HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

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STATEMENT OF SIGNIFICANCE

DUN DORNAIGIL

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1. SUMMARY

1.1 Introduction

Dun Dornaigil is an Iron Age broch, situated on the edge of a steep bank of the Strathmore River in Sutherland.

The site, which in the past was referred to as Dun Dornadilla, was taken into State care in 1974 under a Guardianship agreement.

The property is unstaffed. Its exterior is accessible, throughout the year, from a small adjacent parking area beside the minor road which links Altnaharra to Hope.

1.2 Statement of Significance

Brochs are an Iron Age phenomenon; they were first constructed (on current evidence) at a date between 400 and 200 BC and are a prehistoric building type unique to Scotland. They are typified by a circular internal ground plan with massive drystone walls capable of rising to tower-like heights. The tallest among them are believed to have been the tallest prehistoric stone structures in North Western Europe, though very few have survived to any great height.

Dun Dornaigil is of national importance as one of the tallest examples of a broch in mainland Scotland. Dun Dornaigil is of particular interest for several early references to it in published sources, which attempted to place it within the early history of Scotland. It was also one of the first monuments to be scheduled in Scotland, being named on the Schedule to the Ancient Monuments Protection Act which was passed on 18 August 1882.

The structure is also notable for the remarkable survival of part of its walling, now supported by a 19th-century buttress: the height of 6.7 metres makes it one of the five tallest surviving brochs in Scotland.

The broch appears to stand entirely alone, without any evidence of surrounding ancillary structures, but this may be deceptive – a mid-18th century map shows a small settlement, now vanished, immediately south of the broch, where the modern road now runs[1]; so it is possible that broadly contemporary remains around the broch may also have been removed or flattened over in more recent times. No direct dating evidence is available for Dun Dornadilla, but on analogy with some other sites excavated in

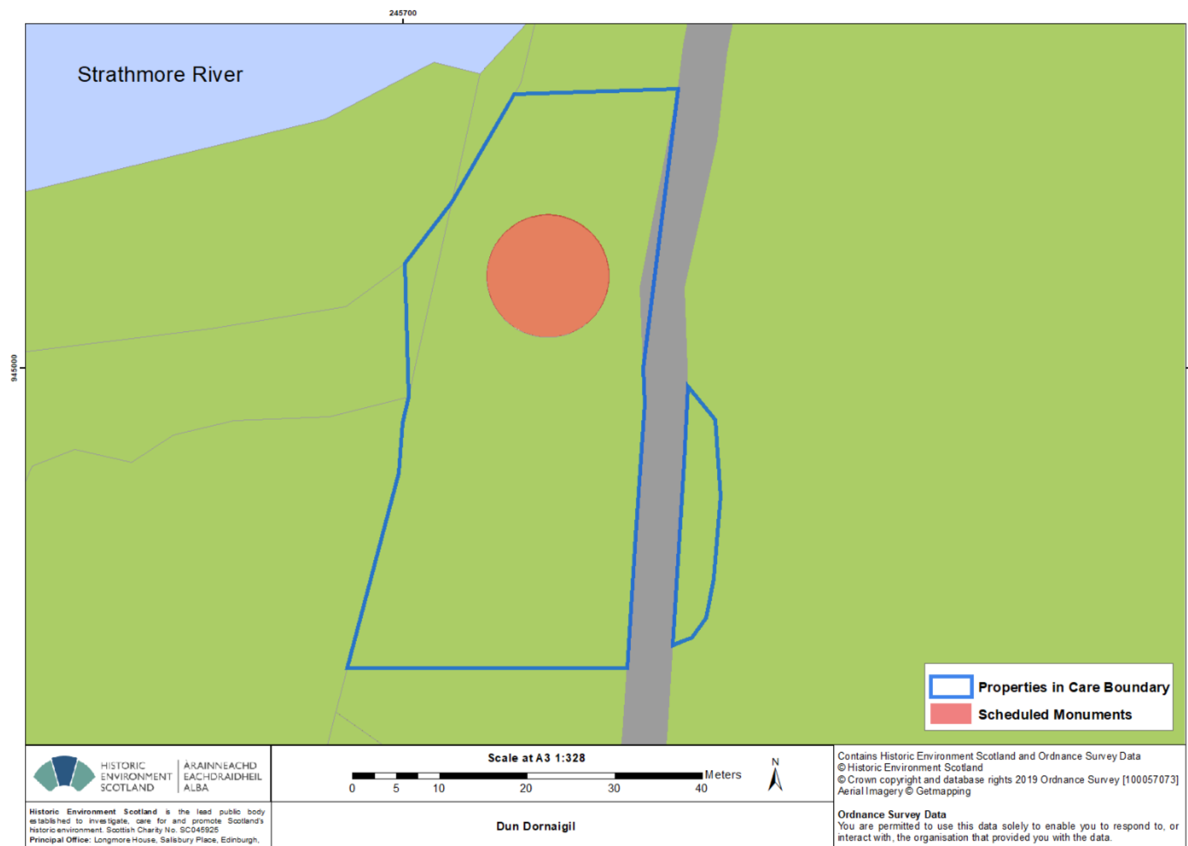
[1] Roy's Military Survey, accessed on line at National Library of Scotland website 7 August 2019.

Caithness and Sutherland, a date of construction in the last three centuries BC seems most likely.

Key aspects of the site's significance include the following:

- Its surviving height.
- The possibility of undisturbed Iron Age floor deposits. It is possible that Dun Dornagil has never been excavated (no such work is recorded) and therefore among the broch sites in HES care it may hold unique evidential potential
- Its unusually remote location.
- The possible evidence for structural detail preserved behind 20th - century consolidation works.
- The apparent absence of any ancillary structures.
- The long history of antiquarian interest in the structure and in traditions associated with it.
- Its context, siting and relationship to other archaeological and landscape features as compared with other broch sites; the degree to which it typifies, or is exceptional to, the generality of brochs and how it has been referenced in developing theories of Iron Age architecture, society and economy.
- Its use and presentation as an ancient monument: whilst originally scheduled as early as 1882, Dun Dornaigil was taken into State care in 1974 - rather later than most of the brochs maintained by HES.

The following pages give a fuller background to the site and go on to discuss the various aspects of its significance. A range of Appendices includes an overview of Brochs – theories and interpretations at Appendix 4.



Dun Dornaigil: Scheduled area and Property in Care boundary; for illustrative purposes only. Further images are provided in Appendix 2.

2. ASSESSMENT OF VALUES

2.1 Background

2.11 Introduction - Brochs

Brochs have been the subject of much study, and attempts to understand them have given rise to numerous theories about their genesis, purpose, context and relationships to other Iron Age structures. The best-preserved examples are striking and distinctive sights.

Broch towers are characterised by their conformity to certain design elements which make them seem a very cohesive group (near-circular ground plan, hollow or galleried wall construction, a single narrow entrance passage, a staircase within the wall thickness, stacked voids and tower form). Dating evidence is scarce and most reliable dates relate to periods of occupation rather than construction. However, recent radiocarbon dates from sites in South Uist and Shetland (sampled within walls or beneath the structure) indicate construction before 100BC and between 200 and 400 BC respectively.[2] It is generally thought that the small number of brochs in

[2] Parker Pearson and Sharples 1999, 355: Dockrill et al 2015, 59-60

the Scottish Lowlands and Southern Uplands are late examples, and some, at least, seem to have been built in the second century AD.

Brochs are acknowledged as one of the only building types unique to Scotland; their remains occur most frequently in the north and west, rarely in the south. As it is not known how many brochs were built, much depends upon survival rates and upon adequate investigation. Estimates for potential broch sites range from 150 – 600 sites; however, most have not been investigated and criteria for assessing the sites vary. It is generally agreed that about 80 known sites meet the definition for broch used here, though there may be many more which might be proven, if sufficiently investigated.

There are many competing theories as to the social context which gave rise to brochs, and their use and meanings for Iron Age society. As yet, there are no agreed conclusions and a fuller account of these themes is given at Appendix 4.

