## I.

THE DWARFIE STANE, HOY, ORKNEY: ITS PERIOD AND PURPOSE. By CHARLES S. T. CALDER, A.R.I.A.S., F.S.A.Scot. With a Note on "Jo. Ben" and the Dwarfie Stane. By Sir GEORGE MACDONALD, K.C.B., President.

During the summer of 1935 , when engaged on work of investigation for the Royal Commission on Ancient Monuments, I had an opportunity of inspecting, along with Professor Bryce, the curious monument in the island of Hoy, well known as the Dwarfie Stane. It is a huge isolated


Fig. 1. The Dwarfie Stane from the north-west.
block of old red sandstone (fig. 1), lying one mile and a half south-south-east of Quoyness, in the valley between the Ward Hill of Hoy and the Dwarfie Hamars. As an ancient but baffling feature of interest, it had been described again and again long before Sir Walter Scott enhanced its familiarity and glamour by the use he made of it in "The Pirate."

The immense mass of rock rests broadside-down on the slopes, 300 yards north of the Hamars. Its shape is roughly that of a rectangular prism, broken here and there, and also much weathered through long ages of exposure, particularly on the top where the forces of disintegration and destruction have been aided by the peculiar stratification of

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the whole. A cavity in the west side has been laboriously hollowed out from the solid by human agency (fig. 2). This has clearly been done with a definite object, for the space has been subdivided into three parts-a central passage or corridor, and a recessed cell on either side.

The general dimensions have frequently been stated but, in the majority of instances, with a varying amount of error. The stone measures 28 feet in length and 14 feet 8 inches in breadth on the south,


Fig. 2. The Dwarfie Stane: Plan, Sections, and Elevation.
decreasing to 13 feet on the north, while the height also decreases from 6 feet 8 inches on the south to 3 feet on the north, where the lower edge is sunk below the ground. The difference in height is accentuated by the angle of repose which, to judge from the top of the stone, has an inclination of 9 or 10 degrees from the horizontal. That the rock was already in its present position before the hewing was begun is proved by the fact that the floor of the hollowed-out portion is on the level, and confirmation might be found in the lop-sided impression produced by the position of the entrance. The south jamb is only 9 feet distant, but the north jamb is 16 feet distant, from the ends to which they are respectively nearest. It was probably the need for providing convenient
headroom that led to the doorway being placed nearer to the higher end rather than in the middle. The opening (fig. 3) is 2 feet 10 inches wide by 2 feet 4 inches high, while its sill rises 5 inches above the ground. The interval between the soffit of the lintel and the top of the stone has been about 1 foot 8 inches, but the front part of it has been destroyed and wasted away. The passage (A) penetrates for a distance of fully $2 \frac{1}{2}$ feet before reaching the lateral cells (B and C). Thereafter it extends for 5 feet or so farther between them as a corridor, the roof of which is 2 feet 11 inches above the floor.

The southern cell (B) appears to be the more important, being comparatively elaborate in execution and exhibiting detail that is entirely absent in its neighbour. It is entered through a rectangular opening 4 feet 1 inch wide by 1 foot 8 inches high, which has slightly rounded corners and is framed within two jambs, an uprising kerb, and a quasi-lintel, the last $1 \frac{1}{2}$ to 3 inches lower than the ceiling of the corridor. The inside projection of the east jamb is 8 inches, as against $2 \frac{1}{2}$ inches of the one on the west. The kerb rises 1 foot on the outside, is 3 inches broad on the top and drops 5 inches in a curve to the floor of


Fig. 3. The Dwarfic Stane: Entrance and Opening to Cell B. the cell, which is therefore 7 inches higher than the floor of the corridor. The cell roof, which is continuous with the soffit of the lintel, has an upward and eastward trend, attaining a maximum height of $2 \frac{1}{2}$ feet above the floor, whereas the height at the west is only 2 feet 1 inch. The walls converge slightly towards the roof and, with an allowance for a varying degree of curvature, the cell has a maximum length of 5 feet and a maximum breadth of 3 feet. Across the east end a low ledge of the rock, 8 inches wide, rises $3 \frac{1}{2}$ inches in front above the floor, sloping up to $5 \frac{1}{2}$ inches at the back. This is always referred to as a pillow for

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the inhabitant, as no doubt it was, though in a sense very different from the usual one. The opposite cell (C) is plainer. Its walls and roof are more curvilinear in outline and merge into one another gradually. It has no entrance in the ordinary meaning of that term, for it is entirely open on the side next the corridor, from which it is demarcated by nothing but a very shallow kerb, 4 inches wide, 2 inches high on the outside and 1 inch high inside, leaving a difference of only 1 inch between the floor levels as against 7 inches in the southern cell. It is approximately $4 \frac{1}{2}$ feet long by 2 feet wide, but about half-way up its height of 2 feet 3 inches these dimensions are exceeded owing to the curvature.

