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STATEMENT OF SIGNIFICANCE

MID HOWE BROCH (MIDHOWE BROCH)

We continually revise our Statements of Significance, so they may vary in length, format and level of detail. While every effort is made to keep them up to date, they should not be considered a definitive or final assessment of our properties.

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HISTORIC ENVIRONMENT SCOTLAND
STATEMENT OF SIGNIFICANCE

MID HOWE (Midhowe) BROCH

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1 Summary

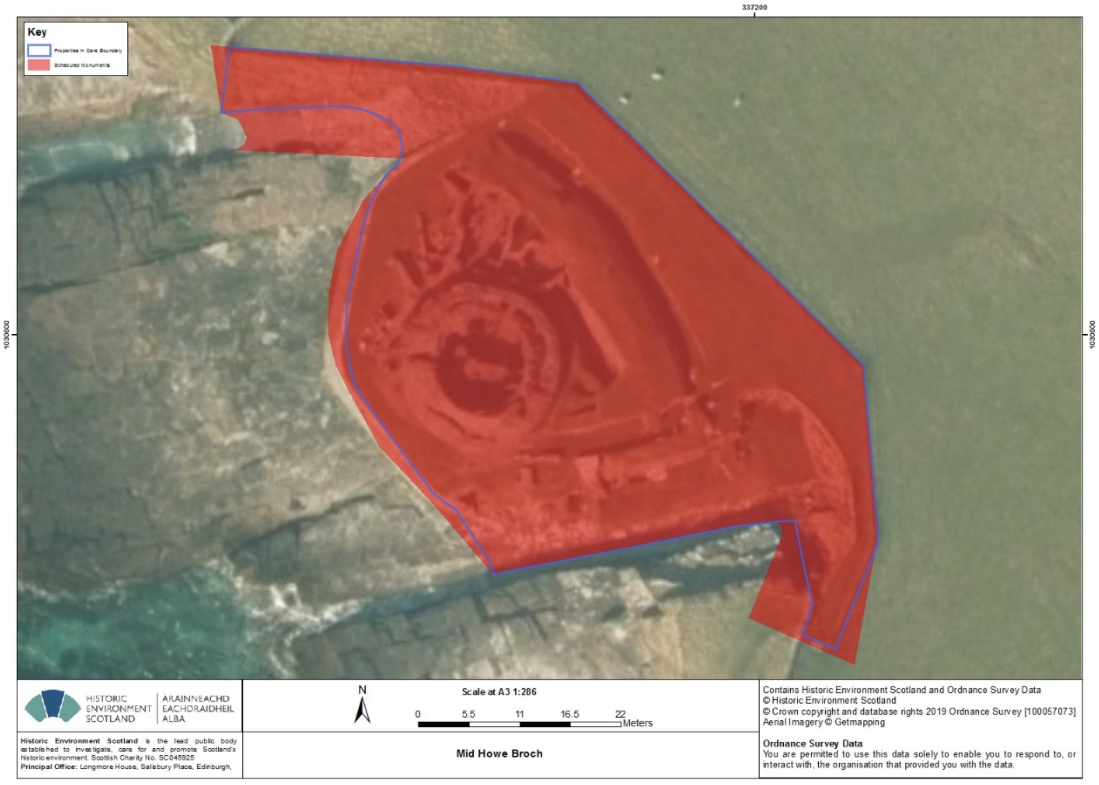
1.1 Introduction

Midhowe Broch is an Iron Age monument on Rousay, Orkney, comprising the substantial remains of a broch surrounded by a cluster of smaller buildings, all standing on a small promontory and protected on the landward side by a thick wall and ditches. The site looks out to the south and west, across the sea at the western end of Eynhallow Sound, which has a notable concentration of broch sites along its shorelines.

Following excavation, the site was taken into State care in 1934 under a Guardianship agreement. It was named in the Minute of Agreement as ***Mid Howe*** Broch, however the site is generally known as ***Midhowe*** Broch. The current signage and interpretation follow this latter convention: this Statement also refers to the site as Midhowe Broch.

The site is accessed by a steep downhill walk from a small parking area, or by a longer but less steep walk along the shore from the south-east. The same routes provide access to the nearby **Midhowe chambered cairn**. Both sites are unstaffed and free to access year-round.

(Note: this statement uses “broch” to refer only to the central circular structure, and “site” when referring to the overall assemblage of structures.)



Midhowe Broch Scheduled area and PIC Boundary, for illustrative purposes only. For more images see Appendix 2.

1.2 Statement of significance

Midhowe is of national importance as one of the first Iron Age sites in northern Scotland to be comprehensively excavated with promptly published findings.

Though usually referred to “Midhowe Broch”, the remains on site are more extensive than the broch itself. The inter-relationship of the various structural elements has the potential to be of great importance for Iron Age studies, but certain aspects of the construction sequence cannot be firmly established on present evidence.

Brochs are unique to Scotland, and are typified by a circular ground plan with massive drystone-built walls capable of rising to tower-like heights – although in the case of Midhowe Broch, that height has been reduced to about 4.3 metres. Intra-mural passages or galleries, stairways and chambers also characterise brochs, and these features at Midhowe Broch survive in particularly interesting forms. Brochs began to be constructed (on current evidence) at a date between 400 and 200 BC.

No direct evidence has emerged so far to place a firm date on the original construction of Midhowe, although artefactual finds support a building date no later than the first century AD for the broch itself. It has been suggested that the landward ditch and wall (usually called the “forework”) may have an earlier origin than the broch and other structures: this is debatable.

Within the broch’s interior is a deep rock-cut tank, and also elaborate stone-built partitions and other features which are clearly secondary to the broch’s construction. The level area outside the broch contains the remains of at least six smaller structures. These are usually described as houses, though they may also have served other purposes: one at least was used as a workshop for metalworking in bronze and iron. These buildings are demonstrably later than the broch and, in their final form at least, are also later than the inner ditch and the forework: how much later is not clear in either case.

Important artefactual evidence from the site includes fragments of Roman pottery (both Samian and coarse ware) and of what appears to be a Roman bronze *patera* or ladle. These indicate contacts with the wider world in the centuries after the broch was built. There is also evidence for bronze casting and iron working, including unexcavated deposits.

The circumstances of the excavation, conducted in the 1930s, were typical for that period; essentially by one workman overseen by the local landowner and by a visiting professional archaeologist. The prompt publication of a detailed report was in marked contrast to the comparable though more complex site of Gurness, which was being excavated at the same time, with the result that there has been much less subsequent debate about the sequence of construction and occupation at Midhowe Broch.

Key aspects of Midhowe Broch's significance include the following:

- The exceptionally high quality of the masonry, and in particular the structural use of large flagstones – made possible by the good quality of stone available locally as well as by the builders' skills. This has contributed to the survival of many details of architecture which are not represented on the majority of Iron Age sites elsewhere. (Though it must be borne in mind that much of what is visible has been heavily consolidated and in places rebuilt.)
- The site's unusual plan and layout – the ditches and massive forework across the neck of the promontory are amongst the most substantial examples so far discovered in association with any broch. (It has been suggested that these features may pre-date the broch, but this is not demonstrable on present evidence.)
- The relatively clear sequence of construction of other key elements of the site.
- The architectural details of the broch tower itself, which suggest it may be an early example, at least for Orkney.
- The smaller Iron Age houses around the broch, although quite a common feature of broch sites in Orkney and Caithness, are among the few examples currently accessible to visitors.
- The artefactual evidence for Iron Age metalworking in one of the structures outside the broch, and also for contact with the Roman world: the small building which was modified in the Iron Age for metal-working is the only such example on public view in Scotland, and significant unexcavated deposits associated with this activity survive.
- The importance of the remains as they survive, and the potential for further exploration to add useful evidence bearing on its construction, occupation and modification over time. Recent geophysical survey of the fields around Midhowe Broch have revealed complex traces of structures of unknown character, emphasising the high potential for further discoveries to be made.
- The site's contribution to the field of broch-studies and the Iron Age. For instance, its context, siting and relationship to other archaeological and landscape features can be compared to other sites of similar period (especially as there are several other brochs nearby, two within less than a kilometre), the degree to which it typifies, or is exceptional to, the generality of broch sites (noting the broch's remarkable similarity in plan to that at Gurness); and how it has been referenced in developing theories of Iron Age architecture, society and economy.
- The site's importance as a landmark in the development of Scottish archaeology at a time when excavation was about to cease as a private pastime of the well-to-do, and become a public responsibility, and for the unusually generous recognition given to the paid workforce by the professional director and the sponsor.
- The site's subsequent history of use and presentation as an Ancient Monument.

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 a detailed description of Midhowe Broch at Appendix 3 and an overview of broch theory and interpretation at Appendix 4.

2 Assessment of Values

2.1 Background

2.11 Brochs and "broch villages"

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. For the purpose of this document, the term "broch" is used to refer to what some researchers have called "fully formed" or "tower" brochs.

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, single narrow entrance passage, staircase within the wall thickness, stacked voids, tower form). Dating evidence is scarce, and most reliable dates relate to periods of occupation rather than necessarily of construction. However, recent radiocarbon dates from sites in South Uist and Shetland (sampled within walls or under the structure) indicate construction some time before 100 BC and between 200 and 400 BC respectively.[1] So far, there are no precise broch construction dates from Orkney, but indirect evidence suggests that some brochs (probably including Midhowe Broch) were standing at least as early as the first century BC, and perhaps earlier.

Brochs are unique to Scotland, and are one of Scotland's few endemic prehistoric architectural forms. Their remains occur most frequently in the north and west, rarely in the south. It is not known how many brochs were built, as 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 sites vary. It is generally agreed that about 80 sites currently identified meet the definition for broch used here, though there may be many more which might yet be proven, if sufficiently investigated.

