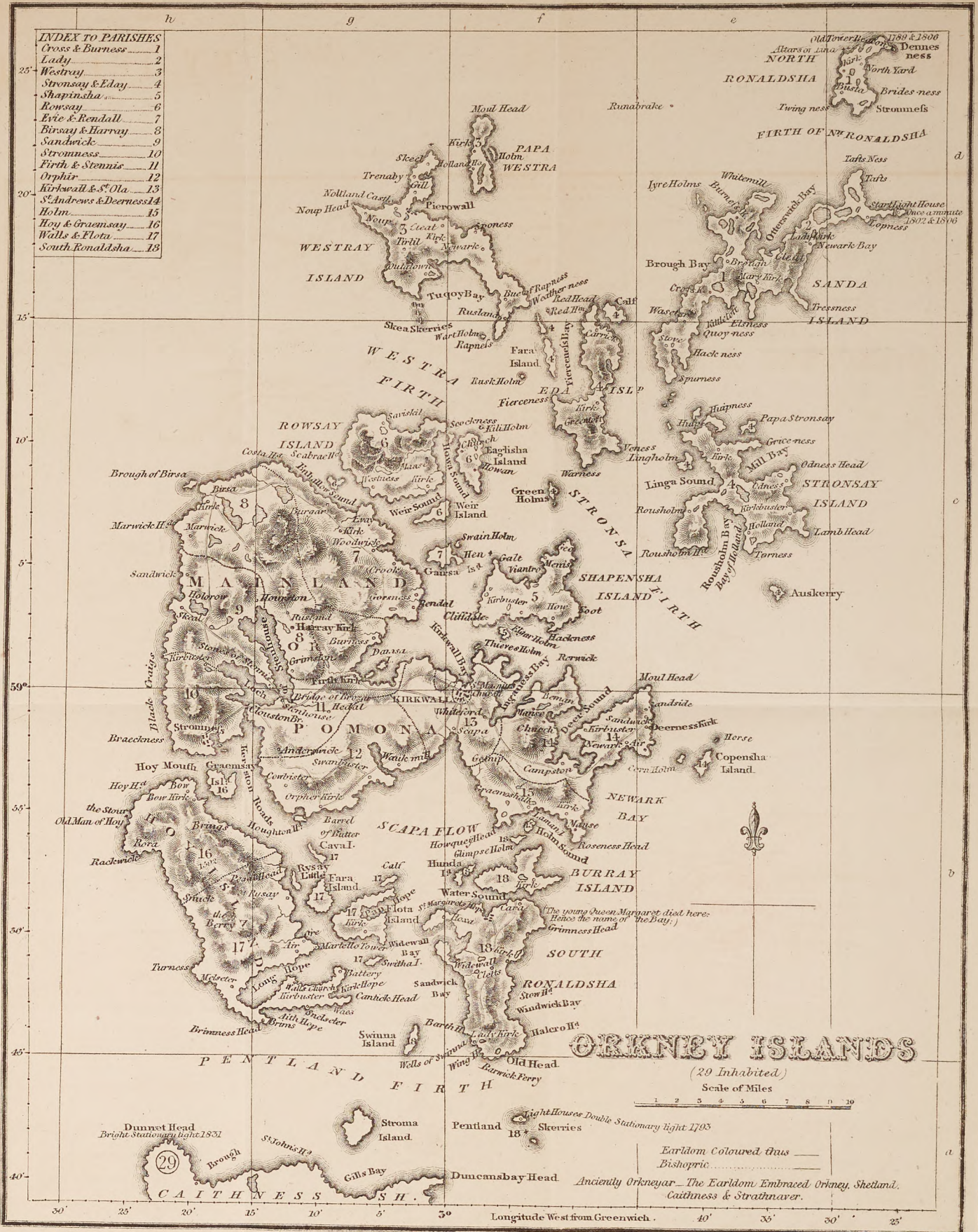


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# GUIDE

TO THE

# ORKNEY ISLANDS

INCLUDING

THEIR SCENERY, CLIMATE,  
AGRICULTURE, TRADE, FISHERIES, HISTORY,  
NATURAL HISTORY, ETC.

WITH

A MAP, VIEWS, NOTICES OF INNS AND FERRIES, ETC

BY THE

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## PREFACE.

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THIS little volume was not written with a view to separate publication, but merely as a portion of that well-known book, "Anderson's Guide to the Highlands and Islands of Scotland."

The author would not have thought of writing it, had not his accomplished friends requested from him this contribution to their work, in consequence of a college acquaintance which ripened into a pleasant and profitable friendship. He is conscious that many of his countrymen are better qualified than he to do justice to the subject, but perhaps there is no one individual, however intimate with some departments, who is sufficiently conversant with all, and therefore he has often thought that a Cyclopædia of Orkney, containing articles by different persons, would be the most complete and interesting account we could have. Even in this little Guide, the author has availed himself freely not only of the labours of former writers on the subject, who are duly mentioned, but of several other gentlemen who have not written, though they are most intimate with particular branches; and he takes this opportunity of acknowledging his particular obligation to Capt. F. W. L. Thomas, R.N., for measurements and calculations which no other person could furnish; to Mr. Scarth of Binscarth, for his interesting table of exports; to Mr. G. Petrie, for his account of all recent antiquarian discoveries; to Dr. Garson, for the statistics of the trade of Stromness; to the Rev. Dr. Pollexfen, for a large addition to the author's own list of sea-weeds, and to Mr. J. H. Dunn, naturalist, for his list of birds, in making out which he is no doubt indebted, as well as the author, to the work by Dr. W. B. Baikie and Mr. R. Heddle, and also to that by his father, Mr. R. Dunn.

“Anderson’s Guide,” which was first published in 1834, is now on the eve of the fourth edition, and for each the account of Orkney was carefully revised, and suited to the altered circumstances of the county, thus chronicling successive stages in its improvement; but that which has been effected since the last edition in 1850 is certainly the greatest and most wonderful of all. The size and price of that work, however, which induce its scientific authors to divide the next edition into three parts, also prevented this portion from being known to many travellers through Orkney, and even to the great majority of Orcadians.

A great blank was therefore felt, and a call made for a separate Guide to Orkney; to which the parties concerned have readily agreed without any desire or expectation of profit.

It was an early and cherished object of the author’s ambition to co-operate with such of his countrymen as laboured to throw light on these Northern Islands (to which he was greatly stimulated by the ignorance that prevailed in the South regarding them), and this has frequently occupied such leisure hours as he could snatch from his clerical duties and many medical calls on his time; and if this description, which contains a very condensed sketch of some of his observations, at all contribute to that end, one favourite object of the author’s will be attained.

SANDWICK MANSE, *13th August 1862.*

## INTRODUCTION.

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WITHIN the last few years, steam communication has been opened between Orkney and Caithness, which has not only benefited these islands by the regularity and acceleration of the mails, but it affords to travellers a daily opportunity of visiting them for the best six months of the year. The "Royal Mail" steamer route between Scrabster, near Thurso, and Stromness, affords an excellent opportunity (of which the traveller should avail himself) of viewing the stupendous precipices at the west end of Hoy, which are more than a thousand feet perpendicular, and the "Old Man of Hoy."\*

This communication, which has subsisted for six years, may be altered, as it does not pay the spirited promoter, a principal proprietor of the steamer, and therefore future travellers should inquire if any change has taken place.

The former weekly steamer between Orkney and the south still continues, leaving Granton for the north every

\* The Royal Mail sails from Stromness to Scrabster every lawful day, from 1st April to 1st October, with H.M. mails, returning the same evening, starting at 5 A.M. for some months in summer, so as to be at Scrabster before the mails are despatched to the south, and returning as soon as the mails from the south can be obtained, which is about 3 P.M. During the other six months she sails only on Mondays, Wednesdays, and Fridays, starting from Stromness at 10 A.M., and returning as soon as the south mails are obtained, which is generally by the gig sent from Scrabster to Thurso with the Orkney mails. Fares—5s. for cabin; 3s. 6d. steerage.

Friday morning from 6 to 10 A.M., according to tide; Aberdeen, from 4 to 6 P.M.; Wick, early on Saturday morning; arriving at Kirkwall sometimes as early as 9 A.M. on Saturday, and then proceeding to Zetland, leaving Lerwick for the south on Monday evening; Kirkwall on Tuesday morning; Wick, Tuesday afternoon; Aberdeen during the night; and arriving at Granton on Wednesday morning. Fares as formerly—from Granton to Kirkwall, 18s.; from Aberdeen to Kirkwall, 14s.; from Wick to Kirkwall, 6s. General goods, 1s. 6d. per barrel.

A coach runs every lawful day during summer from Stromness to Kirkwall and back again, with outside and inside passengers, at the hours considered most suitable for them. Fares moderate. A gig can be had from Stromness to Kirkwall for 12s. 6d. At Kirkwall vehicles of various kinds can be got at fares differing according to quality.

In Kirkwall there are three good inns, viz.—Pittendrich's, near the Shore; Muir's, at the foot of Broad Street, and Adamson's Temperance Hotel, opposite the Cathedral. There are also many good lodgings, affording quiet and cheap accommodation. In Stromness there are two excellent inns, viz.—the Commercial and the Mason Arms, and several quiet lodgings. Beside these, there are several inns in the towns and different islands, which need not be enumerated here.

## THE ORKNEY ISLANDS.

### Number and Extent of the Islands.

THE ORKNEY ISLANDS lie off the north coast of Scotland, and are separated from the county of Caithness by the Pentland Firth, which is  $5\frac{1}{2}$  miles broad at the narrowest part.\* They extend between the parallels  $59^{\circ} 23' 2''$ , and  $58^{\circ} 41' 24''$  N. latitude, and between  $2^{\circ} 22' 2''$ , and  $3^{\circ} 25' 10''$  W. longitude, so that their extreme length is  $41' 38''$ , or as many geographical miles, and their breadth  $1^{\circ} 3' 8''$ , which is equal to 32.4 geographical miles. This includes an area of 1347.8 miles, but the islands only contain 244.8 geographical miles. The outline of the islands is equal to 573.7 miles.† They were known to the Romans by the name of Orcades, or Ultima Thule, although the latter appellation is by many supposed to have been applied to Zetland. The natives generally call them Orkney, as forming part of the county of Orkney and Zetland; and strangers frequently speak of the Orkneys as they would of the Azores, or any distant cluster of islands. If these are considered islands that are insulated every high water, and have flowering plants growing upon them, there are seventy-three, but seventeen of these become peninsulas at low water, so that they are reduced to fifty-six at that state of the tide. Of these, twenty-nine are inhabited, and nineteen more are probably capable of supporting a single family each; but these smaller islands, or, as they are here called,

\* From Duncansbay Head to Brough Point, in South Ronaldshay, is  $5\frac{1}{2}$  miles; from Dunnet Head to Brimsness, in Hoy,  $6\frac{1}{2}$ ; from Huna to Burwick,  $7\frac{1}{2}$ ; from Stroma to Swona, 3.

† We are indebted for this and some other calculations to the kindness of Captain F. W. L. Thomas, R.N.

*holms*, are at present the abodes of innumerable sea-fowl, that hatch upon them with little molestation, while on some a few sheep or cattle are pastured; however, these *peerie*\* islands used to be more valuable on account of the sea-weeds that grow on their rocky shores, than for the scanty herbage that clothes their soil. The number of the inhabited islands varies frequently, in consequence of single families taking up their abode in *holms* for a year or two, which they afterwards desert.

### Population.

According to the census of 1861, and the rental:—

Pomona or Mainland, including Cavay and Lambholm, with two or three families each, also Gairsay and Copinshay, divided into parishes.

	Pop.	Rental.
Kirkwall Burgh . . . . .	3,519	} £3,258 13 0
Do. Landward . . . . .	908	
St. Andrews . . . . .	868	1,382 1 0
Deerness and Copinshay . . . . .	818	1,185 14 0
Holm and Lambholm . . . . .	834	1,729 18 0
Stromness Burgh and Landward . . . . .	2,551	3,651 11 0
Firth . . . . .	784	1,147 13 0
Stenness . . . . .	709	1,104 11 0
Orphir and Cava . . . . .	1,133	1,931 11 0
Evie	1,408	{ 1,477 12 0
Rendall and Gairsay } . . . . .		
Harray . . . . .	819	946 4 0
Birsay . . . . .	1,774	1,810 7 0
Sandwick . . . . .	1,226	2,252 17 0
<b>Total of Mainland . . . . .</b>	<b>17,346</b>	<b>£23,111 2 0</b>

#### *North Isles—lying North of Pomona.*

Eday, 898, and N. Pharay, 81 . . . . .	979	£1,192 17 0
North Ronaldshay . . . . .	581	689 7 0
Rousay (and Egilshay, £350, 10s.) . . . . .	1,152	2,085 0 0
Shapinshay . . . . .	973	1,478 10 0
Sanday (Lady, £2383, 17s. ; Cross, £1316, 4s. ; Burness, £777, 8s.) . . . . .	2,145	4,477 9 0
Stronsay, Papa Stronsay, and Holm of Midgarth . . . . .	1,228	2,581 2 0
Westray . . . . .	2,153	2,356 9 0
Papa Westray . . . . .	392	628 12 0
<b>Total of North Isles . . . . .</b>	<b>9,553</b>	<b>£15,489 6 0</b>

\* *Peerie* is a word in common use in Orkney, and means *little*; and it is curious, that on the return of Captain Cook's discovery vessels from the South Seas, the officers mentioned that the same word is used in the same sense in some islands there.



*South Isles—lying South of Pomona.*

Burray and Hunda . . . . .	666	707 17 0
Hoy (and Graamsay, £296, 18s.) . . . . .	556	814 19 0
Walls, Flotta, and Pharay . . . . .	1,679	1,632 10 0
South Ronaldshay . . . . .	2,551	2,459 0 0
Swanay and Pentland Skerries . . . . .	65	
Total of South Isles . . . . .	5,517	£5,614 6 0
Total Population and Rental, 1861 . . . . .	32,416	£44,214 14 0

This total makes the population now 1966 above the census of 1841.

**Climate.**

The high latitude of these islands will prevent the well-informed traveller from expecting in them the warm climate or the luxuriant vegetation of more southern lands; but though there is enough to remind him of the contrast between Orcadian and Arcadian scenes, yet, owing to their insular situation, he will probably find them milder than he anticipated: for, as the ocean with which they are surrounded is little affected by summer heat or winter cold, the uniformity of its temperature produces such an equality in that of their shores, that excessive heat or long-continued frost or snow is alike unknown. One peculiarity in the Atlantic Ocean which must have a powerful influence on their climate, and particularly in raising the temperature in winter, is the Gulf Stream, which is well known to run to Orkney, and to carry the seeds of the *Entada* or *Mimosa Scandens*, and many other things from the West Indies, along with it. Its temperature is also known to be higher than that of the ocean through which it flows, and thus it carries to us a portion of West India heat, and returns to them with a refreshing sea-breeze of our cold; establishing a *free trade* which is equally pleasant and profitable to both parties, by an arrangement of consummate wisdom. We believe that this furnishes the key to several meteorological difficulties. It explains why there is no frost with west wind, but an immediate thaw when there has been frost; indeed the thermometer at such times generally mounts up to 40° and more, as the sea has not yet been observed to be colder than 43°. It shews the cause of our frequent showers of rain with west and south-west winds, as the evaporation from the warm stream is condensed on

coming in contact with our cold hills : thus there is no continued drought more than frost, with west wind. A series of observations on the temperature of the Atlantic and German Oceans has been carried on for five years, and we are now able to give the results.

We are also enabled to give a table and extracts from a paper on the climate, which was read before the British Association, and published at the national expense by that eminent meteorologist Admiral Fitzroy, who is at the head of the meteorological department of the Board of Trade.\*

I. Line shews the mean temperature of the air in shade for 33 years.

II. Line shews that of the Atlantic on the shore of Orkney for 5 last years.

III. Line shews that of the air in shade during the last 5 years.

IV. Line shews mean height of barometer in Sandwick, 94 feet above sea level.

V. Line shews mean rain-fall for 19 years, in do. 75 feet above sea level.

	January.	Feb.	March.	April.	May.	June.
I.	38.50	38.25	40.30	43.28	47.86	52.83
II.	44.90	44.17	43.34	44.09	46.93	50.22
III.	39.01	38.61	39.17	41.31	47.27	53.22
IV.	29.583	29.686	29.795	29.823	29.879	29.835
V.	4.29	3.11	2.71	1.86	1.55	2.17

	July.	August.	Sept.	Oct.	Nov.	Dec.	Annual.
I.	55.14	55.08	52.49	47.52	42.63	40.96	46.24
II.	53.36	55.14	55.13	52.78	49.63	47.41	48.93
III.	54.21	55.22	52.45	46.72	41.39	40.42	45.74
IV.	29.806	29.789	29.836	29.709	29.709	29.677	29.761
V.	2.62	2.84	2.72	4.85	3.89	4.33	36.95

\* See Meteorological Observations taken at Orkney, with Remarks on the Climate, by the Rev. Charles Clouston, Minister of Sandwick, etc. etc.

As the temperature of the sea had been noted regularly for only two years at the time the above paper was written, line II. is added to the table, that there may be more extensive data from which to strike the means, and draw conclusions.

It is proper to observe however, that while this shews the mean annual temperature of the sea to be  $2^{\circ}.69$  above the mean of the air for 33 years, the fair comparison is with that of the last five years from 1857 to 1861 inclusive, during which that of the sea was observed; therefore line III. is added also; and as these years were all below the mean except the first, and 1860 was one of the coldest yet registered, the mean of these 5 was only  $45^{\circ}.74$ . The mean annual temperature of the sea is thus seen to be  $3^{\circ}.19$  above that of the air, while it is from 6 to 8 degrees above it during January, February, October, November, and December, and decidedly below it only during May, June, and July, and even then less than  $1\frac{1}{2}$  degrees at an average. It is also  $2^{\circ}.39$  above the mean temperature of the best spring, and  $2^{\circ}.72$  above that of the soil, one foot below the surface, for the same five years. It is even above the mean temperature of any year yet recorded, and a little above that of the sea around the coast of Scotland. This seems one of the strongest proofs that the Gulf Stream reaches the shores of Orkney, and that it raises the temperature of the sea beyond what it could be raised by the power of the sun, and higher than it raises that of the air, the soil, or the springs.