Extending mainly over this cell, but partly over the passage, there is a rough, irregularly oval-shaped opening, the axes of which, between its broken edges, measure 3 feet 9 inches and 3 feet. In 1792 it is said to have had a diameter of 2 feet 9 inches. ${ }^{1}$ The increase is no doubt due to subsequent wear through its being used as a means of access by visitors, whose feet have also left their mark on the well-worn kerb below. When it is first mentioned, this opening is spoken of as an "impluvium," or hole in the roof. ${ }^{2}$ But there is no reason to believe that it is anything else but a breakage, or that it formed part of the original arrangement. It has usually been explained as a flue for the escape of smoke from a fire, the hearth being sometimes alleged to have been in the north cell but more often to have been in the corridor. On the other hand, there is nowhere any indication of a hearth nor any sign of the stone having been subjected to the action of prolonged heat. Besides, to say nothing of the openness of the supposed vent to inclement weather, a fire so situated would have left little or no room for living or sleeping in.

A large squared block of stone (fig. 4) with a roughly rounded projection at one end lies prostrate about 2 feet in front of the entrance. It measures 4 feet 2 inches to the shoulder but 5 feet 1 inch in extreme length, while it is 2 feet 8 inches broad by 2 feet 1 inch high. It will be immediately obvious how closely the end dimensions correspond to those of the entrance. In view of this correspondence it is suggested that the stone has been the door, the margin of clearance for its insertion being just such as might be reasonably expected.

The Dwarfie Stane was first described by "Jo. Ben," as long ago as the sixteenth century. ${ }^{3}$ For four centuries it has aroused the curiosity

[^0]of successive generations of antiquaries, and the purpose it was meant to serve has been a matter of much conjecture. Legend has invariably been appealed to, the original story being that the rock was hewn out by a giant and his wife for their own accommodation. Later writers, however, realising that the bed recesses were hopelessly short for anyone of gigantic stature, have substituted for this a theory that it was the dwelling of a dwarf or the habitation of a hermit. Out of thirty-six published accounts ${ }^{1}$ no fewer than twenty-five accept, more or less whole-heartedly, the view that it was a residence. In three others it is respectively regarded as having been either an altar or an oratory or a temple. Two authorities, Johnston ${ }^{2}$ and Dietrichson ${ }^{3}$ speculate as to


Fig. 4. The Dwarfie Stane: "Door."
whether it may not have been a rock-sepulchre, the former without venturing an opinion as to its period or its category, and the latter only with some hesitation. Johnston, whose article is most informative with a wealth of minute detail, has excellent plans and appends a useful bibliography. Dietrichson assigns the monument to a time between A.D. 600 and 872 , and suggests that it may be a hermitage of the IrishCeltic Culdees, but he is himself only half convinced and is reluctant to dismiss the idea that it may represent a rock-burial.

All this I learned after my own observations had independently led me to conclude that the cells were designed to accommodate the dead and not the living. But I am prepared to go further than either Johnston

[^1]or Dietrichson, and to claim that the Dwarfie Stane is the first and only example in the British Isles of a completely rock-cut tomb of the late Neolithic or Early Bronze Age. It should probably be associated with the megalithic people from the south and west, and be dated to the remote and obscure period of transition between the two phases of culture I have just named. I should like to support this statement by describing later two analogies from the Mediterranean and by referring to other tombs from the intervening countries, as well as by drawing attention to certain features in some of the monuments in Orkney itself. Meanwhile Professor Bryce authorises me to say that he expressed complete agreement with me on the spot.

It should be added that legend has its part to play in connection with this explanation also. The story of a giant or a dwarf can only have arisen after the true origin of the monument had long been forgotten, and that in itself must indicate an ancient lineage. But there is something else. It is surely significant that, in all countries where megalithic monuments are found, there should be a superstitious association of giants with undisputed cairns of the Neolithic or Bronze Ages, throughout the area of distribution. Our own islands furnish many examples of "Giants' Graves" and the application of the legend to the Dwarfie Stane would seem to bring it into line with these in respect of time and purpose. Dr Duncan Mackenzie expresses his belief that the "tombs of the giants" in Sardinia had "an ethnological connection which brings them into one general context with the whole rest of the middle and west Mediterranean as well as of west Europe, and as far afield as Britain and Norway." ${ }^{1}$