In some areas, brochs are frequently found to be surrounded by significant external areas of settlement in the form of small houses, often termed "broch villages". This phenomenon is at its most marked in Orkney and eastern Caithness, with two examples in southern Shetland. Elsewhere, such villages seem to be rare, with any external structures confined to just one or two small

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

houses. Midhowe Broch displays remains of at least six such houses, and may have lost more to marine erosion since the Iron Age.

In some cases, the sites of brochs (with or without external villages) are bounded by defensive enclosures. The external defences at Midhowe Broch, consisting of a broad stone-faced wall or "forework" flanked by narrow, deep rock-cut ditches which cut almost completely across the neck of the promontory on which the broch stands, are among the most impressive of any broch site. It has been suggested they pre-date the broch and represent a pre-existing promontory fort, but this is not proven[2].

There are 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.

2.12 Descriptive overview

Midhowe Broch is set on a small promontory above low cliffs on the south-west coast of Rousay, and overlooks the waters of Eynhallow Sound, which separates it from the main island (Mainland) of Orkney. There are at least 10 brochs along the shores of the Sound, several of which, including the **Broch of Gurness**, are visible from Midhowe Broch.

The seaward side of the site has been affected by coastal erosion. This has removed an unknown extent of the site.

The principal elements of the site are as follows (see Appendix 3 for detailed description):

- A massive "forework", a rampart faced in drystone masonry and flanked by two rock-cut ditches, almost cuts off the neck of the promontory, apart from an entrance-way at its southern end which gives access to the interior of the enclosed space.
- A circular broch, which probably stood much taller than it does today, with internal stone-built features. There is evidence that the broch suffered from structural instability, probably not long after it was built, and was later reduced in height.
- A deep underground tank or "well" within the broch.
- A cluster of at least six smaller buildings which occupy most of the level area immediately around the broch: these abut against each other and are clearly later than the broch: some at least are also later than the forework and its inner ditch. At least one of these structures served as a smithy for metalworking in both bronze and iron.

There are a number of details of particular interest at Midhowe Broch: these include a number of pivot stones in situ beside doorways, finely-built stone "furniture" within the broch and outer buildings, in situ deposits of ash

[2] Atlas of Hillforts, SC2846

associated with the smithy. Built into the stonework are two cup-marked stones which are probably of earlier date than anything else visible on the site.

2.13 Excavation and structural consolidation

Midhowe Broch was the middle of three neighbouring mounds, long believed to be brochs[3]. The others were North Howe and South Howe[4]. South Howe has undergone marine erosion, exposing remains consistent with a broch, while North Howe, which is very substantial, remains unexcavated.

In the early summer of 1929, the broch at **Gurness** had been accidentally discovered, stimulating keen interest throughout Orkney. Walter G. Grant of Trumland, the wealthy landowner of much of Rousay, had become a keen antiquarian and was already excavating elsewhere on the island[5], and decided to undertake a broch excavation of his own. In July 1929 the ever-energetic James S. Richardson, Inspector of Ancient Monuments at the Office of Works, visited Rousay and discussed possibilities with Grant. Together they selected Midhowe Broch. (Records have not been located detailing why they chose that particular site rather than, say, North Howe, but it was probably influenced by the evidence of coastal erosion at Midhowe Broch.) Grant arranged for trial excavation later that summer, to confirm that Midhowe Broch was indeed a broch.[6]

Conscious of his technical limitations, Grant arranged with J. Graham Callander, Director of the National Museum of Antiquities of Scotland in Edinburgh, that Callander would act as co-director for the project[7]. Grant personally funded the entire project, as he was to fund many subsequent excavations in Rousay, paying for locally recruited-labour. He actively participated in the work, although his local labourer(s) seem to have done most of the heavy lifting (see Section 2.3 below).

In 1933, at the close of the final season of work, Callander wrote to *The Scotsman* newspaper:

> "It is many years since an excavation on such a large scale as this has been attempted of a prehistoric site in Scotland by a private individual and so Mr Grant has earned the cordial thanks of all interested in Scottish archaeology..."[8]

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[3] It is not entirely clear if Midhowe was recognised in Petrie's seminal paper of 1866; his broch number 44 "opposite Burgar" could equally well be North Howe

[4] South Howe is not named on Ordnance Survey maps, being marked simply as "Broch" – locally it is referred to both as South Howe and as Brough.

[5] It is believed that Grant's interest was stimulated by the visit to Rousay in 1928 of J. M. Corrie of RCAHMS, and Grant was later to contribute much of the content for the RCAHMS Inventory for Orkney, which was completed in 1936, printed in 1939 but not published until after the War, in 1946.

[6] Reynolds and Ritchie 1985, 67-8

[7] Grant may originally have approached James Hewat Craw, who was about to direct the excavation at Gurness, but Craw declined. In 1932 Craw did come to Midhowe, to excavate with Grant at the nearby Midhowe chambered cairn, completed just before Craw's sudden death in August 1933.

[8] *The Scotsman*, 13 April 1933, quoted in Reynolds and Ritchie 1985

The excavation report stated that:

> "The time taken to excavate the broch lasted for five consecutive summers and a few winter months, and practically the whole work of clearing out the structures was done by Mr. James K. Yorston. It has been computed that he wheeled out from fifteen hundred to two thousand tons of fallen stone and debris. We should like to express our great appreciation of the careful way in which he carried out the work."[9]

The wording of the above paragraph (and perhaps the choice of Callander as co-director) hints at the nature of the excavation: the objective was to remove debris and loose stone to reveal the structures and to retrieve artefacts for study. Little regard was had to stratigraphy, though the location of finds was noted, usually along with whether particular finds came from "low" or "high" within the fill of the structures within which they were found. Recording was largely by measured pencil drawing, supplemented by photography. This was no different from other excavations in Scotland at this period, and Midhowe Broch was, if anything, one of the better-dug and recorded examples, being further distinguished by the detailed and prompt report of the findings, which was published immediately after work ceased. Gurness, by contrast, was to remain substantively unpublished for two generations.

Four seasons of excavation took place at Midhowe Broch, Callander travelling north each summer while Grant supervised additional work in the winter months, including consolidation. By the end of 1933, they were in a position to offer a detailed report, which was read by Callander to the Society of Antiquaries of Scotland in Edinburgh on 12 December 1933, just a few months after the excavations ended. The days when excavations were followed by years of study and laboratory analysis of artefacts and deposits were still in the distant future!

The report was not a sequential account of the excavations, but dealt with the site area-by-area, attempting to tease out the sequence of construction, modification and abandonment. The finds were discussed in some detail, and were used in combination with structural evidence to establish relative sequences for different parts of the site, which were then assembled into a proposed overall sequence. The excavators were open about the impossibility of providing absolute dates, and about ambiguities, uncertainties and possible alternative explanations.

Compared with most reports of this period, the Midhowe Broch excavation report has stood the test of time remarkably well. Apart from some minor re-interpretation of details, principally concerning the details of the post-construction history of the broch tower[10], subsequent commentators have continued to subscribe to the proposed sequence[11]. To that extent, Midhowe

[9] Callander and Grant 1934, 513.
[10] MacKie 2002 offers useful suggestions on the likely history of the broch tower
[11] Hedges 1987 accepts the Midhowe sequence with little criticism, but proposes a radically different one for Gurness

Broch serves as a useful comparator for more recent broch excavations, and is probably a more useful one than Gurness, where there is continuing debate about the construction sequence.

It was Grant's intention from the start that the site should be preserved and displayed: this inevitably informed some choices about what to remove and what to leave undisturbed. In 1933, Grant formally offered the excavated site to the nation although, given Richardson's role in Grant's initial decision to excavate, it can safely be assumed that this course of action had been agreed in principle in 1929-30. Richardson's enthusiastic endorsement survives in the Ministry of Works file:

> "…not only has Yorston cleared the interior of the broch and excavated the labyrinth of secondary buildings between the outer rampart and the main tower, but he has also consolidated part of the structure in a sympathetic manner quite equal to the best of our own work. Mr Grant has spent a very considerable sum on the undertaking and he has also born the expense of having the monument carefully surveyed."[12]

Midhowe Broch was duly taken into State care under a Guardianship agreement in 1934 and its consolidation rapidly completed by the workmen of the Office of Works under the general supervision of Richardson. Surviving photographs show how comprehensively some of the walling was rebuilt, but written records of such work were always sparse, and, so far as can be established, very little written material has survived.

Following the extensive works of the 1930s, subsequent consolidation of the site has been largely restricted to keeping the stonework in good condition and repairing occasional damage and minor erosion.

In the latter half of the twentieth century, measured survey and photographic recording took place on several occasions, in support of site management and interpretation activities, and a generous selection of documentation is available, mainly in the collections of Historic Environment Scotland, the modern successor to the Office of Works.

There is the intention for the entire structure to be recorded by laser scanning combined with high-quality photographic coverage as part of the Rae Project, providing an objective digital record which will underpin future consolidation work.

2.2 Evidential values

The evidential value of Midhowe Broch is exceptionally high for what its constructional details, physical fabric, location and setting can tell us about the Iron Age and later periods, for the important range of artefacts recovered during excavation, and for its potential to yield further information through ongoing research, including through excavation of surviving deposits.

[12] Scottish Record Office MW/1/733, 5 November 1933, quoted in Reynolds and Ritchie 1985.

It is evident that the consolidation and laying out of the site has involved significant changes. Yet its overall appearance retains an air of authenticity and its landscape setting remains largely unaffected. In so far as Midhowe Broch has been reconstructed *as a monument*, it is clear that the character of the stonework has been significantly changed, including by the use of mortar in the 1930s to secure rebuilt walls which were originally of drystone construction. It is clear that much of the walling and many of the upright slab features have been rebuilt.

However, the site's overall appearance seems to be less radically altered than is the case at comparable sites, especially Gurness. Photographic evidence of the 1930s suggests that Midhowe Broch was exceptionally well-built, and its present-day appearance is therefore not too far removed from the original. Midhowe chief significance lies in what the site, even in its heavily excavated and consolidated state, demonstrates about the plan and form of brochs and about the clusters of structures which sometimes surround them. This is discussed below (2.4 Architectural values).

