



A Study of the Fort of Dun Aengusa in Inishmore, Aran Isles, Galway Bay: Its Plan, Growth, and Records

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Source: *Proceedings of the Royal Irish Academy. Section C: Archaeology, Celtic Studies, History, Linguistics, Literature*, Vol. 28 (1910), pp. 1-46

Published by: [Royal Irish Academy](#)

Stable URL: <http://www.jstor.org/stable/25502776>

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PROCEEDINGS

OF

THE ROYAL IRISH ACADEMY

PAPERS READ BEFORE THE ACADEMY

I.

A STUDY OF THE FORT OF DUN AENGUSA IN INISHMORE, ARAN ISLES, GALWAY BAY: ITS PLAN, GROWTH, AND RECORDS.

By THOMAS JOHNSON WESTROPP, M.A.

(PLATES I.-III.)

[Read DECEMBER 13. Ordered for publication DECEMBER 15, 1909. Published FEBRUARY 17, 1910.]

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1880.
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OF all the early forts of Ireland we may say that only one has appealed to the imagination, and even to the affection, of the nation, as a building, and become, with most antiquaries, the type and symbol of the countless similar structures, all subordinate to it in interest. At Emania and Tara it is the sentiment and tradition, not the remains, that so appeal; but at Dun Aengusa the site and the building affect even the coolest mind as no blaze of mythic or historic association could do. It is easy to see how this pre-eminence arose. Many of us still remember the sense of almost inaccessible remoteness that attached to "the Aras of the Sea." All who have visited the spot feel the "repellent attraction" of the gigantic precipice and the swirling abyss over which the fort is so airily poised. Then there is the pathos—no less of the legend that made it the refuge of a doomed and hunted race than of its own inevitable destruction—that invested the broken grey walls on the

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farthest edge of the old world. The facts that the fort had attracted the notice of the learned for over two hundred years, while its compeers lay undescribed till the middle of the last century; and that on the revival of sound archæology it was studied and most impressively described by some of our greatest scholars—Petrie, O'Donovan, Ferguson, and Dunraven—all told in its favour. None other of the forts—not Tara, Emania, or the Grianan of Aileach—was so honoured.

It needs justification to bring forward a paper on it at present. May I, as one of the few who noted and sketched it over thirty years ago, ere its restoration, bring before the Royal Irish Academy an attempt to record its architectural history and its present condition? No one, I believe, has as yet described it in detail since its far too thorough "restoration" in 1884, or endeavoured to decide what of its present features are ancient, what warrant there may have been for the restored work, or what the remains have to tell to scientific antiquaries. In all this there seems, not only an excuse, but a necessity, for another essay; so I may venture to give the results of work done in 1878, and many subsequent occasions, without incurring invidious comparisons with great predecessors in the same field of study. In this spirit I lay these notes before the members of the Academy.

1.—LEGENDARY ORIGIN OF THE FORT.

We must commence with an oft-told tale—that of "the sons of Umór." In the revival of Irish nationalism under King Brian, before that great monarch's tragic death in 1014, his bard, Mac Liag, is said to have versified a legend, probably derived from a far remoter past. The period was one of restoration; law and order, arts and learning, forts, churches, and towers were being restored everywhere; and, among other matters, an attempt was made to recover all that survived the dark and destructive ninth century; and in these compilations of "tribal lays" and historic poems lies most of our knowledge of the "beginnings" of the Dalcassian realm. These beginnings were obscure beside the mythic glory that rested on Tara, Eman, or Rathcroaghan; but the Dal gCais (descendants of the banshee-wooer Oilioll Olum) and the Corca-modruad (sprung from Fergus Mac Roigh and the great Queen Maeve) must have longed to hear what befell their ancestry "in the beginning," and now they no longer lacked a bard. The legend that centres at Dun Aengusa related to the period before the tribe of Fergus settled on the hills of Burren over three centuries before Lughad, Conall, and Enna, the conquering Dalcassian Princess, on the edge of recorded history (A.D. 360–400), added the southern fringe of Connacht to North Munster, from which it eventually usurped the name Thomond.

The song¹ told how a Firbolg tribe—the Sons of Umór, or Huathmór—after an exile in the Hebrides, got settlements in the Boyne Valley. Oppressed by the perennial land question—their rack-rent paid to Tara—they fled to Connacht, were befriended by its heroic queen, “Maeve of the Cattle Foray,” and were settled round Clew Bay and Galway Bay about the beginning of our era.

“They settled westward, along the pleasant coasts,
As far as Dun Aenghusa in Ara :²

They stationed Mil at Muirbech :
They planted Daelach at Dail :
Aenach constructed a ‘dun’ in his neighbourhood.

They settled Beara at his headland :
Irgas took possession of Ceann Boirne ;

Concraoid obtained his just portion in the sea at Inismedhoin.”

The prose of the *Dind Senchus*³ tells a like tale, with a trace of independence in its account of Ennach and Bir, but otherwise closely following the poem.

“Cairpre” (it says) “imposed on the children of Umór a rent which could not be endured, so they decamped from him, with their possessions, westward to Ailill and Medb, and set up beside the sea—Oengus in Dun Aengusa, in Ara . . . Mil at Murbech Mil (perhaps at Port Murvey,⁴ near the last); Daelach on Dail (Lissydeela and Ballydeely in Corcomroe, Clare); Bir at Rind Beara Sirraim (Finnavarra, Burren, Clare); and Ennach, from whom is Tech nEnnach (perhaps Doon Fort, Corcomroe) . . . Irgus at Rind Boirne (Caherdooneerish, on Black Head, Burren); . . . Conchiurn at Inis Medon (Dun Conor, Inismaan, Aran); . . . Taman at Rind Tamain” (Tawin Island, Galway). All these lay round the bay of Galway. The knights who stood securities for the Firbolgs to the King of Tara claimed the penalty, so the Huamorian warriors, Cing, Cimbi, Irgus, and Conall (son of Aenghus of Dun Aengusa), met in deadly combat the Red Branch Knights—Ross,

¹ “Ossianic Society,” vol. v., p. 287.

² If Keating be right, there was an earlier colony of Firbolgs in Aran, a remnant that escaped the carnage of the Battle of Moytura (ed. D. Comyn), p. 199—The Cruithnigh or Picts banished them out of these islands.

³ “Revue Celtique,” 1894, pp. 478–480.

⁴ Petrie regards this as really Cill Murnhaighe—“Military Architecture,” p. 68; but there was a great fortification which may have originated the chief’s name. It is strange that Dun Oghil makes no mark in legend,

Conall-Cernach, Cet, and Cuchullin.¹ The Firbolgs fell, and the settlements were broken up, leaving a legend and their reputed forts—"vacuae sedes et inania arcana"—as their monument to our days.²

There is a curious allusion to the founder of Dun Aengusa, more concrete than his misty name, in the tale. The helmet of Briun, son of Smethra, is described thus in the "Book of Lismore"—"It was the brasier of Oengus, son of Umor, who made it, even a helmet of the pure purple of the land of the Indians, with a ball of gold above it." It had strings of beads of carbuncles, red-gold, and white bronze, in variegated stitching, and was one of the three chief fabrics of the realm of Erin.³

Probably the Firbolg Prince once stood with less blurred outline, for (if it indeed allude to the Aran Fort) a poem on "the taking of Dun Oengusa" once existed, and its loss is probably a severe one to students of the fort. Besides these, it is barely possible that Tighernach, about 617, alludes to the place, in recording the "combustion of Dun-ainega," for the "Firbolg names" have been recast in some cases, into familiar forms, as Chonchobhair, for Concraird and Chonchiurn, and Fergus for Irgus, in the legends of 1684, and later attached to the forts of Inismaan and Burren.

Now as regards the main legend, one of its versions adds, "Thus they lived in fortresses." Which forts were meant by the bards of the tenth century? Dun Aengusa is certain. Roderic O'Flaherty, in 1684, records the legend that Dun Conor in Inishmaan was named from Conquovar ("Concraird" in the older legends); but the peasantry attributed the fort to Conor na Siundaine O'Brien,⁴ Prince of Thomond, who fell in battle, 1267,⁵ and whose tomb is with us to this day. Caherdooneerish in Clare (as it is still called by the peasantry) was rendered "Caherdoonfergus" by the map-makers of 1839, with the sanction of O'Donovan.⁷ He seems to have searched for traces of Fergus, son of Roigh, and so, probably by leading questions (the deadliest

¹ The Legend of Aonghus of Dún Aonghusa in Ara is also given in Keating's History of Ireland (Irish Texts, vol. iv., edited by D. Comyn), p. 201.

² Neither the late Dr. W. H. Staepoole Westropp in 1877 and 1878, nor my late brother Ralph Hugh Westropp and I, in 1878, could find any local legend as to who was the builder or what was the history of the Doon. The same seems true of the Rev. W. Kilbride. It is a great pity that this last most favoured student of Aran seems to have only left his valuable paper on *Iararna* and some crude general notes in manuscript, the latter now in the collection of the Royal Irish Academy. When John O'Flaherty wrote, about 1820, *Tales of Cuchullin and the Red Branch heroes* as well as of Finn, Oscar, and Ossian, were recited. O'Donovan in 1839 does not seem to have found any traditions of early date.

³ "Lives of the Saints, from the Books of Lismore" (ed. Whitley Stokes), 1890, p. xxx.

⁴ "Togail Duine Oengusa"—M. D'Arbois de Jubainville's "Catalogue of the Epic Literature of Ireland," p. 244.

⁵ "Dublin University Magazine," vol. xli., p. 501.

⁶ So in *Annals of Inisfallen* and the *Four Masters*, but 1268 in those of Clonmacnois.

⁷ Ordnance Survey Letters, Co. Clare (ms. 14, B. 23, R. I. Acad.), vol. i., p. 205.

source of error in collecting names or folk-lore), found what he so greatly desired. The peasantry, who never heard of Irgus (or "Eerish" phonetically), gave the names "Caherdooneerish" and "Doonirias,"¹ without prompting; indeed I was at the time obsessed by the name on the map, and only driven to better things by the names which Dr. Macnamara and I had collected independently at different places and on different occasions. Another place contemplated by the legends is probably Doon Fort,² on the ridge at the source of the Daelach, near Kilfenora. This tallies well with the "Dun" made by Ennach, and called "Tech nEnnach," "in the neighbourhood" of Daelach. From the latter the river Dail³ (or Deely) is supposed to be named, whence the existing local names of Lissydeela Fort (which may have been the place intended by the legend-makers) and Ballydeely at the great cairn of Cairnconnaughtagh, near Ennistymon.

(2) PROBLEMS OF THE LEGEND.

That the legend has more than a shadow of a true history at the most no critical thinker can assert. The Firbolgs dwelt in only nine raths in Meath, yet they covered with colonies the islands of Clew Bay (Innse Mod), the base of Croagh Patrick (Oigle), the country round Lough Hackett (Cimbe), the east end of Galway Bay, two divisions in Burren, two in Corcomroe, one in eastern Clare for over fifty miles to the north, the west, and the south-west of Aran.⁴ That such a tribe collapsed without a struggle after the death of four of its warriors is fiction indeed, but not even artistic romance. Neither the prose legends nor the poem anywhere state that Aengus built the fort now bearing his name, though the poem mentions the construction of the "Dun" of Ennach. Were we even dealing with history, we could not attribute to a short-lived tribal group the 500 forts of Aran and the alleged settlements in Clare, the 100 near Lough Hackett, and the thirty near Tawin⁵; yet such a belief was complacently held by antiquaries from 1840, till wider views arose at the close of the last century.⁶ To us no type of earthen or stone fort can

¹ Journal Royal Society of Antiquaries, Ireland, (referred to as R.S.A.I.), vol. xxxi., p. 4.

² *Ibid.*, vol. xxvii., p. 126.

³ The river flowing into the sea between Lehigh and Liscannor. It should be noted, however, that there was also a river Dahilyegh near Ennis. The "Deely" is called "Tarsel Flu" (P Farset) in the map of 1610, but "Talegh" is marked beside it.

⁴ Other legends made Asal son of Umor establish a settlement round Drumassall or Tory Hill, near Croom, in County Limerick.

⁵ In Aran 12, over 265 in Burren, 200 in Corcomroe, and over 100 round Lough Hackett (Lough Cimbi), and 30 near Tawin Island.

⁶ The Firbolgs were better known as makers of earthen forts, like Rathcroghan. This of course does not tell against their building stone forts on bare crags. Yet the very curious earthen, oval platform, on the bare summit of Aghaglinny Hill, near Caherdooneerish, 1044 feet above the sea,

be assigned to any one race or period. Nearly all these types spread across Europe from Perm, Esthonia, and Austria, to Aran; and they even occur in North America, in the great river valleys of the United States. The ring-fort was, there is every reason to believe, an instinctive idea¹ of our race in Europe, from perhaps more than twelve centuries before our era to more than twelve after its dawn. We also find circular defences among the tribes of Africa and New Zealand; and the older races of the first continent and of North America made the ring of stone, earth, or palisading. Thus children on the seashore, without study, dig the triple-ringed rath and the high mote, with its bailey; and the herdsman and labourer build dry stone rings for cattle-pens, or dig a fosse and ring-mound to fence a plantation. We see no means, short of excavation, to distinguish the periods and uses of our early entrenchments, while the stonework, anterior to the twelfth century, depends on the character of the stone,² not on the fancy of the builder. In face of all these considerations, how the Firbolg, the Danish, or any other exclusive theory should be adopted seems amazing, though all may have elements of truth in them—often much truth, short of the exclusive assertion.

The existence of so mighty a fortress as Dun Aengusa or Dun Conor in these little islands has puzzled many. Whence came "the troops of slaves who raised them"? has been asked. Now the probable explanation, in face of the evidences of modification and addition in these and other stone forts, is that their construction spread over long periods of time, perhaps at intervals, rebuilding taking place as required. As for organization and collection of materials for the ring-walls elsewhere—take the legend of the building of the Grianan of Aileach, we find the stones were drawn by horses; or those of the origin of the name "Firbolg," where masses of earth are carried in leather sacks; while the legend of Caherconree tells of the collection of pillar-stones (standing or prostrate) for its construction.³ We need not believe in the Dagda "greyer than the grey mist," or the popular etymology, or legends, to see that even the wildest romancer set his story in

the great earthen rath of Ballyallaban, amid the crags of Burren, and the liss of Doontorpa near it, show that earthworks in craggy regions were not unknown. The difficulty of raising the first two forts must have been very great.

¹ This has impressed several antiquaries of late, and is elaborated by Dr. Guébhard in his address, "Camps et Enceintes" at the "Congrès Préhistorique," 1907, p. 1004. This most helpful comparative study of ring-forts and motes all over Europe gives the following illustrations of Dun Aenghus:—From the cliff to the east (fig. 3); fort from the north (fig. 49); and steps and ope (fig. 57).

² Windele believed that he saw hammer-work at Dun Aengusa. I failed to find any; but evidence for hammer-work in the Clare forts of Ballykinvarga and Roughan on the edge of Burren and Langough in eastern Clare is well established.

³ Dind Senchus translated in Ordnance Survey Memoirs, vol. i., p. 223; and *Revue Celtique*, vol. xvi., p. 41, §448.

a setting of fact known to all his hearers. In more historic times our oldest law code provides for the "erecting of duns," and for "joint labour upon them"; also "for feeding the labourers who are in the fort to fortify it."¹ St. Enda, the chief saint of the very island in which Dun Aenghusa stands, dug the great fosses and mounds round Rossory Church in Fermanagh (*circa* 460). St. Mochulla and his seven converts levelled the hill-top, made walls, and dug fosses round Tulla Church in Clare, traces remaining at both places; the last works, though extensive, are stated to have been completed within a year (*circa* A.D. 610).² The royal rath at Clonroad, in the same county, with rings and outworks, was commenced by Donchadh Cairbreach O'Brien, Prince of Thomond, and completed (1241–1260) by his son Conor,³ the traditional builder (?repairer) of Dun Conor, in the middle isle of Aran.⁴ In fact, the collection of the stones was the main trouble; and if horses or oxen were used, this was greatly lessened.⁵ Instead of "troops of slaves,"⁶ it is possible that a small tribe, working a few years at a time, at intervals over a couple of centuries, could, in a place where stone so abounded, build even a fortress as vast as the Aran "Dun."

