

II.

ON THE PRIMITIVE DWELLINGS AND HYPOGEA OF THE OUTER
HEBRIDES. BY CAPTAIN F. L. W. THOMAS, R.N. CORR. MEM. S.A. SCOT.
(PLATES XXVIII. to XXXVIII.)

I.—I propose to bring before this Society the result of observations on the antiquities of a portion of the Outer Hebrides, and have chosen for the present evening the subject of the ancient dwellings of the people, intending to follow it up at a future time by some notices of the defensive architecture, or the natural and artificial fortifications of the former inhabitants.

If ever man were in an entirely natural state, it is plain that his distribution on the earth's surface would be determined by the supply of sufficient food and warmth. But no latitude has been found without organic life, and man's omnivorous capabilities are so large, that, as far as food is concerned, he might have spread from the equator to the poles. Not so, however, with temperature; his unprotected skin will, in a cold air, give off heat faster than his lungs will make it; and although I am not prepared to state the precise temperature in which a naked man could exist, I presume it will be admitted that he would perish when the thermometer fell to the freezing point. But we have never yet heard of any race so primitive as to be entirely at the mercy of the elements; on the contrary, each has found means to develope sunshine at pleasure; and by the use of fire to make, in any latitude, a climate fit for his existence. As the economy of fire is not always applicable to the circumstances of his life, instead of getting heat from without, he, by shelter, hinders that from escaping which is generated within himself. His shelter is either fixed or movable, in clothes of various shapes and materials, but always increasing in thickness with the distance polarwise from the region of the olive and vine, he separates himself from the ærial flood which would quickly absorb the caloric that sustains his life. In his fixed abode, raising a climate similar to those happier regions from which choice or necessity has ejected his progenitors, he half slumbers through the dreary winter, and waits the coming of the sun. It would not be difficult to trace a theory of the development of the forms, and of the materials used for human habita-

tions, compounded as they must ever have been of the circumstances of the climate, the materials at hand, and the degree of capability of combination for a single purpose; but one of our learned presidents has wisely recommended, in his address, to study archæology "backwards, from the known to the unknown,"¹ and the present subject peculiarly admits of such treatment.

I cannot enter on an inquiry concerning the dwellings made of earth or wood, partly because there are very few of this kind in the Outer Hebrides, and partly, that from the perishable nature of the materials no remains are left by which to compare the past age with the present. Yet there were peculiarities in the construction of the wooden cottages noticed by Birt and Johnson among the woodlanders of Scotland, which were probably seen by the army of Severus in the same place. In the Long Island, although some trees fit for posts and rafters sprung up along with the peat-forming plants when the ice had melted from the valleys, yet, as their still existing roots and branches testify, these firs and birches covered but a small area, and, for constructive purposes, were soon exhausted. On the other hand, the supply of transported blocks—the ruins of ice-shattered cliffs—is abundant; and from the earliest to the present time they have been the principal building materials in these islands.

Proceeding from the centres of civilisation on the east of Scotland towards the north and west, the cottages of the peasantry become still more simple in form and poor in comfort, until on the shores of the Atlantic there are dwellings so primitive, that we appear to reach backward to the Stone period almost at once.

To illustrate this, fig. 1, Plate XXVIII., is the ground plan of the *Tigh-dubh*, or ordinary West Highland cottage; and here I may remark that, after the lapse of thirteen centuries, the distinctive terms for a house built with lime-mortar, or without it, remain the same; for in the time of St Ninian, the former was *Canida casa*, in the northern islands it is still a *White-house*, and in the Western Highlands it is *Tigh-gal*, while the native structure is a *Black-house* or *Tigh-dubh*.

The ordinary West Highland cottage, then, is an oblong in plan, about 40 feet by 14 feet inside, walls 3 feet thick, and usually earth or clay for

¹ Proc. Soc. Ant. Soc., vol. iv. p. 31.

mortar. The ope are one or two windows, and a door. The interior is divided into three apartments by wooden partitions: the first, on entering the door, is where the cattle are housed in winter; the middle division is the dwelling of the family; and the inner is the sleeping and store-room. The present instance is rather a favourable specimen; it is situated in Applecross, Ross-shire, and is selected from several that have been supplied to me by Dr Arthur Mitchell.

My next example, fig. 2, is the cottage of Betty Scott, in the remote island of St Kilda. About thirty years ago the old houses, described by Martin and Macaulay, were pulled down, and new ones built in another situation; windows, bedsteads, and other furniture, were supplied to the people gratis. This cottage has no peculiarities, except in having a more than ordinary degree of comfort; it will be seen to be full of furniture, and to exhibit the reverse of poverty.

It is in the west of Lewis we meet with dwellings having peculiar archæological characteristics: the walls, rounded at the angles, are from 5 feet to 7 feet in thickness, or they may be considered as two walls, with the interspace filled in with rubbish; and the effect of this great thickness is, that the roof rests on the inner edge, leaving a broad terrace on the top. This is an important archaic feature; and although it may be explained by want of skill in the builder, I am inclined to suppose that the practice originated when the climate was much colder than at present, and has continued in use ever since. Externally, there is no smoke-hole nor window; but the purpose of both is served by two holes, about a foot square, in and at the bottom of the thatch. The absence of a hole in the ridge of the roof is not confined to the west of Lewis; the custom arises from the desire to keep in the smoke until it fills and saturates the vault of the roof. Fig. 3 is the ground plan of a typical cottage in the west of Lewis, when standing by itself. The outer door opens upon the *fosgalan* or porch, which is a small oblong, 12 feet by 6 feet, and in which there is often a quern (*bra*) upon a fixed board. The horse is accommodated here in severe weather; and as he almost fills the place, it is sometimes difficult to get past him, as I have experienced. A door from the *fosgalan* leads into the main building, which is entirely open through its whole length. In the present example the dimensions are 30 feet by 13 feet, but the length is often much greater, when they have a truly cavernous appearance. If

the sun is shining brightly, these cottages appear on entering to be quite dark, until the eyes become accustomed to the dim light within. About two-thirds of the lower end is occupied by the cows; the upper or *fire-end* is marked off by a row of stones (stall), 6 or 8 inches high. The fire, which never goes out, is about the middle of the floor; on the right hand side is a bench of wood, stone, or turf, on which the men sit;¹ on the opposite side the women perform their domestic duties. Tables and chairs are almost unknown; but the evidently modern luxury of bedsteads and a dresser are quite usual. I am not sure of the date of their introduction; but they cannot have been long in use, from the former scarcity of wood, at least of planks. Behind the dresser is the calves' location, because it is near the fire; and the cows are tethered in winter along the wall. The whole aspect is eminently archaic, when seen by the dull light of a peat fire. A door opposite to the entrance-door admits to the barn, which is also commonly the sleeping-place of the grown-up young people. Fig. 3 shows the disposition of the furniture, which would be, however, augmented by several chests when the men had returned from the fishing.

The drawings from photographs *a*, *b*, and *c*, Plate XXIX., although not made to illustrate this paper, will convey a tolerable idea of the external appearance of the dwellings of the peasantry in Harris. Fig. *a* shows the thick enclosing wall, and the plan of placing the roof. It was the cottage of a shoemaker, and *therefore* has the vanity of a chimney. Fig. *c* was the abode of Widow Carr; and it will surprise no one to learn that she has gone to a better home. The half visible cottage in fig. *b* is by the shore of Loch Stocknish; it might readily be believed to be in Iceland.

As my intention is not to describe the present domestic architecture of the Outer Hebrides, but to trace it by a series of examples to its most primitive form, I have to remark that the houses of the west of Lewis, although representing a very old style, are yet of comparatively recent erection. In the good old days, when the lands were "runrig," the tenants of the same farm dwelt in an agglomerated heap of cottages, called a Creaga (probably Grag, Gragan). A few of these remaining on the south

¹ "The *situs* of the bench was of some importance in former times, and was not necessarily on the same side as the door, but was so placed that the occupant should have his left towards the door, and, consequently, his right arm free, and at liberty to protect himself against a hostile intruder."—*MS.*

side of Loch Roag present a very strange appearance. As far as I can make out from descriptions and drawings, they closely resemble the Icelandic country houses. This might naturally be expected, for most of the original settlers in Iceland had been temporarily located, and many had been born, in the western parts of Britain.¹

I have not been able to plan the whole of an inhabited Creaga² (Gragan?); but fig. 4 is part of one at Valtos (or Kneep, for the places are conterminous), Uig, Lewis. The outer door (*a*) opens to a long passage (*b*), on one side of which is a fixed board or table to which the *brá*, or quern (*c*) is attached. A door on one side of the passage (*d*) leads into the barn (*e*), which in summer is nearly empty. Another door (*f*), at the inner end of the passage, opens into the main dwelling, the greater part of which is for the cows. As usual there is no smoke-hole, nor other windows than two small holes in the thatch, so that only a "dim religious light" pervades the place on the brightest day. The tallan or division separating the quadrupeds from the nobler creatures is but 8 inches high. There is a prejudice against shutting out the cows from a view of the fire; and one luxurious old fellow describes the pleasure he found in hearing the sound of the milk as it squirted into the tub. The disposition of the furniture is shown in the figure; but there would be one or two more chests when the Caithness fishing was over.

Fig. 5, Plate XXX., is a plan of a ruin of a Creaga, on the farm of Dun Carloway, Lewis. It has been the abode of two separate families; and an idea may be formed of the strange appearance presented by the aggregation of five or six such dwellings. One house (A) is merely a long apartment, with a Cuil-ghast (locked-end), or barn attached across the upper end. The other house (B) has a fosgalan, and the barn adjoins the side. But the point of interest in this ruin is the presence of a bed-place (*a*) in the thickness of the wall at the upper end of the second house. This feature is of great archaic importance, as by means of it a connection may be traced between the sub-modern cottages of the Outer Hebrides,

¹ Munch's Chron. of Man, Preface.

² A cluster of cottages would constitute a creaga, provided they had the land in common; for each patch was equally divided among them all, while occasionally the difficulty of partition rendered it necessary to sow in common, and divide the produce.—*MS.*

and the most ancient form of dwellings of which there are any remains in the north and west of Scotland. The hole, about 18 inches wide, to enter this oven-shaped recess, was 2 feet from the floor; it was about $2\frac{1}{2}$ feet wide at the head, and narrowed towards the foot, as shown by the plan. In section it was triangular, that is, there was height enough at the head to admit of a small person sitting upright, from whence the roof sloped rapidly, by steps, towards the foot, where it was not more than a foot in height. The roofing was by lintels stretching across, but only a few towards the foot remained. It cannot be many years since these ruined cottages were inhabited, for I am acquainted with a person who, when young, had slept in this wall-bed.

