groa with Dungal, Jarl of Dungalsbae, in Caithness, became naturalised in the north of Scotland. The Raudabiorg<sup>5</sup> of the "Orkneyinga Saga," where the fierce sea-fight took place in the Pentland Firth between the Jarls Ronald and Thorfin, can scarcely be anything but the place now called Brough of Rattar, on the estate of Rattar, It lies on the shore of the Pentland Firth, on the east side of Dunnet Head. Raudabiorg would mean Red Rock or Red Borg; and it is confirmatory of this identification that not only is the modern name

<sup>1</sup> Skidh-borg (?) from Skidh, the Norse name for Skye.

<sup>&</sup>lt;sup>2</sup> It appears as Borg, Borgie, Borgar, Borve, Borwe, Barrock, Bharrich, Varrich, and as a compound in Borreray, Bhoreraig, and Burray, Borrowston, Burwick, Burland, Burraland, Burrafirth, and Burgowater.

<sup>&</sup>lt;sup>3</sup> Explored by the late Mr A. H. Rhind, see Proceedings, vol. i. p. 264.

<sup>&</sup>lt;sup>4</sup> See Landnama Bók, pp. 5, 241; Kristni Saga, p. 192. <sup>5</sup> Ork. Saga, pp. 65, 91.

"Rattar Brough" a very likely corruption of Raudabiorg, but this is the only locality in Caithness where the red-coloured beds of the Old Red Sandstone do occur. In this notice of Raudabiorg we have possibly an indication that the broch was then standing, and a well-known seamark to the Norsemen frequenting the Pentland Firth.<sup>1</sup>

In the brief notice given in the same Saga<sup>2</sup> of the death of Thorbiorn, a distinguished viking, who was killed by Hacon Palson and Magnus the Holy, at Borgarfiord in Shetland, it is not said that he occupied the borg there; but as he was a viking of eminence, it is to be presumed that the reason of his connection with Borgarfiord was its affording him and his followers a shelter and defensive position in the broch. That the broch was known to the Norsemen is plain from their naming the firth on which it stands "Borgar-fiord," or the Fiord of the Borg.

Burray, in Orkney, a small island on which there is more than one broch, was named Borgar-ey by the Norsemen—the Island of the Borg. "Borgar-ey," says Professor Munch, "is from Borg; there must, therefore, have formerly existed some kind of burgh or fortress on this island." It seems thus probable that one or more of the Burray brochs must have been standing and known as a borg or fortress within the ninth or tenth centuries. It is right to add, however, that such conclusions cannot be drawn with absolute certainty, and that they derive their force only from their forming one of several sets of indications all pointing to the same general inference.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> See the notice of the finding of eight silver armlets in cists near this broch by Mr Campbell, in the Proceedings, vol. ix.

<sup>&</sup>lt;sup>2</sup> Ork, Saga, p. 122.

<sup>&</sup>lt;sup>3</sup> Bergarfiord or Borgarfirth, in Hialtland, is mentioned in a document in the Old Norse language, dated A.D. 1299, a copy of which is given in the "Diplomatarium Norvegicum," vol. i. p. 81, being a record drawn up in the Lagthing concerning certain charges of malversation of the land-rents of Brekasettr made against Herr Thorvald Thoresson by a woman named Ragnhild Simonsdatter, who declares him to be "a Judas." A Harald of Borgarfiord also witnesses a document in 1498.

<sup>&</sup>lt;sup>4</sup> Memoires de la Société Royale des Antiquaires du Nord, 1845-9, p. 227.

<sup>&</sup>lt;sup>5</sup> Borgar was also a man's name, and there was a Borgarfiord in Iceland, where there are no brochs. Sigurd, keeper of King Swerre's borg, or castle, at Bergen, was nicknamed Borgar-klett, in allusion to his strength and stature. Borgar as a man's name occurs in the "Orkneyinga Saga," p. 222. It is curious to find it occurring as a surname in the latest known Hialtland document written in Norse, dated 1586, where "Jamis Burgar, sergenn y Jella" (serjeant in Yell), is mentioned.

But we know for certainty, from the Saga notices of Mousa (the best known and best preserved of the Shetland borgs), that for a period of two hundred years at least, from the commencement of the tenth century, it stood unoccupied and open to receive the chance sea-rover whose necessities compelled him to seek shelter and security within its walls. The earliest notice of the broch of Mousa refers to about the year A.D. 900, when Bjorn Brynulfson, who fled to Shetland from Norway with Thora Roaldsdatter, because her father would not consent to their marriage, was shipwrecked there, and found shelter in the borg, where he lived through the winter and celebrated his marriage, having landed the cargo and laid up the vessel Again, about the year 1156,2 the Jarl Erlend Yunga, having become enamoured of the mother of Jarl Harold, carried her off from Orkney to Shetland. There they took possession of Moseyarborg, and were besieged in the borg by Harold, who sat down before it and cut off all their supplies, as the place could not otherwise be taken. After some time, however, the two earls came to a mutual understanding, and the siege was aban-These notices of Mousa, so precise and circumstantial that they do not admit of doubt or dispute, go to strengthen the probability derived from the incidental notices of other "borgs" in the north and west of Scotland,—and derived also from their sites still retaining the names given to them by the Norsemen,—that they may have existed at the same period in a condition to be known as fortresses, and possibly to have been used as Mousa was, though we have no direct statement to that effect.

Narrating the outrage perpetrated upon Bishop John of Caithness by the Jarl Harold Maddadson, the "Saga" places the scene of the event within the borg at Skarabolstad, now Scrabster, near Thurso, in Caithness. It is stated that the bishop was in the borg, and Harold's men rushed from their ships up to the borg, and the men that were in it immediately surrendered it. From the letter of Pope Innocent, appointing the penance to be performed by the "Lomberd, a layman," who (as he says) was compelled by the earl's soldiery to cut out the bishop's tongue, the additional particulars are to be gathered, that when they took the "borg" they killed almost all that were

<sup>&</sup>lt;sup>1</sup> Egills Saga, c. 32, 33. Mémoires de la Société Royale des Antiquaires du Nord, 1850-60, p. 127.

<sup>&</sup>lt;sup>2</sup> Orkneyinga Saga, p. 342.

<sup>&</sup>lt;sup>3</sup> Orkneyinga Saga, p. 415.

remains of a structure popularly called the Devil's Caldron, near St Blane's Church, in the south end of the island. It is described by Wilson 1 as a remarkable building of unknown usage, consisting of a circular wall, 9 feet thick and 30 feet in diameter, the interior being filled with rubbish, and the height of the walls still standing about 10 feet. The masonry is rude, many of the individual stones are of immense size, and the general style of workmanship indicates even a more ancient origin than that of the adjoining buildings, which are referred to the close of the tenth century.

The Earliest Lime-Built Castles.—The earliest lime-built castles of the north and west of Scotland are usually small, square, and almost windowless keeps. They are most frequently erected on the landward end of a precipitous rock, jutting out into the sea, with a number of rude hut-like erections clustered between it and the sea on the space thus protected. The castles of Old Wick<sup>2</sup> and Bucholly on the Caithness coast, and of Borve and Barroch in the north coast of Sutherland, are typical examples of this class of stronghold. Borve Castle is traditionally connected with a Norse occupant or founder, named Thorkel; and Barroch Castle, perhaps the most typical specimen of the kind on that coast, is only about 12 feet square Both these names are evidently corrupted from the Norse term "borg." Bucholly Castle, near Freswick, in Caithness, which is identified by Pope and Pennant as the Lambaborg<sup>4</sup> of the "Orkneyinga Saga," has a mediæval restoration of the upper part of the square keep-like tower, but the covered passage leading from it to the clustered buildings behind is roofed with the flat arch formed by the overlapping of the stones so characteristic of the earlier brochs.

The "Orkneyinga Saga" and the Saga of Hakon Hakonson both notice the erection on the island of Vigr (now Weir in the Orkneys) of a castle by Kolbein Ruga in the twelfth century. In the last-mentioned Saga it is related that Snaekoll Gunnason, after having killed the Jarl Jon Haraldson, repaired for safety to Kolbein Ruga's castle in Vigr, and that it resisted all

<sup>&</sup>lt;sup>1</sup> Voyage Round Scotland. By James Wilson. P. 18.

<sup>&</sup>lt;sup>2</sup> See an engraving of this castle in Mr Joass's paper, antea.

<sup>&</sup>lt;sup>3</sup> Probably the Beruvik of the Ork. Saga, p. 30, 348.

<sup>&</sup>lt;sup>4</sup> Swein Asleif's Búr, where he kept sixty men, and in which he was besieged by Earl Ronald. "Ork. Saga," pp. 248, 250.

<sup>&</sup>lt;sup>5</sup> Ork. Saga, p. 258.

<sup>&</sup>lt;sup>6</sup> Saga Hakon Hakonsonar, cap. 171.

in it. The date assigned to this event is about A.D. 1200.¹ Unless there may have been an earlier building on the site of the bishop's castle, which stands on the cliff overlooking Scrabster Roads, the scene of Bishop John's mutilation may probably have been a broch. There is a mound, presumably the ruins of a broch, not far from the present hamlet of Scrabster.

But the use of the word "borg" in the Sagas, though commonly applied to a fortress or stronghold, does not necessarily imply the species of structure which we call a broch.<sup>2</sup> The frequent occurrence of the word in these records as a generic term for a fortified place, seems to have misled M'Culloch into the belief that the Scottish brochs were of Norwegian origin. port of this idea, he appeals to "what may be considered a perfect and incontrovertible proof of their real origin, that they are still found in Norway;"3 instancing, in support of this assertion, the ruined strongholds called Sualsburgh, near Drontheim, and Ymsburgh, in Westrogothia. Both these are figured in Dahlberg's "Suecia Antiqua," and are merely circular towers like the keeps of our own early mediæval castles. Worsaae, whose authority no one can doubt, states expressly that there is nothing like the broch structure in Scandinavia. There is a notice in the "Chronicon Manniæ," under the date 1098, of Norse fortresses in the Isle of Man, which represents them as being made of wood, and states that King Magnus impressed the Galwegians to cut wood and carry timber for their construction. Munch adds, in a note to this passage, that what is here stated is likely to be true,—firstly, because these fortresses still bore King Magnus's name when this part of the chronicle was written—viz., about A.D. 1260; and secondly, because King Magnus erected similar forts at other places which he conquered, for instance, at Kvaldensey, in the Lake of Wener, in Sweden, in 1100. There is no

<sup>&</sup>lt;sup>1</sup> Bishop John witnesses several charters between 1187 and 1199. See "Two Ancient Records of Caithness," Bannatyne Club Miscellany.

<sup>&</sup>lt;sup>2</sup> Of the use of the word "borg" in the sense of a simple defence, not of a structural kind, we have a curious example in the narrative of the death of Brian Boruimhe, at the battle of Clontarf, as given in the "Njal Saga." It is there stated that "the champions formed a shield-burg round the king"—i.e., a ring of men holding their shields locked together round its circumference. The same expression is used in the Saga of Örvar Odd, who is represented as breaking through the "skjald-borg" to slay King Wilhelm.

<sup>&</sup>lt;sup>3</sup> The Highlands and Western Islands of Scotland, in Letters to Sir Walter Scott, Bart. By John McCulloch, M.D. Vol. ii. p. 245.

evidence that the Norwegians ever made fortresses like the brochs either in Norway or in Britain.

It very often happens that where we should most naturally look for a special reference to this class of structure in the Sagas, we find that the word used is not "borg," but "kastala," a castle. But in the narrative of the invasion of Bute by King Olave the Swarthy, the words are used interchangeably, although the description of the mode in which the "borg" was assaulted, and the reference to the "soft stone-work" coming tumbling down, might lead to the supposition that it was an uncemented structure.

That there were brochs in Bute, I think is probable, judging from the

Alrek reisti steinn son Sigridar at sinn föður Spjöt, sa er vesterla um varit hafði borg um brotna ok um barða, (for) hann (ok) garsar með Gauti allir. Alrek raised this stone, the son of Sigurd, to his father Spiot, who in the western parts had in the spring-time broken a borg and beaten eke, he and all his lads went forth with Gaut,

The expression, "in the western parts," is commonly used for Britain and Scotland, and it is suggestive that Gaut is one of the names that occur in the Runic inscriptions in Maeshow:—

<sup>&</sup>quot;Afterwards they sailed into Scotland under Dyrness (Durness, in Sutherland); then went they up and burnt a castle, but the men had fled."—Haco's Expedition, Johnstone's Edition.