The landscape setting of the site is also of considerable importance: the shores of Eynhallow Sound hold one of the densest concentrations of brochs, which is of importance for considerations of how brochs (and the communities associated with them) related to each other and to their natural environment. Even within this grouping, Midhowe Broch stands out, as the middle one of three brochs sited within little more than half a kilometre. Any theories about the purpose and date of brochs have to accommodate such a close spacing, especially as all three brochs are clearly not isolated towers but have evidence of other structures around them and were therefore probably long-lived settlement sites.

While the 1930s excavations removed much, we do not know the full extent of these excavations and undisturbed Iron Age deposits are known to survive in several areas, including the inside of the broch, where it appears that the excavators did not clear down to the natural ground surface. Archaeological deposits may also survive within the blocked broch wall gallery, within the ditch fills, in the interiors of the houses and the spaces between them. Likewise, there may be deposits buried beneath the walls of the upstanding, consolidated, structures, though accessing these would require the removal of parts of these structures, which would be a questionable strategy given that such deposits might well be preserved in a very patchy manner and would therefore pose problems of interpretation.

The site also offers high potential for further excavation and for the use of other investigation techniques, which might provide additional knowledge about the site, its sequence and its Iron Age and later context, including insights into changing environmental conditions and land-use over time.

The potential for the surrounding area (beyond that in State care) to produce new evidence by these means has been demonstrated by recent geophysical survey and trial excavation work in the field to the north-east, which have

made it even clearer that the broch is set within a rich archaeological landscape which extends between the sites visible on the surface[13].

The areas of greatest archaeological sensitivity are likely to be:

- Within the broch: (a) the area below floor level and (b) the floors of the stone-packed wall-gallery.
- Beneath the wall of the broch, which appears to be of large stones forming a basal course or plinth, but without any foundation trench.
- Beneath the forework: the relative order of construction of the broch and the forework remains to be resolved.
- Within the ditches, especially below the houses which are built out over a substantial stretch of infilled ditch. (The lower fill of the ditches produced evidence for bronze-working in the form of casting moulds during the 1930s excavations.)
- In the entire area around the site, beyond that in State care.

There have been a number of recent excavations at broch sites in Orkney but only one, Howe near Stromness, has so far led to published evidence (albeit indirect) bearing upon the date of construction of an Orcadian broch – in this case most probably in the late second century or early 1st centuries BC[14]. That is the same broad date suggested for the broch at Gurness on the basis of artefactual finds, and Gurness's broch is very similar in plan to the broch at Midhowe Broch, so the two may be of similar date. However, at Midhowe Broch the few Roman finds found within the broch are less securely stratified and less diagnostic of date, so that the Midhowe Broch can only be assigned to a date of the first century AD or earlier: it could well be much earlier. So far, the evidence from Orkney does not rule out the idea that all the brochs there may have been constructed over a relatively short period, but exact dates remain elusive.

Unlike some other broch and non-broch Iron Age sites in Orkney, notably Howe, Midhowe Broch appears to have been founded on a clear site without pre-broch structures. This remains unproven: given the close proximity of a major Neolithic chambered cairn, it seems unlikely that the site of the broch was absolutely undisturbed by the time of the Iron Age.

A number of excavations have demonstrated that Orkney held thick-walled sub-circular structures much earlier in the Iron Age, so when the elaborate architectural features of the broch towers were developed, their construction could draw upon long experience of building solid stone roundhouses[15].

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[13] Dockrill et al, 2010

[14] Ballin Smith 1994, 37

[15] Sites at Howe near Stromness, Pierowall Quarry in Westray, Quanterness near Kirkwall and most recently Swandro in Rousay all have thick-walled early Iron Age roundhouses set into the remains of chambered cairns. The only example known outside Orkney is Clettraval in North Uist (Western Isles).

The location of Midhowe Broch can also offer some evidence towards understanding its original purpose. It is set on the coast, overlooking the strait which divides Orkney Mainland from Rousay. It would have been clearly visible to anyone approaching by sea. It sits within an area of land which would have been suitable for arable cultivation, and is some of the best land locally available, with close access to moorland for rough grazing. Assuming the use of local marine resources was important, Midhowe Broch was ideally situated to access these, although the strong tidal currents offshore would have placed a premium on local knowledge (and might have deterred unwanted visitors arriving by sea).

Midhowe Broch is close to several other broch sites on Rousay and inter-visible with more across the waters of Eynhallow Sound. This is one of the areas where the idea of brochs forming a defensive chain seems most plausible, though Midhowe Broch is itself so close to its neighbours that signalling by fire or smoke would be unnecessary: a loud shout would carry easily from site to site, except in adverse winds.

Finally, away from the site itself, it is important to stress the value of the surviving artefactual evidence, which is stored (and partly displayed) by the National Museum of Scotland[16]. While most of the material is not well-contexted, there would still be much to be gained from thorough re-examination of this using modern scientific techniques[17].

2.3 Historical values

The primary historical importance of prehistoric sites such as Midhowe Broch is their ability to illustrate the capabilities of prehistoric society and to help in constructing narratives about life in the Iron Age. In addition, the near-contemporary reporting of work at Midhowe Broch offers a fascinating insight into social as well as technical aspects of archaeological practice in the 1930s.

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 know little for certain about who built these structures or for what purpose (or purposes: it is possible not every broch was built with identical intentions). 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 about brochs, and for many purposes, data from a large number of sites is necessary.

[16] The catalogue can be searched at: www.nms.ac.uk/explore-our-collections/search-our-collections/

[17] As one example, the analysis of the cattle remains would merit re-examination in the light of eight decades of subsequent research: Midhowe was one of the first Scottish excavation reports to consider the faunal remains as well as the artefactual, albeit in fairly cursory fashion. Environmental aspects nowadays will typically occupy up to half of excavation reports.

The structures around the broch at Midhowe Broch appear more readily comprehensible, but even their classification as dwelling places is not without reservations: one at least served for a time as a metal-workers workshop, for the casting of bronze and also iron-making, and others may have been for storage rather than habitation. Likewise, the idea that the forework and its ditches are solely for defence is not the only possibility: they might have been built to enclose a special (or sacred) space, and have functioned as much symbolically as physically. This thought might offer a link to the underground chamber or '"well"' within the broch which, while less elaborate than that at Gurness and some other sites, may have played a part in ritual. Unlike the equivalent structure at Gurness, the Midhowe Broch example seems unlikely to have pre-dated the broch's construction[18].

Our understanding of the nature of the society and circumstance that gave rise to Midhowe Broch, and caused its layout to change over time, is largely conjectural. So far as can be gleaned from excavated finds, the material culture of Midhowe Broch does not stand out strongly from the generality of finds in other Iron Age sites in Orkney: the abundance of relatively plain pottery, the evidence for metal-working and the survival of bone tools including combs used in weaving are all typical, as is the small number of exotic objects, including fragments of pottery from the Roman world.

The particular classes of find from those brochs like Midhowe Broch, which stood within clusters of other structures, are not distinct from those found at brochs which stood isolated. There are, however, hints from some sites of dietary differences, suggesting that, on "village" sites, those who left their rubbish inside brochs had a richer diet, with more meat from large animals and a greater use of pig meat. These may reflect social differentiations original to the founders of each settlement, or they may have emerged over time: the evidence we have is in almost every case for periods *after* the broch at the centre of each village was already standing.

Recent work[19] analysing the resources needed for broch construction suggests that each broch represents the work of a substantial workforce over a short period of time, probably somewhat larger than a single extended family or local community might afford. It is generally agreed that brochs (and some other enclosed constructions), were created in a social context in which two factors were significant: defensibility and impressiveness. Even in its reduced state, the broch at Midhowe Broch is still impressive, and while defensible, especially with the forework and ditches, it seems unlikely that it could have withstood a prolonged siege: it is thought that warfare during the Iron Age consisted of small-scale raiding rather than extended campaigns.

Stuart in 1857 expressed things pithily when considering the stimulus behind the building of brochs: "there must have been something peculiar in the circumstances of the inhabitants to have given rise to these peculiar

[18] Armit 2003, 108-11 outlines the case for the ritual significance of these elaborate underground constructions, which often seem unconvincing as everyday water sources.
[19] Barber 2018

erections."[20] We are still far from understanding what this peculiarity might have been. It is entirely possible that there was some short-lived phenomenon which led to the rapid building of many brochs over a relatively short period of time, only for them to become redundant thereafter. It may also be, that despite their relatively uniform architecture, not all brochs were intended to serve the same purpose. In which case there may be no single solution to the question of what brochs were for.

Midhowe Broch's story is not just that of the broch. The fact that the site was occupied for several centuries – with its little cluster of dwellings and workshops growing around the broch even as it fell slowly into disrepair – used to be thought to indicate that the site was particularly favoured, but this may be deceptive. More recent excavations in Orkney have tended to suggest that most Orcadian brochs have external buildings, though the number of these varies greatly. In short, Midhowe Broch may be more typical than has been supposed – which would add to its power to represent the normality of middle Iron Age settlement, in comparison with the more extensive and complex Gurness.

Lastly, and not negligibly, Midhowe Broch is a dot on the map of known brochs and other Iron Age settlements, and the distribution patterns to which it contributes, in relation to other sites of similar date and to the wider landscape, have considerable potential to contribute to explanatory narratives which seek to understand the nature and function(s) of brochs and of the society in which they were built and how this changed over time.

Walter Grant and James Yorston – a remarkable collaboration
At the cost of repeating some of the content above, the contemporary accounts of the excavation tell an interesting social story about human relationships.

