

# STUDIES IN IRISH CRANIOLOGY.

(ARAN ISLANDS, CO. GALWAY.)

BY

PROFESSOR A. C. HADDON.

A PAPER

Read before the ROYAL IRISH ACADEMY, December 12, 1892;

and

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## XXXVIII.

STUDIES IN IRISH CRANIOLOGY: THE ARAN ISLANDS,  
CO. GALWAY." BY PROFESSOR A. C. HADDON.

[Read DECEMBER 12, 1892.]

THE following is the first of a series of communications which I propose to make to the Academy on Irish Craniology. It is a remarkable fact that there is scarcely an obscure people on the face of the globe about whom we have less anthropographical information than we have of the Irish.

Three skulls from Ireland are described by Davis and Thurnam in the "Crania Britannica" (1856-65); six by J. Aitken Meigs in his "Catalogue of Human Crania in the Collection of the Academy of Natural Sciences of Philadelphia" (1857); two by J. Van der Hoeven in his "Catalogus craniorum diversarum gentium" (1860); thirty-eight (more or less fragmentary), and five casts by J. Barnard Davis in the "Thesaurus craniorum" (1867), besides a few others which I shall refer to on a future occasion.

Quite recently Dr. W. Frazer has measured a number of Irish skulls. "A Contribution to Irish Anthropology," Jour. Roy. Soc. Antiquarians of Ireland, I. (5), 1891, p. 391. In addition to three skulls from Derry, Dundalk, and Mary's Abbey, Dublin, Dr. Frazer gives measurements of fifty more or less broken crania from Donnybrook, Co. Dublin, which were the best preserved of the skulls of over 600 human beings who were there massacred about the year 800 A.D.<sup>1</sup>

Strangely enough the pioneer investigator of the craniology of

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<sup>1</sup> Since the present Paper was written, Dr. Frazer has read before the Academy a short Paper entitled "On Irish Crania;" read January 23, 1893 (*antea*, p. 643). And still later, February 27, 1893, Dr. C. R. Browne read a Paper "On some Crania from Tipperary," in which he describes the crania of individuals (*antea*, p. 643).

Ireland was a man whose labours appear to have been almost entirely overlooked, and who, for careful work and ingenuity in devising apparatus, was second to none of his contemporaries. I refer to the late John Grattan, of Belfast. Thanks to the kindness of his sisters the Misses Grattan, of Belfast, I have had access to all Grattan's unpublished mss., and these, as well as his published papers, prove that had he been spared there would have been little occasion for reproach on the score of neglect in Irish anthropology. The following is a list of the papers which I can trace to him :—

GRATTAN, JOHN.—“On the importance to the Archæologist and Ethnologist of an accurate mode of measuring Human Crania, and of recording the results : with the description of a new Craniometer.”—*Ulster Journal of Archæology*, I., 1853, pp. 198–208, 5 pls.

“Notes on the Human Remains discovered within the Round Towers of Ulster, with some additional contributions towards a ‘Crania Hibernica.’”—*Ibid.*, VI., 1858, pp. 27–39, 3 pls. ; pp. 221–246, 2 pls.

Two of the skulls I am about to describe form part of the “Grattan Collection” which was bequeathed by him to the Belfast Natural History and Philosophical Society in 1873. (Cf. “Descriptive Catalogue of Skulls and Casts of Skulls from various Irish sources, collected by the late John Grattan, Esq., now the property of the Belfast Natural History and Philosophical Society,” *Proc. Belfast N. H. and Ph. Soc.* for 1873–74 (1874), p. 121.) I would also like to express my thanks to the Council of this Society for having entrusted the whole of this collection to me for description.

Mr. Grattan gives the following measurements (*l.c.* Table 2, p. 246) of these two crania :—Cubic capac. in inches and tenths—max. 92, min. 84, av. 88 ; length—max. 7·4, min. 7·3, av. 7·3 ; breadth—max. 5·5, min. 5·5, av. 5·5 ; circumf.—max. 20·6, min. 20·6, av. 20·6 ; occipito-frontal arch—max. 14·9, min. 14·7, av. 14·8 ; mastoidal arch (from the point of one mastoid process to the other)—max. 15·1, min. 14·5, av. 14·8. Proportional breadth in decimal sub-divisions of length—max. ·75, min. ·74, av. ·75. These two crania agree in almost every average with the averages of the twenty-five crania which comprise Grattan's “Group 4—Modern Celtic.” All of these measurements are in inches and tenths. These crania were subsequently remeasured by Mr. Grattan in millimetres as well as in inches and tenths, and a few minor corrections were made. These, with some drawings, are among the mss. referred to.

In the following Paper a fairly complete account has been given from an ethnographical point of view of the natives of the Aran

Islands. The present communication deals solely with what information is available as to their craniology. The material consists of two skulls from Innishmaan (Nos. 49 and 50) in the Grattan Collection, and of another (T.C.D.) from Aranmore which I have presented to the Anthropological Museum in Trinity College. Three fragmentary crania (A, B, and C) were measured by Dr. Browne and myself in Tempul Breacain, Onaght ('Seven Churches'), Aranmore, and Dr. Beddoe gives some measurements of four skulls which "were found in the dry sand which has gathered within the small and ancient church of St. Eney, Aranmore" (*l.c.* p. 229). He gives the total measurements in a table on p. 227, as follows:—"Glab.—max. length, 7·53; max. breadth, 5·59; basio-bregm. height, ? 5·27; latit. index, 74·25; altit. index, 70?."

Dr. Beddoe has very kindly permitted me to extract the following details from his ms. notes made on the occasion of his visit to Aranmore in 1861. I have reduced these measurements to millimetres, and have added their cephalic indices within brackets.

"No. 1. L.,  $7\frac{1}{2}$ ; B.,  $5\frac{1}{2}$ ; forehead breadth,  $3\frac{3}{4}$ ; height, 5 inches (internal from level of mastoid). [L., 183 mm.; B., 140 mm.; C. I., 76·1.]

"No. 2. L.,  $7\frac{5}{8}$ ; B.,  $5\frac{5}{8}$ ; height as before,  $5\frac{1}{4}$ . [L., 194 mm.; B., 143 mm.; C. I., 73·7.]

"No. 3. L.,  $7\frac{1}{2}$ ; B.,  $5\frac{1}{2}$ . [L., 183 mm.; B., 140 mm.; C. I., 76·1.]

"No. 4. L.,  $7\frac{3}{4}$ ; B.,  $5\frac{3}{4}$ ; height,  $5\frac{5}{8}$ . [L., 197 mm.; B., 146 mm.; C. I., 74·1.]

"Another imperfect one is 6 inches broad, length not ascertainable."

A sketch by Beddoe of the *norma verticalis* is very similar to that of the T.C.D. specimen.

Two skulls were collected by Dr. Beddoe on this occasion and presented by him to Dr. Barnard Davis, and they are described as follows in the 'Thesaurus Craniorum.' Probably neither of these two were included among the preceding four measurements:—

"208.—842; Irish ♀, æt. c. 30. Imperf. calv. Has a frontal suture. From Teampull Breacain, Aara Mor or Great Aran Isle."

"209.—843, Irish ♂ of advanced age. Imperf. calv. The sutures are almost wholly obliterated in this heavy calvarium. From Killeany or St. Eney's Church, Aranmore. These graveyards of the Aran Isles are regarded by Sir W. R. Wilde, the distinguished Irish antiquary, as 'very early,' and the crania derived from them 'as very ancient skulls.'"

To save space I have put the measurements given by Dr. Davis of these two calvariæ side by side; those of skull 209 are printed in heavy type.

Intl. capac. 63·5; circ. 20·7; fronto-occip. arch 14, 15; frontal 4·8; parietal 4·9; occip. 4·3; longit. diam. 7·1, 7·4; trans. diam. 5·5 par., 5·5 par.; widest frontal breadth at coronal suture 4·7, 4·6; most divergent par. breadth 4·9, 5·2; occipital [asterionic] 4·4, 4·3; height 4·9, 5·1; intermastoid arch 15; Busk's frontal radius 4·6; parietal do. 4·8; occip. do. 4·3. Length-breadth, index 77, 74; length-height, index, 69, 69.

Owing to the courtesy of Professor C. Stewart I have been able to measure these two specimens, and they will subsequently be referred to under the numbers 208 and 209 respectively, which are their catalogue numbers in the museum of the Royal College of Surgeons, London.

#### METHODS.

It is unfortunate that, even at the present time, it should be necessary to indicate what method of taking any given measurement has been employed. It is true we have a so-called "Frankfort Agreement," but what is required is a Franco-German agreement.

In the majority of the measurements I have adopted, the name given sufficiently indicates the points of measurement. In all cases, except where otherwise stated, I have made direct measurements, and not according to the German recommendation, viz. that, wherever possible, the measurements of the skull should be taken in relation with the horizontal plane adopted by the Frankfort Congress. With regard to the latter point I can only endorse the criticism made by Dr. Garson in his Paper on "The Frankfort Craniometric Agreement, with Critical Remarks thereon" (Journ. Anthrop. Inst. xiv., 1884, p. 64).

The auriculo-bregmatic arc and the bi-auricular breadth I take as he suggests, "where the auriculo-bregmatic lines cross the prolongation ridges backwards of the zygomatic arches" (*Ibid.*, p. 76). The auriculo-cranial, auriculo-nasial, and auriculo-alveolar radii are taken with Cunningham's modification of Busk's instrument (cf. C. R. Browne, these Proceedings, *antea*, p. 397). The palato-maxillary length and breadth were taken from the points advocated by Sir W. H. Flower, and for these I find the *compas glissière* very convenient.

## DESCRIPTION AND MEASUREMENTS OF EIGHT ARAN CRANIA.

T. C. D.—Cranium, ♀, adult, from Tempul Breacain, Onaght (“Seven Churches”), Aranmore, August, 1890, Trinity College, Dublin. Symmetrical, well-formed cranium, in a fair state of preservation; the left jugal arch is broken. All the teeth are present except the two left and the first right incisors. The teeth are free from disease, and not unduly worn.

The condition of the sutures and the presence of wormian bones in this and the succeeding crania will be noticed subsequently.

49.—Cranium, ♀, old. “Ennismain, Islands of Arran, Galway Bay, September, 1857.” Grattan collection, Belfast. Symmetrical, well-preserved cranium, except that the greater portion of the cranial floor is absent. Only the second pre-molar of the right side remains; it is much worn but free from disease. This is a ponderous and massive cranium; at the ophryon (above the frontal sinus) the frontal bone is 14 mm. thick, and the parietal is in places from 10 to 11 mm. in thickness.

50.—Cranium ♂, old. “Ennismain, Islands of Arran, Galway Bay, September, 1857.” Grattan collection, Belfast. Symmetrical, well-preserved cranium; the face has been mended; the left jugal arch is broken; only the left orbit is complete; the upper portion of the maxillary bone on the right side is entirely wanting, and part of that on the left side also; the nasals and deeper bones of the face are absent, and the orbital cavities much broken. No teeth are present. The supra-orbital crests are only slightly developed, as also are the rugosities for the attachment of muscles to the cranium. Theinion is not specially prominent.

In 49 and 50 the left half of the roof of the cranium has been sectioned by Mr. Grattan, and each of these has been cut into five radii according to the plan adopted by him. They were evidently collected by him on the excursion of the Ethnological section of the British Association, Dublin Meeting, September, 1857.

208.—Calvarium, ♀, adult, from Tempul Breacain, Aranmore, 1861, Royal College of Surgeons, London.

Imperfect metopic calvarium, with the left squamosal, temporal, and zygomatic arch absent.

209.—Calvarium, ♂, adult, from Teglach Enda, Killeany, Aranmore, 1861 Royal College of Surgeons, London.

This is an imperfect calvarium of a very old man, and is remark-

ably heavy and dense; all the sutures are nearly entirely obliterated; the inion is prominent.

A.—Broken calvarium, probably male; the glabella not prominent; large inion; sutures simple.

B.—Broken calvarium, probably female; sutures extremely complex.

C.—Broken calvarium, undoubtedly male, with a prominent glabella and medium inion; sutures very complex and greatly obliterated.

These three fragmentary specimens were measured, and left upon the altar of Tempul Brecain, Aranmore, in September, 1892.

**Sutures.**—A frontal suture is present in 208.

The parietal sagittal suture is simple in 49, 50, 208, and in A; but complex in T. C. D., B, and in C; it is obliterated in 209.

The lambda suture is simple in 49, 50 and 208, but in T. C. D. there are four epactal bones, two on each side of the sagittal suture.

In 208 there is a wormian bone in the sagittal suture a short distance above the lambda suture; and along the parieto-occipital suture there are four large wormian bones on each side, and another on the right side at the junction of the suture with the squamosal; this also occurs in 49.

**Pterion.**—The variations in the pterion suture are of interest.

T. C. D., *right side.*—Pterion in H of Broca, with three small wormian bones at angle of the parietal, squamosal, and sphenoid bones.

T. C. D., *left side.*—Pterion in H; a small wormian bone in the parieto-fronto-sphenoid angle, and a larger triangular one at the parieto-squamoso-sphenoid angle.

49. *Right side.*—Pterion apparently in H; the lower part of the parieto-frontal suture is all but obliterated.

*Left side.*—Pterion in H. According to a drawing made by Mr. Grattan, there are two small wormian bones in the parieto-squamoso-sphenoid angle, but, as the skull has been sawn in this region, these bones are not now present.

50. *Right side.*—Pterion primarily in H, but with a large wormian bone, by the squamosal, which almost cuts off the parietal from the sphenoid; this condition almost precisely resembles that figured by Topinard (*Eléments d'Anth. Générale*, fig. 127, viii.).

*Left side.*—Pterion in H, with a large rhomboidal wormian bone, which completely cuts off the parietal from the sphenoid, corresponding to Topinard's (*l.c.*), fig. 127, vi.

208. *Right side.*—Pterion in H.



	♀ T. C. D.	♀ 49	♂ 50	♀ 208	♂ 209	♂ ? A.	♀ ? B.	♂ C.
<i>Cranial Measurements.</i>								
Glabello-occipital length,	188	187	188	181	186	194	—	205
Ophryo-occipital length,	191	186	187	180	187	—	—	—
Maximum breadth, ..	137	140·5	139	138	140	153	140	152
Basio-bregmatic height, .	136·5	—	130	116	—	—	—	—
Auriculo-cranial radius,	119	120	115	—	—	—	—	—
Minimum frontal breadth,	94	96	101	105	98	100	160	—
Stephanic breadth, ..	410	114	116	119	110 ?	135	118	—
Asterionic breadth, ..	113	109	107	106 ?	108 ?	131	—	—
Frontal longitudinal arc,	134	125	126	119	—	131	123	148
Parietal longitudinal arc,	136	114	134	126	—	139	111	129
Occipital longitudinal arc,	110	134	119	107	—	122	—	130
Fronto-occipital arc (na- sion to opisthion), }	380	373	379	352	374	392	—	407
Foramen magnum length,	38	—	35	48	—	—	—	—
Basio-nasial length, ..	101	—	99	94·5	—	—	—	—
Auriculo-nasial radius, ..	94	95	88	—	—	—	—	—
Total longitudinal cir- cumference, }	519	—	513	—	—	—	—	—
Auriculo-bregmatic arc,	295	303	300	—	—	332	—	—
Bi-auricular breadth, ..	117	123	114·5	—	—	124	—	—
Horizontal circumference,	524	—	525	510	522	548	—	—
<i>Facial Measurements.</i>								
Basio-alveolar length, ..	96	—	93	—	—	—	—	—
Auriculo-alveolar radius,	99·5	97·5	95	—	—	—	—	—
Bi-zygomatic breadth, ..	124 ap.	129	127 ?	—	—	—	—	—
Maximum bi-maxillary breadth, }	90	92	90	—	—	—	—	—
Bi-dacryal breadth, ..	21	22	—	25 ?	—	—	—	—
Nasio-alveolar length, ..	63	65	64	59	—	—	—	—
Nasal height, .. ..	46	45	47	44	—	—	—	—
Nasal width, .. ..	23	23·5	—	21	—	—	—	—
Orbital width, .. ..	{ 39 r 38 l	39 ? 38 l	— 40 ? l	44 r	—	—	—	—
Orbital height, .. ..	{ 33 r 34 l	31 r 30 l	33 l	34 r	—	—	—	—
Palato-maxillary length,	53	51 ?	50	49	—	—	—	—
Palato-maxillary breadth,	62	59·5	63	59	—	—	—	—
<i>Indices.</i>								
Cephalic, .. ..	72·9	75·1	73·9	76·2	75·3	78·9	—	74·1
Height (basial), .. ..	72·3	—	69·1	64·1	—	—	—	—
„ (auricular), .. ..	63·3	64·2	61·2	—	—	—	—	—
Upper facial or maxillary, (Virchow), .. ..	50·8 ?	50·4	50·4 ?	—	—	—	—	—
„ (Virchow), .. ..	70	70·6	71·1	—	—	—	—	—
Stephano-zygomatic, ..	88·7 ?	88·4	91·3 ?	—	—	—	—	—
Gnathic, .. ..	95	—	93·9	—	—	—	—	—
„ (auricular), .. ..	105·8	102·6	108·8	—	—	—	—	—
Palatal, .. ..	117	116·6 ?	126	124	—	—	—	—
Nasal, .. ..	500	510	—	477	—	—	—	—
Orbital (Broca), .. ..	{ 84·6 r 89·5 l	79·5 r 78·9 l	—	75 r	—	—	—	—
„ (German), .. ..	80·5	75·5	76·7	—	—	—	—	—

*Cephalic Index*  $\frac{B. \times 100}{L(G. O)}$  :—From these measurements we find

that specimen T. C. D., 50, C and Dr. Beddoe's Nos. 2 and 4 (see p. 761) are Dolichocephalic. 49, 208, 209, Dr. Beddoe's 1 and 3, and A, are Mesaticephalic, the first being just within this division. The mean of the seven indices I have calculated is 75.2, and the mean of Dr. Beddoe's four calvaria is 75. (The latter measurements are admittedly rough and ready, and cannot be relied on implicitly.)