<sup>&</sup>lt;sup>2</sup> "And the Scots lay there (in Bute) in a castle (i kastala einum), and a Steward of Scotland commanded over them. The Northmen sat down before the fortress (Nordmenn lögdo til Borgarinnar) and gave a hard assault. But the Scots fought well, and threw down upon them boiling pitch and lead. Many of the Northmen fell, and many were wounded. They therefore prepared over themselves a covering of boards, and hewed at the walls, for the stone was soft, and came tumbling down after them. They cast it down to the ground.

. . . . Three days did they fight with the borg-folk before they won it."—Johnstone's Translation. But perhaps the most curious and interesting notice that has been left to us by the Norsemen of the storming of a "borg" is one which occurs on a pillar stone in the district of East Rekarne, on the brow of the Kula Mountain in Sweden. This stone bears a Runic inscription, forming two long serpentine bands with a cross in the middle—an indication of a date subsequent to the introduction of Christianity. The inscription is as follows:—

<sup>&</sup>quot;Molf Kolbainsson carved these Runes to Gaut."

the efforts of the earl's friends to reduce it. In Barry's time the ruins of this castle showed it to have been a small square keep, 15 feet square inside, with walls of well-cemented stone, 7 feet thick. Mr Petrie informs me that a corner of it was lately exposed by the removal of part of the mound in which, like the brochs, it is now hid. The site, however, bears the name of Cobbie Row's (Kolbein Ruga's) Castle to this day.

With the earliest of these small square, almost windowless, but limebuilt keeps which stud the shores of the north and west of Scotland, we have the commencement of a well-marked architectural period, differing entirely in almost all its characteristics from the period of the brochs, which appears to have immediately preceded it. But, as I have already remarked, there is no transition easily perceivable by which the gap between the two styles or periods can be bridged over. It is true that there are a few slight indications, such as the clustering of a series of huts behind the keep, which was also a feature of the brochs in some cases, the use of the flat arch in Bucholly, the character of the masonry in Oldwick, which resembles that of the brochs in a manner sufficiently striking to the eye, but very difficult to be described without the aid of exact pictorial representations, the frequent use of long passages or galleries in the thickness of the walls, the want of windows looking to the outer world, and other minor features, which seem something like the missing links. But the introduction of lime-cemented buildings must have all at once changed the character of the fortalices. There was no longer any necessity for the enormous thickness of wall, and the change from the circular to the rectangular form may have been partially due to the desire to economise more expensive work and materials, if it do not also indicate a no less marked change in the constitution of society and the conditions of life.

The Tower of Coningsburgh.—Turning now from the extreme north of Scotland, we find in Coningsburgh, in Yorkshire, what has been called a very remarkable instance of a Saxon burgh, giving also some slight indications of correspondence with the earlier Pictish structures, if not of Pictish influence, in its architectural style. In a note to the 18th chapter of "Ivanhoe," Sir Walter Scott states, that when he last saw the castle of Coningsburgh—

<sup>&</sup>lt;sup>1</sup> See Lowe's description of the broch in Fetlar, of Burraland in Walls and Sandness, and of Burland in Dunrossness, given in the Appendix to this paper.

one of the very few remaining examples of Saxon fortification—he was strongly impressed with the desire of tracing out a theory regarding it as a step in advance from the rude architecture of the northern brochs or duns. After describing with great vividness and accuracy the chief constructive features of the Shetland brochs, he adds:—

"The builders of Coningsburgh had attained the art of using cement, and of roofing a building—great improvements on the original burgh. But in the round keep, the chambers constructed in the thickness of the walls, and the difficulty by which access is gained from one storey to those above it, Coningsburgh still retains the simplicity of its origin, and shows by what slow degrees man proceeded from occupying such rude and inconvenient Iodgings as were afforded by the galleries of the castle of Mousa, to the more splendid accommodation of the Norman castles, with all their stern and Gothic graces."

Mr King has also pointed out the apparent resemblance which the tower of Coningsburgh bears to an ancient Pictish broch,<sup>1</sup> "appearing," he says, "to be only the first improvement on such a kind of building by architects a little more civilised."

The tower of Coningsburgh<sup>2</sup> is constructed of a circular wall, 15 feet thick and 60 feet high, enclosing an area 23 feet in diameter—not a great departure from the ordinary dimensions of a broch. The stair is in the thickness of the wall, and winds spirally round the whole building. The area of the floors is not subdivided, and the use of the flat arch, and the absence of external openings in the walls (except the doorway and one small aperture near the top) complete the points of resemblance. On the other hand, it is lime-built and buttressed, the buttresses rising the whole height of the walls. If divested of the buttresses, however, the ground plans of its several floors (given by Mr King) might readily be mistaken for the ground plans of brochs. With regard to the indications of Pictish character in the building, he suggests that about the period to which he ascribes its erection (viz., the first ages of the Heptarchy), the Saxons had made a league with the Picts, who were their confederates, when they seized that part of the country.

<sup>&</sup>lt;sup>1</sup> See his "Munimenta Antiqua," vol. iii. pp. 43-50, and also "Observations on Ancient Castles," in the Archæologia, vol. vi. p. 231.

<sup>&</sup>lt;sup>2</sup> There can be little doubt that there must have been a stronghold on "Caer Conan" (the early name of Coningsburgh) long before the erection of this lime-built castle. The "Duan Albanach" speaks of "the building of the tower of Coning" as a well-known event of national importance.

Edin's Hall, a Broch surrounded by a Saxon Burgh.—But perhaps the most remarkable of the true brochs, whether for size or situation, is that known as Edin's Hall, or Etin's Hold, on Cockburn Law, near Dunse, in Berwickshire. The name by which this great broch is still known is suggestive, as indicating not improbably its occupation in the seventh century by Edwin, king of Northumbria. According to the Anglo-Saxon Chronicle, Edwin, son of Aelle, was slain in A.D. 633. Under the date 631, the following entry occurs in the Annals of Tighearnac:—

Cath itir Etuin MacAilli regis Saxonum qui totam Brittaniam regnavit, in quo victus est a Chon Regi Britonum et Panta Saxano.

In the Annals of Ulster, under the date 638, we have the entry:—Bellum Glinnemuresson et obsessio Etui.

In the Annals of Tighearnac, under the same date, it is:—

Cath Glinne Mairison . . . . et obsessio Etain.<sup>2</sup>

These notices seem to refer to the same place, named from the "Etuin MacAilli" of the first extract, and may be assumed to be at least as applicable to Edin's Hall as to Carriden. But, if the historical notices are insufficient to establish the identity of Edin's Hall with the "Etain" of the Annals, there is sufficient evidence in the composite character of the fortification itself to warrant us in concluding, that while Edin's Hall is a "Pictish Tower," it has been occupied by Saxons, and surrounded by Saxon outworks. To bring out this point some little detail is necessary.

The main building of Edin's Hall is a broch of the usual construction, though somewhat larger than common. It has the two "guard-chambers" on either side of the doorway, three oblong chambers in the thickness of the wall, and a staircase of the usual broch type. The chamber's have been roofed in the manner invariably found in other brochs.

But besides the broch proper, a number of other circular structures are scattered over the platform, on the summit of the shoulder of the hill on

<sup>&</sup>lt;sup>1</sup> For a description of this broch, see Dr Stuart's paper in the Proceedings, vol. viii. p. 41.

<sup>&</sup>lt;sup>2</sup> In the Chronica Pictorum, there is the following statement as to the final abandonment of a stronghold known by this name:—

<sup>&</sup>quot;In hujus temporis (Indulfi, 954-962), oppidum Eden vacatum est ac relictum est Scottis usque in hodiernum diem."

which it stands. The whole platform is enclosed by a series of defensive ramparts, consisting of a wall of stone, and a double circumvallation of earthen mounds, with a ditch between,—that is to say, the earlier broch has been enclosed for greater security, at a subsequent period, by a Saxon "burgh." This is exactly what we should expect to find if it had been occupied by King Edwin. Fortunately, we are able to compare the outbuildings round Edin's Hall with one of the known "country seats" of King Edwin; but before doing so, it is necessary to examine what was the specific character of the structures which the Saxons called "Burghs."

Character of the Saxon Burghs.—The Anglo-Saxon Chronicle is full of notices of these fortified places, of the period ranging from the time of the first establishment of the Saxon power in England downwards. Thus, under the date 913, we find:—

In this year also, God granting, Aethelflaed, Lady of the Mercians, went with all the Mercians to Tamworth, and built the burgh there in the early summer, and before the following Lammas that at Stamford; then, in the year after this, that at Eddesbury, and in the same year that at Warwick; next year that at Chirbury, and that at Wardbury; and that same year, before mid-winter, that at Runcorn," &c.

But it is plain from other notices of these burghs that they were not brochs. In the year 921, when the burgh at Colchester was beset, it is told how the besieging army reduced it, and slew all the people, and took all that was therein, except the men that fled away over the wall. In the same year, it is recorded that King Edward went to Passenham, and sat there while they surrounded the burgh of Towcester with a stone wall. In 963, it is related of the Abbot Kenulf of Peterborough, that "he first made the walls about the monastery, then gave it for name 'Burch' (burgh), that was before called Medeshamstede." Bede also mentions that a holy man, named Fursius, came out of Ireland, when Sigbercht was king of the East Angles, and built a monastery on ground which was given him by King Sigbercht. This monastery, he adds, was built within the area of a burgh or castle, which in the English language is called Cnobheresburg. From these notices, it appears that the Saxon "Burgh" was simply a stone wall or breastwork of no great height (over which men could flee), enclosing the strong position of a town, a monastery, or a hamlet. This is exactly what we find in the case of the known "country seat" or "burgh" of King Edwin, which we shall now compare with the structures surrounding Edin's Hall.

King Edwin's Burgh at Ad-gefrin.—Bede, in his 14th chapter, relates that Paulinus, coming with King Edwin and his Queen Ethelburga to the royal country-seat called Ad-gefrin or Ad-gebrin, stayed there with them thirty-six days, catechising the people, who flocked to him from all the villages round about, and baptising them in the river Glen, which is close by. The locality is readily identified as Yeverin in Glendale, a valley in Northumberland, so called from the river Glen, which runs through it. In an old document respecting the vicar of Newton, in Glendale, it is called "Gevera;" and in escheats made in the eighteenth year of the reign of Henry VI., it appears as Yevern. The modern name is Yevering Bell.

A series of excavations were made on this interesting site; and the results have been detailed by Mr Tate in the Proceedings of the Berwickshire Naturalist's Club for 1862-63. The principal remains of King Edwin's "country-seat" or "burgh" at Ad-gefrin, consist of a rude stone wall of blocks of porphyry, uncemented, which had been originally about 12 feet broad, and 7 or 8 feet high, enclosing an area, of an irregularly oval form, on the summit of the hill. The circumference of this enclosing wall is about 1000 yards, and the space enclosed nearly 12 acres. It has four entrances, the largest of which is 12 feet wide, and is flanked by an oval guard-chamber in the thickness of the wall, measuring 9 feet by 6. On the highest part of the enclosed space are the remains of a circular construction, of no great height, and over 50 feet in diameter, surrounded by a ditch. This was doubtless the place in which the king held his court—his hall of state. Hut circles, varying from 18 to 30 feet in diameter, are scattered over the area of the large enclosure. The enclosing wall of the "Burgh," of 7 or 8 feet in height, answers exactly to the description of the burgh at Colchester, over the wall of which the men fled away; and the general character and tout ensemble of the royal seat at Ad-gefrin bears such resemblance to the outbuildings of Edin's Hall, that we have grounds for believing that they may also have been Saxon, and of King Edwin's time; in short, that it is a Pictish "broch," surrounded and strengthened by a Saxon "burgh." The relics found at Ad-gefrin, consisting of querns, deer-horns, rude pottery, flints, armlets of oak (? lignite), and glass, the bronze pin of a fibula, and an iron spear-head, form just such a collection as might have come out of a broch.

