Wessex Archaeology

Time Team 2005
Applecross Broch, Wester Ross Highlands

Archaeological Evaluation and Assessment of the Results

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Applecross Broch,
Applecross, Wester Ross, Highlands

Archaeological evaluation and assessment of the results

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Summary

Wessex Archaeology was commissioned by Videotext Communications Ltd. to carry out archaeological recording and post-excavation analysis on an archaeological evaluation by Channel 4's 'Time Team' at the site of a possible Iron Age broch in Applecross, Wester Ross. The broch is located on a low ridge within Applecross campsite (centred on NGR 171183 844331).

The main aims of the project were to determine whether the rubble remains situated on a sandstone outcrop were indeed remnants of an Iron Age broch structure, and if so to define some of its key characteristics, determine its state of preservation, and date it more precisely within the Iron Age. Evidence suggesting that this may be a broch site includes vague documentary references to a stone fort from the 19th century as well as the presence of a large 'kerbstone' which protrudes through the grass on the south-east of the mound.

Other aims of this project included investigating the broader context of the possible broch, including the remains of a putative prehistoric stone circle within the campsite, and traces of walling suggesting the presence of two rectilinear structures, possibly later buildings, to the north-west of the site.

Eight trenches were opened by hand at various locations across this site. Three trenches targeted on the possible broch revealed foundations of two concentric drystone walls with the space between them forming an intra-mural gallery. Evidence for a flag-stone spiral straircase and internal entrance was also revealed, confirming that the building is a ground-galleried broch. The internal stairway implies that the broch had at least two floors. No evidence for remodelling or later alterations to the broch was identified, but only a small extent of the broch was exposed and extensive stone robbing may have removed later features.

One of the trenches outside the broch uncovered part of a midden relating to post-broch activity, suggesting that the site had been subject to reuse in later periods. A second trench outside the broch provided evidence for a possible causeway that may have provided extra protection to the broch's occupants.

Further trenches opened to the north of the broch were targeted upon geophysical anomalies thought to be indicative of a wider broch settlement, including a possible wheelhouse. One trench produced only modern disturbance, while a second contained rubble collapse that may suggest the presence of a structure in the vicinity.

The eighth trench was opened within the putative stone circle, *c.* 200m to the south-west of the broch, and was able to prove that the orthostats forming this rough circular pattern were in fact natural glacial erratics, as no stone holes were identified.

Acknowledgements

The evaluation was commissioned and funded by Videotext Communications Ltd. Wessex Archaeology is grateful to the landowners of Mains of Applecross and the campsite, and in particular Nick Goldthorpe who brought the site to Time Team's attention. Thanks also go to the broch specialists who were involved as part of the project, including Ian Armit (University of Belfast), Andy Heald (National Museum of Scotland), Noel Fojut and Ann MacSween (both Historic Scotland), and Cathy Dagg (Highland Council). Ann MacSween also assessed the Iron Age pottery on site. Surveying was undertaken by Henry Chapman, University of Hull, and the geophysical survey was undertaken by John Gater and his team from GSB Prospection Ltd of Bradford.

Excavation was undertaken by Time Team's retained archaeologists, Phil Harding (of Wessex Archaeology), Kerry Ely, Raksha Dave, Brigid Gallagher, Ian Powlesland and Matt Williams, helped by a number of local archaeologists (Dougie Gordon, Alan Matthews, Mike McMillan, Jenny Robertson, Harry Robinson, John Welsh and John Wood) and volunteers (including Nick and Clive Goldthorpe). Catriona Gibson and Steve Thompson are grateful to all the archaeologists and volunteers who assisted in the recording of archaeological remains and reinstatement of the trenches.

On site recording and co-ordination was undertaken by Catriona Gibson, assisted by Steve Thompson (both of Wessex Archaeology), who also undertook co-ordination and processing of finds on site. The archive was collated and all post-excavation assessment and analysis undertaken by Wessex Archaeology including management (Roland Smith and Lorraine Mepham), finds (Lorraine Mepham and Jan Symonds), animal bone (Stephanie Knight), botanical remains (Chris Stevens and Mike Allen), marine shell (Mike Allen and Chris Stevens), slag (Phil Andrews), report (Catriona Gibson), and illustrations (Mark Roughley).

The owners of the Lochcarron Hotel and Applecross Campsite also made the stay most pleasant.

Applecross Broch,
Applecross, Wester Ross, Highlands

Archaeological evaluation and assessment of the results

"As a rock on the seashore he standeth firm, and the dashing of the waves disturbeth him not. He raiseth his head like a tower on a hill, and the arrows of fortune drop at his feet. In the instant of danger, the courage of his heart sustaineth him; and the steadiness of his mind beareth him out".
Aristotle 384-322 BC

1 INTRODUCTION

1.1 The site

1.1.1 Wessex Archaeology was commissioned by Videotext Communications Ltd to undertake a programme of archaeological recording and post-excavation analysis on an archaeological evaluation by Channel 4's 'Time Team' at the site of a putative broch in Applecross, Wester Ross, in the Scottish Highlands. The evaluation was undertaken in order to determine whether the rubble remains situated on a sandstone outcrop in Applecross campsite were in fact the remnants of an Iron Age broch structure. The confirmation of this site as a broch is potentially very important since brochs can be immensely complex structures, with lengthy chronological narratives.

1.1.2 Broch excavations are only rarely carried out; however, several well-known sites (e.g. Howe, Old Scatness) have provided a glimpse of an increasingly well-understood type of site. Traditionally, brochs have been seen as rather mysterious sites and assumed to have defensive role in the Iron Age landscape. More recent excavations have done much to increase our understanding of these complex sites (e.g. Armit 1996; 2002; 2003; Harding 1984, 2006).

1.1.3 The village of Applecross is on the western coast of the Applecross Peninsula, in Strathcarron, Wester Ross, opposite the Isles of Raasay, Rona and Skye (**Figure 1**). Lochcarron is situated some 18 miles due east on the other side of the winding mountain pass known as the *Bealach nam Bo* (Pass of the Cattle), and the city of Inverness lies 62 miles further east. The bay and homesteads of Applecross are in an isolated highland location, accentuated by the desolation of the high sandstone mountains of this district (Anderson & Anderson 1850, 479).

1.1.4 Applecross was formerly known as Borrowdale, and this name may reference the broch site, since it is derived from the Norse *'borger'*, a burg or stronghold, and *'dalr'*, a dale (Watson 1904). The small village is split into two: the lower part comprises a terrace of houses, shore street, a pub and shop. The upper part is a campsite and farm complex.

1.1.5 The alleged broch is located on top of the south-east end of a small rocky sandstone knoll within Applecross campsite, at an elevation of approximately

40m OD (centred on NGR 171183 844331). It is likely that this outcrop was originally a moraine, related to glacial action in this area.

1.1.6 The site is approximately 200m east of the current coast line (OS Explorer 428, 1:25000, 2002), which forms a raised beach in this area. The proximity to the sea means that winter temperatures are neither too inclement nor extreme.

1.1.7 The underlying geology of the site is moraine and a massive exposure of Torridonian Sandstone (BGS Scotland 1975; Geological Survey 1954). This is described as fine to medium grained pale red sandstones, associated with small outcrops of Triassic and Jurassic rocks, including limestone around Applecross village.

1.1.8 The site forms part of a gently sloping landscape, which is presently covered by grassland, grazed by sheep and cattle. The soil consists of a sandy loam overlying a sandy clay loam.

1.2 Archaeological and historical background

1.2.1 Accounts written in 1792 by the parish minister suggest that the name Applecross came from the presence of apple trees planted in a cross by an ancient proprietor, but the more likely derivation is from *'Aber'* meaning mouth and *'Crossan'* (the name of the river which means little cross).

1.2.2 Evidence for human occupation in and around Applecross dates back to the Early Mesolithic period. The Inner Sound is an area with abundant islands and it offered rich resources to the Mesolithic settlers, including shelter (caves, rock shelters) and easy access to the sea and marine resources with its shallow sandy coasts. Test pits excavated at the rock shelter of Sand in Applecross in 1999 produced flaked stone tools in addition to large quantities of well-stratified shell midden material (Hardy and Wickham-Jones 2000) Radiocarbon dates obtained from bone tools demonstrated that this site was occupied *c*. 7500 cal. BC. Two further open air sites were discovered in the vicinity of Applecross bay, both producing diagnostic Mesolithic stone tools.

1.2.3 An alleged stone circle of Early Bronze Age date has been identified in the garden adjacent to Applecross caravan site. This is described in the SMR as 'eight large naturally occurring boulders that lie in a rough circle. Some stones sit close to the surface and others are deeply embedded'. The plan of this circle is not particularly convincing (**Figure 6**), but some of the original stones could have been disturbed.

1.2.4 Iron Age sites in the vicinity include a possible souterrain (NG74SW0061) identified by the SMR, located *c.* 150 m north-west of the broch and possibly contemporary with it. It exists as a hollow with its western boundary formed by a ruinous and wooded field wall. Souterrains and brochs are quite commonly found together.

1.2.5 The Applecross broch may be the dun first mentioned by Rev. John. MacQueen of Lochcarron in 1792. He refers to a castle or circular fort built in Applecross by Mac Beolan during the turbulent times, and it is likely that he is referring to the broch. From his description, it consisted of a grass-covered mound crossed by a field dyke measuring *c.* 18.5 m in diameter and *c*. 0.8m in height. Some traces of walling remained visible in places and some large base stones were extant on the south-east part of the mound. The site is marked on the 1st edition OS map of 1874 as a narrow wooded property (now de-wooded) and appears as wall tumble, which could just refer to a boundary wall. From surveys undertaken in 1968 and again in 1974 (information from SMR) this site was described as having traces of a possible outwork across the ridge on the north-west. It was accentuated by the ruinous overgrown remains of a modern wall on its outer edge.

1.2.6 The broch site in Applecross can be placed into a wider Iron Age setting. Other Atlantic Iron Age sites in the vicinity include *Lag an Duin*, at the tip of Loch Kishorn, which is described as a dun or a broch. It is a circular stone structure that has been heavily robbed but it is a turf-covered stony mound *c.* 20m in diameter and 1m high.

1.2.7 The Applecross Peninsula is frequently referred to by its Gaelic name, *A'Chomraich*, which means the Sanctuary. This alludes to the Christian settlement founded there by the Irish monk Maelrubha in AD 673, the second earliest to be established in Scotland (after Iona). Maelrubha ran this monastery for 59 years and, using Applecross as his base, spread the gospel from Applecross to Lochcarron and into Easter Ross. The oval enclosure representing the monastery was recorded in 1963 (Thomas 1971). Unfortunately, nearly every trace of it has now disappeared, and its destruction has been exacerbated by the planting of conifer trees and drainage gullies. Clachan Church now stands on the site. The small cell to the east of the church belongs to the 15th century, but the main body of the church was built in 1817 partly over the site of an earlier church, which was condemned in 1788 (*ibid.*).

1.2.8 Applecross was, and still remains, one of the remotest parts of Scotland. Until the coast road from Shieldaig was completed in 1975, the Peninsula was split north and south, and access to Applecross village was either by the *Bealach nam Bo* (Pass of the Cattle) or by sea. The latter route is an old winding road, with some spectacular hairpin bends, used historically as a drove road to take cattle to the market (see **Back Cover**). It is the highest pass in Scotland, with a climb from sea level to 626m a.OD (2053 feet). As a result, during particularly inclement times of the year, the road is quite impassable, restricting access to and from Applecross.

1.2.9 In 1850 nearly 3,000 people lived in the thriving crofting and fishing townships scattered along the west and north coast townships of Applecross. Now there are less than 300. The clearances were responsible for some of the depopulation, but lack of local opportunities and work also contributed. The remains of previously thriving communities can be seen in many areas along the coast. Crofting, fishing and tourism are now the main sources of employment for the Applecross population.

1.2.10 Very little previous formal archaeological work has taken place on the site. The site is marked on the OS map as 'remains of broch' and exploratory trenches were undertaken by the children of the site owners (the Goldthorpes) in the early 1970s. However, no archaeological features or finds were identified.

1.2.11 In 2003 four small trial pits were excavated in the camp field to the west and south of the broch remains in advance of electricity cabling for new campsite lodges. Situated parallel to the large bank and walls on the north side of this field the test pits did not contain any obvious features (SMR No. 74SW0064).

1.3 Background to brochs

1.3.1 Brochs are part of a wider architectural tradition of massive stone construction that is unique to the Atlantic Scottish Iron Age. The exact chronology of these complex sites is still hotly debated, with some academics arguing that they are a form of monument evolved from the Atlantic roundhouses found in north and west Scotland and that their construction begins as early as 400-200 BC, and others stating that they may date as late as the 3rd and 4th centuries AD. Their origins are also subject to discussion. According to MacKie (1983), brochs do not occur until after 100 BC, and are the result of southern British migrants retreating from the Belgic expansion. Others reject the notion that brochs represent an immigrant influence on building styles, and consider their form to have evolved from the Atlantic roundhouses, primarily for defensive purposes (Armit 1990 a and c). These structures are very large, stone built dwellings, or drystone towers, comprising more than one storey and internal staircases. Over 500 brochs are known to exist (although this number depends on the definition of a broch) and these are mainly restricted to the north of mainland Scotland and the northern Isles, western Scotland and the Hebrides (Ritchie 1988).