From the preceding tables and remarks it appears that the mean annual temperature of Orkney is equal to that on the southern border of Scotland, but much more equable, neither so hot in summer, nor so cold in winter; that the mean annual quantity of rain is 36.95 inches, probably near the average of Scotland; that winds from the S. and W., and neighbouring points, prevail much more than from the opposite quarters, and probably tend much to promote the mildness of the climate, but this is ascribed principally to the surrounding ocean, the mean temperature of which is more than  $3^{\circ}$  above that of the air, and much more in winter, so that it greatly elevates the temperature then, and depresses a little that of summer.

A circumstance which may be worth noticing as a peculi-

arity of the climate is that, on rare occasions in winter, the snow is rolled up by the wind into masses which increase in size as they move along, and become cylindrical like hollow fluted rollers, or ladies' swan-down muffs. The largest however attain a much greater size, having been measured  $3\frac{1}{2}$  feet long, and 7 feet in circumference. They are found of all sizes, from that to the size of a nut, and the texture is loose and light. They were very numerous and perfect in February 1847, and March 1862. A combination of favourable circumstances is required for their formation, viz., a recent fall of loose snow-flakes in calm weather; in the next place, the temperature requires to be near the freezing point, so as to give adhesion to the snow, while it is not so warm as to thaw it; and farther, a good breeze to spring up while the other circumstances are favourable. In both cases mentioned above there was also a previous fall of snow, which made a smooth ground for the cylinders formed of the recent loose snow to roll over.

Another circumstance is that, though Iceland is about 500 miles distant, the volcanic dust from Mount Hecla has been blown to Orkney on several occasions—the last being September 1845.

The Orkney crops of the more hardy kinds of grain, as oats, bere, and barley, are equal to those of other parts of Scotland. Its potatoes are famous in the southern markets for seed, as the Orkney reds grown in Orkney are less apt to take the disease, when planted in the south, than any other variety; but green crop is that in which it particularly excels.

The gardens are scarcely behind those in the south for the more hardy kinds of vegetables, fruits, and flowers. Apples do not grow well as standards, but thrive pretty well as wall trees. Pears and cherries grow, but are not very productive. Black currants thrive even better than in the south. Red and white currants, and strawberries, grow very well, but gooseberries do not always ripen. All the more hardy annuals and perennials met with in the south also adorn the Orkney gardens.

In short, the climate of Orkney is such that it might form a pleasant retreat in summer from the sultry and dusty atmosphere of large towns, and even be beneficial to some invalids.

From their situation, the Orkneys may also have a greater share of light than would otherwise be their portion, the water reflecting it better than land: thus, during a month in summer it is light enough, even at midnight, to enable a person to read, when the sky is clear, and to induce the lark and landrail to preserve a constant chorus of music; and, in fact, all nature seems awake in the summer night, which is but a softer day; and the admirer of the Almighty's works must frequently desist from his contemplation, and retire unsatiated to his pillow. It is almost superfluous to remind the reader that this twilight is produced by the refraction of the sun's rays, and that, as he sinks below the horizon, in the latitude of Orkney, every night in summer, so he must rise above it every day in winter: indeed, he is kind enough to give the Orcadians about six hours of light in the shortest day, notwithstanding all that the credulous Brand and other old authors have said to the contrary.\* On the longest day the sun describes a segment of four-fifths of a circle above the horizon, and there is no proper night for 116 days. During the winter nights, when the moon withholds her light, her place is frequently supplied by the *aurora borealis*. The Orkney winter is generally a succession of storms and rain; and the summer, though short, is remarkable for rapid advance of vegetation.

On his first approach, the stranger will be struck with a range of lofty precipices, rising perpendicularly from the bosom of the ocean, or even overhanging, and appearing to say, "Hitherto shalt thou come, but no farther; and here shall thy proud waves be stayed;" but a nearer inspection will shew how vain the boast, for they will then appear to be, as they probably are, the remains of a more extensive country, the softest and lowest parts of which have been washed away by the perpetual action of the waves, which have separated Orkney from the north of Scotland, and divided it into numerous islands, leaving in some cases a solitary pillar as a monument of what formerly existed: and the tremendous force of the waves can leave no doubt that their slow but certain action is still making farther encroachments. This

\* See Brand's Description of Orkney, p. 85; and Bailey's Dictionary, *voc* Shetland.

opinion seems to be corroborated by the difference between the number of islands at high and low water, and the following interesting results of the accurate soundings of Captain Thomas. A depression of the sea level at low water, or an elevation of the land to 30 feet, would reduce the number of islands to 23; if to 60 feet, there would be 10; if to 90 feet, there would be but 5—Swona, Pentland Skerries, and Carline Skerry being three of them; if to 120 feet—which is about the height of the tower of the cathedral—the Orkneys would become one island.

Hoy is the only island of the group that can be called mountainous, and none of the rest have hills of any considerable height, except the Mainland, Rousay, and Westray.\* A geologist would at once perceive that these hills are not composed of primitive rocks; for, owing to the softness of their materials, the action of the elements has so far levelled their inequalities, that they now present an outline gently undulating; their surface is generally covered with heather, which affords shelter to a considerable number of moor-fowl and other species of birds. Like Scotland, England, and Ireland, and many other islands and continents, these islands are highest at the west side, where there is a range of hills, terminating abruptly in an almost continuous chain of precipices, with very few bays where even boats can land; but they slope gently towards the east, and soon end in fertile valleys, which are seldom 100 feet above the level of the sea, and except in the central part of the Mainland, are within a mile of the shore, where the facility of procuring sea-weed, which is the favourite, and in some places the only manure used, has no doubt given great encouragement to cultivation. In the interior of the Mainland, marl is frequently found, and is used as manure; the hills were till lately fleeced of their turf for the benefit of the cultivated ground, and the earth or its ashes, when burned, mixed up as a compost. In the eye

* The Ward hill of Hoy is	. . . . .	1555 feet high.
The Ward hill of Orphir	. . . . .	876    "
Wideford hill	. . . . .	721    "
Copinsay	. . . . .	211    "
Costa-Head	. . . . .	478    "
Fitty hill, Westray	. . . . .	541    "
Ward of Eday	. . . . .	310    "

of one accustomed to more southern climes, these islands will no doubt appear bleak and barren, for there is not a tree or shrub to be seen, except a few that have been raised in gardens; and yet strangers have pronounced some of the valleys to be equal to those in fine counties of England for richness and fertility. These, however, are not the qualities for which Orkney is most remarkable, and the traveller who can relish nothing else should not be found in so high a latitude; but its antiquities, precipices, and natural productions, its former history and present state, are well worthy of the attention of all who make the tour of Scotland for pleasure or information.

### Storms.

If the tourist has the good fortune to be in Orkney during a storm, he will cease to regret the absence of some of the softer and more common beauties of landscape, in the contemplation of the most sublime spectacle which he ever witnessed. By repairing at such a time to the weather shore, particularly if it be on the west side of the country, he will behold waves, of the magnitude and force of which he could not have previously formed any adequate conception, tumbling across the Atlantic like monsters of the deep, their heads erect, their manes streaming in the wind, roaring and foaming as with rage, till each discharges such a Niagara flood against the opposing precipices as makes the rocks tremble to their foundations, while the sheets of water that immediately ascend, as if from artillery, hundreds of feet above their summits, deluge the surrounding country, and fall like showers on the opposite side of the island. All the springs within a mile of the weather coast are rendered brackish for some days after such a storm. Those living half a mile from the precipice declare that the earthen floors of their cots are shaken by the concussion of the waves. Rocks that two or three men could not lift are washed about, even on the tops of cliffs which are between 60 and 100 feet above the surface of the sea when smooth, and detached masses of rock of an enormous size are well known to have been carried a considerable distance between low and high water mark. Having visited the west crags some days after a recent storm, the writer found

sea insects abundant on the hills near them, though about 100 feet high ; and a solitary limpet, which is proverbial for its strong attachment to its native rock, but which also seemed on this occasion to have been thrown up, was discovered adhering to the top of the cliff, seventy feet above its usual position. We apprehend it is with limpets as with ourselves, that the highest, and particularly those who are thus suddenly elevated, are not the most happy. The agitation of the sea is not always in proportion to the force of the wind, for it is sometimes very great in a perfect calm. This great swell, or *sea*, as it is here called, generally indicates a storm at a distant part of the ocean, which may reach Orkney a day or two afterwards ; hence, on the west coast, this great swell is considered a prognostic of west wind. From this we infer, 1st, that the agitation caused by the wind on the surface of the ocean travels faster than the wind itself ; and, 2d, that the breeze begins to windward, and takes some time to reach the point towards which it proceeds to leeward. Sometimes, however, the distant storm which causes this agitation does not reach these islands at all. In confirmation of this, we take the liberty of copying the following note from a register of the weather, which has for some years been kept by a clergyman on the west coast of the Mainland :—“ In August 1831, from the 9th to the 13th inclusive, the great swell of the sea is remarked, every day being also marked calm. The barometer remarkably steady at 29·9, and the thermometer ranging from 55° to 65°.” In a subsequent note he adds :—“ On the 7th and 8th of August, there was a gale in latitude 57° 21' N., longitude 13° 15' W., at first W. by N., and afterwards S.W., as appears from a vessel damaged by it, and put back to Stromness to repair. This accounts for the great swell of the sea here from the 9th to the 13th, with calm weather. On the 11th, at one A.M., it began at Barbadoes, N.E. to N.W., and continued till seven A.M. with dreadful violence, when it had changed to S.W., E.S.E., and S. On the 11th, at four A.M., it visited St Lucie.” Many similar instances might be given where the swell was either a precursor of west wind, or marked a gale which agitated the sea to the westward.



### Agriculture.

Twenty years ago each parish contained a number of cultivated portions or *towns*, as they are called, which were imperfectly defended from the sheep, that roamed at large on the surrounding common, by turf walls, or *hill dykes*, and within which were generally found the possessions of several small proprietors mixed together in *run-rig*, which was a great impediment to their improvement; and many of the smaller lairds are Udallers, who hold their land from no human superior whatever. The mode of cultivating these spots can scarcely be said to have reached perfection, but it has been much improved since the commencement of this century. At that time it was not uncommon to see three or even four ponies yoked abreast, and, instead of being stimulated by the ploughman who followed, their heads were fastened to a bit of wood, by which a little urchin endeavoured to drag them forwards, as if the plough and all were drawn by his little arm; and when his cattle appeared particularly lazy, he would front them, walking backwards, and lashing them on the face with his whip, to allure them on. The instrument, about the drawing of which there was such a fuss, was what is known by the name of the single-stilted plough, which baffles all description; but it was somewhat like the left side of the common plough, deprived of the right stilt and mould-board, and, in place of the latter, there were three or four pegs fastened in the side, which met the mould at right angles; and through these it was obliged to pass, as through a riddle, or to accumulate, till some clods, mounted on the heads of others, leaped over the barrier, or passed it in the best way they could—the ploughman using a staff or pattle-tree to steady the instrument in the ground, or to clear away the soil or roots, and sometimes to quicken the speed of his nags, by throwing it at their heels. This antique instrument has now so completely disappeared that it is a curiosity, even to an Orkneyman, and is to be met with only in the museum of the antiquary. Most of the farms consisted of about ten acres of arable ground, with nearly as much grass, for which they paid on an average about £10 of rent. The arable ground was never laid down

with grass, but alternate crops of oats and bere were extorted from it without any rest; yet in most places, where it was well manured with sea-weed, the crops were excellent. Potatoes have been universally cultivated since the commencement of this century, and have formed an important part of the farmer's diet; but since 1845, when the potato disease destroyed so much of that crop in the south country, and raised the price there, so that they would bear the expense of exportation, they have been much more extensively cultivated, and as the disease has never ravaged Orkney as it has done other counties, "Orkney Reds" have been much in request there for seed, and they have been such a profitable crop, that most farmers who are situated conveniently for exportation have been able to pay their rents by their potatoes.

As much of the country seems better suited for pasture than for corn, and the rents are generally paid by the sale of cattle, not of grain, turnips, for which the climate is peculiarly adapted, are now generally introduced, and a portion of arable ground sown annually with grass. This rotation of crops, which was ridiculed when first introduced in the West Mainland in 1834 by a minister on his glebe, is now approved of and followed by all who have any pretensions to be farmers.\*

Agriculture had made much progress in the North Isles long before that year, particularly on the estates of Messrs. Laing, Urquhart, and Traill of Holland; and we are informed that the first mentioned had fields of turnip, and a flock of Cheviot Merino sheep in Sanday as early as 1820, that would

\* Dr. Barry estimates all the lands of Orkney at 150,000 acres, which he proportions thus:—Common or uncultivated ground, 90,000; in-field pasture, and meadow, 30,000; land in tillage, 24,000; occupied by houses and gardens, 2000; fresh waters, 4000. Mr. Omond, in his excellent article on Orkney in the last edition of the *Encyclopædia Britannica*, says—"In the absence of an accurate survey it is impossible to give anything like a correct estimate of the extent of the country. We have heard the number of square acres fixed at 150,000, and we have heard that number doubled." We are now indebted to Captain Thomas for furnishing us with the results of his accurate survey, from which we learn that the degrees of latitude and longitude which bound Orkney "include an area of 1347·8 square miles; that the outline of the islands is equal to 537·7 geographical miles; but the islands contain only 244·8 square geographical miles," or about 207,200 acres.

A vast quantity of this has been cultivated since Dr. Barry wrote in 1805; but without a minute survey, the nearest approximation we can make to the

have done no discredit to the Lothians. More recently, Mr. Balfour, of Balfour and Trenabie, has immensely improved and increased the arable ground on his estates in Shapinshay and other N. isles. Mr. Traill of Holland has done the same in Westray, Papay, and Holm. Mr. Scarth of Binscarth has added greatly to Binscarth, and two new farms of 150 acres each, from the old Commonty of Firth. Mr. Watt of Breckness is adding several farms to his estate from the uncultivated ground; and Mr. Pollexfen of Cairston is greatly improving his estate near Stromness.

Agriculture has indeed made more progress here during the last ten or twenty years, than during a long period previously, and particularly in the way of drainage, fences, and rotation, where it was most required. The drainage will no doubt improve the climate generally when completed, as the fences shelter their own localities, and the rotation has greatly improved the crops. The five-shift is that which is generally approved of, and in some places as good crops of turnips are now grown as in the southern counties, and the quality of the grain is greatly improved. Several very neat and commodious farm-steadings have been erected, and in most cases thrashing mills, worked either by horses or water, so that the appearance of the country in these places is completely changed, as in Orphir, where these improvements are not only introduced on several properties, and between £3000 and £4000 laid out since 1847, but Mr. Fortescue of Swanbister, who lately purchased property there, has introduced a large flock of Cheviot sheep, which he keeps in the hills all winter, and they have thriven remarkably well. Various causes have contributed to promote this improvement—for instance, the failure of kelp, high price of agricultural produce, purchase of property, and

number of arable acres at present is to calculate from the rental, which is ascertained and given at the commencement. Deducting from that rental £5200 for rent of houses in Kirkwall, Stromness, and through the country, there remains a rental of about £39,000 for the land; and as ten shillings is considered more than the average rent per acre, we have thus at least 78,000 or probably 80,000 acres of arable ground.

Part of the in-field pasture and meadow ground has been cultivated, so that it is now probably diminished to 20,000 acres. That occupied by houses, gardens, and corn-yards, may be about 4000, and fresh waters 4000, leaving 100,000 acres of uncultivated ground.

renting of farms, particularly in the West Mainland, by several gentlemen of capital and enterprise from the south, and the first government grant for drainage, of which about £20,000 has been laid out in Orkney. Those who applied for the largest sums being David Balfour, Esq. of Balfour and Trenabie, £6000 ; J. G. Heddle, Esq. of Melsetter, £3000 ; G. W. Traill, Esq. of Veira, £3000 ; the Earl of Zetland, £2000 ; A. Fortescue, Esq. of Swanbister, £1000 ; and R. Scarth, Esq. of Binscarth, £1000.

### Roads.

One of the greatest improvements is that which has recently been effected on the roads, since the passing of "the Orkney Roads Act 1857." Under that act the road trustees are authorised to borrow to the extent of £25,000, and they have borrowed £22,000, the whole of which, along with the annual assessments, has been laid out in making 53 miles of new roads with 14 bridges, and in reconstructing 46 miles of old roads through the Mainland. These have been made in the most approved and durable manner, being first causewayed and then macadamized on the top, and are as good as those in any part of Britain ; but some people complain that one or two awkward rounds show that the public good has been sacrificed to private interest.

These roads allow travellers to visit most places that they wish to see with ease and pleasure. Some of the other islands have also taken advantage of the late Act, to borrow money and improve their roads, viz., S. Ronaldshay, Shapinshay, Stronsay, Rousay, Westray, and Sanday, in some of which much progress has already been made ; and carts are now so generally used, even by the smaller farmers, that, in a parish where there were only eleven at the end of last century, there are now about 200. This is a vast improvement on the old mode of transporting articles on the backs, or rather balanced on each side, of horses, by means of the *clibber* and *mazy*, to which were attached strange-looking heather-baskets called *creels*, or straw ones called *cubbies* and *cazies*. These are not to be seen now, and are worthy of a place in the antiquary's museum, beside the single-stilted plough ; and they should be accompanied by the *pundter* and

*bismar*, two very imperfect instruments for weighing commodities on the principle of the lever. In short, as Mr. Omond remarks in concluding the article already alluded to—“An Orkneyman is ceasing to be the amphibious animal his father was. Regard is had to the division of labour. The farmer is contented to plough his fields, leaving it to the fisherman to plough the main. The lower classes are orderly, industrious, and far from being ill informed. The upper classes as a body are not inferior to their equals in station in any part of Scotland; but we rejoice to know that the character which Orkney possesses for kindness, courtesy, and generous attention to strangers, remains unchanged.”

### Language.

The homespun stuffs for both sexes have almost disappeared; and the peasantry are now in general dressed in imported manufactures as decently as those of most counties in Scotland. Not being of Celtic origin, the Highland dress and language were never used in Orkney; but the Norse tongue, which was a dialect of the Norwegian, was generally spoken some centuries ago, and understood last century by some people in the parish of Harray, which is the only one that is not washed by the sea, and where old customs consequently remained longer than in any other. This language, however, is now completely forgotten, so that there is no one who can assist the etymologist with the meaning of many names which are evidently Norse. Of course the people speak English, with a peculiar accent, which the stranger will readily perceive; and, when talking familiarly among themselves, they use the singular of the second personal pronoun, saying *thou* and *thee*, like quakers, instead of *you*.