It may be objected that Edin's Hall lies too far out of the limits usually assigned to the Pictish territory to have been a Pictish stronghold. But

the nature of the structure, its being a broch, pure and simple, conclusively establishes its relationship to the northern structures; and in fact, from the time of the departure of the Romans (say about A.D. 430) till the arrival of the Saxons, the Picts appear to have held possession of the territory south of the Forth, and would, doubtless, have their strongholds in it. Even throughout the period of the Anglic ascendency, the population of this portion of the country continued to be largely Pictish.<sup>1</sup>

Thus we find the Picts in possession (though by no means in undisputed possession) of the whole area over which the brochs are found during the period which we have assumed as limiting the age to which these structures can be referred. From their first appearance in the Annals they were in possession of the Orkneys. Between the years A.D. 442 and 476 they had possession of the whole territory from Caithness to the Forth, and that after the departure of the Romans they occupied the territory south of the wall of Antoninus there seems to be no reasonable doubt.

The Origin of the Brochs.—But whatever may have been the necessity for the erection of such defensive structures, arising from the prevalence of internecine war among the numerous petty tribes of the native population, the peculiar circumstances which necessitated a universal system of defensive structures were in operation for nearly three centuries before the time when we first come upon certain traces of the existence of the brochs in the Norwegian records. In the sixth century the Picts began to be continually harassed by the incursions of foreign predatory bands. Previous to this, indeed, if we are to believe the story of Octha and Ebissa, with their forty keels,<sup>2</sup> the Orkney Islands, and a large portion of the eastern seaboard, had been subjected to the same ravages so early as the middle of the fifth century. In the sixth century came the incursions of the Dalriad Scots from the west, and these, followed, as they were, by the piratical descents of

<sup>&</sup>lt;sup>1</sup> A.D. 681. In this year Trumbryht was hallowed Bishop of Hexham and Trumwine of the Picts, because at that time they belonged here.—Anglo-Saxon Chronicle.

The statement of Bede, that in his day the Firth of Forth divided the Regnum Anglorum from the Regnum Pictorum, does not exclude the possibility of districts embraced within the Regnum Anglorum having had a Pictish population, any more than it does districts having a British population which we know existed within the limits of the Anglie kingdom.—Skene's Preface to the Chronicles of the Picts and Scots.

<sup>&</sup>lt;sup>2</sup> See the Irish version of the Historia Britonum of Nennius, p. 89.

the Northmen on the northern and Hebridean coasts, and by the invasions of the Saxons from the south, must have produced a condition of general insecurity, which could only be provided against by the adoption of some species of defensive structure like that of the brochs. And it is precisely in those portions of the country which were longest and most incessantly exposed to this species of devastation that we find the brochs to have been most abundant.

We do not know how long before the days of Harald Haarfager the Norse vikings began to come over to the western parts to harry, slay, and lay waste. The earliest notice of their expeditions to the Irish seas is in A.D. 758. But there is evidence, I think, of a Dalriad irruption over the north of Scotland of sufficient magnitude and importance to suggest that possibly they may have been an earlier exciting cause of the development of this species of defensive architecture.

In A.D. 580 the Annals of Ulster record an expedition to Orkney by Aedan, son of Gabran, seventh king of the Dalriad Scots. We know, from the notice in Adamnan's Life of St Columba, that when he was at the residence of Bruide Mac Meilcon, king of the Northern Picts, on the river Ness, about A.D. 565, the Orkneys were under Pictish rule. We are not told what was the result of the Dalriad expedition in 580; but the next mention we have of the Orkneys is the record of their "devastation" in A.D. 682 by Bruide Mac Bile, the king of the Northern Picts. This may or may not mean that they were overrun by the Dalriads from the time of Aedan's expedition in A.D. 580 till Bruide reconquered them in A.D. 682. But we have a suggestive entry in the Annals of Tighearnach, under the date A.D. 629, as follows:—

"Cath Fedhaeoin in quo Maelcaith Mac Scandail Rex Cruithniu victor erat. Dalriada cecidit. Condadh Cerr Rex Dalriada cecidit, et Dicuil Mac Eachach Rex Ceneoil Cruithne cecidit, et nepotes Aedan ceciderunt, id est Rigullan Mac Conaing, et Failbe Mac Eachach, et Oisiric Mac Albruit Righ domna Saxon cum strage maxima suorum."

In the Annals of Ulster the name of the place is spelt Fedhaeuin. Its locality has not been identified. The most remarkable group of cairns and cists in Caithness occurs round a large cathair or fortified hill-top, enclosed by a wall of stones, which is known to this day as Garry Feuin or Garry Whoine—suggestive, at least, of a corruption from Garadh Fedhaeuin. Should this be so, the large chambered cairn close by, which is called Kenny's

Cairn, might be the tomb of that Condadh (or Kenneth) Cerr, king of Dalriada, who fell in the battle, and the Carn Righ, not far off, might be that of the Pictish king (Rex Ceneoil Cruithne), who also fell there. This of course, is mere conjecture; but if we suppose an irruption of Dalriads thus early into these northern districts, many things become clear and explicable, which otherwise are difficult of explanation. For instance, why we should have here and there over the Orkneys and the North so many groups of chambered cairns bearing such a striking similarity to those of Ireland, and of Argyllshire, where we might expect the Dalriadic remains to be most numerous; why we should have Ogham monuments and stone urns in Orkney and Shetland; and why we should have so many Fenian traditions and legends, and a seemingly distinctive Fenian topography scattered over the extreme north of Scotland.

Were the Broch Builders Pagan or Christian?—One other question of much interest remains,—Were the broch-builders pagan or Christian? Indications of Christianity in connection with some of the broch sites are not wanting, but they may be all referred to the practice of burying on these sites after the buildings had become mere mounds of ruin.<sup>2</sup> Although we have no evidence that the broch-builders were Christians, the period to which we have limited the range of these structures may be regarded as a period of transition between paganism and Christianity, and a comparison of the style of building which characterises the earliest Christian structures of the north and west of Scotland with the style of the brochs, and of the later cells, which cluster round their exterior walls, leads to the conclusion that there cannot be much difference in their date (see figs. 11–14). The earliest of these Christian structures in the massiveness, solidity, and rude irregularity of their masonry, bear a remarkable resemblance to the character

<sup>&</sup>lt;sup>1</sup> The well-known legend of John o'Groat's House is apparently the legend of the house built by King Guaire Aidhne for Seanchan and his poets, applied to the modern John de Groat, and the "House" itself has all the appearance of a "pre-historic" mound.—See Trans. Ossianic Soc., vol. v. p. 37.

<sup>&</sup>lt;sup>2</sup> The discovery of a bronze fibula, inscribed with the formula ISVS NAZAR, in the broch of Yarhouse, and the more recent disinterment from the broch of Burrian, in North Ronaldshay, of a rough slab, having a cross of the same form as those on the Ulbster and Monymusk stones, and an Ogham inscription, rudely and slightly scratched into its surface, are instances in point.

## 170 Notice of the Excavation of the Brochs of Yarhouse, Brounaben,

of the building in the brochs themselves, while some of those of later date exhibit features equally characteristic of the later buildings clustered round the brochs.

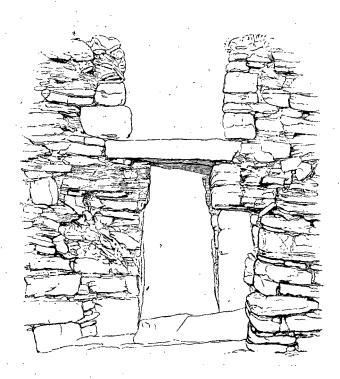
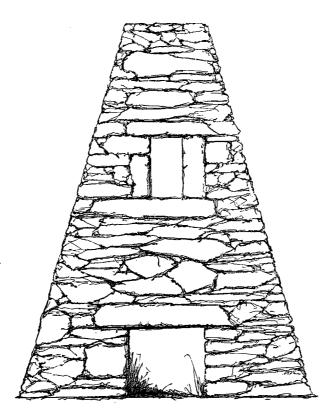


Fig. 11.—Interior view of Doorway and Masonry of Broch of Yarhouse. (From a Photograph.)

Early Ecclesiastical Architecture compared with that of the Brochs.—
"Teampull Beannachadh," the chapel of St Flann, on one of the Flannan islands, is described by the author of the "Old Church Architecture in the Mainland and Western Islands of Scotland" as "a very primitive-looking thing, composed of rough stones, joggled together compactly, without mortar." The form is a squared oblong, the walls being irregular in length and thickness. It is covered by a stone roof, like the cells in the thickness of a broch wall, and its interior dimensions are not larger than many of these cells. A narrow squared aperture, scarcely 3 feet in height, is at once doorway and window, besides it there being no opening of any kind in the building. The chapel of St Carmaig, in Eilan Mor, which is a building of the same kind, is a little larger, measuring internally 11 feet 3 inches by

10 feet 10 inches. The walls are rudely built of uncemented stones, and are more than 4 feet in thickness.



TEAMPULL RONA
INTERIOR WEST END ELEVATION.

Fig 12.

Teampull Rona, on the lonely island of the same name, off the Butt of Lewis, is a better example of the early massive style. It is roofed by horizontal slabs as the broch chambers are, and the projection inwards of the side walls is such that a man standing in the middle of the floor can touch the opposite walls at the height of his shoulders with his outspread hands. The end walls are also inclined inwards.

The chapel on the Sula Sgeir is irregularly rectangular with irregularly rounded corners, having all the characteristics of the larger cells that form the outbuildings of a broch. The projection inwards of the stones of the

side walls commences almost from the floor, and the opposite walls are neither uniform in length nor thickness. The roof is of large slabs laid across horizontally, and this, with the unsymmetrical irregularity of the ground-plan, makes the resemblance to a broch cell almost complete.<sup>1</sup> (Fig. 13).

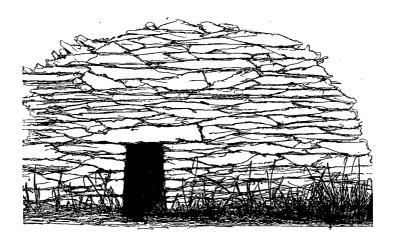


Fig. 13.—Teampull Sula Sgeir. South side.

The Tigh Beannaichte on Gallon Head, in the Lewis, though built of uncemented stones, is of a more advanced type, larger, more symmetrically rectangular, and has one small window. Even in Lybster Chapel, in Caithness, and Weir in the Orkneys, assigned to the twelfth century, the older characteristics of smallness of size, rudeness of masonry, and—in Lybster at least—the absolute want of windows connect them closely with the previous examples.

Thus we have in the comparison of the early Christian architecture, with that of the brochs and their outbuildings, a corroborative line of testimony to the limits of the broch period of no inconsiderable value. The earliest of these chapels or oratories cannot well be earlier than the end of the sixth century, and may be considerably later, so that we have in the Christian architecture of the period, between the sixth

<sup>&</sup>lt;sup>1</sup> For the use of these two woodcuts, which are taken from "Characteristics of Old Church Architecture, &c., in the Mainland and Western Islands of Scotland" (Edinburgh: Edmonston and Douglas, 1861), I am indebted to the author, Mr Thomas S. Muir.

and ninth centuries at least, a style of building in many respects similar to that of the outbuildings of the brochs, and approaching closely, in some instances, to the style of the brochs themselves in several important

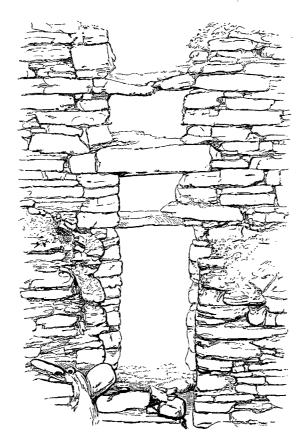


Fig. 14.—Interior view of Entrance to Stair and Galleries, Broch of Yarhouse. (From a Photograph.)

features. In other words, we thus have evidence from an independent source, that this peculiar style of building did actually prevail over a large part of the area occupied by the brochs during the period to which I have assigned them.