The Giant's Tomb at Molafá in Sardinia ${ }^{2}$ (fig. 5) offers a close parallel to the Dwarfie Stane. In all its features except size the resemblance is remarkable. It is entirely hewn out of the sandstone rock and it has a central corridor, on either side of which is a recess, having the floor raised above the corridor level by a kerb in much the same way. Other links are the curvature of the wall surfaces and the fact that the entrance has been closed by a large stone. In a word, the analogy is complete in every essential. A second satisfactory parallel is furnished by the tomb of s'Abba Bodaga ${ }^{3}$ (figs. 5 and 6). It is probably unfinished. So far as completed, however, it shows a chamber hollowed out in a large isolated boulder, this time of granite. Only one cell seems to have been contemplated, and the suggestion has been made that the

[^2]entrance has been masked by a slab fitting into it like a door. ${ }^{1}$ The back of the entrance has been contracted to form a slightly narrower rectangular aperture with projecting jambs, reminding one of the opening to the south cell of the Dwarfie Stane. Dr Mackenzie points out that the last feature recalls the portal hole which is so characteristic of the tombs of the giants. ${ }^{2}$ A comparison of the longitudinal sections of Molafá and s'Abba Bogada (fig. 5) with that of the Dwarfie Stane is


Fig. 5. (1) Dwarfie Stane: Section. (2) s'Abba Bogada: Plan and Section. (3) Molafá: Plan and Sections.
instructive. The grotesque-looking objects on the top of the tomb of s'Abba Bogada (fig. 6), it ought to be explained, are natural.

Molafá is an adaptation in rock of the built tombs of the megalithic period. These are usually constructed of stone, but many combine masonry with prepared rock-cut walls and foundations. Cairns of the latter class occur both on the mainland of Great Britain and in Ireland, serving to connect those of the Mediterranean with the Orkney monuments to which I have next to refer.

Although the Dwarfie Stane can hardly vie in real importance with such a magnificent tomb as Maeshowe, Orkney, it may be the more

[^3]${ }^{2}$ Ibid., p. 104.

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interesting as being absolutely unique. That the two are intimately related cannot be doubted as soon as it is realised that the Maeshowe cells (fig. 7) incorporate in masonry all the features cut in rock in the Dwarfie Stane. Thus, the entrance is of much the same character, squarish and small, and it also leads into a corridor extending right to the back; the recesses off the sides are similar, and in Maeshowe, too, the floors of two of these are raised above the corridor level by a kerb $5 \frac{1}{2}$ inches high;


Fig. 6. s'Abba Bogada.
lastly, on the ground before each cell at Maeshowe lies the closing stone with which the resting-place has been sealed.

The "door" at the Dwarfie Stane is ponderous, weighing approximately a ton and a half, and the notion that it was a house door, to be opened and shut by an ordinary mortal on each arrival or departure, may therefore be ruled out. It is obvious that, once in position, it was intended to remain there. Can it be anything else but the sealing-stone of a burial chamber? When it was inserted it would extend so far into the corridor that there would be no room for a hearth, but none, of course, was necessary. Again, its bulk is so great that not only would the main entrance be sealed, but the separate opening to each cell would be blocked up to such an extent that, even after the north cell was broken into through the hole in the roof, it would be almost necessary to move the "door"
some way back before access could be had to the south cell. It is conceivable that it was levered out from behind for at least a short distance, and that it had been thus far displaced when "Jo. Ben'" wrote of it as closing the entrance. For whatever reason, it has subsequently been pulled out altogether. In 1792 Principal Gordon speaks of it as being 4 feet "high," not "long," an expression which probably means that in his day it was standing on end instead of lying prostrate as it now does. ${ }^{1}$


Fig. 7. Maeshowe: Plan, with sections of a cell.
May not the leverage exerted by this massive stone during its ultimate removal account for the fracturing of the forepart of the lintel? And may it not also be that the roughly rounded end is the result of chiselling in an effort to gain admission when the stone was in situ? Only after that had proved futile, does the line of least resistance through the roof seem to have been tried.

Both single cells and multiple cells occur in megalithic tombs and cairns, as many as twelve entering off the corridor being recorded. ${ }^{2}$ I am able to cite a good example of the multiple type from the Calf of

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Eday, in Orkney (fig. 8). Its true character was not recognised by its discoverers, who described it as a habitation, ${ }^{1}$ and it is marked "Erdhouse" on the O.S. Map. It is built of upright stones and rubble, supporting a roof of horizontal slabs, but its foundation and parts of the walls are formed in the solid rock. The structure comprises a corridor with four small cells opening off it. One of the cells has a kerbstone in position,

and another was found with its entrance filled with masonry, while there was a large stone at the mouth of the corridor. ${ }^{2}$ Petrie alludes to it as a subterranean chamber of a type which he suggests would be better adapted for concealment of provisions than for a dwelling, adding that at all events it would have been unsuitable as a place of retreat for any lengthened period. He also remarks that the recesses of this particular example convey the idea of beds or sleeping berths, and recall to his mind the interior of the Dwarfie Stane, an observation which confirms the idea of a connection between the two. ${ }^{3}$ But Petrie, in a later account,