2 METHODS

2.1 Aims and objectives

2.1.1 A project design for the work was compiled by Videotext Communications (Videotext Communications 2005), providing full details of the circumstances and methods of the project, as summarised here.

2.1.2 The main aims of this project were to determine whether the mound in the campsite represented the remains of a broch and, if so, to determine when it was built, and for how long it was occupied. Additional aims were to understand more about the function of the putative broch and whether evidence concerning social, economic and industrial practices could be revealed.

2.1.3 It was possible that the present mound reflects a much later phase of occupation and re-use of an abandoned broch site. Many broch sites have later activity, particularly during Pictish, Norse and early Christian periods.

Given the proximity of this site to an important local monastic centre (St. Maelrubha's chapel in Applecross bay is clearly visible from the mound), it was quite possible that the mound also contained the remains of a hermitage or 'high status secular occupation site' (Ian Armit, pers. comm.).

2.1.4 If the remains of a discernible broch were preserved in the mound, it was proposed to examine and define specific areas of the structure, including the walls and entrance way, the interior and possible stairwell. In understanding the structural composition and associated internal sub-divisions, it should be possible to determine the typology of a broch more accurately - its internal structure should confirm whether it belongs to the broch tradition of roundhouses, or rather is a wheelhouse or dun. It was also hoped that datable finds would be retrieved from good archaeological contexts associated with the broch. One of the best sources for material culture would be from external midden deposits associated with the occupation of the broch.

2.1.5 The project also aimed to establish whether there were other external features, such as an enclosure wall or ditch, or other structures which were associated with the broch. Frequently broch sites are later elaborated, through the construction of other buildings, often with later houses abutting earlier broch walls. Examples of larger broch settlements include Jarlshof, Mousa, Gurness and Midhowe (Armit 1996, 122). In this context, it was hoped that the date and function of the mentioned rectilinear stone features immediately to the north-west of the proposed broch could be determined, and any later use of the site characterised.

2.1.6 It was also hoped to establish whether the stones in the garden of *Cul-an-Dun* formed part of a stone circle or whether they had been naturally deposited.

2.2 Fieldwork methods

2.2.1 A geophysical survey of the site was undertaken by GSB Prospection Ltd, comprising approximately 0.5ha of resistance survey (using a Geoscan RM15 meter) and 0.15ha of gradiometer survey (using both Bartington grad 601-2 and Geoscan FM256 instruments). These surveys were concentrated around the broch and their location is shown on **Figure 1**.

2.2.2 Eight trenches of varying size were excavated over geophysical anomalies or upstanding features that suggested the presence of walls, structures and other anomalies across the broch site and beyond it (**Figure 1**). All trenches were deturfed and opened by hand, and ceased at the identification of significant archaeological deposits. All spoil was scanned by metal detector.

2.2.3 All archaeological deposits were excavated and the deposits and structures were recorded using Wessex Archaeology's *pro forma* record sheets, and drawn at a scale of 1:20 for plans and 1:10 for sections. A photographic record was kept of the investigations and of individual features and stone structures. The trenches were located using a GPS survey system, and the principal contexts were related to Ordnance Survey datum.

2.2.4 The work was carried out from 1st-4th June 2005, following which all trenches were reinstated using the excavated spoil, and the turf re-laid or replaced. All artefacts were transported to the offices of Wessex Archaeology at Salisbury, under an authority to borrow unallocated Treasure Trove for research purposes, where they were processed and assessed.

3 RESULTS

3.1 Introduction

3.1.1 Details of individual excavated contexts and features, the full geophysical report (GSB 2005/34) and results of artefact and environmental sample analyses are retained in the archive. A summary of the results is presented here.

3.2 Geophysical survey

3.2.1 At the time of survey the rain was very heavy causing problems with the resistance technique. This problem was overcome by re-surveying the area when the weather cleared a little.

3.2.2 The geology of the region is complex and this factor can influence the responses recorded by geophysical techniques particularly where bedrock lies close to the ground surface. Igneous boulders and cobbles contained within the morainic material are likely to be highly magnetic and produce anomalies that mask those produced by archaeological features, or else generate responses that appear to be anthropogenic in nature thus complicating interpretation of the data.

3.2.3 The geophysical survey data provided a more detailed picture of the stone mound. An outline of the broch as a circular structure was clearly identified as a circle of high resistance in the data. This ring was surrounded by a band of low readings which may indicate the foundations of the structure. (**Figure 1**). A linear band of high resistance which cuts through the centre of the broch was caused by the existing modern wall.

3.2.4 Circular high resistance anomalies *c.* 35m to the north-west of the broch suggest a circular structure, roughly 13m in diameter; the shape is suggestive of a wheelhouse. However an interpretation of this kind must remain cautious as this response was on the slope of the site and topographical/geological issues may also account for this anomaly.

3.2.5 A few metres to the north of the broch, geophysical survey was positioned over the rectilinear earthworks, suggestive of house platforms, but no evidence was found for internal heaths or similar features. An area of low resistance, when excavated, proved to a midden. The high moisture content within this area would be the cause of this response.

3.2.6 Within the flat area of the campsite, the survey data was dominated by ferrous anomalies, and this was probably caused by tent pegs and other iron objects within the topsoil.

3.2.7 High resistance readings, other than those mentioned above, are likely to be due to topographical features, trees and shrubs. Areas of low resistance have an uncertain cause but may represent localised changes in the underlying soils and geology.

3.3 Archaeological evaluation

3.3.1 Eight trenches were opened, all by hand. Five of these were concentrated on or just outside the broch structure, and one of the trenches over the broch was extended to investigate the rectilinear structures to the north-west. Two trenches were opened over a geophysical anomaly that suggested the presence of a further structural complex to the north-west of the broch, and one was opened adjacent to one of the stones within the dubious stone circle. Two of the trenches lacked archaeological deposits, features and finds. Archaeological deposits in the remaining six trenches were encountered almost immediately below the turf.

*Trench 1 (**Figure 2**)*

3.3.2 Trench 1 was initially opened as a long narrow trench (9m long and 2m wide), but later extended in its northern section to a width of 5.5m (Figure 2). It was placed across the geophysical anomaly thought to represent the circular broch wall. The trench was originally orientated north-east - south-west and opened over the south-western quadrant of the structure. It was hoped that the full extent of the wall (both internal and external walls and gallery) would be revealed. The first deposit encountered after turf and topsoil was removed was a relatively thick rubble layer (103 and 106), relating to broch wall collapse and robbing. Deposit 103 was the number assigned to wall collapse derived from the internal broch area (including over the walls) while 106 related to rubble collapse lying outside and downslope of the broch.

3.3.3 Stone robbing activity was indicated by a rectangular cut (118) filled with smallish fragments of stone chippings (107). This later disturbance was against the outer face of the external broch wall 104. It was apparent that most of the stone that once comprised the broch walls had subsequently been robbed out since surprisingly little in the way of rubble had to be cleared away before evidence of wall foundations were revealed.

3.3.4 Evidence for the external broch wall was identified when elements of stone facing (104) were exposed in the southern half of the trench and, after rubble in the rest of the trench was removed, further traces of curved stone walls were revealed. Although robbing blurred clear identification, it was possible to identify an external and internal broch wall, separated by a gallery.

3.3.5 The external broch wall (Group 121) was formed by a curving wall faced on both sides with dressed sandstone, with a robbed out rubble wall core (105). This external wall was *c*. 1.6-1.7m wide and it was separated from the internal wall (Group 124) by *c.* 2.1m which formed the gallery between the two walls (116). Only two courses of the foundations of the external wall survived, to a maximum depth of 0.30m.

3.3.6 The internal wall was less well defined, with no obvious faced edges defined. It was probably of a similar construction to wall Group 121, but had been subject to more robbing. Its external face was poorly defined by 123, while the interior face (120) was clearer and represented by a line of stones, some of them dressed. The internal rubble core was represented by 125 and the overall wall was 1.5m in width, giving a total thickness of 4.8-4.9m to the double broch wall.

3.3.7 A doorway (Group 117) was identified in the south-western side of this trench (**Figure 2, Plate 1**). This represents an internal entrance within the inner broch wall and suggests an access point leading to the gallery on the south-western side. The doorway was 1.10m wide and *c.* 1.5m in length. It was defined by a stone edging on the southern side (114) and a 0.5m wide single course of dressed sandstone stones on the northern side (110). Once the fill of the doorway had been removed an area of flat stones (115) was exposed, possible representing a paved threshold that had been partially robbed.

3.3.8 Although also heavily robbed, evidence for an internal staircase (113) was identified, represented by at least two stone slabs partially overlying each other within the gallery, implying the presence of at least one upper storey (**Figure 2, Plate 2**). These stones were probably originally part of a much more substantial spiral staircase, a common architectural feature of brochs.

3.3.9 A midden-like deposit (111) filled the interior of the broch. This dark, organic, shell-rich deposit may have been derived from Iron Age midden material, or may relate to later reuse of the broch. After brochs fell out of use, they were frequently infilled with contemporary Iron Age midden deposits as part of the abandonment process (Ian Armit pers. comm.). Some of this midden material was mixed up with the broch wall rubble layer downslope of the structure in this trench and in Trench 3 (see below). This evidence may imply it was associated directly with Iron Age abandonment, and washed out gradually as the broch collapsed.

Interpretation

3.3.10 The stone walls exposed in this trench confirmed that the structural remains were indeed those of a broch, and more precisely a ground-galleried broch. This type of construction is the most common form for this area of Scotland, as opposed to the solid-based type of broch which tends to be restricted to the Outer Hebrides (Harding 1984). Although ground-galleried forms tend to be more unstable than solid-based types, they are designed to increase stability on uneven ground. This may well be the case for the Applecross broch, since it was constructed on top of an irregular rocky knoll.

3.3.11 Two important architectural details were also revealed in this trench. The first was an internal doorway, implying access into the gallery from the south-west. However, only the internal broch wall was exposed within the trench where this access point was identified, which made it imperative to examine the external wall at this location in order to clarify whether the gap continued through the structure (see below, Trench 8). The second feature revealed was the stairway, implying that this broch was not single-storey.

3.3.12 It is clear that this broch had suffered heavily from later robbing, and only the basal foundations remained. It is likely that most of this robbing was of relatively recent date, since 19th century accounts of Applecross mention a visible and upstanding 'dun' monument (Rev. J. MacQueen, 1792). Much of the stone may have been reused during the expansion and development of the Applecross estate, which involved the construction of a large number of field boundaries and associated estate buildings.

*Trench 2 (**Figure 3**)*

3.3.13 Trench 2, measuring 4.5m by 3.4m, was excavated to the east of the actual line of the broch wall as indicated by the geophysical survey. This trench was targeted on a large stone jutting out of the turf, thought to resemble a kerbstone that might have formed part of the broch or an associated structure. Since the trench was located immediately adjacent to a large tree, biorturbation was evident in this trench, and extensive root systems were encountered. On excavation, the possible kerbstone turned out to be a large boulder, and formed part of a roughly made stone wall or revetment (203; **Figure 3**). This was exposed in the southern part of the trench and was at least 1.2m wide, and 0.6m deep. It was orientated north-west – south-east through the trench, and some elements of tumble (202) derived from the broch walls further upslope had later become incorporated within it. Furthermore, 203 had been subject to some collapse and slippage. Smaller sandstone chips had been inserted into the voids between the larger boulders in a drystone fashion (**Figure 3, Plate 6**).

3.3.14 On the eastern side of the trench a possible linear cut (205) was identified, thought to represent a ditch or robbed out wall. On excavation, however, it was clear that this was a natural or geological feature as its edges were irregular on one side and practically impossible to discern on the other. This feature did contain limestone fragments (non-local) and a large sawn fragment of animal bone. Two sherds of modern pottery were also retrieved from this feature.

Interpretation

3.3.15 This trench was external to the broch and it is possible that the roughly constructed rubble wall/revetment revealed may originally have formed part of a raised causeway leading to the broch. Although not actually exposed during this evaluation, it is likely that the external entrance[1] into the broch was located on the south-east or eastern side (e.g. Parker Pearson *et al.* 1996) and, since this side of the broch was above a steep slope, access may have been improved through artificial landscaping. It was suggested on site (Neil Fojut pers. comm.) that the contours and topography of the site would support the idea that the causeway may have led from the south and then curved sharply to the west towards the entrance (see **Figure 8**). This arrangement would have provided extra security and protection for the occupants of the broch, in the event of an attack.

[1] Note that the entrance identified in Trench 1 was a between-wall entrance providing access to the internal gallery and the stairwell only. Trench 8 confirmed that this access point did not run all the way through to the external wall.