I have noted that the inhabitants of St Kilda built themselves new houses about thirty years ago, instigated (from without) by the hope of decreasing the great mortality among their children; fortunately, there was one conservative individual who was unwilling to abandon the time-honoured fashions of his ancestors, and who, in consequence, is deserving of all praise from the archaeologists. On landing on St Kilda I inquired, as was natural in a Corr. Mem. S.A. Scot., for the houses that had beds in the wall. Alas, as a class, they had been improved from the face of the earth, but there was a recension in one case, and I was quickly introduced to it. Fig. 6 is a faithful plan of the whole establishment, and for the benefit of those who may be tired of vulgar English, I have added the Gaelic equivalents. The cottage, except in one feature, has all the marks of the new style; a window, and, above all, a most inhuman stone wall, shoulder high, effectually cutting off crummie from a view of the fire, unless when standing on her hind legs. A description of the crùb is almost a repetition of the one previously given—a hole in the wall, two feet from the floor, enters to a large boot-shaped cell, which is highest at the broad end or head, decreasing and narrowing towards the foot. The roof was formed by overlapping, or at the narrow end by lintels. I was supplied with a light and boldly crawled in, and sketched, measured, &c., not without a consciousness of that stern joy which the prospect of becoming a victim to archaeology must ever produce.

There is yet another dormitory of an antique pattern, but for which I must trust to the descriptions of others, for a reason to be named in the sequel. Wooden bedsteads are of comparatively recent introduction. In

the oldest houses in the Lewis, of which fig. 7 represents the usual plan, these were boot-shaped cells, that went endways into the wall, decreasing in height as they went inwards. There was usually one opposite to the hearth, and where there was one on each side of the fire, the house was considered well supplied. If there were more in the family than these beds would hold, they lay in a corner upon the floor, railed in by a plank on edge. Occasionally the second crûb was in the barn, as shown in fig. 7. I have noted something concerning these crûbs or wall-beds in a former paper. In addition, I have learnt that a young man (Matheson) was in one of them, when a roof-stone cracked across; fortunately it did not come down, or it is probable he would not have recovered from such a nightmare. An old lady of my acquaintance, when a girl, was on a visit, where the servant girl used to carry her to her sleeping-place in the wall (which, in this instance, was at the cows' end of the house), that she might not soil her feet by walking among the cattle. These dormitories are now rare, nor have I seen them myself in actual use; but this was for want of the faculty of being able to see in the dark.

From the foregoing remarks, we are able to comprehend the descriptions of Martin and Macaulay of the houses in St Kilda; these I consider to be the most primitive form of timber-roofed dwellings in this region. The reason given by the people of St Kilda for having their bed-places in the wall was, that there might be more room for the cattle in the house; and although a better arrangement could have been made, it must be remembered that the milk of their cattle was their main support, as it is to this day in Iceland, and it is within the experience of people living that it was so in the Scottish isles. The minister of Sandwick, Orkney, describes the cottages in that quarter as having continued near to the extreme of originality; yet in the same county, and in a parish that at that time had made no greater advance, it is said of a colony of Highlanders who had been forced to emigrate from Strathnavir, that "these people, it would appear, had been comfortably situated in their former residence, as they all brought with them to this place a very considerable stock in horses, cows, sheep, and goats, and also in grain. As to all other property, every man of them might truly say, *Omnia mea mecum porto*. Their household furniture must therefore be described negatively. No bed, no table, no chair. These the Highlander does not reckon among the

necessaries of life, as he can make the earth serve him for all the three. In his shielling, composed of earth and a few sticks, you find no other furniture than a few dishes for his milk, and a barrel for his meal. So true in fact, as well as philosophy, is the maxim, *Natura contenta est paucis*.¹

It is to be remarked that these dwellings, although of the simplest materials, are most effectual for maintaining an equable temperature: the thick wall, from 6 to 8 feet in height, having no other inlet to the external air than a small low door, and this door preceded by a long passage or an external chamber; the thatched roof, without any opening in the top, receiving and acting as a magazine of warm air; the cattle in the same apartment,—all these, which experience shows are not now necessary, point to precautions against frost; and it appears to me probable that the climate itself has changed, while the traditionary custom has continued, after the necessity which called it forth has ceased.

Nothing can be more simple than the materials of which these dwellings are constructed. The surface of the ground, where not covered with peat, is cumbered with blocks of stone of all sizes, the relics of the glacial and succeeding turbulent periods. These stones are gathered by hand. I have been unable to learn upon what principle a site for a house is selected, excepting that the cattle-end should be on a lower level than the anthropolagous extremity. In the ruin of a cottage in Harris, the floor was so steep that a cask would have rolled from one end to the other. Any person can build the walls; the interior is filled with the readiest material, earth, turf, or stones; the couples may be undressed arms of trees bound together with straw or heather ropes; other branches or sticks are laid longitudinally on these; turfs and then straw is loosely piled thereon, and kept down by straw ropes, to which stones are tied; a straw mat for a door, or a cow's skin,—and the house is finished, without a piece of metal or a single tool employed in its construction—even a stone axe could be dispensed with. The only skilled labourer has been the twister of the straw or heather ropes; and as I took my degree in this art on the banks of Langavatn (Lochs) at the hands of a clerical friend, it may consequently be uncharitably supposed not to amount to a great stretch of ingenuity.

From their extreme simplicity, I conclude, contrary to the general

¹ Old Stat. Acct., vol. xvii.

opinion, that the timber-roofed dwellings represent as primitive a form of dwelling as the stone-roofed—in the latter of which, I confess, that I should scarcely feel secure in one of my own construction.

II.—I now proceed to the description of those dwellings which are roofed by the horizontal or cyclopean arch, *i.e.* by a system of overlapping stones, and select the most modern, and at the same time the last, in all probability, that will be constructed in this manner. I refer to fig. 8, Plate XXXI., a Bo'h or clochan on Cnoc Dubh, at Ceann Thulabhig, Uig, Lewis. It is of a beehive form, about 18 feet in diameter, 9 feet high, and covered with green turf outside. There are two doors (*a, a*) opposite to each other, higher (3 feet), and better formed than is usual. Within the chamber is dome-shaped, and is between 7 and 8 feet square on the floor. A row of stones (*c*), half a foot in height, cuts off one half of the floor for a bed (*d*). There are several small recesses (*e, e, e*) in the wall to serve for cupboards. But what distinguishes this bo'h from all others, is the presence of a chimney over the fire-place (*b*). The woman who was living in it told us it was built for his shielling, by Dr Macaulay's grandfather, who was tacksman of Linshader. Dr Macaulay died a few years ago at Liverpool; and I conclude, from various circumstances, that this bo'h was made about ninety years back. Thus, a mode of construction used in the oldest known masonry (the tomb of Atreus, at Mycenæ),—continued by the Jains in the domes of their temples in India,—supposed (perhaps erroneously) to be extinct in Ireland for more than a thousand years, was practised in the British Isles in the last century, and even, as I shall show farther on, by the St Kilda people for their cleits at the present time.

The next example is one of that class, of which I have already noticed a great number in the third volume of our "Proceedings;" but it will be useful to add the present description, as I had full opportunity of becoming acquainted not only with the building, but with its inmates. Being Sunday-stayed, along with Dr A. Mitchell, at Ken Resort, we thought to improve the occasion by visiting the garrys in the neighbourhood. Along with the gamekeeper and a gentleman known through all these bounds, we were soon at Larach Tigh Dhubhastail (*i.e.*, the site of the house of Dubastal,—Dubastal having been a freebooter who lived on the world

at large). Here was a bo'h (fig. 9), in which the family was at home. This was the garry or summer pasturage of the tenants of Crolista, twelve miles away on the borders of Loch Roag. The bo'h was double, that is, the dwelling and dairy were attached, of the usual beehive shape, and green with the growing turf. A very humbling doorway (*a*), easily closed with a creel, a bundle of heather, or a straw mat, led to the boudoir within. On the right hand side, close to the door, was the fire (*d*)—the smoke escaping through a hole in the apex of the dome. A long and thin undressed stone projected from the wall, over the fire, whereon to suspend the pot. In front of the fire was the usual row of stones (*e*) (beinge = bench), and behind that was a litter of hay and rushes (*f*) for a bed. In the circular wall were three cuiltean or niches, containing a comb and two or three drying cheeses. A small bag of meal, one or two blankets, and an iron pot, completes the inventory of movables in that apartment. A very low interior doorway admitted from the dwelling to the dairy, which was about 6 feet square on floor, but roundish externally. The furniture and utensils were a stoup for carrying water (*k*); a heap of chickweed (*l*) brought from the farm, and given as an alterative to the cattle; a cream-tub (*h*); three milk or cheese tubs, covered by slaty stones (*i, i, i*); and a crannachan or churn (*j*). In one of the niches were backbones of fish, as sweetmeats for the cows, and in the other a Loineid or frothing-stick. The occupants were three young women, dressed in printed cotton gowns, and, being Sunday, they had finished their toilette at the burn to good purpose. None of them could speak English, but one was reading a dilapidated Gaelic Bible. They were under no alarm from us in the company of Mr Macrae of Meabhag. Some eight of us packed into the hut, and discoursed on things in general, while that pastoral dainty, frothed milk, was handed round. The situation was delightful to an archaeologist, for he found himself almost introduced to the Stone period: the dwelling of moor-stones and turf, without one morsel of wood or iron, no other tool required than a wooden spade; baskets of bent, docks, or straw; straw or hair ropes for an unwilling cow; and a very few years before the present time, both cooking and milk vessels made on the spot from the first clay that could be found. The clothing, up to the last generation, was all made from the wool of the native sheep, spun on a distaff, and wove in a native loom. These

stone-roofed bo'hs have not, even in recent times, been confined to Lewis. Upon a natural hillock, upon the north side of Benbecula, opposite Floday, in the South Ford, are the ruins of bo'hs which differ slightly from those in Lewis, in being somewhat larger, and in having a second chamber, which should be the dairy, but may have been a sleeping apartment. In any case, the inhabitants were content with a communication from one to the other, hardly 18 inches wide. See figs. 10, 11, and 12. The place is called Baile Fhlodaidh (*i.e.*, the hamlet of Floday, *i.e.*, Flat-isle), and these were the shiellings of the Floday people in the good old times.

In a bo'h in the north end of Lewis the doorways are but 19 inches wide—a fact highly suggestive of freedom from tallow and apoplexy in this pastoral region.

For further details of these inhabited bothan, I must refer to a former paper, and shall have now nothing but ruins to lead me in my advance backwards.