The Contents of the Brochs.—Thus, while the architectural features of the brochs imply that they must have been the work of a people possessed of some measure of civilisation—a people emerging from the barbarism of Paganism into the light of Christianity—the contents of the ruined structures tell the same tale. They show that the people who occupied the brochs were cultivators, that they grew grain and ground it, kept flocks and herds, and were able to command considerable supplies of venison, practised the arts of spinning and weaving, worked in metals, melting and moulding bronze, which they imported in the unmanufactured state, and probably smelting and forging iron. On the whole, although the evidence is wanting in that fulness and precision of testimony which might be desired, it seems conclusive against the supposition of an extremely remote antiquity for the period of the brochs, and points rather to the time when the historic and the pre-historic annals of our country merge into and throw light upon each other—a period not wholly removed from the ken of the historian, but not wholly illustrated by what has been written.

The Name "Brugh" or Broch.—Finally, the name "brugh," or, as it is now written, "broch," by which these structures are generally known in the extreme north, is not a modern corruption of the Norse term "borg." It is the original native name by which they must have been known in Pictish times by their Pictish builders. The primary signification of the Gaelic word Brugh was "a large house," and Brughadh' meant a farmer. Probably we have a simple translation of the older term in the name "Bighouse," applied to one of the Sutherlandshire brochs. The Irish word "brugh" also meant primarily a large house, with the secondary signification of a fortified place, while Bruighe or Brugaidh meant a farmer or husbandman. In early times, says Robertson,<sup>3</sup> the members of the Irish clans were divided into two classes, the Brugaidh or free members, living each in his separate Brugh, while the Biotaigh was the villager, sharing and cultivating in common the lands of the Baille-Biotaigh. The Brugaidh was originally the member of the clan who possessed a brugh 4—the householder tracing

<sup>&</sup>lt;sup>1</sup> See a paper entitled "Notes on the Evidence of Spinning and Weaving in the Brochs, supplied by the Whorls and Long-handled Combs found in them, by Joseph Anderson," Proceedings, vol. ix.

<sup>&</sup>lt;sup>2</sup> Highland Society's Dictionary, sub voce.

<sup>&</sup>lt;sup>3</sup> Scotland under her Early Kings, vol. i. p. 103, vol. ii. pp. 167, 260.

<sup>&</sup>lt;sup>4</sup> It is suggestive of the extent of the establishment pertaining to an Irish "Brugh" that it is stated in the Leabhar Buidhe (Yellow Book of Lecan), that one class of the Brugaidh were bound by law to keep each 100 labourers and 100 of each kind of domestic animals.

his origin to the founder of the race, and hence entitled to his free allotment, deriving his name from his *Brugh* or separate house, while the Biotaigh was the man who held his land by paying biodh or rent. While the brughs in Ireland were thus the ordinary residences of the farmer freeholders of the clan, the brughs of Scotland appear to have been originally the same, and to have assumed the peculiar form and structure by which we now know them, in consequence of necessity compelling their owners thus to protect themselves, their substance, and their dependants from the constant depredations of marauding bands.

Facts apparently implying a higher antiquity considered.—It remains now only to notice one or two facts which at first sight seem to imply a higher antiquity for these buildings than that here assigned to them. This leads me also to notice a very remarkable instance of the usefulness of that humble instrument, the spade, in the illustration of history.

It is recorded in the Saga<sup>1</sup> that the Earls Harold and Ronald were in the habit of coming over from Orkney to Caithness to hunt the reindeer there, in the middle of the twelfth century. This has been regarded as evidence of the untrustworthiness of the Saga on matters of fact, it being assumed that the reindeer did not exist anywhere in Scotland so late as the date here mentioned, although it is known from geological evidence to have been pretty widely distributed at a much earlier period. Ingenious attempts have been made to account for the statement of the Saga as possibly fabulous, or certainly due to corruption of the text. But recent excavations in the brochs of Caithness and Sutherland have shown that the reindeer was actually hunted and eaten there during the later occupation of these ruined towers.<sup>2</sup> Taken by itself, this fact would only have gone to strengthen the argument for the high antiquity of the brochs, but taken in connection with the historical statement of the Saga, the truthfulness of the historian is established by the discovery, and the assumed necessity for assigning a high antiquity to the existence of the reindeer in the north of Scotland is shown to be based neither on historical nor archæological grounds.

One of the most remarkable facts, as suggestive of the age of the brochs,

<sup>&</sup>lt;sup>1</sup> Orkneyinga Saga, p. 384.

<sup>&</sup>lt;sup>2</sup> See an exhaustive paper on "The Reindeer in Scotland," by Dr John Alexander Smith in the Proceedings, vol. viii. p. 186.

that has yet been placed on record, is the discovery, by Mr George Petrie of Kirkwall, of a cemetery of short cists overlying the ruins of the broch of Okstrow. In one of these cists a fragment of a bronze ring was found. But it is extremely difficult to assign the precise period of demarcation between the various modes of burial.<sup>2</sup> Short cists are found in such juxtaposition with long cists as to indicate that the two modes of sepulture were contemporaneous.<sup>3</sup> Even cremation itself, which is regarded as a purely Pagan usage, existed side by side with Christian sepulture in the early ages of the Church, and is, therefore, taken by itself, no certain test of the age of interments. No doubt it existed in the Orkneys at least down to the compulsory Christianising of the isles by King Olaf in the end of the tenth century. The capitulary of Charlemagne shows that it existed in France in the latter part of the eighth century.4 It has been usual to refer interments by cremation, and accompanied by bronze deposits, to "the bronze age." But it is extremely difficult to define the limits of the bronze age, and still more difficult to distinguish between interments of the bronze age and those of the iron age. Fothad, an Irish chief, who was killed with an iron spear (and thus, speaking archæologically, ought to have had an iron-age funeral), was buried under a cairn in a stone cist, with a pillar stone and an Ogham epitaph, and to complete the resemblance to a burial of the bronze age (so-called) it is added, "and his two rings of silver, and his two bracelets, and his torc of silver on his chest." 5 His death is assigned by the Annals of the Four Masters to the date A.D. 285.

We know that ruined brochs have been used as places of sepulture,

<sup>&</sup>lt;sup>1</sup> See Mr Petrie's paper, antea.

<sup>&</sup>lt;sup>2</sup> In 1519, John M'Gregor of Glenstrae "sepultus est in cista lapidum."—Book of the Dean of Lismore.

<sup>&</sup>lt;sup>3</sup> Dr Stuart, in his preface to the "Sculptured Stones of Scotland," noticing some remarkable interments at Alloa, one of which was a short cist three feet long, having its cover marked on the under side with two crosses, remarks that the short cist has even been found in Christian sites, and around the cross-slabs of Scotland, thus evidencing its late continuance.

<sup>&</sup>lt;sup>4</sup> A.D. 785. Si quis corpus defuncti hominis, secundum ritum paganorum flamma consumi fecerit, et ossa ejus ad cinerem redegerit, capite punietur. Cited by Kemble in Horæ Ferales, p. 97.

<sup>&</sup>lt;sup>5</sup> See Transactions of the Ossianic Society, vol. v. p. 222, and Petrie's Round Towers of Ireland, p. 10.

both by Norsemen from a very early period, and by the native inhabitants down even to our own time,1 and it is quite possible that Pagan interments, such as those described by Mr Petrie, may have been made over a ruined broch so late as to be within the period I have assigned as limiting the age of these structures. In fact, we know from the curious account given by Ahmed Ibn Fozlan,<sup>2</sup> the Arab ambassador to the King of Hungary, that the Norsemen did burn their dead in the tenth century, with rites precisely similar to those that must have accompanied the interments of the cremation period in Britain. Ibn Fozlan was present on the occasion of the funeral obsequies of a Norse chief, and saw the dead man laid in his ship, dressed in his finest clothing, with his arms and armour, and his food and drink placed ready by his side, and a dog, two horses, and a female slave immolated to keep him company, and the whole consumed in one vast pile, over the ashes of which a round topped mound of earth was raised, with a tree-trunk erected on the summit instead of the customary bauta-stein. But, still more to the point is the description given in the Saga<sup>3</sup> of the death of Orvar Odd, who, as the Saga expressly states, was a convert to Christianity. When he found his end approaching he gave the following directions for his funeral:—"But the other forty of my men shall make for me a stone trough, and take it to the wood, there shall fire be placed in it, and all be burned up together when I am dead. Now, I will be laid down in the stone trough and die there; afterwards ye shall put fire about it, and burn up all together . . . . After that Oddr died, then did they put fire into it and burnt up all together, nor did they go far away till all was burnt."

It is thus established that cremation was practised by the Northmen down to the tenth century, and that it was even reverted to in cases in which there had been a nominal conversion to Christianity. Now, these facts relate to the very people who have left their graves upon the mounds that

<sup>&</sup>lt;sup>1</sup> See antea, p. 133.

<sup>&</sup>lt;sup>2</sup> Orvar Odd Saga, cap. xxxi.; Fornaldar Sögur, ii. 301, also cap. xxxii.; Fornald. Sög. ii. 321.

<sup>&</sup>lt;sup>3</sup> See "Description, by Ahmed Ibn Fozlan (an eye-witness) of the Ceremonies attending the Incremation of the dead body of a Norse chief; written in the early part of the tenth century. Translated from C. A. Holmboe's Danish version of the Arabic original. By Joseph Anderson," &c. Proceedings, vol. ix.

cover the ruined brochs. There is, therefore, no necessity to go much further back than the tenth century for the possibility of any number of interments after cremation, and with bronze relics, over the ruins of an Orkney broch. Moreover, as these brochs had by that time been exposed for well-nigh a couple of centuries to the attacks of the marauding Northmen, there was abundance of time for such dilapidated structures of uncemented stones to become mere heaps, grass-grown, and indistinguishable from the burial-mounds so common around them.

## APPENDIX.

# LIST OF BROCHS IN SCOTLAND AND EARLY NOTICES OF THEM.

In illustration of the extraordinary number of the brochs or "Pictish towers," and of the testimony they bear to the activity of the broch period, and its importance in the history of the country, I have thought it advisable to attempt a general list of these remains in Scotland. Incomplete and imperfect as it is, it will serve to show how thickly these ancient strengths were planted along the northern straths, and in the islands of the northern and western coasts, and how extensive was the range of country occupied by the broch-builders.

It is needless to say that the difficulties in the way of the compilation of such a list as shall be complete and accurate are absolutely insurmountable. Without personal inspection of every site, no single individual can possibly insure correctness of description, and even then, the character of the ruin, in many cases, can only be determined with absolute certainty by excavation.

To every such undertaking, however, there must be a beginning, and with all its imperfections, the present attempt may be accepted as a tentative commencement of a complete catalogue of the brochs of Scotland, which I hope we may yet see completed by the co-operation of all local investigators interested in the ancient remains of our country. To such co-operation, cheerfully given, the following list owes all the value that it may possess. For the revision of the Shetland portion, and large additions to it, I am indebted to the Rev. James Russell, of Walls, Corr. Mem. S.A. Scot., and Mr William Lawrence of the parochial school, Dunrossness; the Caithness list is in the same manner indebted to the late Mr R. I. Shearer and the Rev. Alexander Miller; and the lists for Sutherland and Ross to the Rev. J. M. Joass, of Golspie, Corr. Mem. S.A. Scot., who has done so much to elucidate the archæology of the northern districts of Scotland. These, I believe, will be found to be tolerably exhaustive and accurate. The rest are merely tentative.

## SHETLAND (75 Brochs).

## ISLAND OF UNST (7 Brochs).

#### 1. Snaburgh.

"It is on a promontory in a loch, fortified partly by the loch, and partly by a wet ditch and rampart composed of large stones, and at the foot of the wall a small dry ditch. The double wall is visible, but the first story has large hollow apartments, oblong, widest at each end, and following the curve of the wall."—Low's Tour, 1774. MS. in the possession of David Laing, Esq.

- 2. Burghholm, at a small distance from Snaburgh, on an isolated rock opposite to the Mull, much destroyed.—Low's Tour.
  - 3. Underhool.—" New Statistical Account of Scotland."
- 4. Burraness.—Low, describing the two brochs in Unst, which he does not name, but which are apparently the two last mentioned, says one is quite razed, except the foundation, the stones being made use of to build a pier; the other, much in the same condition, on the sea-bank, well fortified with two very deep ditches and high ramparts towards the land.
  - 5. Burrafirth, North Unst.
  - 6. At Brough, Balta Sound.—Shetland Directory.
  - 7. At Brough of Colvidale, east side of Unst.—Admiralty Chart.