[^5]which appears to have been overlooked, strengthens this connection by associating the cairn definitely with the chambered tombs. ${ }^{1}$ In structural detail and arrangement the cells of the cairn on the Calf of Eday are in agreement with those of the lower chamber of Taiverso Tuick, Rousay, Orkney, which is also partly rock-cut, and which yielded roundbottomed pottery of neolithic type. ${ }^{2}$ The lay-out of the Eday cairn is an almost exact reproduction, too, of a rock-cut tomb, No. 9 of a group at San Vicente, Mallorca (fig. 9), ${ }^{3}$ which shows the same number of cells similarly disposed at the end of the corridor. In the group the raised


Fig. 9. San Vicente: Rock-cut Tombs, Nos. 7 and 9.
kerb, so conspicuous in the examples here described, is a noticeable characteristic which is well represented in Tomb No. 7 (fig. 9). ${ }^{4}$ The occurrence of these points of similarity is a further proof of Mediterranean influence.

Returning to Maeshowe, we may note that some of the stones have been dressed with a tool that has left on the surface a covering of pit-marks. This is an additional feature linking it with the Dwarfie Stane, on the walls of which pit-markings are very pronounced. It

[^6]will naturally be asked what kind of implements employed for hewing would have produced this distinctive dressing. Wallace, who was the first to depict the Stane (fig. 10), was also the first to assert that the marks had been made by a "Mason's Irons," ${ }^{1}$ and an illustration by Pococke with its imaginative arcading (fig. 10) certainly creates the impression that a mason has been at work. ${ }^{2}$ But, if my contention is sound, the cavity was cut hundreds of years before iron was known in this country, though the constructors may have possessed a knowledge of copper or


Fig. 10. The Dwarfie Stane: Perspectives and plan of top. (1) From Wallace, (2) and (3) from Pococke.
bronze tools. Nor is there any reason why pointed flint or stone should not have been used.

I am informed by a metal-worker, who has watched African natives at work with stone implements, that the latter are much to be preferred to those made of soft untempered metals. Besides, the satisfactory use of flint as a medium has been successfully demonstrated by the experiment of Sir J. Y. Simpson, carried out in our own Museum more than seventy years ago. ${ }^{3}$ The subject of his test was the back of one of the stones figured in the Sculptured Stones of Scotland. The material selected was not a soft sandstone but something more difficult to work, a grey Aberdeen granite from Kintore. The doorkeeper of the Museum, he says,

[^7]cut for him, in two hours, with a flint and wooden mallet, two-thirds of a circle, seven inches in diameter, nearly three-quarters of an inch broad, above a quarter of an inch in depth, and very smooth on its cut surface. The experiment, he concluded, showed that cups and rings might have been produced before the introduction of metals, or in the Stone Age. In Malta two structures of Neolithic date, Hagiar Kim and Mnaidra, show pit-marked dressings. ${ }^{1}$ The marks at the former resemble those on the Dwarfie Stane in being more or less incidental, but those at the latter are different and are intended for decoration. Both show what may be effected in the dressing of stone work even without metallic tools. Professor J. L. Myres has stated that the marks at Hagiar Kim have been produced simply by pounding with a hammer, and that at Mnaidra they have been cut out and worked larger by rubbing with a stick and some sand. ${ }^{2}$ Finally, in 1901, more than a hundred stone implements were found during excavations at Stonehenge, most of them being flint axes which had probably been used for dressing the softer of the sandstone blocks. ${ }^{3}$

Hugh Miller, who, incidentally, carved his name on the pillow stone, estimated that with pick and chisel he could excavate such another cavity as in the Dwarfie Stane in three weeks or a month. ${ }^{4}$ With flint implements the task would, of course, be much more toilsome. But a lavish expenditure of time and labour must generally have been incurred in the construction of these early tombs, and in this respect the Dwarfie Stane is not by any means exceptional. Though unique in character in the British Isles, it is not isolated in type, the series of connecting links enabling us to derive it from the rock-cut tombs of the Mediterranean. But a series of connecting links hardly seem necessary to prove the association. The correspondence of the architectural features is in itself sufficiently forceful and convincing to establish almost beyond question a direct communication. Stripped of its romance and legend as a habitation, the Dwarfie Stane yet remains more interesting and important in actual fact, as a tomb which survives as a monument of one of the earliest phases of culture which these islands have witnessed.

I have to thank Sir George Macdonald for a most helpful revision of this paper and also Professor Thomas H. Bryce for allowing me to include a statement of his opinion.

[^8]NOTE ON ."JO. BEN" AND THE DWARFIE STANE. By Sir George Macdonald, K.C.B., President.