Those who have seen horses and cattle floated behind a canvas "curragh" at the Aran Isles cannot deny that large animals may have been brought to Aran in early times by means to all appearance as absurdly inadequate. The "Fairy Chariot" tells how Cuchullin carried off three cows, swimming strongly behind his "curach," through the "vast ocean," which shows that before 1106, as now, such transport was known. Also in Magradin's "Life of St. Enda," 1380, we are told of the horses of Corbanus grazing at Ardnagcaorach on this very island, before 489, when King Aenghus, the grantor, died.

The question of the names of the Aran forts may be touched on in this connexion. Do they commemorate their founders, even if Mac Liag's tale be absolutely unreliable? They are anonymous except three: Dun Aenghusa, which

¹ Seanchus Mór, vol. i., pp. 131–137.

² "Vita S. Fanchae," in Colgan's Acta; "Vita S. Mochullei," in *Analecta Bollandiana* (vol. xvii., p. 145). There are several other fort-building saints, from St. Patrick, who directed earthworks (evidently circular) to be dug at his monastery in Armagh, and St. Mochuda (or Carthage), who dug the small "lies" at Lismore, county Waterford, which, when his monastery sprang up at it, became "Lismore," the great *lies*.

³ "Cathreim Thoirdhealbháith."

⁴ "Dublin University Magazine," vol. xii., p. 50.

⁵ The "Second Battle of Moytura" (*Revue Celtique*, xii., p. 79), four score yoke of oxen employed to move a flat stone. For horses at the building of Grianan Aileach, see Dind Senchus, O. S. L., p. 41.

⁶ Such, sometimes, were employed to build forts; a gang of apparently some thirty slaves appear in the legend of "The Battle of Magh Leana," as raising a rath at Magh Feimhin, in southern Tipperary.

⁷ *Journal R. S. A. I.*, vol. xi., consec., p. 389.

bore its name at least 900 years ago; Dun Conor, possibly Dun "Concraidh" at that time; and Dun Farvagh. John Windele (on the uncertain evidence of Comyn about 1750) states that "Fearbach" was a demon monster, and the fort a "dracontium" for its worship.¹ As to the name Aenghusa, it is a most curious coincidence, as William C. Borlase first pointed out, that a place called "Enchusa," on the coast of Holland, is described in language very suitable to the far different coast of Aran. "Natura loci munitum, maris furore objectum, quem in extremo terrae margine situm despicit." A proper name "Ancheusanus" occurs in an inscription at Mayence.² Two theories might be advanced with regard to the name of the Dun. One that, like other great works, it was attributed to gods or heroes, "the far-famed hold, piled by the hands of giants for godlike kings of old"; for Angus son of Dagda is said, in the "Agallamh,"³ to have given "a fort (dun) and stronghold (dingna), a most excellent, spacious town, with lofty stockades" (sonnach). His father, as we noted, was also a fort-builder, having built the stone fort of Grianan Aileach and the earthen Rath Brese with its "cladh."⁴ The second possible theory has been already advanced by Ledwich and others, namely, that Dun Aengusa was named after Aenghus, King of Cashel, about A.D. 460. It is true that "the three Aras of the sea" are named among the forts of the King of Cashel in the "Book of Rights."⁵ Aenghus son of Natfraich gave the islands (or rather perhaps lands in them) to St. Enda; and a "Cashel-builder" of King Natfraich, Goll of Clochar, is named in a poem *circa* A.D. 1000, and stated to have built a fort at Cashel for King Aenghus himself.⁶ However, despite its plausibility, the fact that the islands lay so far away from every interest of a king of Cashel, and the name Aenghus being very common, takes away any great weight from the theory. The "Life of St. Enda" asserts that Aran, in about 480, was the residence of Corbanus, the pagan king of Corcomodruad Ninuis (in north-west county Clare), who fled in superstitious terror from St. Enda. It also states that Aenghus King of Cashel knew nothing about the island. This proves at least that about 1380 the writer attributed no Aran fort to the latter prince.⁷

¹ Windele's ms. "Iar Mumhan" (mss. R. I. Acad.), p. 709).

² "Dolmens of Ireland," vol. iii., p. 1129.

³ Silva Gadelica, vol. i., p. 103; vol. ii., p. 111.

⁴ "Revue Celtique," vol. xii., p. 65; also the long lines of the "Slicht Loirge an Dagdae," with his club, and perhaps the mound of Newgrange.

⁵ "Book of Rights" (ed. O'Donovan), p. 91.

⁶ Poem on early masons by Donnell son of Flannacan (*c.* 1000), O'Curry, "Manuscript Materials of Ancient Irish History," p. 222; Book of Leinster, p. 27b. As to Goll being of Clochar, it must be remembered that the wife of King Aenghus (the sister of St. Enda) had come from that place.

⁷ Vita S. Endei, Colgan's "Acta SS." In its present form the "Life" dates as late as 1380,

With regard to the name, Aran maintains the primitive title "Dun," which has been elsewhere so generally replaced by "cathair" (caher). A transitional example "Doon'ahaar," or "Doon doo'haar," the Dun of the black cathair, is found; similarly the fort of "Eerish," in sight of Aran, on the shoulder of Black Head, is Caherdooneerish, and a fort near it, Caherdoonteigusha. The usage of 'caher' for 'fort' seems a rather late method, perhaps derived from the monastic forts, which again were suggested by the cognate word 'cathedra.' The Rev. Edmund Hogan, with his usual kindness, let me use his notes from the forthcoming "Onomasticon Goëdelicum." He gives "*Dún Aengusa*" from the Books of Imaine, Lecan, and Ballymote; "*Dún Aongusa*" from Keating, and Mac Fírbis' Genealogies; and "*Dun-oinguso*," *Dun-Oengus*, as Roderic O'Flaherty's "Ogygia." In "Iar Connaught," 1684, it is *Dun Engus*. "Dun Aengus" prevailed, 1790–1820, as now, among writers; but John O'Flaherty found the name to be locally Dun Aonguis in 1825, while in 1839 only one old man on Aranmore, a descendant of a Cromwellian family, remembered the true phonetic name "Dun Innees," according to O'Donovan; S. Ferguson, in 1853, gives the names "Ungust" and "Unguish,"¹ the latter evidently akin to Innees. It is given by Haverty as Dun Eanees in 1858; but had hardened to Doon Aingus in 1878, and is now usually "Dun Angus," though it might better be anglicized Doon Hennessy.

(3) THE PLAN OF DUN AENGUSA.

It is strange that, so far as we know, the plan of Dun Aengusa has never been studied to see whether it forms a consistent whole or has been modified. This task we now attempt to carry out. Any ancient building of historic times rarely fails to give proof of restoration, and this is true of the stone forts, and even of those of earth.² For example, earthworks at Rathmore in Kildare, Ballyvoony in Waterford, Lissadooneen in Kerry, and Lisnagree, near Broadford, in Clare, show that layers of earth (several in the first case, two in the third) were added to raise the original structure; baileys and outer rings were very probably added in many cases. In Clare, so closely bound up with Aran in legend and history, the stone forts give frequent evidence

but probably is founded on older sources, though unusually devoid of local colour. It does not even allude to the forts.

¹ Dublin University Magazine, vol. xli., p. 95. He notices the Pictish character of these names, but then (according to Keating) the Picts cleared out the Fírbolgs of Aran and the islands.

² History coincides with the "records of the ruins." The Grianan of Aileach, in Donégal, was rebuilt in 674 and 937, and dismantled 1107; the stone fort of Kincora, in Clare, rebuilt in 1062, and was levelled in 1098. It was again rebuilt, to be finally demolished in 1112 (Chronicon Scotorum) or 1118 (Annals of the Four Masters); other cases will be recalled by antiquaries.

of rebuilding. At Moghane in Clare,¹ the two cahers were built across the great lines of the older walls. Langough, near the east, has been almost rebuilt on a different plan in early times. Caherfeenagh and Cahergrillaun have been rebuilt in parts²; and the wall of Caherdooneerish has been at least twice rebuilt, the joints made at the three periods being very apparent in the wall.³ The Kerry forts, too, show unequivocal signs of addition and rebuilding. After a careful study of Dun Aengusa, we believe the following views to be justifiable:—

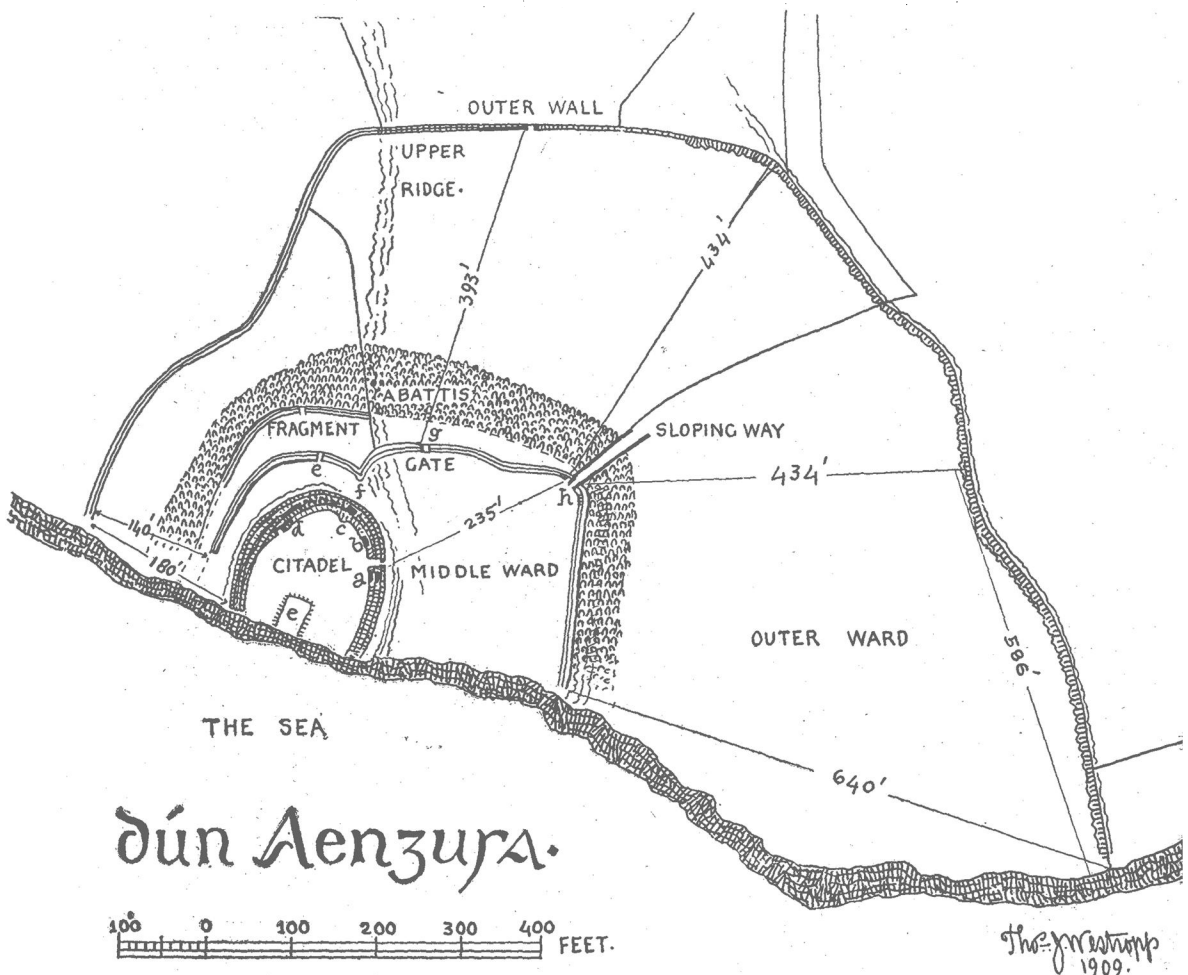


FIG. 1.—Plan of Dun Aengusa.

The Dun is usually supposed to have consisted, from the first, of three

¹ *Proc. R. I. Acad.*, xxvii. (C), p. 221.

² *Journal R. S. A. I.*, vol. xxviii., p. 364, for Cahergrillaun; vol. xxxi., p. 275, for Caherfeenagh.

³ *Ibid.*, vol. xxxi., p. 6.

⁴ Letters refer to pp. 25, 27.

oval rings into which the sea has cut for almost exactly half their extent. Such a plan is possible, warranted by the fine triple-walled hill-town of Moghane, but must not be too readily accepted. The fortress was probably at first a simple oval ring-wall, like its neighbour the Dun of Eoghanacht and many others. It was next strengthened by a second ring nearly equidistant from the first, like the forts of Dun Oghil on the same island, Furmina on Inishere, Glenquin and others in Clare. Still later, a third wall, either somewhat egg-shaped in plan or a crescent, abutting on the cliff, was built. This was regarded as final; and an elaborate abattis of close-set pillar-stones was made round it, extending to its foot, even where it crowned a steep slope. Lastly (and probably at a far later period) a large irregular space, determined to the east by a low ridge, was enclosed with another wall, defending the approach from the landing-places of Port Murvey. We do not for the moment assert whether, or how far, the sea had cut into the hill when these works were built. O'Flaherty seems to imply that the middle ring was entire, like "the bawn of a castle," in 1684; but it then stood "on the brim of a high cliff."¹ Probably the old second wall was originally entire; but this is uncertain, for the stone fort of Cahercommaun, in Clare, on the edge of the Corcomroes, has a central ring and two crescent walls.² It is strikingly like Dun Aengusa. The central fort is even more massive; but it overhangs a dry valley rising at both ends, so is evidently in its original condition so far as regards the plan. Another alternative is possible, namely, that (as at Dun Conor and the Clare forts of Caherlisaniska and Langough) the central fort was a ring with the outer enclosures looping in to meet its wall. We have, however, only found this looping in forts on flat fields and low ridges—never at high cliffs or slopes, or even on a low shore when there is deep water beyond it, as at the crescent fort at Cahernacalla on Ballycar Lake.³ The crescent wall,⁴ therefore, does not necessarily prove a fall of the cliff, for it is common inland in Ireland, and indeed all over central Europe and in America.

In Clare, besides Cahercommaun and Cahernacalla, with a central ring

¹ Chorographical description of "Iar Connaught" (ed. Hardiman), p. 75.

² A poem of Seanchan, dating about 640 (Book of Lecan, p. 17), mentions "the three mounds of walled fortresses" in Burren, Co. Clare—perhaps this (the only triple-walled) fort—as on the Burren hills, though now included in Inchiquin. It is probably the fort of Caechan Boirne, near Inchiquin Lake, named, perhaps, about 800 (certainly *ante* 1014), in the "Book of Rights." See Journal R.S.A.I., vol. xxvi., p. 153, and Proc. R.I. Acad., ser. iii., vol. vi., p. 430, for plans comparable with that of Dun Aengusa.

³ Proc. R.I. Acad., vol. xxvii. (C), p. 227.

⁴ The crescent type is so closely akin to the promontory fort that in some cases distinction cannot be drawn save by regarding the existence of a headland behind the defences. Mr. Allcroft classes them together in "Earthwork of England," chapter iii.

and one or more crescent walls, we find Caherlismacsheedy,¹ a single crescent on a cliff in Burren. The type is very common in England and Scotland, the finest and most complex specimen being the two conjoined forts of Coldingham, each with three walls. We note in England the forts of Embury Beacon, Devon, and Blackers Hill, other typical examples being the inland Scottish "Doon" of Nunmill and Errickstane.² In France we have many fine examples. To select a few: There is a double crescent earthwork on a spur at Caudebec, and near it a promontory fort. The camp of Bois de Rouret has two stone walls built each in two sections, as in the Irish forts. The masonry, too, is identical with that in the forts of western Ireland. At Sarrahan, in Cantal, a single crescent wall encloses a garth 170 feet long and 105 feet deep on the edge of an inland cliff. The fort of St. Maurice at Beaulieu (E.M.) has two crescent rings enclosing many house-sites, some of the Roman period. The ground slopes back from the inland cliff as at Dun Aengusa. Mont Milan (Côte d'Or) has also two walls; but, unlike the Irish forts, it has flanking towers believed to be of the same period as the fort. It is noteworthy that the Irish, no less in their forts than in many of their later castle courts, were entirely indifferent to the advantages of flanking defences.³ In Hungary lies the great ring of Bény, an earthwork of three crescent mounds, extending for 1700 feet along a steep bluff. In Switzerland and Perm we have crescent works fencing mountain spurs; and crescent ring-walls are found in Sweden.⁴ The type also occurs in America.