Walter Grant (whose wealth came from family holdings in the whisky industry, including Highland Park) owned much of Rousay, his summer home being at Trumland House. As well as funding the entire project, he actively participated in the work at Midhowe Broch, alongside Callander and also working closely with local man James K. Yorston, whom Grant employed to undertake the hard, physical labour of digging. (Grant also engaged a particularly skilled draughtsman/surveyor, David Wilson.)

Both Yorston and Wilson went on to work on Grant's other archaeological projects[21], and Yorston's son also joined the workforce, probably in 1932 at Midhowe chambered cairn. Grant appears to have maintained an unusually

[20] Stuart 1857, 192
[21] The Orkney Library and Archive hold detailed measured drawings and watercolours by Wilson from the 11 Rousay sites excavated by Walter Grant.

egalitarian relationship with Yorston senior, and later with his son, also James K. Yorston.[22]

As noted above, in 1933, Callander wrote in *The Scotsman* newspaper:
"It is many years since an excavation on such a large scale as this has been attempted of a prehistoric site in Scotland by a private individual and so Mr Grant has earned the cordial thanks of all interested in Scottish archaeology."
Callander's article then continued:
"He and his assistant Mr J. Yorston are to be heartily congratulated on the patience and skill shown in their work…"[23]

While tribute to the landowner and sponsor was only to be expected, the mention of Yorston was remarkable. At this date, and for decades to come, paid labourers on excavation sites remained anonymous in reports, if not invisible. The scale of Yorston's labours was also reflected in Callander and Grant's excavation report, already cited above and repeated here:
"The time taken to excavate the broch lasted for five consecutive summers and a few winter months, and practically the whole work of clearing out the structures was done by Mr. James K. Yorston. It has been computed that he wheeled out from fifteen hundred to two thousand tons of fallen stone and debris. We should like to express our great appreciation of the careful way in which he carried out the work."[24]

In the same year, 1933, Yorston senior was elected a Corresponding Member of the Society of Antiquaries of Scotland. At that date, the Society's Fellows were professionals or men[25] of independent means. While not carrying the status of Fellow, Corresponding Membership was still an unusual recognition to be accorded an "ordinary" working man in what was very much an (upper) middle-class organisation. This type of membership was primarily intended for scholars who lived overseas. It was also free, whereas Fellowship cost two guineas entry fee and one guinea a year subscription. Orkney-based Yorston could not have attended meetings and lectures in Edinburgh, so would have gained little benefit from full Fellowship, even had this been offered to him. When Grant formally offered the excavated site to the nation, it is worth noting that Richardson's endorsement actually prefaced his comments on Grant's generosity by his appreciation of Yorston's work:
"…not only has Yorston cleared the interior of the broch and excavated the labyrinth of secondary buildings between the outer rampart and the main tower, but he has also consolidated part of the structure in a sympathetic

[22] Photographs of the Yorstons have survived: http://rousayremembered.com/hullion-post-office/4593519889 (accessed 6 February 2019) – this source quotes verbatim from Reynolds and Ritchie and adds additional family information.
[23] *The Scotsman*, 13 April 1933, quoted in Reynolds and Ritchie 1985
[24] Callander and Grant 1934, 513.
[25] At this date (and for years to come) women were allowed only as Lady Associates, on similar terms to Corresponding Members. There was a limit of 25 Lady Associates: in 1933 there appears to have been only one.

manner quite equal to the best of our own work. Mr Grant has spent a very considerable sum…"[26]

It seems likely, but has not yet been firmly established, that when Midhowe Broch was duly taken into State care under a Guardianship agreement in 1934, Yorston may have been seconded to the team of workmen from the Office of Works working under the general supervision of Richardson. Even if he did not, it seems likely he offered on-site advice and probably helped facilitate arrangements for the visiting workmen.[27]

Archaeologists of the period relied heavily upon hired workmen and estate workers: few received any recognition in print, and the warmth of references to Yorston's energy and skills are quite exceptional. The harmonious co-operation at Midhowe Broch, among the landowner as sponsor, professional archaeologists, hired workers and the national authorities was in marked contrast to the story a few years later of the Sutton Hoo burials in Suffolk, England, where a broadly similar cast became entangled in acrimonious dispute in 1939 – in this regard, perhaps Midhowe Broch was fortunate not to have produced the artefactual "treasures" of Sutton Hoo.[28]

2.4 Architectural and artistic values

The details of broch architecture have been much studied and discussed (see Appendix 4 for an extended account).

The origin and emergence of the broch, with its distinctive architectural features, have long provoked strongly polarised debate; principally between those who argue for a long, gradual process of experimentation across a wide range of structural types culminating in tower brochs, and those who argue for the appearance of the tower broch as an act of creative inspiration. There is an ongoing debate between those who see brochs emerging in the north and those who see them emerging in the west, with the north probably in the ascendant at present.

Orkney has produced a number of very solidly walled round houses with early Iron Age dates which may have played a role in the genesis of the broch idea. The features which brochs share with other types of structure, such as blockhouses (in Shetland) and galleried duns (in western Scotland) have been regarded by some as ancestral stages towards the broch tower, and by others as later borrowings from the broch architecture. Therefore, the relative construction dates of all of these different classes of structure is a key gap in knowledge: much more data is needed from more sites. That said, both northern and western schools of thought concur that, once perfected, the

[26] Scottish Record Office MW/1/733, 5 November 1933, quoted in Reynolds and Ritchie 1985.
[27] This could perhaps be explored further in files held in the National Records of Scotland.
[28] See: *Carver, M 2017 The Sutton Hoo Story: Encounters with Early England*. Martlesham (Boydell Press) or, for a more dramatic treatment, Preston, J 2008 *The Dig*. London (Penguin).

broch phenomenon spread rapidly, with brochs swiftly being erected in most suitable locations within their regional landscapes.

The broch at the centre of Midhowe has an interesting plan: it has an intra-mural space which runs around the entire ground-level, expanding to form opposed “guard cells” flanking the entrance passage. This feature, which is very similar to the arrangement at Gurness, is relatively infrequent in Orkney brochs, being more associated with brochs in the west than in the north. Both Midhowe Broch and Gurness show clear signs of having begun to collapse soon after construction, although this is less pronounced at Midhowe Broch than at Gurness[29]. The unusual plan and the signs of instability have led to suggestions that Midhowe Broch and Gurness might both be early, experimental, examples of broch towers, either in an Orkney context or possibly (if brochs originated in Orkney) for brochs in general. Unlike Gurness, there is access to the ground-level gallery at Midhowe Broch from within the broch’s interior, although this was later blocked.

The broch at Midhowe currently stands to about 4.3m in total height, with clear evidence for a second gallery level running around within the wall thickness, accessed by a raised doorway in the inner wall face and then a stone stair. There is a chamber in the wall thickness over the entrance passage and a scarcement ledge corbelled out all around the inner wall-face at about 3.4 metres high –features of a “classic” broch tower. It is clear that the structure once stood considerably higher.

In addition to the ground plan, several other features are architecturally noteworthy about Midhowe Broch:

- The very clear evidence that the broch wall began to develop instability soon after construction, with the walls slumping and distorting. In an apparent attempt to combat this, the occupants packed part of the intramural wall space tightly with stone. Unlike the corresponding event at Gurness, this may have halted collapse, with Midhowe’s broch continuing in use as a tall-standing structure for longer. As at Gurness, this near-collapse poses questions: was the broch badly built, or taken over-ambitiously high for its hollow wall-base to bear? We are unlikely ever to be certain.
- The extremely elaborate internal stone fittings within the inner space of the broch, partly comprised of large slabs of sandstone erected on end and propped against each other. These features tend to divide the space into two almost equal parts. They are clearly later in date than the construction of the broch tower, and there is evidence to suggest that they may have been rebuilt more than once – as well as heavily

[29] MacKie has argued persuasively that the incipient collapse at Midhowe was arrested by prompt action, and that the broch continued to stand tall for some time before eventually being reduced in height – this differs from Callander and Grant, who saw the structural instability as leading immediately to the down-taking of the tower. MacKie, amongst others, has also pointed out the unconvincing nature of the so-called “buttressing” outside the broch on the north-west side. MacKie 2002, 239.

rebuilt during the 1930s excavation and consolidation works. A particularly interesting feature was the slab-built cupboard or “press” just inside the left of the inner end of the entrance passage, the top slab of which was fire cracked and ash-covered, suggesting that it may have formed a raised hearth.

- The entrance passage into the broch has several unusual features. The stone checks against which the door frame would have been seated extend upwards through the roof of the passage into the chamber above: there is no obvious structural value in this. There is an edge-set slab running across the floor of the entrance passage at this point too, which would have provided for a very securely fitting door but would have been awkward in everyday use. There is a bar-hole in the right-hand wall of the passage, running through to the right-hand guard chamber: this is perplexingly beyond the door jambs, so could not have served to secure the door from within the broch.
- The deep, partly rock-cut chamber or “well” which descends 2.7 metres below the broch courtyard is one of several examples in Orkney. It is not so elaborately constructed as those at Gurness and the non-broch site of Mine Howe (which is not consolidated and is not generally open to view). It has been suggested that such chambers may be more than wells: possibly spaces in which unknown rituals rook place. It has also been suggested that they may be of early date, in some cases possibly pre-dating their associated broch, though this is not demonstrable at Midhowe Broch. Sites with such “wells” seem particularly likely to contain abundant evidence of metal-working in bronze and/or iron.

The smaller structures which lie outside the broch are well-built, and stand taller than those at Gurness, with which they share many features, such as floor-set tanks and hearths and wall- or free-standing cupboards. Overall, these buildings do not appear to be the result of an integrated plan, seeming rather to have been built one at a time on the best available plot – this seems to be the more usual arrangement around brochs, with Gurness’s orderly layout being the exception. There is clear evidence that these dwellings had already begun to be constructed before the broch was reduced in height. After the broch had been reduced in height, and was largely infilled and abandoned, construction and occupation of these structures continued, eventually leading to the infilling of the inner ditch and building over its site: what is probably the latest house is partly dug into the back of the forework.

