Ardnamurchan Transitions Project

Cladh Aindreis Chambered Cairn
Swordle Bay, Ardnamurchan

Season Four, 2009:
Archaeological Excavations
Data Structure Report

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Ardnamurchan Transitions Report no. 12

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1. INTRODUCTION

1.1 *General*

1.1.1 This report presents the results of archaeological fieldwork undertaken by The Ardnamurchan Transitions Project (henceforth the ATP) on the Ardnamurchan Peninsula, Highland, in the summer of 2009. Excavations took place at the site of the chambered cairn, Cladh Aindreis (NGR: NM 5470 7076 centred - see Figure 1) in Swordle bay.

1.1.2 The site of Cladh Aindreis is protected under law as a Scheduled Ancient Monument. Scheduled Monument Consent (SMC) was granted by Historic Scotland for the excavation within this designated Scheduled area (Figure 2). All excavations followed the methods and specifications set out and agreed upon by ATP and Historic Scotland in the 2009 Project Design (Cobb *et al*. 2009).

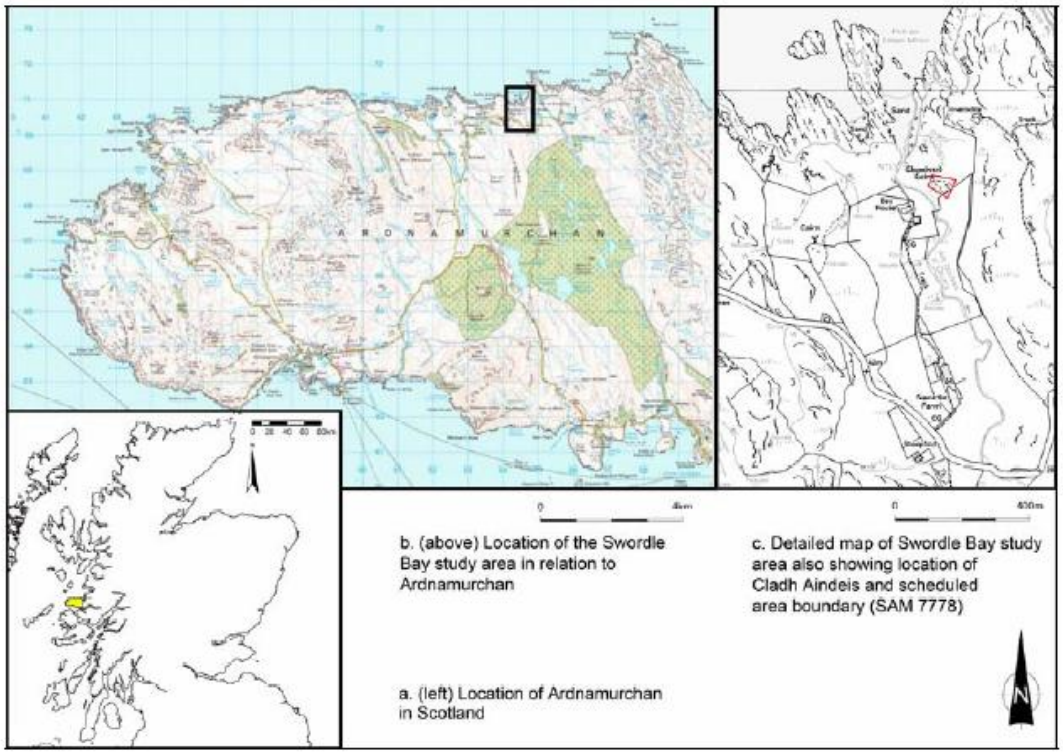

Figure 1: The location of Cladh Aindreis and the Swordle Bay study area

1.2 *Background*

1.2.1 Cladh Aindreis was visited and surveyed by Audrey Henshall in the late 1960s (Henshall 1972), along with the other two Neolithic chambered cairns on the peninsula (Greadal Fhinn and Camas nan Geall). Henshall tentatively recorded the cairn as of Clyde type. However she was able only to undertake basic survey work, which at Cladh Aindreis noted the irregular cairn shape, and suggested that this had been subject to some modification over time.

Consequently she suggested that the cairn did not completely fit into her typology as a Clyde Cairn owing to possible modifications. She also noted the presence of shells emerging from a rabbit hole in the side of the cairn.