Whether the walls of Dun Aengusa were all crescents from the first we can never know; for they, their foundations, and the rock for over 300 feet beneath are devoured by the Atlantic and "their memorial has perished with them." We have no means of calculating the advance of this destruction; and it may have been very slow for centuries.

The fall of cliffs is nowhere uniform; even at the same locality all depends on the jointing, the currents, and the prevailing winds. A fort like Doon, in Iraghticonor,⁵ Kerry, was evidently a crescent from the first; the sea has

¹ Journal R.S.A.I., vol. xxxi., pp. 275, 276.

² See Dr. Christison's "Early Fortifications in Scotland," pp. 130, 131, Coldingham; p. 134, Arbory; Upper Cademur; p. 204, Raecleuchhead; p. 206, Errickstane; and Mr. A. R. Allcroft's "Earthwork of England," pp. 53, 54, 59, 63, and 113.

³ "Société Préhistorique de France," Bulletin. Tome iv., p. 311; vi., pp. 231, 415. Rapport, Tome v., p. 76. Comptes Rendus (1905), pp. 27, 30, 36, 52; and Dr. Adrien Guébbard's "Enceintes Préhistoriques" (1907), pp. 11, 12.

⁴ The notes on many of these continental forts are brought together in "Ancient Forts of Ireland," sections 8, 11, 20, with plans, &c., figs. 2, 3. For a Scandinavian "ring mur," crescent-shaped in plan, see Borlase, "Dolmens of Ireland," vol. iii., p. 1133. For Russian forts in Perm, see "Camps Retranchés," Dr. A. Guébbard in "L'Association Française pour l'avancement des Sciences" (36th Congress, 1902), p. 3. From plans by M. Vladimir Tolmatcheff.

⁵ Described in a paper read before R.S.A.I. in July, 1909, now printed, but as yet unpublished.

run harmlessly for centuries along the smooth faces of the upturned strata, and the fosse died out in the grassy slope above as its diggers left it, unworn, save by "the slow tooth of the sky." At the Black Fort, east from Dun Aengusa, we see that the headland originated from two synclinal curves, the inner arches of which were constantly worked into caves, eventually falling in and leaving long bays.¹ The destruction of the sides and even of the outer end of the promontory is slow compared with that at the ends of the bays, and the fort between them may be very ancient, though hardly three thousand years old, as O'Donovan fancied. As we noted, Loop Head, the ancient "Leap of Cuchullin" (probably from long before A.D. 850,² when the name first occurs), must have been, in early times as at present, a high rocky islet divided by a narrow chasm from the main cliff, to judge from the name and legend. The only fall of rock recorded at Dun Aengusa for over seventy years is that of a slab from which a man was fishing when it fell in 1837³; but cliff falls are more usually sudden and at long intervals than persistent and gradual.

So far we have only dealt with the changes made by the great forces of nature; now we turn to other evidences of mutability in extensive alterations by the hand of man. They give us the much-needed warning as to how many features, what extensive additions and what puzzling eccentricities of plan found in these forts, are not to be attributed to the original design. Probably when, by the building of the greater outer wall, the defensive value of the abattis and middle wall was less felt (whether at the same time or on later occasion or occasions) extensive works were carried out on the inner walls. The abattis, as we noted, clung even to the foot of the old outer wall (as it does also at the Black Fort, at Dunnamoe,⁴ and at Ballykinvarga caher in Clare); its divergence leaving a long open tract between it and the present wall, along with the fragment of wall to the north and west, tells the story clearly enough. The builders demolished the old outer wall from the ridge opposite the east face of the central fort to the avenue at the north-east bend, and also the eastern part of the second wall; of the materials of these they made an irregular line from the east end of the curve of the latter bowed out like a bastion, and then running in a comparatively straight line, from over 50 feet to about 15 feet from the abattis. It joined the old outer wall rather at right angles, a new gateway being made at the sharp turn. Having been built on the surface of the rock, every trace of the demolished

¹ Journal R.S.A.I., vol. xxxvi., p. 240.

² *Ibid.*, vol. xxxviii., p. 345.

³ "O. S. Letters," Co. Galway (ms., R. I. Acad., 14 D. 3.), 249.

⁴ If we so consider the former curious wall-loops and outwork at the gangway and along the landward edges of the fosse, shown by the Rev. Caesar Otway in his plan, 1841, "Erris and Tyrawley," p. 68.

walls was easily removed. The north-western reach of the old outer wall was now useless, and, owing to the reach of the second wall being retained, it was not required for material, so it was left standing, a problem (like that of the open space to the north inside the abattis) hitherto unexplained. It extends from near the present cliff to the ridge nearly opposite the seeming bastion. Petrie supposed it to be an annexe, as at Dun Conor; but the end did not curve inward, nor was there any connecting wall from it to the middle ring. It ended abruptly in O'Donovan's time, as now, near the rock ridge.¹ So far as can be seen, this is the true explanation of its existence and of the bare space, so regularly curving to the south-east turn, between the wall and the abattis, now devoid of pillars. The work was probably

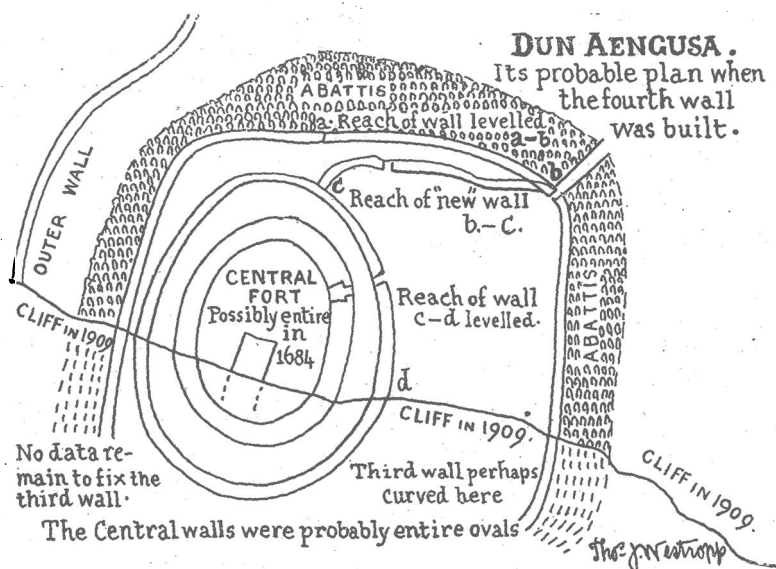


FIG. 2.

done to open a larger court beside the central fort, while the north-east part of the second wall was retained to keep the middle rampart, at its most exposed side, on the level of the hill-top, within range of missiles from the towering inner fort. Arrows seem to have been little used by the Irish in warfare; spears were too scarce to throw, but the second wall, barely 30 feet from the citadel, could be swept by stones slung or even thrown from the commanding wall of the latter. The fragment itself could be used as an extra line of defence till the enemy had struggled with great loss and difficulty through the jagged and close-set pillars round its base.

¹ C. C. Babbington thought "they" were built "where the slope of the ground seemed to render additional defences requisite." *Archæologia Cambrensis*, vol. iv., ser. iii.

Till June, 1904, I had on four previous visits regarded the sharp curve of the middle wall as a bastion, and the waving part from it to the north-east bend a mere wanton irregularity. I then compared it with O'Donovan's and Petrie's plans, and found these so inaccurate as to this and the outer wall that I was led to reconsider the whole question. It is evident that all antiquaries who came to this fort hurried to the "citadel," after noting the chevaux de frise and outer walls to the west and south-east (the two lines of approach), passing by, with at most a casual glance, the defaced and unimposing middle wall. Hence even in plans they did not lay down its remarkably irregular line, but showed it as a curve. Then when I found evidence for the occurrence of the "bastion" in 1878, the need of a solution of the problem became evident. I accordingly re-examined it a few months later, with Signor Boni and others, and realized the meaning of the strip without pillars along its base. After a third complete and leisurely examination, made last August, I offer this solution of the problem of the middle walls.¹

The central fort might seem to have required no modification, but such certainly took place. The ope, leading to nothing, inside its wall, to the north-west, which Mr. Babbington noted² as closed by later work, the joints beside the gate, noted by Mr. P. J. Lynch, and a line of blocks to the south of the gateway, outside the face of the present wall, all imply considerable alterations in early times.

The selection of the site (apart from the question of where the cliff then existed) shows much forethought and skill in the earliest fort-builders. The inner ring occupies a natural platform, a few feet high, its faces evidently scarped artificially. The outer wards were strengthened against attack by the upper and lower ridges, the middle, on the north-western and north-eastern, and it and the outer wall on the eastern sides, towards the most probable point of attack—Portmurvey.

Landing in that bay, or coming from the Kilronan harbours, an enemy had to struggle up a long reach of broken crag, and either up the narrow slippery path to the north-east gate, or through the hedge of jagged stone spikes in face of a lofty wall. All these surmounted, the central citadel, once over 18 feet high on its ridge, manned by desperate men, had still to be captured. We cannot endorse Mr. Burke's suggestion³ that the middle court was left clear for "military manœuvres"; it was possibly filled with huts of

¹ I hope the "personal element" in this paragraph may be condoned, as making the origin of and responsibility for the theories clear to all.

² "Archæologia Cambrensis," vol. iv., ser. iii., p. 96.

³ "South Isles of Aran," p. 16.

clay and wattles which have left no trace.¹ The fort seems to have had no traverses which, were attack much feared, should have been made especially across the great outer garth, a most suitable position occurring at the upper ridge. The weakest point in Dun Aengusa and its congeners was lack of water-supply; and blockade does not seem to have been very probable, though the monastic ring fort of Tulla was blockaded and nearly reduced for want of water in 1086.²

As to the features, the perfect gate in the outer wall was described before 1870 by Lord Dunraven; the northern gate of the middle wall I noted as a "creepy door" in 1878, and dimly recall its narrow ope under large stones. The perfect gate of the inner ring was noted by O'Donovan and many writers, from 1839 to 1878, and its outer face sketched roughly by Petrie in 1821, and most accurately by Burton in 1859. I made a camera sketch of the inside in 1878.³ Miss Stokes (or Lord Dunraven) implies that it had collapsed,⁴ but the gate now standing is the one sketched in 1859 and 1878. It is strange that Lord Dunraven did not secure photographs of these most interesting and characteristic features, but they fortunately survived to be photographed by others. The broken gates in the middle wall, the double sections or terraces of the two outer ramparts, and the fragment and the three sections of the citadel wall, are all attested by several writers; so is the "blind ope" inside to the north-west of the latter. The steps near this ope, and the traces of the terraces, and the steps to the north of the inner gate, were recorded. The only features not named before the "restoration" are the double flight of steps to the south of the gate, and the upper flight to the north-west. O'Donovan mentions that the wall to the south of the gateway was entirely defaced, and it was a shapeless heap in 1878. It is, however, most probable (and may even have been recorded) that the lower firmly set parts of the two flights of steps and their long fallen blocks were found in the debris, which covered both the upper banquette and the

¹ Ledwich, in his "Introduction" to Grose's "Antiquities of Ireland" (1807), was probably right where he says of Dun Aengus, p. iv, "The houses having been of wood have long since disappeared." We find in 1162 that eighty houses had to be removed when the fort of Cashel an Urlair was rebuilt at the church of Derry by Murchheartach Hua Lochliunn and Flathbertus OBrolchan, the coarb of St. Columba.

² "Analecta Bollandiniana," vol. xvii., p. 149, chapters xv.-xviii. Tulla nan espoc is translated in this account, "Collis Episcoporum" in "the district of Lumbrecia," Luimneach Limerick or "Límbricensis," under which forms the editor could not identify the places.

³ See p. 30, *infra*. The stonework in this is easily recognizable in a recent photograph.

⁴ "Notes on Irish Architecture," vol. i., p. 4, implies that the gateway had "shared the melancholy fate of the rest of the structure." The drawing of the outer face by Burton, and my camera sketch of the inner face, show that as it stood in 1878 so it still remains. Some who had not seen the fort before its restoration, alleged the rebuilding of the gate on no better authority than "Dunraven's" words.

base in 1854, as in 1878. Such firm-set bottom steps often survive the wall and the upper steps. Two such flights were recently uncovered by us in Caherminaun. There is one in Ballyshanny caher, and we find two more in Caherfeenagh fort, in Clare. In Dunoghil the remains of two such flights were not restored in 1884–5, one to the north of the gateway, at the ground-level (its other steps are used in the circular “thing” then built in the garth), the other above the south-east stair. In the Black Fort are sloping joints, evidently remains of two unrestored sidelong flights near the huts. The steps in Dun Aenghus are exactly like the untouched examples. The allegations about the supposed sunken way in the top of the rampart rest on a mistaken reading of O'Donovan's Letter of 1839, the “internal division” meaning in his letter the banquettes inside the rampart.

As to the age of the fort, worked implements of chert and flint have been found in it, and also bronze ornaments, one probably later than the fifth century. The comparatively small sharp masonry gives less impression of age than the large blocks, well-marked batter, and (as a rule) lower walls on the forts on the mainland in Mayo, Clare, and Galway. The blocks of the wall are not as weather-worn as those in the ramparts of Moughane and the Cahercarbery forts on Kerry Head. It is hard to believe that walls so slightly battered are of vast age as they stand; but the inception of the fort and the collection of the material may date far back in the past. The chevaux de frise, with the evident channelling of the tops of its pillars, is probably very early; but we have seen reason to believe that the walls have been extensively rebuilt in the past; and perhaps this was done when repairs were required, on several occasions, long before the restoration of 1884.

The inroads of the sea give us no measure of its age. We have no reason to assert that its circles were either complete rings or crescents at first. It may have stood (like Dun Oghil) on a hill-side, or have been built (like Cahercommaun), adapted to an already existing cliff, though, of course, the cliff stood much farther southwards in the earlier times. Its advanced plan may have grown up gradually from a simple beginning, though we agree with Dr. Guébhard² that its skilful construction, terraces, and steps imply the work of builders with long and experienced traditions to guide them; but these accomplished masons were probably rebuilders; and the original fort may have been as rude and simple as some of the ring-walls of Clare and Kerry.

¹ “Age of Dun Aenghus” Dr. Colley March. *Proc. Soc. Ant.*, London, vol. xv., ser. ii., p. 226.

² *Préhist. Congrès iii.*, Autun, 1907, “La structure relativement compliquée, certainement attribuable à une humanité déjà passablement éloignée de ses origines,” p. 998.

(4) RECORDS OF ITS FEATURES.¹

Before describing the fort as it stands at present, we must examine, in more detail than above, the record of its features before 1883. The reference letters are as follows:—P, Dr. George Petrie, "Military Architecture" (1821 and 1858); O'D, John O'Donovan, "Ordnance Survey Letters," 1839; F, Sir Samuel Ferguson, "Dublin University Magazine," 1852; W, John Windele, "Supplement," ante 1854; C, Most Rev. Dr. George Conroy, Bishop of Ardagh, "Aran of St. Enda," ante 1870; D, Lord Dunraven, "Notes on Irish Architecture," ante 1875; IB, anonymous writer in "Irish Builder," notes, 1877; TW, notes and sketches taken 1878.

INNER FORT.

Gateway.—All the above writers. *Its rising Lintels.*—O'D; W, "like inverted steps." TW, "stepstones in top." Views (outer face), F.W. Burton, 1857; (inner face), TW. *Stair to north-east.*—F, "On the right are the remains of a flight." *Terraces,*²—P (map); F, "lower banquette"; C, "banquette on the east side"; W, "banquettes"; D, "now no trace"; TW, "nearly gone." *North-west Ope.*—P (map); O'D; F; C; D; (? TW, "a hole"). *Stairs next Ope.*—P, and map; F, "one or two"; C, "traces of stairs"; W, "a succession of stairs"; TW, "slopes or steps." *Wall in three sections.*—P and map; O'D; F; C; D and photographs; TW and sketch. *Stone Platform.*—P (map); TW (sketch plan).

MIDDLE WALLS, &c.