*Height Index*  $\frac{H(B. B) \times 100}{L(G. O)}$  :—T. C. D. is just within the Me-

triocephalic group, or well within the Orthocephalic of the Germans, whereas 50 and 208 are Tapeinocephalic, or Chamæocephalic.

The auriculo-cranial height has not yet been reduced to a system.

*Upper Facial, or Maxillary Index* :—T. C. D., 49, and 50, are all barely Leptoprosopic, taking Kollmann's standard,  $\frac{H(N. A) \times 100}{B(B. Z)}$ , and by Virchow's measurements,  $\frac{H(N. A) \times 100}{B(B. M) x}$ , they would be "narrow upper face."

*Stephano-zygomatic Index*.—The two female crania have practically the same index. They are all Phænozygous.

*Gnathic Index*  $\frac{B. A \times 100}{B. N}$  :—T. C. D. and 50 are Orthognathous.

No comparative terms have as yet been determined upon for the Auriculo-gnathic Index.

*Palatal Index*  $\frac{Pb \times 100}{Pl}$  :—T. C. D., 49, 50, and 208, are Bra-

chyranic, according to Turner's nomenclature; but so far as I can make out, 49 is Lepto-, T. C. D. is Meso-, and 50 (and, probably, 208) are Brachy-staphyline, according to the measurements adopted by Virchow.<sup>1</sup>

*Nasal Index*  $\frac{Nw \times 100}{Nh}$  :—208 is Leptorhine, but T. C. D. and 49 are Mesorhine.

<sup>1</sup> According to the German method (*cf.* the "Frankfort Agreement"), the palatal measurements are as follows for—

	T. C. D.	49.	50.
Palatal length, . . . .	47,	48,	46
„ breadth, . . . .	28,	35,	40
„ index, . . . .	808,	729,	870

*Naso-malar Index* :—For this index I have adopted Oldfield Thomas' system (*cf.* Journ. Anthropol. Inst., xiv., 1884, p. 332). As might be expected, T. C. D., 49, and 50, are Pro-opic, *i. e.* with an index above 110, being 112 and 111.4, respectively.

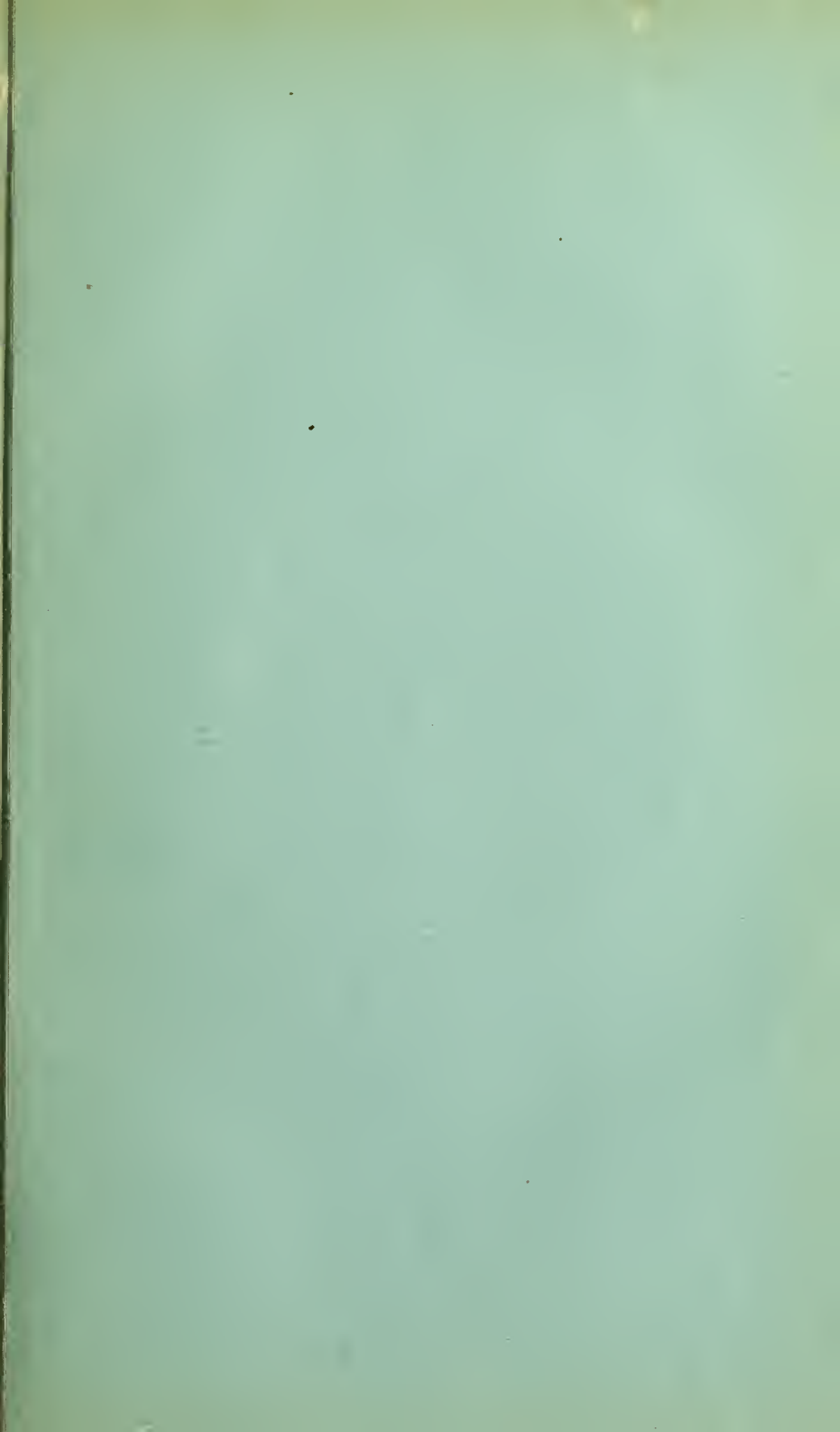
*Orbital Index*  $\frac{Oh. \times 100}{Ow.}$  :—According to width measurements, taken from the dacryon,<sup>1</sup> 49, 50, and 208 are Microseme, while T. C. D. is just Mesoseme in the right orbit, and barely Megaseme in the left.

According to the German style (*cf.* the "Frankfort Agreement"), 49 and 50 (and, consequently, 208 also), are Chamækonch, and T. C. D. Mesokonch.

On reviewing the above facts, it will be seen, that taking them as a whole, the Aran crania may be said to come just within Kollmann's dolicho-leptoprosops; but they are by no means typical, and appear to exhibit signs of belonging to a mixed race.

<sup>1</sup> The Broca-Flower method of excluding the lachrymal groove from the measurement of the orbital width fails in many ancient, or imperfectly preserved skulls. As the ascending process of the maxilla is very often intact, the dacryon would appear to be a more suitable point for measurement.







THE  
ETHNOGRAPHY OF THE ARAN ISLANDS,  
COUNTY GALWAY.

BY

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AND

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A PAPER

Read before the ROYAL IRISH ACADEMY, December 12, 1892;

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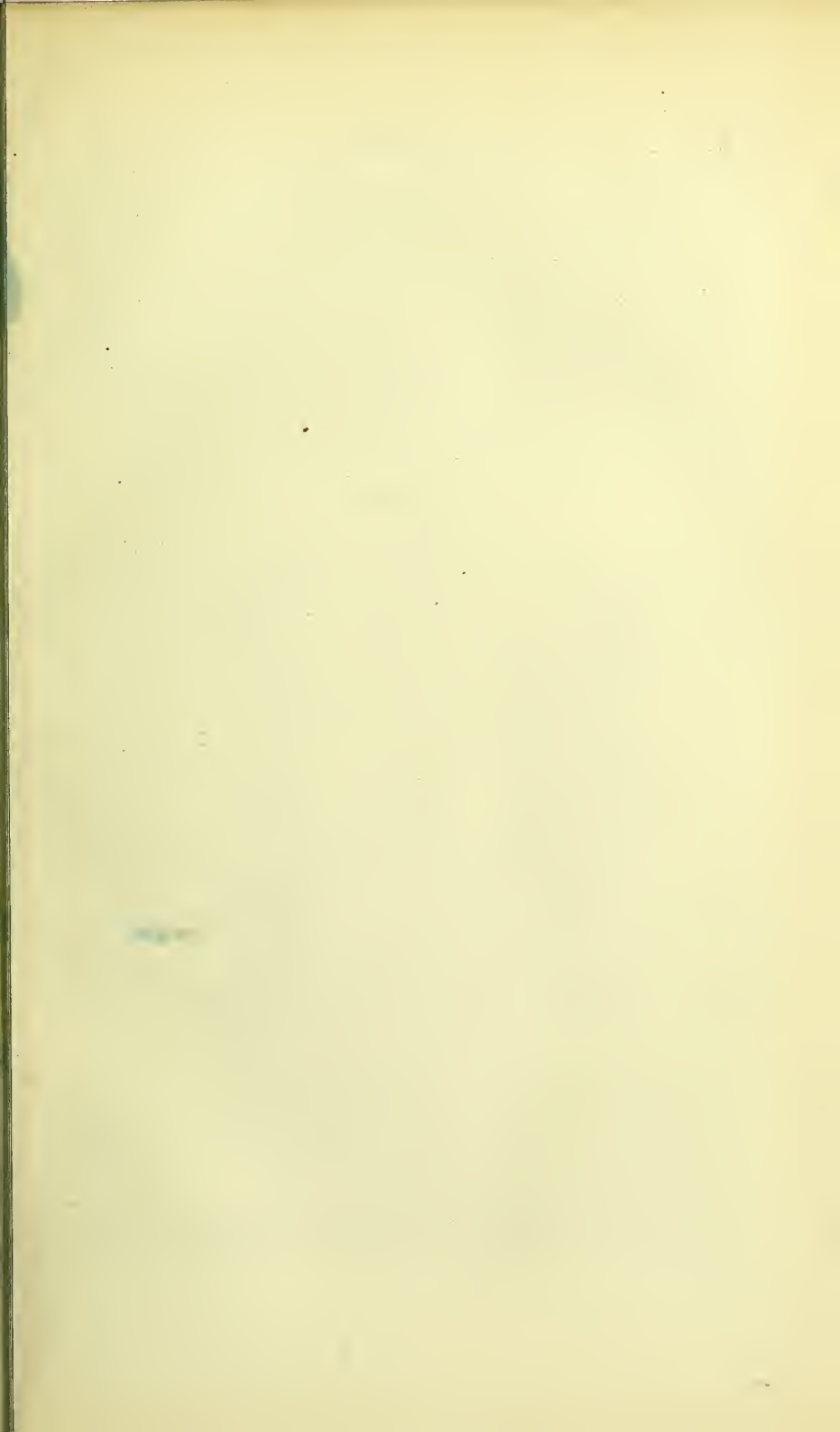
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## XXXIX.

THE ETHNOGRAPHY OF THE ARAN ISLANDS, COUNTY GALWAY. BY A. C. HADDON, M.A. (Cantab.), M.R.I.A., Professor of Zoology, Royal College of Science, Dublin; and C. R. BROWNE, B.A., M.D., M.R.I.A.

[Read DECEMBER 12, 1892.]

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## I.—INTRODUCTION.

When the Anthropometric Committee was first constituted, it was decided that the main portion of its work should fall into two categories:—1, the routine observations made in the Anthropometric Laboratory; and 2, researches in country districts.

An account of the work done in the Laboratory will shortly be presented to the Academy. The present communication is the first of what we hope to be a series of studies in Irish Ethnography. It is

the first-fruits of the Anthropometric Laboratory in its peripatetic aspect.

It will, however, be noticed that we have in the present study far exceeded the lines of research which the Committee at first proposed for itself. We have done so in the belief that the ethnical characteristics of a people are to be found in their arts, habits, language, and beliefs as well as in their physical characters. For various reasons we do not now propose to enter into all these considerations; but we hope that the following account will give a fairly accurate, though somewhat imperfect, presentment of the ethnography and mode of life of the inhabitants of the most interesting group of islands round the Irish coast.

## II.—PHYSIOGRAPHY OF THE ARAN ISLANDS.

With the exception of Achill Island, which is virtually part of the mainland, the Aran Islands in Galway Bay are the largest and most important of the western isles of Ireland. The three Aran Islands lie N.W. to S.E. in the mouth of Galway Bay in lat.  $53^{\circ} 10' N.$ , long.  $9^{\circ} 50' W.$  They are about twenty-eight miles west of Galway Harbour.

The largest, Aranmore, sometimes, as in the Admiralty Charts, called Inishmore, or the Great Island, is about nine miles long and averages a mile and a-half in breadth. It contains 7635 acres and has a population of 1996 (census of 1891).

Inishmaan, the Middle Island, is about one-third of the size of the North Island, having 2252 acres, and a population of 456.

Inisheer, the South Island, which is two and a-half miles long by one and a-half broad at its widest portion, contains only 1400 acres, and also supports a population of 455.

The geological formation of the islands is the Upper Carboniferous Limestone. The conformation of the land is such, that towards the Atlantic there are vertical, and in places overhanging, cliffs which range up to 208 feet in height. The hills decrease by numerous terraces towards the north-east where the shore line is low. By far the greater portion of the islands is covered with bare rock, intersected in all directions by deep crevasses, sometimes a dozen or more feet in depth, which are choked with maiden-hair (*Adiantum capillus-veneris*) and other ferns, sweet grass, and various plants. In places the naked rock forms large slabs, and in others it is so fissured as to present a series of vertical ridges. Scattered all over the North Island, especially, are

large, ice-borne, erratic boulders of granite and sandstone from the Connemara mountains, locally they are known as "Connemara stones."

Owing to the natural drainage of the rocks and the shallow depth of the soil a wet season is the best for the Aran farmers. If the weather is very dry a water famine may ensue, and the cattle have to be deported to the mainland.

There are a few short streams in the North Island, but a good deal of the drinking water is obtained from dripping springs.

The climate of the Aran Islands is mild and uniform; it rarely freezes, and when snow falls it does not lie. There is, fortunately for the inhabitants a heavy rain-fall which is fairly evenly distributed throughout the year. It is usually windy.

The following description of O'Flaherty's (1684) is worth quoting:—"The soile is almost paved over with stones, soe as, in some places, nothing is to be seen but large stones with wide openings between them, where cattle break their legs. Scarce any other stones there but limestones, and marble fit for tomb-stones, chymney mantle trees, and high crosses. Among these stones is very sweet pasture, so that beefe, veal, mutton are better and earlyer in season here, then elsewhere; and of late there is plenty of cheese, and tillage mucking, and corn is the same with the seaside tract [*i.e.* South Connemara]. In some places the plow goes. On the shore grows samphire in plenty, ring-root or sea-holy, and sea-cabbage. Here are Cornish choughs, with red legs and bills. Here are ayries of hawkes, and birds which never fly but over the sea; and, therefore, are used to be eaten on fasting-days: to catch which, people goe down with ropes tyed about them, into the caves of cliffs by night and with a candle light kill abundance of them. Here are severall wells and pooles, yet in extraordinary dry weather, people must turn their cattell out of the islands, and the corn failes. They have noe fuell but cow-dung dryed with the sun, unless they bring turf in from the western continent" (pp. 66-68 of Hardiman's edition, 1846). The mode of tillage in vogue on the north shore of Galway Bay, "the sea-side tract" is described on pp. 57-59; the corn grown was "wheat, barley, ry, or oats." Hardiman adds, in a footnote to p. 68: "The privations which these poor and honest islanders sometimes undergo, part of which are above alluded to by our author, are very severe; and yet you will not find any of them willing to exchange the 'bare flags' of Aran, for the comparative comforts of the inland country. . . . It is believed that the greatest human punishment that could be inflicted on an Aranite would be to sentence him never to return home."

Trees now only grow in two sheltered spots, one in Mr. Johnson's farm, the other in the Rectory garden.

According to Mr. Barry, wood, at one time, appears to have been abundant, the last trees on Gort-a-oonan quarter, Oghill townland, were cut early in the eighteenth century.

"The islands were anciently covered with wood" (according to J. T. O'Flaherty, 1824, p. 133), "as is evident from the numerous trunks of fir, pine, oak, &c., found in the peat bottoms and marshes. Wild ash and hazel grow in several places, among the rocks and cliffs. With the exception of these and a few solitary shrubs, the whole surface is quite denuded." On p. 97, in referring to the "remains of Druidism," which "abound" in the Isles of Aran, he speaks of "evident vestiges of oak groves." "They were," says Mr. Hardiman,<sup>1</sup> "anciently overshadowed with wood, of which there are still very evident remains."

Burke (*loc. cit.* p. 75) quotes a letter from the Rev. W. Kilbride, Rector of Aran, to the following effect:—"My little grove was planted by myself. I find the greatest difficulty in preserving it, seven trees having been destroyed this year [Dec. 11, 1886]. Then I planted every nook and cranny with evergreens; but they were plucked up three several times. I get sick of this thing. Many places in the island were covered with trees. In fact, fifty years ago or so, I have been informed that a large portion of the island grew trees, especially hazel, from twenty to twenty-six feet in height."

For the botany of the islands the papers given on p. 829 may be consulted:—J. T. O'Flaherty (*loc. cit.* p. 133) gives a short list of plants and concludes with the following:—"They have a plant, in Irish 'rineen,' in English 'fairy flax' [*Linum catharticum*], and in this they greatly confide, for its medicinal virtues, almost in all cases. The tormentil root [*Icosandria polygyhia*] serves them in the place of bark for tanning leather. . . . The kitchen-gardens are well supplied with every necessary vegetable."