## ISLAND OF WHALSAY (3 Brochs).

- 1. At Brough, on the top of a hill, near the Kirk.—Rev. J. Russell, Walls.
- 2. At Loch of Hunter, near to No. 1.—Ibid.
- 3. Near Symbister.—Capt. F. W. L. Thomas, R.N.

[Low mentions five burghs in Whalsay, including the ancient fort called "Burgh of Hogsetter," on a small island in one of the lochs, which, however, is not a broch. It is figured in Hibbert's Shetland, from Low's plan.]

## ISLAND OF YELL (9 Brochs).

1. Burraness, at Bastavoe, in the south end of the island.

"The most entire of the brochs in Yell (which are nine in number, but all more or less in ruins) is Burraness; it is 20 feet high, the other dimensions as follows:—height of the highest part, 20 feet; thickness of the double wall, 10 feet; outermost wall, 4 feet; passage between the walls, 2 feet; inner wall, 4 feet; inside diameter, 31 feet. It has a scarcement of 10 inches on the inside wall about 10 feet above the floor, but this is not easily measured, as the inside is filled with rubbish."—Low's Tour.

- 2. Gossaburgh, East Yell.—Rev. J. Russell, Walls.
- 3. Ulsta.—Ibid.
- 4. West Sandwick.—Ibid.
- 5. Neeps of Gravelin.—Ibid.
- 6. Copista, Yell Sound.—Admiralty Chart.
- 7. Tonga Burgh, East Yell.—Ibid. VOL. V.

- 8. At Brough, Burravoe, South Yell.—Capt. F. W. L. Thomas, R.N.
- 9. At Brough, near Greenbank, North Yell, remarkable from its having a communication with a cave immediately under it.
- "Situated about 50 feet back from the face of a rocky precipice. Not only does it possess the usual advantage from standing on steep ground, and protected by a precipitous cliff, but there is also a cave stretching from the sea inwards till it terminates directly under the centre of the broch, from which a perpendicular well-like passage leads down into the cave. Doubtless this passage afforded means of exit from the interior of the broch to the sea before the perpendicular part of it was filled up by the ruins. There are many caves in Shetland formed in the same manner, and called kirns."—Rev. J. Russell.

## ISLAND OF FETLAR (4 Brochs).

- 1. Houbie, situated on a rock jutting into the sea. It is surrounded by double ramparts of earth and outbuildings. [A ground plan of this broch is given in Low's Tour.]
  - 2. Near Houbie on an eminence.
- "It had no perceptible rampart, being placed on an eminence. The walls were hollowed out into apartments similar to those of Snaburgh in Unst. Close by this broch are the foundations of a number of small houses entirely in ruins, seemingly of the same age with the broch itself. They are of an oblong shape, rounded off at the corners."—Low's Tour.
- 3. Snaburgh.—Lowe describes and figures this as a curious fortification, and Hibbert calls it a Roman camp. Dr Arthur Mitchell has ascertained that it is a broch with extensive outworks, which have been misunderstood by Low and Hibbert.
  - 4. Strandburgh, East Fetlar.—Capt. F. W. L. Thomas, R.N.

#### ISLAND OF MAINLAND (45 Brochs).

#### Parish of Northmaven.

- 1. Houland.—On the hill above Houland.—Lowe's Tour.
- 2. Islesburgh on Sullom Voe.—Rev. J. Russell, Walls.
- 3. Northroe.—Of huge size.—Ibid.
- 4. Fedeland.—On a precipice connected to the land by a neck of land about 3 feet broad.—Ibid.
  - 5. Brough, Burravoe, Yell Sound.—Capt. F. W. L. Thomas, R.N.
- 6. Burland.—On the margin of a loch, about two miles inland from Mangister, in the south end of the parish. This is one of the few brochs in Shetland that are at a distance from the sea.—Rev. J. Russell.

#### Parish of Delting.

- 1. Burraness in the north side of the parish on Yell Sound.—Sir R. Sibbald's Description of the Shetland Islands, 1711.
  - 2. At Waderstay, on Burravoe, in the south side of the parish.—Ibid.
- 3. At Boostaye, in the west of the parish, on a little holm in the mouth of Meiklerooe Sound.—Ibid.

Low says of Delting—"Round the shores at different distances observed several Pight's castles, but all in ruins."

#### Parish of Nesting.

- 1. Husabister, near Kirk of Nesting.—Rev. J. Russell.
- 2. In Loch of Stavaness, much ruined.—Ibid.
- 3. Railsbroch, south point of Nesting, on a precipitous rock, separated from the mainland about 100 yards, and only accessible at ebb of spring tide by wading.—
  Ibid.
- 4. Broch, in Brochtown of South Nesting, about a mile west of the Mull of Eswick, close to the shore.—*Ibid*.

#### Parish of Sandsting and Aithsting.

- 1. Cullswick, on an eminence near the entrance of Gruting Voe.
- "It is constructed of vast pieces of a very hard kind of white and red granite, the produce of the rock on which it stands; the stones altogether rude, but strongly and closely built; the wall double, with a sort of spiral passage, which one can creep through where it is not choked up with ruins. No kind of cement has been used in building, and, notwithstanding, the walls are firm and entire, except where they have been pulled down by men. The gallery is covered with long lintel stones, which rest on both walls; and the floor of the one is the covering of the other. Round the whole building, which is circular, is a ditch and rampart. Its dimensions follow, together with a plan, elevation, and section:-The diameter within the inner walls, 26 ft. 6 in.; whole diameter at the foundation, 44 ft.; thickness of the inner wall, 3 ft. 6 in.; breadth of the gallery, 2 ft.; thickness of the outer wall, 4 ft.; thickness of whole wall at foundation, 18 ft.; height of the gallery, 8 ft.; height of the highest part, as it now remains, 23 ft.; breadth of the ditch, 13 ft.; breadth of the rampart, as it remains, 19 ft. 6 in. The ditch is now (1774) much filled up with rubbish. The rampart has been formed with earth and stones. The door is strongly lintelled with a large triangular stone, which stands as firm as when put in; as would the whole fabric, had it not been that many of the stones have been removed for housebuilding."— Low's Tour.
- "Cullswick has been greatly destroyed to build houses since 1774, but inside its ramparts parts of the walls of stone huts are still standing. As it is a sea-mark, the Admiralty should see to its preservation."—Letter, Rev. J. Russell, Walls.
  - 2. West Burrafirth (Borgarfiord), on the small holm of Hebrista.
- "The wall is single, at least as much as is now to be seen of it, with small apartments to be entered from within. The double wall, with galleries, began above these, and was continued to the top. The dimensions are as follows:—Inside diameter, 30 ft.; thickness of the wall, 13 ft.; diameter of one of the apartments in the wall, 5 ft. In forming these wall apartments, the stones are made to jut over one another, till by little and little they draw to a point, covered with a single stone. All the passages, galleries, and other hollows are topped with broad flat stones, well supported at both ends by the double walls."—Low's Tour.

[Rev. Mr Russell informs me that it has a scarcement about 10 feet above the floor.]

- 3. Nunsburgh, the ruins of a large burgh, but the stones have been carried off for building.—Low's Tour.
  - 4. East Burrafirth.—Statistical Account.
  - 5. Easter Skeld.—Ibid.
  - 6. Tumlin, Twatt.—Rev. J. Russell.
  - 7. Houlland, near the top of a hill, about a half mile from Bruster Voe, in the

district of Bruland, opposite Pinhoulland (Walls).—Nearly used up in building.—
Rev. J. Russell.

8. At Brough of the Ness, Snarra Voe.—Capt. F. W. L. Thomas, R.N.

## Parish of Walls and Sandness.

- 1. Huxter, a very large broch, but torn down to build dykes.—Rev. J. Russell.
- 2. Corness, on an almost isolated rock, faced on one side by walls rising in steps or terraces.—Ibid.
- 3. Fudaburg (Fotaborg), on a rock close to the sea; is very large, and would be worth excavating.—Ibid.
  - 4. Burraland, in a loch.
- "In ruins (1774). The double wall still discernible; and toward the land side a double rampart and double wet ditch, with stepping-stones still remaining to get in; both these particulars well defined, and evidently the works of art coeval with the burgh itself. The ditches are cut exactly circular, and parallel to the body of the work. The ramparts are the same, with plain traces how the ditches were filled with water from the loch, which is the natural rampart on that side."—Lowe's Tour.
- 5. Burrastowe, on a rock, almost entirely swept away by the sea Rev. J. Russell.
  - 6. Broch o' Setter, on the top of a hill, about a mile from Fudaborg Voe.—Ibid.
- 7. Broch of Burgowater, in a large loch, in the midst of the Scattald, four miles from the village of Downawalls. The doorway is still complete.—Ibid.
- 8. Pinhoulland, midway between Gruting Voe and Voe of Walls; very large. —Ibid.
  - 9. Watsness, near loch of Watsness, with remains of outbuildings, &c.—Ibid.

#### Parish of Lerwick.

- 1. Clickamin, in a loch, with outworks. Described by J. T. Irvine, Esq., in the "Journal of the Archæological Association," vol. xxii., p. 369. See also Sir H. Dryden's plans and descriptions in the present volume.
- 2. Brindister, at Gulberwick, on a headland, with very large outworks.—Rev. J. Russell.

## Parish of Tingwall.

- 1. Trondra Broch, in the isle of Trondra, in the bay of Scalloway, now completely demolished.—Rev. J. Russell.
- Brough in Loch of Shurton, on a little holm opposite the church of Whiteness.

  —Ibid.
  - 3. Brough, Burra; the stones taken to build the pier at Scalloway.

[There must have been more brochs in Tingwall, for we have Burwick, Burray, and Burraland, in this parish.—*Ibid.*]

Parish of Dunrossness, including Sandwick, Cunningsburgh, and Burra.

1. Mousa, on the small island of Mousa. See antea, p. 158, and also in Egill's Saga, cap. 32, 33; Orkneyinga Saga, p. 342; Torfaeus, Rerum Orcadensium Historia

p. 131; Sir R. Sibbald's Description of Shetland (1711), p. 19; Low's Tour; Hibbert's Shetland, p. 251; Worsaae's Danes and Northmen, p. 234; Paper by Dr Stuart in the Proceedings, vol. iii. p. 187. See also Sir H. Dryden's plans and descriptions in this volume.

- 2. Burland.—Plan taken by Sir Henry Dryden.
- "Landed on the main opposite to Mousa, at a burgh on a point of a rock, the land side surrounded by a stone wall at a distance from the body of the work. Here, as at Fetlar (p. 180), observed numbers of foundations of small houses exactly similar to those above mentioned, but much in ruins. They are generally 14 feet long, and 6 or 8 broad, with about a foot or two of the wall still standing, and probably coeval with the burgh itself. Here they are placed between the burgh and the extreme point of the rock, and probably might have been a sort of huts for the people to fly into where they might be safe under the shelter of the burgh."—Low's Tour.
  - 3. Levenwick.—See paper by Mr Gilbert Goudie in the Proceedings, vol. ix.
  - 4. Rausburghness.—A large ruinous burgh.—Low's Tour.
  - 5. Broch in West Burra, opposite Quarff.—Rev. J. Russell.
- 6. At Boddam, on the cliff on the north side of the bay at Voe, the largest in area of any I have seen.—Letter of Mr William Laurence, schoolmaster, Dunrossness.
  - 7. Near Voe, on the south side of the Bay of Voe.—Ibid.
  - 8. The Broken Broch, near Clavigarth.—Ibid.
  - 9. At east shore, near Sumburgh.—Ibid.
  - 10. Water Broch, on a small island in the Loch of Brew.—Ibid.
  - 11. Scousbroch, now nearly drifted up with sand.—Ibid.

#### ISLAND OF BRESSAY (5 Brochs).

- 1. At Brough.—Sir R. Sibbald's Description of Shetland, 1711.
- 2. At Liraness.—Ibid.
- 3. At Beoaster.—Ibid.
- 4. At Culbinsburgh.—Ibid.
- 5. At Noss Sound.—Ibid.
- "Four Burghs in Bressay; all in ruins."—Low's Tour.