The distribution, location and frequency of brochs varies markedly between different regions. There is a major concentration of brochs in eastern Sutherland and in Caithness, with a thinner scatter of sites in western Sutherland: even within this group Dun Dornaigil is relatively isolated, with only one other broch reported nearby, and unconfirmed despite careful search[3].

2.12 Descriptive overview

Dun Dornaigil stands on the edge of a steep slope above the Strathmore River, which flows north through Strath Hope.

The complete circuit of the lowest part of the broch wall survives, with an average external diameter at ground level of 14.5 metres and a thickness of about 3.5 metres. The walling is largely reduced to below 2 metres high, but a small portion on the east side still reaches 6.7 metres, now supported by a buttress. This tall section incorporates the original entrance passage, the outer end of which is surmounted by a large triangular slab set on edge as a lintel – similar slabs in this position are known in several other brochs. The fragment of tall outer wall is markedly battered – that is, it leans back from the vertical slightly more than is usual in brochs.

The interior of the broch is not accessible; the debris within having been levelled at first floor level. The entrance passage is now impassable, having been blocked off in recent years. The passage and the whole of the broch’s interior space appear to sit at least one metre above the natural ground level. A single upright stone, perhaps the remains of a door-check, is visible

[3] MacKie 2007, 620-2;

part-way down the entrance passage. It appears that the broch was solid-based – that is, its lowest two metres or so of its wall did not contain a continuous gallery.

The smooth, turf-capped appearance of the lower wall-head is relatively recent: photographs prior to the early 1980s show exposed stonework including the remains of an upper gallery between the inner and outer skins of the broch wall. The stone-built slanting buttress which shores up the tall segment of outer walling is earlier than this, and its presence in photographs taken in 1899[4] suggest it was constructed in the late 19th century. When first constructed, the buttress incorporated an opening which allowed access to a chamber in the thickness of the broch wall, above the entrance passage. However, this was modified in the late 1970s, with the aperture infilled, apparently to address concerns over safety and structural stability.

2.13 Antiquarian interest 1 – the name of the broch[5]

Dun Dornaigil attracted early attention from travellers and antiquarians, perhaps due to its proximity to the route north into "Lord Reay's Country", as the part of north-west Sutherland, held by Clan Mackay, was often known.

A circular symbol representing the broch appears on Pont's map of *Strathnavernia*: made in the late 1500s, this was eventually published as part of Blaeu's *Atlas* of 1664[6]. This symbol appears adjacent to the name Stra Yrredell, which may be an old name for Strath Hope, and what is now the Strathmore River is shown as Avon Yrredell.

By the time of Gordon's 1726 reference to the broch, in his account of the Glenelg brochs[7], it had already acquired the name of 'Dun Dornadilla', which was translated as (King) Dornadilla's Castle. This associated the broch with the name of the semi-legendary King Dornadille who, according to the listings of kings in Boece and in Buchanan's history of 1582, ruled Scotland around 260 BC[8].

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[4] See e

[5] This section is condensed from the more detailed account in MacKie 2007, 620-1 [MacKie attributes the word *Avon* in this specific context to an early, P-Celtic linguistic stratum. While this is true in general terms, the word *avon* has its equivalent in Scots Gaelic in the form *abhainn* (a large river, especially one prone to flooding) and occurs across northern Scotland.]

[6] Blaeu 1654

[7] Gordon 1726

[8] Buchanan 1582. Modern scholarship completely rejects the concept of a unified kingdom of "Scotland" at such an early date. Oddly, and doubtless by sheer coincidence, the date ascribed to King Dornadille, 260 BC, sits squarely within the period of time at which brochs, according to current knowledge, began to be constructed.

Bishop Richard Pococke's 1760 account (not published until 1887) offers the earliest detailed description of the broch as well as two clear sketches[9]. Pococke's account offers the name as "Dundour, called in the map Dundour Nadilla" which hints at a more prosaic derivation, perhaps Dun dubh / na daile – the black fort of the dale – which would make sense of the short form 'Dundour' which he cites; simply, 'the black fort' [10]. It is not known which map Pococke used: it was clearly neither Pont/Blaeu nor Roy's Military Survey, which uses 'Dun Dornadilla'[11] - further research might be able to establish this.

In the mid-1760s, the Reverend Alexander Pope, the local minister, recorded a Gaelic verse referring to the broch as "the Dune of Dornghaill the son of Duff". Pope's account includes a stylised reconstruction drawing of the stone tower[12].

Despite these accounts, a brief anonymous description published in 1795 wrongly claimed that there were no local traditions associated with the broch[13]. In contrast, by the time of Groome's Gazetter of 1882, the story had become part of tradition: "Traditionally said to have been built by a Scottish king, to serve as a hunting seat"

In 1874, the Reverend J. M. Joass treated the spelling 'Dhoirneghil', - collected locally by the Ordnance Survey - as an error, amending it to 'Dornadilla'[14]. This was presumably done to retain the name most frequently used for the preceding century, and it secured the Dornadilla spelling until the 1960s. In 1962, Alison Young listed alternative spellings for the site's name[15] noting that it was the form 'Dun Dornaigil' which was used locally. By the late 1970s, that form had been adopted for official use by the predecessor of HES, and by the Ordnance Survey.

It seems likely that Dornghail, or Dornaigil, is the older form, and the Dornadilla spelling an early and spurious historiographical creation.

2.14 Antiquarian interest 2 – early descriptions of the structure

Pococke's 1760 account[16] is one of the earliest detailed descriptions of any broch. In places obscure, since the semi-standardised vocabulary of later broch studies had yet to evolve, the structure he describes as in "tottering condition" was clearly much more complete than it would be a century

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[9] Pococke 1887 (1760)
[10] Noel Fojut, unpublished suggestion.
[11] Roy's Military Survey, accessed on line at National Library of Scotland website 7 August 2019.
[12] Pope 1777
[13] Anon 1795
[14] Ordnance Survey Name Book, citing Joass, 1874
[15] Young 1962, 184-5
[16] Pococke (1760) 1887 121-3

later. At least three galleries survived in a wall which was eight metres tall at the highest and about four metres tall for more than half its circumference, with only one short section broken down to ground level. In the inner wall-face, vertical voids were present (though the accompanying drawing probably exaggerates the regularity of these features). Pococke mentions “a set-off of one foot three inches” (approximately 0.4 metres) which may be a scarcement ledge around the interior. Pococke’s illustrations are also among the very earliest known for any broch.

Pope’s 1777 account adds that “the entrance to the galleries was from the north side of the doorway by a stair that went to the top” but notes that the stair is incomplete. Cordiner’s contemporary account essentially repeats the same description[17]. Cordiner offers a more stylised general view than that provided by Pococke. The 1795 anonymous account[18] confirms the existence of a ruined stair and adds that the entrance passage was just passable at that date. An interesting depiction appears in an 1808 guide, showing the remains markedly less well-preserved than 30 years before[19].

The descriptions cited above refer to a doorway on the north side of the broch giving access to a stairway. While this may imply a doorway opening from the broch’s circular inner space, to the right of where the entrance passage emerges, this would be unusual, as most brochs have their stair access to the left on entering. However, this is the explanation preferred by MacKie[20]. But it may also be that the early accounts misinterpreted the guard chamber opening from the right-hand side of the entrance passage as the foot of a ruined stair leading upwards[21]. In 1909, RCAHMS noted a possible lintel stone in the south-west part of the inner wall-face which might have formed the entrance to a stair-foot cell in a more usual location around the circuit[22]. This is no longer visible.

2.15 Clearance, structural consolidation and later work

Remarkably, it seems possible that in modern times, the interior of the broch has never been cleared out down to ground level: certainly, if this has been done, no published record survives. While the level of deposits within the interior has clearly built up to some degree since the earliest descriptions, for example blocking the entrance passage through which it

[17] Cordiner 1780.
[18] Anon 1795
[19] Forsythe 1808, vol 5 frontispiece
[20] MacKie 2007, 622
[21] Noel Fojut, unpublished suggestion
[22] RCAHMS 1911, number 155.

was possible to crawl in 1795, prehistoric deposits may still survive below more recent accretions.