Midhowe Broch was apparently long-abandoned and already a grass-covered mound by the time of the Norse takeover of Orkney – the “howe” element of its name is from Old Norse *haugr* – a word used to describe mounds, often those which looked man-made.

2.41 Design

The design features of individual structures at Midhowe Broch are discussed above and in Appendix 3.

While the site presents an orderly layout overall, this is not so pronounced as at Gurness, where the neat layout has been offered as evidence for deliberate design and proactive management of the site's construction, in effect to a "master plan"[30], although this interpretation has been challenged[31].

At Midhowe Broch, the prevailing impression is that of maximising the use of limited space – that the site was chosen and then the structures were then "shoe-horned" in. The broch and the forework are very close together, with the majority of the outer buildings which stand around the broch clearly built later. That said, there were clearly moments of decision which profoundly affected the future of the whole site. One such was the reduction in height of the broch tower, and a second was the decision to infill and build over the inner ditch. Both events would seem to presuppose someone to take decisions on a whole-site, rather than a structure-by-structure, basis.

2.42 Construction

The broch is constructed in tabular slabs and blocks of sandstone, of the Rousay Flagstone series within the Devonian Middle Old Red Sandstone[32]. This is a superb raw material; easy to work and to build with, lending itself to high-quality drystone work. It is assumed that this was quarried from the immediately adjacent foreshore and the site itself: there are possible quarrying hollows above the inner ends of the geos (inlets) on both sides of the site. However, the stone is prone to failure under stress, and also tends to delaminate once exposed to weathering: both of these weaknesses have contributed to the decay of some features at Midhowe Broch, particularly lintels and upright slab-built features, so that some of those on site today are in fact recent replacements, while others have been heavily patched and bracketed since the site came into State care.

Early settlement of the broch structure, soon after construction, led to slight outward distortion of part of the lower broch wall, which was combatted by filling the ground-level wall-space with stone: this can clearly be seen on site. It is not clear whether the root of the problem was outward movement of the foundation layers or crush-failure of stones under compression, but it seems as if prompt action was able to avert further collapse (unlike the situation at Gurness, where a very similar event occurred).

All of the walling that is visible today has been comprehensively consolidated, and in many places effectively rebuilt. While the positions and lines of walling seem to have been faithfully preserved, along with the general character of the stonework (for example large or small blocks, thin or thick), the lack of a comprehensive detailed record makes it hard to know how closely the site

[30] Hedges 1987
[31] MacKie 1994
[32] Mykura 1976, 77-80

today matches that which was revealed during excavation. Extensive use of mortar to stabilise the rebuilt walls has further altered the character of the construction.

Despite these reservations, Midhowe Broch was exceptionally well built, and as displayed it shows many small details, albeit often reconstituted, which are lacking or less-well developed on other sites, such as the extensive use of the thin upright slabs within the broch interior and the many small cupboards and recesses in the houses of the surrounding village. On balance, Midhowe Broch is probably more “authentic” in its fabric than Gurness.

2.43 Artists’ representations

Midhowe Broch has had a succession of information boards and panels over the years, and these may once again be coming due for refreshment as part of the ongoing revision of such provisions at all sites within the care of HES. Recent artists’ reconstructions have not been without controversy, and in particular a scraperboard drawing of the broch’s interior prepared in the late 1990s has been criticised by some commentators for presenting too “cosy” a domestic image of life in a broch, as indeed has the location of the panel bearing that picture, on the reverse of a (rebuilt) column of masonry.

2.5 Landscape and aesthetic values

Midhowe Broch is set in an attractive coastal location, immediately above a low cliff and flanked on two sides by narrow geos (rocky creeks), one of which delights in the name of Stenchna Geo, on account of its tendency to accumulate rotting seaweed.

The waters between Eynhallow and Rousay, and beyond to Mainland Orkney, are marked by a tide-race, which often appears dramatically in the backdrop of views of Midhowe Broch: the noise of the waves often reaches the site. As with Gurness, the sounds of wind, sea and calling seabirds are a feature of any visit.

There are at least ten brochs along the shores of Eynhallow Sound, including **Gurness Broch,** which is visible from Midhowe Broch, and from the site it is possible to look out to the south to the uninhabited island of Eynhallow. “Spotting” these locations adds to the pleasure of a visit to Midhowe Broch.

The island of Rousay is very rich in archaeology, with a series of Neolithic chambered cairns, several of which are in State care including the nearby **Midhowe chambered cairn** (and many of which were excavated by Grant). Sites of other periods abound, and a typical visit to Rousay will offer a range of contrasting landscape experiences, including cliffs, moorland and fertile farmland.

The grass-covered, well-manicured site is accessed either by a steep walk downhill from a small parking area of the road which rings the island, or by a longer but gentler walk along the shore from Westness farm. Despite clear signage, there is a sense of mild adventure (and even of exposure during high

winds, which are frequent) and a corresponding degree of relief once back on the public road.

2.6 Natural heritage values

Midhowe Broch lies on the edge of two areas designated for the protection of species or habitats[33].

Rousay SSSI (Site of Special Scientific Interest) is extensive, covering much of the central moorland of the islands and also the slopes from the high ground down to the coast to the west and north of Midhowe Broch. As well as a range of heath and grassland habitats, the SSSI's important features include otter *Lutra lutra*, Orkney vole *Microtus arvalis orcadensis* and a range of breeding birds. The birds listed in the designation which are most likely to be seen (though not guaranteed) during a walk to Midhowe Broch include kestrel *Falco tinnunculus*, short-eared owl *Asio flammeus*, Arctic tern *Sterna paradisaea*, Arctic skua *Stercorarius parasiticus*, guillemot *Uria aalge*, razorbill *Alco torda*, kittiwake *Rissa tridactyla*, shag *Phalacrocorax aristotelis* and fulmar *Fulmarus glacialis*.

Rousay SPA (Special Protection Area) covers the foreshore and offshore waters to the west and north of Midhowe Broch. This type of designation is specifically for the protection of birds. The principal species of interest are arctic skua, arctic tern, guillemot and fulmar, of all which can often be seen from Midhowe Broch.

Waders such as curlew *Numenius arquata* and redshank *Tringa totanus* are common along the shoreline, with a wider variety of species in winter months.[34]

2.7 Contemporary/use values

Midhowe Broch is valued by contemporary communities primarily for its value as a tourist site, one of many which together make up Orkney's "heritage offer" and specifically as part of Rousay's heritage offer, which includes several other sites in State care. For Orkney and especially for Rousay, heritage sites are a significant factor in terms of attracting visitors and contributing to the local economy. Additionally, accessing the many sites offers opportunities for walks of different difficulty and for nature-watching, so there are also benefits in terms of health and well-being which do not depend solely on the heritage dimension.

Photographic images of the broch and its coastal setting have been used widely in archaeological reference works and in general guidebooks.
In the present day, accessing the broch (and neighbouring Neolithic chambered cairn) requires a short, steep walk from the parking area on the road around the island, or a longer walk along the shore from Westness Farm past a number of other heritage sites, including a Norse farm and burial site.

[33] SNH website (accessed 9 March 2019)
[34] Noel Fojut, pers. obs.

The latter has been waymarked as the “Westness Walk” and there is (2019) an accompanying leaflet.

Most visitors to Midhowe Broch, whether independent or in organised tour groups, also visit some of the many other heritage sites in Rousay, often as part of a circuit of the island. Midhowe, and Rousay generally, is not well-equipped to deal with large groups, lacking adequate shelter and toilet facilities: independent visitors on foot or by cycle or car, and organised minibus-sized groups, are the norm.

The cumulative effect of the many heritage sites in Orkney makes a strong contribution to Orkney’s overall image for visitors, and is heavily drawn upon in national and international advertising campaigns. Images of Midhowe Broch have appeared in such material, usually not identified by name. On-site interpretation is provided by two interpretation boards. There is no charge to visit the site, which is always open. There is a Historic Scotland colour guide booklet, shared with Midhowe Broch[35].

3 Major gaps in understanding

A wide range of unanswered questions surround brochs in general, despite two centuries of excavation, study and theorising (see Appendix 4). Sites such as Midhowe Broch, where brochs are found in combination with other structures and as part of long-lasting sequences of occupation, can help to set brochs into their wider Iron Age context, and in so doing can shed light on the whole period, balancing past over-emphasis on brochs alone.

This section lists some key questions about Midhowe Broch which relate to our understanding of the wider Iron Age in the north, and seeks to assess how far Midhowe Broch retains potential to make future contributions towards answering broader research questions:

- When was the broch built, and how does it relate in time to other structures on its site, particularly to the forework and its outer ditches? There is a small possibility that, unlike at Gurness, some stratigraphic connection survives between the broch, the ditches and the forework, and highly likely that dating evidence for each may lie buried, under the massive wall-bases of the broch and forework or in the ditch sediments. However accessing, or even assessing the potential for this may result in disturbance to the historic fabric: any impact would have to be weighed against possible research outcomes.

- The same areas might also conceal evidence of earlier structures though there is no surface trace of any. It has been widely assumed that Midhowe Broch and other brochs originally had a wooden structure set within the broch: sufficient of the original floor may still survive under later paving to test this hypothesis and potentially thus

[35] Fojut 1993 (updated edition 2001)

date the primary construction of the broch[36]. It is not impossible that the "well" may be the primary structure, with the broch built around it. The forework and ditches may also have preceded the broch. (See Appendix 3 for alternative possibilities.)

- How does this relate to the construction date and pre-construction history of other brochs? This cannot be addressed without answers to the previous question, and also dating evidence from more brochs. A number of other brochs have produced evidence for pre-broch activity, including massive wooden roundhouses (Càrn Liath in east Sutherland and Buchlyvie in Stirlingshire) southern Scotland) and also for the construction of brochs on much earlier remains, including a Neolithic chambered cairn (Howe of Howe, near Stromness, Orkney). However, at Midhowe Broch, despite the possibilities mentioned above, there are no convincing signs of any structures which must pre-date the broch itself. In any event, each successive excavation on a broch site reinforces the view that different broch sites have subtly different "biographies".