## ISLAND OF FOULA (1 Broch).

1. Friarsburgh, at Northrock, almost destroyed by the stones being wantonly thrown over the rock.—Rev. J. Russell.

#### ORKNEY (70 Brochs).

[The complete list of the brochs in Orkney (which was prepared by Mr Petrie at my request), has been inserted at p. 93, and need not be here repeated. The total number enumerated in the Orkney Isles amounts to 70.]

## CAITHNESS (79 Brochs).

## Parish of Canisbay.

- 1. Duncansbay, on Duncansbay Head.—Its remains were seen by Pennant in 1796, and are described by him as those of a circular building, probably the residence of Duncan, Jarl of Dungalsbae.—See Orkneyinga Saga, cap. 1.
- 2. Canisbay.—The church of Canisbay is built on the top of a mound, which covers a ruined broch.—See antea, p. 133.
  - 3. On the sea-shore to the west of Barrogill Castle, destroyed.

## Parish of Dunnet.

- 1. Rattar Broch, at the mouth of the burn of Rattar, near the old chapel, called Kirk o' Banks, where eight penannular silver armlets were found in short cists in January 1872.—(See Mr Campbell's paper in the Society's Proceedings, vol. ix.) This may be the Raudabiorg of the "Orkneyinga Saga."
  - 2. Reaster.—A very large mound, believed to be a broch.—Mr Campbell, Dunnet.

## Parish of Olrig.

- 1. Olrig.—A large mound, believed to be a Pictish broch.—Ibid.
- 2. Castlehill, situated about 50 yards from the shore to the west of Castlehill House, but now removed. Two tortoise brooches, adorned with horses' heads, a jet ring, and bone pin were found deposited with a skeleton in the top of the mound. These articles were presented by Mr Traill to the Museum in 1786.
  - 3. Sibmister, a very large mound, believed to be a broch.
  - 4. Thurdistoft, on the links near the sea.
  - 5. Durran, on the farm of Durran.

### Parish of Thurso.

- 1. Scrabster, in a field above Scrabster. The "Orkneyinga Saga" mentions a borg at Skarabolstad (Scrabster), in which Bishop John was mutilated by Earl Harold's men.
- 2. Thingsva, about a mile to the south of the second milestone from Thurso, on the coast road to Reay. It is the largest I know in Caithness, and has traces of outbuildings beside it.—Rev. Alex. Miller.
- 3. Carsgoe, on the farm of the same name, on the east side of the Wick and Thurso road, partially destroyed long ago, but not completely, on account of the mysterious death of one of the farmer's cows. Its destruction was completed, however, a few years ago.—Ibid.
- 4. Brimsade, on the farm of Lythmore, destroyed. Eight or ten skulls were taken out of it and buried.—R. I. Shearer.

#### Parish of Reay.

1. Achinellan or Achvarasdale, partly excavated by Sir Robert Gordon Sinclair a few years ago. Plan taken by Sir H. Dryden, 1871.

- 2. Lybster, at the chapel of Lybster in Reay, partly destroyed. Plan taken by Sir H. Dryden, 1871.
- 3. Borrowston, partly destroyed fifty years ago. A human skeleton was found laid close to the wall of the tower, and covered by a flagstone, loosely set on edge in the ground, and leaning against the wall.—Letter by John Miller, F.G.S., Esq., in "Daily Review" (reprinted), 1865.
- 4. On the farm of Downreay, half way to Borrowston, consists of a central conical green hill, with circular enclosures, the outermost of which is at a considerable distance from the central mound.—Rev. Alex. Miller.
  - 5. Skaill, a large mound on the farm of that name.
- 6. Crock-Horra, near the old castle of Downreay, now a green mound, the greater part of which has been removed.—Mr John Miller, Downreay.
  - 7. Achwilaga, on the farm of Upper Downreay.—Ibid.
  - 8. Achinabest, also near Downreay.—Ibid.

## Parish of Halkirk.

- 1. Skinnet, partially destroyed fifty years ago. Two or three human skeletons were found here; one of them lay near the fire-place, which still retained the strong red colour produced by using peat fuel. The well dug in the rock inside the building was still there, and the dry ditch outside, showing clearly that this was a tower of defence.—Letter by John Miller, Esq., F.G.S., in "Daily Review" (reprinted), 1865.
  - [A ring of shale and a bronze key (?) were found in this broch. The key is in the possession of the Rev. Wm. Miller, Madras.]
  - 2. Harpsdale, destroyed in 1841; had a well of beautifully clear water in it.
- 3. Mybster, a large broch, partially destroyed, close to the road from Achtipster to Dale, south side.—Rev. Alex. Miller.
  - 4. Achlachan, on the north side of the same road.—Ibid.
  - 5. Near the former.—Ibid.
  - 6. At Bridge of Dale, on the west side of the river.—*Ibid*.
  - 7. At Westerdale, a short distance down the river from the Bridge of Dale.—*Ibid*.
  - 8. Near the former, on the same side of the river.—Ibid.
- 9. Dale.—The present house of Dale occupies the site of a broch, now removed. About forty years ago, a cist, containing bones, was found when digging the foundations of some outhouses, but owing to the prevailing superstition, it was destroyed by the workmen before any one from the house could see it. A quern of red sandstone, which was found when the house was built, nearly 200 years ago, is still preserved.—

  Ibid.
- 10. A quarter of a mile further down the river, and a short distance east from an old burying-place, called "the Aisle." This broch was partially removed about fifty years ago, and finally cleared off sixteen years ago, at which time half a stone dish, 6 or 7 inches diameter and 1 inch in thickness, was found.—Ibid.
- 11. Half a mile eastward from the last, the interior area was cleared out with some care five years ago. About 3 feet in height of the inner wall was standing recently, and one chamber remained pretty entire.—Ibid.

- 12. Cairn-na-Merk, half a mile above the bridge of Dale, on the east bank of the river; a large cairn, with well-marked ditch; shape very regular, the top being depressed in the centre, and near the top traces of walling, with the stones inclining inwards as if the walls had fallen in a mass. I know none more likely to reward examination.—Ibid.
- 13. A mile further up the river, the foundations in good preservation, showing wall-chambers and traces of the outer wall.—*Ibid*.
- 14. Achfuidhaga, near the mouth of the Little Water, and a short distance above the last mentioned. The outer wall is pretty entire, and has never been covered, forming the inner face of a ditch, except where it touches the river bank. Some of the chambers are still pretty entire, and roofed with flat stones. They are nearly circular, with curious curved recesses on opposite sides.—Ibid.
  - 15. On the south side of the Little Water.—Ibid.
- 16. Dalnawillan.—The burying-ground here is believed to be on the top of a broch.
  —Ibid.
  - 17. Calder, on the west side of the loch of Calder.

## Parish of Bower.

- 1. Barrock, in the plantation near Barrock House, partially excavated.
- 2. Lynegar, on the farm of Lynegar, entirely removed some years ago; had a considerable shell heap, though nearly in the centre of the county.
- 3. Bowermadden, at the farm-house of Hall of Bowermadden, totally removed, and the site trenched over. Described in "Memoirs of the Anthropological Society of London," vol. ii. p. 228, and antea, p. 144.

## Parish of Watten.

- 1. West Watten, above the Parliamentary Road, on the farm of West Watten, partially removed.
  - 2. Achingale, excavated thirty years ago, now destroyed.
  - 3. Old Hall of Dunn, on the farm of Old Hall.
  - 4. On the same farm.
  - 5. Near Dunn.

#### Parish of Wick.

- 1. Kettleburn, on the farm of Wester Seat, entirely removed, except the well in the area of the broch, which is still used as the well for the cottar's houses built out of the ruins of the structure. It was described and figured by Mr Rhind in the "Archæological Journal," vol. x. p. 211, and in the Society's Proceedings, vol. i. p. 264.
- 2. Hillhead, near Wick, on the north side, shows part of the outer wall, and a section of a shell heap is exposed by a ditch cut close by the mound.
- 3. Papigoe, about a mile and a half north-east of Wick on the goe of the same name. It is much destroyed, but shows traces of chambers.
  - 4. Humster, two miles south-west of Wick, has traces of extensive outbuildings.

- 5. Hempriggs, two and a half miles south of Wick, on the Parliamentary Road at the gate to Hempriggs House, planted with trees.
- 6. Tannach, in a field to the north of Tannach House; has the appearance of extensive outbuildings.
- 7. Old Stirkoke, on the east bank of the burn of Haster, on the farm of Old Stirkoke, partly removed. Described in "Memoirs of the Anthropological Society of London," vol. ii. p. 230, and antea, p. 142.
- 8. Thrumster Little, at the farm-house of that name; outer wall bared all round, and interior utilised as a cart shed.
- 9. Thrumster, in the plantation at Thrumster House, cleared out, and the area utilised as part of a flower-garden. A skeleton was found buried in a cist of slabs in the rubbish of the mound. The long-handled comb, presented to the Museum by Mr Innes of Thrumster in 1783, seems to have come from this broch.
- 10. Borrowston, about three quarters of a mile from Thrumster, a very large mound, showing traces of chambers in the wall.
  - 11. Gansclett, about half a mile south from Thrumster, now destroyed.
- 12. Brounaben, about a mile south-east from Thrumster, excavated, described antea, p. 142.
- 13. Yarhouse, on a peninsula in the south end of the loch of Yarhouse, with a ditch and extensive outbuildings. Excavated, and described, antea, p. 131.
- 14. Warhouse, at the farm-house of this name, nearly a mile south from Yarhouse.
  - 15. Wattenin, on a height overlooking the small loch of that name.
  - 16. Bruan, on the road side near the church of Bruan.
  - 17. At Bruan manse, less than a mile south from the previous broch.
  - 18. Toftgun, about 4 miles west of Thrumster, in the midst of the moor.
  - 19. Rean-i-gearach, about half a mile down the burn from Toftgun.
  - 20. Blingery, about a mile in the moor to the south of the farm of that name.
- 21. Camster, about three quarters of a mile north of the great cairns of Camster. (See the Society's Proceedings, vol. vii. p. 485.)
- 22. Torrikingle, near Camster, now used as the burying-ground of the district. (See antea, p. 132.)
- 23. Torriveach, at Achavar, on the Camster Road, about a mile from its junction with the Wick Parliamentary Road. Short cists containing skeletons were found near it. (See "Memoirs of the Anthropological Society of London," vol. ii. p. 252.)
  - 24. Roster, two miles along the Camster Road.
  - 25. At Newlands of Clyth, partly destroyed.
  - 26. Occumster, near the road, twelve miles south of Wick.

#### Parish of Latheron.

- 1. A large mound to the north-east of the road from Lybster to Achivanich, and about two miles from Osclay.—Rev. Alex. Miller.
- 2. On the side of the hill of Ben-na-cheilt, behind Nothingham; the lintelled passage visible.—Ibid.
  - 3. Forse, near the mill-dam, and not far from the previous one.—Ibid.

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- 4. Goulsary, in the valley under the north end of the hill.—Ibid.
- 5. Stemster, near the loch, at the south end of which is the U-shaped series of standing stones.
- 6. Rangag.—In the loch of that name, on a small peninsula, with traces of a ditch and encircling ramparts. The broch and outworks in fine preservation.
- 7. Dunbeath, on the fork at the junction of the two streams, excavated. Described antea, p. 144.
- 8. Latheronwheel, a high and somewhat conical mound, having all the appearance of a broch.

[Between this and the Ord of Caithness are several mounds, of which I have been unable to obtain descriptions sufficiently precise to enable me to say that they are likely to be brochs.]