Mr Calder was puzzled to find in the translation of Jo. Ben, published by the Scottish History Society, ${ }^{1}$ that the account of the Dwarfie Stane contained an allusion to a gutter, and he asked me whether I could help him. Reference to the original showed that the Latin word so rendered was impluvium. In the atrium of a Roman house this was the hole left in the roof as a vent for the smoke. Incidentally, however, it also admitted the rain, whence its name. A necessary complement was, therefore, a square basin, constructed directly underneath to catch the water, and this too came to be called the impluvium. "Jo. Ben" used the word in its primary sense, which suits the context admirably. The translator, who had never seen the Dwarfie Stane, interpreted it in its secondary sense and, finding it impossible to understand how anybody could escape through a basin, assumed that what was meant was a gutter for drainage. So far all was plain sailing. But a closer examination of the whole passage showed that the current English version is a sheer travesty of what "Jo. Ben" actually says. Ridiculous as the story is, it is sufficiently interesting to deserve more respectful treatment. It can hardly be less than three centuries old, even if Mr A. W. Johnston is right in believing that the Descriptio Insularum Orchadiarum is a forgery, either concocted by Sir James Balfour or foisted upon him as a hoax. ${ }^{2}$

The National Library of Scotland possesses three transcripts of this quaint little tractate-one among the Balfour MSS., one in Sir Robert Sibbald's handwriting, and the third in Macfarlane's Geographical Collections. After collating a good many passages in these-it will be convenient to speak of them as B., S., and M. respectively-I am disposed to think that S. and M. were both copied from B. If not, all three certainly derive ultimately from a common archetype. The editors of S.H.S., as I shall call the text in the Scottish History Society's volume, believed that Barry's History of Orkney (1805) puts us in touch with a fourth transcript, now lost but formerly also in the National Library. If so, it can only have been a copy of B., S., or M., or of a manuscript of the same family, made by a scribe who was either ignorant of Latin or careless or very possibly both, for the text which Barry prints is much inferior to that of any of the known transcripts. It is badly punctuated and. contains numerous grammatical mistakes in places where the MSS. are, one

[^9]and all, perfectly correct. Again, sentences which in Barry are obscure or nonsensical, wear quite a different complexion in the MSS. Thus, in the section upon Stronsay, where Barry has nomine Troicis and spiritu maximo, B., S., and M. with one accord read nomine Trowis and spiritu marino, at the same time distributing their commas in a way that makes the narrative intelligible, though not of course credible.

In the circumstances it is very unfortunate that the editors of S.H.S. should have based their reprint upon Barry's text, and the reason they give is wholly unsatisfactory. "The Latin in the Macfarlane manuscript," they say, "was found to have errors in certain parts." ${ }^{1}$ The Latin of M. is not immaculate, but it is very much better than that in Barry. What follows is still more surprising: "Errors, however-chiefly gram-matical-also occur in Barry's print, and these too have been corrected, but no change has been made that affects the sense." Curiosity led me to make a word for word comparison of the two versions. I found a few changes that affected the sense. These, it is fair to admit, were usually for the better. The many which I found affecting the grammar were almost invariably for the worse, sometimes very much for the worse. In the section on Sanday, for instance, quia has been altered into quid, fuimus into suimus, multis into multiis, and habent into habeat, none of these alterations having a jot or tittle of MS. support behind it. But, bad as the Latin text of S.H.S. is, the accompanying English translation is worse. It is taken from a manuscript once in the possession of Captain Thomas. The author is unknown, but it is a very amateurish effort, containing so many inaccuracies and absurdities that it is grossly misleading. Like S.H.S. itself, it is based upon Barry, and not upon B., S., or M. It was certainly not worth printing.

It will be clear that "Jo. Ben," whoever he may have been and at whatever period he may have lived, has suffered many things at the hands of posterity. Nor is the tale by any means complete. Mr Johnston's case against the date 1529 , which appears in the heading, is unanswerable. ${ }^{2}$ But is not the very ease with which it has been established a strong argument against the document being a forgery in the ordinary acceptation of that term? He would be a very simple-minded forger who would leave so many obvious lines of attack open to the higher criticism. I should prefer to think that the date is one of several indications that

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B., itself the oldest of the transcripts, is some way removed from the original, if not in time, at least in substance--in other words, that 1529 is a copyist's mistake. That B. is disfigured by mistakes still more glaring can be readily demonstrated. To take but a single instance, even a casual perusal of the Descriptio leaves a distinct impression that the author knew his Orkney well, and yet the place names are here and there so severely mangled as to be barely recognisable. Is it, for example, at all likely that a forger, or for that matter of it anyone else who knew Orkney well, would give the name of "the Star of Lopeness" to Start Point, the headland that juts out eastwards from the northern end of the bay of Lopness in Sanday? On the other hand, it is extremely probable that in the sixteenth century this headland was called "the Start of Lopeness," for "Point" is a vain repetition, "the Start" already meaning neither more nor less than "the Promontory" (from Norse stjert, "a tail"). And, if that was what "Jo. Ben'" wrote, what more natural than that an ignorant copyist should emend to "Star"? Similar marks of a defective MS. tradition will be apparent when we consider the account of the Dwarfie Stane, to which it is now time to turn. In passing, however, it may be remarked that, if I am right as to these being copyist's errors, they are in themselves sufficient to free Sir James Balfour from any suspicion of complicity in a forgery: they appear in the MS. which was written by his own hand.