- Is Midhowe Broch typical, in so far as a typical broch exists? The overall ground plan of Midhowe Broch lies within the middle range of dimensions, but is unusual for north Scotland in having had a hollow wall at the ground level, a feature more common in the west – a feature it shares with Gurness. It has other features which are common to all brochs, such as a raised scarcement ledge, stone staircase within the wall thickness, narrow entrance passage and signs of a chamber above the entrance. One of the unusual features, again shared with Gurness but few other known broch sites, is clear evidence for collapse of the stonework early in the life of the broch, followed by repair.

- Was Midhowe Broch built by (and for) long-resident local inhabitants or recent incomers? This cannot be definitively answered on the basis of existing evidence. Most current opinions would favour Orkney as the most likely place of origin for brochs, although quite why they arose remains the subject of competing theories. Evidence may emerge, from new excavations or analysis of artefacts, to shed more light on this question, but at present the provisional answer would be that Midhowe Broch (and other Orkney brochs) was built by people already living in Orkney rather than by recent immigrants.

- Were specialist architects involved? If so, the evidence from Midhowe Broch is that they were not very good at their job: the early partial collapse of the broch tower suggests its base was insufficient for the height to which it was built, and that this may eventually have contributed to the decision to reduce it in height. It is possible that skills learned in Orkney were subsequently "exported" and used to build

[36] MacKie 2002, 239, states that such a ring of post-holes "doubtless" remains below the later floor levels at Midhowe. See Appendix 4 for more discussion.

brochs elsewhere. Orkney had a long tradition of building elaborate drystone structures before brochs emerged, and it has been suggested that Midhowe Broch and Gurness were relatively early experiments which demonstrated the inherent weaknesses which were eliminated in later brochs by making their bases more solid. Once perfected, wherever that was done, it has been suggested that the building of brochs spread rapidly throughout the north and west of Scotland.

- What can be said about the social and territorial organisation of those who built Midhowe Broch? A great deal can be said, but little can be proved. Most would support the existence of an elite within Iron Age society, who would have directed the activity of each group and conducted relationships with neighbouring groups and perhaps further afield. A chiefdom model seems to fit best, perhaps analogous to later Highland clans, with a chief and a few senior individuals leading a "client group" bound by kinship ties. There seems to be no evidence for a more layered society akin to Medieval feudalism. While (in theory) most brochs site might represent isolated independent groups, it is perhaps more likely that groups worked together, perhaps sharing leadership in times of crisis. Midhowe Broch, with its two neighbouring brochs within a few hundred yards, is one of the places where the idea of isolated communities makes least sense. It also offers evidence against the suggestion that brochs were first built as defences and lookout points in response to a crisis, perhaps the actual threat or strong fear of invasion, and were never intended to operate as long-term residences, though in many cases they were later adapted for this purpose. Three brochs on one short stretch of coastline would seem unlikely to have been required in this scenario.

- How did the inhabitants of Midhowe Broch survive day to day, in terms of subsistence? There is clear evidence of mixed farming, with grinding stones (querns) for processing grain (probably barley) and bones of domesticated animals, including a significant number of cattle. While the excavation techniques of the 1930s might not have retrieved fishbone anyway, more recent broch excavations in Orkney have tended to suggest that the sea was less significant as a source of food than might be expected. Traces of the remains of an array of unknown structures which may include ditches and trackways have recently been discovered under the fields adjacent to Midhowe Broch, and offer the potential to explore the site's landscape setting.

- What stimulated the building of brochs like that at Midhowe: what were brochs actually for? Although we can say what happened to brochs – how they were used after they had been constructed and what other uses were made of the sites of brochs – we cannot know what was in the minds of the builders. All we can do is look at the structures and their locations and surmise. At the two extremes of many explanations

which have been offered are (at the “soft” end) the gradual emergence of a society in which leading individuals gradually exerted more and more control over resources and gained in status, competing with their neighbours in displays of monumental building, until the broch became the “must-have accessory” of its day and (at the “hard” end) a quasi-military and highly organised response to an urgent threat (or the perception of such a threat), either by long-resident islanders or by newly-arrived conquerors determined not to be displaced by late-comers. The “soft” and the “hard” are far from irreconcilable: manipulation of public attitudes through more recent history has seen instances when fear of some real or imagined external threat had been one means by which an elite has gained and exerted control over its fractious client populace.

- What do the “biographies” of sites like Midhowe Broch tell us about changes in society over time? Midhowe Broch, along with many other broch sites, offer a glimpse of social change over time. The creation of structure such as the forework and Midhowe Broch hints at a period in which settlement seems to become concentrated on a smaller number of sites than previously: possibly for defence against an unknown threat. The construction of brochs would have required, and helped to drive, more centralised social authority. Yet, by the end of the 2nd century AD, brochs seem to have become obsolete or outmoded, and are either abandoned or absorbed, with “monumental” architecture no longer required. It has been suggested that this indicates a relaxation, a gradual re-adjustment to normality after a period of crisis marked by the building of brochs. In parallel to the reduction in scale of buildings seems to have come an opening of trading connections beyond the local area, with some broch-based communities such as Midhowe Broch – probably after the brochs themselves had begun to decay – developing connections to the Roman world. Midhowe Broch is a good example of what may be the typical pattern in Orkney, where a broch is followed by a number of smaller houses but fails to grow into a very long-lived village, unlike Gurness. By the time the Norse settlers arrived in Orkney in the 9th century AD, settlement seems once more to have dispersed back into the wider landscape, with even once-populous centres such as Gurness reduced to single family-sized farmsteads and many, such as Midhowe, long-abandoned and almost forgotten.

- What can we say about environmental change and land use during the period when brochs were constructed and used? Midhowe Broch was dug before modern techniques of environmental analysis had developed, but evidence from other broch sites suggests that climate changed relatively little over the period during which Midhowe Broch flourished and declined. This means that changes in how people lived

came for other reasons. At the site of the Howe, on the south-west side of Orkney Mainland, it was noted that the proportion of different domestic animal bones changed over time: with the broch, came a reduction in cattle proportionate to sheep and the appearance of more pig. After the broch, sheep continued to be more numerous than before it, while the numbers of pig declined sharply. Sheep were also kept for longer before slaughter – which also coincides with evidence for weaving, so perhaps wool became more important. It has also been suggested that dairying became more important in later times than previously. There may be deposits on site at Midhowe Broch, most possibly in the ditches, which might be examined to see if similar patterns occur.

Additionally, as a structure which was the site of a major 1930s excavation campaign and which was, and remains, one of the finest stone-built prehistoric structures in Scotland to have been consolidated for public display, Midhowe Broch has the potential to offer evidence towards more recent questions, including:

- Does Midhowe Broch help to illustrate how conservation philosophy and practice have developed over time, especially for drystone prehistoric constructions? Yes: being a product of a single extended phase of work, Midhowe Broch encapsulates the conservation approach of the 1930s: major excavations went hand-in-hand with structural consolidation, leading to a need to make rapid decisions about what to preserve, what to rebuild, what to remove and what to discard. These decisions once made were irrevocable, and much information was undoubtedly lost due to what would now be considered inadequate recording. Set against this is the fact that few projects on this scale and ambition happen today.
- Does Midhowe Broch help to illustrate changing patterns of archaeological theory? Very much so. When the site was dug, diffusionist models of social change were in vogue. It was assumed that all major societal changes in Orkney and the north more widely were driven by outside influences – settlers or even invaders arriving. Brochs were seen as indicators of troubled times, as defences first and foremost, as chieftains' residences secondarily. More recent interpretations have tended to see brochs, especially in Orkney, as a "home-grown" phenomenon and to focus on possible functions of brochs as indicators of status: symbols of power and possession of land, the centres of high-status farming estates. The truth probably lies somewhere in between.

4 Associated properties

4.1 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 settlement, Orkney)
- Dun Carloway (broch, Western Isles / Comhairle nan Eilean Siar))
- Càrn Liath (broch, Highland)
- Dun Dornaigil (broch, Highland)
- Dun Beag (broch, Highland)
- Dun Telve (broch, Highland)
- Dun Troddan (broch, Highland)
- Edin's Hall (broch and associated remains, Scottish Borders)

4.2 Other associated sites:

A sizeable number of other broch sites can be visited in Orkney, in addition to **Gurness**, which is also in State care. The best examples, in descending order of surviving structural detail are as follows: all are unconsolidated and care should be taken regarding slip and trip hazards on site, as well as coastal cliffs near to several:

- Borwick (West Mainland)
- Burrian (North Ronaldsay)
- Howe of Hoxa (South Ronaldsay)
- Burroughston (Shapinsay)
- Burray East (Burray – nearby is a second broch, largely ruined: Burray West)
- Dingieshowe (East Mainland – more for the setting than the structure)
- Lamb Head (Stronsay – ditto)

At time of writing (2019) the University of the Highlands and Islands Archaeology Institute has been undertaking seasonal excavations at a broch and external village at The Cairns (Windwick, South Ronaldsay): however, it is not at present intended to make this site publically accessible once these excavations cease[37]. Also, at the time of writing (2019) excavations are in progress underway at a number of sites on Rousay, including one at Swandro, about a kilometre away from Midhowe Broch: originally thought to be a broch, this appears to be a simpler Iron Age house built into the remains of a Neolithic chambered cairn – echoing discoveries elsewhere in Orkney such as Howe and Pierowall[38].