*Trench 3 (**Figure 4**)*

3.3.16 Trench 3 was excavated on the northern side of the broch, and was orientated north-west – south-east across the broch wall as identified from the geophysical survey. The trench was also targeted to investigate the rectilinear structures situated to the north-west of the broch. It was 18.5m long and varied from 0.7m to 1.8m in width. For spatial and chronological control, different context numbers were assigned to the various dumps of tumble that may represent different collapse events. Immediately below the topsoil, a rubble collapse horizon was revealed (302), which covered the entire trench and was up to 0.35m deep. The collapse was not deeper at the bottom of the hillslope, implying that this rubble had also been robbed. Much of the northern two-thirds of the trench was covered by another lower spread of rubble (304) in an orange brown silty loam matrix. In the far north-western part of the trench a separate collapse deposit was identified (306) and this may have been derived from the rectangular structure (314) to its north. Once the majority of the different tumble episodes had been removed, it was possible to discern structural elements relating to the broch in conjunction with other, possibly later features.

3.3.17 The latest structural element identified relates to a rectilinear structure *c.* 14m to the north-west of the broch. This structure still survived as a slightly visible 'bump' under turf. Excavation demonstrated that it was a rather insubstantial stone structure. Only a single course of rough sandstone aligned roughly north-south was identified (314) with a maximum width of 0.4m and depth of 0.3m. These footings had been constructed directly on top of a thick hillwash layer (320) that had accrued long after the broch had been abandoned. This same colluvial lens also sealed the collapse deposits derived from the broch, including broch tumble 318.

3.3.18 The latest archaeological layer exposed relating to broch activity (and partly excavated) was a greyish brown charcoal-rich silty clay (303) up to 0.18m thick, covering most of the trench and lying beneath the top layer of rubble, and sealing the foundations of the broch structure. It appears to represent later slopewash of midden material used to infill the interior of the broch after it was abandoned, and was probably contemporary with deposit 111 in Trench 1. Seven sherds of Iron Age pottery were retrieved from this context, implying the midden material was related to the immediate abandonment of the broch.

3.3.19 In the southern part of the trench underneath rubble collapse, a black charcoal rich lens (315) was identified in association with a fire installation of some sort (possible kiln/hearth). Only a very small part of this was excavated and thus it is difficult to know what it represents, but it is possible that a small part of a flue was revealed, represented by cut 317 (**Figure 4, Plate 8**). The feature was filled with a fine ashy deposit that also contained large quantities of charcoal and slag (316). Two sherds of Iron Age pottery came from deposit 315, while a further sherd was retrieved from 316. The feature had been cut into the natural and the natural sandy clay in this part of the trench was bright pink, implying *in-situ* burning. A large thin flat stone

(321) had been partially placed over this feature and may have been related to it.

3.3.20 The external broch wall (Group 322) was better preserved in this trench than Trench 1, and was represented by two separate courses of dressed stones (307 and 308) defining the curved edges, with a rubble core (309). The wall had a foundation of small angular stone chippings laid on top of the natural geology, on top of which a single course of sandstone blocks was preserved (**Figure 4, Plate 7**), surviving to a height of 0.6m. Wall 322 was 1.5m thick and was exposed for a length of 1.85m.

3.3.21 The gallery between this wall and the internal broch wall was 1.5m wide and had been filled with a dump of dark brown midden material (319), again presumably after the broch had been abandoned. A further sherd of Iron Age pottery was retrieved from this deposit. The full extent of the internal broch wall was not exposed, owing to its proximity to the overhead power cables. However, it was at least 1.5m wide, and again was represented by an external edging of dressed stone (311) with rubble core (312).

3.3.22 The dimensions of the broch walls in this trench are very similar to those defined in Trench 1 and, if its full extent had been exposed, the overall broch double wall would have measured between 4.8m and 4.9m.

Interpretation

3.3.23 The broch wall was slightly better preserved in this trench. By combining the evidence from Trench 1 and Trench 3, and working out the curvature of the broch, it is can be determined that the external diameter of the broch was *c*. 16.8m, while its internal diameter was *c*. 11.9m (**Figure 8**). Furthermore, datable pottery was retrieved from good contexts in Trench 3 and suggests an Iron Age date for at least some of the occupation of the broch, as well as implying that the infilling of the broch with midden material on abandonment also relates to this period. This trench was also able to show that the broch structure had been subject to a fairly long history, with later activity represented in the form of the flimsy rectangular structure at the northern edge of the trench. This rather insubstantial building probably formed part of an 18th/19th century outhouse or shed, related to the expansion of the Applecross estate. The small quantity of slag associated with the kiln/hearth structure is undiagnostic and may derive from iron smelting or smithing, possibly of Iron Age date as suggested by the presence of Iron Age pottery within this feature. However, the larger quantity from layer 303 overlying the foundations of the broch is very dense and has a flow structure characteristic of tap slag, indicating iron smelting. A post-Iron Age date is considered most likely for this material (Phil Andrews pers. comm). Evidence of grasses and sedges (see below, Charred Plant Remains) and quantities of wood charcoal (see below, Charcoal) may represent the remains of fuel used for industrial activities.

*Trench 4 (**Figure 5**)*

3.3.24 Trench 4, measuring 2m by 1m, was opened *c*. 10m to the north-east of the broch on the steep hillslope. It was targeted in order to investigate a geophysical area of low resistance that suggested the presence of midden

material in this zone. Excavation confirmed the existence of a fairly deeply stratified external midden (*c.* 1.25m deep), sloping downwards from west to east. Four major dumping events were identified within this midden, although there were also a few discrete, thin, laminated deposits within these horizons.

3.3.25 As soon as the turf was removed, midden deposits were encountered, implying some erosion of this slope. The latest midden dump (401) comprised a dark grey black lens, *c*. 0.35m deep that contained a quantity of material culture, including a bone toggle and a bone pin, in association with animal bone, limpet and scallop shells. Beneath this, 402 was a thinner light grey ashy deposit (0.15m deep) that was very finely sorted and contained no stones. This deposit was laminated, with alternate fine ashy and charcoal lenses and probably represents more than one dumping event. Finds included animal bone, shells (mussel, scallop, oyster, limpet) and undiagnostic iron slag.

3.3.26 Deposit 403 was a thicker (0.28m) layer that was less humic and more silty. Again it was slightly laminated with lenses of scallop, oyster and razor shells, suggesting some discrete dump events. Burnt stone and a worked bone point were also recovered from this layer. The earliest dumping event constituting the midden, 404 was a deep deposit (0.45m) of mid brown sandy silt that contained less material culture and was even less organic in content than 403. However, some large chunks of charocoal were present in this layer, as well as large quantities (*c*. 45%) of small and medium subangular stones. Beneath 404, a thin interface deposit (405) was recognised between the midden and the degraded red sandstone natural below.

Interpretation

3.3.27 Middens contain what people throw away, and this 'rubbish' can frequently provide important insights into societies, particularly in relation to economic issues. A great deal of almost unidentifiable animal bone came from these midden deposits, reflecting an intensive processing strategy where all animal products were fully exploited. Furthermore, evidence of industrial practices and craft working was identified from iron slag and weaving equipment (bone points and a pin beater). The animal bone assemblage indicates the exploitation of a range of different meat resources including domesticated animals (cattle, and pig) as well as wild resources from both the land (deer) and the sea (seal and fish). The presence of large numbers of shells suggests that shellfish (limpet, mussel, oyster, scallop) also contributed to the diet. Cereal remains were less well represented, although cultivated barley grains were present.

3.3.28 The main question that this trench raises concerns the date of the midden, and whether it was contemporary with the occupation of the broch or relates to later reuse (e.g. Norse etc.) of the broch, which is quite common. Two sets of evidence may be used to support the idea that it is in fact post-Iron Age.

3.3.29 The first category of evidence comes from the material culture. Although one sherd of Iron Age pottery was retrieved from the midden, it came from the

latest deposit (401) and may have washed in as residual material from the broch upslope. The worked bone pins and toggle are not diagnostic of Atlantic Iron Age types in the north-west coast and western islands of Scotland (Neil Fojut and Andy Heald pers. comm). This may partly be because Iron Age broch and duns excavated in this zone tend to be associated with sandier and hence more acidic soils, which are not conducive to bone survival. The geology of Applecross, however, had a more neutral pH that might promote bone survival, and the lack of comparable bone pins and tools from other broch sites may be an artificial bias. Unlike that from Trench 3, the slag from the midden in Trench 4 is undiagnostic and does not help with a chronological determination.

3.3.30 The second set of evidence comes from the nature of the midden deposits themselves. The earliest midden horizon (404) contained large quantities of sandstone rubble, concentrated particularly on the western upslope side of the trench (**Figure 5, Plate 9**). The excavator argued that these stones were very loose and included some small chips and fragments that might relate to broch construction. However, on closer inspection, many of these stones are much larger than chippings and include some large rectangular sandstone blocks (up to 0.4m in size). These more probably represent a collapse and destruction horizon, and therefore imply that all of the midden material that seals this level post-dates the main Iron Age phase of occupation of the broch. Only a radiocarbon determination could confirm this suggestion.

*Trench 5 (**Figure 6**)*

3.3.31 Trench 5 was excavated *c.* 200m to the south-west of the broch in the garden of *Cul-an-Dun*. It was 1m long x 0.75m wide and was opened adjacent to a stone upright in order to determine whether this orthostat formed part of a larger Late Neolithic/Early Bronze Age monument. The stone investigated was situated on the lawn that had been levelled to some extent. No archaeological deposits or features were identified in this trench, and it was clear that no stone hole existed that would support the idea that the monolith might have originally formed part of a stone circle.

3.3.32 Although at least ten other large stones within a *c.* 30m radius may form part of this group, the pattern they depict is not particularly convincing (**Figure 6**) They form a very irregular circle and most of the stones are not upright. None of the stones were shaped, moved or modified in any way and the irregularity of the stone settings would confirm that this stone forms part of a spread of glacial erratics in the garden behind *Cul-an-Dun*.

Trench 6

3.3.33 Trench 6, measuring 2m by 1.9m was excavated in order to investigate a series of circular high resistance anomalies to the north-west of the broch, roughly 13m in diameter, that appeared to have a structural form; the shape is suggestive of a wheelhouse (**Figure 1**). The small test pit, however, only revealed modern disturbance and no archaeological features or finds were recovered (**Figure 7**). Immediately beneath the topsoil a modern pit was identified (602) that contained a series of *in situ* burning horizons. The characteristic orange-pink degraded sandstone natural was encountered *c*. 0.2m below the topsoil.

3.3.34 After this trench had been excavated, it transpired that Nick Goldthorpe had excavated this pit as a child in 1974, as part of an 'archaeological investigation' and it was subsequently used as a bonfire pit, probably accounting for the high magnetic response in this particular spot.

*Trench 7 (**Figure 7**)*

3.3.35 Trench 7, measuring 1.65m by 1.20m, was opened to investigate part of the same extensive geophysical anomaly targeted by Trench 6. A rubble horizon (702) was encountered below the turf and topsoil, covering the entire trench. It comprised both small and medium rectangular sandstone fragments within a brown silty loam matrix that was 0.15m deep. This rubble horizon was sitting immediately above the degraded orange sandy natural (703), and no structural elements were identified within this trench.

3.3.36 Interpretation is hampered by the small size of this trench. It is clear that the rubble encountered is derived from some structure in the vicinity, and it is unlikely that it is has come from the broch. The broch structure is located over 50m to the south-east and Trench 7 was situated on a level area, not downslope from the broch, so stones are unlikely to have tumbled in this direction. The geophysical survey identified anomalies that were initially thought to represent a wheel-house. However, the circular anomalies may indicate the presence of small circular stone structures, possibly associated with the occupation of the broch. It is not uncommon for broch settlements to spring up, and for a broch to mark the focal point for a wider settlement community that expands beyond the broch walls. Without further investigation, no definite conclusions can be offered, but it is clear that the rubble encountered in this trench must have come from some nearby stone building that may be of Iron Age date or later.

*Trench 8 (**Figure 2**)*

3.3.37 Trench 8, measuring 1.7m by 1.7m, was opened up adjacent to, and to the south of Trench 1, in order to confirm whether the entrance way identified in Trench 1 continued through the gallery and the external broch wall.

3.3.38 As with Trenches 1 and 3, the topsoil was mixed with rubble sandstone collapse (801), but as soon as this was removed, the foundation of the external broch wall was revealed. This wall (Group 805) had a total width of 1.1m and comprised external and internal dressed faces (803 & 804) with a central rubble core (802). Like the other segments of walls revealed, it was clear that 805 had been heavily robbed, but because it was only exposed and not excavated to any extent, it is unclear how deep the wall foundations survive.

3.3.39 Despite the small size of the trench, it was possible to note the extent of curvature of the broch wall by linking 805 with the external wall (Group 121) revealed in Trench 1 (**Figure 8**). Furthermore the wall in Trench 8 was continuous, and the lack of a break implies that the gap identified in Trench 1 does not relate to an entrance but to an internal access point into the gallery and the stairwell.

3.3.40 This configuration has been recorded at numerous other ground galleried brochs (e.g. Loch na Berie, Lewis, and and Dun Bharabhat, Cnip; Armit 1996, figs. 7.4 and 7.5), and it is likely as in these examples, the entrance into the broch would have run at right angles to the staircase. In the case of Applecross, this would have meant an eastern entrance, perhaps not coincidentally in the direction where the causeway identified in Trench 2 is located. From excavations of other broch sites (see Armit 1996, 112-3) we know that brochs only had a single small and narrow entrance, and these are generally on the eastern side.