Nowhere is the intimacy of "Jo. Ben's" local knowledge more manifest than in his description of the Dwarfie Stane and its surroundings. Readers of the original who have visited the spot will appreciate the accuracy of the opening. On the one side towers the mass of the Ward Hill of Hoy, on the other are the less lofty Dwarfie Hamars, and in the valley between —inter quos is the phrase used-is the Dwarfie Stane itself. This is represented as having been the handiwork of a giant and his wife, who fashioned it for their own habitation. Then follows what is without doubt a first-hand picture of the monument. Hardly any detail is omitted. Even the concavity of the roof has been noted. The most serious blemish is the intrusion in S.H.S. of the phrase "duobus scuvialibus." The second word is unknown to Latin lexicographers. Small wonder, seeing that it is an invention of Barry's transcriber. All three MSS. read cervicalibus, ${ }^{1}$ so that what is meant is that the couch (pulvinar) had a double pillow, which, however, we are told, was not in two pieces but consisted of a single block of stone. The final touch is that the doorway

[^11]was blocked by a stone, doubtless (as Mr Calder points out) the stone that now lies beside it. "How this has happened, I don't know," comments "Jo. Ben," and forthwith proceeds to relate the popular legend.

A second giant who also lived in Hoy, jealous of his rival, hatched a plot, hoping to kill two birds with one stone-to become sole master of the island, and to gain possession of a desirable residence. He shaped a stone in such a way that its dimensions corresponded exactly to those of the door, his idea being to shut the builders inside and starve them both to death. Accordingly, in the words of S.H.S.-
"Detulit tandem lapidem fabricatam in summitatem montis, atque jaculo imposito summa vi brachiorum (atque dolore alterius prosperitatis) in ostium injunxit, gigante incluso evigilante, auribus lupum tenebat, exire nequiens, suis maleis impluvium fecit, per quod egressus est. Si credere dignum."
The "authorised version" runs as follows:-
"At length he carried the prepared stone to the summit of the mountain and placing it as a dart by the great strength of his arms (and envy at the other's prosperity) joined it upon the mouth, the shut up giant watching attentively was every way in danger; being unable to escape he made a gutter with his hammer through which he escaped-if worthy credit."
Even after the stumbling-block of impluvium had been got rid of, Mr Calder and I were at a loss what to make of this. As a first step towards ascertaining the true sense of the Latin, the text of S.H.S. was collated with B., S., and M., when the following differences emerged: (1) All three MSS. read fabricatum, which is, of course, correct, so that the feminine is a mere blunder which Barry's transcriber has introduced; (2) While M. has an unequivocal injunxit, B. has what looks like inunxit, which seems to have puzzled Sibbald, since S. has invexit as an interlinear suggestion; (3) B. and $S$. have a period after this verb, not a comma, while M . has no point at all; (4) S . has vigilante for evigilante, a negligible variation; (5) After tenebat B. and S. have a semicolon instead of a comma, and M. has a period; (6) B., S., and M. agree in reading malleis, not maleis. Bearing these differences in mind, let us take the passage clause by clause.