5 Keywords

Broch; Iron Age; ground-galleried; intra-mural stair; guard cell; entrance passage; Inter-visibility; village; rampart; ditch; trade; Orkney; Rousay

[37] https://archaeologyorkney.com/the-cairns/ (accessed 11 February 2019)
[38] https://www.swandro.co.uk/ (accessed 9 March 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**.**

Further Resources

Canmore ID: 2286

Site Number: HY33SE 2

NGR: HY 37169 30598

Scheduled Monument Description:
http://portal.historicenvironment.scot/designation/SM90218

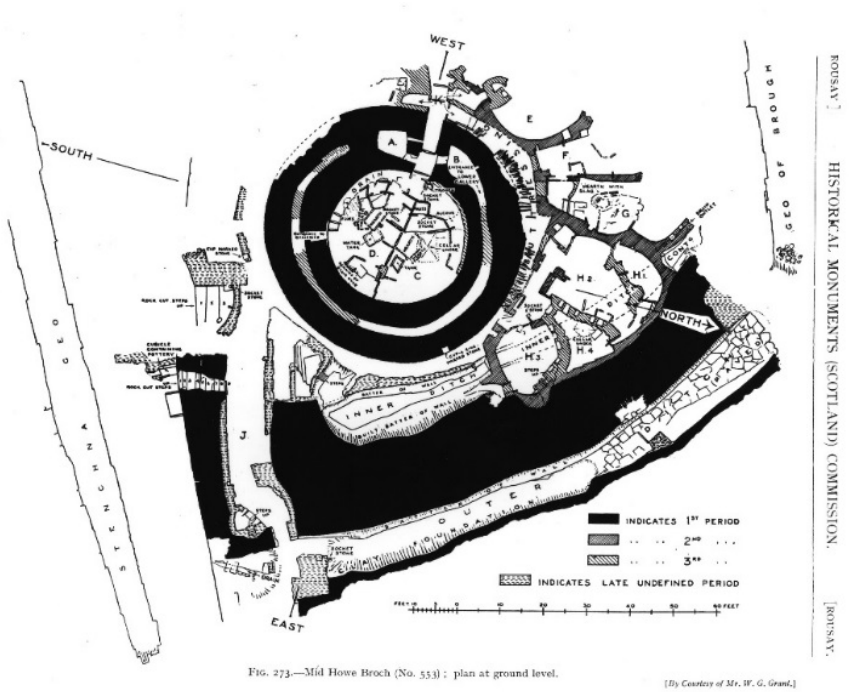
Appendices

Appendix 1: Timeline

Note: this is an attempt to create a simple best-fit timeline between several alternative scenarios, none ruled out by clear evidence on site or in the excavation archives.

Iron Age (mid)	(No later than 1st century AD) Broch tower constructed. Forework and ditches *may* also be built at the same time, and the internal "well" is also of this date – although the "well" *could* pre-date the broch. Subsidence in broch wall-base soon after construction: efforts to stabilised this succeed. First houses built in village. Broch interior re-fitted. Broch is reduced in height. Broch interior probably re-fitted again, but eventually falls out of use. External buildings are expanded outwards, over the inner ditch which is infilled to allow this to happen. Metal-working is now taking place on site – apparently later in the site sequence than at Gurness.
Iron Age (late)	Whole site effectively abandoned (by ?AD 400-500). Mound gradually builds up.
Viking/Norse	Midhowe is a grass-covered mound by the time the Norse settlers start to give names to landscape features. (There is an excavated Norse farm and burial site, possibly with earlier origins, on the coast only one kilometre to the south-east of Midhowe).
Modern	Site noted as a possible broch in 1860s. Site excavated by Grant (1929 trial excavation), and Grant and Callander (1930-3) and partly consolidated by Yorston. Excavation report presented in late 1933 and published in 1934. Site taken into State care (1934) and consolidation completed. Simple on-site interpretation provided (?post-War).

Appendix 2: Images



SC 342818 © Crown Copyright: HES. Site plan from excavation report and RCAHMS Inventory: RCAHMS investigator J M Corrie's visit to Rousay in 1928 may have stimulated Grant's interest in excavation.

Midhowe Broch, aerial view showing 1930s seawall towards bottom of image

Midhowe Broch, looking downslope over the site

Looking south-west over Midhowe Broch and Eynhallow Sound

Midhowe Broch, view along shoreline with Midhowe Neolithic chambered cairn (contained within the large modern building)

Midhowe Broch across Stenchna Geo

Midhowe Broch seen over ditch and forework

Midhowe Broch, stair

Midhowe Broch ground level gallery showing displaced lower courses and stone packing of gallery

Midhowe Broch, entrance with stacked slabs to left – once thought to be evidence of buttressing, these are now interpreted as material being removed as the broch was reduced in height, and set aside for use in later building work

Midhowe Broch interior showing slab-built fitments and partially-masked scarcement ledge: these features all post-date the broch's construction, possibly by many years

Midhowe Broch interior from above showing bracketed slabs – emphasising that Midhowe has been extensively consolidated

Midhowe Broch outer building

Midhowe Broch, excavation trench showing good survival of hearth deposits

Appendix 3: Midhowe Broch – detailed description and sequence

Midhowe Broch is well-described in published sources[39]. This section does not seek to repeat those descriptions. Instead, it offers a short description and then discusses the elements of the sequence where alternatives have been proposed.

Description
Midhowe Broch is built on a promontory with defences on the landward side, consisting of a massive drystone (or at least drystone-faced) rampart with a ditch on either side. The foundations of smaller buildings partially surround the broch. The enclosed area was once more extensive, as there is clear evidence for erosion in the form of the partial loss of several of the external buildings on the west side of the broch. (The protective sea wall erected at the time of the 1930s consolidation is itself an impressive piece of building work, constructed in local stone and entirely sympathetic to the character of the monument.)

The layout of the site is compact, with the wall of the broch less than 3m from the edge of the inner ditch. The tightness of space may explain why the external buildings, which occupy almost all of the space around the broch, were later extended over the infilled inner ditch.

The broch is near-circular, both externally and internally, with diameters of 18.1m and 9.7m respectively. It has a hollow-based plan, with a gallery running around within the wall at ground-level. The design or construction seems to have been flawed, leading to an incipient collapse. Evidence for this event survives in the form of the distortion of the wall-base to the right of the entrance passage and the packing of the gallery here with rubble.

The broch wall survives to a maximum height of 4.3m, with the inner wall-face standing higher than the outer wall-face. A scarcement ledge projects from the broch-wall and may originally have supported a raised floor accessed from a doorway in the inner wall-face. There is a small chamber in the wall thickness, directly above the broch's entrance passage, a classic feature of brochs. How this was originally accessed is not clear. On the left-hand side of the broch's interior a raised doorway gives access to a stone stairway rising to the right within the wall thickness and giving access to the raised gallery at the same level as the scarcement.

At a later stage, the broch was reduced in height, the original access to the space within the wall thickness seems to have been closed off and replaced by a stone-built stair within the interior of the broch which led up to a chamber in the wall thickness partly quarried into the broch wall at what was probably by then the wall-head.

The interior of the broch is occupied by a series of features which are probably all secondary alterations (except for the rock-cut "well" or chamber in the floor). Tall slabs set on end divide the interior into two semi-circular spaces, each of which

[39] In descending order of detail: Callander and Grant 1934; Hedges 1987; MacKie 2002; Fojut 1993 / 2001; Ritchie 1996.

seems then to have been divided further into cells and storage spaces (closely resembling those at the very much earlier site of Skara Brae). Each of the subdivisions has a floor-set tank and a hearth. In the southern half, two small post-holes at each end of the hearth may have held the uprights for a spit or cross-bar over the fire. In the northern half is a subterranean rock-cut chamber which may date from the earliest phase of the broch's life. This has been variously described as a "well" or a cellar, but may also have had ritual significance. To the left (north) of the entrance the inner face of the broch has been clad with an added skin of masonry, which expands outwards into a tall pillar, built of drystone masonry perched on an upright flagstone. This expands by corbelling to form a partial roof over an alcove. The quality of this stonework suggests that the broch may even have been given a raised stone floor running around its entire interior, balanced entirely on similar upright slabs. Most archaeologists believe, however, that the broch's original raised floor would have been made of timber. No visible evidence for such wooden fitments survives.

Outside the broch are a series of smaller buildings, which appear to post-date the broch and to have themselves been altered on a number of occasions. They seem to have begun life soon after the broch was built, and to have continued in use after the broch was reduced in height. There is clear evidence for this on the form of the stack of vertically-set stone slabs against the outer wall-face of the broch on the north side. These partly overlie one of the outer buildings. (It used to be thought that these slabs represented buttressing to address collapse in the outer broch wall, but it is now generally recognised that this would not have been effective. These slabs are now generally interpreted as material being removed as the broch was reduced in height, set aside for use in later building work.)

The buildings outside the broch are well-constructed, and also contain floor-set tanks, hearths and wall cupboards. One of them, on the edge of the eroded coastline, was used for metal-working, and contains a large hearth, a floor-tank and what may be the remains of a drain or even the flue to allow air into a furnace. Fragments of moulds, crucibles and bronze objects were found here (and in the ditch) and there was also evidence for iron-smithing. To the north of the broch, these buildings extend over an infilled stretch of the inner ditch, so clearly post-date it. On the southern side of the broch, erosion has probably removed similar structures.

