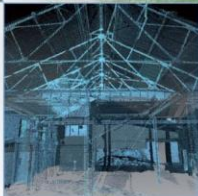
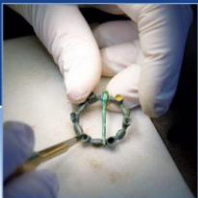


Dun Borrodale, Raasay Archaeological Survey Report

AOC 22014
23rd March 2012



Dun Borrodale, Raasay

Archaeological Survey Report

On Behalf of: Forestry Commission Scotland
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National Grid Reference (NGR): NG 5545 3641

AOC Project No: 22014

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Abstract

An archaeological survey was carried out at Dun Borrodale, Raasay on behalf of Forestry Commission Scotland in March 2012. The site was laser scanned, interpreted detail was recorded and a photographic register compiled to accompany a detailed report. The nature of and condition of the structure are also discussed.

Dun Borrodale, Raasay

Introduction

1. AOC Archaeology Group was commissioned by Forestry Commission Scotland to undertake a detailed survey of the later prehistoric fortification at Dun Borrodale (also known as Dun Boredale, Dun Borghail, Dun Vorodale, Dun Voredale; NGR: NG 55476 36337; NMRS No.: NG53NE 1) for the purposes of conservation management planning. The area surrounding the site has recently been felled of trees that had begun to encroach on the rubble debris spread of the monument.

Methodology

2. The survey was carried out on 6th to 7th of March 2012. The site was laser scanned using a Faro Focus 3D laser scanner, while interpreted detail and topographic features were recorded using a Trimble S6 total station. A photographic record was compiled using a Canon 1000D digital SLR, and was cross referenced to the plans. Data processing was undertaken in Faro Scene and Trimble Realworks, with interpreted survey processed using Trimble's Terramodel package.

Dun Borrodale

3. Dun Borrodale is an example of the Atlantic roundhouse class of later prehistoric settlement, although typically for the Inner Hebrides and southern mainland of the Atlantic region, the site is not perfectly circular, rather forming a sub-oval plan, so that the site has tended to be considered a 'dun' rather than a true 'broch'. MacKie considered the site in his corpus of the brochs, wheelhouses and roundhouses of Atlantic Scotland (2007), paying particular attention to analysis of the structure and the reconstruction of the wall features. Mackie considered that Dun Borrodale should be classed as a broch, 'though an oval one, ...the conjunction of a scarcement ledge, a doorway of appropriate design and signs of an intramural gallery on the wallhead above the scarcement would normally be quite sufficient to confirm its nature' (2007:845). Mackie had already established in 1985 that the scarcement ledge was level across the course of the wall, though noting that due to the uneven nature of the bedrock foundations of the site the ledge is considerably below the level of the basal course of the outer wall face to the north, and in this respect it bears close similarities to the broch at Caisteal Grugaig (see Cavers 2010), which occupies a similarly improbable and precipitous site. There can be little doubt that the use of natural bedrock outcrops in order to accentuate height, particularly in the elevation above the entrance (which is often on the lower area of such sites) was a deliberate strategy of broch architects in north western Scotland.
4. Typological and architectural classification should lead to the close comparison of sites like Borrodale, Caisteal Grugaig and Clachtoll and so imply similar Iron Age origins. It is worth noting the superficial similarity of the irregular plan of Borrodale to the sub-triangular duns of Argyll however, excavation at some of which has suggested occupation in the early historic centuries (e.g. at

Kildonan Bay, Fairhurst 1939). Mackie is surely correct to class Dun Borrodale as a broch, however, and it seems improbable that the structure was not intended to be fully roofed, although the irregular plan may pose challenges to any reconstruction of how this may have been achieved.

5. Mackie notes that the site may have been far better preserved than today as recently as 1874, when Judd described it as being three stories high, with 'wall chambers' that could be entered' (2007:845).