GATEWAYS.—*North-west Gate,* P; D; TW, "gaps like doors." *North Gate.*—TW, "creepy door." *North-east Gate.*—O'D, "much destroyed"; *Passage leading to it.*—O'D (he thinks it modern); P; F; TW, "road through pillars very steep." *Terrace.*—P (and map); W; C; D; TW. *FRAGMENT.*—P (and map); O'D; D (and photograph); Wilde in "Lough Corrib"; TW

¹ The Irish terms applied to the features of forts are—"Murelodh" a stone wall (Togail Troi); "Mur," a wall of earth or stone (Mesca Ulad and many other early works), "Cladh," fosse; "Tulchin," flat summit of a fort of the mote type; "Iarom," the garth or enclosure; "Fordorus," the gate in the outer enclosure; "Fordorus," used for a lintel; "Aurlann," the slope before that gate; "Dorus," a gate; "Tairsech," its threshold; "Aursa," a jamb; "Aurduine," the 'porch' of a gate, "Erdam," a porter's lodge (as in the Kerry and Mayo forts); "Bodun," the 'bawn' or cattle-yard; "Ithla," the 'haggard' enclosure; "Faiche," the green, or game-field, before the fort; "Sonnach," the palisade or abattis. (See Silva Gadelica ii., p. 408, for an "Aurla.") The "Sonnach" references are given *infra*. See also Dr. Joyce, "Social History of Ancient Ireland," vol. ii., pp. 34, 60. E. O'Curry, "Manners and Customs of the Ancient Irish," in the introduction by Professor Sullivan, p. 107.

² O'Donovan, in his notes on Dun Oghil, contrasts the good preservation of its steps and terraces with the dilapidation of those of the other forts on Aranmore (O. S. L., p. 239).

(sketch and plan). *Terrace*.—P, "Terrace half its height" (and map). *ABATTIS*.—All writers (save Ledwich, John O'Flaherty, and Windele) since Roderic O'Flaherty in 1684.

OUTER WALL.

Wall.—P (and map); O'D; D. (map and photograph); TW, "old tumbled wall" (and sketch). *Gateway*.—D. *Two sections*.—O'D. This wall is passed over or only shown in maps by most writers.

(5) THE FORT IN 1909.

The two most conspicuous high grounds of Inishmore are each crowned by a great stone fort, the western hill rising to over 300 feet above the sea, by Dun Aengusa, the eastern by the Dun of Oghil, the ridge rising over 400 feet above the sea. As we pass round the shoulder of the Oghil plateau the great mass of Dun Aengusa presents a most imposing appearance, its three tiers of walls being fully visible at the fall of the steep slopes to the "Blind Sound" and Portmurvey. We ascend the hill past the fuchsias and low trees at Kilmurvey House, passing the low crag cliffs with their wells of sweet, clear water: cross the craggy fields (their crannies full of maidenhair and hartstongue ferns, of small, sweet wild roses, cranesbills, and dewberries) and gain a view of stately and ever widening spaciousness, along the dark southern cliffs, out to Clare, and even to Kerry, and northward across the bay of Galway. We next reach a low ridge of crag which has been strengthened with a thick rampart (unlike the tottering field-walls around), and enter the ambit of the great fortress or "town": "though high the situation of the cathair, not easy is its storming methinks . . . if you come to the southern side."¹

OUTER RAMPART.—The wall is for the most part greatly levelled and spread about from 10 to 15 feet wide; but, where better preserved, it shows two faces of well-laid blocks (many of fair size, 2 to 3 feet long, and 18 to 20 inches thick), being usually 6 or 7 feet thick from face to face; it follows along its eastern reach a low, irregular ridge about 5 or 6 feet high, rarely higher. This wall has been passed by in silence by most writers, but is, when realized, a most imposing adjunct of the upper fort, being over 2000 feet long in its wavy, irregular course. Its garth is over 1250 feet long by the cliff edge, 1174 feet across the clear garth east and west, and 650 feet deep past the eastern face of the abattis north and south. It is usually found in heaps 3 to 4 feet high, and is 8 feet thick near the sea, and until we turn

¹ "Caithreimh Conghail Clairinghnigh" (ed P. M. Mac Sweeney), p. 121.

up the slope, where it is better preserved. The masonry is coarser to the east when compared with the upper reaches and the inner walls. To the north, we find its most interesting feature, the nearly perfect gateway, first described by Lord Dunraven, before 1875, as being 4 feet wide and 3 feet high (over the debris), with a lintel 9 feet long. This is virtually correct, as we found it to measure 49 inches wide above, but only 45 inches below, owing to a projecting block at the base. The height, as now cleared, is 4 feet 10 inches to the east and 4 feet to the west, being on a steep, ridgy slope. The wall is 6 feet 7 inches to 7 feet thick on top, and nearly 8 feet at the base, the passage being covered by a huge inner lintel, 8 feet 4 inches long, 6 to 10 inches thick, and 15 inches deep and two similar outer lintels. The space between them and the inner one is covered by short "cross-bearers," which is also the case in the north gate of the inner wall, and is a common feature in souterrains, but rare in gateways. From it westward the wall has been greatly and unnecessarily rebuilt, raised to a level top, about 5 feet high, till we reach the upper ridge; there it has been repaired with a terrace, and is 2 or 3 feet higher. The ridge crosses it, and is from 12 to 18 feet high.

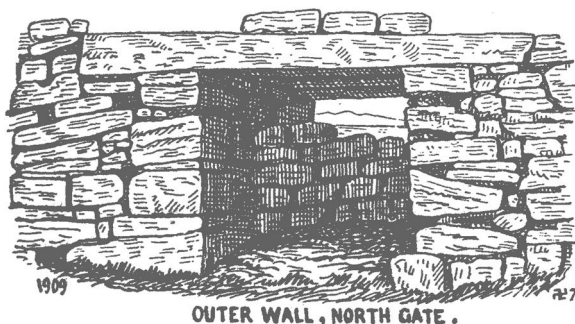


FIG. 3.—Dun Aengusa, Outer Gate.

O'Donovan notes that it had two sections. They are not apparent in the untouched wall. It (very likely) had a terrace, though none appeared (so far as I remember) in 1878. He was fond of asserting at that time (it was very early in his field-work) that the sections in fort-walls were to provide another solid face against the enemy when the walls were sapped and fell in a siege. Most of the succeeding writers have adopted that view. We have, however, no suggestion of so elaborate siege-work in Ireland in those early times; and I believe the system was adopted rather to allow the more equal settlement of the dry-stone walls, which, when of any great thickness, naturally (especially if the filling be small) bulge out, and even burst the faces of the wall. Another possible reason was that the terraces and outer sections

were added to the first and lowest wall; but the fact that such sections occur in non-terraced forts bears out the view that it was to prevent bulging; for escalade in assault, or blockade—not battering or mining—was the danger besetting the early fort-dwellers. Walls of double or triple sections are well authenticated in dry-stone forts. Dun Aengusa is triple in the citadel (double in all the other walls); so are the Black Fort, Dun Conor, Ballykinvarga in Clare, and Caher na Spungaun in Mayo;¹ while double walls occur at Dun Onaght and Dun Moher in the Aran Isles; Lower Caherbullog, Caherscrebeen, the upper fort of Ballyallaban and Caheridoula in Clare; Ballylin Caher in Limerick; and the forts of Dunbeg (Fahan) and both the Cahercarbrys in Kerry.² Of these, the two last examples in Clare and the Cahercarbrys were so constructed down to the foundation, and evidently the others are similar. The enclosure possibly defended a number of huts of wattles, or osiers, and clay, for it is noticeable that while stone huts are common in the forts of Mayo, north-west Clare, and west Kerry, evidence for their existence in Aran is only afforded by Dun Conor and the Black Fort. There were thickets of scrub (dwarf oak, &c.) at Oghil, the place (Eochoill, oak grove) and a wood “Leamchoill,”³ near the shore below it, as named in the “Life of St. Enda,” showing that twigs and branches could be procured in ancient times even on these storm-swept rocks.⁴ We have a historic mention of a “dun and the houses outside the dun” so late as 1014;⁵ and indeed so late as 1675, in a deed where the caher of the O'Davorens, the fine existing ring-wall of Cahermaenaughten in Burren, with the group of houses in and around the caher, is fully described.⁶

THE ABATTIS.—In 1684 Roderic O'Flaherty was struck by “several long stones erected slopewise against any assault,” at Dun Aengusa. Ledwich, in his hearsay and warped account, John O'Flaherty, and the usually careful John Windele, alone, since that time, have failed to note this striking

¹ Mr. Hubert T. Knox kindly gave me notes and a section of this fort: it is at Bushmount, near Hollywood.

² Walls of three sections occur in French forts in the Alpes Maritimes—e.g. Casteouvasson and the Castelars in Var. See “Soc. Préhist de France,” tome iii., p. 146, by Dr. Adrien Guebhard; and the volume of the “Congrès Préhistorique” for 1905, p. 48; also “Comptes Rendus de l'Association pour l'avancement des Sciences,” xxxiii. (Session of 1904).

³ This is alleged to be a mistake for “Eochoill”; but there is no evidence that it is not a name which became extinct on the destruction of the trees or bushes.

⁴ The Grant of the Aran Isles of 1586 in the Patent Rolls reserves “great trees,” minerals, and great hawks to the Queen. We cannot, however, regard this as more than a conventional “saving” by people ignorant of the islands. Traces of “druidical” oak groves are even named by John O'Flaherty, 1825, as existing in Aran. He found fir, pine, and oak in the peat (? submerged), and wild ash and hazel on the crags. O'Donovan heard of dwarf oak scrub and hazels near Dun Oghil (O. S. L., p. 230).

⁵ “Annals of the Four Masters.”

⁶ Copy in the O. S. Letters, County Clare, Rathborney Parish, vol. i.

feature of the fortress. The abattis consists of a closely set mass of little pillars, usually 3 to 4 feet high, girding the whole middle walls in a band from 30 to 80 feet wide, more open between the north-west and northern gates, but nearly impassable to the north-west and to the east, at which latter side they are set with wonderful pains up a steep rock-slope below the rampart. The tops of the pillars, as noted by Dr. Colley March,¹ are greatly worn and furrowed by the weather, like those at Ballykinvarga, and give a more convincing proof of age than is afforded by the facing of the wall, which is less fretted, though probably already weather-worn when raised from the crag; for in many forts on the mainland we have seen evidence of such wear on faces embedded in the wall. We must bear in mind, however, that similar evidence of weather-wear is found on the upper parts of sculptured crosses of the ninth to the twelfth century; and the base of the twelfth-century cross of Dysert O'Dea is also deeply fretted. The rock at Dun Aengusa did not afford such convenient crannies to form sockets for the pillars as were found at the Black Fort; nor was the soil sufficiently deep (as at Ballykinvarga) to fix them; so, in many cases, they simply lean against each other or fall over in picturesque confusion.² There is no outer kerbing or later annexe to the abattis, as at Ballykinvarga or the somewhat similar fort at Möhne in the Baltic; nor, like the former, have they lesser spikes between the pillars (spikes sharp enough to cut through the side of a boot); but they are jagged and sharp indeed. O'Donovan exaggerates when he writes that "many of them are so sharp that, if one fell against them, they would run him through"; but they are very perilous to pass, even when undefended. He picturesquely compares them to an army petrified in act of attack.³ The band measures about 700 feet from the west to the north-east gate, and over 200 feet more from it to the cliff eastward.

The feature is very rare; it occurs at Dun Aengusa, the Black Fort, and Ballykinvarga, and was once found at Dunnamoe promontory fort in Mayo, the pillars from which were used for house-building in Belmullet.⁴ In Great Britain patches of such stones are set to form obstacles at the more accessible

¹ "*Loc. cit.*, vol. xv., ser. ii., p. 226.

² See Plate I., fig. 2; and Plate III., fig. 1.

³ Mr. Burke chooses the less dignified and rather misleading simile of "almonds in a pudding," for the stones are not set out apart as drawn by Cheyne. These inaccurate views led to the theory noted by Mr. Wakeman, that they were tombstones of those buried round the fort; or by Dr. March, that they were to protect cattle from slingers.

⁴ *Journal R.S.A.I.*, vol. xix. (consec.), p. 182; Trotter's "Walks in Ireland," pp. 503, 504. He calls them "stone stakes of great size and height." Rev. Caesar Otway says that O'Donovan remembered them "more numerous and much larger" than in 1841; but they had been "removed for sills and lintels." See "Erris and Trawley," p. 68.

approaches to the forts of Pen Caer Helen in Wales¹ and Cademuir and Dreva in Scotland.² Rows of pillars of similar intent occurred in the destroyed fort of Cap Sizun in France,³ two Swiss forts near Laufen, Berne,⁴ and the "Bauerberge" of Möhne in Russia.⁵

Irish scholars could help archaeology by searching in our early literature for mention of such a feature. It could, however, hardly be expected that where our older writers seem to pass over our countless dolmens without notice, they would have preserved mention of so rare a feature confined to four of our cathairs. It is, however, very probable that a similar timber defence surrounded many of our forts, and was called a "sonnach"; it may have filled those narrow, flat spaces inside the outer rings which gird some earth-forts, like Doonaghbwee and Lisheeneroneen, in Corcavaskin; and it originated the place-names "Lisatunna" and "Sonnagh."⁶ To take a few examples from ancient works: there is mention of two mythical forts; one made by the divine builder Aenghus, son of the Daghdá (already noted),⁷ "with lofty *sonna* (stockades); another, "with seven walls and an iron *sonnach* on each *mur*."⁸ When Cuchullin was pressed to fence the fort of Howth, he said: "A heap of spears closes it for me." He evidently compared his warriors to an abattis.⁹ Aedh Guaire, King of Connaught, in the sixth century, built a new house in a *dun*, and, "outside all, a *sonnach* of red oak round about his *dún*."¹⁰ The breaking of such a palisade to admit the king's spear, held lengthways, is alleged to have caused the quarrel of the Ardrigh Diarmaid with St. Ruadhan, the cursing of Tara, and its desertion. "The Voyage of the Hui Corra," a tenth-century romance, tells us of yet another mythical island *dun*, "with a brazen *sonnach* round it, and a brazen net spread on the spikes outside."¹¹ It is as curious to find so early a foreshadowing of spiked-wire entanglements as of another modern invention, where the Mabinogion

¹ "Archæologia Cambrensis," ser. iv., vol. xii., p. 345; and "Ancient Forts of Ireland," fig. 6.

² "Early Fortifications in Scotland," pp. 225, 226. Dreva has a side-annexe like Dun Conqr; both are in Peebles.

³ For Cap Sizun, see "Archæologia Cambrensis," series iv., vol. ii., p. 287; and "Ancient Forts of Ireland," fig. 4.

⁴ "Dictionnaire Archéologique de la Gaule, Epoque Celtique," tome i., p. 122.

⁵ Borlase, "Dolmens of Ireland," vol. iii., p. 1130.

⁶ There are a dozen townlands called "Sonnach," chiefly in Connaught, and four named Lissatunny; but in field-names and compounds it is far from uncommon.

⁷ "Agallamh." Translated by S. H. O'Grady, "Silva Gadelica," ii., p. 3.

⁸ Lebor na hUidre, "The Fairy Chariot of Cuchullin" (Siabar charpat Conculaind), Journal R.S.A.I., vol. xi. (consec.), ser. iv., vol. i., p. 387, copy circa 1106.

⁹ "Revue Celtique," vol. viii. (1887), p. 55.

¹⁰ "Silva Gadelica," vol. ii., p. 70, "The Story of Aedh Baclamh."

¹¹ "Revue Celtique," vol. xiv. (1893), p. 47, "Voyage of the Hui Corra," ante 1100.

describes the wonderful flask that kept hot drinks warm and cold drinks cool. Old fiction, however, usually based its non-magical surroundings on "things seen," and it is evident that spikes, if not of stone, "brass," or "iron," at least of wood, girt many a fort in ancient Ireland.

The abattis of Dun Aengusa has been removed for a short distance at each end by idlers who love to hurl stones down the precipice into the sea below. There is, as we noted, an avenue nearly 80 feet long through the pillars to the north-east gateway; it is probably ancient, being similar to that at Ballykinvarga. O'Donovan overlooked the accessibility of all the cliff-edge when he supposed it a modern work to give access to the sea-face.¹ No avenues lie to the north and north-western "gaps"; the former (as we tried to prove) is in the later reach of wall; the latter was a shapeless gap, with no trace of piers, in 1878. It is not necessary even to regard such an avenue as made in ancient, but more peaceful, times later than the actual foundation of the fort. The gangways left in the rock-cut fosses at Doon Fort² (probably the reputed seat of the brother of Aenghus the Firbolg) and Lisduff, near Kilkee, show that the old fort-dwellers little regarded this undoubted weakening of their defence. This was not from thoughtlessness in early times; for in the "Book of Leinster" the danger was noticed. "It is a peril to be upon the fort unfortified; and the shout of the person in its door that has conquered it."³ The only fairly defensible gateway of an Irish fort known to me is at Dunbeg in Kerry; perhaps, too, at Dunnamoe, the entrance was capable of more than mere passive resistance.⁴

THE FRAGMENT.—To the north and west of the central fort is a fragment (as I believe) of the old outer wall. It is 7 feet 6 inches thick and about the same height at the east end, and is about 250 feet long with a terrace $4\frac{1}{2}$ feet high and wide. It lies 54 feet from the middle wall at that end, but approaches it to within 20 feet to the west. It is entirely levelled near the cliff and from the upper ridge to the north-east gate, while much of its western reach is very low.