My friend, Mr T. S. Muir, has supplied me with a sketch-plan (fig. 13) of an ancient dwelling in the Flannen Isles, Lewis, which he thus describes :—“ Having consummated our inspection of Teampull Beannachadh, Iain led us over to near about the western extremity of the island, to look at some curiously-fashioned dry-stone buildings of great strength, vernacularly called *Bothan Chlann 'ic Phail*, that is, the Bothies of the Macphails. Without a more accurately drawn plan of these boothies than that which I hurriedly took, it would not be possible to convey a just notion of their architectural character; but, in a few words, the larger of the two may be described as a low, squared oblong structure of two apartments—one nearly 8 feet square, the other smaller, and irregularly oval, divided from each other by a very narrow passage, 5 feet in length. Besides this passage, there is one equally narrow, about 8 feet in length, opening from the outside upon the larger apartment, and in a line with the connecting passage, containing a square recess in one of its sides, which seems to have been a press. Both these ducts are covered above by large slabs laid across from side to side; but the apartments themselves are surmounted by conical vaults, rudely constructed of thin stones, gradually converging into a dome, but leaving in its summit a small circular aperture, which was evidently intended as much for window

as smoke-hole, as through it comes all the light which finds its way into the building.¹

The next class of stone-roofed dwellings are those having oven-like bed-places around the internal area. Of these an almost perfect example (merely wanting the skin of turf) exists as the Amazon's house, in St Kilda; but, as it is described p. 225 vol. iii. of our "Proceedings," it need not be noticed here; and the building described by Sir H. Dryden, as having been excavated by Mr Gordon in South Uist, is of the same order, but is furnished with two doorways.²

A very interesting variety of this style of dwelling is in Lewis, called Bo'h Stacseal; it stands on a line, and midway between Stornoway and Carloway, and was the bo'h of the garry of the tenants of Sheabost. This bo'h (fig. 14), Plate XXXII., which has been nearly destroyed of late years, is an irregular cross in plan. The main body is formed by three alcoves or arms, radiating from a central beehive chamber, and the doorway is covered by an advanced chamber or fogsalan. There are two doorways (*a* and *b*) to enter the fogsalan opposite to each other. As has been previously explained, this admits of the weather door being blocked, thereby causing a better draught for the smoke. The fire was between the two doors (at *c*)³. In front of the fire was the inner entrance, about 4 feet wide, to the main building; across the entrance is the row of stones for seats (*d*). The dome was 7 feet high at the centre (*e*); from thence to the end of the cells (*f*, *g*, *h*) is 7 feet. The cell (*f*) is 2 feet wide, and 15 inches high at the inner end; is 5 feet long, and 3 feet high at the mouth. The opposite cell (*g*) is of the same dimensions. The third cell (*h*) is 4 feet wide at the mouth, 5 feet long, decreasing to 2½ feet wide at the head, where it is 16 inches high. On entering, one was under the necessity of bending a little to avoid the fire; the same is exactly the case with the sheillings of the present day. This interesting summer house illustrates the most antique form of dormitory; but in the winter houses, the floor of the bed-place was raised 3 or 4 feet above the ground.

I have next to notice that form of bo'h, Pict's house, or clochan, whichever name may be adopted by archæologists, to which a hypogeum or sub-

¹ Characteristics of Old Church Arch., p.181. ² Proc. Soc. Ant. Scot., vol. iii. p.124.

³ There was a fourth sleeping chamber behind the fire-place, which would complete the crucial figure. So says the man that pulled it down.—M.S

terranean gallery and chamber is attached. For the first, fig. 15, Plate XXXIII., I owe the plans and description to Mr Colin MacVean, one of Captain Otter's party of surveyors. It is in South Uist, about half a mile inland from Moll a Deas (South Beach); and the Moll is about one mile and a half to the south of Husinish (Husness, *i.e.* House-ness). The site of the bo'h is called Meall na Uamh, or Cave Lump. It consists of a partly excavated oval dwelling chamber (A), 7 feet by 14 feet on the floor; the dome roof has fallen in; there are two cuiltean or niches in the wall. A low curved subterranean passage (B), about $2\frac{1}{2}$ feet square, and 20 feet in length, leads into an elongated beehive chamber (C), 13 feet by 5 feet, and $6\frac{3}{4}$ feet high; from thence an entrance (D), 2 feet by 2 feet, admits to a small circular chamber or cell (E), 5 feet in diameter, and 5 feet high. The main passage inclines downwards, so that the floor of the second chamber (C) is nearly three feet lower than that of the first (A); and that of the inner one (E) a foot below the second (C).

An ancient dwelling, semi-subterranean, exists at Nisibost, Harris. It consists of an elongated main chamber, with a subterranean beehive cell on one side. The main chamber is continued as a crooked low passage to another subterranean pear-shaped cell. The whole is figured and described at p. 140, vol. iii. of the "Proceedings." The side cell near the entrance is characteristic of this ancient architecture, both defensive and domestic.

A still finer example exists near to Meall na Uamh, in South Uist. About half a mile from the shore the brows of the hills form a succession of scours or landcliffs; and in front of these lie large masses of transported blocks, which the geological commotions of former periods have torn from their native site. In many parts of this talus a man may crawl about as easy as an otter or a wild cat. The bo'h or Pict's house, as it would be called in the Orkneys,—but the name is unknown in the Long Island,—that I am about to describe, lies less than half a mile above the shepherd's house; but so little curiosity had that individual, that he was entirely unacquainted with it; and I believe it would never have been found by us, but for a little terrier (in its etymological sense, of course) of a daughter. The child was only acquainted with the two here drawn; but there may be many more waiting the researches of the zealous antiquary. This Pict's house, then (figs. 16 and 17, Plates XXXIV. and XXXV.), is more than half destroyed, but there is quite enough remaining to make out the whole

design. On a small, flattish terrace, where the hill sloped steeply, an area had been cleared by digging away the bank, so that the wall of the house, for nearly half its circumference, was the side of the hill, faced with stone, while the other side of the house, for it was almost gone, was built up from the ground. There are the usual niches (*f*) in the wall, which was 4 feet high. The interior of the house was circular, and 28 feet in diameter. Within the area were pillars, or rather piers (*b, b, b*), formed of blocks of dry stone masonry, raised distinct from the wall (see sketch), and radiating from the centre of the house. These piers were about 4 feet high, 4 feet to 6 feet long, and $1\frac{1}{2}$ foot to 2 feet broad; and there was a passage of from 1 foot to 2 feet in width between the wall and them. There were five piers remaining, and five more would complete the suite. These piers were evidently intended to lessen the space to be covered by overlapping; for while the breadth of the house is 28 feet, the central dome or beehive had, by this means, only 15 feet to span. So much of the roofing remained as to cover the spaces between the innermost piers, showing the method by which the roof was formed. The inner wall of the house is 4 feet high. From the top a lintel or broad stone commonly reached to the nearest pier; a single stone (architrave) connected the outer ends of two piers, by which an irregular four-sided base (or bay) was formed, from whence a beehive dome was raised by three or four courses of stone. A larger dome rising from the inner ends of the piers covered the central space, thus the resemblance to an Indian (Jain) temple in plan is very striking. There were no remains of the original doorway, but I have shown where I suppose it to have been by dotted lines; but there may have been two doors opposite to each other, and parallel to the slope of the hill. The objection to this view is that two doors seem to indicate the latest style in this branch of architecture. It is not to be supposed that there is any regularity in the masonry; the stones in every case appear to be entirely undressed, and of every thickness and shape. This is not surprising, for there are now communities of scores of families in the Hebrides that have not a four pound hammer amongst them. None of the stones were larger than could be easily lifted by a party of men with stretchers. This bo'h may have been the summer house of forty people. The hypogeum or subterranean gallery is on a level with the floor, pierced towards the hill, and is entered by a very

small doorway (*d*), so low, indeed, that I supposed it to be partly blocked up by dirt, until we found the foundation on the native rock. It is but 18 inches high, and 2 feet broad, so that a very stout or large man could not get in. The doorway is short (2 feet), and at once the height rises to 5 feet inside, or thereabouts. Facing the entrance is an oblong chamber (*g*), 4 feet long and nearly 3 feet broad (the analogue of the guard-cell in the Pictish castles); the sides are partly of drystone masonry, and, at the end, of rock *in situ*. Turning to the left is a narrow ($2\frac{1}{4}$ feet) gallery (*h*) of varying height; it was over the boots in water, and quite dark, but my worthy coxswain worked away with the tape-line, while I endeavoured to write down the figures by the aid of a melancholy-looking candle. This gallery is straight for 9 feet; it then turns towards the hill, and terminates (at 14 feet) by a widening and heightening of the gallery into an oval chamber (*i*). At the entrance to the chamber, as is usual, the gallery is lowest, about 3 feet; but at the centre of the inner chamber the height is $7\frac{1}{2}$ feet. The gallery is partly roofed by overlapping; but at the entrance to the inner chamber, single stones reach from side to side. The dome of the inner chamber is formed by three irregular courses; and the end, at which there is a shallow recess (*j*), butts upon native rock. There is native rock also forming part of the south side of the gallery; but elsewhere the walls are in nowise different from a dry stone dike built by the peasantry at the present time.

My next examples are of hypogea pure and simple, that is, those to which no dwellings are attached. Fig. 18 is the plan and section of one, half-a-mile to the northward, and at about the same level of the hill as that last described. The name of the place is pronounced Skalayitch, in which I recognise the Norse, *skal*, a house; and the ruins of a tigh-dubh are on the spot. There *may* have been a house belonging to the hypogeum, and its materials may have been used to build the mediæval cottage, but that cannot now be decided. The hypogeum is very perfect for a great part of its length. An irregular hole was pointed out by the little lassie before alluded to, and some of my party quickly disappeared below ground. As they did not immediately return, I thought it was time to follow, and squeezing through the ruined entrance (*a*), I entered the usual kind of gallery, which descended into the ground at a sharp angle. At the bottom, on the right hand side, was the usual guard-cell; the sides of dry-

stone masonry, but the end was the face of a rock *in situ*. Proceeding on, the roof rose and the gallery widened, to what was the main chamber (*c*), which was 7 feet high under the apex of the dome, and 4 feet broad.¹ At the further end, and in the same right line, the gallery (*d*) became low (2½ feet) and narrow (2 feet). Again the roof rose, and the gallery widened till stopt, in face, by a large transported rock (*f*); to the right of the rock, a rectangular chamber (*e*), 2 feet broad, extended 4 feet, and ended against rock *in situ*. Round, and beyond the rock (*f*), the wall of the left side of the gallery was built, but the passage was so narrow (*g*), that I contented myself by looking through it. This incomprehensible narrowness is a feature in the buildings of this period. Some of Captain Otter's officers pushed through into the small chamber (*h*); beyond this the gallery was ruined and impassable; the total length explored was 45 feet.

The whole of South Uist would well repay the archaeologist in search of prehistoric remains; barps, Pict's houses, hypogea, mythological sites (not less interesting because of their development from the ideal), duns, chapels, &c., are numerous, together with an idiosyncrasy of topography that can hardly be described. About the place I have been describing, I saw among the creeks and hollows of the fallen rocks what appeared to have been the abodes of men; and there were, as elsewhere in the Long Island, some primitive shiellings indeed, consisting of a low wall built up to an overhanging rock; but I had not time to investigate farther.²

Whether or not the hypogeum of Skalavitch was connected with a dwelling above ground, it is certain that that which is at Paible, Taransay,

¹ Upon the west side of this chamber, and about 2 feet from the ground, is a recess, about 2 feet square and 4 feet long, which had not been noted on my plan, but which I am able to add, on the authority of Mr Carmichael. The same accurate observer writes the name as "Uamh Sgalabhad," the Cave of Skalavad, which is presumably the Norse Skalaveit. He also informs me that "Tung or Tunga" is the old name for these subterranean dwellings; in O'Reilly's Irish Dictionary, "Tuinnidhe, a den."