### III.—ANTHROPOGRAPHY.

#### 1. METHODS.

The following is an account of the observations and measurements we made, and our method of doing so:—

(A) *Hair and Eye Colour.*—The anthropological data most readily obtainable are the colour of the hair and eyes: and they appear to

<sup>1</sup> "History of Galway," p. 319.

possess very considerable importance. For these observations we followed the methods suggested by Dr. Beddoe,<sup>1</sup> and which are the result of the very considerable experience of the veteran English anthropologist.

The marking cards introduced by Dr. Beddoe are in every way admirably adapted for field work, since they are small enough to fit in a waistcoat pocket. As the noting of an individual can be made by a single pencil mark, they admit of rapid and accurate use in situations where writing would be difficult. Each card is divided vertically into three main divisions for eye colour: light, medium, and dark, respectively. The three spaces thus formed are further sub-divided vertically into five columns for the five hair colours: red, fair, brown, dark, and black. These are indicated by the letters R. F. B. D. and N., at the heads of the columns. The card is sub-divided by a horizontal line into two equal parts—the upper for the males, the lower for the females. It is convenient to leave a space at the end of the card for the name of the locality. The back of the card can be utilized for the date and further particulars. The initialing of the card by the observer indicates that the record is completed for that card (*cf.* p. 792).

The eyes are classed as follows:—

*Light*.—“All blue, bluish grey, and light grey eyes.”

*Medium*.—“Dark grey, brownish grey, very light hazel or yellow, hazel grey (formed by streaks of orange radiating into a bluish grey field), and most shades of green.”

*Dark*.—“The so-called black eyes, and those usually called brown and dark hazel.”

The following hair colours are adopted:—

*Red*.—“All shades which approach more nearly to red than to brown, yellow, or flaxen.”

*Fair*.—“Flaxen, yellow, golden, some of the lightest shades of our brown, and some pale auburns in which the red hue is not very conspicuous.”

*Brown*.—“Numerous shades of brown, answering nearly to the French *chatain* and *chatain-clair*, but perhaps less extensive on the dark side.”

*Dark*.—“Corresponds nearly with the French *brun*, most of their

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<sup>1</sup> The Races of Britain, a Contribution to the Anthropology of Western Europe, by John Beddoe, M.D., F.R.S., 1885.

*brun-foncés*, and the darkest *chatains*, and includes the remaining shades of our brown up to—

“*Black (Niger)*.—Which includes not only the jet black, which has retained the same colour from childhood and is generally very coarse and hard, but also that very intense brown which occurs in people who in childhood have had dark brown (or in some cases deep red) hair, but which in the adult cannot be distinguished from coal-black, except in a very good light.” Personally we think it would be advantageous to discriminate in some way (say by making a different mark in the *n.* column) between the jet-black and the black-brown.

In the present instance the hair colours were taken as nearly as possible on Dr. Beddoe’s plan, there being a difficulty only on one point, and that the case of the brown hair, much of which is of a light shade, and in many cases accompanied by a light yellowish or reddish beard; and might by some have been classed as fair. Care was taken to note only such cases as could be seen fully at close quarters, and in a good light, so that there could be no mistake about the colour—a precaution very necessary for the estimation of doubtful tints, especially of the eyes. Cases in which the hair had begun to turn grey were excluded altogether; and, as far as possible, all who were not natives also: this was rendered an easy matter in most cases by the distinctive dress. It may be mentioned here that one of the most valuable means of obtaining the colours was the getting together of groups to be photographed or measured, and the noting both of them and of the members of the knot of spectators which was sure to assemble; another way was to engage in conversation with some group by the roadside or on the seashore, and note them carefully while speaking. Children (*i. e.* all apparently under eighteen) were noted on separate cards, and had a separate index and nigrescence table made out for them. The apparent difference between them and the adults, both as to index of nigrescence and the presence of black hair, is due to the progressive darkening with age of the “very dark” hair, which has been counted as black in the adults, as being only distinguishable from it in some lights, and on very close examination. In fact, from the absence of true black among the children, it is doubtful whether there is any among the adults we observed.

The Index of Nigrescence and its use are best explained in Dr. Beddoe’s own words:—

“A ready means of comparing the colours of two peoples or localities is found in the Index of Nigrescence. The gross index is gotten by subtracting the number of red- and fair-haired persons from

that of the dark-haired, together with twice the black-haired. I double the black in order to give its proper value to the greater tendency to melanosity shown thereby; while brown (chestnut) hair is regarded as neutral, though in truth most of the persons placed in B. are fair-skinned, and approach more nearly in aspect to the xanthous than to the melanous variety:—

$$D + 2N - R - F = \text{Index.}$$

From the gross index the net or percentage index is of course readily obtained.”

Though it is not specifically mentioned in Dr. Beddoe's book which index he uses, yet, as it is evident from a glance at the tables given by him that he has used the percentage index there, the same has been employed here in all cases.

The tables given here are not formed on Dr. Beddoe's plan, but on one somewhat more minute. All the actual observations are given in their classes, as well as the percentages; and separate tables are given for males and females. To facilitate reference, however, a table on his plan is given, showing his Aran observations along with those of this expedition.

The difference apparent between the two indices must evidently be due to the smaller number (90) in the first series.

(B). *Head, Face, and Body Measurements*:—

1. *Head length*.—Taken from the glabella to the greatest diameter behind, in the middle line.

2. *Head breadth*.—The greatest breadth obtainable, the callipers being held at right angles to the middle longitudinal line. In this and in the former measurement, the points of the callipers were placed in as close contact to the skin of the scalp as was possible.

3. *Head height*.—The radius of the top of the head vertical to the ear-opening, and from its centre.

4. *Head circumference*.—The greatest horizontal circumference obtainable above the eyebrows. The tape was passed under the hair of the back of the head, and brought as close to the skin of the scalp as possible.

5. *Face length*.—From the naso-frontal suture (nasion) to the point of the chin.

6. *Face breadth*.—The greatest breadth obtainable on the zygomatic arches.



7. *Bigonial breadth*.—The distance between the angle of the lower jaw on one side and that on the other.

8. *Auriculo-nasial radius*.—The radius from the centre of the ear-hole to the nasion.

9. *Auriculo-alveolar radius*.—A similar radius to the lower border of the gums of the upper front teeth, the lips being drawn back.

10. *Nose length*.—From the nasion to the angle between the septum and the upper lip.

11. *Nose breadth*.—The greatest breadth of the nostrils, care being taken not to compress them.

12. *Internal bi-ocular or inter-caruncular breadth*.—The distance between the internal angle of both eyes.

13. *External bi-ocular breadth*.—The distance between the external angle of both eyes.

14. *Height*.—The subject stood upright on the box of the anthropometer with his back and head against the graduated rod, and with his eyes looking straight in front. Allowance was made for the pam-pooties which most of the men wore; or if boots were worn, the height of the heel was measured and deducted from the reading on the scale.

15. *Span*.—The measuring rod was placed along the back and the arms stretched to their fullest extent, the measurement was taken from the tip of one mid-finger to that of the other.

16. Tip of mid-finger to styloid of the right arm, the hand being held straight.

17. Styloid to epicondyle of the right arm.

The indices were calculated as follows (the numbers within the brackets refer to measurements in the foregoing list):—

$$\text{Cephalic Index, . . } \frac{\text{HB (2)} \times 100}{\text{HL (1)}} = \text{I (Index).}$$

The subtraction of two units from the ordinary formula for obtaining the cranial index, when this is employed for the living head, was proposed by Broca (*Bull. Soc. d'Anthrop.* (2) III. 1868), cf. Topinard, "Anthropology" (Eng. transl. 1890, p. 326). In our first column of indices we give the figures resulting from the ordinary formula, but we add a corrected list, the figures in which, are placed in arithmetical

order. In discussing the Cephalic Index we make use solely of the corrected series.

$$\text{Height Index, . . . } \frac{\text{HH (3)} \times 100}{\text{HL (1)}} = \text{I.}$$

$$\text{Facial Index, . . . } \frac{\text{FB (6)} \times 100}{\text{FL (5)}} = \text{I.}$$

$$\text{Bigonial Index, . . . } \frac{\text{BB (7)} \times 100}{\text{FL (5)}} = \text{I.}$$

$$\text{Alveolar Index, . . . } \frac{\text{AA (9)} \times 100}{\text{AN (8)}} = \text{I.}$$

$$\text{Nasal Index, . . . } \frac{\text{NB (11)} \times 100}{\text{NL (10)}} = \text{I.}$$

It is hardly necessary to warn our readers that none of the above measurements or indices accurately correspond with analogous measurements made on skulls, or with the indices calculated therefrom the sole exception being in the case of the correction made for the Cephalic Index.

(c). *Instruments used.*—We took with us “The Traveller’s Anthropometer,” a very compact and useful instrument designed by Dr. J. G. Garson, and manufactured by Messrs. Aston & Mander, 25, Old Compton-street, London. This instrument is described in “Notes and Queries on Anthropology,” Second Edition (1892), published by the Anthropological Institute. It is possible to take all the requisite measurements with this instrument, except the cranial circumference, but we preferred to use other instruments for the head measurements.

We also had with us Flower’s Craniometer (made by Stanley, Great Turnstile, Holborn, London), which is a very convenient instrument for this class of measurements; a compas d’épaisseur and a compas glissière (both made by Mathieu, 113, Boulevard Saint-Germain, Paris. The former is very useful for face measurements as the rounded points of the callipers reduce any danger from accidents to a minimum. The sole objection to our instrument is that it is graduated in two millimetres, and not in single millimetres. The compas glissière is a very handy and delicate little instrument, but it can be dispensed with when a Flower’s Craniometer is used.

A sliding rule, such as was first used in Galton’s Anthropometrical

Laboratory, for measuring the span, was usually carried with our other apparatus. It is a little more convenient than adapting Garson's Anthropometer. Chesterman's steel tape was used for taking the horizontal circumference of the head.

Lastly, we measured the cranial height, and auriculo-nasal and alveolar radii, with Dr. Cunningham's modification of Busk's Cranio-meter, made by Robinson, Grafton-street, Dublin, an instrument which has been used in our Laboratory since its inception.<sup>1</sup>

All measurements were taken in millimetres.

(D). *General Remarks on the Methods Employed.*—The height of the head would best be taken from the ear-hole to the bregma, but in the vast majority of living subjects it is impossible to determine this spot. The measurement we took is convenient, and sufficiently definite.

The horizontal circumference was not taken round the eyebrows, but above them; it is very difficult to take a satisfactory measurement by the former method, owing to the tape slipping, and the variable development of the eyebrows.

The auriculo-radii were found to be readily taken in field-work; and none of the subjects measured absolutely objected to having the plugs of the instrument inserted into their ear-holes, although some demurred at first. Of 293 persons who have been measured in the Dublin Anthropometric Laboratory none have objected to the instrument being used. We thus already have a large series of the three measurements for which this instrument is employed. It is necessary in using this instrument to feel that it is actually pressing against the bony wall of the external auditory meatus.

The internal bi-ocular breadth we consider to be a valuable measurement, as giving the distance between the eyes. The external bi-ocular breadth was taken so as to give some idea as to the size of the eyes, but we did not find this of much practical value, and we consider it preferable to measure from the middle of the outer border of the one orbit to the corresponding point of the other.

The span, or fathom, is an interesting measurement and one readily made. We do not propose to discontinue this measurement, but it is worth bearing in mind that it is of little real scientific value, as it is a composite one, being the addition of four variables, viz. the hand, fore-arm, upper-arm, and the width of the body across the shoulders. In the laboratory, and in this expedition, we measure the

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<sup>1</sup> Cf. Proc. Roy. Irish Acad. (3), II., 1892, p. 397.

lengths of the right hand (tip of mid-finger to styloid (and of the right fore-arm (styloid to epicondyle). It is also the custom in the laboratory to measure the right upper-arm (epicondyle to acromion), but this was found to be impossible in the case of the Aran islanders on account of the thickness of their flannel sleeves. In the laboratory, also, there is great difficulty, and sometimes it is impossible, to take this measurement. When these three upper-limb measurements can be taken, the span measurement is of considerable value. These measurements, however, can only be taken by an observer who has had some anatomical instruction, and often they are very difficult to take even by a skilled observer.

(E) *Photography*.—A considerable number of photographs were obtained of the people. In some cases groups were taken, but full-face and side-view portraits were secured of thirteen of the subjects we measured. We found that the promise of a copy of their photograph was usually a sufficient reward for undergoing the trouble of being measured and photographed.

## 2. PHYSICAL CHARACTERS.

(A) The general physical character of the people is as follows:—

*Height*.—The men are mostly of a slight but athletic build; and though tall men occasionally are to be met with among them, they are, as a rule, considerably below the average Irish stature. The Aran average is 1645 mm. or about 5 feet  $4\frac{3}{4}$  inches, that of 277 Irishmen is 1740 mm. or 5 feet  $8\frac{1}{2}$  inches.<sup>1</sup>

*Limbs*.—The span is less than the stature in a quarter of the cases measured, a rather unusual feature in adult males. The hands are rather small, but the forearm is often unusually long.

*Head*.—The head is well shapen, rather long and narrow; but viewed from above the sides are not parallel, there being a slight parietal bulging.

The mean Cephalic Index, when reduced to the cranial standard, is 75·1, consequently the average head is, to a slight extent, mesaticephalic; although, as a matter of fact, the number measured is nearly evenly divided between mesaticephalic and dolichocephalic. The top of the head is well vaulted, so that the height above the ears is considerable.

The forehead is broad, upright, and very rarely receding; not very high in most cases. The superciliary ridges are not prominent.

*Face*.—The face is long and oval, with well-marked features.

<sup>1</sup> Cf. Final Report of the Anthropometric Committee, Table III., p. 263. British Association Report, 1883.

The eyes are rather small, close together; they are marked at the outer corners by transverse wrinkles. The irises are in the great majority of cases blue or blue-gray in colour.

The nose is sharp, narrow at the base, and slightly sinuous or aquiline in profile.

The lower lip is, in many cases, rather large and full.

The chin is well developed.

The cheek-bones are not prominent.

In quite a large proportion of cases the ears, though not large, stand well out from the head.

In many men, the length between the nose and the chin has the appearance of being decidedly great.

The complexion is clear and ruddy, and but seldom freckled. On the whole, the people are decidedly good-looking.

*Hair.*—The hair is brown in colour; in most cases of a light shade and accompanied by a light and often reddish beard. As a rule, the hair on the face is moderately well developed.

*Sight and Hearing.*—The sight and hearing of the people are, as a rule, exceedingly keen, especially the former. The range and distinctness of the vision is astonishing, as we have had occasion to know; and we are informed by Dr. Kean, that on a clear day, any of the men whose eyesight is average can, with the naked eye, make out a small sailing boat at Black Head, 20 miles away, before he can see it with a good binocular.

For further details the reader is referred to the appended tables.

Certain characteristics appear to be somewhat local. For example, the hair appears to be darker in the neighbourhood of Killeany, at the south-eastern end of Aranmore; and the large, aquiline nose seems to be most common at Oghil and Oat-quarter in the middle of the same island.

Repeated inquiries tended to show that the natives of the Middle and South Islands are considered by those of the North Island to be somewhat more burly in build, and darker in colour, than those of the North Island, and they certainly are better fishermen. Our statistics, however, tend to show that the Inishmaan men are somewhat lighter than the Aranmore men. One of us, a couple of years ago, had the opportunity of seeing most of the men from the three islands collected together at Kilronan, on the North Island, as well as a fair sprinkling of Connemara men. The latter were distinguishable at a glance by their dress, and certainly they had a different build from the Aranites, and were darker in colour. The men from the Middle and South

Islands appeared, as stated above, to be distinguishable from the Inishmore men. The occasion of the gathering was a regatta in which the crews from the Middle and South Islands beat those from the North Island in the Curragh races. One Aranmore man was heard to say in extenuation of the defeat:—"It was only to be expected that them islanders would beat, as they have to go about in canoes so much"!

Dr. Beddoe paid a visit to Aranmore in 1861, and his observations are embodied in his valuable work, "The Races of Britain," from which we extract the following remarks:—"The people of the Aran Isles, in Galway Bay, have their own very strongly marked type, in some respects an exaggeration of the ordinary Gaelic one: the face being remarkably long, the chin very long and narrow, but not angular; the nose long, straight, and pointed; the brows straight, or rising obliquely outwards; the eyes light, with very few exceptions; the hair of various colours, but usually dark brown. We might be disposed, trusting to Irish traditions respecting the islands, to accept these people as representatives of the Firbolgs, had not Cromwell, that upsetter of all things Hibernian, left in Aranmore a small English garrison, who subsequently apostatised to Catholicism, intermarried with the natives, and so vitiated the Firbolgian pedigree" (p. 267); and on p. 25 he says:—"They have nearly the same long-featured, long-headed type already spoken of as common in the Belgic region of Northern France." In his third plate of types of British faces (p. 258), Dr. Beddoe gives a portrait of an Aranmore man.

Dr. Beddoe very kindly lent us the notes he took on this visit, and he has permitted us to make the following quotations therefrom:—"The inhabitants of Aranmore very much resemble each other. They are generally of good stature, with square shoulders, not very broad. Head inclining to be long and narrow; convexity above not great. Forehead rather narrow; looks square from the front, but is gently rounded from other points of view; brows straight or rising obliquely outwards, rather low. Eyes rather narrow, blue-grey, greyish blue, or dark grey. Hair in women abundant, in men not notably so; of various colours, generally dark brown. Nose of good length, straight, pointed. Mouth of good size; often open, as in Irish generally. Chin very long, narrow, but not angular at extremity; great length of jaw with remarkably little curve. Cheek-bones somewhat prominent in front."

Mr. John McElheran says (p. 161):—"I could remark about one Dane or Saxon in fifty of the population [of Co. Galway], especially

in those who come from the island of Arran—a very peculiar people. . . . I give some accurate portraits of the Claddagh men, and two fishermen from the South Arran isles.” At the end of the Paper, in the explanation of the Plates, we read:—“13. Arran man (Danish type). 14. Do. (Celtic type).” We are indebted to Dr. E. P. Wright for this last reference.