The solid stone buttress against the inner side of the high-standing fragment was constructed in the late 19th century, though no account of this work has yet been discovered: the buttress is visible in photographs taken around 1899[23].

The interior was levelled at first-floor level and turfed, and the wall-heads were also filled up and capped with turf soon after the site was taken into state care in 1974. Then or shortly afterwards the opening in the buttress was closed up, as was the low entrance passage. These changes produced a robust external finish which minimised the need for frequent maintenance: this being an important consideration in view of its considerable distance from any other State-managed properties[24].

Following the 1970s consolidation works, minor stone replacement and work to maintain the turf capping have been undertaken on several occasions.

In recent years the entire structure has been recorded by laser scanning[25].

2.2 Evidential Values

The evidential value of Dun Dornaigil is high for what its constructional details, physical fabric, location and setting can tell us about settlement during the Iron Age; and for its potential to yield further information through ongoing research including excavation of surviving deposits.

Dun Dornaigil, as displayed, is a good example of a "solid-based" broch of unusually compact dimensions, with a relatively thick wall and relatively small overall diameter – it is very similar in its basal dimensions to **Dun Carloway**[26] and may originally have stood to a greater height than the average broch. While the upstanding structural remains have undoubtedly been modified during various episodes of conservation, it appears that what survives has not been reconstructed wholesale. Additional elements

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[23] Erskine Beveridge photographs in HES collections – example in Appendix 2

[24] An elderly member of the works squad who undertook this work, later reminisced about the long, slow journey north on the narrow roads of the mid-1970s, driving an elderly ex-military vehicle and towing a caravan which was to serve as on-site accommodation. (pers. comm. related to Noel Fojut)

[25] As part of a research project into broch architecture and the Knowledge Transfer Project (a collaborative research project between AOC Archaeology Group and the University of Nottingham) a laser scan survey of Dun Dornaigil broch was undertaken in October 2007. Five scan positions were taken to produce a pointcloud with a net resolution of approximately 10mm.

[26] Throughout the text, site names in **bold** are managed by Historic Environment Scotland and are publicly accessible. Access information can be found at: www.historicenvironment.scot/visit-a-place/

of structural detail are hidden beneath the turf capping of the lower portions of walling and possibly behind the Victorian period buttress.

It can be argued that Dun Dornaigil's primary importance lies in the potential for surviving Iron Age deposits within the interior of the broch and below its walls. If it is indeed the case that the interior has not been dug out – and no record of such activity survives – this would make Dun Dornaigil unique amongst the brochs in the care of HES. While no visible trace survives of early remains around the broch, this may be misleading: it is possible that the area was levelled when the adjacent road was built, probably in the mid-19th century, and that there may be remains of external structures beneath the road and adjacent grassed areas. The ruins of the small settlement marked to the south of the road on Roy's map of the mid-18th century may well have been destroyed during later road construction.

There are no records of any artefactual finds associated with the broch, which may tend to support the suggestion that it has not been dug out in recent centuries. Despite the reduced state of its physical fabric, the site retains considerable archaeological potential. Areas of high sensitivity include:

- The interior, which may never have been dug out down to the Iron Age floor levels. This is contrary to the other 11 brochs currently in State care, which have all long since been "bottomed".
- Beneath the massive wall of the broch, deposits and traces of earlier structures may survive, with the potential to date the broch's construction: securely-contexted construction dates for brochs remain rare and thus of high value.
- There is presently no trace of the small settlement – perhaps a single farm – which lay beside the broch in the mid-18th century but which had vanished a century later. It is possible that traces of this may survive below the road and adjacent flattened area, and that there may also be traces of earlier structures and deposits, including some contemporary with the broch.

2.3 Historical values

The primary historical importance of Dun Dornaigil is its potential to contribute to evidence-based narratives describing how society in northern Scotland may have operated, and changed, during the middle Iron Age. It also offers evidence, in the form of early published accounts, towards understanding how efforts to explain brochs and situate them in historical narratives have changed over a period of almost three centuries.

At the centre of such narratives, the appearance of the broch is a particular source of fascination. Brochs are such striking and singular structures that it remains a constant frustration that, despite an abundance of theory and interpretation (see Appendix 4), we do not actually know much for certain about who built these structures or why. Consequently, their value for the development of explanatory narratives is a collective one. No individual broch, however closely investigated, would be capable of answering *all* of the questions which might be posed, and for many purposes, data from a large number of sites is necessary.

Dun Dornaigil, as a rather isolated outlier some distance from any other known brochs, is interesting in that it requires to be accommodated into these narratives in ways which do not require a mutually supportive local network of communities occupying similar sites, or an area of rich farmland nearby. Its appearance to modern eyes is very much of a road-side guard-point or a lookout or signal post, which might support the idea expressed by some researchers that brochs served a wide range of functions, rather than all being the centres of farming estates. It has also been suggested that brochs such as Dun Dornaigil, and other examples in the north-facing valleys such as Strath Halladale and Strathnaver, may have been established by incoming settlers (perhaps from eastern Caithness or Orkney) who took over as the highest level of local society, and sited their dwellings with a view to accessing opportunities for upland hunting[27].

Dun Dornaigil is also notable for being one of the first monuments to be scheduled in Scotland; the site was named (as Dun Dornadilla) on the Schedule to the Ancient Monuments Protection Act which was passed on 18 August 1882. This original Schedule to the Act named two dozen Scottish monuments, including the brochs of Edin's Hall, Mousa, Clickimin, Dun Telve and Dun Troddan.

2.4 Architectural and artistic values

The details of broch architecture have been much studied and discussed (see Appendix 4 for an extended account). Within the range of broch sizes, Dun Dornaigil is one of the few examples at the massive end of the spectrum. In terms of its basal dimensions and near-circular plan it resembles brochs such as Mousa and Dun Carloway. It is possible that such brochs were capable of safely being built to greater-than-average heights, and also that their more massive construction may have better protected then against subsequent collapse.

The finer details of Dun Dornaigil's ground plan are largely concealed, and it might be that features such as floor-level chambers within the wall's

[27] Cowley 1999, 71 and 73-4

thickness have escaped notice, rather than being absent. The only certainties are that there is a guard chamber to the right of the entrance passage, though this is now concealed, and that there was at least one upper gallery level between the outer and inner skins of the thick wall circuit. There is a possibility that further traces of upper wall galleries survive concealed behind the buttress which supports the surviving tall section of walling[28].

2.41 Construction

The broch is constructed of large blocks of coarse-grained gneiss and granite, available from many outcrops nearby. Much of the stone appears to be slightly rounded, which might suggest the use of weathered blocks which had already been split from bedrock by natural processes. There are many smaller blocks and pinning stones, but these have probably been emplaced during consolidation and it is not certain how much small material was used in the original Iron Age construction technique.

The most striking feature of the stonework is the large triangular slab which forms the outermost lintel to the entrance passage. While relatively thin, this is still one of the heaviest blocks in the surviving fabric. It seems to have functioned as a stress-relieving device; a primitive form of arch. Similar lintels are known from several other broch sites, including Culswick in Shetland and, nearer at hand, Clachtoll in the Assynt district of Sutherland, but Dun Dornaigil's is the most perfectly formed example so far known.

Of particular interest is the way in which the footing of the broch is built out slightly over the slope which runs down to the river below, necessitating a supporting buttress of stonework below the broch's original floor level. Like the analogous work at Dun Carloway (to which Dun Dornaigil is very similar in its basal proportions) it is hard to explain this elaborate site preparation. It may be that it allowed the broch to appear higher than it actually was, especially to someone approaching from the river floodplain (which would play into narratives of brochs as high-status symbols of prestige) or that it was absolutely necessary for the broch to be built in only this one precise location, perhaps for reasons of clear vantage up and down the valley (which would play into narratives of brochs as lookout and signal points). It might be possible to test the latter suggestion by very careful map inspection and on-site survey.

[28] MacKie 2007. 622

2.42 Artists' representations

Dun Dornaigil is particularly well-served by early depictions. Pococke's 1760 sketches[29], and drawings published in 1777 by Pope[30] and 1795 by Cordiner[31], all show a structure in a considerably better state of preservation than today. Of these, Pococke's drawings have the benefit of being simple sketches rather than more worked-up images, and are probably the most accurate. Pope's illustration, by contrast, is clearly of a hypothetical, perfect structure.