² Near the top of the second highest hill in the Forest of Harris (Waterloo), is a shelter of this kind, probably the refuge of some poacher or outlaw; and a romantic story is attached to Both a Mheirleich (or the Hut of the Thief), upon the Bragar Hills, Lewis. The "Meirleich" chose a situation where an overhanging ledge of rock formed back and roof to his dwelling, and a large boulder almost completed one side. The front wall at 5 feet reached the hanging rock, and enclosed a chamber, 5½ feet long by 4½ broad; and the doorway was 22 inches wide. From this rude

Harris (fig. 19, Plate XXXVI.), has always been for concealment alone ; it was found by the sand blowing away from the mouth of it. The drawing (*d*), Plate XXIX. is from a photograph of the entrance, which is 2 feet 10 inches high and 1½ foot broad. The sea flows up to it at high tides. On crawling in, there is seen the usual guard-cell (B), close beside the entrance, but so small that we may be sure the sentinel, if there was one, must have been a light weight ; in fact, we are almost driven to the conclusion that there were no Bantings in those days. This guard-cell is but 2 feet 5 inches high, and 3 feet in width. The gallery (C) then turns at a right angle to the left hand. We excavated it for 22 feet ; it was much ruined, and the labour of throwing out the sand was very great. At D, a roof-stone was *in situ*, and I have no doubt it was at the entrance to the usual chamber ; but as we had nearly reached the foundations of Mr Macdonald's barn, and there was little prospect of reward for undermining it, the excavation was abandoned. When digging, we came upon two broken stone dishes (corn-crushers?) now in the Museum ; and above the gallery were most of the bones of a small ox, placed orderly together, perhaps the gods' share of some ancient sacrifice. Bones of the seal were common, and a few of the eagle. This hypogeum was within a stone's throw of the chapel of St Taran (or Torannan), and the name of the place, Paible (a Gaelic corruption of the Norse name, Papu-lög—the priest's fields or lands), indicates a pre-Norse settlement of Christian secular

dwelling, the thief looked down on Tigh an Rugha (*i.e.* the House of the Peninsula), and when the lights were put out, descended to plunder. The Meirlreach was very strong, and used to drag the cattle by the tails all the way to his bo'h, that their footsteps might appear to be going homewards. He had the effrontery, however, to mock the owners when he heard them calling for their lost cattle,—“ Blarach, blarach.” Thief—

“ Is diomhan dhuibhse bhí'g eibheach Blarach,
Agus bloigh na Blaraich air a ith.”

That is, It is of no use calling for Blarach, when a part of Blarach has been eaten. The Tigh an Rugha people at length discovered where their missing cows went, and collecting all their neighbours, surrounded Both an Mheirleach with men and dogs. The thief rushed from his hut and endeavoured to escape, by leaping from a high rock, called “An Palla Gorm” (The Green Ledge). His leg was broken by the fall ; yet before his pursuers could reach him, he, leg in hand, had gained another hill, Ben Claich, a mile to the west of Ben Mor. There he was caught ; and they hanged him on Cnoc na Chrochaidh (Gallows Knowe), near the scene of his depredations.

monks or Culdees. It is quite possible the hypogæum was made by them to hide their heavy valuables from the invading pagan Norsemen.

My lamented friend, Mr J. Morrison, sent me the plan (fig. 20) of a very peculiar hypogæum, situated a quarter of a mile south of Cill Choinnich (Kil Kenneth), in Tyree. He says, "the stones used in the building were remarkably large and massive. It is the finest specimen that I have seen; the roofs of the passages are so high, and the masonry so strong and compact, that one feels no sensation of fear on going into them." This hypogæum was discovered by men who were seeking stones for dikes; and the Duke of Argyre, who was in the island at the time, directed that it should be cleared out; but it has not been done as yet. The hypogæum is excavated in the slope of a hill, the inner end (A) being lowermost. There is, as far as can be seen at present, no dilatation of the gallery to form a chamber, nor has the original entrance yet been traced. It is probable, from the narrowness of the gallery, that the entrance was near (H), from whence a gallery, 23 feet in length, debouched into a larger gallery, running right and left. At this junction of the three galleries (BCE), which is now open, the roof was probably of greater height, forming a chamber, from thence a gallery, 25 feet long, terminated in a simple closing up by narrowing the space between the side walls. The plan and section at A will fully explain what is meant. From the junction (C), the gallery extending to the north is 20 feet long, and the roof is still entire. At the open space (BC), the side walls are $5\frac{1}{4}$ feet high; and, as shown by the elevations, the general height of the passages is between 5 and 6 feet'.

The Rev. John Macdonald, minister of Harris, has sent me the following sketch-plan (fig. 21, Plate XXXVII.), and information concerning a hypogæum, in North Uist:—"It is rather dangerous entering these tumbledown ruins; it is uncomfortable to think of what might happen. I enclose a rough plan, taken from memory, of the house at Valaquoy, in North Uist. It is now in the middle of a field considerably raised above the surrounding ground. It was not known to exist until a horse, while in the plough, managed, much to his confusion, to make his way through the roof of the outer chamber. But the name of the place, Cnoc na h-Uamha, pronounced Krok na hwar, meaning the Knowe of the Cave, is enough to show that it was well known of old,—as most, if not all of these houses

¹ This hypogæum very closely resembles one at Raits, in Badenoch.

have been—whence the absence in general of any relics in them. For the same reason, the few relics that are found cannot be depended on as genuine, or at least as pertaining to the age in which these houses were built. Sand drift has undoubtedly given its present appearance to the place where the Valaqui underground house is situated. I had great difficulty in exploring it; it was half full of sand, and rats had so burrowed in the walls, that a thorough exploration was out of the question. The sketch, however, gives a pretty accurate idea of its form and size.”

A plan of another hypogeum (fig. 22) in North Uist, is sent by my enterprising correspondent, Mr A. Carmichael. He states—“Tigh Talamhant, by Loch Hackleit, Loch Portain, is very like a garry, or cairn, that otters would frequent; indeed, before venturing in, I took the precaution to introduce my little Skye terrier to ask who was at home. The narrow part goes backwards and upwards from the lake, and at the end there is a large opening. The small opening below is just large enough to admit a man to pass. The whole of the passages are covered, and I have marked the position of one large rhomboidal roofstone, weighing, as I calculate, about four tons. It is extraordinary that the builders of this Tigh Tal’ant should have been able to move so ponderous a stone. Over the Tigh are several feet of moss, and on this, but a few yards back, towards the foot of the cliff, is an old wall, 3 or 4 feet high, the remains of an old building over the Tigh Tal’ant.”

A sketch-plan of an underground gallery and chamber (fig. 23), close by Loch an Arm, above Stuley, on the east side of South Uist, and about a mile from the sea, was given me by Mr Robinson, R.N. The gallery is slightly curved, 3 feet broad, 25 feet long, and terminates in a beehive chamber, 6 feet broad, and $5\frac{1}{4}$ feet high.

At Sitheen, in Benbecula, a fragment of one of this class of structures remains; and I have information of them at Ness, Lewis, where they are known as Tigh fo Thalaimh; at Northton, in Harris; at Mealista, Lewis, where the stones were removed for building; near Cladach, and on the east side of Ben Eval, near Loch Eport, North Uist. I am also informed that there is one at Gress, and another at Sgiggursta, Lewis¹. The latter

¹ I was told by old men in the Lewis, that when making excavations for buildings, &c., they sometimes came upon narrow underground passages, about 9 or 10 feet long, 3 feet high, and as many wide.—M.S.

was "about 20 feet long, 6 broad, and nearly 6 feet high." That industrious describer, Martin, tells,—“Some 30 paces on this side [of the chapels in Valay, North Uist], is to be seen a little stone house underground. It is very low and long, having an entry on the seaside. I saw an entry in the middle of it, which was discovered by the falling of the stones and earth.”¹ And again, of Erica (Eric’s-ay), South Uist, he says,—“There are some houses underground in this island, and they are in all points like those described in North Uist; one of them is in the South Ferry-Town, opposite to Barray.”² Dean Monro, in his description of the Hebrides, writes:—“Into this North head of Ywst (*i.e.*, North Uist) there is sundry covis and holes in the earth, coverit with hedder above, quhillk fosters maney rebellis in the country of the North head of Ywst.”³

I owe to Miss Kennedy, the niece of a former catechist in St Kilda, much valuable information in reply to some queries forwarded to her. It appears that besides the Tigh na Bhanna ghaigach (Ty-na-Van-aghag-gec), or Amazon’s House—and of whom all tradition, except her name, has gone—there are the remains of other submerged dwellings and hypogea. Miss Euphemia MacCrimmon, the oldest inhabitant of that far off island, tells, that a certain Donald Macdonald and John Macqueen, on passing a hillock heard churning going on within. And about thirty years ago, when digging into the hillock to make the foundations of a new house, they discovered what seemed to be the fairies’ residence, built of stones inside, and holes in the wall, or croops, as they call them, as in Airidh na Bhannaghaisgach. Another house of the same kind, having ashes and brands half burnt in it, was found above the burial-ground, and is there yet.

St Kilda⁴ is but one of the three grass-growing islands of the group. Hirta (*i.e.*, h’Iar-Tir, the West Land or country), Soay (*i.e.*, Saudr-ay, Soyd-ay, So-ay, Sheep Island, Norse) is only separated from St Kilda by a very narrow sound, but Boreray (Bor’s or Borrer’s Island?) lies four miles to the north-east. This solitary island (though it has two high stack rocks for neighbours) is about three-fourths of a mile long, and one-fourth of a mile broad, but it rises 1270 feet above the sea. It is surrounded by preci-

¹ P. 67.

² P. 87.

³ Ag. Rep. Heb., p. 782.

⁴ St Kilda, St Kilder Island, *i.e.* Eilean Ceile-dé Naomh, the island of the Holy God’s servant (or Culdee).

pices or broken cliffs, and can only be landed on in two places when the sea is smooth. I saw it from St Kilda, yet can hardly say that I had a great desire to land on it, having already experienced what a tumble from a cliff is like. This islet, situated in the open ocean, and so difficult of access, has monuments of both the Christian and Pagan periods,—a stone circle, if we may credit the Rev. Ken. Macaulay, and a teampull or chapel, if we may believe Miss MacCrimmon. It seems almost like a triumph to have even heard of a “teampull,” that our indefatigable ecclesiologist, Mr T. Muir, has not visited. However, I fear there would be little to see, for Miss Kennedy writes,—“There was a temple (chapel) in Boreray, built with hewn stones (?) Euphemia MacCrimmon has a mind of seeing it. There is one stone yet, where the teampull was, standing in the ground, upon which there is writings; and the inhabitants of St Kilda built cleitan¹ or cells with the stones of the temple.” “Also, there is an altar in Boreray, and another altar on the top of Soay.” But our present interest in Boreray is from its containing the ruin of a dome-roofed house, called Tigh an Stallair. Martin’s account is, “In the west end of this isle is Stallir House, which is much larger than that of the female warrior in *St Kilda*, but of the same model in all respects; it is all green without, like a little hill. The inhabitants have a tradition that it was built by one *Stallir*, a devout hermit of *St Kilda*,” &c., p. 24. Macaulay says, that “*Staller*, or *the man of the rocks*, built a strange habitation for himself and his accomplices. The house is 18 feet high, and its top lies almost level with the earth, by which it is surrounded; below (? within) it is of a circular form, and all its parts are contrived so, that a single stone covers the top. If this stone is removed the house has a very sufficient vent. In the middle of the floor is a large hearth; round the wall is a paved seat, on which sixteen persons may conveniently sit. There are four beds roofed with strong flags or strong lintels, every one of which is capable to receive four men. To each of these beds is a separate entry, the distance between these separate openings resembling, in some degree, so many pillars.”—P. 55. “The stones of which this strange habitation was made are exactly like those in *Dun-fir-Bholg*.”—P. 57. Miss Kennedy’s account from Euphemia MacCrimmon is much more circumstantial:—“The house

Cleitan, a penthouse, eaves of a house.—*O’Reilly*.

underground in St Kilder, Boreray. The house is called Tigh a Stallair, after the name of him who built it. It was built on pillars, with hewn stone (?), which, it is thought, was brought from Dun's Point. It was quite round inside, with ends of long narrow stones sticking through the wall round about, on which clothes might be hung. There were six croops or beds in the wall; one of them was called Rastalla (Rath-Stallair, the Leading Climber's Cabin ?), very large, for it would accommodate twenty men or more to sleep in. Next to that was another, named Ralighe (Rath—?), which was large, but rather less than the first. Next to that was Beran (Bearan ?) and Shimidaran (?), which would accommodate twelve men each to sleep in. Next to that was Leaba nan Con, or the Dog's Bed; next to that was Leaba an Tealaich, or the Fireside Bed. There was an entrance (passage) within the wall round about, by which they might go from one croop to another, without coming to the central chamber. It (the house) was not to be noticed outside, except a small hole in the top of it to allow the smoke to get out, and to let in some light. There was a doorway on one side of the house, facing the sea, where they had to bend in going in, and a large hill of ashes near the door would not allow the wind to come in. Bar (Bair) Righ, is the name of the door. The present inhabitants of St Kilda, when in Boreray fowling and hunting sheep, were residing in it, till about twenty years ago the roof had fallen in; some of the croops are partly to be seen yet. Euphemia MacCrimmon has seen stones in Tigh a Stallair on which there were writings."—*M.S.*, 9th April 1862.