J. G. Barry, in the Paper we have already quoted, thus describes the people:—“The inhabitants appear to be of a mixed race; they are fair, tall, and comely.”

The South Island was visited in 1852 by a late President of the Academy, Sir Samuel Ferguson. In his interesting sketch of the island (1853) he says (p. 90):—“The patches of vegetable soil which occur here and there over this rugged tract, are carefully enclosed, and generally planted with potatoes. The soil is light and sandy, but, owing to the absorption of heat by the rock, peculiarly warm and kindly; and the islanders here have had the singular good fortune never to have been visited by the potato blight; never to have had a death from destitution; and never to have sent a pauper to the poorhouse. They are a handsome, courteous, and amiable people. Whatever may be said of the advantages of a mixture of races, I cannot discern anything save what makes in favour of these people of the pure ancient stock, when I compare them with the mixed populations of districts on the mainland. The most refined gentleman might live among them in familiar intercourse, and never be offended by a gross or sordid sentiment. This delicacy of feeling is reflected in their figures, the hands and feet being small in proportion to the stature, and the gesture erect and graceful. The population consists principally of the three families or tribes of O’Flaherty, Joyce, and Conneely. . . . ‘Our island is clean—there are no worms here,’ were the repeated expressions of my companion. . . . To see the careful way in which the most has been made of every spot available for the growth of produce, might correct the impression so generally entertained and so studiously encouraged, that the native Irish are a thriftless people. Here, where they have been left to themselves, notwithstanding the natural sterility of their islands, they are certainly a very superior population—physically, morally, and even economically—to those of many of the mixed and planted districts.

“This practice of forming artificial fields by the transport of earth recalls the old tradition of the Fir-Volgie origin of the early inhabitants of Aran. . . . These Fir-Volgie, according to their own account, were Thracians, who had been enslaved in Greece, and there employed

in carrying earth in leather bags to form the artificial terrace-gardens of Bœotia. If any portion of the existing population of Ireland can with propriety be termed Celts, they are this race" (p. 91).

(B). *Statistics of Hair and Eye Colour.*

## CHILDREN.—I. BOYS.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	3	0	0	3	2·86
Fair, ..	4	0	0	4	3·81
Brown, ..	78	1	2	81	77·14
Dark, ..	11	6	0	17	16·19
Black, ..	0	0	0	0	0·00
Totals, ..	96	7	2	105	100·00
Percentage, } Eye Colours, }	91·43	6·66	1·91	100	—

Index of Nigrescence, . . 9·52.

## II. GIRLS.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	3	2	0	5	4·03
Fair, ..	13	0	0	13	10·48
Brown, ..	74	2	2	78	62·91
Dark, ..	16	8	4	28	22·58
Black, ..	0	0	0	0	0·00
Totals, ..	106	12	6	124	100·00
Percentage, } Eye Colours, }	85·48	9·68	4·84	100·00	—

Index of Nigrescence, . . . . 8·07.

Combined Index (both sexes), . . 8·79.



ADULTS.—I. MALES.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	4	1	—	5	3·73
Fair, ..	8	—	—	8	5·97
Brown, ..	80	3	2	85	63·43
Dark, ..	27	6	1	34	25·37
Black, ..	—	1	1	2	1·50
Totals, ..	119	11	4	134	100·00
Percentage, } Eye Colours, }	88·80	8·21	2·99	100·00	—

Index of Nigrescence, . . 18·57.

II. FEMALES.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	1	—	—	1	1·37
Fair, ..	4	—	—	4	5·48
Brown, ..	44	1	1	46	63·01
Dark, ..	15	6	—	21	28·77
Black, ..	1	—	—	1	1·37
Totals, ..	65	7	1	73	100·00
Percentage, } Eye colours, }	89·04	9·59	1·37	100·00	—

Index of Nigrescence, . . 24·66.

## TOTAL, ARAN ISLANDS.—I. MALES.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	7	1	—	8	3·34
Fair, ..	12	—	—	12	5·02
Brown, ..	158	4	4	166	69·45
Dark, ..	38	12	1	51	21·34
Black, ..	—	1	1	2	0·85
Totals, ..	215	18	6	239	100·00
Percentage, } Eye Colours, }	89·96	7·53	2·51	100·00	—

Index of Nigrescence, . . 14·68.

## II. FEMALES.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	4	2	—	6	3·05
Fair, ..	17	—	—	17	8·63
Brown, ..	118	3	3	124	62·94
Dark, ..	31	14	4	49	24·87
Black, ..	1	—	—	1	0·51
Totals, ..	171	19	7	197	100·00
Percentage, } Eye Colours, }	86·81	9·64	3·55	100·00	—

Index of Nigrescence, . . 14·22.

TABLE OF NIGRESCENCE.—INISHMAAN MEN.

HAIR.	EYES.			Totals.	Percentage Hair Colours.
	Light.	Medium.	Dark.		
Red, ..	1	1	—	2	7·41
Fair, ..	2	—	—	2	7·41
Brown, ..	14	2	1	17	62·96
Dark, ..	4	2	—	6	22·22
Black, ..	—	—	—	—	—
Totals, ..	21	5	1	27	100·00
Percentage, } Eye Colours, }	77·78	18·52	3·71	100·00	—

Index of Nigrescence (percentage), . . . 7·40.

The women observed, 10 in number, all had brown hair and light eyes.

Age.	Number.	Sex.	Light Eyes.					Eyes Light.	Medium Eyes.					Eyes Neuter.	Dark Eyes.					Eyes Dark.	Index of Nigrescence.
			Red.	Fair.	Brown.	Dark.	Black.		Red.	Fair.	Brown.	Dark.	Black.		Red.	Fair.	Brown.	Dark.	Black.		
* Adult,	90	both.	3.9	11.1	25.6	30.6	4.4	75.6	—	—	3.3	10	3.3	3.3	—	5	2.8	7.8	51.6		
† Adult,	207	both.	2.4	5.8	59.9	20.3	.5	88.9	.5	—	1.9	5.8	.5	8.7	—	1.4	.5	2.4	22.6		
† Children,	229	both.	2.6	7.4	66.4	11.8	—	88.2	.9	—	1.3	6.1	—	8.3	—	1.7	1.7	3.4	8.8		

\* Dr. Beddoe.

† Anthropological Laboratory.

(c). *Detailed List of Measurements.*

No.	Name.	Village.	Age.	Eye Colour.	Hair Colour.	REMARKS.
1	Dirrane, Michael, ..	Oghil, ..	18	blue-grey,	brown, ..	curved nose. Plate xxiv.
2	Roger, ..	" ..	25	" "	" ..	brother to former. "
3	" Anthony, ..	" ..	50+	" "	" ..	aquiline nose. "
4	" John, ..	Oat Quarter,	38	" "	dark brown.	
5	Gangly, Patrick, ..	Kilronan,	40	" "	brown,	
6	Faherty, John, ..	Inishmaan,	45	" "	" "	
7	Folan, Barton, ..	" "	30?	" "	light brown.	
8	Magher, Thomas, ..	" "	74	" "	brown, ..	sgittal depression; acrocephalic.
9	Mulkerrin, Thomas, ..	" "	17?	blue, ..	" "	
10	O'Connell, Michael, ..	" "	65	grey, ..	" "	Fig. 5, Plate xxiii.
11	Faherty, Martin, ..	" "	65	blue, ..	grey,	
12	Folan, Roger, ..	" "	30	grey, ..	dark brown.	
13	O'Flaherty, Michael, ..	" "	40?	" "	brown.	
14	Joyce, William, ..	Killeany, ..	47	" "	" "	reddish beard.
15	" Patrick, ..	Eararna, ..	47	" "	" "	brown beard.
16	Connelly, Bartley, ..	" "	36	blue, ..	dark brown,	
17	O'Donnell, John, ..	" "	27	blue-grey,	brown.	
18	Hernon, Tom, ..	" "	47	blue, ..	dark brown,	beard, dark brown.
19	Cook, Michael, ..	Kilronan,	50?	grey, ..	" "	nose straight; slightly scaphoceph.
20	Gill, John, ..	" "	25	" "	" "	son to Tom (18).
21	Hernon, Michael, ..	" "	36	blue, ..	brown.	
22	Dillane, Patrick, ..	" "	17	blue-grey,	dark brown,	
23	Connelly, Tom, ..	" "	45	" "	" "	
24	Folan, Peter, ..	" "	75	grey, ..	grey,	brown, when younger.
25	O'Donnell (John), Michael, ..	Oghil, ..	63	" "	" "	dark brown, when younger.
26	Flaherty, Thomas, ..	Cowragh, ..	53	blue-grey,	light brown,	dark brown, when younger. Pl. xxii.
27	Mullin, Michael, ..	Kilronan,	40	grey, ..	" "	red whiskers.
			21	blue, ..	brown, ..	reddish beard. Figs. 3, 4; Pl. xxii.

No.	CEPHALIC.				FACIAL.			AURICULO.		NASAL.		OCULAR.		Body Height.	FORE-LIMB.		
	Length.	Breadth.	Height.	Circ.	Length.	Breadth.	Bigonial.	Sub-nasal.	Nasal.	Alveolar.	Length.	Breadth.	Int.		Ext.	Span.	Hand.
1	192	154	128	—	134	136	109	68	99	95	66	34	32	92	1812	—	—
2	196	155	132	—	129	138	112	68	98	94	61	33	28	90	1718	—	—
3	194	152	139	—	122	133	110	63	97	95	59	35	30	89	1629	—	—
4	202	156	131	—	137	137	112	82	94	100	55	31	28	89	1641	—	—
5	202	151	125	578	122	140	116	68	102	105	54	36	30	92	1695	189	236
6	204	155	134	590	126	148	130	58	106	107	68	34	30	90	1751	195	265
7	206	153	136	590	143	148	126	83	104	106	60	40	32	96	1875	1890	315
8	174	148	120	532	130	128	104	74	94	92	56	34	29	86	1642	—	182
9	194	145	127	545	126	132	112	68	101	99	58	34	34	94	1716	1770	257
10	198	163	132	590	148	148	124	92	99	98	56	34	38	98	1727	1832	208
11	194	150	118	561	120	139	116	66	97	98	54	34	29	89	1565	1540	245
12	199	148	133	572	121	133	109	67	95	100	54	37	31	88	1679	1640	240
13	201	157	130	578	133	134	110	75	92	95	58	31	27	91	1707	—	191
14	196	150	133	568	136	144	114	77	109	99	59	32	30	84	1762	1762	280
15	200	148	138	577	133	144	118	75	103	105	58	37	30	96	1787	1820	281
16	189	154	132	550	126	138	113	73	97	97	53	33	36	89	1708	1718	253
17	196	151	132	574	138	138	118	78	99	94	60	32	31	91	1660	1587	250
18	207	155	134	590	122	139	109	64	104	102	58	32	29	89	1706	1702	248
19	196	145	129	561	133	137	110	76	90	100	57	33	29	89	1759	1825	209
20	199	157	130	580	132	139	105	74	98	106	58	33	27	90	1676	1703	245
21	201	153	137	574	129	135	108	75	102	102	54	34	32	90	1780	1835	254
22	204	146	128	573	125	137	106	69	100	100	56	35	33	91	1735	1830	266
23	202	152	128	573	133	135	105	73	95	103	60	35	34	90	1660	1742	201
24	192	153	133	560	119	130	112	64	96	104	55	36	32	89	1697	1781	189
25	206	160	133	589	138	148	112	78	105	103	60	31	32	89	1717	1755	248
26	203	156	130	580	126	140	110	70	96	98	56	32	30	84	1650	1608	183
27	192	148	132	563	127	131	114	69	95	96	58	33	28	85	1652	1625	187

PROPORTIONS TO STATURE. HEIGHT = 100.						
No.	Hand.	Forearm.	Span.	Face.	Nose.	
—	—	—	—	7·39	3·64	
—	—	—	—	7·50	3·55	
—	—	—	—	7·48	3·62	
—	—	—	—	8·34	3·35	
—	—	—	106·03	7·19	3·18	
11·15	13·92	15·14	98·23	7·19	3·88	
11·14	15·14	16·80	103·36	7·62	3·20	
11·20	16·80	17·77	100·80	7·91	3·47	
11·08	15·77	—	—	7·91	3·47	
11·40	14·97	103·14	—	7·34	3·38	
12·04	15·05	108·91	—	8·56	3·24	
11·30	15·65	98·33	—	7·66	3·45	
10·96	14·35	97·01	—	7·26	3·21	
11·13	17·28	—	—	7·79	3·45	
10·90	15·87	100·28	—	7·71	3·34	
11·30	15·72	101·84	—	7·44	3·24	
11·10	14·81	100·58	—	7·37	3·10	
11·08	15·06	95·60	—	8·31	3·61	
11·43	14·53	99·76	—	7·15	3·40	
11·31	15·34	103·75	—	7·56	3·24	
11·09	14·67	101·67	—	7·87	3·46	
11·18	14·29	103·09	—	7·24	3·03	
11·01	15·33	105·47	—	7·20	3·22	
12·16	15·36	104·93	—	8·04	3·61	
11·13	16·49	104·83	—	7·01	3·24	
11·18	14·44	105·47	—	8·09	3·49	
11·09	14·06	102·21	—	7·63	3·39	
11·32	14·22	97·57	—	7·69	3·51	
11·24	15·18	101·94	—	7·61	3·38	

No.	INDICES.					
	Cephalic.	Height.	Facial.	Bigonial.	Alveolar.	Nasal.
1	80·2	66·7	101·4	81·3	96	51·5
2	79·1	67·3	106·9	86·8	95·9	54·1
3	78·4	71·6	109	90·1	97·9	59·3
4	77·2	64·9	100	81·7	106·4	56·4
5	74·8	61·9	114·7	95	102·9	66·7
6	76	65·7	117·5	103·1	100·9	50
7	74·3	66	103·5	81·1	101·9	66·6
8	85·1	69	98·4	80	97·9	60·7
9	74·7	65·5	104·7	88·8	98	58·6
10	82·3	66·7	100	83·7	99	60·7
11	77·3	60·8	115·8	96·6	101	63
12	74·4	66·8	109·9	90·1	105·3	68·5
13	78·1	64·7	100·7	82·7	103·3	53·4
14	76·5	67·9	105·8	83·8	90·8	54·4
15	74	69	108·2	88·7	101·9	63·8
16	81·5	69·8	105·5	89·6	100	62·3
17	77	67·3	100	85·5	94·9	53·3
18	74·8	64·7	113·9	89·4	98·1	55·2
19	74	65·8	103	82·7	111·1	57·8
20	78·9	65·3	105·3	79·5	108·2	56·9
21	76·1	68·2	104·6	83·7	100	63·0
22	71·6	62·7	109·6	84·8	100	62·5
23	75·2	63·4	101·5	78·9	108·4	58·3
24	79·7	69·3	109·2	94·1	108·3	65·4
25	77·7	64·6	107·2	81·1	98·1	51·7
26	76·8	64	111·1	87·3	102·1	57·1
27	77·1	68·8	103·1	89·7	101·1	56·9
Mean	77·1 (75·1)	66·2	106·3	86·9	101·1	58·5

## CEPHALIC INDEX, CORRECTED FOR COMPARISON WITH SKULLS.

		A. Corrected Indices.			
8	83.1	}	2 } B. Actual Indices. Brachycephalic.		
10	80.3				
16	79.5	}	4 Brachycephals.		
1	78.2				
24	77.7				
2	77.1				
20	76.9	}	11 Mesaticephalic.		
3	76.4				
13	76.1				
11	75.3				
4	75.2			}	14 Mesaticephals.
27	75.1				
17	75.0				
26	74.8				
14	74.5			}	13 Dolichocephalic.
21	74.1				
6	74.0				
23	73.2				
5	72.8				
18	72.8				
9	72.7				
12	72.4	}	9 Dolichocephals.		
7	72.3				
15	72.0				
19	72.0	}	1 Hyper-Dolichocephalic.		
25	70.8				
22	69.6	1			



(D). *Analysis of the Statistical Tables.*—An analysis of some of these indices and figures brings out some interesting points.

It is generally agreed that the natives of the Middle Island (Inishmaan) and the South Island (Inisheer) have been less subject to foreign influence than those of the North Island (Aranmore); consequently we should expect to find them more uniform in their characters.

Unfortunately the weather prevented us from visiting the South Island; and in the Middle Island we obtained but seven measurements.

In order to test the difference between the men of the Middle Island and those of the North Island we have drawn up the following tables. We have placed the Middle Island men first, and the North Island districts in succession from the south-east to the middle of the island:—

Locality.	Brachy.	Mesati.	Dolicho.	Hyper-dol.
Inishmaan, . .	2	1	4	—
{ Earnarna, . . .	—	2	2	—
{ Killeany, . . .	—	1	—	—
{ Kilronan, . . .	—	3	5	1
{ Oghil, etc., . .	—	5	1	—

The arithmetical mean cephalic index (corrected) of the three classes of Inishmaan men is as follows:—Brachy, 81·7; mesati, 75·3; dolicho, 74·8; the total mean being 75·8, which would make them mesati-cephalic, but with the wide range of from 83·1 to 72·3. The mean head-height index is 65·8.

We have also calculated the arithmetical mean of the face-indices of the Inishmaan men, but in these we have omitted Thomas Magher, No. 8, as his age (74) would affect the normal average.

The following figures may be compared with the total Aran means:—Facial Index, 108·5; Bigonial Index, 90·6; Alveolar Index, 101; Nasal Index, 61·3.