From the mid-19th century onwards, drawings and, later, photographs appear at irregular intervals in travel publications, Dun Dornaigil being one of the few notable features along a newly-built and lonely road.

No instances have come to note of the use of Dun Dornaigil as the inspiration for more creative artworks.

2.5 Landscape and aesthetic values

Dun Dornaigil is a striking ruin, with its tall "fang" of masonry prominent in views up and down the valley. Its appearance in what is otherwise a rather empty landscape comes as a surprise to travellers who are not aware of its existence, and the adjacent parking area encourages many to stop.

The site can be photogenic in good – or even bad – lighting conditions, a rather brooding presence looming above the steep riverbank and the floodplain beyond. Appendix 2 contains an example.

2.6 Natural heritage values

Dun Dornaigil is bordered by unimproved acid grassland, which tends to survive as small, isolated meadows, which have not been subject to any significant degree of agricultural improvement. While Dun Dornaigil itself is not designated for the protection of species or habitats, the land which lies on the other (east) side of the adjacent road forms part of the extensive Ben Hope Site of Special Scientific Interest. This is designated for its geological interest as well as for its upland plants, though neither of these features is particularly well displayed in the immediate vicinity of the broch[32].

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[29] Pococke 1760 (published 1887), 122-3
[30] Pope 1777, fig 3 (reproduced in MacKie 2007, 669)
[31] Cordiner 1788-95, un-numbered plate (reproduced in MacKie 2007, 669)
[32] SNH website, consulted 7 August 2019

2.7 Contemporary/use values

Lacking a large local community – there is only one nearby farm – Dun Dornaigil's value for contemporary society lies to a considerable degree in its role as a point of interest, and a convenient place to pause, along what can seem a rather long journey towards the far north-west. It is valued by the wider local community as an element of the area's rich heritage.

Images of the site have been used in specialist archaeological guides and reference works. It also features in modern general guidebooks to the area. Social media site reviews are largely positive remarking on the wow-factor of the broch ruins and the stunningly beautiful and remote location.

On-site interpretation is provided by an interpretation board.

3. MAJOR GAPS IN UNDERSTANDING

There are a wide range of unanswered questions surrounding brochs in general, despite two centuries of excavation, study and theorising (see Appendix 4). Dun Dornaigil retains the potential to contribute to this ongoing discourse. In particular, its deceptively simple appearance may conceal rich archaeological potential.

Dun Dornaigil retains potential to help address the following questions:

- When were brochs first constructed, and how did they relate to pre-existing architecture and settlement patterns? At Dun Dornaigil, the apparent absence of any obvious earlier remains on site is unproven. Many researchers suspect that brochs were often built on sites which were already locally significant.
- Was the broch built by or for incomers, or was it created by the existing holders of the site? Evidence might take the form of distinct differences in the artefacts firmly associated with the broch as opposed to what came before. There is a real possibility that deposits associated with the construction and first use of the broch may still survive at Dun Dornaigil, which if true would give it a very high value in relation to addressing this question.
- How does the broch structure at Dun Dornaigil relate to the construction date and pre-construction history of other local brochs? While Dun Dornaigil is rather isolated, it appears more massive and slightly narrower than most brochs in Sutherland. The recent excavations at Clachtoll broch in Assynt (yet to be published) may shed some light on how the scattered brochs of north and west Sutherland fit into wider patterns, although this cannot be addressed without answers to the previous questions, and also dating evidence from more brochs.

- How well does what we see at Dun Dornaigil today represent what was built? While the surviving remains seem not to have been so radically altered in the course of consolidation as is the case for some brochs, caution is still required here. Nonetheless, it would be reasonable to project a complete circular structure standing at least as high as the tallest fragment which survives, although it would be hard to go beyond this to predict the exact layout of galleries, chambers and stairway. The similarity of plan suggests that a structure much like Dun Carloway, which is slightly better preserved, would be likely. It is possible that other structures survived around the broch but were later removed, along with the later settlement known to have existed nearby, 250 years ago.
- What can be said about the social and territorial organisation of those who lived at Dun Dornaigil? Much can be said, but little can be proved – an argument has been advanced that Dun Dornaigil might fit a pattern of an incoming or emerging "landlord" class in local society, but this would be hard to prove or disprove with existing archaeological techniques[33]. In more general terms, most researchers would support the existence of an elite within Iron Age society, who would have directed the activity of each group (including the building of brochs) and conducted relationships with neighbouring groups and perhaps further afield. It has been suggested that this evolved into a "chiefdom" type of society, perhaps analogous to later Highland clans, with a chief and a few senior individuals leading a "client group" bound by kinship ties, living in multiple locations across a substantial area of land.
- How did the occupants of Dun Dornaigil survive day-to-day, in terms of subsistence? We know from excavations in various locations that farming was the main source of food and probably of wealth throughout this period, although at Dun Dornaigil the role of arable farming must have been limited by natural conditions (poor soils and high rainfall) compared with broch sites on the more favoured eastern coast of Sutherland. It is likely that pastoralism and possibly hunting for wild deer were the main local sources of food, while fishing in the nearby river might have been important. Each settlement site would have had its own particular mix of resources, largely determined by its location in the landscape, and it is assumed (though not proven) that communities would have bartered food and other produce according to their strengths and needs.

More general questions remain regarding:

- The appearance of the roof and upper levels of this and other brochs.
- How those building and using the broch disposed of their dead.

[33] Cowley 1999

- The nature and appearance of the contemporary landscape and vegetation surrounding the broch.
- A more precise chronology: no scientific dates currently exist for Dun Dornaigil.

4. ASSOCIATED PROPERTIES

4.11 Associated properties managed by HES

- Mousa (broch, Shetland)
- Clickimin (broch and associated remains, Shetland)
- Jarlshof (broch and associated remains, Shetland)
- Ness of Burgi (fort, Shetland)
- Gurness (broch and associated remains, Orkney)
- Midhowe (broch and associated remains, Orkney)
- Dun Carloway (broch, Western Isles)
- Carn Liath (broch, Highland)
- Dun Beag (broch, Highland)
- Dun Telve (broch, Highland)
- Dun Troddan (broch, Highland)
- Edin's Hall (hillfort, broch and settlement, Scottish Borders)

4.12 Other associated sites

There are many brochs in eastern Sutherland and in Caithness, but relatively few in the north and west of Sutherland. Aside from Dun Dornaigil, the best example is the broch at Clachtoll in Assynt, which has recently been extensively excavated and is undergoing conservation for display under a locally-led initiative[34].

5. KEYWORDS

Dun Dornaigil, Dun Dornadilla, broch; Iron Age; intra-mural stair; guard chamber; entrance passage; lintel; Sutherland

[34] http://clachtoll.aocarchaeology.com/ accessed 7 August 2019

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Note: Footnotes throughout the text offer page numbers where appropriate. If no page number is given, this indicates that reference is being made to the general thrust of the publication cited rather than a specific point of detail.

Other Resources

Canmore ID 4891

Site Number NC44NE 3

NGR NC 45715 45010

Scheduled Monument Description:
http://portal.historicenvironment.scot/designation/SM90113

APPENDICES

APPENDIX 1: TIMELINE

Iron Age (mid)	Construction of broch (possibly 3rd or 2nd century BC).
Iron Age (mid-late)	Abandonment and decay of broch.
1760	Visit by Pococke.
1776	Visits by Pope (and Cordiner?).
?Mid 1850s	Road past site improved.
?Late 1800s	Buttress erected – not yet established by whom
1882	Site is scheduled (as the term was originally understood), being named on the Schedule to the Ancient Monuments Protection Act which was passed on 18 August 1882.
1909	Visited by RCAHMS, survey drawings published 1911.
1961	Site rescheduled as *Dun Dornadilla or Din Dornaigil, broch.*
1974	Site taken into State care under a Guardianship agreement, and consolidated (no detailed records have been located). Metal sign erected.
1990s, 2000s	New interpretation signs erected.