In endeavouring to reconcile these descriptions, it is to be noticed that the sleeping-room is very differently estimated by Macaulay and Miss MacCrimmon. Macaulay does not observe that one segment or crùb is larger than another, so that he may be taken to say that the Tigh would hold sixteen men *at least*. Miss MacCrimmon would estimate sleeping-room according to the old West Highland standard. Now, as the old houses in Lewis and St Kilda had usually but one crùb in them, we know what accommodation was considered sufficient for one family. The sleeping-place (*f*) in the bo'h (fig. 9), contains about 30 square feet, yet six full grown young women reposed there—I hope in comfort. Miss MacCrimmon's estimate is, no doubt, formed from that method of packing known as heads and tails. From these and other considerations, I

am led to believe that Tigh an Stallair has greatly resembled, in size and arrangement, the bo'h (fig. 16) above Mol a Deas, South Uist. A central open space around the hearth; seven dissepiments, piers, or pillars radiating and dividing the remaining part of the floor into six unequal segments; and an entrance. The piers, detached from the enclosing wall, leaving a passage round (as in fig. 16), and a bench along the wall for a seat (perhaps, for Euphemia MacCrimmon does not name it). The Tigh an Stallair is probably smaller than the bo'h, fig. 16.

I have yet to notice two kinds of archaic objects of interest, both occurring in St Kilda. Every visitor to that island is surprised at seeing a great number of little stone houses scattered irregularly on the hillsides, not only upon the main island, but also on the adjacent rocky islets. Each is a cleit; *pl.* Cleitanan (Cleitan, a penthouse, *O'R.*); in Iceland, Hiallr. I drew and measured the largest of them; it stands in the arable land, in front of the row of houses, and is said to have been built for a former tacksman of St Kilda, who is now living. My notes are lost, but I am pretty confident that it is 16 feet long, 6 feet broad, and 9 feet high internally. The door, not low, is at one end, and the other end is rounded. There was no window, but many cuiltean or niches in the walls, and it had been used for a dairy. The roof was formed by overlapping. Externally the walls were perpendicular and bare for 5 or 6 feet; they then fell in and were covered with turf. The aspect externally is that of an elongated pyramid with a green top, but had it been deserted, and the turf worn off, it would exactly resemble an old Irish oratory.

Fig. 24, Plate XXXVIII., is a plan and section of one of the rudest cleits. Its dimensions inside are only 8 feet by $2\frac{1}{2}$ feet by 5 feet; the enclosing wall is built purposely with wide joints, but the roof is covered with turf. These cleitanan are used by the people of St Kilda for storing their provisions and fuel. A bird or piece of meat hung up in them undergoes an unpleasant change at first, but afterwards dries, and is cured; and it is probable that fish or meat preserved in this manner will be more wholesome than if salted.

This kind of curing-house was common in some parts of Shetland; and the most conspicuous feature in the south end of Fair Isle (anciently Fridar-ay, *i.e.*, the Peaceful Isle), is a row of them upon a rising ground. They are called Skeos in Shetland, from the Norse Skiar, *i.e.*, *pergula*

siccatoria; but the cheapness and abundance of salt has caused them to fall into disuse.

When rambling in the Amazon's Glen, St Kilda, I came upon a queer-looking contrivance, which I subsequently learnt was a Buaile Crothaidh (pronounced Booley Cro-ay), or Gathering Fold. Fig. 25 is a plan and section of it. The crô or fold (*b*) is hollowed out of a bank, and faced with a wall 4 or 5 feet high. From the gate, formed by a straw mat, a wide open fold (*a*) is made by two enclosing walls. Upon the bank round the inner fold (*b*) are three beehive huts (*d, e, f*); and it was their presence that puzzled me, for the entrances to them were too small for a man to enter. The huts or cotanan were for the lambs and kids, from whence they were in sight and smell of their dams, but were prevented from sucking.

Fig. 26 is another of these contrivances in the same glen; and I have thought it necessary to notice them, as in a few years time it might be the matter of controversy whether they were erected by the Picts or the Druids.

III.—I have now concluded the description of a series of the domestic stone buildings of the Outer Hebrides, which are either archaic in type or style. The examples are drawn from a limited area, for even of this group of islands but a small portion came within my observation: much remains to be done in the way of excavating, planning, and measuring. The proprietors are usually favourable to these pursuits, but there is a lamentable want of workers, usually from mental indolence, but often from a presumptuous ignorance, which supposes that what does not immediately concern its own sweet self can be of no importance to mankind.

So far we have been noticing the habitations of a woodless country—not absolutely so, but yet not supplying enough of timber for either fuel or building. Had we passed over to the “coiltean,” or woodlands of Alban during the last century, we should have found a change in the material, but no advance in comfort. My own experience of the inland or wood-growing parts of the north-west of Scotland is very limited. Pennant, in 1772,¹ speaking of Sutherland, says, their hovels are made of poles,

¹ Vol. ii. p. 371.

wattled, and covered with thin sods. Birt, describing an inn, apparently in Inverness-shire, says, the "skeleton of the hut was formed of small crooked timber,"¹ &c. Johnson, with his faithful Boswell, met with such dwellings in crossing from Inverness to Glenelg; and we learn from "Walker's *Economical History of the Hebrides*" (the result of six journeys made into the Highlands and Hebrides, from the year 1760 to the year 1786), that, "where wood is at hand, they erect what are called creel houses. These are formed of wooden posts, interlaced with branches of trees, like wicker work, and covered on the outside with turf."² "In most Highland farms there is a small portion of arable land, and a large extent of mountain pasture considerably distant. The homestead is on the arable land, and generally situated on the sea shore, by the side of a lake or river, or low in a valley. Here the farmer, with his cottagers, live in what are called their winter houses. Soon after the middle of June, when the arable land is sown, they emigrate from these dwellings, with their cattle, to a mountainous place belonging to the farm. There they quickly erect or repair their summer houses or shiellings, which are composed chiefly of sods and the branches of trees. In these dwellings they live during the summer. Their only occupation is tending the cattle on the heights, and the manufacture of the butter and cheese. Their chief sustenance is oat and barley meal, with milk in its different forms. In this way they pass the fine season, in a pastoral and cheerful manner of life, of which the people are extremely fond. When the corn begins to ripen, about the middle of August, they leave their pleasant summer residence, and return to their winter houses. This method of management is natural to the situation of the country, and is not peculiar to the Highlands."³

¹ Vol. ii. p. 38. 1815.

² Vol. i. p. 5.

³ Dr Robertson, in the "*Agricultural Survey of Inverness*," published in 1808, says, The houses "of the poorer tenants are mean beyond description. . . . In rearing these houses, which are built of mud (provincially feal), and which are covered with thin turfs (provincially divots), much injury is done by peeling the surface from the green ground, which in many places is very scanty; and the annual repairs necessary, where the number of houses is so great, and the materials so perishable, increase this injury in a high degree. When such a house is to be built, the first thing done is to construct a coarse frame of wood, corresponding to the dimensions of the house, in length and breadth; then upon this frame to fix standards inclining inward, at proper distances, which rise to the height of the

Returning again to the treeless islands of Britannia Barbara, we have to notice that almost to the present time the dwellings of those people who had made least change in their mode of life could scarcely be more suitably constructed if their climate was one of continuous frost. With a long preceding passage or a chambered-porch leading to a low and narrow door, itself almost the only communication with the external air—with walls out of all proportion, thick for protection from the weather or support to the roof—the floor partially sunk—no vent in the roof but one or two insignificant light-holes in the eaves—an oven-like recess for the dormitory of the family—the cattle in the same apartment as the people, and with the fermenting refuse lying undisturbed throughout the winter, there could scarcely be more effectual means used for keeping out the cold. I would here compare the winter houses of Ireland on one side, and of the treeless isles of Norway on the other, with those of the Outer Hebrides; but although I find plenty of word-paintings, they do not supply the requisite facts wherewith to make a comparison. It is quite evident, from Sir G. Mackenzie's Travels, that the style of the Icelandic houses is the same as some remaining in the west of Lewis; but the plan he gives is of the domicile of an extensive proprietor, and consequently is not comparable with the cottage of a tenant paying three or four pounds per year of rent. The houses of the Icelanders are lined with wood when they can get it; and those of Færøe, if the descriptions may be trusted, are a shell of wood enclosed at the distance of two feet with walls of stone or turf. And this brings me to notice that, although the Norse language was not utterly extinct when I was in the Orkneys, for there was a native who when drunk used to talk something he called Norse—although the Rev. Mr Low wrote down the Lord's Prayer in Norse from the lips of a man in Foula, Shetland, in 1774—although the Hebrides were Norwegian from the eighth to the thirteenth centuries, and almost every Gaelic name in the island has been imposed since their annexation to Scotland—yet there are scarcely any objects that the archæologist can point out as peculiarly Norse. The explanation must be that the defences

intended wall, and are kept in a firm position by being morticed in a tree above, of the same dimensions with the tree below. These standards are closely wove with wicker work, to keep the sods from falling in; which, being built on the outside, finish the side walls of a creel-house, as it is called, p. 58."—Vol. i. p. 318.

already existing were sufficient for their purpose, and that while the common people adopted the dwellings of the expelled Scots, their chiefs—those who could command the labour of others—raised houses, like their ships, of wood. The ancient Norsemen were certainly neither masons nor bricklayers, though they may have been good carpenters. Van Troil remarks of Iceland, “that it is in vain to go in search of antiquities deserving the least notice.”¹

There seems no reason to doubt that in Lewis and St Kilda we have a form of timber-roofed dwellings as ancient as the time when the inhabitants first adopted a pastoral life. If ever man was in the purely hunter state in Britain, which at any rate was not likely to be of long-continuance, his dwelling would be temporary and small, but his friend the cow would require larger and perhaps better quarters.