THE MIDDLE WALL.—The eastern part was evidently the old outer wall, and the western, from the "bastion" westward, the older middle one. The intermediate part was an afterthought. It is terraced throughout and varies much in height, being from 5 or 6 feet at the north-east to nearly 12 feet high at the upper ridge. In 1878 long reaches of the terrace were extant, but no

¹ "O. S. Letters," p. 213.

² *Journal R.S.A.I.*, vol. xxvii., p. 126.

³ "Book of Leinster," p. 37.

⁴ Miss Stokes notes the advance implied by the gateways of Irish stone-forts over the gaps in British forts ("Christian Architecture of Ireland," p. 26). Perhaps the "gaps" had wooden gateways; some Irish ones have lining slabs.

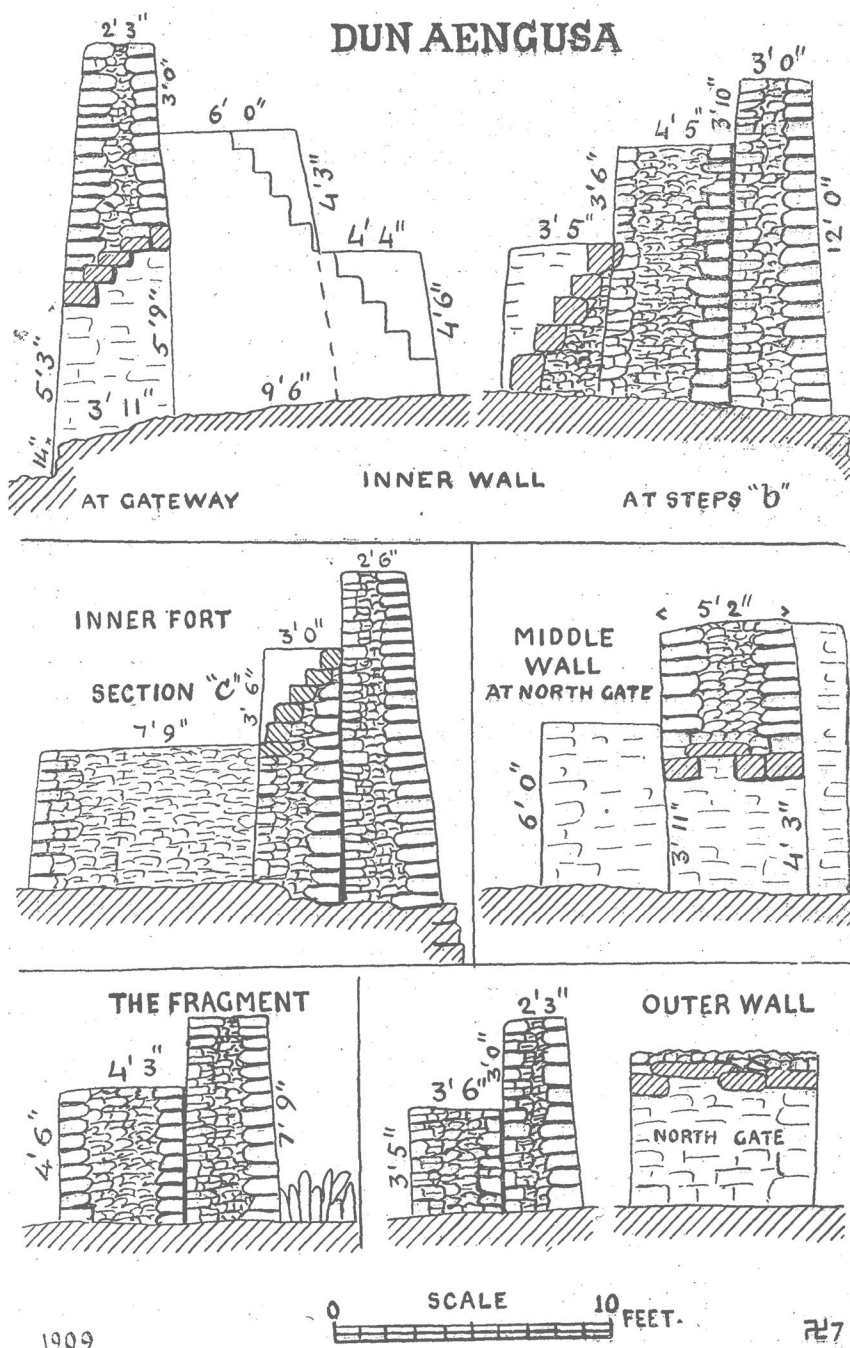


FIG. 4.—Dun Aengusa. Sections of the Walls.

steps. The north gate was nearly buried in fallen stones, so that one could hardly creep under its lintels; and the other gates were shapeless gaps. The walls show little batter to the east, but bulge in and out, showing traces of long periods of settlement in every reach. Like the inner citadel, the masonry is of good and at times fairly large blocks, largest at the north gate, the joints packed with spawls. The sections next the sea have been little altered. It runs in an unusually straight line to the cliff, which perhaps implies that even when first built it ran to an earlier edge of the precipice farther to the south. It is interesting to note a similar curved wall, with two gates to the north, and at the north-east corner as at Dun Aengusa, turning abruptly and running in an almost straight line to a sea-cliff, at Seafort in Sussex.¹ The link-wall starts from the eastern part with an abrupt bend a little to the south of the corner gate. The latter is 4 feet 9 inches wide (4 feet 6 inches in O'Donovan's letter), varying a little, the wall being 8 feet 2 inches thick, and the lower three feet of the jambs are ancient. From it the gate of the citadel is seen facing and about 235 feet away. The space between the walls at the cliff-edge is practically the same (234 feet), and is 240 feet at the middle of the east section. The abattis, which clings to the foot of the old wall, curves out from the "link," and is about 60 feet out from the "bastion." The older north-east gate was probably some 10 feet in advance of the present one at the steep avenue and slope. ("h" on plan, p. 10.)

Westward from the gate the wall runs in a wavy line² shown as regular in the two older sketch-plans (of Petrie and O'Donovan), and so reproduced in the maps used by Babbington, Haverty, and even Dunraven. Modern steps ascend to the ends of the terrace at either side of the gate; an inward curve is found from about 50 to 70 feet westward; the north gate (*g*) at 161 feet. This is perfect now as in 1878. It is 4 feet 3 inches wide and high outside, over 6 feet wide in the passage. Some of the outer jamb-stones are over 4 feet long and a foot thick. Inside, the piers being on a slope, are (like the outer gate) of different heights (3 feet 2 inches to 3 feet 11 inches). The passage is 5 feet 2 inches deep, covered (like the outer gate) with three lintels, the inner over 6 feet long and 10 inches to 14 inches thick; the outer 5 feet 5 inches long and 8 to 9 inches thick. The width inside is most unusual, and probably had a narrowing pier which had fallen or was ignorantly

¹ *Archaeologia*, vol. xlii., part i., p. 32, and plate vi. "Hill Forts in Sussex," by Col. A. H. Lane Fox.

² The outer wall of Tre Ceiri in Wales is as irregular and, like the "link-wall," is terraced, but the irregularity in the Welsh fort, as at Cashlaun Gar, Langough, and other rock-forts, originates in the contour of the ground, while that of Dun Aengusa runs on an unimpeded floor of crag, the more regular reaches of the inner walls being alone on the rock ridges.

removed by the restorers in 1884. This cracked the lintels when the wall was rebuilt above them, and two stone props were inserted. The space between the two outer lintels and the inner one is covered by cross-bearers. My notes of 1878 are too vague to verify this feature; but (like the outer gate) it is possibly correct. The terrace at this point is 6 feet high; and the outer wall makes a little curve at the west pier of the outer ope. The fine inner lintel of this gate probably belonged to a predecessor; otherwise it is, and indeed the other gateways of the citadel are, of very poor construction when compared with several of the Mayo, Clare, and Kerry forts. The irregularity and poor, small blocks of the side-jambs give the gateways of Dun Aengusa a somewhat ragged and late appearance, and quite account for the complete ruin of all those of the other forts of the islands. Westward

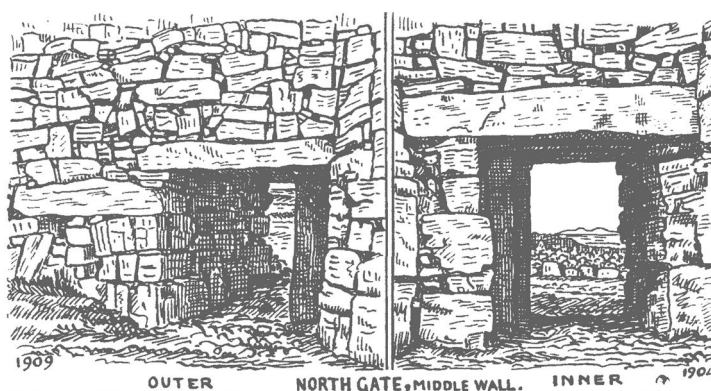


FIG. 5.

from this, at the upper ridge, the wall makes a curve like a bastion, and meets the older portion nearly at right angles (*f*). Inside they, with their terraces, meet in another practically right angle on the crown of the ridge, at 83 feet from the inner west pier of the gateway. This is evidently the junction with the old second wall, which runs thence, in a regular curve, practically equidistant (27 to 30 feet) from the central wall to where it has been demolished near the cliff. The terrace at the sharp bend is 4 feet high and 20 inches wide on the "link," and 3 feet on the old wall, which is 7 feet thick and high, the outer section being from 3 to 4 feet thick. This bend appears in one of my camera sketches of 1878,¹ and probably in Dunraven's photographs. At 54½ feet from the bend is the gap of another gate (*e*). It is shown in Dunraven's third photograph,² and seems then to have had the foundations of piers. The probable continuation has been as entirely removed to the east

¹ See p. 40.

² See Plate II., fig. 2.

of the fort as at the ends near the cliff. This enclosure is about 400 feet east and west by 200 feet north and south, but was probably at first very much larger.

THE INNER FORT.—This fine early citadel has, as a rule, nearly monopolized the attention of all antiquaries and visitors; so the descriptions before 1880 are fairly satisfactory. We must, however, describe it fully once again. Before doing this let us first examine what O'Donovan¹ wrote about the ramparts, which has been thoroughly misunderstood. He writes that the internal division is 3 feet 4 inches thick, the central 5 feet, and the external 4 feet 5 inches thick; total, 12 feet 9 inches. "The two external divisions are

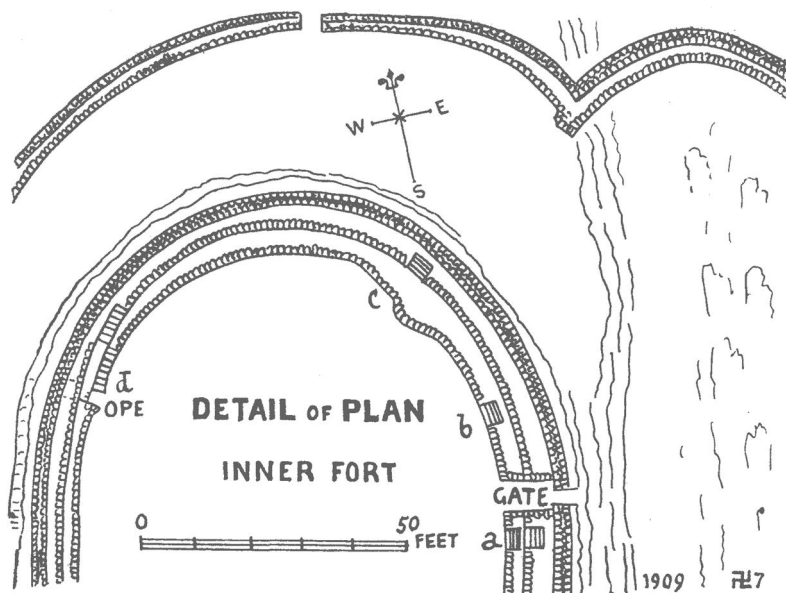


FIG. 6—Dun Aengusa. Alteration in middle wall.

here raised to the height of 18 feet; but the internal division is ... 7 feet high ... I find in all the other forts that the internal division is generally 4 feet lower than the other two." This was understood by Lord Dunraven,² W. F. Wakeman,³ myself, and others⁴ to imply that the central section of the wall

¹ "Ordnance Survey Letters," Co. Galway, p. 205.

² Dunraven, "Notes on Irish Architecture," vol. i., p. 4.

³ "Traces of the Elder Faiths of Ireland" (Colonel Wood-Martin, 1902); Wakeman's view, vol. i., p. 316. It has Λ steps, which do not occur in Dun Conor, some thirty-four huts all over the area, and the sunken way round the wall, all incorrect.

⁴ As corrigenda to my own errors, see *Journal Roy. Soc. Ant.*, 1r., vol. xxv., p. 258, and its Handbooks, ii., p. 66, and vi., p. 73. "Ancient Forts of Ireland," section 81, and the same essay in *Trans. R.I. Acad.*, vol. xxxi., p. 692. Dr. Christison, in "Early Fortifications of Scotland," p. 151, is also misled by O'Donovan's equivocal language. The non-occurrence of a sunken way in any untouched stone-fort, or at Dun Aengusa itself in 1878, should have kept me at least from this mistaken interpretation.

was 11 feet lower than the others. Wakeman went so far as to draw an ideal restoration of Dun Conor with a sunken way round the top. Some censured the restorers for having obliterated this interesting feature, and refused to believe that the wall had had an inner section till confronted with the third Dunraven photograph. This feature (which I sketched and well remember) first led me to reconsider O'Donovan's account in 1904, when I saw that by the "internal" division he meant the banquette, being indeed the true inner section, which removes the apparent inconsistency of his further statement that the two outer divisions were of equal height, and explains his allusion to the section 4 feet lower than the summit in all the other forts which have banquettes behind the outer walls exactly as O'Donovan describes.

The rampart has a slight batter (usually 1 to 5, or 1 to 7), but is usually distorted and bulged out. It is 12 to 13 feet high at present, but rose in parts to 18 feet high in 1839; resting on a low, and evidently scarped, ledge of rock, 3 or 4 feet high, all round which, when covered by debris, may have brought the old height to 18 feet. The third Dunraven photograph, Mr. Cheyne's view in 1847, and two of my camera sketches in 1878, show that a large patch of the facing opposite the north-west gate had fallen, showing a second face inside; and I recollect this condition in 1878. The outer section had only one face, with filling between it and the next (or middle) section; but the latter had two faces. The inner sections were terraces, the lower 4 to 7 feet high. The upper is, I think, a modern development, 4 feet higher, as the outer sections were certainly of the same height in 1839, and even in 1878. As we noted, a line of large foundation blocks on the ledge outside, and to the south of the gate, implies a later rebuilding. So do the joints, first noted by Mr. Lynch, but shown in Burton's sketch of 1857; they lie 23 inches to the south, and 30 inches to the north of the entrance outside,¹ and 14 inches to the north, and 16 inches to the south inside. This suggests a rebuilding of the present door and outer wall in early times, as does the useless ope to the north-west under the terrace. The wall is of unusually good, though somewhat small, coursed masonry, with a facing of headers. A few larger blocks, or perhaps only stretchers, 3 and 4 feet long, are found in the lower courses. The masonry, as usual, gets smaller about 8 or 9 feet up, owing probably to difficulties in lifting the blocks. It is inconceivable that so many persons should have described such masonry as "cyclopean." That of the neighbouring churches better merits this oft-abused term.