The following are a few of the natives of Orkney who have been eminent in their day, in addition to those mentioned elsewhere in these pages:—

Murdoch Mackenzie, author of “A Survey of the Orkney and Lewis Islands.”

Mrs. Brunton *née* Balfour, authoress of “Self-Controul,” “Discipline,” etc.

Sir Robert Strange, the eminent engraver of last century.  
Admiral Græme of Græmeshall.

Sir William Honyman, afterwards Lord Armadale.

We are happy to say that two of the most celebrated travellers in the most opposite climates of the globe are also Orkneymen, and still alive to enjoy their honours, viz., Dr. Rae, the great Arctic discoverer, and Dr. Baikie of African celebrity.

### Houses.

The cottages are, in general, miserable-looking abodes, with peat-stacks in front, and the intervening space sadly cut up by the feet of the cattle : the door, which is in many cases common to the cot and the cow-house, is sometimes less than five feet high—the cows turning into one end of the building, and the people to the other : and oftēn a favourite or delicate cow, or a few calves, are kept in the fore-house, or *but*, along with the family. A flock of fowls on the rafters, and a few geese hatching in the proper season, are also admitted to the comfort of the fire, which is placed on the middle of the earthen floor, and composed of peats—there being a hole in the roof for egress to the smoke and entrance to the light. This opening is not placed directly above the fire, lest during rain there should be a “meeting of the waters” with that element, which would not terminate in their being “mingled in peace ;” and the smoke, having thus no encouragement to pursue an upright course, adopts a more crooked policy, and forces its way into openings that were not intended for its reception, as the stranger’s eyes sometimes testify, by the involuntary tribute of a tear. “*Sic itur ad astra !*” Besides the main apartment, there is generally an interior one, or *ben*, which is seldom fired or used, except on great occasions, and as a bed-room ; and, sometimes, between the two there is a space for lumber. Around the central fire the family is generally collected during the long winter evenings, apparently more comfortable and contented with their lot than a southern slave to refinement would suppose it possible to be in their humble cot ; the men engaged in making or mending some of their farming utensils, and the women used to be engaged in plaiting straw to deck the heads of the London ladies, in the shape of bonnets ; but this employment has lately failed them, and no substitute has yet been introduced. Strangers are sometimes astonished at a round ancient-looking

tower attached to each cottage : this is the kiln for drying grain ; it is connected with the barn, and was very necessary on the smallest farm, there being none of a public description. Public kilns are now, however, being generally built at the mills, which will render others unnecessary. The food of the peasantry is simple enough to satisfy the greatest advocates for the antiphlogistic regimen—pottage for breakfast, bread and milk for dinner, the same repeated for supper, is the summer fare ; and, in winter, potatoes, with a little butter or fish, or very rarely meat, may be added. For the general dinner and supper, each house has a well-stocked kail-yard, and cabbage forms a favourite article of diet. The houses and fare of the higher classes are much alike through all parts of Scotland, but the traveller may be thankful to be told that while he takes his ease at his inn, he will find Orkney fresh herrings and roast geese very delicious dishes when in season ; but let not dyspepsia afterwards tempt him to remark that all Orkney bipeds are species of the same genus, or he may receive an *anser* less to his taste. Geese used to be smoked and used as ham, but we have not seen one for twenty years or so, because most of them are now carried to the southern markets by the steamers.

### Religion.

The people have as much information on general and religious subjects as those of any part of the kingdom. All the present generation can read and write, and arithmetic is commonly taught. “Unfortunately, most of the parishes are united to others, and two, or even three of them, with a church in each, placed under the charge of one clergyman, who has to preach in each by turns ; though common sense, it might be thought, would convince every one that each parish requires a clergyman, and at least one school for itself alone.” Great exertions are sometimes made by the clergy so situated to remedy this defect by their own activity, the employment of assistants, or appointment of missionaries ; and we know that, in some instances, the coarsest weather has not prevented them from reaching their more distant parishes, even one day, for ten years, perhaps for a much longer period, though they had to travel fifteen miles, often through mud,

rain, storm, and darkness. The Earl of Zetland is patron of all the Orkney livings, except those of the two ministers of Kirkwall, the patronage of which is in the hands of the town council; and the patronage of Walls is claimed by Mr. Heddle of Melsetter, as well as by the Earl. The synod of Orkney consisted of three presbyteries, each with six clergymen, till March 1833; and it is a singular coincidence, that, during that month, each had one added to its number, by the disjunction of Stromness from Sandwick, and the admission of the ministers of the government churches in Deerness and North Ronaldshay, as members of the church courts, so that there are now twenty-one who are entitled to sit as members; but besides these, there are five missionaries who preach to separate congregations, making the total number of clergy in the Established Church twenty-six. Since the commencement of this century, however, there has been a considerable number of dissenters in Orkney, of the United Presbyterian Church, Original Seceders, Congregationalists, and Baptists, of whom the first sect seem best adapted to the Orcadian disposition, and have taken the firmest root in a poor soil. There are no statistics published giving the number of dissenters at present, but the number of ministers of the United Presbyterian Church in Orkney is thirteen; of Original Seceders, one; of Congregationalists, three; of Baptists, three; of the Reformed Presbyterian Synod, one; and of the Evangelical Union, one. The greatest secession which has taken place in Orkney, as in most of Scotland, is that of the Free Church, in 1843, when ten ministers and preachers left the Established Church, and joined that communion; and where they did so, a great part of their congregations followed them. There are now fourteen ministers in connection with the Free Church. Thus there are sixty-two ministers or preachers for 32,416 inhabitants, or about one for every 523, which would be a liberal allowance if they were located so as to give the utmost accommodation to all; yet still, there are remote places where the people are in want of the ordinances of religion. The traveller will be able to account for this, when he sees a cluster of churches in each of the towns, and even in the country, within 100 or 200 yards of each other.

As the day dawns, the shades of night vanish; and the



light of knowledge is fast chasing away from Orkney the superstitious phantoms of former ignorance. There are still however, some who have seen, and can tell wondrous stories of the *fairies*, before the gaugers put them to flight by their odious tax upon the generous liquor which was required to warm and expand the heart ere those airy inhabitants condescended to reveal themselves to the eyes of man. There is still a superstition against turning a boat, at the commencement of a voyage, contrary to the sun, and against calling some things by their proper names at particular times: as, for instance, the fire used in the drying kiln is always propitiated by being styled the *ingle*; and the water employed for brewing ale, lest it should overflow in quantity, is called by the diminutive word *burn*, and so on.

### Industry.

A table is subjoined, shewing the sums collected in Orkney from various kinds of industry in 1861, from which the reader will be able to form some idea of the trade and manufactures of the country.\* In 1826, 3500 tons of kelp were manufactured, and sold at about £7 per ton, leaving £24,500 in the country. This was the greatest quantity ever made in one season; but, alas for the staple of Orkney! there is little prospect of its rising so high again, for the market was glutted, and the chemists with their drugs, and the free-trade doctors with their prescriptions, brought it to a state from which it can scarcely be expected to recover. All the principal proprietors in Orkney felt the depreciation in the price of kelp severely, and some of them it completely ruined, their estates on islands being so small, in proportion to the coast that bounds them, that the weeds on the surrounding rocks were much more valuable to them than all the produce of their lands. During the last war, kelp sold so high as £20 per ton; and now, even at £6 : 10s., it is *heavy*, as the merchants call it. Thus, Dr. Neill's remark, made in the year 1806, has been almost literally verified. "Agriculture," said he, "is quite a secondary consideration; and, such being the

\* The number of cattle exported is increasing, owing to their now being conveyed to the south of Scotland by steam-boat.

case, the reader will not, we believe, conclude that we are prophesying, if we say that *kelp* will be the ruin of Orkney."

### Fishing.

The herring fishery has greatly increased since the beginning of this century. At that time the entire neglect of it was much deplored by Dr. Barry, and by Dr. Neill, in his Tour through Orkney. Dr. Traill mentions, in his article on Orkney in the Edinburgh Encyclopædia, that in 1820 no fewer than 17,989 barrels were exported; but after that the trade declined. During 1837 and the two following years, the average number of sloops engaged in the cod fishery was eighteen, and the quantity of cod cured each year 381 tons; while the average number of herring-boats belonging to Orkney was 724, and of herrings cured on shore and afloat 42,073 barrels. These were sold by the fishers to the curers at about 10s. per cran or barrel, and the cod brought as much per cwt., yielding £24,852 per annum. The British fishery report of the fishing for 1860 shews a total of 14,039½ barrels of herrings salted or cured in the Orkneys. But the price to the fisher has risen to from 16s. to 20s. per barrel. The quantity of cod, ling, or hake cured in that year was 13,800 cwt. The number of boats employed in these fisheries in the Orkney district was 691, and the number of fishermen and boys 2510. The shipping tonnage employed in the trade was 2739—men and boys 239. Lobsters are generally caught in small nets about two feet in diameter, which are kept extended and sunk at the bottom by means of iron hoops, and baited with fish or flesh. Great numbers of these are let down along the shore near to low-water mark, with ropes having buoys attached to the ends of them, and visited several times during the night by the fishermen, one of whom pulls the boat gently along the line of nets, while the other lays hold of each buoy as he comes up to it, and by the rope pulls up the net so rapidly, that, if there is a lobster at the bait, it is in the boat before it has time to escape. Its claws are then secured by twine to prevent mischief from its pugnacity, and the whole thus caught during the night are immediately transferred to a large chest with many perforations, which is anchored in some sheltered bay, till transferred to one of the southern markets by steamer: 100,000 lobsters,

on an average, were thus annually exported ; but, from their recent decrease in size and number, together with the limited extent of the fishing-ground, this fishery had reached its maximum, as we predicted, and it has declined. Sixty whalers have called in one year, and taken 1400 men, leaving about £18,000 in the country ; but the men who do not now get out to Davis Straits, find employment in the other fisheries, which benefit themselves and the country more ; for the habits which they acquired there led them often to spend in dissipation, during winter, all the hard-earned gains of the preceding summer. The voyage, also, is more unpleasant and dangerous than it once was ; for, since the northern discovery vessels pointed out the fishing-ground on the west side of Baffin's Bay, that is the great resort of the whalers. They are consequently longer detained ; the men are exposed to increased danger, and are absent during the harvest months, when their presence is most wanted at home. The fisheries, particularly those of herring and cod, shew the great resources of Orkney. Surrounded with an inexhaustible ocean of food, its inhabitants require only industry to supply themselves with plenty in a land of peace, and to obtain the luxuries of other climates by an exchange of their superabundance. There seem to be no limits to these branches of industry but what are imposed by its capital and population, and these will be rapidly increased by a successful perseverance in the fisheries. The Rockall cod-fishery is only a recent discovery, which has not at present a very promising appearance. Anglers will find the best sport at the following places :—Stenness Loch, Orphir Loch, Loch of Air at Holm, Wasdale in Firth, Birsay Loch.

### Straw-plaiting.

Straw-plaiting for ladies' bonnets and gentlemen's hats is, or rather was, the only manufacture carried on to any great extent in these islands. About thirty or forty years ago, 6000 or 7000 females were more or less employed in it, and about £20,000 per annum were derived from this source. At that time, however, the plaiting was of wheat-straw, which had been allowed to ripen, but which was afterwards split ; consequently the bonnet was colourless, brittle, and flimsy. A superior sort of bonnet, however, was introduced from Leghorn, which was firmer than the other, from its being plaited

of unsplit straw; it was also of a richer colour, and of a tougher and more durable texture, in consequence of the straw being cut while green. In imitation of this article, the Orkney straw-plaiting was carried on, and hence called Leghorn or Tuscan. The straw of rye was used here, but that of wheat and other kinds of grass will answer the same purpose. At one time this manufacture was conducted in a very objectionable manner, by collecting numbers of young people in confined apartments, where, as "evil communications corrupt good manners," and "one sinner destroyeth much good," it is to be feared the contaminated atmosphere was not only destructive to their bodily health, but to their moral purity. The same objections, however, did not apply to it as conducted afterwards in their own homes, where it had a tendency to introduce neatness and cleanliness; but changes in fashion, the reduction of duty on foreign straw-plait from 17s. to 5s. per pound, and the free importation of foreign straw, have now annihilated this manufacture.

### Shipping.

In 1833, there were 78 registered vessels belonging to the country, carrying 4049 tons and 319 seamen. Notwithstanding the distress among the ship-owners of Britain, the shipping of Orkney had been doubled within the preceding twenty years: the favourite rig was that of a schooner, and the trade that between England and Ireland. In general, they were *well found*, navigated by able and sober seamen, and not insured; consequently there were few lost: and it is the general opinion in Orkney, that a great many of the numerous wrecks on its shores are those of vessels which are intentionally thrown away, for the purpose of profiting by the insurance, and that it would be a great saving to Britain if there were no sea insurance at all. In this way only can we account for several wrecks which we have witnessed. In other cases, where there was danger or loss of life, the scene was exciting and awful in the extreme.

At present, the shipping interest is in a very languishing state, in consequence of the repeal of the navigation laws.

Our table may be advantageously compared with Dr. Barry's account of exports and shipping in p. 386 of his work, from which it appears that they were as follows:—

Years.	Exports.	Shipping.	Ships.	Sailors.
In 1770	£12,018	825 tons.	17	76
1780	23,247	940 ...	20	90
1790	26,598	2000 ...	33	170
1800	39,677	1375 ...	21	119

Of the imports, it would be difficult to ascertain the exact amount or quantity, so as to reduce them to a table like that of the exports; but we believe that, in general, they may be stated to be annually a few thousand pounds less. They consist of a great variety of articles, such as groceries, clothing, haberdashery goods, hosiery, hats, silk, ironmongery, tobacco, etc. etc. In an old Orkney shop these things might be seen collected as in a bazaar, but now the shops are much improved by a division of labour. A considerable annual quantity of wood from various places, and coal from Newcastle, is also imported.

The subjoined comparative table of exports, in 1848 and 1861, shews that we have been far from exaggerating the agricultural improvements in Orkney, for, when thus tested by their concentrated results, the natural resources of Orkney are proved to have been developed at least as rapidly as those of any other county in Britain during the last thirteen years. To give confidence in its accuracy, it has been made out by a gentleman who is most conversant with the trade and produce of estates in Orkney:—

	1861.			1848.	
Bear or bigg, 6180 qrs., at 20s. per qr.	£6,180	0 0	at £1	£5,015	0 0
White oats, 29,840 qrs., at 20s. ....	29,840	0 0	16s.	1,901	12 0
Oatmeal, 880 bolls of 140 lbs., at 20s.	880	0 0	12s.	600	0 0
Bearmeal .....	.....	.....	10s.	400	0 0
Potatoes, 3916 tons, at £3 .....	11,748	0 0	4s. 8 bsh.	400	0 0
Turnip seeds, 3 tons, at £56 .....	168	0 0	£40	160	0 0
Horses, 268, at £12 .....	3,156	0 0	£10	8,200	0 0
Cattle, 6228, at £10 .....	62,280	0 0	£5	7,900	0 0
Sheep and lambs, 2329, at 20s. ....	2,329	0 0	20s. and 12s.	790	0 0
Swine (live), 431, at £2, 10s. ....	1,077	10 0	30s.	735	0 0
Bacon cured, 6644 cwts., at 40s. ....	13,288	0 0	..	2,000	0 0
Butter, value .....	2,000	0 0	..	800	0 0
Hides .....	500	0 0	..	187	10 0
Rabbit and hare skins, 1100 doz., at 2s. 6d. ....	187	10 0	..	250	0 0
Feathers, value .....	150	0 0	..	470	0 0
Wool, 574 st., of 24 lbs., at 20s. ....	574	0 0	..	1,604	0 0
Malt .....	.....	.....	..	2,500	0 0
Eggs, 2000 brl. bk.=250 tons, equal to 500,000 doz., at 6d. per doz. ....	12,500	0 0	..	£24,818	2 0
Agricultural produce (over) .....	£146,808	0 0			

	1861.	£	1848.
Brought forward .....	£146,808 0 0	5	£24,813 2 0
Straw manufacture .....	.....	..	400 0 0
<i>Kelp.</i> — Drift-weed, 500 tons, at £6, 10s. ....	£3,250 0 0	£4, 10s.	1,350 0 0
Cut-weed, 250 tons, at £2, 10s. ....	625 0 0	..	625 0 0
	3,875 0 0		
<i>Note.</i> These are the prices of 1861, de- ducting freight of 10s. per ton.			
<i>Fisheries.</i> — Herrings, 15,000 brls., at 30s. ...	22,500 0 0	10s.	10,000 0 0
Cod, ling, and tusk, dried or pickled, 7000 casks, 18s. ....	6,300 0 0	12s.	6,720 0 0
Lobsters, estimated value .....	2,000 0 0	..	1,800 0 0
	30,800 0 0		
	£181,483 0 0		£49,308 2 0

### History of Orkney.

Orkney and Zetland have long formed one county or stewartry ; but, till the passing of the Reform Bill, the representative to Parliament was returned by Orkney alone, while Zetland had no voice in the election—an oversight certainly very inconsistent with the theory of the British constitution : and this inconsistency is scarcely diminished by the new act, which, in bestowing the elective franchise on Zetland, only gives it the privilege of voting for the member along with Orkney. Frederick Dundas, Esq., is the present representative.

The early history of Orkney is probably as accurately and minutely known as that of any part of Britain ; for which we are indebted to the Orkneyinga Saga, and to the *Orcades of Torfæus* ; but to these large and rare works it cannot be supposed the traveller will refer for information. He will, however, find a translated and sufficiently minute epitome in Dr. Barry's history.