4 FINDS

4.1.1 Finds were recovered from four of the eight trenches excavated. The bulk of the assemblage is assumed to be of Iron Age date, associated with the use of the broch, although there were a few modern finds.

4.1.2 All finds have been quantified by material type within each context, and totals by material type and by trench/site area are presented in **Table 1**. Subsequent to quantification, all finds have been at least visually scanned in order to gain an overall idea of the range of types present, their condition, and their potential date range. Spot dates have been recorded for pottery. All finds data are currently held on an Access database.

4.1.3 This section presents an overview of the finds assemblage, on which is based an assessment of the potential of this assemblage to contribute to an understanding of the site in its local and regional context, with particular reference to the use of the broch.

4.2 Pottery

4.2.1 Apart from two modern sherds from Trench 2 (context 205), all of the pottery is of Iron Age date, deriving mainly from Trench 3, with one sherd from Trench 4. One sherd is in a coarse fabric tempered with rock fragments; the remaining 12 sherds are in fine sandy fabrics containing occasional organic inclusions. One sherd carries an applied strip or cordon (context **316**).

4.3 Ceramic building material and fired clay

4.3.1 Seven pieces of modern ceramic building material (tile) came from Trench 2 (topsoil and context 205).

4.4 Stone

4.4.1 One stone object, a trough quern, was recorded in Trench 3 but not removed from site. Of the remaining 37 pieces of stone collected from the site, none are obviously either worked or utilised, although amongst the 17 beach pebbles present one or two show rather ambiguous signs of wear, perhaps through use as rubbing or hammer stones. Four joining igneous fragments from Trench 1 (topsoil) have smooth, but not necessarily worked/utilised,

surfaces. One piece of roofing slate came from Trench 2 (context 205), in association with modern pottery.

4.5 Glass

4.5.1 An annular bead in translucent blue glass came from topsoil in Trench 1. Blue beads of this type have a lengthy currency in the British Isles, from the 6th century BC through the Iron Age, into the Roman period and even beyond. One or two pre-Roman examples are known from the west coast of Scotland, and they also appear on native and Roman sites in Scotland after the conquest (Guido 1978, 66-8).

4.6 Metalwork

4.6.1 Iron objects comprise a nail (402), a knife blade (111) and two sheet fragments of unknown function (112).

4.7 Slag

4.7.1 A small amount of ironworking slag was recovered, most of which came from trench 3 (context 303). The latter group includes pieces of very dense slag, probably deriving from iron smelting. The surface shows clear traces of a floor structure and is therefore interpreted as tap slag. On this technological basis, a post-Iron Age date is considered most likely for this material. The slag associated with the kiln/hearth structure in Trench 3 is undiagnostic and may derive from either iron smelting or smithing, as may be the very small quantities from Trench 4.

4.8 Worked Bone

4.8.1 Five objects of worked bone or antler were recovered – two points (401, 403), plus a fragment possibly from a third point or gouge (402), the tip of a possible pinbeater (weaving tool: 401), and a short length of antler tine, possibly an offcut (111).

4.9 Animal Bone

4.9.1 Some bone was recovered from samples and is included with the hand-recovered assemblage here. Iron Age ceramics were present in four of the contexts that contained animal bone, but no other dating evidence was available at the time of assessment. The majority of bone was from trench 4 (the midden).

4.9.2 Thirty percent of the total 669 bones were recorded as being poorly preserved, although the majority of these were tiny calcined fragments from 315. The rest of the bone including all that from trench 4 was in fair condition. Gnawing incidence was low, at 2%, mainly affecting the bone from trench 4, suggesting that overall scavenging had not affected the assemblage to a great degree.

4.9.3 Only 17% of fragments were identified to species, and while this is partly because a large number of undiagnostic fragments were recovered from

samples, it also attests to the fragmentary nature of some of the bones from larger assemblages in trench 4. Loose teeth comprise 18% of all identified bone, also probably a result of (pre- or post-depositional) breakage of jaws.

4.9.4 Cattle are the most common species and sheep/goat are also well represented (**Table 2**), with smaller numbers of pig. Wild animals were relatively frequently observed, indicating hunting activity, with land mammals mainly in bone from trenches 1 and 3, and probable seal and fish particularly seen in trench 4. Red deer (both shed antler and limb bones) and fish were fairly common. Fish remains were present in large numbers from midden 407 (see **Table 3**; sample finds not included in **Table 2**), and included two charred otic bulae that would suggest the burning of fish heads. A single fish vertebra came from kiln/hearth 317, and given the high numbers of roots could be intrusive. Other wild animals included possible fox and, in 111, a minimum of three voles.

4.9.5 Twenty-nine percent of identified bones could be aged, including neonatal cattle, immature cattle, pig and red deer from trench 4 (deposits 402 and 403). Size of animals could be calculated from 11% of identified bones, and while some were very large (the cattle from 204 for instance which was sawn and may therefore be modern in date), most domestic animals were small and slender.

4.9.6 Butchery marks were observed on 6% of all bones (wild and domestic), and included chops for portioning the carcass, cuts from dismemberment and meat stripping, and fractures made on fresh bone, presumably to extract bone fat. An antler beam in 103 may have been chopped or sawn, and the means of formation of a strange rounded fracture across an immature cattle femur in 402 is not known.

4.9.7 Of the 13% of bones that were burnt, almost all were from 315 (which also contained an unburnt pig tooth) and were tiny calcined fragments, perhaps from a hearth. Calcined sheep sized animal bone fragments were also seen in 403, but here they were in the minority.

4.9.8 It is notable that the bone from trench 4 contained a very high proportion of unidentified long bone and rib fragments (for instance only one of 75 hand recovered fragments in 401 was identified) and this may reflect an intensive processing strategy where all animal products were fully exploited.

4.10 Marine Shell

4.10.1 Given the location of the site the presence of a variety of marine shell species is unsurprising; examples of periwinkle, limpet/mussel, oyster, scallop and razor shells were identified. A sample taken from midden deposit 111 produced large amounts of degraded mussel (*Mytilus edulis*) shell, and degraded mussel shell was also recovered from midden 407 (see **Table 3**, sample finds not included in **Table 2**). No other remains of shellfish were seen in the samples.

5 PALAEOENVIRONMENTAL EVIDENCE

5.1 Charred Plant Remains

5.1.1 While charred plant remains were not abundant, preservation was very good. Grains of barley were present in six of the seven midden samples (excepting context 315). In most cases they could be seen to be of hulled barley, the grain still tightly enclosed in the palea and lemma. Grains of oats (*Avena* sp.) were also present in most of the samples, but could be of the cultivated or wild variety. They were not present in any great quantity within any of the samples

5.1.2 Alongside barley the other category that was particularly abundant was hazelnut (*Corylus avellana*). Fragments were present in all the midden samples, but absent from kiln/hearth 317.

5.1.3 Kiln/hearth 317 produced large numbers of monocot (grasses/sedges) basal stems, rootlets and tubers. That the same sample also contained high numbers of sedge seeds (*Carex* spp.), of which at least two species were represented, suggests that the stems/tubers may have also come from sedges.

5.1.4 Other seeds were generally poorly represented within the samples and included probable weeds, such as annual meadow grass (*Poa annua*), goosefoot (*Chenopodium* sp.) and ribwort plantain (*Plantago lanceolata*).

5.1.5 Hulled barley is by far the most commonly recorded crop from Iron Age and Roman Scotland (Dickson and Dickson 2000). It is also recorded from other mainland Brochs including Fairly Knowe, Stirlingshire (Boyd 1985). While other crop remains have been noted from Iron Age Scottish sites, e.g. spelt wheat (*Triticum spelta*) from Oakbank Crannog (Clapham and Scaife 1988), and naked barley from Dun Mor Vaul broch on Tiree (Renfrew 1974), no evidence though was seen for either at Applecross.

5.1.6 Remains of hazelnut are also recorded from the Scottish Iron Age, e.g. Sheils, Glasgow (Robinson 1983), although perhaps less commonly than its representation at Applecross. Given the time and expenditure in the collection of wild foods, such as hazel, it may be that the inhabitants had greater access to such resources than upon other less high status Scottish sites.

5.1.7 The remains of sedges in the hearth, given the small amount of wood charcoal in this sample, might indicate its use for fuel. It is also possible it may be waste from material collected for use in thatch or basket making, for example.

5.2 Charcoal

5.2.1 Charcoal was noted from the flots of the bulk samples and is recorded in **Table 3**. Hand picked charcoal fragments were also recovered from midden contexts 403 (9 pieces) and 404 (11 pieces). These same contexts also produced the highest quantities of wood charcoal along with that from

midden layer 315. Most of the charcoal was relatively large pieces with little visible roundwood.

5.3 Mollusca

5.3.1 Mollusc remains were generally scarce in the samples. A single shell of *Cepaea* sp. a catholic species was recovered from midden deposit 111.

5.4 Conclusions and Potential

5.4.1 The presence of charred grain and charcoal confirms the presence of burning and domestic activities on site such as parching, processing storage and consumption. Marine resources (mussel shells and fish bones: see **Section 4**) are typical of other similar sites and conform to a recognised pattern of exploitation of marine resources. The dumps of mussel shell have created local microenvironments facilitating preservation of fish bone and land snails.

5.4.2 The charred plant remains can provide evidence for the diet of the inhabitants of the broch at Applecross and some indication of the local resources (hazel) and environment.

5.4.3 The charcoal indicates the selection of wood for fuel. Comparison of the material from middens 315 and 407 could reveal differences in such selection associated with possible later occupation on the site. The charcoal can also provide some information about the local woodland environment, and of any management of that resource.

5.4.4 No further analytical work is proposed on the flots. Full quantification was carried out from the flots and so there is no further need for analysis of the samples. It is suggested that the residues be scanned and that the results of this assessment be written into the full report.

6 CONCLUSIONS

6.1 Introduction

6.1.1 Stone-built Atlantic roundhouses have dominated our understanding of the Scottish Iron Age. Brochs form only one component of the Atlantic roundhouse tradition, which also includes island duns, wheelhouses, semi-brochs and dun houses. Atlantic roundhouses were primarily domestic structures, but they also continued to develop and increase in complexity until around the end of the 1st millennium BC.

6.1.2 Broch towers have long dominated romantic perceptions of the rough and rugged highlands and islands of Scotland: massive stone ruins in an isolated and bleak rocky landscape. However, it is only in recent decades that modern excavations have allowed us to understand these monumental drystone towers properly. In the last 25 years brochs have attracted a great deal of attention, particularly those in the northern and western Isles. Major excavations of brochs in the western Isles include Dun Bharabhat, Lewis

(Harding and Dixon 2000), Cnip, Lewis (Armit 2003), and Bu and Gurness in Orkney (Hedges 1987).

6.2 Typology

6.2.1 The results of the evaluation were able to determine that the stone structure excavated at the Applecross campsite was that of a broch and hence one of the more complex sub-sets of roundhouses. Although only a small part of the overall structure was exposed, it was clear that the building had been constructed with two sets of walls, separated by a central space or gallery. Furthermore, broch interiors often have paved floors, and evidence for such paving may have been revealed on the surface by the internal doorway, although this had been partially robbed. Not enough was excavated to allow an understanding of the nature of the internal structure, such as whether there were any intra-mural divisions including cells or hearth structures.

6.2.2 Only the foundations of this broch survived, and it is clear that the structure had been subjected to heavy stone robbing. Although a good portion of it was still standing in 1800, during the next decade it was demolished and the stones were used to build park walls and this may be when the broch was almost entirely robbed out to its foundations.

6.2.3 The severe robbing of stone has meant that the original form and height of the broch tower is very difficult to determine. However, it is likely that this building would have been a fairly tall, visually imposing tower, constructed from two concentric walls tied together at various intervals by stone slabs to create a series of superimposed galleries. Certainly the presence of an internal staircase within the walls indicates that the broch had a second storey. It was probably several metres in height, with the hollow drystone wall tapering to the top of the structure. Some of the better preserved brochs such as Caisteal Grugaig, in Totaig, Dun Beag, Skye (Callender 1921) or Mousa, Shetland (Ritchie 1988) may provide clues concerning its original construction. These brochs all had ledges or 'scarcements' projecting from the inner wall which could have supported internal timber floors and a conical thatched roof.

6.2.4 The external diameter of the broch at Applecross was *c*. 16.8m, while its internal diameter was *c*. 11.9m, and its overall wall thickness was 4.9m thick. These dimensions compare favourably with other brochs from the West Coast and Inner Isles. For instance, the mean internal diameter of Skye brochs is *c*.10.5m, with a wall thickness of *c*. 3.5m On the central mainland brochs tend to be larger with a mean internal diameter of *c.* 11.74 m internal diameter, but with thicker walls – *c*. 5.3m (Martlew 1982, 257). Brochs on the west coast tend to have thinner walls, larger internal diameters, and ground galleries, while brochs in the north tend to have thicker walls, smaller internal diameters and solid bases.