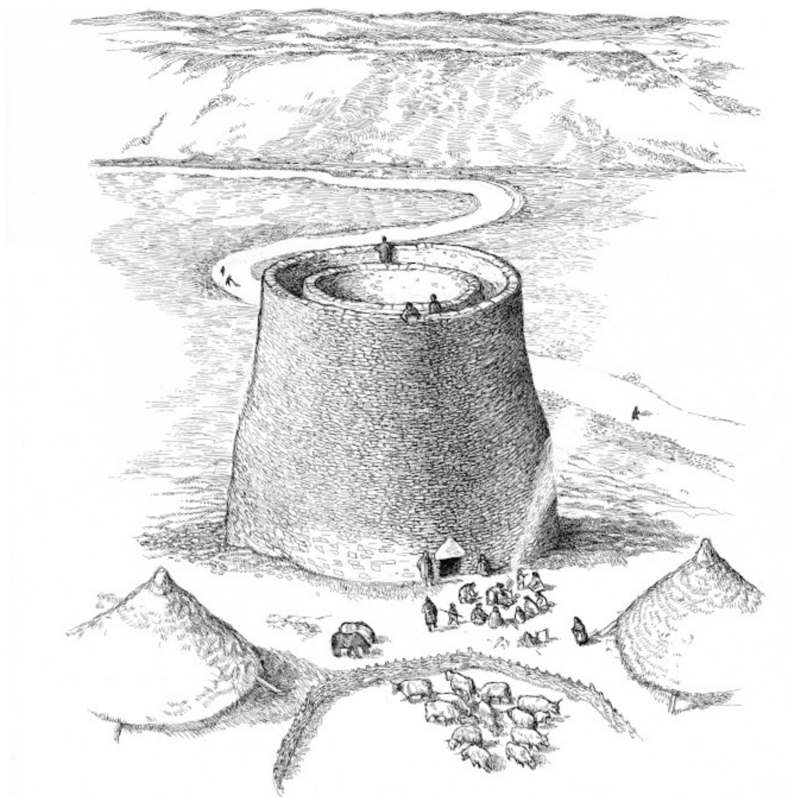
APPENDIX 2: IMAGES

1899 photo by Erskine Beveridge showing buttress already in place (note gap in buttress to allow access to wall gallery – this was later closed up).

View from roadside.

Distant view from north, showing broch overlooking river valley.

Detail of lintel and blocked entrance.



Reconstruction drawing.

APPENDIX 3: DUN DORNAIGIL, DETAILED DESCRIPTION

The broch sits above a sharp bend in the Strathmore River, at a point where the river runs at the foot of the eastern flank of the valley. It thus commands a choke-point on the route and enjoys a wide, open view across and along the flat-floored valley of Strath Hope.

The complete circuit of the lowest part of the broch wall survives, with an average external dimeter at ground level of 14.5 metres and a thickness of about 3.5 metres. The walling is largely reduced to below 2 metres tall, but the eastern part of the outer wall still reaches 6.7 metres, now supported from within by a buttress. This tall section incorporates the original entrance passage, the outer end of which is surmounted by a large triangular slab set on edge – similar slabs in this position are known in several other brochs. The fragment of tall outer wall is markedly battered – that is, it leans back from the vertical slightly more than is usual in brochs.

The entrance passage is very low, but this is partly the result of infilling in recent years, since it was just possible to crawl down it in the 19th century. The passage and the whole of the broch's interior space appear to be full of grass-covered debris to a depth of at least one metre. A single upright stone, perhaps the remains of a door-check, is visible part-way down the entrance passage, and a guard chamber is recorded as opening off the passage to the right-hand side looking in – this is no longer accessible.

It appears that the broch was solid-based – that is, its lowest two metres or so of its wall did not contain a continuous gallery. Whether or not the wall-base contained chambers accessed from the central area is not clear: a possible chamber may exist within the south-west arc of the wall. Traces of a gallery which would have run around the broch within the wall thickness can be seen at about two metres above the present ground level, in the tall-standing section.

The smooth, turf-capped appearance of the lower wall-head is relatively recent: photographs prior to the early 1980s show exposed stonework including much clearer remains of an upper gallery between the inner and outer skins of the broch wall. The stone-built slanting buttress which shores up the tall segment of outer walling is earlier than this, and its presence in photographs taken in 1899[35] suggest it was constructed in the late 19th century. When first constructed, the buttress incorporated an opening which allowed access to a chamber in the thickness of the broch wall, above the entrance passage. However, this was modified in the late 1970s, with the aperture infilled, apparently to address concerns over safety and structural stability.

[35] See e

APPENDIX 4: BROCHS: THEORIES AND INTERPRETATIONS

Defining brochs

For the purpose of this and other similar documents, the term “broch” is used to refer to what some researchers have called “fully formed” or “tower” brochs. There is no way of knowing exactly how many such structures once stood to heights approaching Mousa’s 13 metres plus, only that the visible surviving remains of many sites do not rule this out.

Dryden first attempted to define brochs in 1872:
“A broch is a circular tower formed of wall 10 to 16f thick at the base, enclosing a court from 24 to 38f diameter, with one entrance from the outside into the court. The usual thickness of wall is about 15f, and the usual diameter of the court about 28f. All were in outline truncated cones – that is, the outside of the wall “batters” or inclines inwards. The wall is also decreased in thickness towards the top by set-offs inside. The chambers of the broch proper are in the thickness of the walls, but there are usually partitions in the court of later construction. The original height of these towers of course varied, and except Mousa, we have no broch more than 20f high, but Mousa is still 40f high and was somewhat more. No mortar was used in them, but probably the chinks were stopped with moss or mud just as in modern Shetland cottages.”[36]

There have been a number of definitions over intervening years, of which, that by MacKie in 1965, refreshed in 2002, remains the most influential. MacKie offered a tight definition of brochs, to distinguish them from other drystone structures of broadly similar date. For MacKie, for a structure to be classed as a broch required five essential characteristics which must all occur in combination: (1) a circular ground-plan, (2) a thick wall, (3) large size, (4) a ledge (or scarcement) on its inside wall face and (5) at least one “hollow wall feature” from a list of four: (5a) an upper gallery (that is, a hollow wall at a level higher than the ground level), (5b) a chamber over the entrance passage, (5c) a void or voids in the inner wall-face and (5d) an intra-mural stair at an upper level.

MacKie noted that some “classic” features of brochs, such as their narrow and well-built entrance passages, occur in other types of structure. He also excluded from broch-defining characteristics the possession of a hollow wall at the ground level only, and also the possession of a stair which starts at ground level unless it rises to a much higher level.

As MacKie noted, relatively few of the c.600 sites referred to as brochs can be shown to possess this set of features, and he proposed that “probable”

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[36] Dryden 1872, 200

brochs could be defined as possessing features (1) to (4) but not demonstrably possessing any of the hollow wall features, with possible brochs having "no diagnostic features exposed but which seem likely from their situation to be brochs"[37].

The features of MacKie's "brochs" and "probable brochs" are known to be present at no more than 15 percent of the 600-plus suggested broch sites in Scotland, and there is no knowing how many of the remainder might, or might not, reveal such features on excavation. This means that Scotland is known to possess at least 80 brochs but could in fact possess many more, not to mention sites lost or destroyed over the centuries before antiquarian interest.

Stepping back from technical structural definitions, it is common practice, where a broch has proved on excavation to be surrounded by a complex of smaller structures and sometimes also by outer walls and ditches, to refer to the entire site simply as a broch – Edin's Hall falls into this category, where the broch acts as signifier for a larger and more complex site.

Brochs are unique to Scotland, and one of Scotland's few "endemic" prehistoric architectural forms. Their greatest concentration is in Orkney, Shetland, Caithness and East Sutherland, with more examples scattered rather more thinly across the Western Isles, Skye and the adjacent mainland. Edin's Hall is one of the few examples located outside the Highlands and Islands.