The arithmetical mean height of the seven Inishmaan men is 1708 mm. (5ft. 7in.), but one of these is 74 years of age and much bent; if he be excluded the height is raised to 1718 mm., or 5ft. 7½in. The average height of the twenty Aranmore men is 1621 mm., or

5ft. 3 $\frac{1}{4}$ in., and the mean of sixteen spans is 1731 mm., or 5ft. 8in. The average of six spans is 1722 mm., or 5ft. 7 $\frac{1}{4}$ in., but this is probably too low a figure.

To complete our comparison we add the statistics of the eye and hair colours of Inishmaan.

R	F	B	D	N	R	F	B	D	N	R	F	B	D	N	
1	2	8	4	—	1	1	2	—	—	—	—	1	—	—	Inishmaan.
—	—	10	—	—	—	—	—	—	—	—	—	—	—	—	

The Nigrescence of this island is, as may be seen from the table, 7·40, as against the Aran index for adult males of 18·57, thus showing a lighter pigmentation.

We think this includes all the more important distinctions between the men of Inishmaan and those of Aranmore. This analysis was made out after the general remarks on the physical features were written and the statistics support the conclusions there stated.

Finally, we would like to draw attention to certain proportional measurements which have some interest.

These are worth notice in that they in many respects differ from the accepted artistic canons, and also from the European proportions of Quetelet and Gould, in some cases to a considerable extent (Topinard, pp. 329–334; and Windle, “Proportions of the Human Body, p. 39.” The ethnological value of proportional measurements is well established. The stature is taken as the standard and as equaling 100.

#### FACE.

*Face.*—The proportion borne by the face-length to stature is interesting, the whole face being evidently very long, as the average is 7·56 instead of 6·60 as given by Topinard, and 6·90 the proportion found by Quetelet in his observations on adult male Belgians. It is fairly constant, but varies between 8·56 and 7·01.

*Nose.*—This is very constant in its proportion and subject to but slight variation. On the average it bears the exact French artistic mean of 3·38.

N.B.—From this it is evident that the variations in face proportion must be due to irregularities in the length of the sub-nasal portion.

## FORELIMB.

*Span.*—This is as decidedly short on the whole, the average being only 101·9, as compared with 104·6, the figure obtained by Gould from the measurement of 827 Irish soldiers, and 104·5 by Quetelet on Belgians. It varies considerably, however, the extremes being 97·01 and 106·03. In six cases out of the twenty-two it is less than the stature, a very high proportion.

*Hand.*—This is a rule decidedly short, giving the mean of 11·24 to the 11·5 of the canon (French) and of Quetelet's observations. It ranges between 12·16 and 10·9, though it is only above 11·40 in two cases and below 11 in two.

*Forearm.*—This is often unusually long and bears only an eccentric relation to stature. On the average it is 15·18, but varies between 17·28 and 14·06.

## 3. VITAL STATISTICS (GENERAL AND ECONOMIC).

(A.) *Population.*—The population of these islands like that of Ireland in general is a decreasing one, the rate of decrease having been much larger during the last decade than what it was before that period. The falling off in population and number of houses occupied in the whole period since 1841 amounts to 17·44 and 9·50 per cent. respectively, of which a loss in population of 7·27 per cent., and in houses of 4·79 per cent., has occurred in the decennial period, 1881–1891.

The following table shows the population at each census since 1841, with the number of houses occupied, the average number of inhabitants per house, and the number of acres per head at each decennial period. The two latter we give to illustrate the density of the population :—

Census.	Population.	Houses.	Inhabitants. per house.	Acres per head.
1841	3521	621	5·67	3·20
1851	3339	633	5·27	3·38
1861	3299	656	5·02	3·42
1871	3049	592	5·15	3·70
1881	3163	593	5·33	3·56
1891	2907	562	5·17	3·88

That the decrease shown here is solely due to emigration is

evidenced by the return of births and deaths, which in the period 1881 to 1890 amounted to—births, 848, and deaths, 517, or an excess of births over deaths of 331, or 39·03 per cent. The population in 1821, however, was 3079 (cf. Hardiman's note on p. 5 of O'Flaherty's *H. Iar Connaught*); and in 1815 it was 2400.

When one of us was in Aran a couple of years ago he noticed that the old village of Killeany was remarkable for the number of extremely old people and children, large numbers of the young and middle-aged people having emigrated to America.

In St. Eany's graveyard, Killeany, is a grave with the following inscription:—"Michael Dirrane, who departed this life in the 119th year of his age—1817."

The total area of the islands is 11,288 acres, and the present population (census 1891) 2907; males, 1542; and females, 1365, distributed as follows:—

Island.	Acres.	POPULATION.			Houses.
		Total.	Males.	Females.	
Inishmore, .	7635	1996	1048	948	397
Inishmaan, .	2252	456	240	216	84
Inisheer, . .	1400	455	254	201	81

In 1871 there were 27 more males than females, and in 1891 the number of males exceeded that of the females by 177.

(B) *Acreage and Rental.*—The rental of Aranmore is £1433 18s. 1d., that of Inishmaan is £423 18s. 5d., and that of Inisheer £227 14s., the gross total being £2085 10s. 6d.

It will be seen from these statistics that taking the number of houses at 562, there is an average acreage of 20 A. 0 R. 13½ P. to each house of five persons, and the corresponding average rental is £3 14s. 2½d.

The density of the population to the square mile is 171, that of county Galway is 87 and for the whole of Ireland 146. It should be borne in mind that much of the land in the Aran Islands is unprofitable, but how much is not easily estimated, and this naturally raises the density of the population in proportion to the profitable area.

According to Mr. J. G. Barry "the rents were fixed some ninety years ago at rates varying from £4 3s. to £2 10s. per cannogarra on

the supposition that a cannogarra or holding could feed a cow with her calf, a horse, and some sheep for their wool and give sufficient potatoes to support one family." The north island is divided into four townlands, Onagh, Kilmurvey and Killeany, each townland is divided into 6 carrows and each of these again into 4 cartrons, which are themselves further sub-divided into 4 cannogarras. Thus each townland contains 96 cannogarras. The cannogarras of Aranmore average from about eleven to over thirteen acres, those of Inishmaan average eleven acres, while the cannogarra of Inisheer has over fourteen acres.

According to Barry (1885, p. 488) early in the eighteenth century Simon Digby, Bishop of Elphin, purchased for £8200, the interests of Sir Stephen Fox and John Richard Fitzpatrick in these islands. The present owner is the Hon. K. Digby St. Lawrence.

John T. O'Flaherty (1824) states:—"These several islands are the estate of Mr. Digby (John William Digby of Landenstown in the county of Kildare). This gentleman is considered one of the best of landlords. He allows annually 20 guineas to schoolhouses for the instruction of orphans; and £20 annually for clothing the poor, with other pecuniary donations. His annual rental, on the islands, is £2700. Mr. Thomson, his agent, visits them twice a-year, not only to receive rents, but to adjust all differences. The quit and crown rents of the isles is £14 17s. 0½d." (p. 137). On p. 93 we find the following:—

"On 9th September [1662], 21st, Charles II. the King, by patent under the Act of Settlement, granted unto Richard Earl of Aran the great island, containing as followeth:—viz. 6 quarters of Killeny 153 acres profitable, 211 A. 2 R. unprofitable. Oghill 6 quarters, 227 acres profitable, 620 acres unprofitable. Killmoacre alias Kilmurry 6 quarters, 308 acres profitable, 504 A. 2 R. unprofitable. Ogheught 6 quarters, 214 acres profitable, 512 acres unprofitable. The island of Inishmaine containing the four quarters of Kilcannon, 258 A. 2. R. 20 P. Lorke 4 quarters, 177 A. 2 R. profitable, 257 A. 3 R. unprofitable. In the small island 4 quarters 123 acres profitable. Total, 2376 A. 1 R. 7 P. statute measure, all situate in the half barony of Aran and county of Galway, at the annual rent of £14 7s. 0½d. payable to the King, his heirs, and successors."

From the foregoing quotation it appears that 200 years ago 1461 A. 0 R. 20 P. were profitable and 2105 A. 3 R. were unprofitable, these totals do not agree with the reputed "total, 2376 A. 1 R. 7 P. statute measure"; but the proportion shows that a considerable ratio of the land was useless. It would be interesting to know, if it could be determined, what portion of the land is actually of no value.

Burke (1887, pp. 66-70) quotes from the Report of the Land Commission of June, 1885, that Michael O'Donel's holding contained twenty-two acres, five of which were nothing but rocks and stones, without one blade of grass in them, so that it was seventeen acres of productive land he had, at an annual rental of £3 18s. 6d. The Court reduced it to £2 7s. 6d., being 39·75 per cent. reduction. This is stated to be a typical case.

Wilde (1857) says:—"Of the entire area of the Aran Isles, amounting to 11,288 acres, only 742 were under crops, of which 692 were sown with potatoes in 1855." This, probably, is what Martin Haverty (1859, p. 7) refers to when he says:—"Little more than 700 [acres, in the Aran Isles] are productive."

(c) *Language and Illiteracy*:—*Language*.—2572 persons or 88·47 per cent. of the population are returned at the last census as speaking Irish, of whom 772 persons, 390 males and 382 females, speak Irish only; and 1800, 963 males and 837 females, both Irish and English. The return does not state the numbers on each island but the proportion speaking Irish only must be least on Aranmore, and is probably greatest on Inishmaan.

"*Illiteracy*."—The population above five years of age amounts to 2552 of whom 1128 or 44·20 per cent. are returned as illiterate. These are distributed as follows:—

	INISHMORE.			INISHMAAN.			INISHEER.		
	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
Number above 5 years, ..	1758	918	840	408	217	191	386	212	174
Illiterates, ..	799	415	384	189	84	105	140	75	55
Proportion per cent, ..	45·4	45·2	45·7	46·3	38·7	55·0	36·3	35·4	32·0

These figures show, as might have been expected, a much lower rate of illiteracy among the males than among the females.

Of the three islands it will be observed that there is least illiteracy on Inisheer, while Inishmore and Inishmaan have exactly the same proportion, the former having a higher rate among the males than the latter.

POPULATION TABLE, O'Flaherty (1824), p. 140.

DENOMINATIONS.	HOUSES.				PERSONS.			OCCUPATIONS.				SCHOOLS.		
	Inhabited.	Families.	Uninhabited.	Building.	Males.	Females.	Total of Persons.	No. of Persons chiefly employed in Agriculture.	No. of Persons chiefly employed in Trades, Manufactures, or Handicrafts.	No. of all other Persons occupied.	Total Number of Persons occupied.	Males.	Females.	Total.
Inisheer, ..	59	61	5	1	218	199	417	71	48	68	187	31	9	40
Inishmaan, ..	62	65	—	1	198	188	386	105	83	37	225	19	1	20
Killeany, ..	178	185	6	—	545	518	1063	123	160	191	474	46	12	58
Oaghill, ..	66	68	3	—	211	176	387	82	38	39	159	46	23	69
Kilmurvy, ..	68	72	—	—	231	200	431	104	46	29	179	—	—	—
Onought, ..	65	66	1	—	209	186	395	118	78	16	212	19	8	27
	498	517	15	2	1612	1467	3079	603	453	380	1436	161	53	214

(D) *Health*.—We regret to be unable to give any figures of the prevailing diseases especially the causes of death, but the following information has been kindly afforded us by Dr. Kean, the medical officer of the islands :—

The inhabitants of one island do not as a rule intermarry with those of another, and as, owing to their insolated position marriages between the natives and the people of the mainland are not common, but little fresh blood can have been introduced for generations. The people of each locality are more or less inter-related, even though marriages between those of close degrees of relationship may not be usual.

For these reasons it might be expected that this homogeneity of strain would produce some of the effects usually attributed to consanguineous unions, but with the exception of the great similarity in personal appearance which is observed among them, there seems to be no appreciable result from the in-breeding.

The population seems on the whole to be an unusually healthy one. *Idiocy and imbecility* are not common, there being but two cases on the islands, both imbeciles, but possessed of a certain amount of shrewdness.

Epilepsy is said to be rare.

Insanity is not very common. In September, 1892, there were seven cases, four males and three females, or one in 415 of the population. All these were in Ballinasloe Asylum. There is no reason for assigning alcoholism as an exciting cause in any of these cases, nor was consanguinity of parents alleged as a cause.

There is one case of deaf mutism : both parents and grand-parents said to have been relatives.

The condition of the islanders, as regards the most easily ascertainable infirmities, idiocy, insanity, deaf mutism and blindness, is best shown by comparison of the proportions borne to population by the same in county Galway and in Ireland at large, as given in Report on Census, 1891, Part II. :—

	Blind.	Insane.	Idiotic.	Deaf and dumb.
Aran, 1 person in every ..	1453 <sup>1</sup>	415	1453	2907
Galway, ,, ,, ..	902	408	789	1248
Ireland, ,, ,, ..	881	315	754	1398

<sup>1</sup> None congenital.



*Hare-lip.*—Of this there are four cases (all young people), double in each instance, and accompanied by cleft palate. Two of these are in one family in Aranmore, both very bad cases.

“*Constitutional*” *Diseases.*—Cases of phthisis are very few, and there is but little struma. Malignant disease not seen. Rheumatism very rarely met with.

*Dietetic Diseases.*—Dyspepsia and dilatation of the stomach are extremely common, due, no doubt, to the large proportion of vegetable food in their dietary, and aggravated by the tea which has come greatly into use of late years; it is drunk very hot and strong, and without milk: a habit which often gives rise to severe gastralgia.

*Respiratory Diseases.*—Cases are not very numerous.

*Local.*—These cannot be said to be either common or many.

*Eye:* There are two or three cases of cataract; and conjunctivitis, especially the granular form, is pretty common among children, and aggravated by the peat smoke of the cabins. *Teeth:* Though the incisors are even and white, in young people and women give much trouble: the molars and bicuspid being very subject to caries, and abscess of the alveolus being extremely common.

*Veneral affections* may be said to be practically unknown.

Naturally, owing to the mode of life, fractures and other injuries are fairly common.

The following account given by J. T. O’Flaherty, 1825 (p. 132), is interesting in this connexion:—“The general longevity of the inhabitants proves the excellent temperature of the air. There is a late instance of an Aranite having died at, or about, the age of one hundred and fifty. It was this excellence of climate that gave rise to the fable of incorruptibility, in these islands, of all dead and uninterred bodies, such as Cambrensis and others have foolishly related. This quality of the air, together with sobriety and industrious habits, accounts for the hardiness, strength, and activity of the inhabitants. Here nothing is known of the gout, rheumatism, &c., nor of any of those artificial diseases which idleness and intemperance engender among the more opulent and self-called civilized classes.”

## 4. PSYCHOLOGY.

We believe the following to be a fair and unbiassed description of their psychology. This is a very difficult and delicate subject, but it must not be ignored in an investigation of this nature. Our remarks apply to Inishmore.

Naturally to the casual visitor the inhabitants show to their best advantage, and to such they appear as a kindly, courteous, and decidedly pleasing people. Though begging is becoming more prevalent than formerly, owing to the opening up of the island to tourists, a pleasant independence is often exhibited. We believe them to be "good Catholics." They have had the character of being exceptionally honest, straightforward, and upright. On the other hand, we have been told that the men have no unity or organisation, that they are cunning, untrustworthy, and they certainly are very boastful when in liquor. They rarely fight, but will throw stones at one another. Occasionally the old people are badly treated; and when an old man has made over his farm to his married son, the young people have been known to half-starve him, and give him the small potatoes reserved for the pigs. The men do not appear to have strong sexual passions, and any irregularity of conduct is excessively rare: only five cases of illegitimacy having been registered within the past ten years. There is no courtship or love-making, marriages being suddenly arranged for, mainly for unsentimental reasons. The marriages appear to be as happy as elsewhere; and the women can quite hold their own with the men.

There are no indications that the æsthetic sense is well developed among the people. They appear to be distinctly non-musical, as is evidenced by the fact that there is no piper, fiddler, or musician of any sort on the islands. Miss Banim remarks that the art of music "is almost unknown there. Rarely I heard a song, and then but a curious, wild 'croonaun,' like the moaning of the wind at sea; but I never heard a musical instrument. Yet in speaking, the voices of the natives are very soft and low. Occasionally at a wedding or some such festival songs are sung" (p. 146). The children, so far as we could see, do not appear to play games. The men and lads occasionally play at "fives."

Sir Samuel Ferguson says of the people:—"The people themselves, so fine-natured, genial, and intelligent, are more worthy of regard than all their monuments from the fifth century downwards.

. . . The same obliging disposition that characterizes the people of the less frequented islands, shows itself in equally amiable ways among the inhabitants of Arran More" (*loc. cit.* p. 496).

Dr. Petrie gives a pleasing picture<sup>1</sup> of the native character:—"They are a brave and hardy race, industrious and enterprising. . . . They are simple and innocent, but also thoughtful and intelligent; credulous, and, in matters of faith, what persons of a different creed would call superstitious. Lying and drinking, the vices which Arthur Young considers as appertaining to the Irish character, form at least no part of it in Aran, for happily their common poverty holds out less temptation to the one or opportunity for the other. I do not mean to say they are rigidly temperate, or that instances of excess, followed by the usual Irish consequences of broken heads, do not occasionally occur; such could not be expected, when their convivial temperament and dangerous and laborious occupations are remembered. They never swear, and they have a high sense of decency and propriety, honour and justice. In appearance they are healthy, comely, and prepossessing; in their dress (with few exceptions), clean and comfortable; in manner serious yet cheerful, and easily excited to gaiety; frank and familiar in conversation, and to strangers polite and respectful; but, at the same time, free from servile adulation. They are communicative, but not too loquacious; inquisitive after information, but delicate in seeking it, and grateful for its communication." Dr. Petrie then continues with several charming and sympathetic descriptions of the character of a few individuals.

Dr. Petrie also writes:—"The result of much inquiry and attentive observation was a conviction, that though from recent circumstances the brightness of this picture [primitive simplicity, ingenuous manners, and their singular hospitality] should now be somewhat lessened, and that the Araners can no longer be considered the simple race unacquainted with crime, such as they were generally depicted, yet that enough still remains of their former virtues to show that the representations of them were but little, if anything, exaggerated.