6.3 Chronology

6.3.1 The typology of the broch (ground-galleried rather than solid-based) may help in determining its chronology. Solid-based forms of brochs, such as Dun

Telve and Dun Troddan, are seen as chronologically later developments (Harding 1984, 215). Prior to the 1970s (e.g. MacKie 1965) it was generally believed that brochs were built by incomers to Scotland, and that they were a relatively late development dating from *c*. 100BC until the 3rd and 4th centuries AD. The construction of broch towers and wheelhouses is generally thought to date between 400 and 200 BC with brochs continuing in use in the period 200BC-AD 200 (Parker Pearson *et al.* 1996, 61). As Armit has recently stated (1996, 113-114) brochs form part of the continuum of the tradition of monumental stone architecture of Atlantic Scotland that begins as early as the Late Bronze Age or *c*. 700BC. Brochs are effectively the final culmination of this complex roundhouse tradition, and Armit (*ibid*., 116) argues that ultimately, the search for broch origins is futile, since continuity in development for over a millennium blurs any sharp typo-chronological changes in the tradition. It is likely that the Applecross broch was constructed within the later Atlantic Iron Age tradition, after 400BC, although only a programme of radiocarbon dates from secure contexts from the broch structure will be able to provide a more precise chronology.

6.4 Function of brochs

6.4.1 In recent years, archaeologists have begun to minimise the defensive role played by brochs, and it is true that many brochs are not sited tactically in the strongest locations (Harding 2006, 74). A broch would certainly provide more protection than an open settlement but security may have been only one of the motivations behind broch construction.

6.4.2 Unlike Iron Age hillforts, however, brochs were not large communal centres but rather were the product of small and more dispersed communities, and as Harding suggests (2006, 74-5) may have been the fortified homesteads of the social or warrior elite. Perhaps the small entrances to the brochs were also associated with ideas of control of access, perhaps to materials (foodstuffs etc.) stored within the broch.

6.4.3 However, there is also evidence to support the idea that brochs were not so much the residences of the warrior aristocracy, but rather functioned as strongholds and temporary refuges for dispersed populations during times of insurrection. According to Armit (1990b, 1996), in the Western Isles and mainland, settlement gradually shifted from the interior to the coastal zone during the Iron Age, mainly as a result of environmental degradation (deforestation, soil exhaustion etc.). The adoption of Atlantic roundhouses therefore might be a reaction to increasing conflict over access to the ever-decreasing areas of usable land in the later 1st millennium BC (Armit 2003, 24).

6.4.4 Although the evaluation at Applecross was too limited to determine the various functions of this broch, it is possible that it played a defensive role within the context of seasonal raiding or limited short-term conflicts in the wider peninsula (e.g. Blythe 2005). There is indirect evidence to support the argument that this broch may have borne witness to times of economic stress and competition for resources. Firstly, it is located in a defensive position, on an elevated rocky sandstone outcrop, providing commanding views over the

coast (the Inner Sound) to the north and west. Secondly, the presence of a path or causeway, which has been documented at other sites such as at Gurness (Armit 1990c, 200), may have had defensive connotations. At Gurness, the path acted as a means to control access into the broch tower, and it is possible that a similar role was attached to the causeway leading to the Applecross broch. It may have accentuated the importance of the broch tower and controlled the movement of people, including approaching enemies.

6.4.5 More excavation would be required to determine whether the geophysical anomalies identified to the north-west of the broch formed a wider settlement, where the majority of the inhabitants lived on an everyday basis, using the broch only in times of defensive need. Further excavation would also be able to determine whether this extra-mural settlement, if it existed, was contemporary with the use of the broch, or was associated with the later reuse of the site. If contemporary, it may have formed a broch village, similar to those found on other sites like Gurness and Howe in Orkney (Hedges 1987; Ballin Smith 1994). Gurness and Midhowe had rather sizeable settlements clustered around their bases (Armit 1996, 122), with the broch tower acting as the physical and spatial centre of the village.

6.5 History of Inhabitation

6.5.1 The evaluation sought to identify when the broch was established and whether there was more than one phase of construction or use. The trenches opened did not suggest that there was much remodelling to the broch, which should be the case if the site had been subject to periods of reuse after the Iron Age. However, evidence of later modifications may also have been lost as a result of the extensive nature of the stone robbing with only the base foundations left. The nature of the external midden deposits would suggest that the broch had been reoccupied after the Iron Age, particularly since the midden layers were sealing elements of broch collapse. Furthermore, the nature of some of the slag found in Trench 3 to the north-west of the broch indicates iron-smelting and that the slag was tapped from the furnace. This technology would suggest a post-Iron Age date.

6.6 Conclusions

6.6.1 The archaeological investigation at Applecross was able to reveal a structure with key characteristics that can be attributed to the Atlantic Iron Age architectural tradition, and to confirm that it belonged to the class of brochs rather than that of duns or wheelhouses. The project was also able to demonstrate that the broch had been subject to at least one phase, if not more, of reuse. Only a programme of radiocarbon dating would be able to provide a more precise chronology for the re-occupation(s) of the broch, and whether the infilling of the broch with midden material was related to Iron Age abandonment or also relates to later activity (Pictish/Viking/Norse etc.) on the site. The external midden deposits however are likely related to post-Iron Age activity, and contained good environmental deposits that implied that during this time the inhabitants were subsisting on a mixed economy that included domestic and wild animals, as well as harvesting marine resources.

Evidence for post-broch industrial and textile manufacturing processes was also indicated by the presence of slag in Trench 3 and weaving tools from the midden.

7 RECOMMENDATIONS

7.1.1 There is no immediate threat to the broch at present, and it is not affected by ploughing, animals or development work from the campsite. However any remedial works to the overhead power cables should bear in mind that they have been driven through an Iron Age structure. Furthermore, any future developments to the campsite in the direction of the broch, or its possible wider settlement, or the insertion of any new services for the campsite, should not be undertaken without consultation with the regional archaeologist first to ensure no damage to the structure.

7.1.2 It is likely that the internal midden deposits infilling the broch structure are contemporary with the Iron Age abandonment, since some of this material had washed downslope at the same time as the elements of broch wall collapse. It is proposed that a programme of radiocarbon dating from material, if suitable, is carried out from both internal midden deposits and from the external midden as well. These determinations would allow the dating of the abandonment of the broch (and provide a terminus *ante quem* for its occuapation), as well as allowing a more precise chronology for the later reuse of the broch and whether it relates to Pictish or Viking or later occupation.

7.1.3 The evaluation has produced a small finds assemblage which includes little cultural material which can be tied to the use of the broch (a few pottery sherds, some possible utilised stone, a few pieces of worked bone, and a little iron smelting slag). Little further useful information can be gained from this material, and further analysis is not recommended.

7.1.4 Animal bone, however, as the most commonly occurring material type, has greater potential. This is a small but reasonably well preserved and potentially interesting faunal assemblage with a relatively wide range of species, which seems to indicate intensive exploitation of animal resources. Most of the assemblage appears to have derived from contexts associated with the use of the broch. Further analysis should focus on the bone from the broch midden in Trench 4, which should be recorded in more detail, including fragmentation patterns (size and fracture type, as outlined in Outram 2002) to better understand the intensity of carcass breakdown. The fish, small mammal and possible seal bones should be formally identified to species

7.1.5 A short article, probably between 2000-3000 words with two or three supporting illustrations, based on the results, finds, discussion and figures in this assessment report, in an appropriate archaeological journal such as the *Proceedings of the Prehistoric Society of Scotland* is suggested as an adequate level of publication given the results from this project. This would comprise a brief introduction detailing the circumstances of the project and

the aims and objectives; a results section detailing the structural remains recorded, with finds and environmental information integrated into the text as appropriate; and a brief discussion of the results, with reference to the original project aims and objectives.

7.1.6 A copy of this report and the geophysical report will be submitted to the National Museums Record of Scotland (held by the Royal Commission on the Ancient and Historical Monuments of Scotland). Copies of this report will also be submitted to Highland Council Sites and Monuments Record and Applecross Heritage Centre.

7.1.7 Since this site is on a fairly popular campsite, perhaps some notice boards displaying the results and interpretations from the Time Team excavations would be a useful way to inform people about the importance of this site. Furthermore leaflets providing a summary of the excavations might also be made available, should any grants/funds be available for such a proposal.

8 ARCHIVE

8.1.1 The archive, which includes all artefacts, written, drawn and photographic records relating directly to the investigation is undertaken, is currently held at the offices of Wessex archaeology under the site code APP 05 and Wessex Archaeology project code 59464. It has been quantified, ordered, indexed and cross-referenced and the paper archive is contained in one lever arch file. It is intended that, in accordance of the wishes of the Treasure Trove Advisory Panel Secretariat, the excavated material and records will in due course be deposited at Inverness Museum. The paper archive will be curated by Royal Commission on Ancient and Historical Monuments and Constructions of Scotland.

8.1.2 The paper archive is contained in a lever arch ring binder file. It includes:

Project Design
Copy of this report

The GSB Prospection geophysical report including a record of all data, plots of the results, interpretation with detailed comments and conclusions.

The excavation archive includes:

- 11 A4 test pit/trial trench sheets
- 34 A4 context record sheets
- 2 A4 graphics register sheets
- 3 A1 drawing sheets
- 8 A3 drawing sheets
- 7 A4 drawing sheets
- 10 A4 photographic register sheets

The photographic archive includes:

- 83 colour transparency slides
- 81 monochrome photographs

Finds as described in this report (see **Section 4** and **Tables 1** & **2**)

Environmental materials as described in this report (see **Section 5** and **Table 3**)

REFERENCES

Anderson, G. & Anderson, P., 1850, *Guide to the Highlands and Islands*, Edinburgh: Adam and Charles Black

Armit, I., (ed.)., 1990a, *Beyond the Brochs. Changing Perspectives on the Atlantic Scottish Iron Age*, Edinburgh: Edinburgh University Press

Armit, I., 1990b. Brochs and Beyond in the Western Isles. In Armit, I. (ed.). 1990. Beyond the Brochs. Changing Perspectives on the Atlantic Scottish Iron Age. Edinburgh University Press, Edinburgh, 41-70

Armit, I., 1990c, 'Epilogue: The Atlantic Scottish Iron Age' in Armit 1990a, 194-210

Armit, I., 1996, *The Archaeology of Skye and the Western Isles*, Edinburgh: Edinburgh University Press

Armit, I., 2002, 'Land and freedom. Implications of Atlantic Scottish settlement patterns for Iron Age land-holding and social organisation; in Ballin Smith, B. & Banks, I. (eds.), *In the Shadow of the Brochs. The Iron Age in Scotland*, Stroud: Tempus, 15-26

Armit, I., 2003, *Towers in the North: The brochs of Scotland*, Stroud: Tempus

Ballin Smith, B., 1994, *Howe: four millennia of Orkney prehistory*, Edinburgh: Soc. Antiq. Monog. 9

Blythe, I., 2005, 'A military assessment of the defensive capabilities of brochs' in Turner, V., Nicholson, R.,. Dockrill, S, and Bond, J. (eds), *Tall Stories? Two Millennia of Brochs.* Oxbow Books, Oxford., 246-53

Boyd, W.E., 1985, 'Botanical remains of edible plants from the Iron Age broch at Fairy Knowe, Buchlyvie, near Stirling', *Forth Nat. and Hist*. 7, 77-83

British Geological Survey Scotland, 1975, *Loch Torridon Sheet 81E*: Drift Edition

Callender, G., 1921, 'Report on the Excavation of Dun Beag, a broch near Struan, Skye'. *Proc Soc Antiq Scot* No 55, 110-131

Clapham, A. and Scaife, R., 1988, 'A pollen and plant macrofossil investigation of Oakbank crannog' in Murphy, P. and French, C. (eds), *The Exploitation of Wetlands*, Oxford: Brit. Archaeol. Rep. 186, 293-325

Dickson, C. and Dickson, J.H., 2000, *Plants and People in Ancient Scotland*, Stroud: Tempus

Geological Survey, 1954, *Geological Map of Applecross*, Sheet 81 (1st pub. 1899), Geological Survey of Great Britain

GSB, 2005, *Applecross, Highlands, Geophysical Survey Report*, unpub. report for Time Team, ref. 2005/34

Guido, M., 1978, *The Glass beads of the Prehistoric and Roman Periods in Britain and Ireland*, Rep. Res. Comm. Soc. Antiq. London 35

Harding, D.W., 1984, 'The function and classification of brochs and duns' in Miket, R. and Burgess, C. (eds.), *Between and Beyond the Walls. Essays on the Prehistory and History of North Britain*, Edinburgh: John Donald Publishers Ltd., 206-20

Harding, D.W., 2006, 'Redefining the Northern British Iron Age', *Oxford J. Archaeol.* 25 (1), 61-82

Harding, D.W. and Dixon, T.N., 2000, *Dun Bharabhat, Cnip: An Iron Age Settlement in West Lewis. Vol. 1: Structures and Material Culture*, Edinburgh: Edinburgh University Dept. of Archaeology, Calanais Research Series 2

Hardy, K. & Wickham-Jones, C., 2000, 'Inner Sound, Highland, survey and excavation', *Discovery and Excavation in Scotland* 1, 44

Hedges, J.W., 1987, Bu, Gurness and the Brochs of Orkney Part 2, Gurness, Oxford: *Brit. Archaeol. Rep.* 164

MacKie, E.W., 1965, The origin and development of the broch and wheelhouse building cultures of the Scottish Iron Age. *Proc. Preh. Soc*. 30, 93-146.