## SUTHERLAND (60 Brochs).

#### Kildonan Parish.

- 1. In the Helmsdale valley, about a mile and a half from the sea, on the south side of the valley, below Craig Marril. (Its ruins are now covered by the Caithness Railway. A steatite cup was found in it.—Rev. J. M. Joass.)
- 2. In the same valley, a mile higher up, on the north side of the valley, above the junction of the burn of Alt Chaen with the Helmsdale Water. [Many tumuli near, and a hut-circle, from which an eirde-house is entered by a trap in the surrounding wall. —J. M. J.]
- 3. In the same valley, about a mile further up than the last, on the north side of the valley, on the hill above the east side of the Kilphedir burn. [A fine specimen, still about 15 feet high, with deep surrounding ditch. A stone hammer was found in the wall. Another hut-circle, with eirde-house attached, about 500 yards to the northward.—J. M. J.]
- 4. In the same valley, about a quarter of a mile further up than the last, but on the south side of the valley, on the west side of the small burn of Alt Eilderable. [A shale ring found outside.—J. M. J.]
- 5. In the same valley, about a mile above the last, on the north side of the valley, and west side of the burn of Torish, near its junction with the Helmsdale Water.
- 6. In the same valley, about two and a half miles above the last, on the south side of the valley, and the west bank of the burn Alt Kilaournan, nearly half a mile from its junction with the Helmsdale Water.
- 7. In the same valley, about four miles above the last, on the north side of the valley, and east side of the Suisgill Burn, near where it enters the Helmsdale Water.
- 8. In the same valley, on the south side of the valley, about three quarters of a mile above the last.
- 9. In Strath Free, a strath running westwards from Strath Helmsdale, and about two miles from the junction of the Free with the Helmsdale Water, on the north side of the strath, near where a small burn enters the Free. [Part of gallery remaining.—J. M. J.]

- 10. About two miles further up Strath Free, and to the south of the last, where the burn of Alt-an-duin joins the main stream, on the triangular space at the junction of the waters.
- 11. In Strath Helmsdale, on the burn of Kinbrace, on the south side of the burn, a quarter of a mile above its junction with the Helmsdale Water.
  - 12. In the same strath, on the opposite side of the Kinbrace valley.

## Parish of Loth.

- 1. In the valley of the Lothbeg Water, a little below its junction with the Sledale Burn.
- 2. Cinn Trölla.—On the sea shore, near Kintradwell. Excavated. [See previous paper by Rev. Mr Joass.]

## Parish of Clyne.

- 1. In Strath Brora, on the south side of Loch Brora, about a mile and a half from the lower end of the loch, on the side of the hill, near a small burn. Excavated by Rev. Mr Joass.
- 2. In the same strath, on the north side of Loch Brora, about half way between the upper and lower ends of the loch.
- 3. In the same strath, on the north side of the strath, and east bank of the burn of Alt-a-vullin, about half a mile above its junction with the Brora Water.
  - 4. In the same strath, about two miles above the last, at Kilphedir Beg.
- 5. Castle Cole.—In valley of the Blackwater, about two miles above its junction with the Brora.
- "Achir-na-Kyle (Castle Cole), a large circular tower, on the top of a lofty rock which overhangs the Brora, corresponding with those in Glenelg, except the apartments within the walls, which are of an oval form, distinct and entire, about 8 feet long, 6 high, and 4 wide. Those on the ground floor are still a place of refuge from the storm for the goats that feed on the neighbouring hills. The stairs from the first to the second row of chambers are regularly and commodiously made out; the apartments are carefully lighted by windows from within-a strong evidence that the area within these towers had never been closed above. or entirely covered. The door looks over the precipice towards the river, and is full 6 feet high, as I should suppose all of the kind have been ere they were choked up by the ruins of the building. One chamber had several paces of a level entry to it, and measured 9 feet in height. The space for the hall is about 20 feet diameter. From the quantity of ruins, this castle must have been pretty high, probably so as to admit of a third row of chambers. The walls at present do not exceed 15 feet. In these parts, this building is not singular. They have been very numerous among these hills. Wherever good pasture is found, near the less rugged forests, there one meets with the remains of a circular tower. I saw two others fallen into a shapeless state, and had information of one more complete than any I had seen. Near the towers are commonly several cairns."—Cordiner's Antiquities, &c., of the North of Scotland, 1776.

#### Parish of Golspie.

- 1. Uppat, near the House of Uppat.
- 2. Carn Liath, in the Dunrobin Park, on the edge of the brae, near the sea.

- "A very entire piece of antiquity, of the kind known in Scotland by the name of the Pictish Castles, and called here Carn Lia, or a grey tower. That I saw was about 130 yards in circumference, round, and was raised so high above the ground as to form a considerable mount; on the top was an extensive but shallow hollow; within were three low concentric galleries, at small distances from each other, covered with large stones, and the side-walls were about four or five feet thick, rudely made. There are generally three or four of these places near each other, so that each may be seen from any one. Buildings of this kind are very frequent along this coast, that of Caithness and Strathnaver. Others, agreeing in external form are common in the Hebrides, but differ in their internal construction. In the islands they are attributed to the Danes; here, to the Picts. They were probably the defensible habitations of the times."—Pennant's Tour, 1769.
- 3. In the wood above Dunrobin Castle. [Surrounded by narrow ditch, with stone-faced sides.—J. M. J.]
- 4. Backies, in Dunrobin Glen, to the north of the village of Backies, on the hill-side. [Explored 1855. Stone cups, shale rings, and pottery found in it.—J. M. J.]

#### Dornoch Parish.

- 1. On the hill near Rhimusaig, a mile north of Morvich.
- 2. In Strath Carnach, on the north side, at its junction with Strath Tollie.
- 3. In Skelbo Wood, half a mile west of Skelbo Castle.

#### Creich Parish.

- 1. On the north side of the Kyle of Sutherland, below Cnoc-an-tinnel, about a mile above Balblair.
  - 2. In Glencasseley, at Achness.
  - 3. In Glencasseley, at Dall Langwell.

#### Parish of Rogart.

1. At Mearlig, in Strathfleet.

#### Parish of Lairy.

- 1. About two miles north from the last, on the hill near Suvalmore.
- 2. On the south side of Loch Shin, near the burn of Alt Leackach.
- 3. On the bank of the river Tirry, a little above Dailchoirc.
- 4. On the roadside, near Shiness.

#### Parish of Reay.

- 1. Bighuss, in Strathalladale, at Bighuss, about five miles from the sea.
- 2. Borgbreakrie, in the same strath, about four miles above Bighuss.

## Parish of Farr.

- 1. On the Armadale Water, about a mile and a half above the sea.
- 2. Near Loch Swordly, about a mile inland from the head of the Bay of Swordly.

- 3. Inveraver, in Strathnaver, near Inveraver, about three quarters of a mile below the Chain-boat Ferry.
  - 4. Rhinovie, in the same strath, at Rhinovie, about two miles above the last.
- 5. Skelpick, in the same strath, about a mile above the last, and near the house of Skelpick, on the shoulder of the opposite hill.—Dr Stuart's Report, Proc., vol. vii. p. 289.
- 6. In the same strath, about two miles and a half above the last, on the west side of the strath.—Ibid.
- 7. Dunviden, in the same strath, about half a mile above the last, on the east side of the strath.—Ibid.
- 8. In the same strath, about half a mile above Dunviden, on the west side of the strath, on a slight eminence overhanging a ravine and burn. On the haugh at its base are many cairns and circular hut foundations.—*Ibid.* 
  - 9. Skaill, in the same strath, about three miles above the last.
- 10. Syre, in the same strath, about two miles above the last, near the farm-house of Syre. An eirde-house of the usual curved form is also here.—Ibid.
- 11. On the north side of Loch Naver, near the middle of the loch. Three of the chambers in the wall still remain, and the ledge or scarcement is distinctly traceable.
- 12. On the south side of Loch Naver, near the head of the loch, on a small islet, reached by a causeway of stones.—*Ibid*.

#### Parish of Tongue.

- 1. On the east side of the Kyle of Tongue, opposite Melness.
- 2. At the head of the Kyle of Tongue.
- 3. Dunbuie, on the west side of the Kyle of Tongue, at Melness.

#### Parish of Durness.

- 1. Cashil Dhu, about a mile above the head of Loch Hope.
- 2. Dun Dornadilla, in Strathmore, about five miles above the head of Loch Hope.
- "The highest parts of the walls are not 30 feet, but must have been much more; the door has been at least 6 feet high; the building is near 50 yards in circumference; the inner area 27 feet diameter. There are three distinct rows of apartments and passages within the wall. I walked up and down different stairs from the first to the second story, but the third seemed too confined, probably owing to many of the stones being displaced or fallen in."—Cordiner's Antiquities of the North of Scotland, 1776.

For Mr Pope's description of Dun Dornadilla, read to the Society of Antiquaries of London, 14th March 1777, see Archæologia, vol. v. p. 216, where he gives a plan and elevation, and refers to Mr Cordiner's description.

- 3. On the Kyle of Durness, on the east shore, about half a mile above Keoldale.
- 4. On the Kyle of Durness, on the east shore, about a mile above the last.
- 5. On the Kyle of Durness, on the east shore, about a mile above the last, and near where the burn of Altachoran enters the Kyle.

#### Parish of Eddrachillis.

1. On a little tongue of rock near Kyle Skow, isolated at high water. The uncemented walls are about 8 feet in height. In the middle of the thickness of

the wall, for about 2 feet all round, the stones are mingled with bones, which are decidedly human.—Anderson's Guide to the Highlands, p. 703.

## Parish of Assynt.

- 1. At the head of the Bay of Ardvar.
- 2. Near Loch-an-aidale, on the shore of the Bay of Stoir. [Stone cup found near, and several extended burials in neighbouring sand hummocks.—J. M. J.]
  - 3. On Loch Borrolan, in the south end of the parish.

#### ROSS-SHIRE.

## MAINLAND (10 Brochs).

#### Parish of Edderton.

1. Dun Alisaiq, about ten miles west from Tain, on the south bank of the Dornoch Firth, now almost totally removed.

Boece, in his "Scotorum Regni Descriptio" (Parisiis, 1520), after describing the town of Tain, adds:-

"Servantur in valle quadam Rossiæ duæ ædes vetustatis monumenta rotunda figura in formam campanæ factæ."

[There are preserved, in a certain valley of Ross, two edifices of antiquity, monuments of a round figure, made in the form of bells.]

Ubaldini, in his "Descrittione de Regno di Scotia" (1588), mentions other features of these structures, which enable us to recognise them distinctly as brochs—in all probability Dun Alisaig and one of the others in the valley of the Dornoch Frith:

"Essendo nella Rossia ancora due chiese non grandi, la fabrica delle quali è tirata in alto in forma di due campane, ma aperte assai di sopra per ostentar forse la bizarria di chi edificar vele fece, ò forse edificate à gli Dii termini, essendo antiche assai."

"Vedi la forma di questi due templi, de i quali si trova, che erano edificati di pietre

grandi sopraposte l'una a l'altro con grande arte."

There are in Ross, also, two churches, not of great size, the structure of which is built upwards in the form of two bells, but they are also open from above, perhaps a proof of the eccentricity of those who built them in this fashion; or perhaps they were built to the gods of the boundaries (the god Terminus), as they are ancient enough to have been so.

I have seen the form (drawings?) of these two temples, from which it is found that

they were built of great stones placed one upon another with much skill.]

Maitland, in his "History of Scotland" (1757), vol. i. p. 145, describes Dun Alisaig as being 54 ft. 9 in. from side to side, the walls 12 feet thick, and the external circumference 164 feet. The doorway in the east side was about 6 ft. high, and 3 ft. 2 in. wide; the lintel being an equilateral triangular stone, with a side of about 4 ft. The circular internal area about 30 ft. in diameter. There were three galleries—the lowest 7 ft. in height, the second 8 ft. 2 in., the third ruined.

Cordiner (1776) gives a ground plan of it, representing the lower story as furnished with four oval-ended chambers. He calls it "an exact plan to supply the omissions in the print given in the Archeologia."—Antiquities and Scenery of the North of Scotland, plate xx. p. 118.

It is also described and figured by Mr James Anderson, in a paper read before the Society of Antiquaries of London, 27th November 1777, and published in their Archæologia, vol. v. p. 241.

- 2. At Leth-Choinnich, half a mile south of Struidh Hill.—Rev. J. M. Joass.
- 3. On the hill-track from Redburn to Scotsburn Road.—Ibid.

#### Parish of Kincardine.

- 1. At Greenyards, on the south side of river Carron.—Rev. J. M. Joass.
- 2. At Croick, on the Blackwater, two miles above its junction with the Carron.— *Ibid.*

## Parish of Lochcarron.

- 1. Tomaclare, on the rising ground behind Janetown.—New Stat. Acc.
- 2. Lagandrim, at Kishorn.—Ibid.