Cape Orcas, from which these islands probably derive their name, is noticed as an extremity of Britain by Diodorus Siculus, A.C. 57, and the *Orcades* are mentioned by Pomponius Mela, 100 years after. Solinus reckons only three islands, A.D. 240 ; or if Pinkerton is right in his correction, 33. The first permanent inhabitants probably came from the nearest

coast, and consisted of the Picts, or Picks, who spread over Scotland and the Hebrides before the birth of Christ, and from these to Orkney. Little kings or princes then reigned in these islands; and King Belus, Gaius, and Gunnas, are mentioned. When the Roman empire was divided among Constantine's sons, Orkney was considered of such importance, that it is particularly mentioned as falling to the share of young Constantine. St. Columba met an Orkney king at the court of Budi II., and recommended Cormac, one of his disciples, to instruct the people, A.D. 570. Budi IV. quelled an insurrection in Orkney; after which it remained so quiet, that it is not mentioned again for more than 200 years. The Orkney Picts seemed to have enjoyed the sweets of society in peace, till their harmony was interrupted by another swarm of Scandinavians, A.D. 876. This was occasioned by the ambition of Harold Harfager, or the Fair-haired, who, dissatisfied with the territories which he possessed, introduced discord and the horrors of war into the little states around him, till he raised himself to be the sole king of Norway.

Many of the princes and people who were thus disgusted at home, or forced to flee, left their native land, and took possession of the Faroes, Iceland, the Hebrides, several parts of Britain, Zetland, and the Orkney Isles, and from these they gratified their revenge by intercepting the trade and ravaging the coasts of their common enemy. Harold equipped a fleet to subdue them, and, arriving in Orkney, A.D. 876, which is described as being inhabited by the Peti or Papæ (who are supposed to be the Picts and their priests), he added these, as well as the Western Islands, to his dominions; and, on his return to Norway, invested Rangvald Møre Jarl, Count of Merca, with the government of Orkney. This wise and illustrious nobleman retired from the situation in 920, in favour of his brother Sigurd, who added to his earldom by subduing Caithness, Sutherland, East Ross, and Moray, where he was slain in battle. Rangvald next allowed Gottorm his nephew, and Halled his son, to enjoy the earldom; but they were stupid and unfit; and two of his other sons vied with each other for the appointment. Einar was the successful candidate, who is said to have taught the people to use turf for fire, hence called Torfeinar; and Rolf, or Rollo, who was the disappointed

competitor for the earldom of Orkney, and the great-great-grandfather of William the Conqueror, was obliged to try his fortune in France, which he invaded, and became Duke of Normandy. We cannot detain the reader with the exploits of all the descendants of this distinguished family, who held the earldom of Orkney from A.D. 920 till after 1320, when Magnus V. was alive, in whose person the male line failed, and the earldom passed to Mallis, Earl of Strathearn, who was married to Magnus's only daughter, and afterwards to "the lordly line of high St. Clair" in 1379. These Scandinavian earls, jarls, or sea-kings, were considered high in rank, wise in peace, and formidable in war. They intermarried not only with the nobility of the neighbouring nations, but with the regal families of Scotland and Norway; and they were known and feared as far as their fleets and arms could reach. But though their exploits, according to the ideas of that warlike period, were those of high and honourable men, they would now very properly be classed with those of plunderers and pirates.

Barry's description of Swein of Gairsay is probably also applicable to most, if not all, of the other earls. "In spring he employed them (his people) in cultivating the ground and sowing the seed. The summer was for the most part spent in predatory expeditions, particularly to Ireland and the Western Isles. Harvest called them home to reap and gather in the crop; and the gloomy months of winter were devoted to festivity." This gentleman took the city of Dublin on one occasion, as a little private speculation; and the fall of the latter Sigurd, in the battle of Clontarf, close to Dublin, is commemorated in Gray's well-known Ode of the "Fatal Sisters." In short, the Scandinavians of those days seem to have undertaken predatory excursions against their fellow men, much in the same manner as their descendants of the present day join in expeditions against the fish of the neighbouring seas, or the leviathans of Greenland. These were the men

"Who for itself could woo the approaching fight,  
And turn what some deem danger to delight."

We have already noticed the original introduction of Christianity into these islands. After the Scandinavian or pagan



conquest, it was introduced a second time, about A.D. 1000, by Olaus Friguesson, King of Norway, and, in the spirit of those days, at the point of the sword. But it was more easy thus to make it the acknowledged religion of the land than to infuse its mild spirit into the hearts of men ; and long after that period we find the Orcadians acting rather like the worshippers of Odin, than the imitators of Him who "is good to all, and whose tender mercies are over all his works." While William St. Clair, the third of that name, held the earldom of Orkney, Christian I. king of Denmark, Norway, and Sweden, demanded payment of the "annual of Norway," the arrears of which amounted to a considerable sum ; and the affair having been submitted to the arbitration of Charles, King of France, he prudently recommended a marriage between the young Prince of Scotland and the Princess of Denmark. In 1468, James III. accordingly obtained with the Princess Margaret a portion of 60,000 florins, 2000 of which were paid. Orkney was given in pledge for 50,000, and Zetland for the remaining 8000, and since that time these islands have always been politically attached to Scotland, from which they should never have been disjoined. King James purchased the earl's *hail richt* to them in 1470, annexing them to the crown by acts of parliament, not to be alienated again, except in favour of a lawful son of the king. This wise resolution was, however, speedily departed from ; and they were granted to James, Earl of Moray, in 1530, and afterwards to the Earl of Huntly, who enjoyed them till Mary bestowed the earldom on her natural brother, Lord Robert Stuart, and subsequently on the Earl of Bothwell, with the title of Duke of Orkney. Sir John Maitland of Thirlstane, and Sir Ludovick Ballantine, held them for a short time ; and Earl Patrick Stuart, son of Lord Robert, obtained a grant in 1600. This man inherited his father's vices as well as his honours. He was proud, avaricious, cruel, and dissipated ; but the complaints of the oppressed people at length reached the ear of royalty ; when he was thrown into prison, convicted of high treason, and suffered condign punishment. Probably the poor Orcadians never endured so great oppression as during the rule, or rather the misrule, of the Stuarts. They destroyed most of the Udal tenures, and introduced feudal ones in their stead ;

justice was perverted, heavy fines were imposed, and the property of others was unjustly seized ; the weights and measures were altered, so as to increase the rent paid in kind ; the discontented districts were overawed by soldiery ; and the castles of Scalloway and Kirkwall, built by Earl Patrick, while they remain as monuments of his pride and oppression, serve well to illustrate, not only the ruin which is effected by the footsteps of time, but that which always tracks the footsteps of vice, and which overtook their execrable builder. So great was the fear of having another such oppressor appointed to the earldom, that, to quiet the minds of the people, the king ordered a proclamation to be made "that the lands and earldom of Orkney and Zetland were annexed to the crown, to remain in time coming," and that the inhabitants should be under no apprehension of reverting "to their former condition of misrule, trouble, and oppression."

The rents of the earldom were then let to Sir James Stewart of Kilsyth, as farmer-general, and afterwards to Sir George Hay of Kinfauns, who resigned them in three years. The people petitioned "that no man be interposed between his Majesty and them, to molest them." The prayer of this petition was for a time listened to, and another act of annexation passed in 1633. But in 1643, King Charles I. again granted the islands, with all the regalities belonging to them, to William, Earl of Morton, in mortgage, redeemable by the crown for £30,000. He was, however, stripped of the earldom by Cromwell. Another of the same family regained it, at the Restoration, in 1662 ; but the deed was declared null, and it was annexed to the crown again in 1669, and leased out to different persons for thirty years. In 1707, James, Earl of Morton, obtained it, for the last time, in the old form of a mortgage, redeemable by the crown for £30,000, subject to an annual feu-duty of £500. This grant was rendered irredeemable in 1742, and he afterwards received £7200 for heritable jurisdictions. But harassed with complaints, quarrels, and lawsuits, he sold the estate, in 1766, for £60,000, to Sir Lawrence Dundas, the great-grandfather of the present Earl of Zetland, in whose family it remains, and who have erected too many honourable monuments for themselves in the hearts of the people, to require that we should sound their praise.

The first resident Romish bishop seems to have been appointed about the beginning of the twelfth century, and the first reformed bishop in 1562. By the act of the General Assembly in 1638, Episcopacy was abolished, but it afterwards revived for a little; and it was not till about A.D. 1700 that Presbyterianism was finally established in these islands in place of Episcopacy. Since that time, the revenues of the see of Orkney were either held by the crown, and managed by a factor, or leased out to the holder of the earldom or others, till within the last few years that most, if not all, of the crown lands have been sold; and if the proceeds have not sufficiently adorned the "cloud-capped towers and gorgeous palaces" of London, it is not on account of any deductions that have been made for improving the cloud-capped hills and lowly cottages of Orkney.

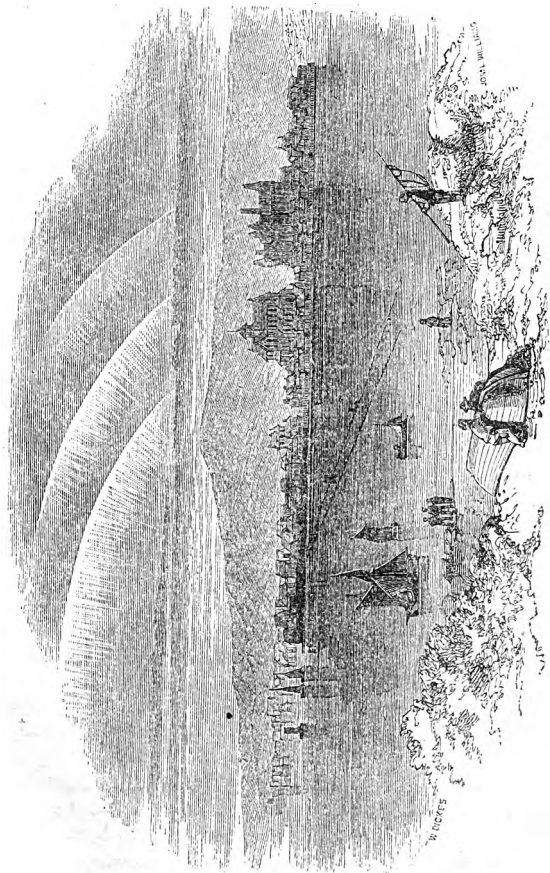
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## ITINERARY.

### Kirkwall.

As the traveller will probably arrive at Kirkwall either by the steam-boat or other conveyance, or take an early opportunity of visiting it, if he arrive at Stromness by the Royal Mail Steamer from Thurso, we shall commence our Itinerary by a brief description of it and Pomona, or the Mainland. This island is divided into two unequal parts by the Bays of Kirkwall and Scapa, and connected by an isthmus nearly two miles broad, upon which the town of Kirkwall is built. Here are three good inns and several respectable lodging houses. The oldest part of the town lies along the shore of the former bay, which is much exposed to the north, and hence not greatly frequented by shipping; though its position, so central for the Mainland, and allowing easy access from the north and south isles, points it out as the proper site for the capital of the country. Its natural exposure, however, is in a great measure counterbalanced by two quays, forming a small harbour, which admits coasting vessels at high water,

and the gross income of which is now £800 per annum, and the authorities are in treaty with the Board of Trade for a loan of £14,000, under the late Harbour Extension Act, for the purpose of extending the quays, so that large vessels might be admitted, and the income doubled. The steamer alone would thus add £250 a year to the receipts, and it would be a great boon to travellers to step out on a quay instead of being landed in open boats as at present. From whatever quarter it is approached, the ancient and venerable cathedral of St. Magnus is the first object that arrests the eye, raising its stately form above the town, that seems to crouch beneath it ; while the ruins of the Earl's and Bishop's Palaces, which were companions of its youth, increase our veneration for its sacred walls, by appearing as the attendants of its age, while they are bent with the weight of years. The town consists chiefly of one street, which is about a mile long, and very contracted and unpleasant to passengers, from the roughness of the causeway and narrowness of the side pavement in some places, though it has been lately much improved in this respect. Many of the houses have their gables toward the street, which gives it a foreign appearance ; and some of them seem, from their inscriptions, to be verging on antiquity. Kirkwall, we are told, was erected into a royal burgh in the time of the Danes ; and James III., on obtaining Orkney, conferred a similar honour on it. Its first charter was granted in 1468. This was confirmed in 1536 by James V., who visited Orkney in person, and lodged in the Bishop's Palace ; and his grants were ratified in 1661 by King Charles II., and by the Parliament at Edinburgh in 1670. It has since been governed by a provost, four bailies, a dean of guild, a treasurer, and fifteen councillors, and had the privilege of returning a member to parliament along with the other northern burghs. The late Burgh Reform Act has made a few changes in the constitution of Kirkwall. Here some of the principal proprietors of the county reside, besides many well-educated men ; and the society is esteemed at least as good as that of any other provincial town of the same size. In 1861, the population of the burgh was 3519, and that of the parish of St. Ola, which is attached to it, 908. There was formerly a freshwater lake at the west side of the town ; but, by an attempt



KIRKWALL (NORTHERN LIGHTS).

to drain it, the sea was admitted, which now ebbs and flows there regularly, and is known by the name of the *Peerie Sea*.

The architectural beauties of the town claim the stranger's particular attention :—First, St. Magnus' Cathedral. Magnus, in honour of whom this stately pile was erected, was one of the Scandinavian Earls of Orkney, and was assassinated in Egilshay, about the year 1110, by his cousin Haco, who thus obtained possession of his property. The murdered earl, who seems to have been a good man, was sainted, and his body buried, first in Christ Church in Birsay, but afterwards removed to this cathedral. Rangvald, or Ronald, a nephew of St. Magnus, who was entitled to a share of the earldom, but was repulsed by Paul, who then held it, retired to Norway ; and before attempting again to obtain possession, he raised the zeal of his followers by vowing to St. Magnus, that, if successful, he would erect and dedicate a church to him in Kirkwall, far exceeding in magnificence all former buildings in these islands. By the zeal thus inspired, and the wisdom of his plans, he was successful. He arrived unperceived, though Paul had ordered fires to be kindled in different islands, to give warning of his approach ; and, after his settlement, he amply fulfilled his promise, by building, about the year 1138, the central cross and steeple of the cathedral, which are the most ancient parts of the edifice. Ronald, the founder, was also slain while hunting in Sutherland, canonized, and buried in the cathedral. Dr. Stewart, who succeeded to the bishoprick of Orkney in 1511, enlarged the building, by adding the three first pointed piers and arches at the east end, and the fine east window, which is early middle pointed, of four unfoliated lights, in two divisions, its head filled with a rose of twelve leaves. Bishop Maxwell, who succeeded in 1525, ornamented it, and furnished it with a chime of four very large and well-toned bells ; and Bishop Reid, who succeeded in 1540, added three Romanesque pillars to the west end, the interior arches above which seem never to have been finished. It is built of red freestone, and is still entire—as much so as St. Mungo's Cathedral in Glasgow, which it resembles ; but its enormous apparent size strikes one, on entering, as much as that of the larger English cathedrals, which is partly accounted for by the extreme narrowness of the nave and choir,

only 16 feet—compared with the total internal length, which is 217 feet 6 inches. In the choir are entombed the remains of Scandinavian royalty and nobility, of saints and warriors. The present spire\* is a paltry substitute for an elegant one which was destroyed by lightning in 1670, and is 133 feet high. The interior arched roof, which is 71 feet high, is supported by 28 pillars, each 15 feet in circumference; and 4 others, 24 feet in circumference, of great strength, and beautifully ornamented, support the spire. The extreme length of the cathedral, from east to west, outside, is 226 feet, and of the transepts 90 feet, and its breadth about 56; but the dimensions of the different parts will be found in other works on Orkney, to which we refer.† There are two perfect triforia round chancel transepts, nave and tower, a staircase at each angle of the tower, and two others from the transepts. Haco of Norway was buried in the cathedral in 1263, and Margaret, the Maid of Norway, in 1290.

Since the Reformation, the Protestant clergy have, like their Catholic predecessors, shewn much regard for this cathedral; but the poverty of the Presbyterians enabled them only to retard its decay, till the late Gilbert L. Meason, Esq., left a liberal legacy of £1000, the interest of which was appointed to be annually expended in ornamenting and keeping it in repair; and which, under judicious management, effected much in preserving and renovating the building, and increasing the comfort of the place of worship, in the choir, which has been immemorially used for a parish church. Some years ago Government spent a few thousand pounds in renovating the building and seating it anew. During the progress of the work some discoveries were made.‡ On removing the end of a beam from the large pier on the north side of the choir, at

\* From the most recent and correct observations, we understand that the true position of the spire of St. Magnus' Cathedral is 58 deg. 59 min. 31 sec. north latitude, and the length of the pendulum vibrating seconds here is 39.1683 inches.

† See particularly "Ecclesiological Notes on the Isle of Man and the Orkneys."

‡ We gladly avail ourselves of the notices of these discoveries, and of the Picts' Houses, published by Mr. G. Petrie, who has lately raked up some valuable articles from the dust of former ages, and who has been elected an honorary member of the Archeological Institute of Great Britain and Ireland.

the junction of the addition to the original structure, a space was found containing a human skeleton, which is thought to be that of St. Magnus, with the skull indented on the top, as if by the stroke of an instrument. The tomb of Bishop T. Tulloch was discovered under the seat on the south side of the choir, between two of the pillars which had been built by him; it contained a chalice and paten, both of wax, at one hand of the skeleton, and a bishop's staff of oak at the other.

Between the two pillars, on the north side of the church, directly opposite to Bishop Tulloch's tomb, one was found, formed of common paving-stone, about  $2\frac{1}{2}$  feet in length, by  $1\frac{3}{4}$  in breadth and depth, containing a skeleton doubled up, and an instrument resembling a hammer, with an iron handle, and bone head. At the head of the skeleton was stuck a piece of lead, with these words rudely cut on it—"H requiescit Williamus senex felicitis memoria," and on the other side "P'mus Epis."

This appears to have been a re-interment, when the old altar was removed, and may be the skeleton of one of the early bishops, several of whom were named William, or of the first resident bishop of Orkney.

In an unsuccessful attempt to find the tomb of Earl Robert Stewart, that of his brother, Lord Adam Stewart, son of James V., by Elizabeth, daughter of the Earl of Lennox, was discovered. The cathedral is also enriched with many fine ancient sculptured tombstones.

About 100 yards south of the cathedral are the remains of the two ancient buildings to which we formerly alluded, now complete ruins. The more easterly of the two is the Earl's Palace, built by Patrick Stewart, who obtained the earldom in 1600. It is a beautiful example of the castellated mansion; and its hanging turrets, spacious projecting windows and balconies, have still a very fine effect, while the principal hall, and its arched chimney, are worthy of particular attention. The more westerly edifice is the Bishop's Palace, which accommodated King Haco and his suite in one of its upper storeys, during the winter of 1263. The north part of it consists of a handsome circular tower (which is square within) built by Bishop Reid, of whom there is a free-stone statue, in *alto relievo*, in the north side of the wall.