MacKie, E.W., 1983. 'Testing hypotheses about brochs'. *Scottish Archaeological Review* 2, 117-28

MacQueen, Rev. J., 1792, *Old Statistical Account of Applecross*, from the Parish Manuscripts

Martlew, R., 1982, 'The typological study of the structures of the Scottish brochs', *Proc. Soc. Antiq. Scotland* 112, 254-76

Ordnance Survey 1874, *First Edition of Raasay and Applecross*. 1 inch to mile

Outram, A., 2002, 'Bone fracture and within-bone nutrients: an experimentally based method for investigating levels of marrow extraction' in P. Miracle and N. Milner (eds.), *Consuming Patterns and Patterns of Consumption*, Cambridge, McDonald Institute for Archaeological Research, 51-63

Parker Pearson, M., Sharples, N. and Mulville, J., 1996, 'Brochs and Iron Age society – a reappraisal', *Antiquity* 70, 57-67

Robinson, D.E., 1983, 'Pollen and plant macrofossil analysis of deposits from the Iron Age ditch' in Jones, M. (ed.), *Integrating the Subsistence Economy*, Oxford: Brit. Archaeol. Rep. Int. Series 181, 123-34

Renfrew J., 1974, 'Cereals' in MacKie, E.W., *Dun Mor Vaul: An Iron Age Broch on Tiree. Strathclyde*: Glasgow University Press, 210-13

Ritchie, J.N.G., 1988, *Brochs of Scotland.* Aylesbury, Shire Books

Thomas, A.C., 1971, *The Early Christian archaeology of north Britain*. The Hunter Marshall lectures delivered at the University of Glasgow in 1968, London

Videotext Communications, 2005, *Proposed archaeological evaluation at Applecross Broch, Highland, Scotland* (NG 71183 44331). Unpublished Project Design, Videotext Communications Ltd, Time Team

Watson, W.J., 1904, *Place-Names of Ross and Cromarty*, Inverness; reprinted Evanton, 1996

Table 1: Finds totals by material type and by trench (number / weight in grammes)

Material	**Tr. 1**	**Tr. 2**	**Tr. 3**	**Tr. 4**	**TOTAL**
Pottery	-	2/17	12/98	1/7	**15/122**
Iron Age	-	-	*12/98*	*1/7*	***13/105***
Modern	-	*2/17*	-	-	***2/17***
Ceramic Building Material	-	7/155	-	-	**7/155**
Fired Clay	-	-	1/54	-	**1/54**
Stone	12/3916	8/881	9/1151*	9/972	**38/6920+**
Glass	1/1	-	-	-	**1/1**
Slag	-	1/10	25/1469	1/106	**27/1585**
Iron	3/56	-	-	1/3	**4/59**
Worked Bone	1/3	-	-	4/6	**5/9**
Animal Bone	81/616	4/136	211/334	373/1999	**669/3085**
Shell	6/22	-	2/20	70/188	**78/230**

* includes quern from Trench 3, left on site; weight not recorded

Table 2: Animal Bones. Species present

	Cattle	Sheep/ Goat	Pig	Canid (fox?)	Deer	Small Mammal	Fish	Seal?	Uniden -tified	Total
Fragment count	41	29	6	2	16	3	16	4	552	669

Table 3. Assessment of the charred plant remains and charcoal

Feature no	Context	Sample	Volume	Flot size	Roots%	Grain	Chaff	Notes	Weed seeds	Notes	Charcoal	Other	Notes	Res. Charcoal
?Iron Age														
Trench 1														
Midden Material														
	111	4	10	700	0*	C	-	Barley	-	*Mytilus edulis* ****	C	moll-t (C)	-	-
Trench 3														
Midden Material														
	303	2	10	700	95	A**		hulled Barley x45 oat x2	C(h)	Plantago Hazel frgs. x9 1x A. elatius ssp. bulbosum 1x rootlet	C	-	-	-
	315	5	10	500	40	-	-	1 bud	A*	*Corylus avellana* x40+	A**	-	-	-
Pit/Hearth														
317	316	6	8	250	95	A*		Barley x7 Avena x2	A*	tubers x30 rootlets x15 40+ x *Carex* sp. 2x *Chenopodium*	C	fish (C)	-	-
Trench 4														
Midden														
407	402	1	12	500	5*	A	-	Barley x9	A(h)	1x *Avena Corylus* (A)	A**	fish (A**)	bulae x1	
	403	7	12	300	5*	B	-	Barley x7	A(h)	19x *Corylus avellana*	A**	fish (A*)	-	-
	404	3	12	40	10	C	-	Barley x3	C (h)	1x *Avena*. *Poa* sp. x1 3x *Corylus avellana*	C	fish (C)	bulae x1	-

KEY: A** = exceptional, A* = 30+ items, A = ≥10 items, B = 9 - 5 items, C = < 5 items, (h) = hazelnuts, smb = small mammal bones; Moll-t = terrestrial molluscs Moll-f = freshwater molluscs; Analysis, C = charcoal, P = plant, M = molluscs

APPENDIX 1: TRENCH SUMMARIES

Trench 1. Broch: Doorway and stairwell trench. Northern part of broch

	Max Depth: 0. 70m	Length: 9m	Width: max – 5.5m
No.	**Type**	**Description**	**Depth**
101	*Topsoil*	Current topsoil and turf. Dark brown silty loam, with frequent angular and subangular sandstones	0-0.20m
102	*Structure*	Modern stone setting for post	-
103	*Deposit*	Rubble overlying interior of broch	-
104	*Structure*	External stone facing of external broch wall – Part of Group 121	-
105	*Deposit*	Rubble and soil infill/core of wall Group 121	-
106	*Deposit*	Rubble collapse outside broch, and derived from broch wall collapse	-
107	*Deposit*	Loose stone rubble and stone chip deposit. Fill of cut 118	-
108	*Deposit*	Stones situated within stone setting 102	-
109	*Deposit*	Rubble material underneath loose rubble chips 107 contained within cut 118	-
110	*Structure*	East side of doorway entrance to broch. Part of Group 117	-
111	*Deposit*	Midden material dumped within interior of broch	-
112	*Deposit*	Fill of doorway 115	-
113	*Structure*	Stairway of broch, built into gallery and leading to upper storey. Heavily robbed and only two large flat stones, suggesting a spiral arrangement remain. Part of Group 122	-
114	*Structure*	West side of doorway entrance to broch. Part of Group 117	-
115	*Structure*	Possible flagstone floor at entrance to broch. Part of Group 117	-
116	*Structure*	Wall gallery between external and internal broch walls (defined as Group 121 and wall 123 respectively)	-
117	*Group*	Group Number for internal doorway way – composed of 110, 114 & 115	-
118	***Cut***	**Rectangular cut relating to robber disturbance. Filled with small stone chips 107**	-
119	*Structure*	Line of stones laid vertically. Internal face of external broch wall associated with stairs – Part of Group 121.	-
120	*Structure*	Internal face of internal broch wall – not fully defined	-
121	*Group*	Group Number for external wall of broch – composed of 104, 105 & 119	-
122	*Group*	Group Number for all elements constituting the broch structure – composed of 113, 116, 120 & 121	-
123	*Structure*	External face of internal broch wall – Group 124	-
124	*Group*	Group Number for internal broch wall. Comprises 120, 123 & 125	-
125	*Deposit*	Rubble and soil infill/core of wall Group 124	
126	*Structure*	Gallery of broch between the two walls	-

Trench 2. Causeway Trench

	Max Depth: 1.10 m	Length: 4.5 m	Width: 3.40m
No.	**Type**	**Description**	**Depth**
201	*Topsoil*	Topsoil and turf. Dark grey brown sandy loam, with small subangular pebbles	0-0.15m
202	*Deposit*	Tumble – collapsed rubble.in matrix of brown sandy loam	0.15-0.40m
203	*Wall*	Wall running roughly NW-SE, that is partly composed of natural bedrock outcrop with infilled rubble	0-0.9m
204	*Deposit*	Fill of **205**, Dark brown sandy silt with frequent subrounded and subangular stones	0.42-1.56m
205	***Cut***	**Probably natural/geological ice wedge rather than ditch cut**	**0.42-1.56m**
206	*Natural*	Orange silty sand with much degraded orange sandstone	0.70m+

Trench 3. Northern side of broch and rectangular structure

	Max Depth: 0.68m	Length: 18.5 m	Width: 0.7-1.8 m
No.	**Type**	**Description**	**Depth**
301	*Topsoil*	Topsoil and turf. Dark brown silty sand with frequent angular pebbles	0-0.10m
302	*Deposit*	Rubble collapse associated with hillwash	0.10-0.25m
303	*Deposit*	Dark brown organically rich deposit that is midden derived	-
304	*Deposit*	Rubble collapse layer that is distinct from 302	-
305	*Natural*	Orange brown sandy natural comprising degraded sandstone fragments	-
306	*Deposit*	Stone tumble at base of hill	-
307	*Wall*	External face of external broch wall	-
308	*Wall*	Internal face of external broch wall	-
309	*Deposit*	Rubble infill between 307 and 308	-
310	*Structure*	Stone rubble demarcating the gallery between the external and internal broch walls	-
311	*Wall*	External face of internal broch wall	-
312	*Deposit*	Wall infill to south of wall 311	-
313	*Deposit*	Dark brown silty sand associated with tumble 318	-
314	*Wall*	Single course of N/S aligned drystone wall. Part of a rectangular structure	-
315	*Deposit*	Dark brown black organic rich deposit abutting the external face of the broch (307)	-
316	*Deposit*	Fill of **317**	-
317	***Cut***	**Possible pit feature – not fully excavated. F.W. 316**	**-**
318	*Deposit*	Tumble associated with rectangular structure 314	-
319	*Deposit*	Dark brown midden material dumped between the two broch walls	-
320	*Deposit*	Light grey silty clay, sealed by 314.	-
321	*Stone*	Flat thin stone overlying 316 and under 303	-
322	*Group*	Group Number for external broch wall comprising 307, 308 and 309	
323	*Group*	Group Number for internal broch wall comprising 311 and 312	

Trench 4. Broch midden

	Max Depth: 1.10m	Length: 2m	Width: 1.1m
No.	**Type**	**Description**	**Depth**
401	*Deposit*	Turf and dark grey black midden layer	0-0.32m
402	*Deposit*	Light grey ashy silt horizon	0.32-0.41m
403	*Deposit*	Mottled heterogenous orange silty sand	0.41-0.70m
404	*Deposit*	Mid-dark brown sandy horizon	0.70-1.00m
405	*Deposit*	Light brown sterile sandy deposit – represents the interface between the midden and natural bedrock	1.00-1.10m
406	*Natural*	Degraded sandstone sitting immediately above solid sandstone bedrock	1.10m+
407	*Group*	Group Number for the midden (grouping all midden events)	

Trench 5. "Stone Circle" at Cul-an-Dun

	Max Depth: 1m	Length: 1m	Width: 1m
No.	**Type**	**Description**	**Depth**
501	*Topsoil*	Topsoil and lawn, current ground surface of garden. Some levelling and improvement. Reddish grey silty loam with occasional small-medium subrounded stones	0-0.35m
502	*Natural*	Degraded red sandstone natural	0.35m+
503	*Stone*	Upright boulder . Relates to a glacial erratic	-