## Parish of Kintail.

1. Dun-an-Diarmid, near the manse of Kintail.—Old Stat. Acc.

## Parish of Glenshiel.

1. Castle Gruagach, on Loch Duich, near the harbour of Ob Inag. Situated immediately under a high cliff, which must have considerably overtopped it. Internal diameter, 25 ft.; thickness of wall, 9 ft; door lintelled by a large triangular stone.—Stat. Acc. (Plan taken by Sir H. Dryden, 1871.)

#### Parish of Kirkmichael.

1. On the glebe, about the year 1834, the Rev. Donald Sage trenched up the ruins of "the circular base of an ancient Pictish house," and found a stone cup, with a handle, made of whinstone.—New Stat. Acc.

#### Parish of Lochbroom.

[There are many of the drystone circular buildings, called duns, in this parish.— New Stat. Acc.]

## Island of Lewis (28 Brochs).

[The following are marked (with one exception) on the sheets of the six-inch map of the Ordnance Survey:—]

#### Parish of Barvas.

- 1. Dun Sobhaill, on a little bay on the coast.
- 2. Dun Bharabhat, in Loch Bharabhat.
- 3. Dun Mara, on a promontory not far from Ness Free Church.
- 4. Dun Loch an Duin, on an island in the loch of that name.
- 5. Dun Loch an Duna, on an island in the loch of that name, with a causeway.

## Parish of Lochs.

- 1. [Unnamed], on a rock at the entrance of Loch Erisort.—Stat. Acc.
- 2. Dun Carloway, on Loch Carloway, the best preserved in the island.

## Parish of Uig.

- 1. Dun Bhorreraig, on an island in the Loch of Uig.
- 2. Dun Bharabhat, in the loch of that name, in the island of Berneray, with a causeway leading to it.

[I am informed by Capt. F. W. L. Thomas, R.N., that he has notes of twenty-eight duns or brochs in Lewis (including the above). A detailed list of these will be given with a paper which he is preparing on the brochs of the Outer Hebrides.]

## INVERNESS-SHIRE

Mainland (6 Brochs).

## Parish of Beauly.

1. Near Struan, on the River Beauly.—Rev. J. M. Joass.

## Parish of Glenelg.

- 1. Castle Chalamine, on an eminence on the north side of the valley of Glenbeg, which branches off the vale of Glenelg. Only the foundations remained at the date of Gordon's Tour, 1720.
- 2. Castle Chonil, at the east end of the same valley. Only the foundations remained in 1720.

From the plans and sections of this structure made in 1871 by Sir H. Dryden, it appears as an irregular semi-elliptical wall, about 13 feet thick, enclosing an area measuring about 58 feet in the longer diameter, on the brink of a precipice overlooking the stream.

3. Castle Tellve.—Only half of its circumference remained entire in Gordon's time (1720). (See his drawing of it, "Itinerarium Septentrionale," plate 65, p. 166.)

When Pennant visited Glenelg in 1776, he found the height of the side of this tower which remained to be 30 ft. 6 in.; but in 1772, he adds, some Goths purloined from the top  $7\frac{1}{2}$  feet, under pretence of applying the materials to certain public buildings. He gives the diameter within as  $33\frac{1}{2}$  feet at 10 feet from the bottom, the wall being there 7 ft. 4 in. thick. Two galleries remained; the lower 6 ft. 2 in. high, and 2 ft. 5 in. wide at the bottom. It was divided into apartments by six flags placed equidistant from each other. The second gallery was 5 ft. 6 in. high, and 20 in. wide at bottom. The remains of a third gallery appeared above it. The entrance to the tower was a square hole in the west side; and before it were the remains of some building, and a small circle of rude stones. (See Pennant's figure of this tower in his Tour of 1776, vol. ii. plate 41, and Description, p. 391.)

4. Castle Troddan, near the last mentioned, the most entire of the four in Gordon's time, being then 33 feet high, and showing four galleries entire. (See his drawing of it, plate 65, p. 166, in the "Itinerarium Septentrionale.")

The second tower described by Pennant stands on a little flat, on the side of the hill. It was then only 24 ft. 5 in. in height, the diameter 30 feet, the thickness of the lower part of the wall 12 ft. 4 in. It had three galleries—the first, 6 feet high and 4 ft. 2 in. broad; the second, 6 feet high and 3 ft. 5 in. broad; the third was not measured.

5. The writer of the "New Statistical Account" mentions a fifth of these "duns" in Glenelg.

#### ISLAND [OR PARISH] OF HARRIS (10 Brochs).

[Capt. F. W. L. Thomas informs me that he has notes of ten brochs in Harris, a list of which will be given with his paper.]

#### THE ISLES.

[The writer of the "Statistical Account of North Uist" says—"Other remarkable buildings in this parish are the Danish (?) forts or castles. They are generally built of a circular form, in the middle of freshwater lakes, and accessible from the shore by causeways. These duns, as they are called, are about twenty in number." In all probability a number of these are brochs.

In South Uist, there are also about twenty dry-built forts.

In Barra, the "Old Statistical Account" mentions that there are eleven duns. Uncertainty as to the true character of these prevents their enumeration.]

#### ISLAND OF SKYE (30 Brochs).

There are at least thirty brochs in Skye, if the enumeration given in Anderson's Guide-Book is to be depended on. It is as follows:—

In the p	arish c	of Durinish,			15 b	roch
,,	>>	Kilmuir,			6	,,
,,	>>	Strath,			7	,,
,,	,,	Bracadale,	• .	•	<b>2</b>	33
		т.	tal.		30	

Martin gives the following notice of some of them:—

"There are many forts erected on the coast of this isle. . . . They are round in form, and they have a passage all round within the wall; the door of them is low, and many of the stones are of such bulk that no number of the present inhabitants could raise them without an engine. All these forts stand upon eminences, and are so disposed that there is not one of them which is not in view of some other. . . . The forts are commonly named after the place where they are, or the person that built them—as Dun Skudborg, Dun Derig, Dun Skeriness, Dun David, &c."—Martin's Western Islands, 1703.

#### ISLAND OF RAASAY (1 Broch).

1. Dun Voradel, in S.W. of the island, a quarter of a mile W. from the church on the brow of an eminence. It is elliptical in form, the interior diameters 35 feet VOL. V.

by 24 feet, thickness of wall variable, 12 feet to 15 feet, a "step or seat," a foot wide (the usual scarcement), runs round the interior. The entrance passage is 7 feet wide, where it opens into the central area, and on the outside only 3 feet; greatest height of wall standing about 20 feet.—Mr J. M. Judd, in a Letter to Rev. Mr Joass, Golspie.

#### ARGYLLSHIRE.

[Ard-in-fuir, the remains of a circular building, about 30 feet diameter, with traces of chambers in the thickness of the wall, near the north end of the Crinan Canal.—Rev. R. J. Mapleton.

The writers of the Statistical Accounts also mention "drystone forts" in the following parishes:—

		MAIN	LAND.		
Craignish,			•	seven.	
Ardnamurchan,		•*,	•	several.	
Kilfinichen,		•		 many.	
٠.		THE I	SLES.		
Coll,				eight.	
Tiree,				fifteen.	
Mull,				several.	
Jura,				several.	
Islay,				several.	

It is impossible to ascertain whether any, or how many, of these may be brochs without special examination of the ruins themselves. That there are brochs among them I think is highly probable, judging from the descriptions of Martin, Pennant, and others:—

Tirefoor, in the island of Lismore, is described by Pennant as a dry-stone fort, 17 feet high, having a gallery within the wall, and round the area a ledge or scarcement. This is suggestive of a broch. [Captain Thomas states it is one.] Dun Bhorreraig, in the island of Islay, is also described by Pennant as a fort of a circular form, 14 feet high, of excellent masonry, but without mortar; the walls 12 feet thick; the circular area 52 feet in diameter, with a scarcement running all round; a gallery extending all round in the thickness of the wall; and a guard-room on each side of the entrance, which is covered with great flat stones. This is most probably a broch, as its name also implies.

Duchoille, on a height overhanging the water of Teatle, the ruins of an old fort or castle, built of drystone, and resembling those old ruins called Danish forts, so frequent in the Western Isles.—New Stat. Acc. of Glenurchy, p. 96.

Barchasttallain, another of the same description, a little to the westward of the inn at Dalmally.—Ibid.

On the farm of Castles stood another of these buildings, not a vestige of which now remains.—Ibid.

As the character of these structures is undetermined, they are not included in the enumeration.]

#### BUTE.

[The structure at St Blane's Chapel, in the south end of the island (referred to at p. 161 antea), cannot be admitted as a broch. Since this paper was in type, Dr Arthur Mitchell has informed me that he examined it in 1865, but failed to find any traces of chambers within the walls. I am indebted to the kindness of Mr Galloway, architect, for some notes of his inspection of it while these sheets are passing through the press. He is decidedly of opinion that it is not a broch. The walls, from 4 to 5 feet thick, afford no room for chambers or galleries, and there is no appearance of their ever having been much higher than they are now. I am favoured by the Rev. Mr Ross of Rothesay, a Fellow of this Society, with a sketch of the ground-plan and description of a circular structure at Port Bannatyne, in the north end of the island, which seems to be well worthy of further examination. It is about 60 feet in diameter internally, its walls are about 14 feet thick, and at one side there is the appearance of a chamber or gallery running round in the centre of the wall.]

#### PERTHSHIRE.

1. Coldoch, on the estate of Coldoch, four miles south of Doune. Excavated by Dr Stuart, 1870. Described by Miss Maclagan in the Proceedings, vol. ix. p. 37.

## FORFARSHIRE

- 1. Hurley Hawkin, on a peninsula between two burns, near the parish church of Liff. Wall 19 feet thick, area 40 feet diameter. Explored by A. Jervise, Esq., 1865. Described in the Proceedings, vol. vi. p. 210.
- 2. The Laws, on the top of a hill near Monifieth, forming one of the terminations of the Sidlaw ranges. The wall of the circular building is about 18 feet thick, and the area about 35 feet diameter; it is surrounded by extensive outworks. Excavated by James Neish, Esq., F.S.A. Scot., 1859. Described, Proceedings, vol. iii. p. 440.

#### STIRLINGSHIRE.

1. The Tappock, on the highest point of the ancient forest of Torwood. Internal area, about 35 feet in diameter; wall, about 15 feet thick, with remains of the stair, &c. Excavated by Col. Joseph Dundas of Carronhall, F.S.A. Scot., 1865. Described by Col. Dundas in the Proceedings, vol. vi. p. 259.

#### BERWICKSHIRE.

1. Edin's Hall, on a spur of Cockburn Law. See p. 164 antea, also Proceedings, vol. viii. p. 41.

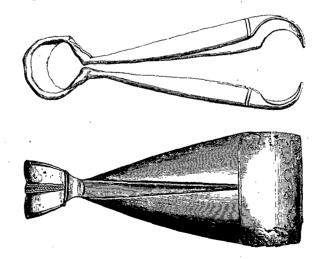
## SUMMARY.

## LIST OF BROCHS IN SCOTLAND.

(See the accompanying Map.)

		•				List of Brochs enumerated.
Shetland,						75
Orkney,		•				70
Caithness,						. 79
Sutherland,		•				60
Ross (Mainlan	ıd,					10) 00
" (Island	of Le	wis),				$\frac{16}{28}$ $\frac{1}{38}$
Inverness (M	ainla	nd),				6 <b>)</b>
,, (Isl	and	of Harris),				10 47
, (	,, (	of Skye),				30 ( 4.1
,, (	" (	of Raasay),				1)
Perthshire,	. 1					1
Forfarshire,						2
Stirlingshire,	. •				•	1
Berwickshire,				•		1
Total enumerated,						374

[This total (though doubtless including several instances where further investigation may prove the structures to be different from brochs) is exclusive of a large part of the west coast of Ross-shire, the whole of the mainland of Argyll, the whole of the outer Hebrides south of Harris, and the islands south of Skye. If these districts were properly examined, I have no doubt the number and range of the brochs would be greatly extended.]



Bronze Tweezers, from Kettleburn Broch, Caithness, in the Museum.