Earl Patrick is understood to have joined his palace to this, thereby forming the whole into a hollow square of buildings, open to the north, measuring 240 by 200 feet, which certainly composed a very magnificent and princely residence.

The sadly dilapidated ruins of Kirkwall Castle, built by the first earl, Henry St. Clair, are still to be seen on the west side of the Broad Street, with a flower-plot in front; and near the middle of this street is the Town House, an insulated building, containing various public apartments.

On the east side of the bay are the mounds and ditches of Cromwell's Fort, which was constructed by his soldiers, to protect it from attacks by sea, and is now used by the brave Orkney artillery volunteers. In the barn-yard of the old farm-house of Saverock on the west side of the bay, there are extensive ruins of subterranean chambers and long low passages or galleries. Another subterranean chamber and gallery was lately opened in a field on the farm of Grain, but again shut, after a plan and measurements had been made. About two miles north-west of the town, at Quanterness, is the famous Picts' House, described by Dr. Barry, but which, unfortunately, has been filled up, so that there is nothing now to be seen of it but a mound of earth.

In its immediate vicinity, and about half way up the western declivity of Wideford Hill, another Picts' House was opened in 1849, constructed, in the ordinary style of these buildings, of large stones, converging towards the top, where it was only about a foot wide. The whole structure was brought to a conical shape with stones and clay, and over all is a thick layer of turf. The apartments discovered are four, all communicating with each other by passages about 18 inches high, and from 15 inches to 2 feet broad, with all the floors on the same level. The largest apartment, from which the others branch off, is 10 feet long, 5 broad, and 9 feet 3 inches high. The longest, highest, and narrowest of the small apartments is 6 feet 3 inches long, 3 feet 7 inches broad, and 6 feet 6 inches high. The circumference of the tumulus at its base is about 140 feet, and its height from the floors to the top 12 feet. Intermingled with the rubbish which filled three-fourths of the principal apartment, and on the floors of the cells and passages, were found considerable quantities of

bones and teeth of various domestic animals, but no human bones.

The "Orkney Library" was instituted at Kirkwall in 1815, and now contains a considerable collection of books. Since that time, other libraries, of a more juvenile description, have been opened to the public here; and religious ones in most of the country parishes.

There are three Dissenting meeting-houses in the town.

Having seen all that is worthy of notice in the capital, the traveller may with ease ride round all the East Mainland, or eastern portion of Pomona, in the course of a day; but we have nothing to hold out as an inducement for undertaking such a journey. It consists of three parishes: viz. St. Andrew's, where Mr. Baikie of Tankerness, the principal proprietor of it, resides; Deerness, which forms a peninsula; and the fertile parish of Holm, or, as it is pronounced, Ham.

There is a *gloup*, or excavation in a precipice, open at the top, into which the sea enters through a subterranean passage, in each of these parishes, viz. that of Rossness in Holm, that of Landside in Deerness, and another in St. Andrews.

### Kirkwall to Stromness.

We shall, therefore, now endeavour to conduct the traveller through the West Mainland and the Island of Hoy, by far the most interesting excursion which he can take. A coach runs between Kirkwall and Stromness every lawful day during summer, at moderate fares, and gigs, phaetons, or coaches, can be hired.

Having taken a seat in one of these, or provided ourselves otherwise, let us start for Stromness, which lies nearly twelve miles west of Kirkwall, although the winding road is  $14\frac{3}{4}$  miles long. This excellent new road, which is completed the whole way, leads by the harbour and Ayre of Kirkwall, where there is a tidal mill turned by the flux and reflux of the tide, the wheel being raised or depressed to suit the rise or fall of the sea.

A little to the left of the substantial bridge here is the house occupied by the chamberlain of the Earl of Zetland. After passing the bridge the road turns northwards, lying between the sea shore and Wideford Hill; while the old

road lies over the south base of this hill. Several of the north isles may be seen from this place, in passing through the farms of Hatston and Quanterness. From this point the road descends the slope of the hill, sweeping more northwardly along the Bay of Firth, which opens on the sight, sheltered on all sides but the east by its heathy hills, with the little isle of Damsay, and its Holm in its peaceful bosom. Opposite the fifth milestone is the Manse of Firth, on a rising ground about 300 yards to the west of the road, which then sweeps along the shore of the bay, through a small village called Phins Town, between the sixth and seventh milestones; passing the gate of the Established Church; and within 200 yards of it, the Free Church and Manse; and within 200 yards of them, the United Presbyterian Church and Manse. The dykes by the old road are covered with our most superb indigenous flower, the *Digitalis purpurea*; the *Trientalis Europæa* grows in a valley over the hills west of the road; the *Valeriana officinalis* grows in a burn west of the road and south of the church, as well as in some other places; and various species of rose, willow, etc., are so abundant as to tempt a botanist to make a pedestrian excursion through those steep banks, which are inaccessible in any vehicle. From this village the road turns gradually west, passing, opposite the seventh milestone, the tasteful residence of Mr. Scarth of Binscarth, on the side of the hill on the right. In the vale, at the foot, lies the farm of Binscarth, much improved by the proprietor, with its farmstead. To the north lies the inland parish of Harray, with its church, on a central rising ground, and within a few hundred yards of it, the Free Church, with its manse and school, and at a greater distance the hills of Birsay. Along the road to the west is the parish of Stennis, or Steinhouse, bounded by the shore of the Loch of Stennis, which communicates with the sea at the Bridge of Waith, and is so extensive that it could not be circumambulated in less than fourteen miles; and at the farther side of this lake lie the hills of Stromness and Sandwick. Towards the south-west the hills of Hoy stretch their huge backs in the distance, or hide their heads in the clouds. Between that point and the south rises a range of hills which, together with those on the other sides, form one vast amphitheatre of the centre of the Mainland.

At the sunny side of this latter range lies the parish of Orphir ; and for the information of antiquarians, we may mention that the apse, and a portion of the wall of a circular church, stands in the churchyard of Orphir. Circular churches are very rare, and it is believed that this is the only one in Scotland of which any remains are known to exist. The Orphir building is of the oldest form of circular churches, and the probability that the remains of buildings by which it is surrounded belong to the castle, or "palace," of the Orkneyan Jarl Paul, to which a temple adjoined, gives additional interest to the ruins, which contain little to tempt the traveller from his route. The famous field of battle at Bigswell, or Summerdale, in this direction, contains nothing but tumuli to mark the spot. Near the eighth milestone, the road to Harry and Birsay turns off to the right ; and near the ninth on the left, and close to the road, is the house of Turmiston, from which, or from some neighbouring house, in "The Pirate," the hero is supposed to have seen the fight which terminated in the blowing up of his vessel near Stromness.

Close to the north side of the Kirkwall and Stromness road, and nearly opposite to the house of Turmiston, stands the now far-famed mound of "Maes Howe," or "Mes How." Maes Howe, as well as the Standing Stones, is on the Stenness estate of Mr. Balfour of Balfour and Trenabie. It is of a conical figure, about 35 feet in height, and about 100 feet in diameter at the base. The mound is surrounded, at an average distance of about eighty feet from its base, by a moat or ditch about 40 feet broad, and from 5 to 8 feet deep. The whole is enclosed by a turf dyke, about 6 feet broad at its base, and about  $3\frac{1}{2}$  feet high.

Maes Howe is a large chambered barrow, constructed with great care. On the west side a narrow passage, about 2 feet 4 inches in height and breadth, extended 21 feet inwards towards the centre of the mound. The inner end of the passage opened into another passage 31 feet long,  $3\frac{1}{2}$  feet wide, and  $4\frac{1}{2}$  feet high. Four very large blocks of stone have been used in the construction of the larger passage. One of these is in the floor, one in each of the sides, and another in the roof ; and each stone is upwards of 19 feet long,  $4\frac{1}{2}$  feet broad, and from 4 to 5 inches thick. Three of the

stones, are, however, now so much fractured, that at first sight each may be mistaken for a number of separate stones placed close together.

The inner end of the passage opens into a large chamber, about 15 feet square. The roof of the chamber had fallen in long (probably several centuries) before the excavations of July 1861; but the walls were still about  $13\frac{1}{2}$  feet high, and, at that height, the space between them was only about 9 feet square. This is caused by the overlapping of the successive courses of masonry from the floor upwards, by which the walls are made gradually to approach each other. There is a buttress, about 10 feet high, in each corner. One side of each buttress is composed of a single block of stone placed on end, and on the edges of those on the N.E. and N.W. corners are Runic inscriptions. A winged dragon, and a serpent twined round a tree or pole, are incised on the edge of the large block in the S.E. buttress. The former is cut with great freedom.

Immediately opposite the passage is an opening in the east wall 3 feet above the floor of the chamber. There are similar openings on the north and south sides, and about the same height above the floor. These three openings are about  $2\frac{1}{2}$  feet high, 2 feet 4 inches wide, 2 feet long, and are the entrances to three cells.

The north cell is  $5\frac{3}{4}$  feet long, and  $4\frac{1}{2}$  feet wide; the east cell is  $5\frac{1}{2}$  feet long, and  $4\frac{1}{2}$  feet wide; the south cell is 7 feet long, and  $4\frac{1}{2}$  feet wide. The cells are all about  $5\frac{1}{2}$  feet high inside.

The Runic inscriptions on the walls of the chamber are chiefly around the entrances to the cells, and the number of Runes is nearly 1000, of which the greater part is very distinct. Altogether Maes Howe is one of the most interesting archæological remains of an early date which has been discovered in Britain.\*

### Standing Stones of Stennis.

Near the Church of Stennis, the well-known "Standing Stones," from which the parish gets its name, may be distinctly seen several miles off, suggesting the idea of a con-

\* Vide Appendix for translation of the Runes, etc.



STENNIS STONES AND LOCH.

clave of giants.\* They are well worthy of a visit, being one of the most remarkable antiquities of Orkney, and lying near the public road. They consist, or rather, we regret to say, once consisted, of two distinct clusters of huge stones, without cutting or inscription of any kind on any of them, and placed singly and perpendicularly in the earth, in the form of a circle and semicircle. The semicircle is supposed by Capt. Thomas to have been a complete circle, part of which is now almost obliterated, and part entirely so. The latter is nearest to the road, on the north side, at the tenth milestone, and on the south side of the loch; but there are now only two upright stones and one prostrate stone remaining, of a much larger size, however, than the stones of the circle. The prostrate one is eighteen feet four inches long, five feet four inches broad, and one foot nine inches thick, and only from one to two feet of it were inserted in the earth. This semicircle is fenced round with a mound of earth, and when more distinct than it now is, was ninety-six feet in diameter, and consisted, according to Mr. Peterkin, of three or four stones in addition to those still existing, besides one about 150 yards to the northward of the others, with a hole through it, to which the victims are supposed to have been tied before they were offered in sacrifice on a large horizontal stone or cromlech within the area, but not in the centre of the structure. About a mile north-west of this lies the circle, on a point of land which extends from Sandwick on the opposite side of the lake, almost dividing it in two, which it probably did entirely at one time; but this is now effected by means of the Bridge of Broigar. At the south-east end of this bridge stands one stone sixteen feet high, five feet three inches broad, and one foot four inches thick. The stones of the circle are smaller, and have their angles more rounded and worn than those of the former group, which gives them an air of greater antiquity; but they may have been originally smaller, or taken from a softer quarry. At first they probably consisted of about thirty-seven, Captain Thomas supposes sixty, but some are either

\* An excellent account of the "Standing Stones" and some other antiquities has been published, to which we beg to refer: see "Accounts of some of the Celtic Antiquities of Orkney, including the Stones of Stennis, Tumuli, Picts' Houses, etc., with plans, communicated to the Society of Antiquaries by F. W. L. Thomas, R. N.," etc.—*Archæologia or Vetusta Monumenta*, vol. 84.

entirely prostrate, or have nothing but mere stumps remaining where they formerly stood; so that there are now only sixteen erect that are from three feet to fourteen and a half feet high. They are surrounded by a ditch from thirty-one to thirty-three feet wide, in some places much filled up, and not now above six feet deep. Between the ditch and the stones is a space of very irregular width, varying from fourteen to twenty-four feet. The circumference of the whole is ten hundred and seventy-one feet. All the stones are of the common schist or old red sandstone of the country, and covered over with long lichens, which, like "hoary locks, proclaim their lengthened years;" and their distance from one another indicates that they were never intended for pillars to support other horizontal stones, like the trilithons of Stonehenge. Similar pillars or standing stones are to be found in various parts of the country, and in the immediate neighbourhood are some tumuli of a remarkable size, and several other remains of antiquity. Dr. Hibbert has described the larger circle as a Scandinavian temple dedicated to the sun, and the semicircle as one dedicated to the moon; and he mentions that it was the practice for parties to get betrothed, or to pledge their troth to become man and wife, by shaking hands through the hole in one of the upright stones. It was also usual when a couple, whom the promise of Odin had made husband and wife, without their being married according to the rites of the Christian church, became wearied of each other, to come within the pale of the neighbouring church, in order that the marriage might be rendered null. "They both came to the kirk of Steinhouse," says Dr. Henry of Orkney, "and, after entering the kirk, the one went out at the south, and the other at the north door, by which they were holden to be legally divorced, and free to make another choice." "But the question of Scandinavian origin is fortunately put to rest at least in the case of this the most remarkable of all the Scottish temple groups. Professor Munch of Christiania, who visited this country in 1849, with a view to investigate the traces of Norwegian intercourse with Scotland, was gratified by the discovery that the name of Havard Steigr, which was conferred on the scene of Earl Havard's slaughter by his nephew about the year 970, is still applied among the peasantry to the pro-



montory of Stennis, the stones of which we may well believe were grey with the moss of centuries ere the first Norwegian prow touched the shores of Pomona. No direct reference to them occurs in the Orkneying Saga, but the remarkable passage referred to is to be found in that of Olaf Trygoesson, where it is said "Havard was slain at Steinsnes in Rorsey. There was meeting and battle about Havard, and it was not long ere the Jarl fell. The place is now called Havard Steigr." So was it called in the tenth century, and so, Mr. George Petrie writes me, it is still occasionally named by the peasantry at the present day. (Wilson's Archæology and Prehistoric Annals of Scotland, page 112.) The author adds in a note, "Professor Munch, whose natural bias as a Norwegian might have inclined him to claim for his countrymen the erection of the great Scottish Circle, remarks in a recent letter to me—'Stennis is the old Norse *Steinsnes*, that is, 'the promontory of the Stones,' and that name it bore already when Havard fell, in the beginning of the island being Scandinavian. This shews that the Scandinavian settlers found the stones already standing, in other words, the Standing Stones belonged to the population previous to the Scandinavian settlement.'" Worsae speaks unhesitatingly of the Stennis Stone Circles as Celtic. But he thinks the tumuli around being not cairns as those frequent in the north of Scotland without earth filled in, but like the Scandinavian barrows of earth thrown up to a considerable height, are to be attributed to the Norwegians and Danes; and he thinks it not impossible that one of them may be the grave of Jarl Havard, murdered at Stennis at the instigation of his wife, Ranghilde, daughter of Erik Blodöxe, son of Harold Harfager, and of his queen, the atrocious Gunhilde. The truncated tumulus of the circle was opened by James Farrer, Esq., M.P., in 1854, and found to be sepulchral, like most of the others, but it contained the largest urn yet found here, and we believe the largest in the museum of the Antiquarian Society in Edinburgh, being 5 feet 10½ inches in circumference, 1 foot 4½ inches deep, ¾ inch thick, and 1½ inch broad on the rim. The grave, formed of stone slabs, containing it, was 2 feet 6 inches by 2 feet. The large elliptical tumulus east of the circle was also opened the same season, but nothing of importance found in it.

### Stromness.

The parish of Stennis, with Firth, forms one ministerial charge. The traveller may pursue his way through the remainder of it, either by the old road, passing the Free Church, with its manse and school, or by the new road near the banks of the lake through the town of Clouston. Nearly two miles west of the semicircle he will find the bridge of Waith, "that, with its wearisome but needful length bestrides the wintry flood." This connects the parishes of Stennis and Stromness, and, after passing it, the road turns around the north side of a hill towards the town of Stromness, which is between two and three miles farther on. The road to Sandwick and Birsay strikes off between the thirteenth and fourteenth milestones. The view of this town, which here bursts on the sight, is at once the most splendid, varied, and interesting in Orkney. The houses are ranged along the bay, where we have seen nearly 100 sail of vessels at once, sheltered from the west by its granitic hills, and on the east by its little holms, while the mountains of Hoy form as beautiful a background for the picture as can be conceived. The property east of the road retains the name of Cairston, which the town and bay also formerly had, and belongs to Mr. Pollexfen of Cairston, who has a country house on it, and has improved it much. The stranger having seated himself comfortably in Flett's or Paterson's inn, we shall, "with as much brevity as is consistent with perspicuity," describe the lions of the burgh. Stromness is quite a modern town. Dr. Wallace, in his preface to his father's work, in 1693, calls Kirkwall "the only town in these isles;" and in 1700 he speaks of it as "the only town:" but in the following page, when noticing the principal harbours, he says, "the fourth is at Cairston, a small village at the west end of the Mainland." In 1775, according to Dr. Fea, it contained about 600 inhabitants; and, according to the statistical account of its late venerable minister, who was born in it in 1747, in the beginning of the last century it was "very inconsiderable, consisting only of half a dozen houses with slate roofs, and a few scattered huts." By the same account we learn that it was formerly assessed by the burgh of Kirkwall in the payment of cess or

stent ; but in 1758 it struck off its degrading fetters, and established not only its own freedom, but that of all its enslaved brethren in Scotland. In 1817 it was erected into a burgh of barony, and the government committed to two bailies and nine councillors, elected by the burgesses. In 1800 the packet between Stromness and Leith was only half the tonnage of the present one, and a single annual trip took all the goods that were imported from the South, so that the freights then—according to the present fares—could not exceed £20. The present packet of 82 tons register made twenty-three trips last year to and from Leith, grossing £1625 of freight, about £400 of which was for the South Isles, leaving £1225 for Stromness, which is thought equal to the gross freights of the only packet between Kirkwall and Leith in 1813, though her charges were double those of the present Stromness packet, or 3s. per barrel. This shews a vast increase of trade, and of the necessaries, comforts, and luxuries of life in Stromness, Kirkwall, and Orkney in general, since the commencement of this century. Its harbour or bay is so excellent, that many vessels call here for men, provisions, or shelter. A considerable number of whalers, the Hudson Bay vessels, and a Labrador missionary brig, are annually among the number. The population of the burgh and that of the country parish attached is 2551. There is one street, nearly a mile long, very narrow in some places, but tolerably macadamised. The houses between the street and the water are frequently built below high-water mark ; and piers or quays jut out from them into the harbour, at which small vessels unload, and the poor fish for sillocks, which are so abundant here and in other sheltered bays, that, with potatoes, they form the principal food of the people, an anker of them being to be had for 1s., or even less sometimes. We must remind the naturalist that Stromness is the most interesting geological locality in Orkney—rendered particularly celebrated of late by the publication of “The Asterolepis of Stromness,” by that eminent geologist, Hugh Miller ; and that the botanist may gather plenty of the *Primula Scotica* on the hills west of the town, and of the *Scilla verna* on the sea-banks, although they are common also in most parts of these islands. The view of Hoy from the fertile district a mile

west, is thought, "*parva componere magnis*," to resemble the sublime scenery of Messina in Sicily. At this distance, on the sea-shore, are the ruins of the former church, which we regret to learn has of late been partly pulled down. It is surrounded by the burying-ground, and the remains of an old monastery. A mile farther, on the sea-shore, stands the House of Breckness, erected by Bishop Graham in 1633; and from a point half way to it, is the best view of the colossal likeness of Sir Walter Scott in the precipice called the Kame of Hoy. From this spot, after rain, may be seen a cataract, falling over the same precipice, of enormous height; but the quantity of water is seldom great.