The gateway is perfect, facing slightly to the north of east, and is a

¹ See Pl. III., fig. 2.

fine typical structure, with a long outer lintel, and two long relieving stones over it. It is 5 feet 9 inches high, but a step of the natural rock inside it reduces its height to at most 5 feet 3 inches. The passage rises steeply 18 inches in 5 feet; the two outer ledges or steps are 14 inches and 16 inches high, so the garth inside is nearly 4 feet above the foot of the ledge. The gateway tapers very slightly upward from 3 feet 5 inches to 3 feet 4 inches wide; it is 4 feet deep above, and 9 inches more below, of fairly large stones, some 3 feet 7 inches long, and 1 foot thick. The lintels rise inside like inverted steps, such as we find over stairs in certain late

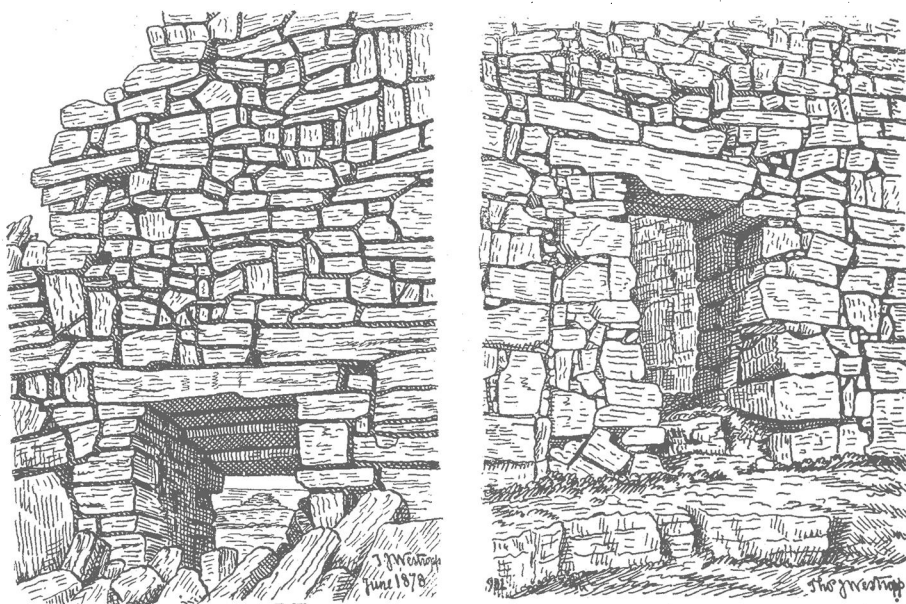


FIG. 7. —Dun Aengusa : The inner gateway, interior and exterior.

peel towers. There are five covers, their depths being—the outer, 15 inches (by 14 inches thick, and 5 feet 10 inches long), the next three 9 inches to 10 inches deep, the inner being 4 feet 6 inches long. They rise 9 inches, 6 inches, and 8 inches, the two inner being level, and keep the passage at a fairly even height above the slope. The inner ope is 5 feet 9 inches high, and 3 feet 2 inches wide. An unroofed passage, 6 feet 7 inches wide, and 9 feet 6 inches deep, runs, as is usual in Irish forts, through the inner sections of the wall. The lower blocks are large; some are 3 feet 7 inches, 4 feet 9 inches, and 5 feet 9 inches long, and 15 inches to 28 inches thick; but the upper part is rebuilt, having been a ragged, shapeless heap of blocks in

1878, to both sides of the gateway.¹ The rampart is 13 feet 6 inches thick here,² 12 feet 6 inches thick farther south, and 14 feet 2 inches to the north-east.

There are two terraces, such as we find at Ballykinvarga and other forts,³ running round the interior; the lower is 4 feet to 5 feet high to the east, 6 feet to 7 feet to the west, the upper 4 feet to 5 feet high; they vary greatly in width, being usually 4 feet to 5 feet wide, but 7 feet 9 inches wide at one point. The upper was noted by O'Donovan in 1839; there was some trace of it even in 1878; the lower was noted by Ferguson in 1853. Two "ladder-flights" of steps run up the two terraces at 5½ feet to the south of the entrance: the type is common in Aran and Clare; the other, or "sidelong flight," being more common in Galway, Mayo, and Kerry, though not unknown in the former districts. The flights are each nearly 4 feet wide, and are of five and six slightly projecting steps. Northward, at 9 feet 3 inches from the gateway, is a flight of five "ladder-steps," 4 feet wide, and 2 feet 4 inches deep in all, up to the lower terrace; it is mentioned by Ferguson; 27 feet farther northward is an upward flight of six steps, 3 feet 4 inches wide; the lower terrace is broadest at this place. The north-west stair is 61 feet farther round the terrace, consisting of two sidelong flights,⁴ eight steps in the lower, and six in the upper; all are reset, but they are marked on Petrie's plan, and there were "slopes" in 1878, with some trace of a terrace. The whole double flight is 12½ feet long. At the foot is the oft-mentioned ope in the lower wall; it is a low, lintelled passage, ending in loose filling, and is 3 feet 10 inches high, 33 inches wide, and over 6 feet deep, with four lintels, the outer being 2 inches thick; it is 80 feet from the pier of the main entrance; there are no other features seaward.

¹ The south side of the inner passage appears to have been standing when Burton sketched the doorway, and at least the lower part on the north remained in 1878; the sketch at that date tallies with nearly all the existing stonework above the door up to the present summit, but part has been added to the ends at the terraces.

² Not 15 feet 5 inches, and 13 feet on top, as in Petrie's "Military Architecture."

³ Though rare outside of Ireland, terraces are found at Tre-ceiri in Wales; Worlebury (Somerset, in England—where there were six sections rising as terraces, each about 4 feet higher than the next lower. Dr. Christison implies that some are extant in Scotland. Dr. Guébhard illustrates (from "Monuments primitives des Baleares," E. Cartailhac) terraced stone forts in Majorca and Minorca. There are probable examples in France, at Baou de la Grande (Alpes Maritimes), and an apparent terrace at Cidada Velha de Santa Luzia in Portugal, all in primitive structures closely comparable to Irish cathairs.

⁴ This type is, perhaps, the later, as occurring in the very advanced and elaborate forts of Staigue and Cahergel, in Kerry. It is also found in Moneygashel, Sligo; Cahergel, Galway; Caherahoagh and Cahergrillaun, in Clare. The examples in Aran, save at Dun Aengusa, are unrecorded before the works of 1884; but some may be true restorations, as we noted the sloping marks of unrestored flights in the Black Fort. There is also a record of a very early flight of "sidelong steps" in the fort of Érimokastro, in Rhodes. ("Revue Archéologique," N. S., vol. xviii. (1886), p. 156).

The garth is from about 140 feet to 150 feet across, 150 feet at the cliff; it was very probably oval, but there seems no datum for the dimensions given in the "Letters" of 225 feet north and south. In the middle, on the edge of the precipice, is a rock-platform, evidently scarped and squared, a few feet high, 42 feet north and south, and 27 feet across. From it we can drop a stone into the waves raging, in their unwearied sapping of the cliff, 302 feet below. There are no hut-sites in the garth; if they ever existed, the materials may have been thrown over.

The view from the summit of the fort is most impressive and solemn: the desolate-looking fields, "the soil almost paved with stones," as in 1684, fall away to the golden crescent of Kilmurvey strand, and rise up the opposite hill, past the village of "Gortnagappul,"¹ to the old lighthouse near Dun Oghil. Eastward runs the long range of steep, dark headlands, and deep bays, rarely unsheeted by high-leaping spray; while beyond the huge cliff, and "the trouble of the sea that cannot rest," we see the "great wall of Thomond"—Moher—with its violet-shaded bastions. The limits of the view on clear days reach from the giant peaks of Corcaguiny in Kerry to those of Connemara; while to the south-west is only the horizon of the landless deep, whirling sea-birds, and the sparkling silver tideways.

APPENDIX A.

BIBLIOGRAPHY, VIEWS, AND PLANS.²

- Babington, Charles C. (1858). "Firbolg Forts on the Isles of Aran." *Archaeologia Cambrensis*, vol. iv., ser. iii., p. 25.
- Burke, Oliver J. (1887). "The South Isles of Aran," p. 16.
- Conroy, Most Rev. George, Bishop of Ardfert (1870). "A Visit to Aran of St. Enda."
- Dunraven, Edwin, Earl of (1875). "Notes on Irish Architecture," vol. i., p. 1, plates i.-iii.
- Ferguson, (Sir) Samuel (1853). "Clonmacnoise, Clare, and Arran." *Dublin University Magazine*, xli., p. 494.
- Ferguson, Lady (1867). "The Irish before the Conquest" (ed. 1880), p. 6.
- Hartshorne, Charles H. (1853). "On the Firbolgic Forts in the South Isles of Arran." *Archaeologia Cambrensis*, vol. iv., N.S., p. 296.
- Haverty, Martin (1859). "The Arran Isles." *Ethnological Section. British Association*, republished, p. 19.

¹ Oortnagapple on the maps.

² Only those earlier than 1880, or avowedly founded on notes dating before that year, are given.

- "Irish Builder" (1877, anonymous writer). Articles on Aran, commencing April 15th, 1886.
- Kinahan, G. H. (1875). "Sketches in the West of Ireland"; "Science Gossip" (Hardwicke), 1875, p. 127.¹
- Ledwich, Edward (1797). In Introduction to Grose's "Antiquities of Ireland," vol. ii., p. iv., and his own "Antiquities of Ireland," p. 140.²
- O'Donovan, John (1839). MS. notes. "Letters on County Galway." Ordnance Survey (R. I. Acad.).
- O'Flaherty, John (1821). "Sketch of Arran Isles." Trans. R.I. Acad., vol. xiv., pp. 72-140.
- O'Flaherty, Roderic (1684). "Ogygia," p. 85. "hIar Connaught" (Ir. Archaeol. Soc.), p. 76.
- Petrie, George (1820 and 1857). "Military Architecture of Ireland" (MS. R. I. Acad.).
- Stokes, Miss Margaret McNair (1876). "Early Christian Architecture of Ireland," p. 14, and plate I.
- Wakeman, W. F. (1862). "Aran, Pagan and Christian." Duffy's "Hibernian Magazine," vol i., p. 577.
- Westropp, T. J. (notes, 1878). Handbooks, No. ii. (1895), p. 56; vi. (1904), p. 73; and Journal Roy. Soc. Ant. Ir., 1885, p. 256. "Ancient Forts of Ireland." Sections 46, 49, 81, 94, 123.
- Wilde, Sir W. (1872). "Lough Corrib," p. 265, view by C. Cheyne, drawn 1847.
- Windele, John (1858). Topographical MSS. Supplement (Library, R. I. Acad.), vol. i., p. 740.

VIEWS.

1795. Imaginary view given by Dr. Ledwich, in Grose's "Antiquities of Ireland," ii., p. iv, and in his own "Antiquities of Ireland," plate xi., p. 140.³
1839. Masonry of Dun Aenghus, by W. F. Wakeman, in "Ordnance Survey Letters."

¹ He only mentions one rampart of flaggy limestone and the *chevaux de frise*.

² Ledwich regards the fort as a monastery; he neither visited it nor took any pains to get any accurate view or description of the ruin. "There are many of these mandraes dispersed over this kingdom hitherto unnoticed; one remarkable is Dun Aengus . . . situated on a high cliff over the sea, and is a great circle of monstrous stones without cement." The inaccuracy and dogmatism are very characteristic of the work cited. Windele also grievously attacks "this pretentious antiquary," while giving a theory of his friend, Mr. Thomas L. Cooke, who supposed the fort to be a pagan temple, and the little recess in the wall a room for "a priest or two, with attendants"! it being (as we noted) less than 3 feet wide, 4 feet high, or 8 feet long.

³ The view is stated to be by M. Hooper, July 5th, 1795, engraved by Sparrow, in Grose, but we read "W. Beaufort del. J. Ford sculp. Pub. by John Jones, 90 Bride St^d Dublin" on the plate in Ledwich's own work.

1836. Dr. Petrie's beautiful view, reproduced in Miss Stokes's "Christian Antiquities of Ireland." It shows the fort and cliff from the east.¹
1847. C. Cheyne, reproduced by Babbington and Wilde, *ut supra*, and Dr. Joyce's "Social History of Ancient Ireland," ii., p. 58. Fort from the north-west.
1857. F. W. Burton, reproduced by Dunraven and Stokes, *ut supra*. Door of the central fort.
1875. Lord Dunraven's fine photographs. (1) Fort and cliff from east. (2) Fort from north-west. (3) Portions of middle and inner walls.²
1878. Camera sketches—(1) Fort, distant, from east. (2) From north. (3) From north-west.³ (4) The inner gateway. (5) The inner fort from east. (6) Interior showing terrace.

PLANS.

O'Donovan and Petrie. O'Donovan is followed by Dunraven, Babbington, and Haverty. All these are little better than sketch-maps. Windele gives an extremely crude plan, only showing two crescent walls concentric and with gates.

APPENDIX B.

UNPUBLISHED DESCRIPTIONS BEFORE 1880.

The records of a fort whose origin is lost in the darkness, and which apparently finds no place in later Annals, of course must consist largely of the papers written on its remains. An unrestored fort is its own record; but, to one who recalls the weird chaos of ruin-heaps in 1878, and contrasts it with the neat, level-topped enclosures left by the restorers six years later, the old descriptions, no matter how rude, assume a great importance, and should be laid before one's readers. We collect those of Petrie, O'Donovan, Windele, and the result compiled from our own notes and sketches before the restoration. We cannot believe that these have exhausted all the early unpublished descriptions; but we hope to lead anyone who has notes on Dun Aengusa, taken in or before 1884, to publish the same and perfect, as far as possible, the record of that great fortress.

¹ The artist overpowered the antiquary; by increasing the size of the waves and the human figures he makes the cliff a mere fraction of its height, and overhanging too far. The fort, however, is accurately drawn.

² I have been kindly permitted to reproduce these last two by Messrs. George Bell and Sons, York House, London. The latter also appears in *Journal R. S. A. I.*, vol. xxxiv., 257.

³ This was published in *Journal R. S. A. I.*, vol. xxv., p. 257, in 1895. I trace from it, as the original seems lost,

GEORGE PETRIE (1821 and 1857). The notes used by Dr. Petrie for his "Essay on the Military Architecture of Ireland previous to the English Invasion" (two manuscripts classed 12.0.9 and 10 in the collection of the R. I. Acad.), most probably date from his leisurely visit in 1821, not from the confused picnic meeting of 1857, when detailed observation was almost impossible. We slightly condense his and the other accounts, but keep every essential feature. [p. 131] The "overhanging cliff is 360 (error of copyist, *recte* 300) feet above the level of the ocean." His sketch of the gateway, with strongly inclined jambs, and section of the wall, 13 feet wide on top, and 15 feet 5 inches below, with a strong S curve, are both inaccurate. Neither manuscript is in the handwriting of Petrie. [p. 135.]

"The keep or caher is 115 feet [150 on the plan] in diameter, the wall 20 feet high, and 14 feet 6 inches thick. It has one small entrance doorway, 5 feet high and 3 feet wide. The wall contains a small chamber or cell within it. The wall is of nearly equal thickness, making allowance for a curve in its outer faces. The steps which led to the parapet are destroyed. In the centre of the area there is an oblong level elevation of rock, apparently formed by art, 42 feet long, 27 feet wide, and 2 feet high. The keep is strengthened by three concentric walls, on ledges of rock, each rising above the other. The first [p. 136] varies from 10 to 12 feet, and is about 11 feet in thickness. It has a level terrace at the height of 6 feet from the ground, and an entrance doorway, which varies in breadth from 3 to 6 feet. This wall is 30 feet from the inner, and at the doorway, 234 feet. The second concentric wall is situated on a lower ledge of rock, and extends only about half the circumference of the first. It is about 10 feet high and 6 feet wide; this wall has also a terrace at about half its height, which is reached by two flights of steps *d* and *d* [shown, but not lettered, in the plan as in the "fragment," which is in the text confused with the second wall], and has a doorway about 4 feet wide. Its distance from the inner wall varies from 20 feet to 30 feet. The third and outer wall (E) occupies an irregular ledge of rock, considerably below the preceding [p. 139], and varies in its distance from the former from 140 feet to 675 feet; it is about 6 feet in height and in thickness.