A brief account of broch studies

Brochs have been the subject of more research and discussion than perhaps any other type of ancient monument. It is necessary to review these antiquarian and archaeological debates in some detail, because the significance of Mousa (and other brochs in State care) lies to a considerable extent in how each site offers, or could offer, evidence in support of competing definitions of "broch-ness" and towards competing narratives about the origins, date, nature and purpose of these enigmatic sites. The outcome of a huge amount of study appears to be that very few of the key questions about brochs have been resolved, while at the same time new and even less answerable questions have been stimulated. All narratives rely to some extent on assumptions, and the most which can be hoped is that these are made explicit.

The word "broch" was being used by antiquarians alongside "brough", "burgh" and "Picts' House / Castle" by the early 1800s, and the "broch" spelling was formally adopted by the Society of Antiquaries of Scotland in the early 1870s, though older usages lingered for a generation. Initially it signified a structure which was either, like Mousa, a tall-standing tower, or which had a lower height but showed sufficient structural detail for its

[37] MacKie 2002, 1-2

similarity with surviving tall-standing examples to be asserted with confidence.

It is worth noting in passing that "broch" does not seem to have been in popular usage for this class of structure: the only pre-1800 use of "broch" was in relation to the town of Fraserburgh, where Scotland's first planned "new town" was created in the late 1500s and early 1600s, and referred to as "Fraser's broch" or "Fraser's burgh" [38], suggesting that broch was a northern synonym for burgh. The nickname Broch is still in popular use today, especially in local newspapers, where it allows for a larger typeface and more striking headlines than does Fraserburgh[39]. And in the Western Isles and wider Gaelic-speaking area, the term "broch" was not used locally, even though the Old Norse root "borg" appears as "barp"- and "borve" in many place-names. The word dùn, a generic Gaelic word for fort, was used exclusively for all man-made prehistoric sites which appeared to be of a defensive nature.

As archaeological research and fieldwork progressed, the number of "possible" broch sites has risen to about 600[40], although as time passed, the majority of sites so designated were usually no more than large grass-covered mounds of masonry of approximately the right dimensions, which in their physical appearance and siting appeared to informed observers less like a large burial cairn and more like a broch – a rather unsatisfactory approach, but one which persists in modern research.

A recent estimate is that only about 150 of 600+ "possible" broch sites show any details of built masonry at all, with about half of these, 70 or 80, either surviving as towers or showing sufficient structural evidence to suggest they could once have achieved such a height.[41] That said, when "possible" broch sites have been tested by full or partial excavation, or otherwise disturbed, they do prove more often than not to reveal features allowing them to be counted as brochs[42]. Additional "possible" sites continue to be added, and in some cases demonstrated to be brochs[43]. In summary, Scotland has at least 80 brochs, but may have many more.

It has been accepted from the early days of serious study that few other brochs had ever stood quite as tall as **Mousa** and the other partially surviving towers such as **Duns Telve**, **Troddan** and **Carloway**, though

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[38] Oram et al, 5

[39] One memorable headline from the Press and Journal, in 1980: "Broch man told lies to gain credit"

[40] Armit 2003

[41] Barber 2018

[42] E.g. Cloddie Knowe, trial trenched in 1988 (MacKie 2002 p 82)

[43] E.g. Channerwick, revealed in winter 2013/14 http://scharp.co.uk/shoredig-projects/channerwick-broch/ accessed 6 September 2018 (illustration also shows Mousa used as the archetype of a broch)

views vary radically as to just how many were towers at all. Scott in 1947 argued that only a dozen or so tall towers had ever existed across Scotland, with the rest simple solidly built low-rise farmhouses[44]. Graham immediately disputed this, based on data from Royal Commission surveys, and his view, that the majority of brochs were tall enough to be imposing, if not as lofty as Mousa, has tended to prevail since then[45].

Attempts to define “true” or “tower” brochs as distinct from a wider class of drystone forts and duns have tended to centre on the presence of specific constructional features: near-circular ground plan, hollow or galleried wall construction, single narrow entrance passage, staircase within the wall thickness, a wall thick enough to have supported a sufficient height to act as a defence, etcetera[46].

Although early commentators tended to agree that brochs were originally unroofed towers, over time, opinion has shifted to the extent that most commentators, while disagreeing about details, accept that brochs contained significant internal fittings, typically including one or more raised floors and some form of a roof, and that timber was the major component of these “now vanished” elements. However, such features are in all cases inferred, based on what makes best sense of surviving stone-built features, such as scarcement ledges. Initially, it was suggested that broch roofs were “obviously” annular, lean-to structures leaving the centre for the inner space open to the sky (for light and smoke to escape)[47]. More recently, broch reconstructions have tended to feature conical roofs sitting on the wall-head or just below it, with the weight taken by stout posts[48]. Fojut (sceptically) and most recently Romankiewicz (more optimistically) are among those who have recently published on possible roofing structures[49].

Physical evidence for such features is extremely rare amongst excavated broch sites, and even at the only two brochs where evidence of really substantial floor-set timber posts has been found, Dun Troddan (Highland)[50] and Leckie (Stirlingshire)[51], these cannot conclusively be confirmed as having been constructed at the same time as the brochs[52]. The need for caution is emphasised by the substantial post-rings found at

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[44] Scott 1947
[45] Graham 1947a and 1947b
[46] MacKie 2002, 1-2
[47] Curle 1921, 90-92
[48] For example that by Alan Braby, widely reproduced, e.g. in Armit and Fojut 1998, 15
[49] Fojut 2005b, 194-6; Romankiewicz 2016, 17-19
[50] Curle 1921, 90-92
[51] MacKie 2007, 1312-3 (see also MacKie 2016 for more detailed account)
[52] Fojut 2005b, 192-3

Buchlyvie (Stirlingshire)[53] and Càrn Liath (Highland – Sutherland)[54] which in both cases can be shown to relate to pre-broch roundhouses[55].

If all brochs were indeed fitted out in timber, this would have interesting implications for wider relationships and poses the question of how quality timber for construction was obtained by those living in relatively treeless areas such as Shetland or the Western Isles.[56] The earlier view, that brochs as first constructed were not intended to be roofed, still has adherents, who offer an alternative view of brochs as a network of defensive lookout towers built in response to the threat of raiding or invasion. Smith has recently re-opened this debate by suggesting that Mousa and some other (although not all) brochs were never intended to be roofed[57].

Broch origins

The date and antecedents of brochs have been pushed progressively earlier. The idea that brochs were built by the Danes or Vikings[58] persisted for some decades, despite the outright rejection of this idea by Scandinavian antiquarians as early as 1852[59]. The alternative view, that they were built by the native population as watch-towers against the Vikings, was also popular[60] and led to them being called "Picts' House" or "Pictish Castle". However, by the 1880s, it had become generally accepted that brochs were somewhat earlier, dating to what had come to be termed the Iron Age and constructed at a time when the Romans were actively expanding their Empire, further south[61].

As the discipline of archaeology developed, and in the absence of direct dating evidence, efforts were made to fit brochs into wider perspectives. The idea of a series of "cliff castles" along the west coast of Britain, originating in Cornwall and gradually spreading north as they increased in architectural sophistication and complexity, was proposed[62], and led to the dominance of various "diffusionist" models, in which brochs were seen as the strongholds of an incoming elite[63]. Elaborate "family trees" of Iron Age fortification across western Europe were drawn up, culminating in the broch, and these carried some influence well into the 1980s.[64]

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[53] Main 1989, 296-302
[54] Love 1989, 165
[55] In this respect, the conjectural plans offered by MacKie for Dun Carloway are perhaps unhelpful. MacKie 2007, 1204
[56] Fojut 2005b, 196-9
[57] Smith 2016, 15
[58] Fergusson 1877, 630-9
[59] Worsaae 1852, 233
[60] Stuart 1857, 191-2
[61] Anderson 1883
[62] Childe 1935
[63] Scott, 1948
[64] Hamilton 1968, 51

The discovery, in excavated broch sites, of some types of artefacts with similarities to those found in southern England and Brittany was held to support this idea, with any thought that their presence might have arisen through trade being rejected. Clarke and others warned that many of the artefact types cited were much more broadly distributed and in some cases near-ubiquitous[65] in the middle Iron Age, and could not be relied upon to demonstrate large-scale invasion. That said, most would accept that there were contacts between Iron Age communities living along the European north-western seaboard, so ideas might have been shared, and individuals may have moved from area to area.