I have now to notice the distribution of the primitive stone-roofed dwellings, rejecting those of India, which belong to a far higher degree of wealth and civilisation than the subjects of the present paper. In a former communication to this Society, as well as in the present, the variation in the form of those existing in the Outer Hebrides has been traced. The simplest form is also the most modern—the beehive. No doubt the style originated in a simple beehive, but as the requirements of that early state of society became more exigent, a much more complex arrangement and greater size was used; and as the primitive modes of life are about to be entirely supplanted, the summer shieling of the Uig peasant has returned to its first insignificance. By the agglomeration of two or more beehive huts together a more complex figure is produced; and where there are passages from one dome to another, the dwellings, from the great thickness of the walls, appear to be semi-subterranean. There is more skill shown when the central dome is surrounded by oven-like cells, as in the Amazon's House, St Kilda; or with elongated dormitories, as in Both

¹ Dr Dasent, in his “Burnt Nial,” has an interesting chapter on the daily life of the Icelanders in the tenth century, and to which reference may be made for the style of dwelling supposed to have been in use at that time. It is desirable to know if any authority exists for the “Front View of the Old Icelandic Skali or Hall,” or whether it is not a patriotic fancy. The number of windows is a suspicious feature, and what amount of fuel would have been required to keep the frost out in winter? Compare “Turner's Domestic Architecture.”—*Letters on Iceland*, p. 187.

Staclais. In the ancient ruin at Mol á Deas, South Uist, and probably at Borreray, St Kilda, there is a very distant resemblance to an Indian temple, from the central dome standing, not on the circumscribing wall of the house, but on detached pillars or piers.

In Ireland these beehive houses or clochans are described as existing on the coasts and islands from Kerry northwards to Erris, in Mayo. O'Flaherty, writing in 1684, says they are "so ancient that nobody knows how long ago any of them was made. Scarcity of wood and store of fit stones, without peradventure found out the first invention." Mr Du Noyer, in a valuable paper "On the Remains of Ancient Stonebuilt Fortresses and Habitations occurring to the West of Dingle, County Kerry,"¹ has given plans and sections of a great variety of these curious structures. It appears that scores of simple beehive clochans exist in this part of the country, with several of a more complicated form, containing an interior cell or dormitory, like those in the dome-roofed Amazon's House, St Kilda, and in the two timber-roofed houses described above; some have two, and, in Cahir-fada-an-doruis, even three dwelling chambers. The largest dome has covered a circle of 18 feet in diameter. In one of these curious structures there is a window slit; and in some there is an external flight of steps, probably to put baskets, clothes, &c., out of the reach of the cattle; certainly in Lewis the roof is used for that purpose. In one instance a stiff-backed individual has made the door of his clochan six feet high; and an innovator of that period has made his pastoral residence square instead of round. In this interesting promontory of Dingle, the remains of circular entrenchments or cahirs, and of fortified promontories, are frequent. I shall afterwards have occasion to show that the peculiarities of construction in Dunbeg are identical with some existing strongholds in the Outer Hebrides. The areas of the cahirs (they would be called duns in north-west Britain) are occupied by clochans, but without order or arrangement; and I arrive at the conclusion (from some experience in the Hebrides) that the clochans are not coetaneous with, but are posterior in time to the enclosing wall. Dikes, or stone walls, were in use when cloachan No. 13 was made, but the long and narrow entry to the dwelling—the low, small ope to the unventilated sleeping-cell—are

¹ Arch. Jour., vol. xv. p. 1.

extremely archaic features in style, and perhaps, but not necessarily so, as this paper will abundantly prove, in time also.

There is another country besides the western coasts of the Britannic isles where "scarcity of wood and store of fit stones" has compelled the construction of those dome-roofed cells—it is North Greenland. Kane's description of the dwellings on the east shores of Smith's Sound applies, with an exception necessitated by the extreme rigour of the climate, to the bo'hs of Lewis, to the clochans of Kerry. "The hut or iglooë of Anoatak was a single rude elliptical apartment, built not unskilfully of stone, the outside lined with sods. At its further end a rude platform, also of stone, was lifted about a foot above the entering floor. The roof formed something of a curve; it was composed of flat stones, remarkably large and heavy, arranged so as to overlap each other, but apparently without any intelligent application of the principle of the arch. The height of this cave-like abode barely permitted one to sit upright. Its length was 8 feet, its breadth 7 feet, and an expansion of the tunnelled entrance made an appendage of perhaps 2 feet more."¹ But for the purpose of excluding the cold air, "a walled tunnel, 10 feet long, and so narrow that a man can hardly crawl along it," is made. It opens outside below the level of the iglooë, into which it leads by a gradual ascent. Further on we learn that at Etah there were four huts, two of which were habitable. There was the usual *tossut*, at least 12 feet long, very low, straight, and level, until it reached the inner part of the chamber, when it rose abruptly by a small hole, through which, with some squeezing, was the entrance to the true apartment. Over this entrance was the rude window, and a smoke-hole passed through the roof. The other hut had a *tossut* 30 paces long, was 15 feet by 6 feet inside, and the platform or dais was 7 feet by 6 feet; on this fourteen people contrived to sleep.² There are some useful sketches of these dwellings in Kane's "Arctic Explorations," in the edition of 1854, but they are absent in that of 1861.

We will now return to the north end of Britain, where, in the country of the Catti, in the Orkney islands and in Shetland, are the remains of a very interesting class of antiquities, included in the generic term of Picts' houses. Brand evidently refers to what are called duns in the West

¹ Vol. i. p. 381.

² Vol. ii. p. 115.

Highlands, for he says—"These houses are called *burghs*. . . . Whence it appears, that these houses have been castles or places of defence to the Picts."¹ Gifford, a native of Shetland, also says there "is one of these Pights' houses, a great part whereof is still standing, called the *Castle of Moussy*."² It is to be observed that in old Scottish, house means a fortified residence; nor am I aware of any of these primitive dwellings in Shetland which are not also places of security. In the Orkneys, on the contrary, chambered knolls are not uncommon, presenting no appearance, either from situation or outline, of having been intended for defence; yet no distinction appears to have been recognised when Wallace wrote, that "in many places of this country are to be seen the ruins of great but antique buildings; most of them now covered over with earth, and called in this country *Pights'* houses, some of which, it is like, have been forts and residences of the *Pights* and *Danes* when they possessed this country."³ And further on, "There are yet in this country several strange antique houses, many of which are now overgrown with earth, which are still, by the inhabitants, called *Pights'* houses."⁴ On the other hand, the historians of these northern counties appear to be unacquainted with the truly subterranean galleries existing there; they have escaped the notice of the accomplished Hibbert, in Shetland; and the writers of the Statistical Accounts appear to have confounded together every example of primitive masonry. Mr G. Petrie, who has done so much to illustrate this branch of antiquities, states that "the name Pict's house or Pight's house is indiscriminately applied in Orkney, as in other parts of Scotland, to all remains of buildings of great antiquity." In a memoir on this subject in the "Archæologia" I have noticed the same fact, and have there proposed that the fortifications should be called Pictish castles, reserving the name of Picts' houses for the undefended structures. A lengthened residence in the Outer Hebrides has enabled me to profit by the examples there, and at the same time to learn that it requires the combined exertions of many investigators before these primitive monuments can be rightly understood. It appears that a distinct style belongs to each district, and that even several distinct styles may exist in the same country, representing successive periods of time. Professor D. Wilson wisely remarks, "It is curious indeed that as civilisation progressed, primitive architecture

¹ P. 100.² Bib. Top. Brit. No. xxxvii. p. 5.³ P. 58.⁴ P. 106.

became not only simpler but meaner, the ingenious builder learning to supply his wants by simpler methods ;”¹ and there is sufficient evidence in this paper of the descending progression. “The first step in the descending scale indicative of the abandonment of the cyclopean architecture for simpler and less durable modes of construction, appears in a class of dwellings of similar character to the *Picts’ houses*, but inferior in their masonry, and generally smaller in size and less complete in design.” Although no beehive houses were known to exist in Scotland when Professor Wilson wrote as above, and far less that they were used as ordinary dwellings at the present day, yet nothing more applicable could be said of the facts. Some of these structures in the Orkneys are indeed “laborious and extensive.” The floor of the Pict’s house in Papay Westray contains, exclusive of the side cells, 320 square feet ; of Maeshowe, 225 square feet ; of Quanterness, 140 square feet ; of Mr Petrie’s discovery on Wideford Hill, 50 square feet ; each has a complete idiosyncrasy, and exhibits from the stand-point of modern requirements a vast amount of perverted industry. The length, too, of the main chambers of these habitable mounds is considerable. In Papay Westray, 76 feet ; of Maeshowe, 15 feet ; of Quanterness, 21 feet ; of Wideford, 10 feet. Our mounds in the Hebrides are not to be compared with the largest of these. The Amazon’s house contains about 90 square feet ; the pillared bo’h (Pict’s house), at Mol a Deas, has 616 square feet, if the base of the pillars is included. It would be interesting to know the dimensions of the veritable Pict’s house (Tigh a Stallir) in Boreray, St Kilda, which was inhabited until these thirty years, when the St Kildeans visited Boreray for sea-fowl, wool, or mutton, and it is to be hoped some enterprising tourist will soon supply the desired information.

There are two causes why the Picts’ houses in the Orkneys should be on a grander scale than those in the Hebrides ;—first, the geological formation of the Orkneys is almost entirely a flagstone, readily affording large slabs, and requiring little or no dressing on two faces ; while the Outer Hebrides are made up of a cross-grained gneiss, which, as boulders, may be found of every other conceivable form than that best adapted for building. Again, many of the Orkneys are smooth, though not flat, and very fertile ; while the general surface of the Outer Hebrides, when not

¹ Pre-historic Annals Scot., p. 86.

mountainous, is excessively rugged, and, excepting a narrow strip along the western coast, barren. I am of opinion that the Picts' houses of the Orkneys are vastly more ancient than the beehive dwellings of the west of Ireland and Lewis. I have shown that some of the latter are inhabited at the present day, and the mode of life pertaining to them; and there is no other difference between these and the clochans of Kerry than what belongs to the geological formations of the respective localities. I have heard hints of the occupation, and even of the construction, of clochans in the islands of the Bay of Galway in recent times; but while suspecting that some of them are comparatively modern, and that they have only fallen into disuse with the abandonment of summer pasturing at a distance from the arable farm, I do not doubt that the style and method are extremely ancient; in fact, that in a sense they are the continuation of a style reaching to the borders of the glacial period.