1. Detulit tandem lapidem fabricatam in summitatem montis.-It is obvious that there is something more than fabricatam wrong here: detulit means "carried down," and one does not carry things down to the top of a hill. Nor can there be much doubt as to what has happened. "Jo. Ben" wrote in summitate, meaning that the stone was "shaped on the top of the hill" or, in other words, among the crags that fringe the brow of the Dwarfie Hamars. The copyist, who had never been in Hoy,
misunderstood the opening passage. He did not realise that the Dwarfie Stane was in the valley, fully 300 yards away from the nearest point of the natural quarry on the summit. He thought it was on the hill top, and he therefore changed summitate to summitatem. The other transcribers, as well as the translator, all alike ignorant of the local conditions, perpetuated the mistake. The accusative summitatem, then, points in the same direction as 'the Star of Lopeness." ${ }^{1}$
2. jaculo imposito summa vi brachiorum (atque dolore alterius prosperitatis), in ostium injunxit.-The rendering "placing it as a dart by the great strength of his arms . . . joined it upon the mouth" is rank nonsense. But there is room for difference of opinion as to how matters can best be mended. In view of what has been said about the preceding: clause, we may dismiss any idea of the stone having been hurled javelinwise for 300 yards into the mouth of the passage. Apart from anything else, such a feat would imply that it succeeded in turning a corner en route, for the mouth looks west, whereas the Dwarfie Hamars are on the south. The best suggestion I can offer is that, when the giant had brought the lapis fabricatus down and placed it in position, he tried to push it home with the aid of a javelin, hoping in that way to get more purchase into his thrust.
3. gigante incluso evigilante, auribus lupum tenebat.-Here the translator says "the shut-up giant watching attentively was every way in danger," and there is a note, presumably editorial, to the effect that "'Terence uses the phrase auribus lupum tenere, to be every way in danger." Balfour and Sibbald are right to begin a new sentence with gigante, for there seems to be a change of subject as between injunxit and tenebat; it was the aggressor who injunxit, and his intended victim who tenebat. The grammatical purist might object, on the ground that the victim opens the new sentence in the ablative absolute and could not, therefore, be immediately transformed into the subject of its principal verb. The objection would be valid if we were dealing with someone who set himself to write scholarly Latin as Sibbald, for instance, did. What "Jo. Ben" writes is dog-Latin and occasionally what Thackeray would have called " very sad dog-Latin" at that. Moreover, he appears to have had rather a weakness for beginning a sentence with its subject in the ablative absolute. ${ }^{2}$ Accordingly we need not hesitate to assume that he did so

[^12]here. It was the gigas inclusus who found himself "holding a wolf by the ears." And this picturesque phrase has a far more pointed significance than that conveyed by "was every way in danger." He who held a wolf by the ears was in a position in which it was very difficult to hold on and fatal to let go. The expression occurs, as the note indicates, in the Phormio of Terence. But it was widely current among both Greeks and Romans. The Emperor Tiberius, for instance, was fond of using it to describe the precariousness of his own tenure of power.' What 'Jo. Ben'" wishes us to understand is that the imprisoned giant had both his hands full, in the most literal sense of the words.
4. exire nequiens, suis maleis impluvium fecit per quod egressus est.This part of the story is the climax of the whole. Its purpose is to account for the hole in the roof, a feature which would otherwise be unintelligible. The translation "being unable to escape he made a gutter with his hammer through which he escaped" does nothing of the kind, and is moreover impossible. Ignoring the contradiction between the first four words and the last two, and dispensing with any further discussion of the meaning of impluvium, I would point out that ' with his hammer'" for suis maleis is indefensible. Suis would be otiose, the plural would be wrong, and the Latin word for a hammer would be mis-spelt. Yet Balfour and the other transcribers evidently understood the phrase in the same way as the translator has done, for they wrote malleis. This leaves two out of the three difficulties untouched, and a more drastic remedy seems to be required.

I would venture to suggest that, just as lack of acquaintance with the position of the monument led to in summitate being transformed into in summitatem, so lack of acquaintance with the monument itself led to the substitution of mal(l)eis for malis-the ablative plural of mala ('"a jaw'), a word which is often used in the plural for the teeth, as in Virgil, Eneid, iii. 257. With this reading, suis would be perfectly in order, and we should get an excellent sense, completing in the neatest possible way the picture conjured up by auribus lupum tenebat. The imprisoned giant had been roused before the lapis fabricatus had been thrust sufficiently far in to block the exit from the chamber. He was now crouching in the corridor, making a desperate effort to prevent the great stone from being driven farther in. Both hands were engaged in the effort and he dared not relax his grip for a moment. Accordingly, when he felt that he was reaching the end of his tether, he flung his head back and gnawed his way to freedom through the roof. Fantastic, no doubt, but not a whit more fantastic than the rest of the story.

[^13]Let me now translate the Latin in the light of the foregoing com-ments:-

> "Everything being ready, he carried down the stone which he had shaped on the top of the hill and, placing a javelin against it, thrust it into the opening with all the strength of his arms, stimulated by jealousy of his rival's prosperity. The giant inside was awake and presently found himself holding a wolf by the ears. Not being able to get out through the passage, he gnawed a hole in the roof, through which he made his escape. That is, if you care to believe the tale!"

This Note has stretched out to a length much greater than I had intended. But it will have served a good purpose if it shows that there is still something to be done for "Jo. Ben." It is very desirable that a competent scholar, like Dr Marwick, thoroughly at home in the geography of Orkney, should re-edit the Latin text and give us a fresh translation. My impression is that, if he concentrated his attention on B. and took no account of S.H.S., he would find his task easier than might be supposed. Barry's transcriber is responsible for much confusion. It is a great pity that the editors of S.H.S. allowed him to lead them so far astray.