"I have yet to notice the most remarkable feature in this great work, namely, a sort of *chevaux de frise* formed of high and sharp stones placed irregularly in an upright position, with their points upwards. This extraordinary barrier surrounds the second and third [*sic*] walls, and extends to a

¹ The smaller copy is paginated, so that p. 60 corresponds to p. 135 in the larger one. The amount on each successive page is the same.

distance varying from 50 to 70 feet. A passage leads by a steep ascent of 80 feet to the gateway in the second wall; and this passage has a wall of 3 feet on either side."

JOHN O'DONOVAN (1839).—The most valuable description of the unrepared fort, and one which has coloured every published account since it was written, was made for the Ordnance Survey Letters, and is now given practically *in extenso* (MSS. R. I. Acad. 14 D. 3, p. 197). It commences with a long and controversial section which we omit, as it is merely a series of attacks on Rev. Mr. Healy, Dr. Ledwich, and John O'Flaherty, for their translations, descriptions, and theories.

[p. 197.] "Dun Aengus.—A name now forgotten by all the inhabitants except one old man of the name of Wiggins, dwelling at Killeany" (a Cromwellian by descent), who remembered "that the old people were accustomed to call it Dun Innees," the correct Connaught pronunciation of the ancient name; "all the other inhabitants style it Dunmore." "Dun Aengusa a nAraind," Book of Lecan, f. 277.

[p. 204.] "Dun Aengusa, pronounced Doon Innees, is situated on the south side of the Great Island, in the south-west of the townland of Kilmurvy, on the edge of a cliff which is 302 feet above the level of the sea. It is, perhaps, one of the finest specimens of barbaric fortresses in the world,¹ but very much ruined . . . ; the boys of the island are destroying the remaining part in rooting for rabbits which burrow in its walls. As it stands at present, it consists of three concentric walls, of which the central one is in a tolerable state of preservation, but the two outer ones are nearly destroyed, excepting in spots. . . . The central fort or keep is by far the most perfect and interesting part. It was originally of an oval form; but now only the two-thirds of the oval remain, the Atlantic having, in the course of two thousand years, worn away the remaining part. It measures from north to south—i.e. from the northern part of the ring to the edge of the cliff—150 feet, and from west to east, along the cliff, 140 feet. When the oval was perfect, it measured 225 feet in length from north to south. . . . The wall of the keep of Dun Aengus [p. 205] is built of large and small stones, the large ones being placed in the face of it, and the small ones in the centre. This wall is made of three distinct walls, built up against each other, each well faced with stones of considerable size. . . . The greatest height of this wall at present is 18 feet. This is at the west side, where the original characteristics of the masonry appear. The internal division of the wall is here 3 feet

¹ W. F. Wakeman (in Duffy's "Hibernian Magazine," vol. i., N.S., p. 470) records a quarter of a century later his recollection of O'Donovan's "wild joy" on first seeing "the old palace fortress of the days of Queen Maeve."

4 inches thick; the second or central division is 5 feet thick, and the external division, 4 feet 5 inches thick—total thickness, 12 feet 9 inches. The two external divisions are here raised to the height of 18 feet; but the internal division is at present only 7 feet high; but it is probable that it was originally many feet higher, though, I think, never so high as the two external parts, as I find in all the other forts that the internal division is generally 4 feet lower than the other two, which are always carried to the same height.” [pp. 206, 207; map and some comments are next given. Some pencil-notes give the measurements which he uses later on.] [p. 208.] The doorway which led into this keep is still nearly perfect; it is placed in the north-east side, facing the Aran lighthouse, which is situated on the highest point of the island. It is nearly stopped up on the inside with stones which fell from the top of the wall; I removed them on the outside down to the solid rock on which the wall is built, and found the doorway to measure in height exactly 5 feet. [He then gives the dimensions and rise of each of the four lintels.] The doorway would be 21 inches higher on the inside than on the outside were it not that the solid rock on which the wall is built rises in proportion. . . . [p. 209.] At this doorway the external part of the wall only remains perfect, measuring 4 feet 5 inches in thickness, and the other two divisions are nearly level with the area of the fort, but immediately to the north and south of it they are tolerably perfect.

“In the north-west side of this ring there is a passage, leading from the inside into the thickness of the wall to the extent of 5 feet 6 inches, measuring 2 feet 9 inches in width at the top, 3 feet 7 inches from the bottom to the roof where it is covered by large stones laid horizontally across. . . .

[p. 210. MIDDLE WALL.] “Outside the internal keep are the remains of a strong cyclopean wall which surrounds it at irregular distances. Immediately to the west, near the cliff, it is within 28 feet of the keep. To the north and by west is 32 feet from it, and to the north-west, 42 feet 6 inches. To the north from the keep this wall is in tolerable preservation, for here its original thickness and perhaps height remain. It is 6 feet thick and 12 feet high, and well faced inside and outside with stones of considerable size. It consists of two distinct walls, one built up against the other. . . . A line drawn from this part of the wall to the doorway of the interior fort, or keep, measures 131 feet. In the north-east part of this external wall there is a doorway now much destroyed. It is 4 feet 7 inches in width, and the wall is here 8 feet 2 inches in thickness. A line drawn from this doorway to that of the internal fort or keep measures 235 feet. At the distance of a few feet to the east of this broken doorway this wall forms an angle from which a straight line, drawn to the doorway of

the keep measures 240 feet. From this angle the wall turns southwards towards the cliff, which [*sic*] is now very much destroyed. Its length from the angle above mentioned to the brink of the cliff is 176 feet.

"Outside this second wall is placed a host of sharp stones slopewise . . . [p. 211.] Many of them are so sharp that if one fell against them they would run him through. [p. 213.] This army of stones is in some places 30 feet deep, and extends all round immediately¹ outside the second wall from cliff to cliff. They are nearly perfect on the west side, and also on the east; but on the north-east many of them have been removed by the islanders to facilitate the passage to the sea.

[FRAGMENT OF OLD WALL.] "Outside the second wall and between it and the *chevaux de frise* [*sic*] there is another fragment of a wall which seems never to have been carried around more than about the one-tenth part of the ring. The part of it at present standing is 7 feet 9 inches in height and 6 feet in thickness.

[OUTER WALL.] "Outside the *chevaux de frise* of stones there is another wall which encloses a great extent of ground, and runs from cliff to cliff; a line drawn from the north and by the west side of the second wall to this, passing through the *chevaux de frise*, measures 129 feet, and a line drawn from the northern part of the same wall in a north-west direction to an obtuse angle formed by this at the north-west point, measures 393 feet. This wall is here very much injured; but from what remains of it I have been able to ascertain that it was built exactly similar to the second wall already described, that is formed [p. 214] of two distinct divisions which would stand independently of each other. A line drawn from the broken doorway in the second wall, already mentioned, to the north-east point of this measures 434 feet. At the portion I have been able to ascertain that the wall was 8 feet thick, and well built; but the original height could not be inferred from any fragment of it now remaining. A line drawn from this point to the edge of the cliff measures 586 feet; and a line drawn from the second wall at the edge of the cliff to the extremity of this at the edge of the cliff, also measures 640 feet."

[O'Donovan then rightly points out the falsity of Beaufort's imaginary view, which imposed on Ledwich, "Antiquities of Ireland," p. 139, and gives, on p. 221, sketches of the bronze antiquities found, not many months ago, by boys rooting for rabbits. A "fish-hook," $3\frac{1}{4}$ inches long, portion of a fibula, and pins, now in Petrie Museum.]

I need only comment on the above description, that O'Donovan does not

¹ This is only true of the eastern face, as we pointed out.

appear to have seen (or at least noted) any steps in the inner fort or either of the northern gateways in the middle and outer walls. The gates, we know from other sources, existed before the restoration; but the lower terrace of the inner fort (as my sketch shows) lies buried in vast heaps of debris, so any steps were probably hidden.

JOHN WINDELE (*ante* 1854). In that extraordinary mass of rough notes on antiquities and folk-lore (the life-work of one of the most industrious and least-known of the Munster antiquaries), we find a description of Dun Aengusa. We strive with pleasure to rescue a fragment of the work, so unjustly ignored and yet so valuable, of John Windele. It is found in his Supplement, vol. i. (MSS. R. I. Acad., 12 K. 27). We condense.

[pp. 739–40.] “Dun Aongus. It stands on the verge of the sea, high perched upon the edge of a perpendicular cliff at least 300 feet in height, and forms something more than a half-circle, consisting of two enormous walls. . . . The breadth of the intervallum to the left 14 paces (39 feet), at the east 94 paces (300 feet).”

[pp. 740.] “The appearance of the Dun as we first approach is that of a great chaos of ruins; but as it is reached, its general form soon develops itself. The upper outline of the walls is jagged and most irregular, by reason of injuries of one kind or another. The exterior surface is tolerably regular; but on the interior the face has fallen into terrible ruin; and it is only at particular points that its outline [p. 745] can be descried. They are built of limestone, of moderately large stones, of irregular surface and outline, and without any cement—the height about 20 feet, and thickness 12 feet; the walls perpendicular on the outside, and diminishing in thickness within by receding stages and banquettes. The outer face of the interior wall has, at the west side, a succession of stairs, just as we find in the inside of Staigue Fort. I am not prepared to assert or deny that these staircases encompass the whole circle of that wall. [p. 747]. The inner area has a horseshoe form, and measures along the cliff 48 paces (133 feet), and to the crown of the circle at the north, 51 paces (141 feet). A table of rock, square in form, crops up near the cliff above the surface at a height of about 4 feet. It is in a rude and perfectly unwrought state.¹ In the eastern side of the inner encompassing wall is the only entrance, a doorway of narrow proportions. . . Height, 5 feet 2 inches; breadth at top, 4 feet 3 inches [*sic*]. It is covered over with four great lintel-stones, which rise one over the other inwards like inverted steps. The length of the passage thus formed is only 6 feet, which would indicate the thickness of the wall here. The floor is now covered with loose

¹ If “perfectly unwrought” means without chisel marks, Windele is right: but I believe Petrie to be right as to its having been “formed by art.”

stones, probably placed there by design or fallen." [He then examines and rejects the temple theory, agreeing with Petrie's statement that it is a fortress, and continues on p. 752.] "A writer, describing Dun Aengus, says the larger of the three (there are only two) enclosures is encircled by a rampart of large stones standing on end. This is a decided error; the stones are polygonal in form. . . sometimes hammer-dressed, but never by the chisel." It is indeed remarkable that he so entirely overlooked all outside the middle wall.

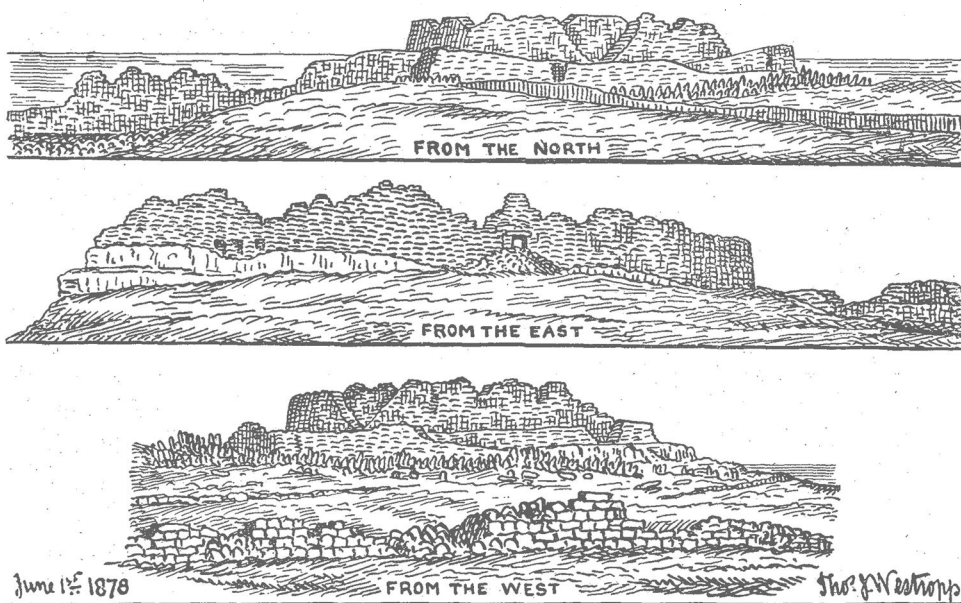


FIG. 8.—Dun Aengusa from camera sketches, 1878.

NOTES, JUNE 1ST, 1878.—The rarity of records made before the restoration may excuse my giving an adaptation of my own very rough notes: "Doon Engus, Ainuss or Aingus." There is "an old tumbled wall; very much is quite down"; then, "pillars set on end; inside is a piece of detached wall" (sketch). The "inner wall has a sort of terrace, nearly gone near the cliff, with gaps like doors, and one 'creepy' door." There is "a road through the pillars, very steep . . . the second wall runs back round a steep (ridge), with pillars at the foot towards Clare. The middle fort wall has fallen down in one patch, with another wall inside; there is a hole (? the ope inside). The wall was three times a man's height, of rough stones, naturally very square. An old gate looking towards Clare is perfect with a top stone, the wall rising like a gable over it, broken to each side (sketch); another gap higher than one can reach. Inside the door is perfect (sketch); it has step-stones on top

(of the passage); all the wall seems very shaken here. There was a sort of terrace round the inside (sketch), and slopes, or steps, up to the top, which is dangerous and loose. There is a square platform of rock. The fort is not a bit like Grose (the view in Grose's 'Antiquities of Ireland'), but like 'Dunraven'; you can hardly get through the pillars. There are lots of rabbits in the stones." The following was written probably the month after our visit:—"Dun Engus, which rises with three tiers of walls. . . . The outer wall is insignificant; then you come to a *chevaux de frise* of jagged pillar-stones; behind this is a low middle rampart; next the great inner wall in which, through a square-headed door, we entered the interior—a level rocky piece of ground with an oblong raised platform of rock, 2 or 3 feet high, and so squared as to look artificial. The Firbolgs were certainly no savages: the smooth-faced walls, well-built door, clever *chevaux de frise*, and flights of steps on the interior" show this.¹

APPENDIX C.

PUBLISHED ACCOUNTS BEFORE 1880.

For completeness it may be well to give a short account of the previous descriptions in print.

RODERICK O'FLAHERTY (1684-6).—"Ogygia," p. 175, "Dun Aengus, ingens opus lapideum sine coemento . . . supra altissimam maris crepidinem, e vastae molis rupibus erectum." "hIar Connaught," p. 76, "On the south side stands Dun Engus, a large fortified place on the brim of a high clift, . . . being a great wall of bare stones without any mortar, in compass as big as a large castle bawn, with several long stones erected slopewise against assault."²

EDWARD LEDWICH, LL.D. (1797).—In Grose's "Antiquities of Ireland," Introduction, p. iv, and in his own work of the same name, he follows "Ogygia," and gives a delusive view done not from nature but from the description. He regards the fort as a mandra or monastic enclosure.

JOHN O'FLAHERTY (1824).—In Transactions Royal Irish Academy, xiv., p. 135, he adds nothing to his predecessors'³ accounts of the fort, even omitting any allusion to the abattis.

¹ The sketch-plan shows the north-west steps, east terrace, and gateway in the inner ring; the middle wall with north-east and north gates, the fragment, the abattis all round the wall, and the outer wall.

² Its only "measure," "which might contain 200 cows," of course refers to the inner fort.

³ Though devoting much space to futile theories on the non-existent "relics of druids, open temples, altars, stone pillars, sacred mounts of fire-worship, miraculous founts, and evident vestiges of oak groves." O'Donovan writes of this author with much bitterness in "O. S. Letters."

SAMUEL FERGUSON (1853).—In the "Dublin University Magazine," vol. xli., p. 494, "S. F." (as he also signs some of his poems¹ in the same pages) gives this excellent description, which, being rather inaccessible to antiquaries living outside Dublin, may be given in a condensed form:—"After a walk of half a mile (we) reach the outer rampart of Dun Angus, a dry stone wall of about 3 (perhaps 8) feet in thickness. The circumvallation covers a space of about 11 acres. A similar wall on each side of the avenue flanks it onward from the outer entrance to a second line of wall lying close to the main body of the fortress. This second wall apparently consisted of a banquette and a parapet. . . . All round the base of this second rampart . . . sharp-pointed fragments of rock are pitched on end; . . . it is with difficulty one can approach the place save by the avenue. . . . The entrance is still perfect . . . about the middle of the eastern front. . . . The visitor must climb in on his hands and knees, under the wide massive lintel-stones. On the right, on entering, are the remains of a flight of steps conducting to the lower banquette; . . . one or two other indications of steps may be detected."