Some doubt has been expressed as to whether the so-called Picts' houses of North Britain were really dwellings; but Mr Anderson, whose valuable explorations and discoveries in Caithness have been so meanly illustrated in the "Memoirs of the Anthropological Society of London," has sagaciously recognised the difference between the "green" and the "grey" cairns; "the latter [called Barps in the Outer Hebrides] have always been used as places of sepulture," but "the green cairns, or Picts' houses [popularly so called], have been invariably used as habitations, though sometimes also found to have been made places of sepulture." The question to my mind would be readily decided, if it could be shown that there was no arrangement for ventilation and the admission of light; for no place could properly be called a dwelling in which a fire could not be burnt without smothering the indwellers. Although the primitive emigrants to these islands might have been content with as little light in their dwellings as some of the subjects of Queen Victoria, yet it is not to be conceived that any would exist in absolute darkness. But we shall find few instances at the present day in which these monuments are in sufficiently good preservation to afford the requisite information; in nearly every case that which might have been the *tum* is mutilated, or has fallen in. Mr G. Petrie was decidedly of opinion that there was a regular "hole in the roof of the one explored by him on Wideford Hill;" but that which seems entirely conclusive of the question is the description of

a Pict's house in the parish of Golspie, which was terminated by a stone like a millstone, *with a hole in the centre*;¹ an extremely good architectural device for consolidating the apex of the dome, and at the same time lighting and ventilating the interior. Assuming, then, that the Picts' houses were dwellings, the explanation of their internal details becomes easy; the cells were the dormitories, and there is not a St Kilda man who would call them by any other name than wall-beds. All difficulties about the narrowness of the entrance and the confined accommodation vanish before the examples supplied from the Outer Hebrides. The long tunnelled entrance is an arctic feature, and, to my mind, is a proof both of the great age of these structures, and of a change of climate. But before considering this point, I have yet to notice another kind of structure, *which is also called a Pict's house, and which is truly subterranean*, whereas nearly all of the first described are subterranean only in the sense of being buried in their own ruins. While the dome-roofed dwellings appear to be confined to woodless districts in Cornwall, the western coasts of Ireland and Scotland, the Orkneys and the diocese of Caithness, the subterranean galleries, for which I would reserve the name of Tigh-làir or Eirdehouse, are spread over a very extensive country. I have given several examples in the preceding part; and it will be seen that those that are truly subterranean have an extremely contracted entrance, are quite dark, and have no vent. They, therefore, cannot be dwellings, though, of course, individuals have made a temporary home of some of them. These eirdehouses are found in Cornwall, and in most of the Irish counties, where they are sometimes met within raths. A writer in the "Ulster Journal of Archæology" states, that he "can show in the county of Derry dozens of what are called Dane's Forts, containing artificial caves."² In Scotland they have been noted from Shetland to the Tweed, as shown by the references cited below.³

This class of structures deserves a careful study; for the room or accommodation afforded by this mode of building is exceedingly small, when compared with the labour expended in procuring it; besides, the

¹ Henderson.—Agr. Surv. of Sutherland, p. 171.

² Ulster Journal of Archæology, vol. vi. p. 189.

³ Besides those described in this paper, hypogea or eirdehouses have been made

doorway or entry is often so contracted that no bulky object, not even a very stout man, could get in. Only a few of the hypogea mentioned have been sufficiently described to admit of their being compared with each other, but the peculiarities of those which have come under the writer's notice will be detailed. Perhaps the most simple is an entirely subterranean beehive cell, entered by a short, steeply-inclined passage. The one in the links of Westray is quite dry from being sunk in sand. There is another very small one in the Calf of Eday, opposite to the merchants' house. The next variety is where the passage is much longer, and out of all proportion to the chamber terminating it. This is a general and almost unexplainable peculiarity; a glance at the figs. 15, &c., will explain what is meant. Even still more inexplicable, from the utter want of economy in space and labour, is where there is a gallery or passage and nothing more, as in Tyree; these, at any rate, admit a man to pass when stooping his utmost; but what are we to think when the single passage is so small that only a child could crawl through it? The third variety is where the passages divaricate at large angles; of these I have no examples in the Hebrides (unless that in Tyree belongs to this class); but I have figured one at Saverock,¹ in the Orkneys; and these are well-

—in Skye; at Ullinish (Stat. Acc., vol. iii. p. 249); at Campstanvag and Lacksay (Martin, p. 154); in Ross-shire, in Glen Shiel (Anderson's Guide), and Applecross (Stat. Acc., vol. iii. p. 378); in Sutherland, at Clachtoll, Assynt (Stat. Acc., vol. xvi. p. 206); at Tongue (M'Culloch); at Eribol, by Dr A. Mitchell (Proc. Soc. Ant. Scot., vol. vi. p. 240); at Kintradwell (Proc. Soc. Ant. Scot., vol. v. p. 244); Brora (Cordiner, p. 75); Bakus, above Dunrobin (Agr. Surv. Suth., p. 171); Helmsdale (Stat. Acc., vol. iii. p. 405); on the Brora and at Craigton, near Golspie (Agr. Surv. Suth., p. 171). In Inverness-shire one is figured and described at Raits, Badenoch (Proc. Soc. Ant. Scot., vol. v. p. 119, and Garnet's Tour, vol. ii. p. 40). They occur in nine different places in Aberdeenshire, ten in Forfarshire, and two in Perthshire. Quite lately I saw the remains of one in a railway cutting near Cameron Bridge, in Fife. South of the Forth they appear to have existed at Bathgate, Lanark, and Lesmahago; but the southernmost and most interesting of all, is that described by Dr J. A. Smith at Newstead, in Roxburghshire (Proc. Soc. Ant. Scot., vol. i. p. 213). Six at least are known in the Orkneys. In Shetland they are noted at Fyell, Unst (Mem. Anthro. Soc., vol. ii. p. 343); at West Houland (p. 320, *l. c.*), and Safester, Sandsting (p. 311, *l. c.*); Trondavoe (?) Delting (Stat. Acc. Shetland, p. 57); and at Voe, Dunrossness.

¹ *Archæologiæ*, vol. xxxiv.

described specimens of them from opposite ends of Ireland, at Cork,¹ and in Ulster.²

There is a noticeable feature in many of these hypogea, viz., that besides what I suppose must be called the main chamber, there is another small beehive usually close to the doorway. In that at Paible a small man can just sit in it. An oblong cell may be seen near the entrance in the hypogeum at Mol a Deas (fig. 20); and at Meal na Uamh (fig. 17) this secondary cell may be seen at the innermost end. If it were found always near the door, it might be supposed to be a guard-cell, such as is usual in the borgs or duns.

The eirdehouses that I have examined do not appear to have been formed by tunnelling, but by digging a trench or hole, then building the walls and cells; and when these were roofed, the excavated earth was heaped over all.

In the east of Scotland, to the southward of the Moray Firth, there is no true representative of the dome-roofed dwelling; and a careful perusal of the descriptions has led me to the conclusion that the eirdehouses of that province were not originally constructed for dwellings. There can be no doubt that many of them were dwelt in; and if the vents described by Dr Mitchell at Buchaam and Glenkindy are not insertions, the great objection of there being no ventilation vanishes.³ Still it must be admitted, that in most of these subterranean structures there is no provision for light nor air; even the smoke of a large lamp would quickly make most of them uninhabitable. Subsequently a roofstone falling in, or intentionally removed, would enable some outcasts to make a home there. In this way I account for the ashes, bones, urns (?) &c., found within them; exactly the same remains I have seen where a Lewis man had made a fire and broken his craggan—the bones, alas! being now almost reduced to zero.

Most probably, the eirdehouses or subterranean cells were hypogea or

¹ *Archæologia*, vol. xxiii. p. 79.

² *Ulster Journ. of Archæologia*, vol. vi. p. 97.

³ Since the above was written, I have seen Sir W. Wildes' "Lough Corrib," which contains a minute account, with plans, of the artificial caves of that locality, and from which it appears that the cave at Kildun resembles those described by Dr Mitchell, in having a hole through the roof for ventilation.

cellars, wherein to secrete property. It would be prudent, if not necessary, in a disturbed state of society to have some place where such valuables as could not be carried on the person might be secreted. One reason for the primitive condition of the dwellings in the west of Scotland is, that the cottages were constantly liable to be burnt by hostile neighbours. The true wealth of the people, their means of subsistence, was their cattle; a hole, natural or artificial, would hold all the other wealth of a considerable family. The enemy had no notion of taking possession of the land, which he was seldom in sufficient force to hold (I refer more particularly to their internecine warfare, for as regards the Norsemen, they undoubtedly drove the Keltic inhabitants from all the islands). When certain Macs were tired of the work of destruction, the original Macs returned, and in a few hours made all the shelter they required from the weather; while from holes and corners cheese and plaiding, and a few such necessaries, would be produced. Such is the picture suggested by the tale that Swein of Gairsay (Orkneys) used in summer to *harry* the Southisles (Hebrides), and to steal everything that was not *hid*.¹ And the purpose of these eirdehouses is fully proved by Gerald de Barry (*circa* 1177)², that when Miles Cogan made a raid into Connaught, he destroyed everything except what the Irish had hid in their underground granaries. So they were in full use at that time. It is probable that the *Jard-hus* from which Lief got his sword was a subterranean cellar; for we are told that "Lief went forth in the west cruising-ground; he harried in Ireland, and found there a great earth-house (*jard-hus*); there he went in; there was darkness within; a stroke of a weapon which a man held was made at him; Lief drubbed (killed) the man, took the sword and much goods also; ever since he has been called Lief-of-the-Sword (*Hiörlief*)."³ This must have been before A.D. 874, when Lief settled in Ireland; and indeed the date of this adventure was probably in A.D. 863; for in A.D. 861, the hypogea in Meath were plundered by the

¹ "They harried about among the Southern isles. Then the folk was so scared at him in the Southern isles, that men hid all their goods and chattels in the earth, or in piles of rocks."—Burnt Njal, vol. ii. p. 371; see also Johnstone's *Antiq. Celt. Scand.*, p. 270.

² Bohn's *Ger. Camb.*, p. 283.

³ Johnstone's *Antiq. Celt. Scand.*, p. 14.

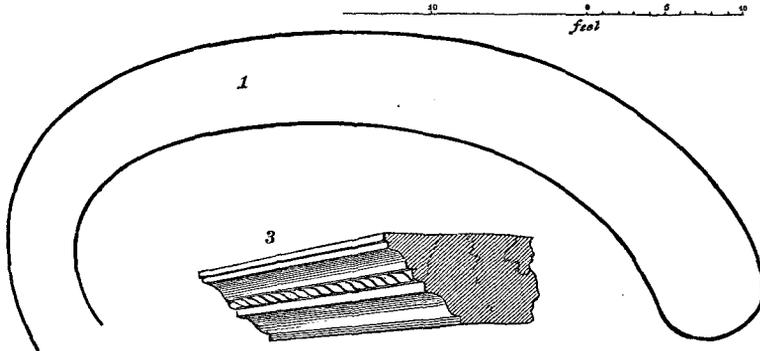
Northmen, and two years afterwards, they marauded from Leinster to Kerry, and from Limerick to Cork,—“and they left not a cave” (namh fo thalmain = souterrain, hypogeum), “that they did not explore” (Todd’s Wars of the Gaedhil with the Gaill, p. 25). It is true that both the Annals of Ulster and of the Four Masters state, it was sundry sepulchral tumuli that were searched by the Danes, but I do not doubt that the subterranean cellars were not neglected by them.