The observation has been made that brochs are unlikely to have arisen locally in north and west Scotland because the preceding local Bronze Age seems poor, but this may well be a mis-reading of the evidence: a lack of monumental building does not necessarily imply an impoverished culture.

The fundamental problems for the immigration/invasion hypothesis as an explanation for the appearance of brochs, are (a) why the arrival of people from an area which held no structures anything like brochs should lead to their construction in their new homeland, and (b) why the limited amount of "exotic" pottery which is held to mark their arrival in the area (supposedly at Clickimin) might not have been obtained by trade or by gift exchange.

The idea that brochs were built by "warlike chieftains" to "overawe a subject population", remained popular[66], although not with all commentators. Stewart in 1956 was typically concise in this respect with regard to his homeland:
"Shetland at its best had two feudal castles, and all the local lairds of later times (very small fry *indeed) would not have added up to the fraction of her hundred brochs, so it is useless to think of a lord controlling a group of serfs… We have a form of life based on a group much larger than the family, and a communal effort to meet some unprecedented sort of danger."*[67]

The older, alternative view, that brochs were a unique local invention, began to be revived in the 1950s, notably in Shetland[68]. Broad contemporaneity with the Roman presence was still supported, but now with the added idea of brochs as refuges against slave-raiding, possibly by the Romans or by war-bands selling slaves into the Roman Empire. The persistence of immigration, if not invasion, as a stimulus was maintained, with the invention of brochs, probably in Orkney, by a "mixed"

65 Clarke 1971
66 RCAHMS 1946 (visited/written 1930), 48-55
67 Stewart 1956, 15
68 O'Neill 1954

population[69]. At the same time, the idea was revived that brochs were built over a very short period and then abandoned or converted into non-defensive structures.[70]

The period of broch construction was still assumed to be in the last century BC and the first century AD (largely on the basis of a few Roman artefacts found in and around brochs). This theory allowed for several centuries of experimentation to "perfect" the broch, wherever it first emerged in its ultimate expression as a tower, although there was a tendency to push this date a little earlier, perhaps into the second or third century BC, with an increasing preference for local invention over external inspiration. There was general agreement that brochs as well-built as Mousa came late in any sequence of structures[71].

The search for the architectural antecedents of brochs produced two competing theories. A 'western origin' school saw brochs developing from simpler D-shaped enclosures with some broch features which occur in Skye and the neighbouring mainland, and which MacKie termed semi-brochs, via the "ground galleried" brochs of the west into the "solid-based" brochs of the north[72]. A competing northern origin school of opinion saw brochs arising in Orkney or Caithness (or even in Shetland, where a small number of so-called "blockhouse forts" contain broch-like features, such as wall-base cells, stairways and scarcement ledges)[73]. Dating evidence emerged in Orkney during the early 1980s for a few thick-walled roundhouses (such as that at Bu, near Stromness, dating to 600 – 500 BC) which some claimed as forerunners to brochs[74], although these possessed few, if any, of the classic defining features of brochs.[75] Nonetheless, this led some to believe that brochs might go back as early as 600 BC[76].

Until recently there have been few secure radiocarbon dates for the actual construction of brochs, since few excavators had dug under their massive walls. Almost all dates from broch sites related to deposits within and around them, and almost by definition later than the construction of the brochs on each site – and usually later by an unknowable length of time. This changed with the dating of Dun Vulan (South Uist) from carbonised grain within the matrix of the wall. Taken with other material nearby, this suggested a construction date in the late 2nd or the 1st century BC. Slightly

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[69] Stewart 1956, 15-16
[70] Stewart 1956, 15
[71] Fojut 1981, 226-7
[72] MacKie 1992: also MacKie 2007, 1094,
[73] Lamb 1980, Fojut 1981
[74] Hedges and Bell 1980, Hedges 1987
[75] Armit 1990 p 195
[76] Fojut 1981, p 34

less securely, the construction of a broch at Upper Scalloway (Shetland) appeared to have taken place in the 1st century AD[77].

The radiocarbon dating of the construction of a fully-formed Shetland broch to the period 400 – 200 BC, at Old Scatness in southern Mainland[78], has forced a radical re-thinking of broch origins. The date, from well-stratified animal bone which was fresh at the time of its burial and lay directly under the well-built primary wall of the broch, has confirmed the growing suspicions that brochs were a considerably earlier development than had generally been supposed, at least in the north.

This has not entirely banished an attachment to the idea of immigration as a stimulus for changes in society which led to the appearance of brochs, although its continuing adherents now place the hypothetical arrival of the supposed highly skilled incomers into northern Scotland much earlier, perhaps even at the start of the local Iron Age (around 700 – 600 BC), the new date MacKie has suggested the arrival of the supposed high-status southern immigrants to Shetland[79].

The arguments for this are problematic in the extreme, due to the disturbed nature of the structures and deposits at Clickimin, which Hamilton largely failed to take into account[80]. At Clickimin, key pottery forms with internally fluted rims and sometimes black burnished exteriors, were held by both Hamilton and MacKie to mark the arrival of southern immigrants well before the broch was constructed. It was suggested as early as 1980 that these particular forms of pottery appear not before, but in fact well after, the building of the broch at Clickimin and probably elsewhere in Shetland[81].

This interpretation has now gained strong support from the extensive excavations at Old Scatness, where these pottery characteristics consistently appear from the 1st century BC onwards – long after the construction of the broch. A similar date has been ascribed to comparable pottery at Dun Vulan in South Uist. This change – which may or may not mark the arrival of incoming settlers – is therefore no longer relevant in terms of dating the first appearance of brochs, either in Shetland or in the Western Isles.

MacKie's recent suggestion that brochs were invented first in the north, possibly even in Shetland, and then later reinvented in the west[82] seems

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[77] Parker Pearson et al 1996; Sharples 1998
[78] Dockrill et al 2015, 168-171
[79] MacKie 2008
[80] Smith, 2014, 4
[81] Fojut 1989, especially 29-31 (first discussed in unpublished PhD thesis 1980)
[82] MacKie 2008, 272

improbable, and the scenario suggested by Parker Pearson and collaborators more likely[83], with the broch tower invented in the north and only spreading to (or being adopted in) the west considerably later. This is consistent with the fact that in the west brochs are fewer in number and occur interspersed with other small stone forts which were unlikely to have stood as tall. The dating evidence from Clachtoll broch in West Sutherland, currently (2018) under investigation, should shed light on this, occupying as it does what might be seen as a step on the journey from north to west (or vice versa).

Reinforced by the new dating evidence, and following detailed architectural and engineering analysis, plus his own work at Thrumster broch and other sites in Caithness, Barber has suggested that, in the north at least, "classic", "fully-formed" or "tower" brochs such as Mousa may in fact all be of relatively early date and built over a short span of time short duration ("perhaps only a single, say 35 year, generation…in the early fourth century BC"[84]), often being reduced in height not long after their construction and in some cases incorporated as the cores of more extensive settlements. This latter phase of conversion Barber sees, with many caveats, as being already underway in Caithness by 200 BC and continuing perhaps until AD 200[85].

So, while the date of origin for some brochs has been pushed earlier, there remains good evidence that some were still being built around the turn of the millennia in Shetland, and possibly built for the first time then in the west. There is also some evidence which may suggest direct contact with the 1st – 2nd century AD Roman occupying forces in central Scotland on the part of the inhabitants of Leckie in Stirlingshire, one of the "outlying" brochs which have always proved problematic to fit into the mainstream of broch theories. These have tended to be regarded as among the very last brochs to be built, and the broch at Leckie appeared to have been recently built at the time of the suggested Roman contact[86]. Edin's Hall falls into this grouping geographically, but has not so far produced demonstrably Roman artefactual material.

The wide span of dates now available suggests that the narrative which best fits the evidence is that the broch was a successful structural form which was first developed in the north, where it was quickly built in sizeable numbers.