"The introduction, a few years since, of a number of persons into Aranmore for the purpose of erecting a lighthouse, has had an injurious effect on the character of the native inhabitants of the island. Their unsuspecting confidence and ready hospitality were frequently taken advantage of and abused, and their interesting

<sup>1</sup> Stokes' Life of Dr. Petrie, pp. 49, 50.

qualities have consequently been in some degree diminished. Till that time robbery of any kind was wholly unknown in the island. 'Such was their honesty,' said one who has passed his life amongst them, 'that had a purse of gold been dropped in any part of the island there would have been no uneasiness felt respecting its safety, as assuredly it would be found at the chapel on the Sunday or holiday following, no instance having ever occurred of anything lost not being restored in that manner.' There is some reason to doubt that this would be so now. Several petty thefts have occurred, and though they have uniformly been attributed by the islanders to the strangers lately settled among them, it would perhaps be rash to conclude that they themselves have hitherto wholly escaped the vicious contagion . . . . (p. 50). Much of their superiority must be attributed to their remote, insular situation, which has hitherto precluded an acquaintance with the vices of the distant region, . . . . they are to be considered, not as a fair specimen of the wild Irish of the present day. ['The wild Irish are at this day known to be some of the veriest savages in the globe!!!'—*Pinkerton's History*], but rather as a striking example of what that race might generally be under circumstances more happy."

Since Dr. Petrie's visits (1821 and 1857) the Aranites have come still more under the influence of foreigners, and even politics are not unknown.

Dr. Stokes (1868, p. 48) says:—"For the last ten years, out of a population of 3300, and with only one magistrate, the committals to prison have not annually averaged one per thousand of the people, and not one has been sent for trial at assizes or quarter sessions."

The following quotation from a letter from Philip Lyster, Esq., Barrister-at-Law, Resident Magistrate of the district in which Aran is situated, to Mr. Burke (cf. "The South Isles of Aran," p. 59) is of considerable interest:—

"The Aran islanders, as a body, are an extremely well-behaved and industrious people. There are sometimes assaults on each other, which invariably arise out of some dispute in connexion with the land, and are generally between members of the same family. There are very few cases of drunkenness. I have known two months to elapse without a single case being brought up. I should say that for four years, speaking from memory, I have not sent more than six or seven persons to jail without the option of a fine. There is no jail on the islands. We hardly ever have a case of petty larceny. I

remember only one case of potato stealing ; when the defendant was sent for trial and punished. There are often cases of alleged stealing of seaweed in some *bonâ fide* dispute as to the ownership, which we then leave to arbitration by mutual consent. I know very little of the history of the islands. In the last century justice used to be administered by one of the O'Flaherty family, the father of the late James O'Flaherty, of Kilmurvy House, Esq., J.P. He was the only magistrate in the islands, but ruled as a king. He issued his summon for 'the first fine day,' and presided at a table in the open air. If any case deserved punishment, he would say to the defendant, speaking in Irish: 'I must transport you to Galway jail for a month.' The defendant would beg hard not to be transported to Galway, promising good behaviour in future. If, however, his worship thought the case serious, he would draw his committal warrant, hand it to the defendant, who would, without the intervention of police or anyone else, take the warrant, travel at his own expense to Galway, and deliver himself up, warrant in hand, at the county jail. I am afraid things are very much changed since those days."

For a comparison of the character of the natives of the three islands with one another, we are obliged to again quote from Dr. Petrie:—

"The proximity of the island of Innisheer to the Clare coast, rendering an intercourse with the parent country easy, has long given to the inhabitants of that island a somewhat distinctive character, not more remarkable in the Munster dialect of the Irish which they speak, than in the superior shrewdness, marked with occasional want of principle, which causes them to be dreaded in their dealings, and in some degree disliked by the other islanders. Of the existence of this peculiar sharpness as well as desire for gain, not at all observable in the other islanders, I had myself sufficient opportunity of judging.

"In the island of Innishmain alone, then, the character of the Aran islander has hitherto wholly escaped contamination, and there it still retains all its delightful pristine purity" (p. 49).

## 5. LANGUAGE.

An ethnographical description of a people is not complete without their language being taken into account. We are not competent to say anything on this subject, but merely give one or two abstracts from previous writers. Writing in 1824, O'Flaherty says:—"The Irish is the only language in the islands, where it is full of primitive words, not intelligible even on the neighbouring continent" (p. 138). More recently, Barry (1886, p. 490) found, as is at present the case, that Irish is most generally spoken by the people to one another: one woman informed us that she had never spoken in English to her husband; the majority, however, can understand and speak English, but their "vocabulary is very simple and limited, and in their idiomatic expressions they rather resemble the Highlanders of Scotland."

## FOLK NAMES.

In reply to our request, Sergeant Wm. Law, of the Royal Irish Constabulary, has kindly made a list of the names which occur among the Aran islanders. In his letter he writes:—

"I forward a list of the surnames of the people of these islands. The frequency of the names as shown on the list is strictly accurate.

"I have omitted a few names such as those of Johnston, Chard, Kilbride and a few others of more ancient appearance on the islands.

"I carefully went over the Christian names of above 250 families with the result as shown on No. 2 list. I give all the Christian names used here, so that you might see if we have any pagan ones amongst us."

These lists contain 61 surnames belonging to 458 individuals and 61 christian names, of which 37 are those of males and 24 those of females. The christian names are those of 1314 individuals.

We cordially thank Sergeant Law for the trouble he has taken in so carefully compiling these interesting lists.

1.—LIST OF SURNAMES OF THE INHABITANTS OF ARAN ISLANDS,  
GALWAY BAY.

Surname.	Approximate frequency.	Surname.	Approximate frequency.
Beaty, .. ..	1	Joyce, .. ..	17
Brabson, .. ..	1	Kean, .. ..	5
Burke, .. ..	5	Kelly, .. ..	4
Concannon, .. ..	5	Kilmartin, <sup>8</sup> .. ..	1
Conneely, <sup>1</sup> .. ..	61	Kennedy, .. ..	1
Cooke, .. ..	5	Kenny, .. ..	1
Curlin, .. ..	8	King, .. ..	1
Coleman, .. ..	1	Keilly, .. ..	1
Costello, .. ..	8	Kyne, .. ..	2
Crampton, .. ..	1	Lee, .. ..	2
Davran, .. ..	1	Leonard, .. ..	3
Derrane, <sup>2</sup> .. ..	57	Maher, .. ..	7
Dillane, .. ..	4	M'Donagh, .. ..	27
Donohoe, .. ..	11	Millane, .. ..	6
Duignan, .. ..	3	M'Nally, .. ..	1
Faherty, <sup>3</sup> .. ..	78	Mulkerrin, .. ..	4
Fallon, .. ..	3	Mullin, .. ..	20
Fahy, .. ..	1	Murray, .. ..	2
Flaherty, <sup>4</sup> .. ..	80	Naughton, .. ..	3
Fitzpatrick, <sup>5</sup> .. ..	5	O'Brien, .. ..	5
Flanagan, .. ..	1	O'Donnell, .. ..	20
Folan, .. ..	18	O'Rourke, .. ..	2
Gauly, <sup>6</sup> .. ..	1	Powel, .. ..	14
Garvey, .. ..	1	Quinn, .. ..	2
Gillan, <sup>7</sup> .. ..	3	Ryder, <sup>9</sup> .. ..	1
Gill, .. ..	6	Scofield, .. ..	1
Gould, .. ..	1	Sharry, <sup>10</sup> .. ..	2
Griffin, .. ..	9	Toole, .. ..	4
Hardy, .. ..	1	Wallace, .. ..	3
Hernon, .. ..	11	Walsh, .. ..	4
Hogan, .. ..	1		

<sup>1</sup> This name is found over the three islands.  
<sup>2</sup> This name is confined (with exception of two families) to the large island  
<sup>3</sup> Distributed over the three islands.  
<sup>4</sup> Distributed over the three islands.  
<sup>5</sup> Originally from the King's County.  
<sup>6</sup> Originally from Dublin.  
<sup>7</sup> Originally from the North.  
<sup>8</sup> From County Clare.  
<sup>9</sup> Originally from Boffin Isle.  
<sup>10</sup> Originally from County Clare.

2.—A LIST OF CHRISTIAN NAMES OF PEOPLE ON ARAN ISLANDS, SHOWING THE FREQUENCY WITH WHICH THE NAMES OCCUR.

## (a) MALES.

Christian Names.	Frequency of occurrence.	Christian Names.	Frequency of occurrence.
Andrew, .. ..	3	Matthew, .. ..	1
Ambros, .. ..	1	Martin, .. ..	48
Anthony, .. ..	4	M'Dara, .. ..	8
Bartly, .. ..	34	Michael, .. ..	105
Bryan, .. ..	4	Morgan, .. ..	8
Coleman, .. ..	24	Myles, .. ..	1
Daniel, .. ..	1	Patrick, .. ..	113
Denis, .. ..	2	Peter, .. ..	31
Edward, .. ..	19	Philip, .. ..	1
Edmond, .. ..	1	Roger, .. ..	2
Francis, .. ..	2	Robert, .. ..	1
George, .. ..	1	Simon, .. ..	5
Hugh, .. ..	1	Stephen, .. ..	11
Hubard, .. ..	1	Thady, .. ..	1
James, .. ..	7	Thomas, .. ..	61
John, .. ..	101	Timothy, .. ..	1
Joseph, .. ..	18	Walter, .. ..	1
Lawrence, .. ..	2	William, .. ..	9
Mark, .. ..	1		

## (b) FEMALES.

Christian Names.	Frequency of occurrence.	Christian Names.	Frequency of occurrence.
Agnes, .. ..	6	Hannah, .. ..	3
Alice, .. ..	1	Judith, .. ..	2
Anne, .. ..	51	Julia, .. ..	10
Barbara, .. ..	28	Margaret, .. ..	62
Bridget, .. ..	95	Maria, .. ..	6
Catherine, .. ..	62	Mary, .. ..	165
Celia, .. ..	1	Norah, .. ..	3
Debby, .. ..	1	Nappy, .. ..	2
Delia, .. ..	12	Sally, .. ..	1
Ellen, .. ..	16	Sarah, .. ..	6
Elizabeth, .. ..	1	Sabina, .. ..	1
Honor, .. ..	27	Winifred, .. ..	8

The following is an approximately complete list of the names of the people to whom the remarkable and unique road-side monuments



were erected. It is evident that this fashion was started by the Fitzpatricks, and it has now practically died out.

Name.	Age.	Date of death.	Locality of Monument.
Patrick Fitzpatrick, ..	—	1754	Near Killeany House.
Margrett ,, (wife), ..	—	—	„ „
John ,, ..	25	1754	„ „
Dennis ,, ..	23	1753	„ „
Peter ,, ..	17	1854	„ „
Sara M. Swein (?) wife to Hn. Fitzpatrick, ..	—	1709	„ „
Rickard ,, ..	—	1701	„ „
John ,, ..	—	1709	„ „
Florence ,, ..	—	1709	„ „
Edmd. Dirrane, ..	80	1827	Killeany.
Joh. Wiggan, .. ..	—	1837	„
Mich. Dirrane, .. ..	119	1817	„
Petr Wiggins, .. ..	66	1826	„
Simon Wiggins, erected } by Anne Flaherty, wife, }	34	1845	„
Margt. O' Flaherty, } als. Dirrane, }	52	1830	„
Martin O' Flaherty, ..	38	1848	„
John Flaherty, .. ..	60	1858	„
Barthw. O'Donnell, ..	18	—	„
Mary ,, ..	24	—	„
Denis ,, ..	48	1834	„
Ann ,, (wife), ..	63	—	„
Catherine Gill, also } Flaherty, }	37	1846	„
Hugh Gill, .. ..	66	1840	„
James Fitzpatrick, } John (son), }	26	1828	„
Bridget (daughter), }			
Mich. McDohog <sup>n</sup> , ..	38	1820	„
James Naughten, ..	30	1817	„
Anthony O' Flaherty, ..	56	1822	„
Patrick O'Donnell, ..	50	1863	Between Kilronan and Oghil.
Wife of do., .. ..	6(?)	1849	„ „
Roger Conelly, .. ..	83	1853	„ „
Anne ,, (wife), ..	56	1859	„ „
Michael ,, (son), ..	24	1872	„ „
Julia Derrane, .. ..	26	1855	„ „
Bridget ,, <i>alias</i> } O'Brien, }	48	1811	„ „
Thomas Mullin, .. ..	19	1875	„ „
Ann Durane, .. ..	—	1846	Oatquarter.
Bartholomon Hernan, ..	50	1863	Kilmurvy.
Mary (daughter), ..	—	1871	„
Michael Dirrane, .. ..	26	1828	„
Honora ,, ..	50	1822	„

## IV.—SOCIOLOGY.

1. *Occupations.*—All the men are land-holders to a greater or less extent. According to J. G. Barry (1885) “the rents were fixed some ninety years ago at rates varying from £4 3s. to £2 10s. per cannogarra, on the supposition that a cannogarra or holding could feed a cow with its calf, a horse, and some sheep for their wool, and give sufficient potatoes to support one family.”

It appears that at the present time rents vary from about £2 to £7 per holding, according to the quantity of land, the average being about £3 10s.

Most of the fields are very small in size, and the tendency is to further divide up the large fields by walls in order to more completely protect the crops from the wind. These walls are composed of stones piled loosely one on the top of another; there are no gates or permanent gaps through the walls; entrance for cattle being made by pulling a portion of the wall down, and then piling up the stones again. In some places the walls are of a considerable height.

Owing to the way the land is apportioned to the members of a family, a man usually owns a number of isolated fields scattered all over the island. This necessitates a great loss of time in going from one field to another to see that no trespassing of cattle or sheep is occurring.

The subletting of land on the con-acre system also tends to further subdivision.

Only a fraction of the land is naturally fit for anything, and probably a considerable portion of the existing soil has been made by the natives bringing up sea-sand and sea-weed in baskets, on their own or on donkeys' backs, and strewing them on the naked rock after they have removed the loose stones. Clay scooped from the interstices of the rock may also be added. Farmyard manure is little used in the fields. Only spade labour is employed in the fields.

Potatoes are grown in this artificial soil, after a few crops of these, grass is sown, and later rye. The latter is cultivated for the straw which is used for thatching; the rye-corn is not now employed for eating purposes.

“The prevailing crops are potatoes, rye, and a small kind of black oats, all which ripen early, and are of good quality and sufficiently productive. The islanders sow some small quantities of barley and wheat, and in that operation employ an increased quantity of manure. They have also small crops of flax. On the whole, their harvest seldom exceeds domestic consumption; agriculture, however, is daily

improving. Their pasture land is appropriated to sheep, goats, and a few small cows and horses, for which latter they reserve some meadows; the mutton is considered delicious, but their most profitable stock consists of calves, which are reputed to be the best in Ireland" (J. T. O'Flaherty, p. 132).

Burke states (p. 7):—"The tillage of the islands comprises potatoes, mangold wurzel, vetches, rape, clover, oats, and barley. The potatoes almost exclusively planted [1887] are the Protestants . . . the crops are greatly devastated by caterpillars and grubs. The abundance of these pernicious insects is attributed to the great scarcity of sparrows and other small birds."

Sweet grass grows in the crevices of the rocks, and this forms, in addition to the meadows, the usual pasturage for the sheep.

The farm will usually keep a family in potatoes, milk, and wool. Flour and meal are imported from Galway along with tea and other foreign produce.

For fuel the Aranites employ peat and dried cow-dung. All the former is imported from Connemara. The latter is collected in the early months of the year when it is sodden, it is then tramped on and worked with the hands, the cakes thus prepared are heaped up against a wall and when dry are carried home for fuel.

The natives eat very little meat of any description, save fish, nor butter, nor cheese, and but very few eggs. Tea is being increasingly drunk.

The women do not work much in the fields, but they help to weed the potatoes; they are very industrious, and, in addition to the house-work, most of them card and spin the wool, gather Carrigcen moss (*Sphærococcus crispus*) off the rocks, and help in drying and stacking kelp.

Most families make a certain amount of money every year by kelp-burning. The weed is mainly collected by the men, who also attend to the kilns. According to J. T. O'Flaherty in 1824:—"The annual average of kelp made in the islands is computed at from 150 to 200 tons; it is considered to be of a very superior quality" (p. 134). Burke states (pp. 69, 70):—"In 1866 the kelp made on the islands realised £2577, being £5 a ton. There is no kelp now [1887], owing to the fall in prices." This particularly variable industry has again revived. Many families make from 3 to 7 tons of kelp in the year, others as much as 10 or 14 tons, the present price for the best quality is £4 10s. per ton. We understand that the seaweed belongs to the owner of the foreshore.

Every well-to-do man owns a curragh and does a little fishing. The value of a canoe (curragh) is from £4 to £4 10s. The men of Aranmore cannot as a rule be described as fishermen. What fishing industry there was in the past centred itself in Killeany. The Inishmaan and Inisheer men are said to be much better fishermen and sailors. In the Middle Island every farmer fishes and makes kelp, and the men are on the whole better off than those on the North Island and do not drink so much.

During the past year, the Rev. W. S. Green, one of H. M. Inspectors of Irish Fisheries, has been instrumental in developing what promises to be a thriving fishing industry in Aranmore. We merely allude to this in passing, as it is entirely due to foreign capital and energy and is not a local development. Mr. Johnson, the son-in-law of, and successor to, the late Mr. O'Flaherty, is the only considerable farmer in the island, and latterly he has been successfully turning his attention to the fishing.