2012 Survey

6. Dun Borrodale is located on a rocky outcrop, the most prominent spur on a ridge of rock outcrops overlooking modern Inverarish (Plate 1). The site has clearly been chosen to position the structure on the most prominent outcrop in the local area, while the crags to the north may well have provided the quarry source for the building stone used in the construction of the broch.
7. The following description refers to Figure 2, and the locations of features are labelled on that plan.
8. The broch comprises a sub-oval enclosure, with a wall which averages over 4m in thickness. Wall face is visible for much of the exterior circuit, although the NE quadrant is very ruinous and the wall face is lost in the rubble. There is a single entrance, in the E.
9. At point A, around the entrance, the outer wall face is comprised of very large quarried blocks, some up to 1m across (Plate 2; Figure 3); these heavy courses were evidently necessary to support the area of greatest elevation over the entrance. The entrance passage itself is 0.8m in width and has a door check 1.3m back from the outer wall face, where the passage widens to 0.95m in width. The passage itself is choked with rubble debris (Plate 4), and only a single lintel survives in situ.
10. The wall face to the S of the entrance at point B is ruinous, and the rubble from the collapse of the wall at this point slopes down the hillside to the E. Where the wall has broken, at point C, the inner and outer walls of the composite broch wall are visible (Plate 5), between which is the intramural space which must have formed the first floor gallery (Plates 6 and 7; Figure 4). Mackie (2007) speculates that the space between Point D and the cell to the S of the entrance passage (described at Point Q, below) may contain stairs to the first floor gallery; these are not visible in the rubble but this seems a plausible suggestion.
11. Continuing around the exterior of the broch to the S, the wall is preserved to its greatest height at Point E, where the outer wall stands to 2m in 6 courses of blocks averaging around 0.5m across. The wall has a pronounced batter at this point, and steps back from the steep bedrock outcrop on which it is built (Plate 8 and 9). Several of the large blocks have fallen from the wall face at this point, although the structure seems stable (Plate 10 and 11).
12. The outer wall in the SW quadrant of the broch is largely ruinous and concealed by rubble collapse. At point H the outer face is visible where it stands to three or four courses above the rubble level (Plate 12). The outer wall face at Point I to the north is similarly denuded, where the bedrock is at

its highest point on the site (Plate 13). The wall in the NE quadrant of the site, Point J, is ruinous (Plate 14).

13. In the interior rubble at Point K, a small structure has been built out of the collapse of the broch (Plate 15 and 16); this appears to be of relatively recent origin and is poorly built.
14. At Point L, previous surveyors have suggested the presence of an upper gallery, entered from first floor level. Mackie was not convinced by the evidence for this gallery, but inspection of the stones in this area suggested to the present surveyors that this gallery may indeed be present, accessed from the interior of the broch and curving to the N (Plates 17-19).
15. At Point N, the scarcement is visible, projecting from the inner face of the broch wall; it is of 'ledge' type and is 0.3m wide where visible (Plates 20 and 21). Previous surveyors have plotted the scarcement ledge running around the S interior wall face of the broch, though this is now largely obscured by rubble collapse.
16. The interior wall face stands to its greatest height in the S, at Point O and P (Plate 22), where it stands to 0.9m in height above the level of the rubble collapse; elsewhere it is largely ruinous or obscured by rubble.
17. At Point Q, an intramural cell was entered from within the broch interior (Plates 23-26; Figure 3). The corbelling of the cell is largely collapsed, but still visible standing to a height of c.0.7m. As noted above, it seems probable that the cell gave access to the stairs to the first floor level gallery, though no trace of these is visible in the rubble. The gallery floor level appears to be somewhat higher than the ground level at the entrance, so that the interior must be very uneven, similar in character to that at Caisteal Grugaig, Totaig, where the entrance is placed at the lowest point on the site, and intramural galleries are entered higher up slope.

Discussion of the structure

18. As Mackie considered (2007:845), Dun Borrodale must be sited on steeply sloping bedrock, with the level of the outcrop to the N of the wall just under 5m above that at the level of the entrance passage (see section C-D, Figure 2). Although the bedrock cannot be traced in many places other than at the N and S extents of the monument, the height difference that had to be overcome during construction was considerable. As noted above, it seems likely that the decision to place the entrance at the lowest point on the knoll was a deliberate attempt to accentuate the elevation above the entrance passage. As Mackie considered, the scarcement ledge is c.1m below the level of the bedrock on the northern outer wall face, and projecting this level across the site indicates that the first floor must have been at least 4.5m above the entrance passage level. Allowing for the upper galleries suggested by the remains on the wall head at points D and L, it seems likely that at least a further 2.5m of upper walling has been lost from the wall head. Again, projecting this level across the site leads to a total wall elevation of around 9m above the entrance passage, so that Dun Borrodale must be classed among the true 'broch towers' subgroup of Atlantic roundhouses.