[^0]:    ${ }^{1}$ Archceologia Scotica, vol. i. p. 265.
    ${ }^{2}$ Barry's History of the Orkney Islands, Appendix VII. p. 445.
    ${ }^{3}$ See Note on "Jo. Ben" and the Dwarfie Stane by Sir George Macdonald, K.C.B., infra, p. 230.

[^1]:    1 The Reliquary, vol. ii., Bibliography, p. 101, and, in addition, The Statistical Account of Scotland, vol. xvi. p. 248; Handbook to the Orkney Islands, p. 136; Summers and Winters in the Orkneys, 2nd edition, p. 255; Anderson's Guide to the Orkney Islands (1884), p. 134; Monumenta Orcadica, p. 47; The Orkney Book, p. 179; History of the Church in Orkney, pp. 9, 10.
    ${ }^{2}$ The Reliquary, vol. ii. pp. 84-101.
    ${ }^{3}$ Monumenta Orcadica, pp. 8, 9, 43, 47-49.

[^2]:    ${ }^{1}$ Papers of the British School at Rome, vol. v. p. 135.
    ${ }^{2}$ Ibid., p. 123.
    ${ }^{3}$ Ibid., p. 104. I am indebted to the Council of the School for permission to reproduce fig. 6, as well as the plans and sections (2) and (3) in fig. 5.

[^3]:    ${ }^{1}$ Papers of the British School at Rome, vol. v. p. 104.

[^4]:    ${ }^{1}$ Archocologia Scotica, vol. i. p. 265.
    ${ }^{2}$ Archceologia, vol. xxxiv. p. 136, pl. xvi.

[^5]:    ${ }^{1}$ Proc. Soc. Ant. Scot., vol. ii. pt. ii. p. 155.
    2 Ibid. $\quad 3$ Proc. Ork. Ant. Soc., vol. v. pp. 19-20.

[^6]:    ${ }^{1}$ Archceological Journal, vol. xx. p. 36.
    ${ }^{2}$ Proc. Soc. Ant. Scot., vol. xxxvii. p. 81, figs. 3 and 4; ibid., vol. lxix. p. 340.
    ${ }^{3}$ Archecologia, vol. lxxvi. p. 137, fig. 9. I have to thank the Society of Antiquaries of London and Mr W. J. Hemp for permission to redraw and reproduce the cross-section and plan shown here.
    ${ }^{4}$ Ibid., p. 126, pl. хіх.

[^7]:    ${ }^{1}$ A Description of the Isles of Orliney, chap. iv. p. 21.
    2 "Tour in Scotland," Scottish History Society, vol. i. p. 135.
    ${ }^{3}$ Proc. Soc. Ant. Scot., Appendix to vol. vi. p. 122.

[^8]:    ${ }^{1}$ Papers of the British School at Rome, vol vi. p. 97.
    = Ibid., p. 97, fig. 2, pl. xiii; fig. 2, pl. xxiv.
    ${ }^{3}$ Rough Stone Monuments, by T. Exic Peet, p. 19.
    ${ }^{4}$ The Cruise of the Betsy (1858), chap. xv. p. 475.

[^9]:    ${ }^{1}$ Macfarlane's Geographical Collections, vol. iii. The Latin text is on pp. 302 ff., the section on Hoy being on p. 312. For the translation the corresponding figures are pp. 313 ff . and pp. 322 f .
    ${ }^{2}$ Old Lore Miscellany of Orkney and Shetland, vol, viii. p. 59.

[^10]:    ${ }^{1}$ Op. cit., p. vii.
    2 Old Lore Miscellany of Orkney and Shelland, vol. i. pp. 300 ff . By way of a small contribution to the discussion, I may mention that, as my examination of the MSS. showed, Sir James Balfour, the oldest transcriber known to us, was at one time in two minds as to the date. In B. the third digit of 1529 has begun by being a plain circle, possibly a 0 or possibly the upper loop of a 9 . Then the scribe has dipped his quill in the ink and written over it a heavy 2.

[^11]:    ${ }^{1}$ In S. and M. the letters are so plain that no one could misread them. In B., though still not to be mistaken by a careful reader, they are less distinct, a circumstance which suggests that Barry's transcript may, after all, have been taken from B. To settle the point, a collation of other passages would be necessary.

[^12]:    ${ }^{1}$ Lest the mistake be imputed to "Jo. Ben" himself, it may be well to point out that elsewhere he is careful to distinguish between in with the ablative and $i n$ with the accusative.
    ${ }^{2}$ There is an undoubted example four or five lines above (" $u t$. . . ipso dominante insulam, ad suum usum lapidem haberet") and another in the section on Flotta ("Vigilante vero minus affectus cst"), while to take the last sentence of the section on "Eloerholme" (Helliarholm) as a third example gives the only satisfactory sense, the cursing being done by the unfortunate wives.

[^13]:    ${ }^{1}$ Suetonius, Tiberius, 25.