From the great resort of shipping to Stromness, wrecks have frequently happened on this shore; but one wreck will serve to illustrate all. In the storm which arose on Wednesday, the 5th of March 1834, the "Star of Dundee," a schooner of seventy-eight tons, was seen, along with other vessels, standing-in on the lee-shore, which it was evident she could not weather; and as she came directly towards the Black Craig, three miles west of Stromness, the spectators ran to the precipice with ropes to render assistance. The violence of the storm, and the shortness of the time, prevented the crew from benefiting by the good intentions of the people on land; for the first wave that bore properly upon her, dashed her so powerfully on the rocks, that she was instantly converted into countless fragments, which the water washed up into a cave at the bottom of the overhanging cliff, or strewed along the beach; and the spectators retired from the awful scene without the gratification of having saved even one fellow-creature. During the remainder of the week, nothing of consequence was saved, and no vestige of any of the crew was seen. On the morning of the following Sunday, however, to the inefable astonishment of all, and the terror of the first beholders, one of the crew, who could scarcely be believed to be a human being, presented himself at the top of the precipice, saved by a miracle. It appeared that he was washed up into the cave which we have mentioned, along with a considerable portion of the wreck, which afterwards remained at the mouth, checking the violence of the waves, so that they did not again penetrate so far as to carry away some red herrings

which had been washed in along with the seaman, and which served him for food. By means of a tin *can*, which had been used for oil, he collected fresh water in drops, as it trickled down from the rock. Two pillows were also washed in for his comfort, one of which he made his bed, and the feathers of the other he stuffed into his boots for warmth. He did not complain of cold; for the waves, which at high tide nearly immolated him by throwing in huge stones and blocking him up in his den, gave him sufficient employment at low tide to restore things to order before the next attack. The principal inconvenience which he suffered, was from a sense of suffocation, when the waves darkened his abode by filling up its mouth, and condensed the air within, so as to give the sensation of extreme heat when the wave was in, and of cold when it retired.

A public subscription library was instituted in the town in the year 1821, which has already been an example for the establishment of several others in the country. The stranger has access to it gratis. There is here also a museum, which every naturalist and antiquary should visit, as it contains many interesting specimens, though it is yet in its infancy;—the Orkney Natural History Society, to which it belongs, having been instituted in 1837. There is an established church, besides three dissenting ones in the town. Although Stromness is of such modern origin, it is singular that the first novelist, and the first poet of the age, have each obtained a hero from its natives, or at least, from those who are so connected with it as to be considered such. As to Gow or Smith, the hero of "The Pirate," we do not wish to save him from the same ill-gotten fame as is attached to the memory of the jarls, or sea-kings, who preceded him; but we may remark, that some interesting details regarding his history will be found in Mr. Peterkin's "Notes on Orkney;" and the remains of his father's garden may still be seen on the east side of the harbour of Stromness. But on "Torquil, the nursling of the northern seas," we must, in justice, offer a few observations. The traveller will perhaps recollect the poet's description of him, in Canto II. of Lord Byron's "Island"—

“ And who is he? the blue-eyed northern child,  
 Of isles more known to man, but scarce less wild,  
 The fair-hair'd offspring of the Hebrides,\*  
 Where roars the Pentland with his whirling seas ;  
 Rock'd in his cradle by the roaring wind,  
 The tempest-born in body and in mind ;  
 His young eyes, opening on the ocean foam,  
 Had from that moment deem'd the deep his home,” etc.

As Byron has not condescended to enlighten the reader as to his real history, we shall endeavour very briefly to do so. The hero, George Stewart, was a son of Mr. Stewart of Masseter, who resided on a property on which was one of the first houses built with lime in Stromness ; hence it is still called the White House, and here his sisters lately lived highly respected. He went to sea about the year 1780, and was a midshipman in the “ Bounty ” with Bligh, when he went to transplant the bread-fruit tree of Otaheite to our West India Islands, and he remained on board after the mutiny, contrary to his own wish. Stewart took no part in that transaction ; and he is vindicated, in a late publication on the subject, by one who had access to the best information.† He was one of those who perished on the sinking of the Pandora, in the following August. We have been favoured with a perusal of two interesting letters, exculpating this handsome and promising youth, which were written to his father in 1792.

Lieutenant Joseph Miller was also a native of Stromness, on whom the command of the Cyane devolved, when, in 1809, she engaged, in the Bay of Naples, under the guns of the enemy's batteries, a large French frigate, a sloop of war, and a number of gun-boats ; and who continued the action for two hours and twenty minutes, till the frigate went down, when he conducted the Cyane safe home. We believe the particulars are mentioned in James's Naval History. Having seen all that is worthy of observation at Stromness, if the traveller has not time for the following excursions, he should return to the mainland of Scotland by “ The Royal Mail ” steamer to Thurso, or he can do so afterwards ; but in any case he should

\* First, his eyes were black, or dark ; second, so was his hair ; third, he should have said Orcades, instead of Hebrides. But Byron is not the only one who so far forgot his geography as to confound them.

† See Family Library, “ Mutiny of the Bounty.”

make the passage either to or from Orkney by this route, on account of the variety and sublime scenery.

### Hoy.

While at Stromness, the first fine clear day should be chosen for an excursion to Hoy, all the beauties of which may be seen by a good pedestrian in one day, by making the circuit properly : for that which we propose does not exceed twenty-two or twenty-three miles by sea and land ; and seven of these are occupied in the passage to and from the island. The remainder he will find, to his sad experience, to consist of "moss, mount, and wilderness, quhairin ar divers great wateris." A pilot-boat may be had for 10s., or another boat for 6s., to go, and wait the return of the party. The part of Hoy to which the boat goes must depend on the tide and wind ; but we recommend that, if the party do not partake of the hospitality of the manse, they should land either at Salwick Little, or Whanness, when the boat should be sent to the other place to wait their return : but let them not forget to carry provisions with them. We suppose the party to land at the former place, which we prefer, when practicable. From this, west to the meadow of the Kame is about three miles. Here is the finest echo which we ever had the good fortune to hear ; for, if it does not equal the famous one at Killarney for politeness in replying to a query, it certainly excels it in the impudence with which it repeats the question, and mimics the human voice. If you try to defy its powers, or to crack its voice, by firing a fowling-piece for its imitation, it soon shews how vain the attempt ; for the salute is courteously returned by something more resembling a whole train of artillery, or the thunders of heaven :—

" The circling hills, all bleak and wild,  
Are o'er its slumbers darkly piled,  
Save on one side, where far below,  
The everlasting waters flow,  
And, round the precipices vast,  
Dance to the music of the blast."\*

The Old Man of Hoy is about four miles from this, and to

\* See "Orkney," a poem, by Mr. John Malcolm, from which we would frequently have been tempted to quote, had our limits permitted.

reach him you must climb the west side of the "circling hills," when you seem somewhat like Mahomet's tomb, while the eagle that builds in the neighbouring precipices often mocks your efforts by soaring and screaming above. Having attained the summit, you bend your course southwards along a most stupendous line of precipices 1000 feet perpendicular above the sea, which washes their base. They are rather a succession of precipices, piled one upon the other, in such a manner as to appear like the remains of some vast building: but what would the proudest monuments of human skill appear if placed in the ocean near them? or how long would they withstand its fury? One of the highest parts is Braeburgh, which is almost insulated, and in crossing to it we discovered a fine vein of manganese. The Old Man is a huge pillar, quite insulated, with arches beneath, which stands so far from the other rocks, that it is a conspicuous object even in Caithness, and it has obtained its name because "it seems to a fanciful view" like the human form. The Burn of Berridale lies about three miles east of this, and is only remarkable for a few stunted shrubs and bushes, which are generally supposed to be indigenous, but which we suspect to have been planted. The botanist will rejoice more to find, on the descent to the burn, abundance of the *Vaccinium Myrtillus*; in several places quantities of the *Empetrum nigrum*, the *Juniperus communis* and *Narthecium ossifragum*, and the *Hypericum elodes*, growing down in the valley. The top of the Wardhill is about two miles farther east, with a very easy ascent on the side next Berridale; but the botanist should take a little excursion up the Green of Gair, and the fissure on the north side of the hill above it, caused apparently by a whin dyke; or along the rocks which encircle the mountain, from that eastward, called the Hammers, where he will find the *Dryas octopetala*, *Rhodiola rosea*, *Saxifraga oppositifolia*, *S. hypnoides*, *Silene acaulis*, *Solidago virgaurea*; and there, or in his way to the "Dwarfie Stone," he may gather the *Lycopodium annotinum*, *L. alpinum*, *L. clavatum*, *L. selaginoides*, *L. selago*, and, as Dr. Neill says, whole acres of *scirpus pauciflorus*. Between this rocky precipitous belt, which is about half-way up, and the top, the hill has a more gentle slope, which is covered with *Arbutus alpina*, *A.*



*Uva-ursi*, *Azalea procumbens*, and at the very top, *Lichen frigidus* is plentiful. In 1529 Jo. Ben.\* says of Hoy,—“Ingen-tissimus mons hic est, distat enim a terra in pari altitudine tribus milliaribus ubi ascensus non est:” and in the old Statistical Account in 1794, it is stated that “some strangers, with their mathematical instruments, have computed the height of it from the water’s edge to the top, an English mile.” More recent and accurate observations, however, have deprived Orkney of the honour of possessing the highest mountain in Britain, and the luxury of perpetual snow; and Captain Veitch, who pitched his tent here on the trigonometrical survey, with the finest instruments, reduced it to 1555 feet above the level of the sea. It commands a most extensive and interesting view, not only of all the other islands which lie scattered beneath, but of the bold outlines of the mountains of Caithness and Sutherland, which stretch out towards Cape Wrath, and of the boundless ocean beyond. There is a fine spring near the summit, on the west side.

From the top to the famous Dwarfie Stone,† which lies about south-east, is two miles, and it may be distinctly seen in descending that side, being the farther east of two immense masses of sandstone, which have probably fallen from the cliffs of the opposite hill, and lodged in the valley, not far from their base. It is not very wonderful as a work of art, but exceedingly so for its antiquity, there being no record or probable tradition of the time of its excavation, or the purpose for which it was intended; but we think the opinion of a celebrated antiquary, with whom we lately visited it, as interesting as it is new. According to him, it was probably, at one time, a heathen altar, and afterwards converted into the residence of a Christian hermit; and this opinion is corroborated by the offerings that used to be left in it by visitors, and such we have deposited in boyhood, with superstitious exactness. The external dimensions of the mass, the upper surface of which inclines to the north-east about 5 deg., are as follows:—Length, from 28 to 28½ feet; breadth, from 13 to 14 feet 8 inches; height above ground, from 6½ to 2 feet. In this huge mass is excavated by art a central apartment,

\* John the Benedictine.

† See Sir Walter Scott’s “Pirate.”

with a bed on each side of it, to the former of which there is access by a door on the west side, and a hole in the top.

The tired traveller who follows the party "haud passibus æquis," will be glad to learn that the nearest sea-shore to which we recommended the boat to go for his reception is only a mile and a half north-east of the Dwarfie Stone; and the botanist may amuse himself on the way by gathering specimens of *Saxifraga aizoides*, and a few specimens of the *Drosera longifolia* and *D. rotundifolia*, in the wettest spots. The passage back to Stromness is four miles, and perhaps will require to be made at the east side of the little island of Graemsay.

### West Coast of Pomona.

We now prosecute our journey through the West Mainland to Birsay, the palace of which lies about twelve miles north of Stromness; and if the traveller be not satiated with the rocky scenery of Hoy, he may travel part of the way along the precipices overhanging the sea, where it is impossible to drive and not very convenient to ride. The principal objects in this line are a fine insulated pillar; the famous figured stones near Skail, which old writers seem to consider an artificial pavement or street, but which are nothing more than the weathered strata, the softer parts of which have been washed away, while the harder remain in prominent and often curious relief; and the Hole of Row, which is a lofty natural arch through the precipice, forming the south side of the Bay of Skail, occasioned by two whin dykes occurring so near each other that the strata between have been pulverised and washed out by the sea, as high up as it had power to do so. Immediately south of the arch, the stones on the top of the precipice are arranged like those on a beach by the force of the waves, and on the top of one of these crags we once picked up a lump of India-rubber covered with barnacles. Not far from Row, on the nearest part of the coast, is an immense rock, which is well known to have been carried a considerable distance by the sea; it is sixteen feet long, six broad, and three thick, and weighs, we calculate, about twenty-four tons. A large and very valuable collection of silver relics was accidentally discovered at the remains of

an extensive ruin near the shore of the bay, in March 1858. The hoard included nine large ring brooches or fibulæ, thirteen funicular torcs and armillæ, twenty-six penannular rings or bracelets, and several coins and fragments of coins. One of the ring brooches is upwards of a pound in weight, is  $6\frac{1}{4}$  inches in diameter, and the tongue is 15 inches long. Another, which has lost part of the tongue, is about one and a quarter pounds in weight, and two of the others are  $6\frac{3}{4}$  inches in diameter. Some of the torcs are nearly of the same diameter, and beautifully overlaid with silver wire. Most of the coins were Cuffic, and of the ninth century. There were also Anglo-Saxon coins of "Æthelstan," and "Edward," and a "Peter's penny," coined at York, in the early part of the tenth century. This hoard, weighing upwards of sixteen pounds, is one of the most valuable discoveries of silver relics which has been made in Britain, and is now in the Antiquarian Museum in Edinburgh. Mr. Cosmo Innes, in his volume on Scotland in the Middle Ages—one of his most interesting and valuable contributions to the remote history of our country, states this collection to be "the best and most authentic guide we have to Northern art in the tenth century." The old road to Birsay, which is more direct, and generally about two or three miles inland from the west precipices, skirts along the east side of the hills that form the bold west coast, and occasionally affords fine views of the central Mainland. The unraffled surface of the lochs, with the numerous low points of land jutting into them, give these scenes an air of serenity, that forms a striking contrast with the continual war that is waged between the raging ocean and frowning crags at a little distance.

Going by the public road, about four miles from Stromness, the traveller enters the fertile parish of Sandwick at the mill-dam of Voy, the road still holding a northerly course. About a hundred yards nearer Lykin than the cairn on the top of Lingafield, is a large group of tumuli, several of which have been opened by the Natural History Society. They are the sepulchral monuments of a people who burned their dead. In all of them have been found human bones burnt and broken into fragments, and enclosed in graves, lined with flags. In one tumulus six of these graves were found, and in

another, an urn, which, with other specimens, is now in the museum in Stromness. About 500 yards N.N.W. of this, and 270 yards S.S.E. of the road, at the Loch of Clumly, are the stones of Via, which till now have entirely escaped observation, but are worthy of the notice of the antiquary, from their resemblance to a famous cromlech in Anglesea: indeed, the figure of that with the head-stone, in the 150th plate of the *Encyclopædia Britannica*, published in 1797, might pass for a representation of this monument, before the displacing of its pillars. It is placed nearly in the centre of an old circular enclosure 275 yards in circumference, with a small tumulus, which has lately been opened, on the south side of it. The traveller, if in a vehicle, should proceed by the new road, in a northerly direction from this point, or if not, he may rejoin the old road a little west of the manse, which is conspicuous a mile N. by W. from this, and a mile and a half farther on is the residence of Mr. Watt of Breckness, who farms a considerable portion of his own property in an improved manner. The old road now dwindles into a track which it requires some nicety to keep; but it preserves its northerly course two miles farther on, lying about 200 or 300 yards west of a meeting-house, with a large dwelling-house on each side of it. The population of Sandwick, in which there are two dissenting meeting-houses, is, according to the last census, 1226. It was disjoined from Stromness in 1832, and it would be well if other united parishes would speedily follow such an example. This parish, as well as some others, is so covered over with tumuli, that it would be impossible to point out all their localities; but just after passing its north hill dyke, on the south side of the hill called *Vestrafield* (West Hill), we would in particular direct the stranger to extensive remains of antiquity, 400 yards or so west of the road, which have never been noticed before, but which are worthy of a visit. Among them are some loose slabs or stones, not far removed from their original bed, of nearly the same form and dimensions as the Standing Stones of Stennis; and it is on this account probable that the rocks here formed the original bed or quarry from which the whole were obtained. The road hence to the palace of Birsay, through the town of Marwick, is about four miles.