Trench 6. North of Broch. Geophysical Anomaly

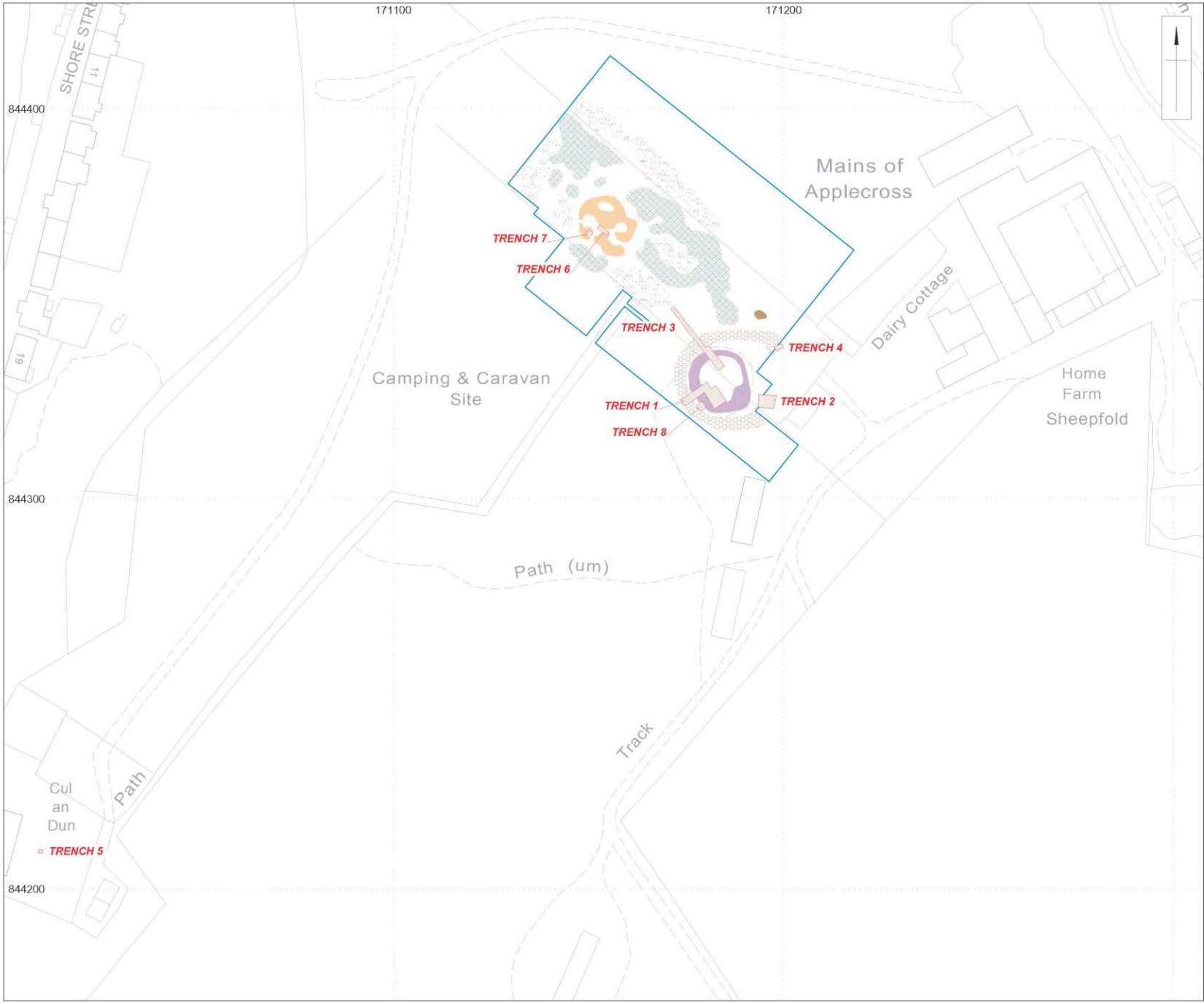
	Max Depth:0.55m	Length: 2m	Width: 1.9m
No.	**Type**	**Description**	**Depth**
601	*Topsoil*	Turf and topsoil with rubble. Mid brownish grey silt loam	0-0.15m
602	***Cut***	**Cut of modern pit excavated by the children in 1974**	**0-0.38m**
603	*Deposit*	Modern fill of 602 – evidence of burning from bonfires	0-0.38m
604	*Natural*	Orange-pink degraded sandstone natural	0.15m+

Trench 7. North of Broch. Geophysical Anomaly

	Max Depth:0.80m	Length: 2m	Width: 1m
No.	**Type**	**Description**	**Depth**
701	*Topsoil*	Turf and topsoil with small subangular stones	0-0.10m
702	*Deposit*	Disturbed rubble layer consisting of small to medium subangular sandstones within a dark brown silty loam matrix	0.10-0.25m
703	*Deposit*	Degraded orange brown sandstone natural	0.25m+

Trench 8. Southern part of Broch

	Max Depth:1.40m	Length: 2.3m	Width: 1m
No.	**Type**	**Description**	**Depth**
801	*Topsoil*	Topsoil and turf with mixed subangular stone rubble. Mid brown silty loam	0-0.10
802	*Deposit*	Wall infill. Greyish brown silty loam mixed with some stone rubble. Represents the robbed rubble core of the external broch wall. Part of Group 805	0.10m+
803	*Structure*	External facing stones of external broch wall. Part of Group 805	-
804	*Structure*	Internal facing stones of external broch wall. Part of Group 805	-
805	*Group*	Group Number for all structural elements constituting external broch wall.	-



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High Resistance - Broch

Low Resistance - Area Devoid of Stone Outside Broch

High Resistance - ?Archaeology

Low Resistance - ?Midden

High Resistance - ?Topographical

Low Resistance - Unknown

Area of Geophysical Survey

0 500m

Geophysical data courtesy of GSB Prospection Ltd

Revision Number:	0
Illustrator:	MR
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Site Location Map and Site Plan showing Trench Locations and Interpretation of Geophysical Survey Results

Figure 1

Plate 1: Internal doorway in Trench 1 (Group 117)
(Scales = 0.5m & 1m)

Plate 2: Internal stairway in Trench 1 (113)
(Scale = 0.5m)

Plate 3: Post-excavation view of Trench 1 from north east
(Scale = 2m)

Plate 4: Post-excavation view of Trench 8 from south east
(Scale = 0.5m & 1m)

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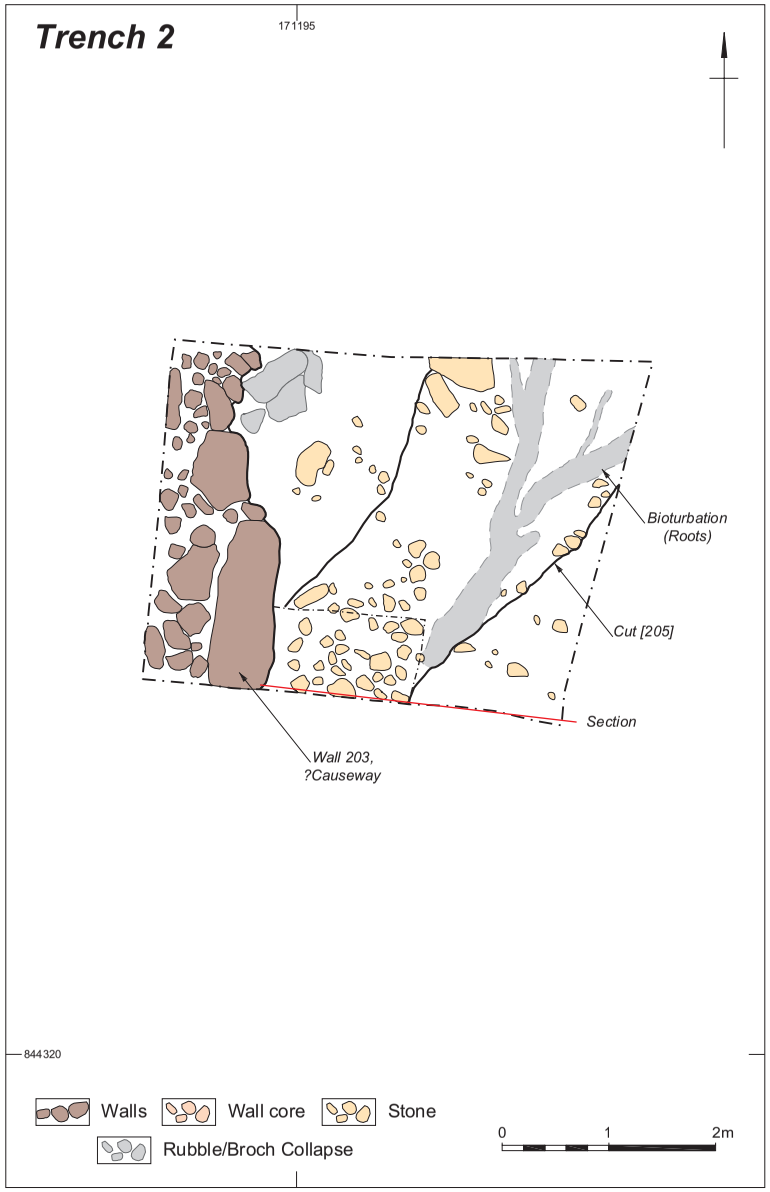
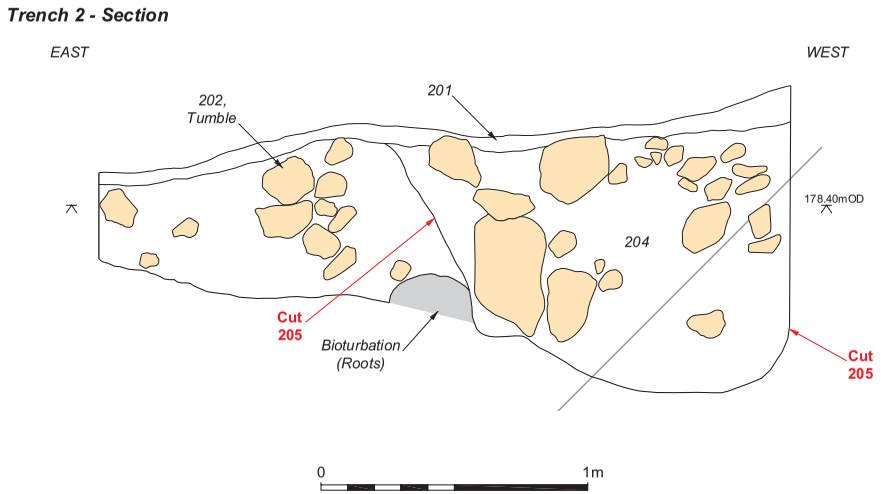
Plan of Trench 1 (Broch) & Plates 1-4

Figure 2





(Scale for section, 1:20 @ A3)

Plate 5: View of Trench 2 from south
(Scales = 1m & 2m)

Plate 6: View of Trench 2 from east
(Scale = 2m)

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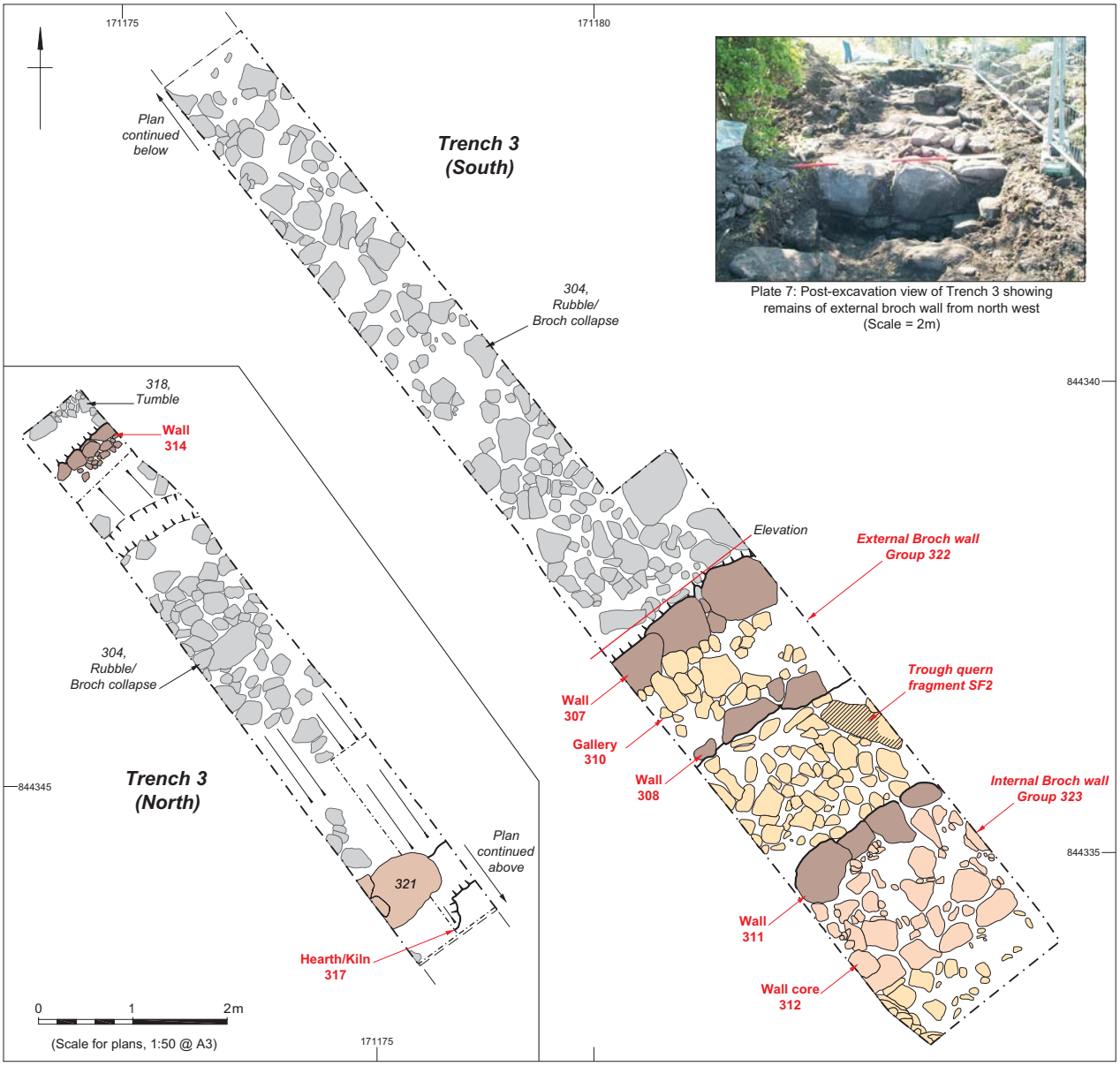
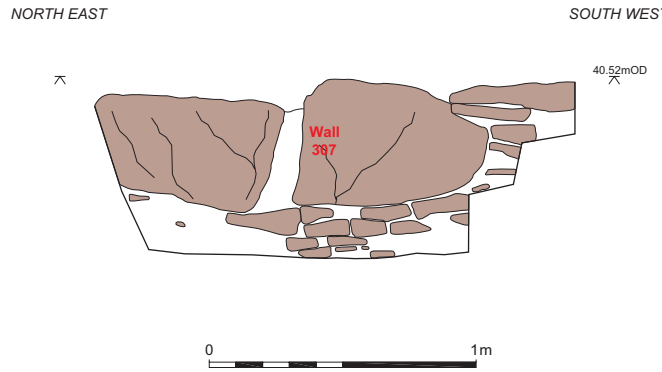