1.2.2 Following Henshall's classification of Cladh Aindreis in the 1960s and 1970s more recent work has speculated that the shells she noted may indicate the presence of a Mesolithic shell midden beneath the Neolithic cairn (Pollard 1997; 2000), similar to the site of Glecknabae on Bute (Bryce 1904).

1.2.3 Consequently Cladh Aindreis was identified by the ATP as potentially significant in understanding the Mesolithic/Neolithic transition. As a result the ATP aims to establish the form and chronological sequence of the cairn and chamber. To achieve this the project has set about conducting several seasons of work on the site, which to date includes excavation work, topographical survey and environmental analysis at and around Cladh Aindreis and Swordle Bay

1.2.4 Thus far three seasons of excavations have been conducted at Cladh Aindreis, the results of which are summarised in the 2008 Data Structure Report (Cobb *et al* 2009) which should be read in conjunction with this report.

1.2.5 Following our previous work, excavations in 2009 aimed to define the 'front' of the cairn in Trench 1, clarify the nature of the deposits in Trench 4 and identify the potential for midden deposits below *in-situ* cairn material (Trench 9). To meet these aims we sought and were granted Scheduled Monument Consent to excavate three trenches within the scheduled area of Cladh Aindreis (see Figure 2).

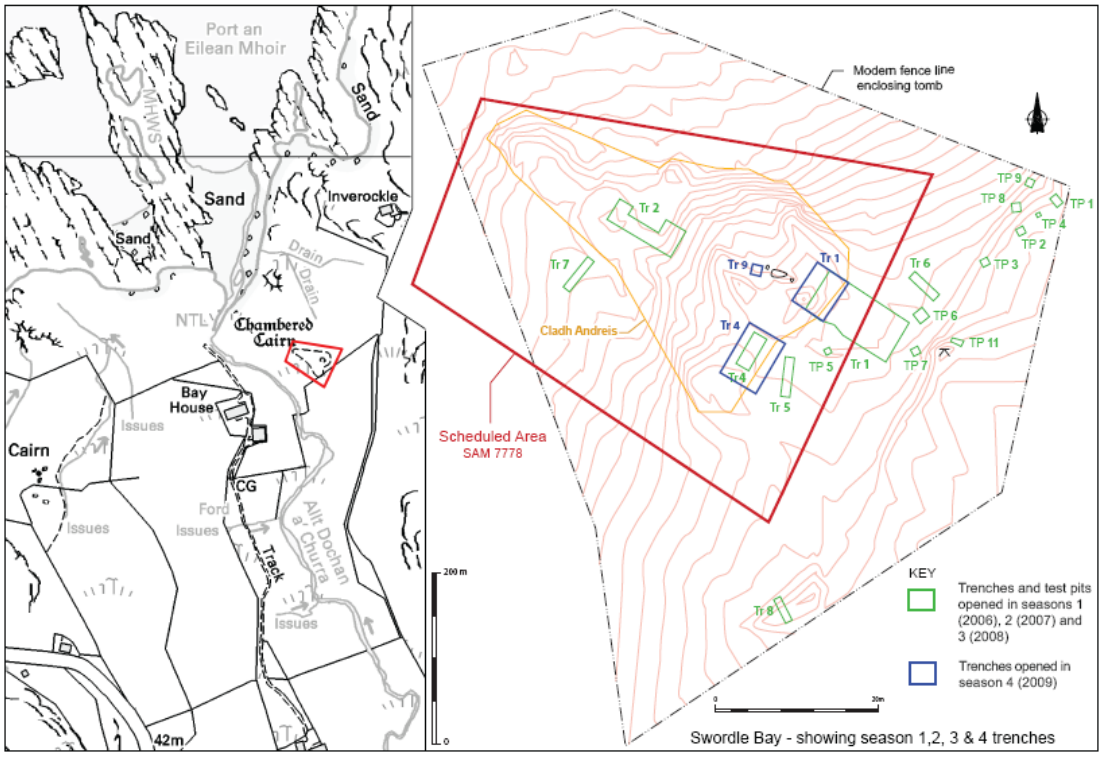

Figure 2: Location of previous trenches and those opened during 2009.