The earldom of Birsay contains as great an extent of rich corn land as any parish in this county, and it will bear a comparison with many fields in a more southern and favoured climate. The traveller should not neglect to visit the ruins of a "Burg" or "Broch," on the farm of Boardhouse, close to the east side of the road which Mr. Leask has laid open within the last few years. The "Broch" is of the usual circular form, and about 70 feet in diameter. The wall, 12 feet thick, encloses an area 45 feet in diameter. Ruins of other buildings surround the "Broch." Birsay palace, which is situated on the sea shore, and within a hundred yards of the church and manse, was greatly improved, if not altogether remodelled, by Earl Robert Stewart, probably in imitation of Holyrood House, as it is a hollow quadrangle, measuring 158 by 100 feet, with a well in the centre. The buildings were two storeys high, and they have still a magnificent appearance, though quite in ruins, to which condition, we fear, they have been reduced as much by the hands of man as by the effects of time. In the Latin inscription which Earl Robert placed over the gate, but which is now gone, he assumed the title of King of Scotland. It ran thus:—"Dominus Robertus Stuartus, filius Jacobi Quinti *Rex* Scotorum." Probably it was owing rather to want of grammar than of loyalty, but it is said to have operated against his son, when tried for treason. The stone with the name of King Bellus engraven on it, and which is now built in the wall of the church, should be inspected by the traveller. The Brough, which is insulated at flood tide, and in which is a small part of the ruins of Christ Church, in which St. Magnus was first buried, and two fine caves, contains nothing else to detain him. Birsay has a population of 1774; yet it is united with the parish of Harray into one charge. Hence the traveller may find his way back through Harray to Kirkwall, which is distant about twenty miles, or, if he prefer a longer route, or a view of more crags and "ghoes," with hill and dale, he may return by the united parishes of Evie and Rendall; but the road through the latter is the most melancholy one that we wot of; while Evie contains nothing but the Brough of Burgar, and some Picts' houses, to excite the interest of the antiquary. Before parting, however, we may mention a few more rare

plants which a botanist might wish to collect in this part of the country. The *Annagallis tenella* grows in tufts in wet meadows; *Cakile maritima* on sea shores, particularly in Sanday. *Centaurea nigra*, though common elsewhere, is rare here, growing only in Westray, so far as we know. *Cochleria Danica*, and *C. Groenlandica* common, especially in Stromness. *Epilobium angustifolium*, Trumbland in Rousay. *Primula elatior*, along with *P. veris*, Aikerness in Evie. *Senecio viscosus* in Firth, Harray, etc. *Thlaspi arvense*, Scapay. *Veronica Anagallis*, ditches at Scar, Sanday.

### The North Isles.

It is unnecessary to go over the north isles, which may be considered the greater tour of Orkney, in the same minute manner as we have described the southern portion; and we presume that travellers seldom have leisure to make it, and those particularly interested in the country will have access to local directions. We may premise that the voyager finds himself in general almost completely surrounded by land, and the scenery without anything particularly striking, very pleasing—moderate-sized, and rounded hills—the higher hills of Hoy, however, for part of the way, looming in the south—and projecting rocks grouping themselves around, and variegated with intermingled green fields and pastures of short green turf, while frequent uninhabited green holms start up from the watery waste, affording summer's grazing to a few bleating sheep, and throwing the running tide in curling eddies from their banks. The most northerly of the islands, Papa Westray, North Ronaldshay, and Sanday, are found unexpectedly fertile and of mild climate. Such as are determined to see all the isles may either return to Kirkwall, and commence the circuit with Shapinshay, going round against the sun, and taking Dr. Neill's Tour for their guide; or they may have an opportunity of visiting any of the larger islands by the packets which sail between them and Kirkwall weekly, or daily, as in the case of Shapinshay, and this course we recommend as the safest and most comfortable; but if they are determined to make the round without returning to the capital, they may make the circuit in the opposite direction, and begin with

Rousay, which is two miles distant from Evie. There is a tolerable inn on it, and the burn of Trumbland is deserving of a visit from the botanist; but the camp of Jupiter Fring will disappoint the antiquary; he should, however, visit the "Picts' House," which has been lately opened there. From this to Egilshay is two miles. Here the ancient Scandinavian church should be visited. This island belongs to Mr. Baikie of Tankerness. From it or Rousay to Tuquoy, or to the manse in Westray, is about eight miles. Here the Westray "gentlemen's cave," Fitty Hill, and the fine ruins of the castle of Noltland, may be visited. The vulgar error that this castle was erected for the Earl of Bothwell, Queen Mary's paramour, is now exploded. It probably arose from confounding the Earl with Bishop Bothwell. For particulars we must refer to "Billings' Baronial and Ecclesiastical Antiquities," where there is not only a good plate of it, but also an excellent account by Mr. Balfour, of Balfour and Trenabie, on whose estate it stands. It is in the neighbourhood of the harbour and village of Pierowall, where there is an inn. This island belongs principally to the heir of Mr. Stewart of Brugh, Mr. Balfour, Mr. Traill of Holland, and Dr. Traill of Tirlot, professor of medical jurisprudence in the University of Edinburgh. From Tuquoy to Pierowall the walk is about four miles; and from this to Papa Westray the sail is about the same length. On the holm of this island another Picts' house, on a much larger scale than that at Wideford Hill, has been opened lately. It has a very long apartment in the centre, communicating with a smaller one at each end, and ranged around these are twelve cells, two of which are double, all communicating with the centre apartment by passages similar in height to those at Wideford Hill. The whole length from the one extremity of the centre apartments to the other is seventy-seven feet, and their breadth and height are the same as those of the principal apartment of that before described. Here are also the ruins of two ancient churches, three vitrified cairns near the north end of the island, and the *muckle and peerie ha's* (halls); but the principal curiosity of Papay is its holm, which, during the hatching season, is, or rather used to be, covered with the nests of innumerable sea-birds. The side of the holm farthest from Papay, which sustains the full

surge of the ocean, is bare, and strewed with masses of rock and loose stones and slate. Among these, as thick as they could lie, and exposed to all the changes of the weather, and even to the careless foot of the passing stranger, were deposited the eggs of the sea birds, protected only by a few reeds and feathers, or by the projecting edge of a piece of slate or stone. These birds are principally of the gull, guillemot, kittiwake, and auk tribes; but lower down, in the more secure parts of the rocks, are seen rows of cormorants, divers, and puffins. These, especially the cormorants or skarffs, are so little disposed to move, that they frequently suffer themselves to be caught by strings with moveable loops thrown over their necks. The most interesting sight, however, and the only instance to be met with in any of the Orkney Islands, is that of a flock of eider ducks (*anas molissima*) which used to make this their annual, and still make it their occasional, breeding-place. They always keep together, are larger than the common duck, of a brown colour, and they lay their eggs in nests formed of their own soft down. The proprietor is very careful of these birds, as if much disturbed, they are apt to forsake a locality. Of the young gulls, which are here called skorays, and which, properly dressed, taste almost like brandered chickens, his larder used till of late years to have the benefit of so many as some forty or fifty dozen in a season. At a later period of the year, the young kittiwakes, with their eggs, formed a constant supply of food for the laird's farm servants. Papay also belongs to Mr. Traill of Holland, who resides on it, and from whose family all the Traills of Orkney are descended. In his house is a very curious and hospitable invitation to strangers, which was placed above the chimney-piece of the great hall by one of his ancestors above 200 years ago. From Pierowall to Rapness is a walk of seven or eight miles, and not far from the direct line is another "gentlemen's cave;" so called, because some who were thought to be engaged in the rebellion of 1745 were concealed here for a short time. We have been in both caves; but recollecting that half our party would not venture into the former, we would recommend this as having a much easier access.

From Rapness to Cuthesvoe in Eday is three miles,



and the walk thence to Calfsound, where there is a comfortable public-house, is about two miles. This island was the property of Mr. Laing of Papdale (brother to the<sup>d</sup> historian of Scotland, whom he succeeded), the author of Travels in Norway and Sweden, etc., and father of Hon. Samuel Laing, Financial Secretary of India. It now belongs to Mr. Hebden of Eday. It is covered with a great quantity of peat-moss, and furnishes firing to most of the north isles. There are several "Picts' houses" in Eday and on the Calf of Eday, which have been opened within the last few years, and give a good idea of these curious structures. There is a large standing stone in Eday, and near to it a circle about 80 yards in diameter, enclosed by a low stone wall, now grown over with turf or peat. From Calfsound to Pool, or Hecklabor in Sanday, is three miles; and from thence to Scar, or Savil, is a road of eight miles, which passes near the manse of Cross parish. Adjoining Savil is a mass of gneiss, weighing about fourteen tons, though the nearest primitive district is at Stromness. About four miles from this spot is a comfortable inn called Castle Hill. From Scar, or Savil, to north Ronaldshay, the breadth of sea is seven miles, and the walk from the landing-place to the remains of a lighthouse about three miles. North Ronaldshay, the most northern of the Orkneys, belongs to Mr. Traill of Woodwick, whose tenants, the natives, are considered more primitive in their manners than those of any other part of Orkney. From the lighthouse back to Bridesness is three miles; from that to the Start, or Taftsness in Sanday, is seven miles. The walk from the Start lighthouse through the extensive plain of Fidge to Kettletoft is seven miles. Here the antiquary should visit the vitrified cairns of Elsness, of which there are above twenty, and which Dr. Hibbert brought into notice with so much effect, as bearing on the question of vitrified forts. The adjoining Wardhill should also be examined, if time permit. Sanday is a low, sandy, fertile, and extensive island, the principal proprietor of which is Mr. Traill of Hobister, M.P., who has a residence on it. From Kettletoft to Papa Sound in Stronsay is seven miles. This is the great station for herring curing in the north isles, and it has already given rise to a village, and a considerable pier, to facilitate the operations of loading and unloading. From Whitehall to

Lambhead is a walk of five or six miles. Here is a Pict's house, the interior of which may yet be seen; and directly below it are the remains of a very ancient and extensive pier, the existence of which has only of late become known. From Rothiesholme or the neighbouring parts of Stronsay, to the Ghoe of Shapinshay, is about seven miles; and from thence to Balfour is a walk of six miles. Here Balfour is situated, the splendid mansion lately erected by Mr. Balfour of Balfour and Trenabie, which is a conspicuous object from Kirkwall, and all the neighbourhood. It is in the old style, and resembles Abbotsford at a little distance—like that, it contains many copies from the beauties of ancient architecture. We believe there is nothing equal to it north of Dunrobin; and had not that been lately enlarged, there would have been no such building in the north of Scotland.\* The whole island belongs to Mr. Balfour; it is naturally wet, but has lately been much improved by draining. Mr. Balfour has lately cleared out the interior of the ruins of a large "Broch" at Borrowstown. Farther excavations are to be made on the outside. The wall is 12 feet thick, and is still about 13 feet high. The enclosed area is about 31 feet in diameter. A large "Broch" on the N.E. side of the Island of Burray was excavated some years ago by James Farrer, Esq., M.P. (to whom Orkney is so much indebted for investigating its antiquities), and it is well worthy of a visit.

The Broch of Hoxay, in South Ronaldshay, can be easily visited from St. Margaret's Hope. From Balfour to Carness—the nearest part of the Mainland—the distance is nearly two miles.

It is proper to state that these ferries are under no regulation that we know of. We have therefore stated below what will be a liberal allowance for a lobster-boat with two men, which is generally sufficient in summer; but if a large boat or more hands are required, the freight must be increased. If the traveller prefer crossing to Caithness, *via* S. Ronaldshay, the distances and freights are as follows:—From Kirkwall to Holm the road is six miles long; from Holm to Burray is

\* Mr. Matheson's fine castle of Stornoway must be also excepted, and it is somewhat remarkable, that the distant isles of the Orkneys and Lewis should be thus distinguished.

three miles, freight 2s. The walk across Burray is two miles: from this to South Ronaldshay is one mile, freight 6d. From the landing-place to Burwick, on the south end of the island, the distance is six miles; and from the latter place to Houna, on the south side of the Pentland Firth, is about six miles distant, freight 10s. There is an inn at each of the ferries just mentioned; but we believe the best is that at St. Margaret's Hope. South Ronaldshay is the great station for herring-curing in the south isles. From it to Walls is about five miles; to which a passage may be had for 5s., or, with the mail, 1s. Here is the fine bay of Long Hope, which is greatly resorted to by shipping. It has two martello towers to defend it, and the adjoining property is divided between the crown and Mr. Heddle of Melsetter, who has a country house in Walls.

We may finally add, that the ferry hire, or cost of a boat, among these islands, though under no public regulation, should be:—

	£	s.	d.
From Evie to Rousay, about .....	0	2	0
Trumbland, in Rousay, to Eglilshay .....	0	2	0
Rousay or Eglilshay to Tuquoy, or to the Manse of Westray.....	0	10	0
Pierowall to Papa Westray (including the return freight).....	0	5	6
Rapness in Westray, to Cuthesvoe in Eday.....	0	2	6
Calfsound, in Eday, to Pool or Hecklabor, in Sanday	0	2	6
Scar or Savil to North Ronaldshay .....	0	7	6
Bridesness, in North Ronaldshay, to the Start or Taftsness, in Sanday.....	0	7	6
Kettletoft, in Sanday, to Papa Sound, in Stronsay...	0	6	0
North Ronaldshay to Fair Isle.....	2	0	0
Fair Isle to Sumburgh, in Zetland .....	1	5	0

#### NATURAL HISTORY OF ORKNEY.

The natural history of Orkney is very interesting and peculiar, especially its sea birds and sea weeds. We must refer those who wish to know all that has been done by previous writers, to Wallace's "Account of Orkney" in 1700; Barry's "History of Orkney," 1805; Dr. Neill's "Tour through Orkney," 1804; Professor Traill's article "Orkney," in the "Edinburgh Encyclopædia," vol. xvi; Anderson's "Guide to the Highlands and Islands of Scotland," 1st edition, 1834; "Ornithologists' Guide to the Islands of Orkney and Shetland," by Robert Dunn, 1837; "A Catalogue of the Mammalia and Birds observed in the Orkney Islands," by Messrs. Baikie and Heddle, 1848.

Besides these, each of which contains a numerous list, there are many books that refer to the subject, and many papers on particular parts which our limited space does not permit us to enumerate here.

*Zoology.*—In the following lists of the mammalia and birds, to which we limit ourselves, advantage has been taken of the former lists mentioned, omitting the domesticated animals, which are much alike over all Scotland, and all doubtful species, and giving the common names only “*causa brevitatis.*” That of the birds has been made out by Mr. J. H. Dunn, naturalist, son of the author of the “*Ornithologists' Guide,*” who is constantly occupied with these beauties, and to whom we advise all who wish specimens to apply:—

*Mammalia.*—Common Otter, Common Seal, Great Seal, Rough Seal, Greenland Seal, Crested Seal, Grey Seal, Walrus, Common Shrew, Water Shrew, Field Mouse, Common Mouse, Black Rat, Brown Rat, Hamster, Field Vole, Hare, Rabbit, Sea Cow, Porpoise, Grampus, Ca'ing Whale, Toothless Whale, Spermaceti Whale, Sharp-lipped Whale, Round-lipped Whale.

*Birds.*—This list is according to the arrangement of Yarrell's British Birds:—

Golden Eagle.	Meadow Pipit.	Rock Dove.
White-tailed Eagle.	Rock Pipit.	Turtle Dove.
Osprey.	Sky Lark.	Red Grouse.
Gyr Falcon.	Snow Bunting.	Ptarmigan.
Peregrine Falcon.	Common Bunting.	Common Partridge.
Hobby.	Blackheaded Bunting.	Common Quail.
Merlin.	Yellow Bunting.	Golden Plover.
Kestrel.	Chaffinch.	Dotterel.
Marsh Harrier.	Mountain Finch.	Ringed Plover.
Hen Harrier.	House Sparrow.	Grey Plover.
Eagle Owl.	Green Finch.	Lapwing.
Long-eared Owl.	Common Linnet.	Turnstone.
Short-eared Owl.	Lesser Redpole.	Sanderling.
Snowy Owl.	Mealy Redpole.	Oyster Catcher.
Little Owl.	Mountain Linnet.	Common Crane.
Tenmalms Owl.	Bullfinch.	Common Heron.
Great Grey Shrike.	Common Crossbill.	Great White Heron.
Spotted Fly-catcher.	Common Starling.	Little Bittern.
Pied Fly-catcher.	Rose-coloured Pastor.	Common Bittern.
Missel Thrush.	Raven.	White Stork.
Fieldfare.	Carriion Crow.	Spoon Bill.
Song Thrush.	Hooded Crow.	Common Curlew.
Redwing.	Rook.	Whimbrel.
Blackbird.	Jackdaw.	Common Redshank.
Ring Ouzel.	Green Woodpecker.	Spotted Redshank.
Hedge Accentor.	Great Spotted Wood-	Common Sandpiper.
Redbreast.	pecker.	Greenshank.
Redstart.	Lesser Spotted Wood-	Black-winged Stilt.
Stonechat.	pecker.	Black-tailed Godwit.
Whinchat.	Wryneck.	Bar-tailed Godwit.
Wheatear.	Common Creeper.	Ruff.
Blackcap Warbler.	Common Wren.	Woodcock.
Common Whitethroat.	Hoopoe.	Great Snipe.
Willow Warbler.	Common Cuckoo.	Common Snipe.
Chiff Chaff.	Roller.	Jack Snipe.
Golden-crested Regulus.	King Fisher.	Knot.
Blue Tit.	Common Swallow.	Little Stint.
Bohemian Waxwing.	Martin.	Dunlin.
Pied Wagtail.	Sand Martin.	Purple Sandpiper.
Grey Wagtail.	Common Swift.	Land Rail.
Ray's Wagtail.	Nightjar.	Spotted Crake.
Tree Pipit.	Ring Dove.	Water Rail.

Water Hen.	Ferruginous Duck.	Shag.
Common Coot.	Scamp Duck.	Gannet.
Grey Phalarope.	Tufted Duck.	Common Tern.
Bean Goose.	Long-tailed Duck.	Arctic Tern.
White-fronted Goose.	Harlequin Duck.	Sandwich Tern.
Barnacle Goose.	Golden Eye.	Lesser Tern.
Brent Goose.	Smew.	Masked Gull.
Hooper or Wild Swan.	Red-breasted Merganser.	Black-headed Gull.
Ruddy Shieldrake.	Goosander.	Kittiwake Gull.
Common Shieldrake.	Red-necked Grebe.	Ivory Gull.
Shoveller.	Sclavonian Grebe.	Common Gull.
Gadwall.	Eared Grebe.	Iceland Gull.
Pintail Duck.	Little Grebe.	Lesser Black-backed Gull.
Bimaculated Duck.	Great Northern Diver.	Herring Gull.
Wild Duck.	Black-throated Diver.	Great Black-backed Gull.
Garganey.	Red-throated Diver.	Glaucous Gull.
Teal.	Common Guillemot.	Common Skua.
Wigeon.	Brunnich's Guillemot.	Pomarine Skua.
Eider Duck.	Bridled Guillemot.	Richardson's Skua.
King Duck.	Black Guillemot.	Buffon's Skua.
Common Scoter.	Little Auk.	Fulmar Petrel.
Velvet Scoter.	Puffin.	Manx Shearwater.
Surf Scoter.	Razor Bill.	Storm Petrel, 197.
Pochard.	Great Auk.	
	Common Cormorant.	