Plate 7: Post-excavation view of Trench 3 showing remains of external broch wall from north west (Scale = 2m)

Plate 8: Hearth structure in Trench 3 from north west

Trench 3 - Elevation



Walls | Wall core | Stone | Rubble/Broch Collapse

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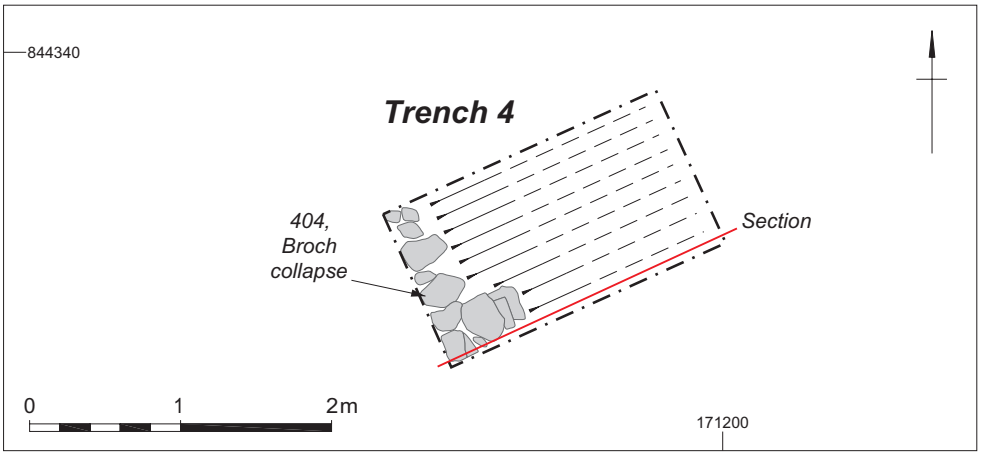
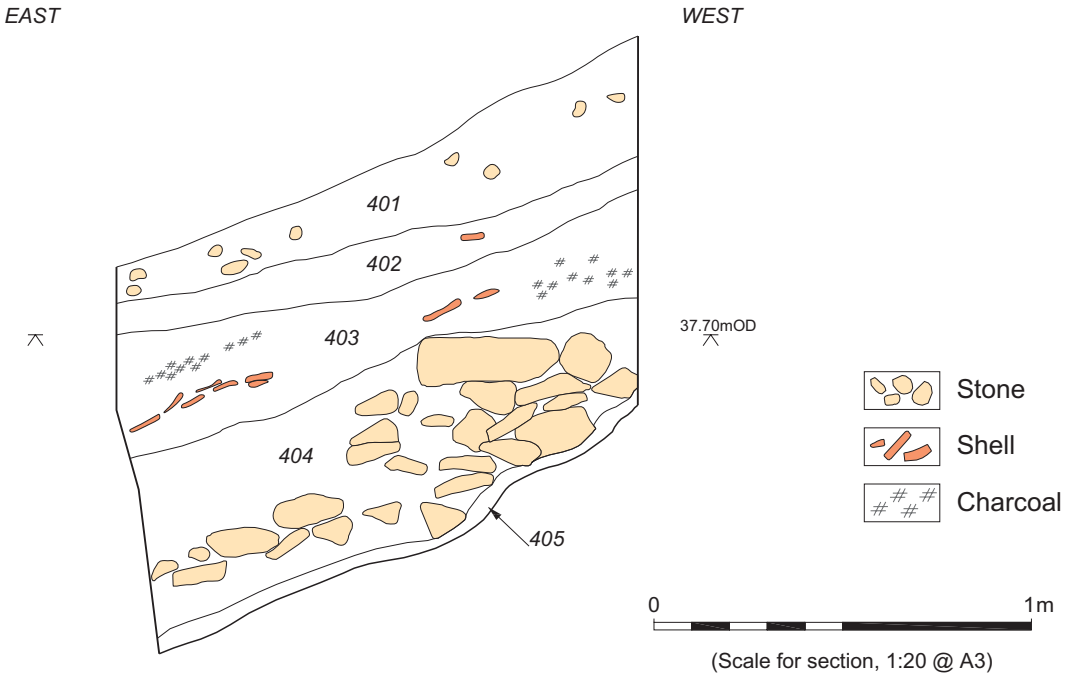
Trench 3 Plan and Section & Plates 7 & 8

Figure 4



Trench 4 - Section



(Scale for section, 1:20 @ A3)

Plate 9: Midden in Trench 4 from north (Scale = 1m)

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Plate 10: View of 'supposed' stone circle

Plate 11: View of 'supposed' standing stone in Trench 5 from north east (Scale = 1m)

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Trench 5: Plates 10 & 11

Figure 6

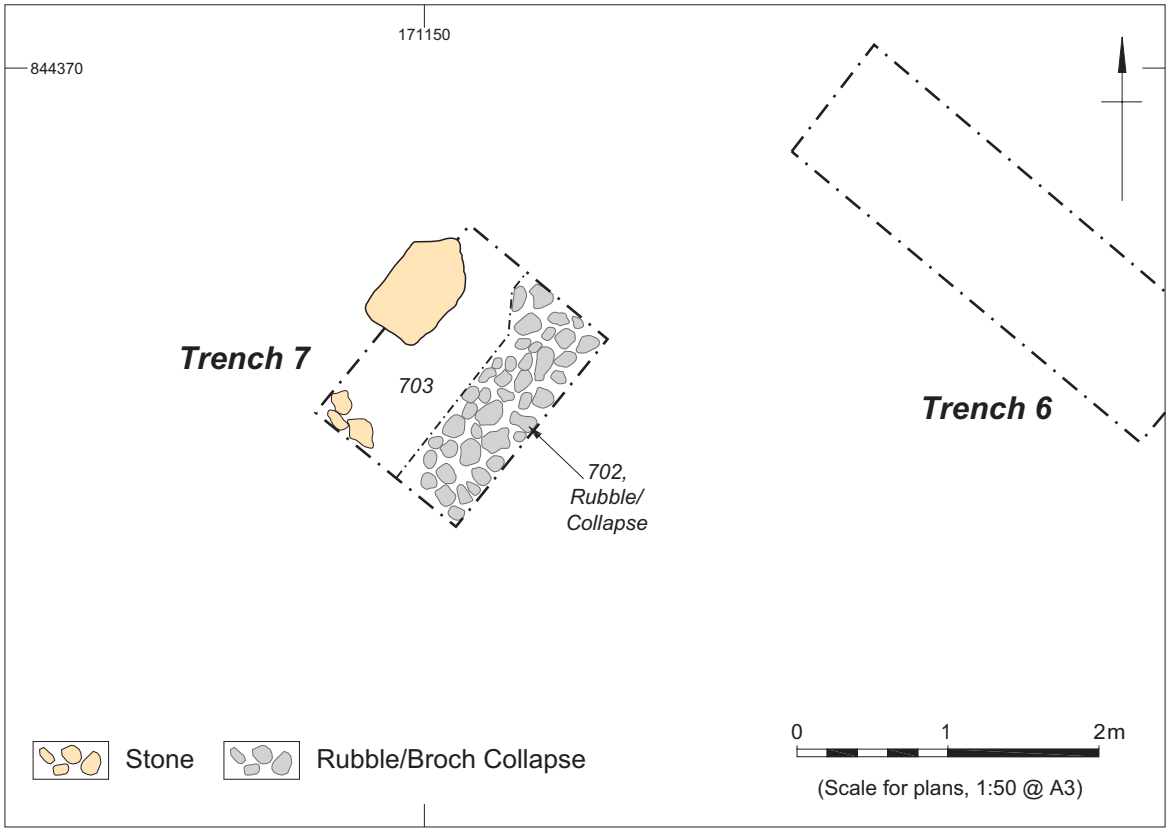

Plate 12: View of Trench 7 from north west (Scale = 0.5m)

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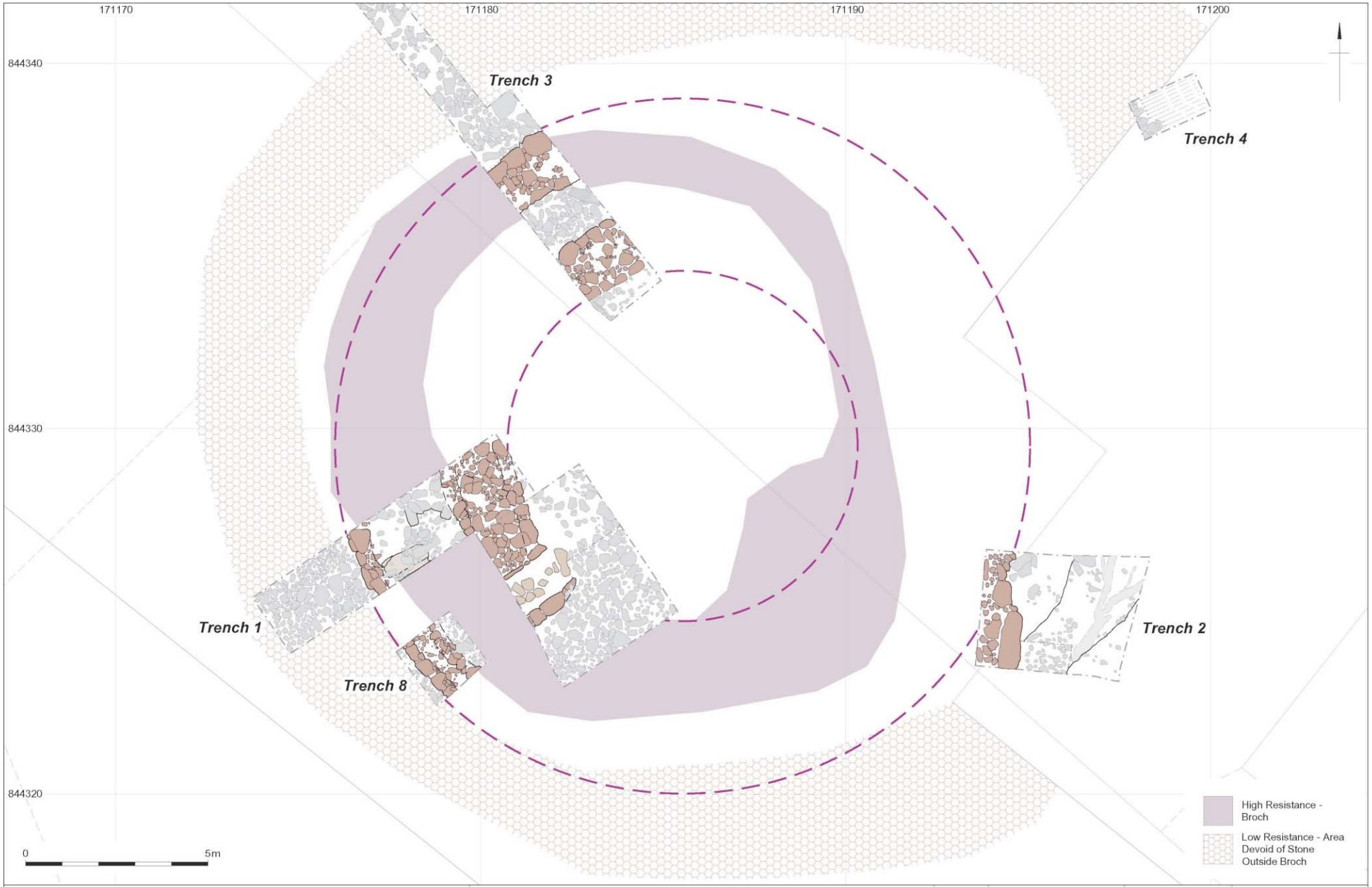

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Geophysical data courtesy of GSB Prospection Ltd

Date:	21/03/06	Revision Number:	0
Scale:	1:200 @ A3	Illustrator:	MR
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Plan of Broch (Trenches 1-4 & 8) overlain on Geophysical Survey results

Figure 8

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