J. T. O'Flaherty informs us that, early in this century (1824, p. 134):—"Fish, kelp, and yearling calves (these generally brought, before the late fall of prices, from £7 to £8 a-piece) are almost the only articles of traffic; Galway, and the surrounding country, the chief mart. There are belonging to the three islands about 120 boats, 30 or 40 of which have sails, and are from five to ten tons burden; the rest are row boats. The spring and beginning of summer are employed in the Spillard fishery; here are taken immense quantities of cod, ling, haddock, turbot, gurnet, mackerel, bream, etc., and, in the season, abundance of lobsters, oysters, crabs, scollops, cockles, muscles, etc. They look much to the herring fishery, which sometimes disappoints, but generally gratifies their best expectations. In May the pursuit of the sun-fish [*Selache maxima*, the Great basking shark] gives employment to many. This rich supply of sustenance seems perfectly providential, when we consider the scanty soil and dense population of the islands. After high tides, the water, lodging in the caverns and cliffs exposed to the sun, soon evaporates, and leaves a residuum of good strong salt with which the Aranites, I understand, cure their ling; it also serves them for culinary purposes."

"The numerous and lofty cliffs of Aran are well stocked with puffins [*Mormon fratercula*], which are sought for by the agent, Mr. Thomson, chiefly for the sake of the feathers. He employs cragmen, or clifters, to procure these birds, allowing sixpence for every score they bring. The operations of these cragmen are not less perilous than curious. They provide themselves with a large cable, long

enough to reach the bottom of the cliff; one of them ties an end of this rope about his middle, holding it fast with both his hands; the other end is held by four or five men, standing one after the other, who are warned by the cragman, when arrived at the haunts of the puffins to hold fast. Here the cragman gets rid of the rope, and falls on the game with a pole, fastened to which is a snare he easily claps on the bird's neck, all being done at night; such as he kills he ties on a string. His comrades return early the next morning, let down the rope, and haul him up. In this way he kills from fifteen to thirty score per night. Quantities of large eggs are also taken out of these deep cliffs" (p. 135). Martin Haverty gives (pp. 18, 19) a graphic account of the manner in which men are let down and pulled up the cliffs.

The bulk of the men on the North Island may be described as small farmers who do a little fishing. There are besides two or three weavers, tailors, and curragh builders; this about exhausts the occupation or trades so far as the natives are concerned. The butcher, baker, and other allied tradesmen are mainly related to the small population, which may fairly be termed foreign, such as the representatives of the Government, and the spiritual and secular instructors. There are two or three small shops on Aranmore where a few imported goods, hardware, crockery, clothing, and the like can be obtained, and there are about as many houses licensed to sell alcoholic liquor. The kelp is usually sold to a native, who is the accredited agent of the wholesale buyers.

The Rev. W. Kilbride, in a letter to Mr. Burke (1887, p. 74), states that:—"Men's wages vary. There is no constant work whatever. Spring and the seaweed gathering for kelp are the chief harvests for the labourer. A labourer has seldom more than four months' labour in the year, so that it is a necessity on his part to get gardens on hire. Until last year or the year before [the letter is dated December 11, 1886] he got from 1s. to 1s. 6d. in spring, with his diet, at harvest, about 1s. with his diet, three meals in the day, bread and tea for breakfast, etc. When there is a hurry in seaweeding time he used to get 2s. 6d. and diet, but this lasts only a week twice in the year."

2. *Family-life and Customs.*—The family usually consists of six or seven children; they go to school as soon as they can walk, and about four or five years of age they attend regularly. The children now attend better than formerly, as the priests enforce attendance. We understand that the children are intelligent, and make fair progress.

They stay at school till they are fourteen or fifteen, and till seventeen if they get monitorships.

The children very early help their parents in various ways, such as weeding potato fields, helping in putting the kelp out to dry, and carrying water for the house and for the cattle.

If a girl is not married by the time she is twenty years of age she will probably emigrate to America, but the boys are generally much older than the girls when they emigrate.

There is no courting or love-making, nor do the young people ever walk together. The marriages are arranged for; as a rule the lad has his father's consent and may be accompanied by him when he goes to ask for the girl. It seems that most, if not all, the marriages take place immediately before Lent. Sometimes a young man may suddenly, a day or two before the beginning of Lent, decide upon marrying, and, after seeing what his father will do for him, he goes to the house where there is a suitable girl and asks her to marry him. If she refuses he might go straight on to another; and a man has been known to ask a third girl in the same evening before he was accepted. The marriage might take place immediately, and the couple would live happy ever after. Girls marry quite young, seventeen is a common age and some are married at fifteen.

The eldest son generally inherits the house and the bulk of the property, and he lives with his parents when he is married. Often, however, when the latter get old the property is made over to the young people, and the old folks stay on in the house.

According to Miss Banim:—"A strange custom prevails upon a marriage here: the bride's fortune goes to portion off the old couple—the husband's father and mother—in lieu of their giving over the little plot of land to the son and his wife, or perhaps they again portion off a daughter with the same money" (p. 147).

The dead are "waked" on the night before the funeral, and this is an occasion for the consumption of a considerable amount of whiskey.

There are certain spots where the procession stops on the road to the cemetery, and there it is usual to raise a small memorial heap of stones or even only a single stone. In the North Island there are quite a number (about two dozen) of unique road-side monuments erected at these resting-places. The oldest of these were erected by the Fitzpatrick family in 1709, and the most recent is dated 1875.

There is no keening while going to the burial ground, but only when the latter is reached.

Wakes are held, not only upon those who die on the islands, but

also on the absent dead in America or elsewhere. The neighbours gather at the house, candles are lighted, and everything proceeds as if the corpse were present.

3. *Clothing.*—The dress of both sexes is for the most part home-made, being largely composed of homespun, either uncoloured or of a speckled brown, or blue grey, or bright red colour. The people appear not only to be warmly clad, but as a rule to be over-clothed.

As previously mentioned the girls and women card and spin the wool, the wool is worth eightpence per pound. The cards are bough in Galway, and the spinning wheel is of the pattern which is common throughout the west coast. A large fly-wheel is supported on a form, at the other end of which is an upright board which supports the spindle. The wheel is turned by hand. The whole machine is of rough workmanship and is home-made. Some women will hire other women to come to their houses to do their spinning for them at the rate of eightpence per pound. All the yarn is woven on the islands by professional weavers who charge fourpence per yard for the plain and fivepence for the coloured flannel. The flannel or yarn is dyed by the women. Dr. Kean informs us that formerly the wool used to be dyed a black of a very fast nature by steeping it in a decoction made from some plants which he has never been able to identify and, then boiling it in an "ink," as they used to term it, composed of the black liquid from bog holes, which was imported from Connemara for the purpose. This method has been given up for some years since the introduction of the dyes of commerce. Those most in use now are madder and indigo. O'Flaherty writes (1824), p. 133:—"There is a native vegetable, the name of which I now forget, which gives a fine blue dye, much used in colouring the wool which the islanders manufacture for their wearing."

The men wear a shirt of dark flannel procured from Galway, and over this a jacket or sleeved waistcoat (bawneen) of white homespun nearly as thick as a blanket; outside of which is worn a waistcoat made of grey-blue or brown flannel, in many cases it is bound with a dark braid. Of this waistcoat there are two patterns, one with large collar flaps buttoned back on the shoulders, and the other buttoned up to the neck with a simple turnback collar without flaps. The latter pattern, though sometimes worn by the men, is for the most part worn by boys. The trousers are of white or grey homespun and are worn loose and rather short, ending well above the ankles, and are slit down the outer side of the calf for the lower four inches. The feet are clothed in blue woollen stockings with white upper bands and toes.

These are knitted by the women. They also wear a homemade broad blue bonnet of the "Tam o'Shanter" type with a chequered head-band, or a broad-brimmed soft hat which is imported. Up to the age of about twelve the boys wear a long frock of red homespun coming well below the knees and buttoned up the back (see vignette on p. 826), otherwise they are clothed like the men.

The women wear only one cotton undergarment, a bodice, and several heavy petticoats; the outermost is usually of a bright red colour. They often wear a white jacket like a man's. Frequently a woman will be seen wearing a petticoat over her head as a shawl; but more usually an imported tartan shawl is worn, the red patterns, as Stuart, Grant, and M'Nab, being the favourites. In many cases a red kerchief is worn on the head, but caps, hats, or bonnets are not worn. O'Flaherty (1824 p. 138) says:—"The female headdress is completely the old *Baraid* of the Irish."

Both sexes wear sandals made of raw cowhide, the hair being outside. The edges of the piece of hide are caught up with string, with which they are tied on over the instep. They are admirably adapted for climbing and running over the rocks and loose stones. Some of the men, however, are now taking to wearing leather boots. These sandals are precisely similar to the "rivlins" of the western and northern islands of Scotland. In Aran they are now called "pampooties"; the origin of this term is obscure (cf. Wilde, 1861, p. 281). A curious point about them is, that they have to be wetted with water before being put on, and that while in wear they must be kept damp in order to preserve their flexibility.

In a footnote on p. 96 of O'Flaherty's "H. Iar Connaught," Hardiman says:—"It is observed that the people of Aran, who wear seal-skin pumps, or 'pampooties,' are never afflicted with gout. They affirm that a piece of the skin worn on the person cures and keeps away the cholic." A pair of pampooties will last about three months, and the cost of the skin is from 6*d.* to about 1*s.* 2*d.* per pair.

4. *Dwellings*.—The houses of the better class consist of three rooms, a central kitchen, and a bedroom at each end; but many houses have only a single bedroom. The following description applies to a typical Aran house:—The walls are built of irregular stones and may be placed together with or without mortar, sometimes the whole is whitewashed. There are always two outside doors opposite one another in the kitchen. At a funeral the corpse is always carried out through the back-door. The fireplace may be in the right- or left-hand side-wall of the kitchen; it is a large recess, in the centre of

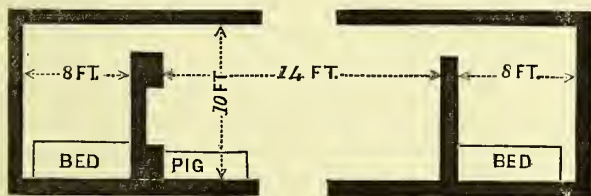


which there is always a peat fire burning; and there is often a seat on each side of this, within the fireplace. A hook ("crook") hangs down over the fire for the suspension of the cooking-pot. Very often there is a small pen by the side of the fire, this is the pigstye, it is circumscribed by long, low slabs of limestone, and the entrance is closed by a board. The pigs are very clean both in their bodies and habits. The kitchen floor may be the bare rock, or clay, or it is very rarely boarded.

The doors into the bedrooms are at the front door-end of the party-walls. The bed is a "tent-bed," that is, with boarded ends and a pitched roof. It lies along the back wall of the bedroom, the head of the bed usually being towards the party wall. The bedrooms are sometimes boarded.

The peat is often stored on boards above the beams ("couples"). Sometimes there is a loft over a bedroom and opening into the kitchen, in which the peat is stored, or the boys of the house may sleep in a loft.

The houses vary in size; a kitchen would be about 14 ft. long by 10 ft. deep, and a bedroom about 8 or 9 ft. wide, and as long as the breadth of the house.



The roof is thatched with rye-straw; scraw (or sheets of grass-turf) are first laid on the rafters; the thatch is not fastened on to this with rods, or scallops as they are called in some parts of Ireland, but it is tied on by straw ropes, which are formed into a kind of net, and the ends are pegged into the walls of the house and over the edges of the gables. The latter may be made with straight edges, but very often they are left as a series of steps, in which case the horizontal straw-ropes are carried round in the angles of the stones. The houses are lightly thatched every year—or at least every two years—the new thatch being laid over the old. Nearly every house has a small out-house or shed, in which the potatoes are stored. Horses and cattle are never put under shelter.

5. *Transport*.—The means of transport are important in an economic survey of a people. There are no roads worthy of the name in the Middle or South Islands, and till lately there were not many in Aranmore. Now there are several good roads. Twenty years ago there was not a wheel vehicle in the North Island, and there is not one at present in the other islands. Carts are still very rare, and the carrying is done by human portorage, or by donkeys and horses. All the well-to-do men own a mare, which is generally followed by a foal wherever she goes. Some of the men have a donkey as well. A poor or con-acre man (*i. e.* one who hires a small piece of land) will have only a donkey.

A great many men own curraghs, which are used more for fishing than transport. At present only a few own sailing-boats; but we learn that some twenty years or so ago there were twenty decked vessels belonging to Aranmore.

#### V. FOLK-LORE.

Concerning this important branch of inquiry, we regret that our information is so scanty. It was from lack of opportunity, and not from lack of interest, that we collected so little on this subject; and we would here like to call attention to its ethnological importance, and to remind our readers that the lore is fast disappearing from the folk, and that no time should be lost in recording the vanishing customs and beliefs of old times.

According to J. T. O'Flaherty:—"The people retain in language, habits, and customs, beyond comparison, more of the primitive Celtic character than any of the cotemporary tribes of that stock, at least in this kingdom [p. 137]. . . Here you have, on every lip, the exploits of *Cuchullan*, of *Conal Cearnach*, of *Gol* son of *Morna*, of *Fionn* son of *Cumhal*, of *Oisin*, and of *Oscar*; here they enthusiastically point out the very places which their *Invincibles* had honoured with their presence; and here, they tell us, their spirits rest as in Elysian Isles! Here, too, no bad memory is retained of the sacred fires, and of the priests of the sun: so constantly refreshed is tradition by the numerous and unequivocal memorials of the Celtic ritual, still preserved in Aran. But the Aranites have preserved a far better recollection—that of Christian holiness, which had so pre-eminently distinguished their 'Isle of Saints.' [p. 138]. . . The people of Aran, with characteristic enthusiasm, fancy that at certain periods they see *Hy-Brasail*, elevated far to the west in their watery horizon. This had been the universal tradition of the ancient Irish, who supposed

that a great part of Ireland had been swallowed by the sea, and that the sunken part often rose and was seen hanging in the horizon: such was the popular notion. . . . But it is only to an unmixed, aboriginal people that such a tradition as this could descend unimpaired, through the long and tedious stream of ages" (p. 139).

Sir Samuel Ferguson says:—"No distinct traditions of the Fir-Volgs remain in the islands. . . . The traditions of the people of Aran are either hagiological, or have reference to the exploits of such personages as Croohore-na-Suidine O'Brien, Emun Laidie O'Flaherty, or Oliver Cromwell. The saints or their miracles supply the great historical topics of these simple people."

O'Flaherty also says (p. 98):—"The Aranites, in their simplicity, consider these remains of Druidism [open temples, altars, stone pillars, sacred mounts of fire worship, miraculous fountains, and evident vestiges of oak groves (p. 97), numerous fire-temples (p. 127)] still sacred and inviolable; being, they imagine, the enchanted haunts and property of aerial beings, whose power of doing mischief they greatly dread and studiously propitiate. For entertaining this kind of religious respect, they have another powerful motive: they believe that the cairns, or circular mounts, are the selpulchres, as some of them really are, of native chiefs and warriors of antiquity, of whose military fame and wondrous achievements they have abundance of legendary stories. The well-attended, winter-evening tales of the *Seéaluidhe*, or story-tellers, are the only *historical* entertainments of this primitive, simple, and sequestered people. In this credulous and superstitious propensity, they exactly resemble their brethren, the Scots of the Highlands and Isles. Indeed, the solitude and romantic wildness of their 'seagirt' abode, and the venerable memorials of Christian piety and Celtic worship so numerous scattered over the surface of the Aran Isles, fairly account for the enthusiasm, credulity, and second-sight of these islanders." On p. 102 he states that:—"No portion of the Irish population has preserved the primitive manners, language, and recollections, with more fidelity than the secluded inhabitants of Aran."

The following is from Burke (*loc. cit.* p. 91):—

"The Irish of the 'oak' is Dara, and many an Aranite bears that name. Now, there was a blessed saint, 'Mac Dara,' who lived in those islands ages ago, and there was a renowned statue of him made of oak, which the people venerated with an idolatrous veneration. It was in vain that the Catholic clergy called on them to desist from kneeling before that graven image, and from swearing on it rather

than on the Book of the Gospels, on which all men swore. Malachy O'Queely, Roman Catholic Archbishop of Tuam, was, however, resolved to put down an exhibition which he considered a scandal to the Catholic Church, and so, coming to the islands in 1645, he tore down the statue, and flung it into the sea; but ill-luck awaited him." The same year he was cut to pieces by the Parliamentary forces at Sligo.

In common with the west coast Irish the Aranites believe in fairies, banshees, ghosts, &c. Whirlwinds contain small men who gather up the weeds out of the people's way.

Mr. W. Lane Joynt informs us of a tradition of a black dog that comes up out of the sea and kills eels.

A thirteenth child is a piper, *toul gorés pebud*; but Colman Faherty Thomas (cf. Pl. xxii. figs. 1, 2) is a thirteenth child, but cannot play the bagpipes.

There do not appear to be many superstitions relating to fishing; the sight of a cat brings ill-luck to the fishing, as does also the meeting of a red-haired woman.

When a funeral is passing down the road the front door of a house is always closed. The corpse is carried out through the back door.

The following is said to be common to both Aran and Co. Galway. If anyone at a marriage repeats the benediction after the priest, and ties a knot at the mention of each of the three sacred names on a handkerchief, or a piece of string, the marriage will be childless for fifteen years, unless the knotted string is burnt in the meantime.

Boulders are peculiarly numerous south-east of Eararna, and folk say that once upon a time a local giant was passing the time of day with his Connemara brother, then they came to abuse, and ended by throwing stones at one another, these boulders being the missiles thrown by the latter. It is true that boulders from Connemara are plentifully scattered all over Aranmore through ice-action, but unfortunately for this story these particular stones are local in origin.

There is a sacred well at Kilmurvey called Tuber Carna, the water of which is reputed to be unboilable, and if dead fish are put into it they will come to life again. The sick too will be cured if any one prays at the well for their recovery. The water of one well curdles milk.