*Botany.*—Having already noticed the rarer Orkney plants with their habits in our Itinerary, we have no space here to republish the lists which may be found in the works of Drs. Barry and Neill, and we shall therefore limit ourselves to those only which we are enabled to add to their catalogues. These consist of 156 species, about half of which were discovered in 1834: 118 of these are Algæ, and as only 11 were published by Dr. Barry, and just as many by Dr. Neill, we publish the complete list of 140 species of Algæ, as this does not extend it much, and they are so fine, and peculiar to Orkney, that many may wish to see the catalogue entire.

Of all the plants we have found that were new to Orkney, the *Chara Aspera* was the only one new to Britain. Taking the Orkney Flora as Dr. Neill left it, to include 462 species, and adding our own contribution of 156, it now contains 618 species. For many of the seaweeds recently discovered, we are indebted to the Rev. Dr. Pollexfen.

*Chara flexilis*, *C. aspera*, *Circæa alpina*, *Holcus arenaceus*, *Poa frutans*, *Triticum caninum*, *Potamogeton frutans*, *Myosotis arvensis*, *M. palustris*, *Pulmonaria maritima*, *Primula elatior*, *P. veris*, *P. Scotica*, *Azalea procumbens*, *Scilla verna*, *Triglochin palustre*, *Trientalis Europæa*, *Saxifragia oppositifolia*, *Silene acaulis*, *Cerastium semidecandrum*, *Dryas octopetala*, *Draba verna*, *D. hirta*, *D. incana*, *Cochlearia Grœnlandica*, *Serratula alpina*, *Cnicus arvensis*, *Senecio viscosus*, *S. sylvaticus*, *Solidago virgaurea*, *Centaurea nigra*, *Zinnichellia palustris*, *Sparganium natans*, *Myriophyllum spicatum*, *Rhodiola rosea*; *Sphagnum cuspidatum*, *Hypnum dendroides*, *Sargassum vulgare*, *S. bacciferum*, *Halidrys siliquosa*, *Fucus vesiculosus*, *F. ceranoides*, *F. serratus*, *F. nodosus*, *F. canaliculatus*, *Himantalia lorea*, *Lichina pygmæa*, *L. confinis*, *Alaria esculenta*, *Laminaria digitata*, *L. bulbosa*, *L. saccharina*, *L. phyllitis*, *L. fascia*, *Desmarestia ligulata*, *D. aculeata*, *Dichloria viridis*, *Sporochnus pedunculatus*, *S. rhizodes*, *Chordaria flagelliformis*, *Chorda filum*, *C. lomentaria*, *Asperococcus fistulosus*, *A. pusillus*, *A. Turneri*, *Punctaria plantaginea*, *P. tenuissima*, *Striaria attenuata*, *Dictyosiphon feniculaeus*, *Dictyota*

dichotoma, Cutleria multifida, Furcellaria fastigiata, Polyides rotundus, Deleseria sanguinea, D. sinuosa, D. alata, D. hypoglossum, D. ruscifolia, Nitophyllum ocellatum, N. punctatum, N. Bonnemaïsoni, N. laceratum, Rhodomenia bifida, R. laciniata, R. palmata, R. palmata, R. reniformis, Plocamium coccineum, Odonthalia dentata, Rhodomela lycopodioides, R. subfusca, Bonnemaïsonia asparagoides, Laurencia pinnatifida, L. dasyphylla, Chylocladia clavellosa, C. kaliformis, C. articulata, Gigartina purpurascens, G. confervoides, G. pilcata, Chondrus mammillosus, C. crispus, C. membranifolius, C. Brodiaei, Phyllophera rubens, Sphaerococcus coronopifolius, Gelidium corneum, G. rostratum, Ptilota plumosa, Iridæa edules, Halymenia ligulata, H. furcellata, Dumontia filiformis, Catanella opuntia, Porphyra laciniata, P. vulgaris, P. linearis, Ulva latissima, U. lactuca, U. Linza, Enteromorpha intestinalis, E. compressa, E. erecta, E. clathrata, Codium tomentosum, Bryopsis plumosa, Cladostephus spongiosus, C. verticillatus, Spacelaria chirosa, S. olivacea, Ectocarpus littoralis, E. siliculosus, E. tomentosus, E. Mertensii, Polysiphonia urceolata, P. parasitica, P. nigrescens, P. fastigiata, P. elongata, P. byssoïdes, Dasya coccinea, D. Hutchinsiae, Ceramium rubrum, C. diaphanum, C. ciliatum, Griffithsia multifida, G. corallina, G. setacea, Callithamnion plumula, C. Turneri, C. arbuscula, C. lanosum, C. roseum, C. polyspermum, C. granulatatum, C. thuyoides, C. corymbosum, C. pedicellatum, C. Rothii, Conferva tortuosa, C. implexa, C. melagonium, C. aerea, C. fucicola, C. glomerata, C. Hutchinsiae, C. rupestris, C. refracta, C. centralis, Calothrix confervicola, Mesogloia Hudsoni, M. multifida, Gloiosiphonia Capillaris, Trichocladia vermicularis, T. virescens, Batrachospermum monileforme, Corynephora marina.

*Geology.*—With regard to the geology of these islands, a high central nucleus or ridge of primary gneiss rocks, occasionally passing into mica schist, occurs in the Mainland, stretching for about six miles north-west from the neighbourhood of Stromness, in the direction of Skall. Whether these crystalline rocks belong to the old Laurentian gneiss of the north-west of Sutherland, or to the newer lower silurian schists, as we suspect they do, has not yet been determined by our best authorities, so far as we have heard. These rocks are sometimes granitic and traversed by felspar and quartz veins. (2.) They are succeeded chiefly on their southern flank, in Stromness Bay and the island of Græmsay, by a small deposit, from 50 to 100 yards broad, of coarse *conglomerate*, embedded in *old red sandstone*, on which (3.) repose immense sheets of siliceous, and calcareo-siliceous, and argillaceous flagstones, having bituminous matter interspersed (and which were sometimes described as Graywacke slates), which compose the base or fundamental rocks of almost all the other islands. (4.) Above these, again, are found, as on the Caithness coast, high bluff headlands, and in Hoy the lofty masses of the Wardhill (1555 feet in altitude), of a soft, generally grey or red, sandstone, which a few years ago was regarded, by both British and continental geologists, as a deposit of the upper or *new red sandstone* formation; but which, from the recent discovery throughout it of precisely the same organic remains of fishes and plants as occur in Caithness, and on both sides of the Moray Firth, has been proved to be only a member, and that the uppermost, of the old red sandstone formation. The organisms referred to link the whole together as the product of the same geological era, and therefore it would be improper any longer to retain the names by which the superior and under portions of the same formation were formerly distinguished. For details, we beg to refer to Hugh Miller's works on the *Old Red Sandstone*, and the *Asterolepis of Stromness*. Chert, flint, slate or Lydian stone, Galena or leadglance, iron and copper pyrites,

Hæmatite, with heavy spar, and the curious compound of sulphate of barytes with carbonate of strontia, called *Stromnesite*, or *Barrystrontianite*, occur in these rocks, but not in such abundance as to make any of them valuable to the miner. (5.) All the secondary deposits now enumerated are traversed by numerous dykes, veins, and beds of trap rocks, which have greatly disturbed and altered the originally horizontal strata, and from their superior hardness those trap dykes too frequently present themselves in the form of dangerous reefs and promontories jutting far out into the sea, or shooting up in detached knolls and pinnacles. The base of the "Old Man of Hoy" consists of an irruptive porphyry rock, supporting an isolated crown of sandstone on its top; indeed, this bed of porphyry extends through all the hills of Hoy, west of the Ward Hill, and occupies a space of a good many square miles, and great thickness. The cleft of the Green of Gair, near the summit of the Ward Hill, has been long supposed by the writer to have been caused by a trap dyke now crumbled away; in the south-east side of the same island, at Walls, a mass of amygdaloidal trap extends nearly 600 yards along the coast; and the trap appears also to have penetrated through the primitive granitic gneiss at its northern extremity. (6.) The alluvial formations of Orkney are not varied or interesting, as the gravel banks are seldom deep, and the soil for the most part is a clayish loam, resulting from the decomposition of the slaty rocks. Beds of marl and bog iron ore are frequent, and the peat mosses exhibit the roots and stumps of large trees and hard nuts, where none will now grow; and in two or three spots portions of a submerged forest have been found, where the stems of pines adhering to their parent soil are seen laid prostrate by the waves, and covered over with sand, after the fall of the rocks on which they grew. A bank of indurated shells, clay, and sand, occurs round many of the islands, which effectually resists in numerous places the encroachments of the sea, and of which considerable quantities have been used in fertilising the soil, and which is also sometimes conveyed away as ballast by vessels, and sold for manure.





## APPENDIX.

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### Maes-Howe.

SINCE the preceding sheets were thrown off, a volume has been published by James Farrer, Esq., M.P., for private circulation, of illustrations of Maes-Howe, and translations of the Runic inscriptions by Professors Stephens, Munch, and Rafn. As these inscriptions are considered the greatest antiquarian discovery made in Scotland for the last hundred years, we are induced to add a few notices of the results. Mr. Farrer says:—

“ It is much to be regretted that the inscriptions are so indefinite, and frequently so much defaced. Moreover, Nos. 19 and 20 alone make any allusion to the erection of Maes-Howe. Professor Rafn believes that it was a sorcery hall for Lodbrok, a female magician; Professor Munch, that it was the burial-place of a woman of the same name; while Professor Stephens, who expresses no opinion as to the time when the building was raised, considers the writings which speak of Lodbrok's sons as indicative of its having been used in early times by the celebrated Scandinavian Vikings of that name, as a fortress and place of retreat. The low and narrow cells, as well as the passage leading to the interior, fully justify the opinion that it was undoubtedly at one time a place of burial. The massive stones forming the floor and side walls of the passage, and also those used in the inside to support the buttresses, are similar in character to the neighbouring circle of stones at Stennis. The architecture, also, is most primitive, and it is evident that the whole work must have

been one requiring much time and labour. The present form of the mound does not favour the idea that it was *originally* a platform, and used for the performance of religious rites, though this would not be inconsistent with the idea that it had been adopted to that purpose at some remote period, having been previously used as a place of interment.

“ If we find difficulty in determining the period when the mound was first raised, almost equal difficulty arises in assigning to any fixed time the engraving of the numerous inscriptions. Many of them are, no doubt, to be attributed to the Crusaders, but there are others of probably far earlier date than the twelfth century, when, as stated by Professor Munch, the Orkney Jarl, Ragnvald, about the year 1152-3, organised his naval expedition to the Holy Land. That the writings have been engraved at intervals during a long period of time—perhaps, as suggested by Professor Stephens, during the ninth, tenth, and eleventh centuries, or even later—is sufficiently obvious. . . .

“ Most of the Runes belong to the Norwegian division of the Scandinavian class, and have nothing to do with the Gothic or older alphabet, but, in the opinion of Professor Munch, they exhibit some archaicisms which prevent their being placed in the *latest* times of the Norwegian class; they must therefore be referred to about A.D. 1150. . . .

“ Nos. 13 and 20 are justly attributed to the times of the Crusaders, but many of the other inscriptions must have been engraved by different persons and at different times. Professor Stephens believes that most of them are of a much earlier date than the twelfth century, and this opinion is much strengthened by the worn appearance of some of the Runes, and the uncertain character of others.\* . . . On the whole, it seems not unreasonable to suppose that all the names found inscribed on the walls may belong to persons who lived since the construction of the barrow, and that we have as yet no certain evidence to justify us in determining

\* “ Professor Munch supposes that the Jerusalem travellers, who are described in No. 13 as having broken into the Howe, were connected with an expedition organised by Earl Ragnvald to the Holy Land. He says ‘ many of the northern warriors joined the Earl in 1152. They assembled in Orkney, and after passing the winter there, sailed in the spring of 1153, and after being in Spain in December of that year, reached the Holy Land in August 1154; they went

either the name of the builder or the period when the tumulus was first erected."

A considerable proportion of the Runes which have been translated simply indicate the names of the persons by whom they were severally carved. The versions of the three learned professors frequently vary to some extent one from the other. We give the following examples of the inscriptions without attention to the various readings:—

"No. V.—F, U, Th, O, R, K, H, N, I, A, S, T, B,  
M, L, Y.

"This is the Scandinavian Runic Futhork, or alphabet. The form of the second letter is very rare, the last three are also very unusual, and may be considered as an indication that the building had been for a long period of time in the hands of many people. It was the custom to write the alphabet wherever it was most likely to meet the eye, and a passing visitor, or treasure-seeker, would have hardly taken so much trouble."—Professor STEPHENS.

"No. VIII.—Inkibiorh, Hin, Fahra, ÆHkia, Morhk, Kona,  
Hæfer, Faret, Lut, in Hir Mikil Oflati.

"*Ingiburg, the fair widow! Many a woman has wandered  
stooping in here (although) ever so haughty.*

"The writer is probably recording the name of some fair woman, who has perhaps slighted him, and then reflects that the women who had been buried here, though ever so haughty, had been curbed by death. Ingibjorg or Inkibiorh is a common female name in the North. The other characters in the third line are known as Limuna, or Bough Runes. They were used in the later times of the Runic period, in the same manner as the Irish Ogum, but are not here intelligible. The writer probably intended to represent the chief vowels—A. E. I. O. Y. U. The Runic alphabet was divided into classes, the strokes on the left of the vertical line indicating

thence to Constantinople, where they passed the Christmas of 1154-55, returning home by different routes. During their stay in Orkney they had frequent quarrels with the inhabitants.' As some of the inscriptions seem to indicate the existence of treasure in the tumulus, it is not unlikely that it should have been examined by those warriors, and that they afterwards inscribed their names, together with other remarks, on the walls."

the class, and those on the right the rune itself. Figures of fishes were occasionally in use, and were known as Fish-runes."—Professor MUNCH.

" Nos. XIX. and XX.—Sia Höuhr, Var Fyr Lathin Haelr  
Lothbrokar

Syner Haenar Thaeir Vöro Hvatir Slikt Vöro  
Maen Saem Thaeir Vöro Fyri Sir  
Iorsalafara Brutu Orkhough Lifmnd  
Sailia Iarls Ut Northr Ir Fe Folhit Mikit  
That Urlofoir Hir Var Fi Folhget Mikit  
Raeist Simon Sihr In Tho Ingi Sihrith  
Saclir Sa Ir Fina Ma Than Outh Hin  
Mikla. Ogdonaegn Bar Fi Yr  
Ouhi Thisum.

" *This barrow was formerly a sorcery hall, erected for Lodbrok; her sons were brave, such were men as they were for themselves (such we may call valiant men, such as they were in their achievements).*

" *The Iorsalafarar (visitors of Jerusalem) broke open Orkhow . . . Earls. To the north-west a great treasure has been hid (but few believe that), a great treasure was hid here. Simon Sigr (victor) carved (the Runes) and afterwards Inge.*

" *Happy he who may discover this great wealth. Ogdonaegn carried away the goods from this barrow.*

" Ogdonaegn is probably a Gaelic name, perhaps corresponding to the present O'Donovan, and the person alluded to may have been of Scottish or Irish origin."—Professor RAFN.

The Runes or letters are about 1000, and the number of inscriptions deciphered is twenty-six. Mr. Farrer adds: "The remaining numbers are considered by all the learned Professors as 'scribbles' or scratches, and must be considered as unimportant."

Mr. George Petrie, in a communication to the *Orcadian*, 2d July and 2d August 1862, in which will be found transcribed the whole appendix, constituting in fact the body of the book, excepting the plates, which contain facsimiles of the Runes, with plans and sections of the building, and views

of the mound, observes :—" The translation of the Runic inscriptions of 'Maes-How,' which was looked forward to with so much interest, has failed to throw light on the origin of the building. This is not at all surprising, for the walls exhibited abundant evidences to a careful observer that they had been long decaying before the Runes had been cut on them. . . . While the walls of the central building are in so dilapidated a state, the surfaces of the stones in the entrance passage, and in the three cells or smaller chambers, appear nearly as fresh and sound as if they had been recently removed from their original bed. This marked difference can only be accounted for by the supposition that the central chamber had been opened at the top and left in that exposed condition for a considerable time, while the walls of the cells and entrance passage were sheltered from the weather.

" There is every reason, therefore, to believe that when the Runes were cut the building was roofless, and indeed it is nearly impossible to suppose, after a careful examination, that they could have been cut by the aid of any artificial light that could have been introduced into the building. . . .

" The building was undoubtedly, therefore, in existence long prior to the carving of the Runes on its walls, and the inscriptions make us no wiser than we were with regard to its probable age. Even assuming that the one which is made to refer to the Tumulus as having been erected as a Sorcery Hall for Lodbrok, has been correctly translated, it only hands down to us a tradition current at the time when the Runes were carved, but upon which, in the absence of corroborative evidence to support it, no reliance can be placed. I see no reason yet to alter the opinion which I ventured to express through the local press immediately after the opening of Maes-Howe in July 1861, that 'the building had originally been erected as a chambered tomb for some chief or person of great note, and probably long before the arrival of the Norsemen in Orkney.' . . . The building may have afterwards been used as a Sorcery Hall by the early Scandinavian Vikings, and ultimately converted into a stronghold or place of retreat by subsequent Scandinavian invaders. Most probably, however, it was originally erected by the same race

who set up the Standing Stonis of Stennis, and belongs to about the same period.

“The dates on the coins found, along with the silver relics, in Sandwick, in 1858, give some reason to believe that the hoard there discovered formed at least a portion of the treasure referred to in the Maes-Howe inscriptions.”



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