The massive stone-faced wall to the north of the broch is an exceptional feature: similar walls do surround or flank other brochs, but the "forework" (as it is known) at Midhowe Broch is one of the most massive – only at the brochs of Ness and Nybster in Caithness is something comparable known. The stonework of the forework suggests it has been remodelled on at least one occasion: it has been suggested that the original entrance to the site, a gap in the forework near to its south-east end, is not the original gateway to the site: this is not proven by the visible remains. An interesting feature of the forework is that it appears to end just short of the inlet which forms the north-west edge of the site. The ditches on either side of the forework are partly rock-cut. They were not maintained in later life, and became progressively filled with rubbish and fallen stone. Toward the end of the site's life, part of the inner ditch seems to have been deliberately infilled, to allow what may be the last generation of external buildings to be constructed over it. It is important to

remember that the ditches as they appear today were cleared out during the 1930s excavations, having become completely infilled as the site decayed.
Those who built the broch incorporated two small cup-marked boulders, which are probably earlier in date, perhaps by as much as a thousand years. One is built into the fragmentary remains of a structure just outside and to the south of the broch, while the other (which has both cup-and-ringmarkings) is set into the outer wall-face of the broch, low down on its north-north-eastern side. It has been suggested that these may have been taken from the nearby Neolithic chambered cairn, but given the wealth of archaeological sites in the immediate vicinity, this may not have been the case. There are other instances of brochs with apparently "curated" cup-marked stones, including **Càrn Liath** in Sutherland.

Midhowe Broch produced many artefacts, but the relationship of most of these to the various structural elements of the site is not well-recorded. They include sherds of pottery and fragments of a bronze ladle which derive from the Roman-settled world. The find-spots of these indicate that the site was already established by the 1st century AD, and possibly earlier, but offer a less precise date than the equivalent discoveries at Gurness. Bone and stone tools and bronze pins and brooches were also found, with evidence for bronze-casting and iron smelting in one of the external buildings and from broken moulds there and in the ditches. Quantities of hand-built local pottery were also found, very little of it decorated. The finds are in held in the collections of the National Museum of Scotland in Edinburgh.

Alternative interpretations[40]
The excavators recognised that they had not been able to resolve all questions about the sequence of construction, let alone offer absolute dating. However, unlike the situation at Gurness, there is general agreement about the broad sequence at Midhowe, with the only significant points at issue being the date of the forework and the precise time at which the broch was reduced in height.

The date of the forework: The sequence suggested by the excavators sees the broch and the forework (and its ditches) as being built at the same time, though they conceded there was no direct evidence for this. It has been suggested that the forework might pre-date the broch, which was then fitted into the tight enclosed space. It seems rather less likely that the forework is later than the broch, but this is not impossible.

The original interior layout of the broch: Evidence may survive below the current floor level of the broch for its original interior layout, but this was not revealed in excavation. Statements by several authorities that it must, as is assumed for all brochs, have contained a ring of wooden posts which supported an upper floor and roof are therefore over-definite (see Appendix 4 for discussion of the timber elements of brochs).

The instability of the broch wall and its subsequent reduction in height: The broch clearly pre-dates at least some of the outer buildings and all of its current interior stone fittings. Evidence for instability early in its history was seen by the excavators

[40] MacKie 2002, 238-40, discusses these points in detail

as having led quickly to its reduction in height and remodelling, but it has also been suggested that collapse was in fact averted and that the broch carried on in use as a tower for an extended period, only being taken down later. It is hard to see how these alternatives could be tested, based on what survives on site.

The history of the outer buildings: The exact history of the outer buildings relative to each other and to the broch in its various phases remains uncertain: the original excavators lamented their inability to link the broch's interior to the surrounding structures. There is a generally-agreed sequence, in that it is clear that some outer buildings existed before the broch's upper walls either began to collapse or were carefully dismantled (or both). It is also clear that at some time the broch's interior was remodelled, perhaps more than once. Exactly how this activity synchronised with activity outside the broch is unclear. Further, the assumption by the excavators and by several subsequent commentators that the construction of the outer buildings began only after the site had ceased to be required as a defence is suspect, since not all of the outer buildings are built over the infilled ditch, and those which are seem to be late in the sequence. It would be entirely possible for there to have been external buildings to the seaward (south and south-west) of the broch, in the area now largely lost to marine erosion, without significantly affecting its defensive capacity. It may be that further excavation could add more precision to the relative timing of these events, but their broad sequence is clear and the chance of resolving these relatively fine details seems slight.

Appendix 4: Brochs - theories and interpretations

a) 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."[41]

[41] Dryden 1872, 200

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" 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"[42].

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 – For example, the Broch of **Mousa** is a (more or less) solitary broch, whereas the Broch of **Gurness** comprises a broch surrounded by an extensive settlement and set within large ditches.

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, a few further south on the west coast and a handful of outlying examples in central, south-west and south-east Scotland.

b) 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

[42] MacKie 2002, 1-2

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 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” [43], 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[44]. 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[45], 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.[46] 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[47]. Additional “possible”

[43] Oram et al, 5
[44] One memorable headline from the Press and Journal, in 1980: “Broch man told lies to gain credit”
[45] Armit 2003
[46] Barber 2018
[47] E.g. Cloddie Knowe, trial trenched in 1988 (MacKie 2002 p 82)

sites continue to be added, and in some cases demonstrated to be brochs[48]. 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 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[49]. 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[50].

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[51].

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)[52]. 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[53]. Fojut (sceptically) and most recently Romankiewicz (more optimistically) are among those who have recently published on possible roofing structures[54].

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)[55] and Leckie (Stirlingshire)[56], these cannot conclusively be confirmed as having been constructed at the same time as the brochs[57]. The need for caution is emphasised by the substantial post-

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

rings found at Buchlyvie (Stirlingshire)[58] and Càrn Liath (Highland – Sutherland)[59] which in both cases can be shown to relate to pre-broch roundhouses[60].

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.[61] 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[62].

c) Broch origins

The date and antecedents of brochs have been pushed progressively earlier. The idea that brochs were built by the Danes or Vikings[63] persisted for some decades, despite the outright rejection of this idea by Scandinavian antiquarians as early as 1852[64]. The alternative, that they were built by the native population as watch-towers against the Vikings, was also popular[65] 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[66].

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[67], and led to the dominance of various "diffusionist" models, in which brochs were seen as the strongholds of an incoming elite[68]. 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.[69]

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[70] in the middle Iron Age, and could not be relied upon to demonstrate large-scale invasion. That said, most would

[58] Main 1989, 296-302
[59] Love 1989, 165
[60] In this respect, the conjectural plans offered by MacKie for Dun Carloway are perhaps unhelpful. MacKie 2007, 1204
[61] Fojut 2005b, 196-9
[62] Smith 2016, 15
[63] Fergusson 1877, 630-9
[64] Worsaae 1852, 233
[65] Stuart 1857, 191-2
[66] Anderson 1883
[67] Childe 1935
[68] Scott, 1948
[69] Hamilton 1968, 51
[70] Clarke 1971

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[71], 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."*[72]

The older, alternative view, that brochs were a unique local invention, began to be revived in the 1950s, notably in Shetland[73]. 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" population[74]. 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.[75]

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[76].

[71] RCAHMS 1946 (visited/written 1930), 48-55
[72] Stewart 1956, 15
[73] O'Neill 1954
[74] Stewart 1956, 15-16
[75] Stewart 1956, 15
[76] Fojut 1981, 226-7

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[77]. 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)[78]. 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[79], although these possessed few, if any, of the classic defining features of brochs.[80] Nonetheless, this led some to believe that brochs might go back as early as 600 BC[81].

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 less securely, the construction of a broch at Upper Scalloway (Shetland) appeared to have taken place in the 1st century AD[82].

The radiocarbon dating of the construction of a fully-formed Shetland broch to the period 400 – 200 BC, at Old Scatness in southern Mainland[83], 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[84].

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[85]. At Clickimin, key pottery forms with internally fluted rims and sometimes

[77] MacKie 1992: also MacKie 2007, 1094,
[78] Lamb 1980, Fojut 1981
[79] Hedges and Bell 1980, Hedges 1987
[80] Armit 1990 p 195
[81] Fojut 1981, p 34
[82] Parker Pearson et al 1996; Sharples 1998
[83] Dockrill et al 2015, 168-171
[84] MacKie 2008
[85] Smith, 2014, 4

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[86].

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[87] seems improbable , and the scenario suggested by Parker Pearson and collaborators more likely[88], 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"[89]), 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[90].

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

[86] Fojut 1989, especially 29-31 (first discussed in unpublished PhD thesis 1980)
[87] MacKie 2008, 272
[88] Parker Pearson et al 1996, 58-62
[89] John Barber pers. comm. August 2018
[90] Barber 2018

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[91].

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 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.

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

Many writers, including MacKie[92] and more recently Barber[93], 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[94] while Barber has recently pointed to the engineering knowledge involved in constructing so close to the physical limits of buildability[95].

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[96]. Armit developed the idea of the "Simple" and "Complex Atlantic Roundhouses" to emphasise similarities within a larger class of approximately circular structures[97], 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[98], though to refer to such a wide range of structures as brochs seems unhelpful[99].

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;

[91] MacKie 2007, 1314-5 (See MacKie 2016 for more detailed discussion)
[92] MacKie 1965
[93] Barber 2018
[94] MacKie 1965
[95] Barber 2018
[96] Barrett 1981, 207-17
[97] Armit 1991
[98] Romankiewicz 2011
[99] Romankiewicz 2016

whether they were defensive at all, or solely intended to demonstrate status[100], and also about how and when the tower 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.)[101]

e) 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[102], through one of embattled local communities seeking to defend themselves against raiders or invaders[103], 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[104]. 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[105] and the assumption of grain surplus is not certain.

Almost all of the dated evidence for life in and around brochs relates to their occupation in primary and subsequent forms, and not to their construction, 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."[106] We are still far from understanding what this peculiarity might have been.

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,

[100] Armit 2005b
[101] Barber 2018
[102] Scott 1947, 1948
[103] O'Neill
[104] Hingley 1992, 19; Dockrill 1998, 493-7 et passim; Armit 1996, 129-130
[105] Smith 2014
[106] Stuart 1857, 192

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[107].

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.

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

[107] Fojut 1982a

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.

f) 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[108] [109] [110] 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"[111]. But neither question has yet been answered conclusively.

[108] Hedges and Bell 1980
[109] Armit 2003
[110] Most recently, Romankiewicz 2016.
[111] Stewart 1956, 21