Condition statement

19. Dun Borrodale is now largely ruinous, although sufficient architectural features survive to allow the interpretation given above. As noted in the introduction, significant destruction of the building may have occurred in the past 150 years, but with the removal of the surrounding forestry the site is no longer at significant threat. Several small saplings were noted taking root on the site; it is recommended that these are removed regularly to avoid further degradation of the stonework through root damage.

20. Three areas would be worthy of future condition monitoring: the surviving lintel over the entrance passage, but more pressingly the surviving corbelling of the intramural cell at Point Q and the exterior wall face at Point E, where several stones are missing. Previous inspection and condition survey of broch structures has indicated that those areas of broch walls immediately adjacent to broken areas (as at Point C and Point J) are most vulnerable to collapse, as pinning stones are lost due to the release of tension in the circuit of the wall.

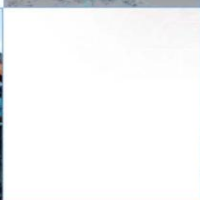
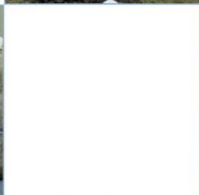
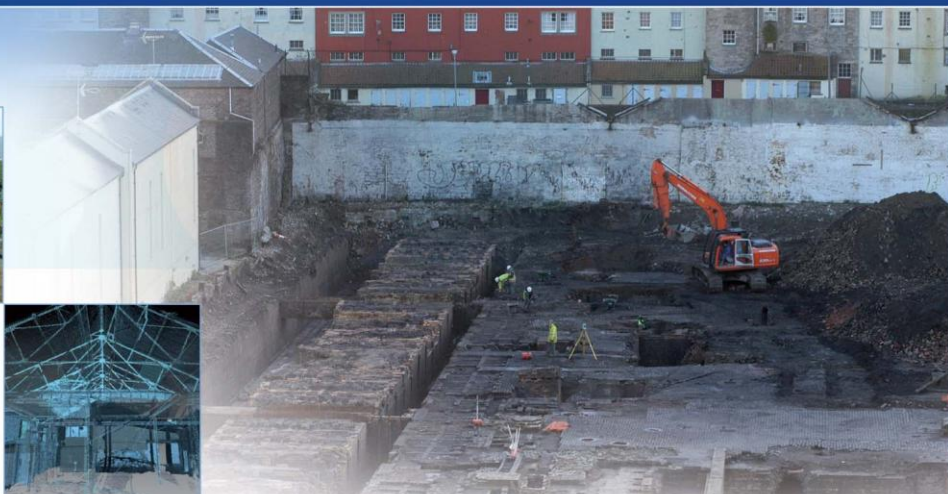
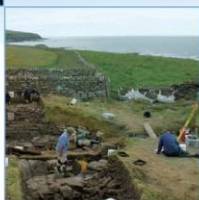
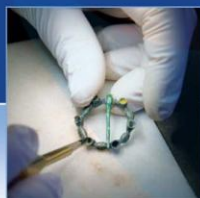
References

- Cavers, M.G. 2010 'Caisteal Grugaig, Totaig: archaeological survey report', *Unpublished report for Forestry Commission Scotland*
- Fairhurst, H. 1939 'The galleried dun at Kildonan Bay, Kintyre', *Proc Soc Antiq Scot*, vol.73, pp. 185-228
- Mackie, E.W. 2007 *The Roundhouses, Brochs and Wheelhouses of Atlantic Scotland c.700 BC- AD 500: Architecture and Material Culture - Volume 2, the Northern and Southern Mainland and the Western Isles*, British Archaeological Reports 444 (ii), Archaeopress

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Archaeological Survey Report

Section 2: Plates and Figures



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