DR. CONROY (1870).—The Most Rev. George Conroy, Bishop of Ardagh, in "A Visit to Arranmore of St. Enda," published in "The Irish Ecclesiastical Record," N.S., vol. vii., p. 24, follows S. F. closely. He describes the beautiful cliffs and rock-pools. Notes "the dry-stone wall, an irregular ellipse," built "in two divisions," the abattis 60 to 80 feet wide, where a narrow avenue is left; it runs all round the second wall, between which and it is "a fragment of wall covering about one-tenth of the second line," which is 32 feet to 42 feet from the central fort to the north-west and in two sections. The central fort is a half oval, the wall in three sections, "like the coats of an onion," traces of stairs, and the banquette, on the east side"; the nearly perfect door 3 feet 4 inches wide, with a lintel and two stones to shift the pressure, and a passage leading into the wall, are mentioned. The dimensions are from the "Ordnance Survey Letters."

"THE IRISH BUILDER" (1877).—A series of anonymous articles, partly from notes taken in 1877, but (so far as Dun Aenghus is described) a compilation from O'Donovan, Ferguson, and Conroy, were published in this paper, from August 15th, 1886. The notes seem hurried and unrevised: for example, they describe Dun Moher and Dun Farvagh as separate forts, p. 237.

LORD DUNRAVEN (*ante* 1875).—This splendid work is too well known to

¹ For example, "Archytas and the Mariner," following the Aran paper, on p. 506. His history and topography of Clare are inferior; he locates the Battle of Corcomroe Abbey, 1317, at Doolin, and asserts Killilagh Church to be "the Abbey"; places Magh Adhair (in eastern Clare) at "Moy Adha" (Moyadda), near Kilrush; probably confuses Caherlaherta with Ballykinvarga, and makes Richard de Clare survive the Battle of Dysert.

require description. The account and views of Dun Aenghusa (the latter the only photographs known to have been taken before the Restoration) are in volume i., "Notes on Irish Architecture." The sketch of the door of the central fort is also given. The plan is only a sketch-plan from the "Ordnance Survey Letters," which the writer follows largely for dimensions. He saw "no trace of inner platform; there was a chamber or passage" in the central fort. He alone describes the perfect gateway in "the outermost wall," the "interior covered with flags, the wall being 8 feet high, and 5 feet thick." I have to thank the kind courtesy of the publishers, Messrs. George Bell & Sons, for permission to reproduce two of the photographic views of this work.

THE OTHER ACCOUNTS are rarely of any independent value. That of Martin Haverty (1859) for the British Association Handbook is very brief, hardly filling two pages,¹ while fourteen are devoted to the picnic and long speeches, but little to the point—much sack to but little bread.

There are two other widely known accounts which have given many (as the earlier gave the writer of these lines) their first interest in the fort. The one, dating 1867, is by Lady Ferguson in "The Irish before the Conquest"; the other, by Miss Margaret Stokes, is a preface to her "Early Christian Architecture," 1876; both are excellent and impressive general descriptions, but do not give details of the ruin.

ACCOUNTS BY ENGLISH WRITERS.

There are two papers on this fort in "Archaeologia Cambrensis," which, as being published in Great Britain, are perhaps more studied by antiquaries outside Ireland, and call for some comment to correct the strange mistakes made, especially in the first.

Charles H. Hartshorne (vol. iv., new series, p. 296) gives a very picturesque description of the site of the fortress in 1853. He then gives details: "The area includes half an acre; this is partly surrounded by a triple wall of most unusual character, and beyond . . . by a glacis, two ditches, two concentric walls, which gradually die out to the south-east on the naked rock, and lastly, on the north side, by a *chevaux de frise*." He gives the height of the walls as from 20 to 50 feet; mentions the portal of the entrance to the south-east; "on the north side is a much larger entrance, with a parallel sallyport running underground. The lower part of the interior wall at about half its height forms an 'alure,' on which people can walk all round"; it "is reached by steps running to the top of the wall, which

¹ Haverty gives the size of the inner fort as 144 feet on the cliff, and 160 feet north and south; he calls it "the Acropolis of Aran—the palace fortress of the days of Queen Maeve."

regularly cross each other, forming a reticulated zigzag."¹ The *chevaux de frise* is of "slabs of jagged limestone," 3 to 6 feet high, and "set so insidiously in the narrow fissures of the rock that it is rather difficult to extricate oneself." From the great skill of its works, he cannot believe that the fort is of the first century, but regards it as monastic.² The rest of the paper, where not concerned with slight notes on the other forts, wanders into religious controversy and assertion.

It must be noted that there are *no ditches*; the walls do *not die out* to the south-east; the *chevaux de frise* is not confined to the *north* part; the walls were 18 feet high; where best preserved, not 20 feet (still less 50 feet) high; the gate does not face the *south-east*. The other ope is *smaller* than the main gateway; the "sallyport" *does not run underground*, or even pass through the wall; and the steps do not cross each other. Thus there are eight vital errors in the paper, which nevertheless has been treated as absolutely reliable.

The other paper, by Charles C. Babbington³ (vol. iv., third series, 1858, p. 96), depends much on Haverty's Handbook, 1859; it makes the suggestions that the middle section of the citadel-wall was the oldest, the outer sections being added on its decay, and that the north-west passage was an older entrance, closed by the outer wall. This last is not improbable, as we have noted evident traces of older rebuilding of the outer section. He suggests that the Firbolgs were the Gwyddel; that they were driven out of Wales by the Cymry, and conquered in Ireland by the Tuatha De Danann. The description of the fort is good, the best description as yet published outside of Ireland.

Though not falling strictly within the limit of the papers noted here, being so late as 1894, and not (avowedly at least) from notes taken before 1884, we must notice a valuable paper on the date of the fort by Dr. Colley March in Proceedings of the Society of Antiquaries of London (vol. iv., second series, p. 224). He found no marks of any implement on the stones. The wall has a rubble centre, with compact faces of dry stones, and is penetrated by passages and domed chambers. Along its inner side run lofty platforms . . . to which independent flights of steps give access. He accepts the "siege theory" to account for the wall, and (p. 226) suggests that the stones of the *chevaux de frise* were to shelter the cattle driven into the fort from slingers.⁴ Petrie, Miss Stokes, &c., date the fortress before the Christian

¹ A confused recollection of Staigue Fort.

² "All these duns, cathairs, and cashels were erected as defences around the sacred buildings," p. 303. He did not observe that all the existing churches in Arran are unfortified.

³ "On the Firbolgic Forts in the South Isles of Aran."

⁴ It seems strange how the low, close-set stones could be supposed to be cattle-shelters.

era; but "so careful an antiquary as Rev. Charles Henry Hartshorne" considered it of monastic origin. The pillars of the *chevaux de frise* were worn into deep digitations; the bronze acus of a fibula of the "spring pin type" was found by Mr. Wakeman; and in the autumn of 1893 the author found in a rabbit-earth a small hinged ring of a bronze pin, though the acus was missing. It had a cable decoration, and there is a socket opposite the hinge for some kind of setting." The Dublin Museum has one inferior pin-ring. The British Museum has a perfect example. It dates from the fifth to the tenth century. In the enclosure of Dun Aenghus, not far from the spot where the bronze pin was found, the author picked up a leaf-shaped arrow-head of chert, from which minute flakes had been chipped, and also a small piece of true flint worked up. These favour the pre-Christian origin of the fort.¹

THE RESTORATION.²

The subject of the restoration (rather than "conservation") of Dun Aengusa has excited so much distrust, severe criticism, and strong assertion, that one who studied the fort before the event is to some degree compelled to "find a verdict." The unnecessary rebuilding and levelling up of parts of the walls and the "tidy" and new appearance thereby produced, show how desirable it was that the work should have been constantly under the supervision and direction of an antiquary who had studied our ring-walls carefully. Left to non-antiquaries and the natives, the work was of course done unsympathetically, like repairing a fence, and no steps were taken to differentiate the old work from the new, or (I understand) to secure any full record of the structure in its untouched condition. Anyone, however, who studies the above accounts, especially the tabular statement of the authorities for each feature, must arrive at the conclusion that very little "falsification" took place. In fact (save the two flights to the south of the gate in the inner fort, and the upper flight in the north-east³), all the features are attested. Even the unrecorded steps (as we suggested) had probably warrant in existing bottom steps, and long blocks in the debris. In this case, as at Dunbeg, want of accurate reports has led antiquaries to a judgment too severe to be justified by the evidence against the restorers.

The Appendix to the 48th Report of the Commissioners of Public Works

¹ Stone implements were also found at Caherblonick near Corofin, and Cahermackmole (Cahermackirilla), in Carran, Co. Clare, both in reputed Firbolg neighbourhoods. See *R.S.A.I. Journal*, vol. xxviii., p. 264, and xxv., p. 208.

² The fort was vested as a "National Monument" by order of the Irish Church Temporalities Commissioners, October 30th, 1880.

³ Even the latter may be implied in Most Rev. Dr. Conroy's account. See *above*.

in Ireland (1879–80), p. 75, in a note on “Dun Aengus,” says:—“I carefully examined the fort, and although many stones may be put into the walls to prevent further ruin, little more can be done towards its preservation.” The Superintendent suggests stopping boys from rabbit-hunting, insertion of stones in gaps, and building up dry stone buttresses where the walls overhang. It is evident that the building of the level tops and of ranges of terraces was never contemplated by him. No money was expended at that time [see p. 51].

The sum of £591 2s. 1d. was laid out in works on the Aranmore National Monuments (under 32 & 33 Vict. c. 42) in 1884–5 (Appendix to the 53rd Report, p. 55). No detailed account appears, nor is Aran mentioned in the brief section, pp. 29, 30. In the Report, 1885–6, only mention is made on p. 53 of an expenditure of £11 7s. 9d. for work on North Aran; while for these and many subsequent years, complete silence prevails as to the extent and character of the works done on the Ancient Monuments. It is hardly wonderful that distrust and hostile (at times unfair) criticism prevailed among antiquaries and others.

These, so far as I have been able to ascertain, are the records of one of the most remarkable and fascinating of the ancient fortresses of Ireland.¹

¹ I must acknowledge my indebtedness to those who helped me on the subject in various ways—namely, my late brother, Ralph Hugh Westropp, the late Dr. W. Staepoole Westropp, Miss G. C. Staepoole, Miss Neville, and Rev. E. Hogan, s.j.; and in photography, the late Mrs. Shackleton of Lucan, and Dr. George Fogerty, R.N. Also, as already noted, to Messrs. George Bell & Sons for permission to reproduce two photographs.

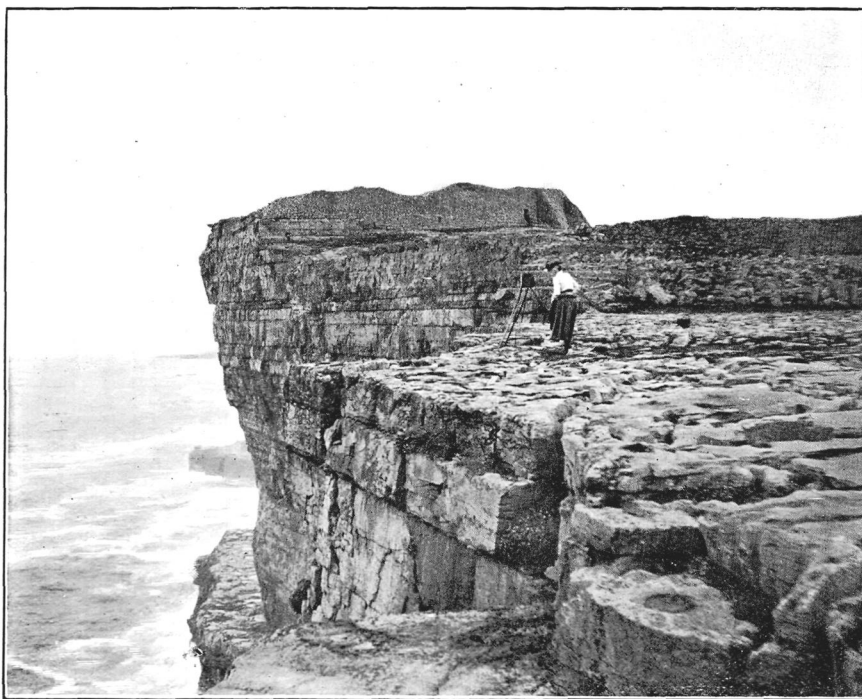


FIG. 1.—Dun Aengusa from the East. (Photograph by T. J. Westropp.)

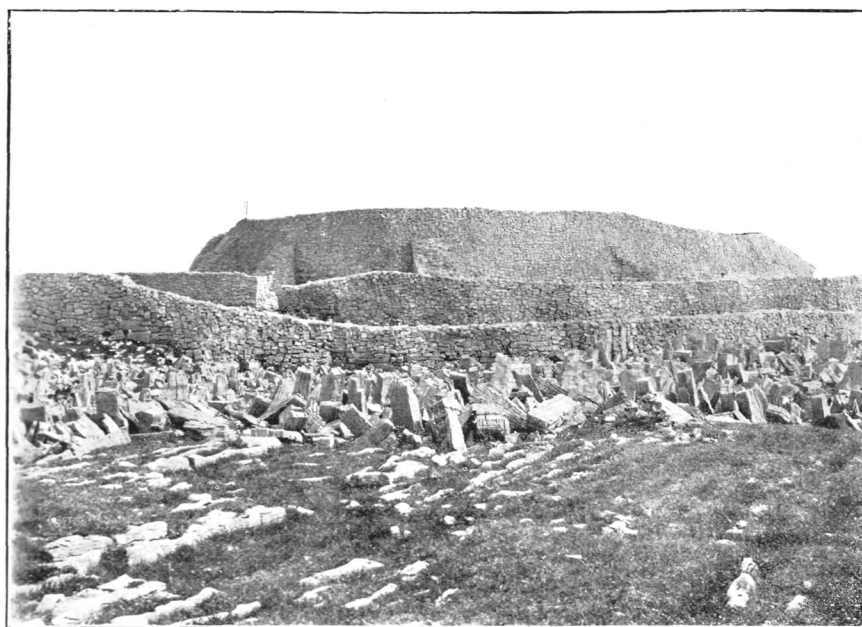


FIG. 2.—Dun Aengusa from the North. (Photograph by Dr. George Fogerty, R.N.)

WESTROPP.—DUN AENGUSA.



FIG. 1.—Dun Aengusa from the West before the restoration. (Dunraven Collection.)



FIG. 2.—Dun Aengusa. The inner Fort before the restoration. (Dunraven Collection.)

WESTROPP.—DUN AENGUSA.

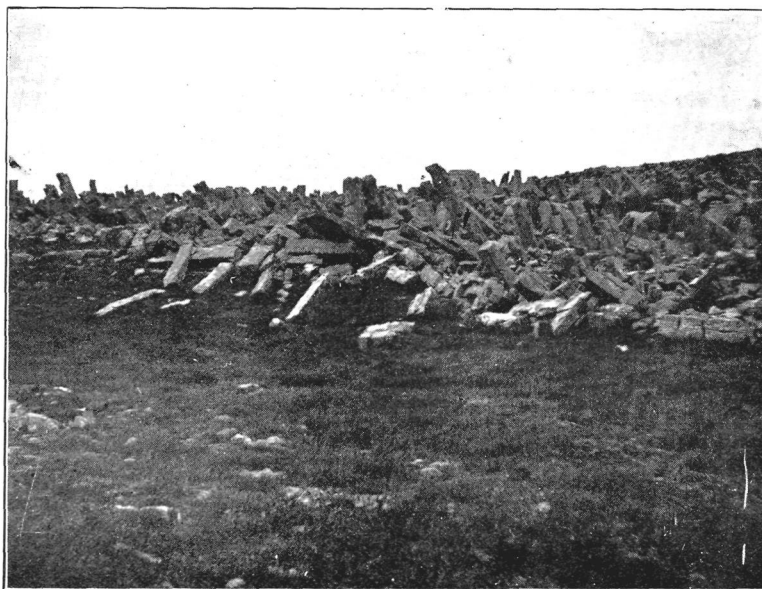


FIG. 1.—Dun Aengusa. The Abattis.



FIG. 2.—Dun Aengusa. The Doorway. (Photographs by T. J. Westropp.)

WESTROPP.—DUN AENGUSA.