Brochs continued to be built in the north in appropriate circumstances over several centuries, and the architectural form was adopted further afield in

[83] Parker Pearson et al 1996, 58-62
[84] John Barber pers. comm. August 2018
[85] Barber 2018
[86] MacKie 2007, 1314-5 (See MacKie 2016 for more detailed discussion)

later centuries. The artefactual evidence from Dun Vulan does not suggest the Western Isles were colonised in force from the north, being instead more consistent with limited contact. The idea that Shetland may have been taken over by Orcadian broch-builders, as floated by Stewart in 1956, similarly lacks artefactual support. But this returns us to the core of the problem; that we still have next to no excavated evidence for Iron Age culture at the point of broch building, but only from later centuries.

That is probably as much interpretation as the available evidence can currently support, and debate will continue as to exactly what the "appropriate circumstances" were which made building a broch a suitable response.

a) How special are brochs, and what was their purpose?

Many writers, including MacKie[87] and more recently Barber[88], have emphasised the combination of architectural features which they felt pointed towards what Barber has termed "canonicity" – the intention of the builders of each broch to conform to a model which was clearly defined closely resembled other such towers so far as geology would allow. MacKie posited a "professional" architect cadre[89] while Barber has recently pointed to the engineering knowledge involved in constructing so close to the physical limits of buildability[90].

Others have seen brochs simply as one end of a much wider spectrum of enclosed drystone structures which were all intended to serve the same broad purpose, presumed to be that of a defensible and impressive dwelling[91]. Armit developed the idea of the "Simple" and "Complex Atlantic Roundhouses" to emphasise similarities within a larger class of approximately circular structures[92], while Romankiewicz has since taken this further to include all thick-walled structures, regardless of plan form, which contained intra-mural spaces and could have been roofed[93], though to refer to such a wide range of structures as brochs seems unhelpful[94].

These contrasting views are interwoven with debate and with assumptions about how brochs "worked" in practical and social terms: about whether they represented the communal homes of whole communities or only of landlords or chieftains; whether they were defensive at all, or solely intended to demonstrate status[95], and also about how and when the tower

[87] MacKie 1965
[88] Barber 2018
[89] MacKie 1965
[90] Barber 2018
[91] Barrett 1981, 207-17
[92] Armit 1991
[93] Romankiewicz 2011
[94] Romankiewicz 2016
[95] Armit 2005b

form emerged: possibly early and as a brilliant stroke of creative genius, or possibly late and as the product of a gradual process of experimentation. (Although, as Barber has recently observed, the frequent use of the term “evolution” is inappropriate in a Darwinian sense – ideas may evolve but structures cannot.)[96]

Brochs and Iron Age society

A further source of continuing debate has been the nature of contemporary society, ranging from early visions of a near-feudal society with immigrant overlords and their armed warriors living in brochs and levying rent and other support from subservient native, peasant farmers[97], through one of embattled local communities seeking to defend themselves against raiders or invaders[98], to one of peaceable, hierarchical farming communities building brochs not for defence at all, but as a symbol of their possession of the land, their prestige, and safe storage of accumulated wealth in the form of surplus grain[99]. Several commentators have observed that many brochs occupy locations where large-scale arable agriculture seems unlikely to have been any more viable in the Iron Age than it would be today[100] and the assumption of grain surplus is not certain.

Almost all of the dated evidence for life in and around brochs relates to their <u>occupation</u> in primary and subsequent forms, and not to their <u>construction</u>, and this is likely to remain the case. We have no way of knowing whether society at the precise time brochs were built was similar to that in subsequent centuries, from which most of our excavated evidence derives.

The explanation for the regional distribution pattern of brochs probably lies in the nature of Iron Age ‘tribal’ groupings, but there is insufficient evidence to provide a satisfactory explanation. The types of artefact found in broch excavations also occur on non-broch sites and also beyond the so-called “Broch Province”, and brochs do not appear in some adjacent areas where physical conditions suggest they might, for example, in mid and south Argyll or Arran. In short, brochs do not align with a single distinctive “material culture”. Stuart in 1857 expressed things pithily: “there must have been something peculiar in the circumstances of the inhabitants to have given rise to these peculiar erections.”[101] We are still far from understanding what this peculiarity might have been.

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[96] Barber 2018
[97] Scott 1947, 1948
[98] O’Neill
[99] Hingley 1992, 19; Dockrill 1998, 493-7 et passim; Armit 1996, 129-130
[100] Smith 2014
[101] Stuart 1857, 192

It seems likely that each broch represents the work of a substantial community, larger than a single extended family, which controlled a distinct area of land (and perhaps sea) and that the broch represented a visible token of their possession, willingness to defend that holding, and the social status of the group or at least its leaders. People must also have continued to make their living from the land and sea, so access to resources would have been a constant concern. However, how their society was organised is not self-evident, and the unanswered question remains: what combination of circumstances led to the building of a broch?

So far as can be ascertained from excavated evidence, Iron Age society at the time of the brochs appears to have been relatively "flat"; composed of largely self-sufficient groups, which over time became associated into wider regional groupings that might loosely be termed "chiefdoms". These various groups doubtless interacted, both productively (trade, social exchange and agreed marriage) and negatively (raiding to steal livestock and perhaps to take prisoners, and even to take over territory). Brochs presumably provided enough defensibility to offer a degree of deterrence against the less desirable forms of interaction which might be expected locally, though they would not have withstood prolonged siege warfare – which in itself says much about how the builders perceived their wider world.

It is possible to imagine economic models for communities living in and around brochs, and while this might have been possible in the more favoured parts of Orkney or Caithness (both of which exported grain in late medieval times), neither the Western Isles or Shetland seem likely to have been able to support a subsistence economy founded principally on the cultivation of grain, though what grain could be produced would have been a valuable resource. Reliance on pastoralism and on the use of coastal and marine resources would have balanced such an economy more broadly, especially if exchange or barter operated between nearby communities with access to different resource bases[102].

However, the feasibility of theoretical economic models is inter-twined with the particular model of social structure which is assumed. Primitive communalism, client-elite relationships, inter-group collectivities (very close to a chiefdom society), a proto-feudal or even a full-blown feudal system have all been suggested at various times. Each would have made subtly, sometimes radically, different demands upon the resources available. The sole indisputable fact remains that each broch must have been built by a locally-available workforce, sustained by locally-available resources for at least as long as it took to build.

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[102] Fojut 1982a

Once built, brochs may well have served a variety of functions, or at least acted as bases for a mix of activities which varied widely from site to site and from time to time. Some brochs went on to become the cores of more extensive settlements, while others seem to have been abandoned not long after they were constructed. Many brochs undoubtedly served as farmhouses in later years, but whether any brochs were built primarily as farmhouses is likely to remain an open question. It is hard to escape the impression, especially when standing next to a broch such as Mousa or Dun Carloway, that brochs were originally defensive, if only in that they were intended to offer outward vantage, impress the viewer and suggest the invulnerability of their possessors, and that thoughts of agrarian domesticity were not paramount in their builders' minds. On the other hand, the broch at Edin's Hall gives much more of an impression of having been influenced by broch architecture but remaining rooted in a different tradition of very large wooden roundhouses – though if Edin's Hall's "broch" was roofed, which has been doubted, it would have been one of the largest roundhouses ever identified in northern Britain.

Conclusion

In conclusion, despite two centuries of study, most of the basic facts about brochs, beyond physical measurements of surviving structures, remain conjectural, with interpretations usually based upon a very small sample of evidence, selectively interpreted, fitted to "off-the-shelf" social models. The revision of explanatory narratives will continue as new evidence emerges and as old evidence is reviewed: every few years brings another brave attempt to present a unified and coherent account of the issues discussed here[103] [104] [105] only to see each effort, rather than unifying the field of study, simply add fresh fuel to debate.

It remains true, as Stewart sagely remarked in 1956, that "it is easier to guess why the broch came into being than how"[106]. But neither question has yet been answered conclusively.

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[103] Hedges and Bell 1980
[104] Armit 2003
[105] Most recently, Romankiewicz 2016.
[106] Stewart 1956, 21