I am not going to repeat the quotation from Tacitus, about the German hiding-places; but will no one tell us what they were like? That artificial subterranean caves are not common, if they exist at all, in France, is proved by the want of notice of them by our able and active neighbours. The cave-dwellings in the chalk along the sides of the rivers have no relation to our eirdehouses; theirs are dwellings decent and comfortable, as I have experienced.¹

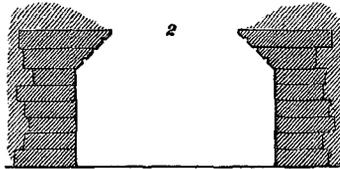
There is nothing that I am aware of by which to fix the age of the construction of the hypogea in the Hebrides; they have been used for secret-
ing smuggled goods quite recently, and an outlaw is said to have made his den in one in South Uist. These caves have been always well known to the inhabitants, and have been used for temporary shelter or retreat. But I can conceive no worse a place of defence than a structure of this kind (except that truly Hibernian fortification which had a lodging for part of its garrison on the outer side of the wall), for the smallness of the doorway would prevent the party within from making a sally, while a bunch of burning heather would quiet it for ever. Nor are these caves so entirely unmarked as might be supposed; wherever people locate upon the moor, the ground becomes fertilised, and green grass springs, in strong contrast to the brown peat plants. Perhaps the best data afforded by any hypogeum is in that described by Dr John Alexander Smith, where dressed and moulded stones are used in its construction; this, at any rate, was post Roman. By the kindness of Dr Smith, woodcuts showing the ground-plan, section of the building, and one of the moulded stones, are here in-

¹ Hypogea for hiding and storing corn, &c., are in use in Central and North Africa, and the Rev. Mr Tristram (in his “Land of Israel,” pp. 106, 336) gives a good description of some near Mount Carmel, in Palestine, where the state of society which rendered such places necessary still exists. But the method of construction of these “granaries” is totally different from the eirdehouses of the British Isles.

troduced, and a full description may be found in "Proceedings of the Society of Antiquaries of Scotland," vol. i. p. 213.



1. Ground-plan. 3. Moulded Stone found in the interior of the building.



2. Transverse Section.

Underground Building discovered in 1845, near the village of Newstead,
Roxburghshire.

Something a little more definite may be said of the dome-roofed dwellings. The newest in Lewis was built about ninety years ago, and the same sort of things are still made in Kerry for pigs and poultry. As the roofs of the bo'hs in Lewis are frequently falling in, they must be repeatedly rebuilt from the foundations; so that the only reason why new ones are not made, is because they have enough already. The way of life which required these dwellings is dying out; it lingers, but will soon be extinct, in Lewis; but it will probably remain for centuries yet in Norway. It is curious to note the capriciousness of tradition; in Skye, according to Martin, the ruins of these bo'hs were supposed to be the houses of the

Druids. I have noted before, that in Connaught they were archaic in the seventeenth century, yet I should not be surprised to learn that some have been inhabited to near the present time. But this does not militate against the opinion, that some of them have existed through immense periods of time. A pile of stones, such as these clochans are when the roof has fallen in, is virtually indestructible by the weather.

A veritable Pict's house was the common habitation of the St Kilda people, when fowling or sheep-shearing in Boreray, until thirty years ago. It is most desirable to get proper measurements and description made of its ruins, for it is the instance proving the use of these structures. It also explains, what might have been inferred, that they were not the residence of a family, but the temporary dwelling of a clan (tribe). The Pict's house on the Holm of Papay would have held, besides the chiefs at each end, all the families in Papay Westray when it was built. Maeshowe was for three families—grandees, no doubt; but the numbers it was intended to hold in the *beds* may be learnt by comparing them with the Amazon's House, St Kilda.

In Maeshowe, the Norsemen have amused themselves by scratching long Runic sentences—some of them by Crusaders in the twelfth century—so that this howe was, of course, in existence at that time, and it may be inferred that the roof had already fallen in. But the remote age to which some of this style of structures belong is clearly established by the antique form of ornament which has been found in two of them, viz., in the Pict's house in the Holm of Papay, and at Pickaquooy, Eday.¹

There is no reason for supposing that the Picts' houses were made since the occupation of the Orkneys by the Norsemen; indeed, they are apparently alluded to in a MS. written before the Hebrides were ceded to Scotland, where the writer states that the Pepi and Papæ were the original inhabitants; that the former were scarcely exceeding pigmies in stature, but they worked industriously in building their cities at evening and morning, but that at mid-day they lost all their strength, and hid themselves through fear in little subterranean houses.² This writer was

¹ Sir J. Y. Simpson's "Archaic Sculpturings," p. 43.

² While the Scandinavian inhabitants of the northern isles give the Picts the credit of making these subterranean apartments, the Gael of Ireland, according to Sir W. Wilde, retort the compliment. "Ough," says he, "sure it's well known they

of opinion that the Picts were the builders of the monuments then existing in the islands, but it is also clear that the writer had no rational knowledge of the fact; certain structures having ridiculously small entrances were seen; the Picts were the only former inhabitants known to the writer, and the inference is plain. In the Hebrides tradition is entirely silent concerning the Picts. The Firbolgs have there a slight footing; but there the Fenian heroes are the builders of the duns. It is to be remembered that the Norsemen have appeared and vanished between the presumed builders and the present inhabitants. I have the means of showing a very intimate relation in mode between a Pict's house and a Pict's castle, and though it is somewhat premature it may be as well to notice here that one at least of these Pictish castles was partly built with mortar of shell lime, thus bringing its erection within the Christian period. But the Picts were, in all probability, a part of the Keltic inhabitants of the Jutland peninsula, pushed forward by the irruption of the Teutonic, probably Scandinavian race, another branch finding its way to the south of the Loire.¹ The tradition of their late immigration to Britain is preserved in the British annals, and will probably be found to synchronise with the western march of the Scandinavian people. On this theory, the Picts, as conquering invaders, took possession of the best of the land, keeping to the Lowlands, such as are the Orkneys and the east of Scotland, while the defeated and original inhabitants would be driven as usual to the hills. The same kind of thing had likely often happened before, for we have the names of fourteen independent peoples north of the Forth and Clyde.

And now, leaving the attempt to investigate the archæology of that early period by the analytic process, I must recommence, from the mutual ground of geology and archæology, and by facts and inference, attempt to connect the broken thread of the argument.

A great part of the surface of the Hebrides is in a state of nature; miles of broken rock and rugged moor are everywhere present. Upon the were med by the Danes, who, when they were nearly bet all out and grown mighty wake entirely in the counthry, lived underground in them same forths [forts]."—*Boyne and Blackwater*, p. 70.

¹ It is not doubted, I believe, that the Atrebatî and Belgæ, in Gaul and Britain, were of the same race; and I can find no reason for supposing that the Picts of Gaul and Britannia Barbara were not divisions of the same tribe.

moors, in the corries, and on the sides and tops of the lower hills, we meet with rocks in fantastic positions, and often piled upon each other, as if placed by man. In the south-west of Lewis, near Loch Thelsabhaigh (pro. Hells-vay; *i.e.*, Hells-vagr, in English, Holes-voe), I have seen a line of blocks tailing away from a cliff as if they had been deposited by the side of a tramway. Some of these blocks are of enormous size; one was measured, whose weight was probably about 300 tons. Also at the mouths of the valleys hundreds of hillocks (haughs, in Norse) occur, many being regular in shape. All these phenomena are due to ice, and subsequently water, and in the heights of Lewis they are particularly patent. The whole surface of the land is covered with a stoney soil made from the grinding of the subjacent rock. I need not sketch further what is so well known to all, but assume it to be admitted that the whole country was once covered by a vast icefield, like some parts of the interior of Greenland at present. A recent theory attempts to demonstrate that, from secular causes, the temperature of summer 400,000 years ago was ineffectual to melt the snows and ice in winter in this latitude. Without entering further on that subject, I may remark that the sharpness of the glacial phenomena in the Hebrides conveys to the observer that the *close* of the ice period is not so far distant. Whenever it occurred, colonies of men would no doubt follow up the coasts in the same manner in which the Esquimaux have distributed themselves in the Arctic regions. As the climate ameliorated, vegetation would increase, and a littoral mode of life—apparently the most primitive of all—would be mixed up with, and partly superseded by, a pastoral one. I do not believe that the hunter state could have had any long continuance in the limited area of Britain. Now, the primitive people of our island and of the whole area of Europe were most probably of the Turanian division, and are represented in Europe by the Laps and Fins; nor do I doubt that, in the short faces of some of the Connaught boys, we have very near copies of the good-natured physiognomy of our earliest immigrants. An accomplished writer, having no ethnological fancies in his head, is struck by the resemblance of a Lapland family to some of the Irish, where he says “there was a merry, half-timid, half-cunning twinkle in their eyes, which reminded me a little of the faces I had met with in the more neglected parts of Ireland.”¹ My

¹ Lord Dufferin's Letters from High Latitudes, p. 254.

own opinion is that this race held possession for thousands of years ; that they developed with the improvement of the climate ; and that to them we owe the remarkable stone monuments existing here. For the history of the succeeding Keltic race is partially known for 2000 years, yet no notice is to be found, that I am aware of, that they ever erected a stone circle ; indeed, the inference is plainly in the opposite direction.

I have noticed that the close of the glacial period does not appear so very far distant. On the surface of the boulder clay, the peat, and nothing but the peat, remains. A period—a geologically short one—may have had a climate even superior to the present,¹ as trees have flourished where they would not grow at present. To this period I am inclined to date the magnificent stone monuments of North Britain. It does not appear from vegetable remains to have had a long continuance before the peat-growing era commenced, which has continued—though possibly now on the decline—to our time. But the peat is a very (comparatively) modern production ; it has grown five and a-half feet since the Callernish Circle was made. The normal depth of peat in Lewis may be estimated at six feet ; in Benbecula, perhaps eight feet is near the fact. Nearly everything said to be found in peat is really resting on the soil. Peat is very destructive to bones,—I have never seen one in it,—but it is a good preservative of iron, and it tans and preserves vegetable substances. It is, therefore, not surprising that a stone axe was found beneath the peat at Stornoway, nor bronze swords in a like position in South Uist ; but it was hardly to have been expected that a common Norway scoop or bailer should also, by its position, show itself to be older than all the superincumbent mass. Observing that a peat bank, when exposed to weathering, showed a laminar structure, it occurred to me that each lamina represented a year's growth, and on counting the lamina it was found a fair average to allocate fifteen to an inch. While investigating this subject at Athline, on the shores of Loch Seaforth, Lewis, I came upon the ashes of a fire that had been made of sticks, upon what had been a naked rock, but which is now covered to a depth of ten feet of peat. If the theory of the growth of an inch of peat in fifteen years is correct, the whole moors of Lewis have—even taking the normal depth at nine feet—accumulated in seventeen

¹ Jamieson's Last Geological Changes in Scotland ; Proc. Geo. Soc., 1865, p. 161.

centuries, and other circumstances incline me to think these figures are near the truth.

Without going further into the geological question, I conceive that the primitive inhabitants made their dwellings with massive walls and a narrow "tossut" to suit the rigour of the climate; that this rigorous climate extended to a comparatively recent time; that the immigrating Keltic or Pictish race largely mixed with and adopted the habits of the aborigines; and that the prevalence of custom has retained a method of shelter suited to an arctic winter long after the necessity for it has passed. And having now united the broken thread of the argument, I bring this *mémoire pour servir* to a close.