Rags are attached to sprays of the bramble or ivy at most of the holy wells; an elder bush over a well close by Tempul Breain is similarly decorated. Offerings are placed at some of the blessed places, as, for instance, on the altar of St. Columb Kill at Killeany, and buttons, fish-hooks, iron nails, shells, pieces of crockery, &c., are deposited in the holy well at Tempul-an-Cheathruir-aluinn, or

“The Church of the Four Comely Ones.” Numerous rounded pebbles are placed by the well and on the altar of St. Columb Kill.

Women pray at St. Eany’s Well, by the Angels’ Walk,<sup>1</sup> when they desire children, and the men pray at the rag-well by the Church of the Four Comely Ones at Onaght. Women are also said to resort to St. Breccain’s bed for the same object.

On the night before going to America the people will sleep in the open, beside one of the holy wells, in order that they may have good fortune.

When any member of a family falls sick, another member makes a promise that if the sick one recovers, the person promising will sleep one, two, or three nights in one of the saint’s beds. One bed at the Seven Churches (probably St. Breccain’s bed) is said to be occupied pretty regularly.

Suspended priests are considered capable of working cures by touch of the hand.

We have already alluded (p. 814) to the reputed therapeutic effect of wearing a piece of the skin of a seal.

The senior author is indebted to Mr. David O’Callaghan, the National school-master, for the following notes on Folk-lore, which were given him more than a year ago:—

“*An droc ryl*, or *The Evil Eye*.—The ‘Evil Eye’ is very much dreaded in Aran, hence you had better not praise any Aranite, or any of his live stock, in his presence without saying ‘God bless him or them.’ Otherwise, if any accident afterwards occurred to either one or the other, it would be due to your having an Evil Eye. Anyone affected by the Evil Eye is cured by the person possessed of it spitting on the patient, and at the same time saying *ó díá ort*, (‘God bless you’). Numberless are the tales told of the Evil Eye and of those who have succumbed to it, and of those who have been cured. Among the latter is one which was related to me lately as happening to the narrator himself:—

“‘Well, master,’ he says, ‘and you don’t think there is such a thing as the Evil Eye?’ ‘No, Pat,’ said I; ‘I don’t think there is.’ ‘You don’t think there is? Well! I tell you there is, and I am the man that can tell it to you. You see me now,’ he says; ‘I suppose you don’t think much of me to-day; yet, thirty or forty years ago, I was one of the best men in Aran. I was one night at a dance, and

<sup>1</sup> “‘An’ it’s here the Guardian Angels of Aran come, of a summer’s night, to take their diversion.’” (Cf. Miss Banim, *l. c.* p. 133.)

though you would not believe me now, I was then a fine dancer. I was praised by all in the house while I was dancing, but just in the midst of the dance I fell down dead on the floor.' 'Dead, Pat?' said I. 'Yes, dead,' said he; 'for I had not a kick in me then, nor for two days after. Well, my friends, knowing what was the matter with me, got every person in the house to throw a spit on me, saying at the same time, 'God bless you,' but to no purpose. I remained dead, thrown in a bed in the corner near the fire, for two days, when a young woman comes in and spits on me, saying 'God bless you, Patrick, you are very ill;' when I went of one jump from the corner to the middle of the floor, and began to dance; and I was well from that out.' 'Of course, Pat,' I said, 'you married that girl?' 'God bless you,' said Pat, 'I thought you had sense till now. I did not, nor would I not, if there was not another girl in Aran.' This is as close a translation, as possible, of Pat's story as told to me in Irish.

"Some days are considered here unlucky upon which to begin any work of importance, to get married, or even to bury the dead. Monday is one of those days, and *la croip na blaðna*, or the cross day of the year, is another, and so is *lá croip na bliaðna*, the feast of the Holy Innocents. Whatever day of the week this festival falls on is considered an unlucky day in every week throughout the year following. No person will be buried on that day in any week throughout the following year, nor on Mondays. If they have occasion to bury a corpse on these days, they turn a sod on the grave the previous day, and by this means they think to avoid the misfortune attached to a burial on an unlucky day."

Burke (*loc. cit.* p. 101) says:—"The spinning-wheel in Aran, the old crones say, should never spin on a Saturday." He also says (p. 99) that the belief also occurs here that "fern-seed" renders a person invisible.

Dr. John Lynch ("Gratianus Lucius") was the first to refute ("Cambrensis Eversus," 1662; pp. 125-129 of Kelly's edition: Celtic Society, 1848) "the tissue of flagrant blunders" given by Giraldus de Barry—Giraldus Cambrensis—that in Aran "human bodies are never buried and never rot, but lie exposed under the air, proof against corruption. . . . No rat is found in that island." "My own opinion is," writes Dr. Lynch, "that Giraldus bungled his narrative by applying to Aran what is told of Inisgluair, an island off the coast of Erris, in the county of Mayo: for the bodies buried in that island do not decay, but even the hair and nails grow, so that one could recognise his grandfather."

## VI. ARCHÆOLOGY.

An ethnographical study of a people would be incomplete without a reference to its archæology. In the present instance the amount of material is so great as to preclude an adequate treatment. The antiquities of the Aran Islands have never been systematically described and published; and yet nowhere else in the British Islands are there so many and so varied remains associated within a like limited area. The islands may not inaptly be described as an unique museum of antiquities.

1. *Survivals.*—It is worth while recording some of the survivals from olden time which characterize these islands.

Certain details in the costume of the people are ancient, but none more so than the persistence of the raw-hide sandals or brogues.

The currachs are similar, in general character, to those common along the west coast; the simple oars are pivotted on thole pins.

Stone anchors are still used; more frequently in the Middle and South islands.

Querns are not used at present, but it is not long since they were employed.

2. *Christian Antiquities.*—Although of supreme interest and value in other branches of knowledge, the Christian antiquities have but little bearing on ethnological inquiries, as the religion, art, and largely also, the architecture, are alien; and a colony of monks and nuns does not affect the population from a racial point of view.

3. *Pagan Antiquities.*—The most impressive of the pre-Christian antiquities are the great duns or forts for which these islands are famous. At the present time there are four forts in a good state of preservation in Aranmore: Dun Ængus, Dun Eoganacht, Dun Eochla, and Dubh Cathair, the "black fort." Hardiman says (p. 76):—"At the village of Eochoill, about half-a-mile south-east of Dun Eochla, there are strongly marked traces of another dun or fort. Its original name [like those of Dun Eoganacht and Dun Eochla] is also lost; but the people relate that it was the strongest fort on the island. . . . About half-a-mile south-west of the village of Kilronan are the remains of another dun, but entirely in ruins." In Inishmaan there are Dun Conchobhair (Dun Connor), and Mothair Dun. Hardiman states that "Cathair nam-ban—*civitas mulierum*—on the South Island is now entirely in ruins. There is not at this day extant any tradition concerning it, or even its name."

No one who has written on the Aran Islands has failed to refer

to some or most of these forts. The date of Dun Ængus is popularly supposed to be about 100 B.C. Dubh Cathair is locally reputed to be the oldest of all. We were informed that when it was captured, all the prisoners were thrown into the sea over the cliff on which it stands, with the sole exception of one man, who was spared on the condition of his showing the conquerors how to build a similar fort, and Dun Ængus was accordingly erected. This story, however, does not appear to have any historic value.

Cloghans, or bee-hive stone huts, appear to have been common. The largest and most perfect of these is the Clochan-na-carraige, near Kilmurvy. There is another not far from Killeany; and Kinahan discovered and described quite a town of ruined cloghans and other stone buildings.—(G. H. Kinahan, 1867).

In the Middle Island there is a nearly perfect cloghan in the village of Kinbally.

In the neighbourhood of the village of Cowragh in Aranmore is a Cromlech, or *Leabha Diarmuda agus Grainne*, which is built of slabs of limestone. There is another one in Inishmaan.

Also near Cowragh are several pillar stones, some of which have fallen down.

There are two holed-stones on Aranmore; one is well-known; it stands in the enclosure of Mainistir Connaughtagh, close by Tempul Chiarain; an early form of cross is incised on the slab; the latter may perhaps be regarded as a symbol of Christian annexation of a pagan sacred stone. The second holed-stone, so far as we have been able to discover, has not hitherto been recorded in print. It is a small stone without any inscription or decoration, which lies close to the small font of St. Sourney; the latter is reputed never to be empty of water, although it is not fed by any spring.

The virtues ascribed to most of the numerous holy wells may be regarded more as pagan legacies than as distinctly of Christian origin, notwithstanding that many of them are associated with some saint or another.

We feel that we cannot conclude without drawing the attention of the Academy to the desirability of its undertaking a careful and detailed survey of the antiquities of the Aran Islands. It is true that several distinguished archæologists have visited these islands, and some have published fragmentary accounts of certain of the remains, but not even a complete list has yet been printed, of the pagan and Christian antiquities. Unfortunately several of the priceless ruins have been tampered with on various occasions; and it is full time that



every object of interest should be accurately surveyed, measured, and photographed under the direction of competent archæologists. If the results were published, with a sufficient number of illustrations, archæologists would possess a memoir, the value and interest of which it would be almost impossible to exaggerate.

#### VII.—HISTORY.

We cannot pretend to give a history of the Aran Islands; several authors who have written on these islands have given imperfect sketches of their supposed history (amongst whom may be mentioned J. T. O'Flaherty, Barry, Burke), and our account is mainly to remind the reader that there are traditions of changes of race, and we know that there have been changes in the government of these islands from time to time.

According to the Book of Conquests, some of the Firbolgs fled to these and other of the western islands after they were defeated at Muireadh or Moytura by the Tuatha de Danan (Dannorians or Dedannans).

Here they remained until the period of their expulsion by the Cruithnigh or Picts of Ireland, not long after the division of the whole country into provinces; how long these Picts were in possession of Aran does not appear to be clearly ascertained.

The Picts were succeeded by a Dannorian [? Firbolg] tribe, patronimically called Clan-Huamoir, who retained possession down to the middle of the third century of our era. "It further appears from our annals" (writes O'Flaherty, and from whom the above account is taken, 1825, p. 85), that two chiefs, Aengus and Concovar of the Huamor Sept, possessed the Isles of Aran in the time of Maud, Queen of Connaught, whose reign was not long anterior to the Christian era. Of these chiefs there are still unequivocal memorials; one in the Great Isle of Aran called Dun Aenguis, "the fortification of Angus"; the other in the Middle Isle, traditionally called Dun Concovair, "the fortification of Concovar."

O'Flaherty adds:—"Among the early tribes who had fixed in Aran we meet mention of Soil Gangain; and Ptolemy clearly places his Gangani in or about these isles. It is more than presumable that these are the Concani whom Orosius traces in Cantabria, calling them, as Camden remarks, Scyths or Scots. . . . The early inhabitants of Aran were, it is true, of the Belgic and Dannorian stock; but, so late as the middle of the second century, Ptolemy's time, it is by no means

improbable, that a Scottish clan had also settled there. The Scots had possession of Ireland many centuries before that period."

"Archbishop Usher affirms that Ængus, the first Christian King of Desmond or South Munster had bestowed the Isles of Aran on St. Einea, called also Endeus; and it does not appear that the learned Primate's opinion has been contradicted." Ængus died about 490.

"In 546, it was agreed between the Kings of Munster and Connaught that the islands of Aran were to acknowledge no superior or pay chief rent to any but their native princes.

"In 1081, the Great Island was destroyed by the Danes, as the annalists of Inisfallen record. 'Arain na Naoimh do luscadh le Lochlannaibh.'

"The old records of Galway attest that the inhabitants of that town were, from a remote period, on terms of close friendship and alliance with the Sept of Mac Teige O'Brien, hereditary lords of Aran; both parties being bound to give mutual aid in all cases of emergency. This league, however, did not save the islanders from the violence of the Lord Justice, Sir John D'Arcy, by plunder, fire, and sword in 1334.

"Late in the sixteenth century [1586] the O'Briens were expelled from the islands by the O'Flaherties of Iar Connaught. Upon information of this transaction having been received by Queen Elizabeth, a commission issued, which declared that the islands belonged to her Majesty in right of her crown. She accordingly by letters-patent, dated 13th January, 1587, granted the entire to John Rawson, of Athlone, gentleman, and his heirs, on condition of his retaining constantly on the islands, twenty foot soldiers of the English nation." The Corporation of Galway, ineffectually addressed the Queen on behalf of the Sept Mac Teige O'Brien of Aran as the temporal captains or lords of the islands of Aran "time out of man's memory."

Sir Robuck Lynch of Galway next became proprietor of the islands.

"In 1651, when the royal authority was fast declining, the Marquis of Clanricarde resolved to fortify these islands; where he placed 200 musketeers, with officers and a gunner, under command of Sir Robert Lynch. The fort of Arkyn, in the great island, was soon after repaired and furnished with cannon, and by this means held out against the parliamentary forces near a year after the surrender of Galway. In December, 1651, the Irish routed in every other quarter, landed 700 men here in boats from Iar-Connaught and Inis-Bophin. On the 9th of the following January 1300 foot, with a battering piece, were shipped from the bay of Galway to attack them. On the 13th the islands surrendered. . . . The parliamentary forces, on taking

possession of the fortifications found seven large pieces of cannon, with a considerable quantity of arms and ammunition; they seized also a French shallop of 28 oars, and several large boats.

“The late proprietor of the islands, Sir Robert Lynch, was declared a forfeiting traitor, and his right made over to Erasmus Smith, Esq., one of the most considerable of the London adventurers. This gentleman’s interest having been purchased by Richard Butler, created Earl of Aran in 1662, the title of the latter was confirmed by the Act of Settlement (cf. p. 795).

“On the surrender of Galway to King William’s forces in 1691, Aran was garrisoned, and a barrack built, in which soldiers had been quartered for many years after.

“In 1762 Arthur Gore was created Earl of Aran. At this time [1852] the ownership of the islands is in the Digby family, to a member of which they are said to have been mortgaged by a Mr. Fitzpatrick of Galway for £4000. On failure of payment, the mortgage was foreclosed.

During the documentary period of its history these islands have changed hands more frequently than is mentioned in the foregoing sketch, but there is nothing to show that fresh blood was introduced into the population. It is mainly owing to their lying at the mouth of Galway Bay that the Aran islands have had such a chequered history.

#### VIII.—ETHNOLOGY.

Several authors regard the existing Aranites as descendants of the Firbolgs. This belief is doubtless due to the reputed Firbolg origin of the forts. The latter may be true, but even so, it does not afford proof for the former statement.

If the foregoing sketch of the pre-Christian history of the Aran Islands be only approximately correct, we have grounds for believing that the Firbolgs did not remain undisputed owners of the islands.

Sir Samuel Ferguson says (*loc. cit.*, p. 496):—“These islands when Enda first obtained his alleged grant of them from Aengus, King of Cashel, had no population to instruct, all the souls to be cured were on the mainland” . . . and on p. 497 he adds, after mentioning that Enda according to tradition returned from Rome with a hundred and fifty monks about the year 580 and established himself at Kill-any. “The island at this time appears to have been wholly depopulated of its Fir-Volg colony. We read of no occupants besides the religious and occasional, “gentile” visitants from the adjoining district of Corcomroe. The captain of these pagans was one Corban; and Enda, after

some negotiations, so far won his respect as to be allowed the undisturbed possession of his desert. A single dun cow, a relict probably of the Fir-Volgie herds, afforded the chief supply of aliment for the first recluses. Enda's *Laura* soon increased to a considerable community."

In the Christian period we find it a stronghold of the Clan Mac Teige O'Brien. By the sandy cove of Port Murvey in Aranmore, at the spot still called "Farran-na-Cann," "the field of skulls," the O'Briens are said at some remote period to have slaughtered each other almost to extermination.

Later the O'Briens were expelled from their territory by "ye ferocious O'Flaherties of Iar-Connaught."

It is not probable that the O'Briens or the O'Flaherties were Firbolgs.

We know that garrisons were several times quartered on the islands, more particularly on Aranmore, and it is not improbable that owing to wrecks and to possible occasional immigrants from Galway of "foreigners," that mixture of blood may have occurred during the lapse of the last 500 years.

To what race or races the Aranites belong, we do not pretend to say, but it is pretty evident that they cannot be Firbolgs, if the latter are correctly described as "small, dark-haired, and swarthy."



Group of three Aran Boys. We have been informed that the reason why the small boys are so dressed is to deceive the devil as to their sex. (The negative was kindly lent to us by Mr. N. Colgan.)

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## EXPLANATION OF PLATES XXII., XXIII., XXIV.

*(The Photographs were taken by Prof. Haddon.)*

## PLATE XXII.

FIGS. 1, 2.—COLMAN FAHERTY, THOMAS, aged about sixty years, Oghil.  
MICHAEL O'DONNELL, JOHN, No. 25, Oghil.

When there is more than one man of the same name in the Aran Islands, the individuals are distinguished by the addition of their father's christian name, as in the foregoing cases. Faherty, who is a thirteenth child, is a very typical Aranite. O'Donnell's ancestor came from Ulster. They are standing in front of St. Sournick's thorn.

FIGS. 3, 4.—MICHAEL MULLIN, No. 27, Kilonan. A typical Aranite.

## PLATE XXIII.

FIG. 5.—MICHAEL CONNELLY, No. 10, Inishmaan.

A burly man, with the largest head measured in the Middle Island.

FIG. 6.—A characteristic group of the young men of Aranmore.

FIG. 7.—MICHAEL FAHERTY, and two women, Inishmaan.

Faherty refused to be measured, and the women would not even tell us their names.

## PLATE XXIV.

FIGS. 8, 9.—MICHAEL DIRRANE, No. 1; ROGER DIRRANE, No. 2; ANTHONY DIRRANE, No. 3: all from Oghil.

Michael and Roger are brothers, and are by no means typical Aranites. There is an acknowledged foreign strain (? French) in their blood. Their relative Anthony is, on the other hand, quite typical.





Faherty = 1 J. Donnell  
 77 109 150 116  
 137 146 1717



77 154 x 137 x 118 3 127 131  
 Michael 1717