1.3 *Season Four (2009) – aims and objectives*

1.3.1 The ATP established a series of aims and objects for the 2009 season. Those related to the excavation of the chambered cairn are included below:

Aims

- To rectify the paucity of information regarding the Ardnamurchan Peninsula in prehistory.
- To study a particular landscape on the peninsula (Swordle Valley) in order to assess the potential of the archaeological remains in Ardnamurchan of all periods, and in particular to focus on the different phases of use of the chambered cairn Cladh Aindreis.
- To develop a full outreach programme in order to; attract new audiences (participatory and non-participatory); Increase the benefits of this project to a wider geographical audience; provide opportunities for interested parties to get involved in the archaeology of Ardnamurchan and disseminate information about the project and its findings to local community groups
- To develop practical methodologies which integrate and situate core theoretical questions within archaeological practice (see Gray *et al*. 2009)

Objectives

- Continue excavations at Cladh Aindreis. Re-open and extend the NE corner of Trench 1, place a small trench to the west of the chamber (Trench 9) and extend Trench 4
- Investigate the immediate area around the cairn by geophysical magnetometer survey in order to locate the possible continuation of the ditch.
- Investigate by survey and trial excavation a sample of the remains of all the clearance cairns within the Swordle Valley. Including completion of excavations at Site 3 that were recorded in Season one.
- Conduct a shovel pit survey of the lower Swordle valley
- Excavate the lithic scatter identified during the 2008 walk-over survey

1.4 *Acknowledgements*

1.4.1 The Ardnamurchan Transitions Project would like to thank the Ardnamurchan Estate for permission to conduct archaeological works.

1.4.2 We are very grateful to Laura Hindmarch and John Malcolm of Historic Scotland for guiding us through the process of gaining Scheduled Monument Consent.

1.4.3 We would also like to thank Cara Jones (CFA Archaeology Ltd), Hannah Lawson (Manchester University), Iain Pringle, Gemma Midlane, Paul Murtagh (University of Durham), Mike Cressey (CFA Archaeology Ltd), Eleanor Casella (University of Manchester), Alisdair Curtis (Jacobs) and Eleanor Rowley-Conwy for their generous help as staff, and also all students and volunteers whose contributions to the project were invaluable.

1.4.4 We would also like to thank Jim Kirby for his advice and support and the Midlanes, Jane and Mike, for the donation of a strimmer and general helpfulness.

1.4.5 The field work was generously funded and supported by The McDonald Institute for Archaeological Research, The Prehistoric Society, The Council for British Archaeology Challenge Fund, The Royal Archaeological Institute, The Students as Partners Fund (through the University of Manchester), The School of Historical Studies, University of Newcastle and The University of Manchester and CFA Archaeology Ltd.

2. METHODOLOGY

2.1 *General*

2.1.1 The Ardnamurchan Transitions Project follows the principles, standards and guidelines established by the Institute for Archaeologists.

2.1.2 Excavation was carried out by hand according to established ATP practice and was recorded by photography, scale drawing and written records using standard record sheets. The location of the trenches and exposed sections were surveyed using industry standard equipment.

2.2 *Excavation Strategy*

2.2.1 Following consultation with Historic Scotland Scheduled Monument Consent was granted for the excavation of three trenches (Figure 2). The rationale and methodology given in our Project Design for Season four (Cobb *et al*. 2009) is reproduced below:

Cladh Aindreis

2.2.2 **Trench 1:** The first task at the cairn will be to expand Trench 1 into the forecourt of the cairn in order to identify the front of the monument, its shape and to investigate whether the chamber was accessible from the front of the monument. This will also allow us to investigate a possible feature identified in front of the cairn in season 3, which may be related to a possible passage. The trench will be 6 x 5 metres and all deposits will be excavated in full apart from in situ cairn material. If possible it will also aim to recover secure material for radiocarbon dating in order to date the construction of the monument. In combination with the material already excavated in trenches 1 and 2 and the proposed excavation of trench 9 this will allow us to develop a detailed understanding of how the tomb was constructed.

2.2.3 **Trench 4:** A trench measuring 8m by 5m will be opened over the structure located in Trench 4 opened in season 3 (2008). No in situ material will be excavated. We will clean down to in situ layers which will then be properly recorded. The aim of this trench is to be able to identify and date the structure, before designing further research strategies, if required, for 2010.

2.2.4 **Trench 9:** A trench measuring 1.5 x 1.5m, will be opened immediately behind the chamber in the centre of the monument. The purpose of this trench is fourfold. First, it will allow us to examine and excavate a central portion of the cairn in order to compare this material to that which we have excavated at the edge of the monument. Secondly it will allow us to check for evidence of any rebuilding or addition to this part of the monument. Finally we will be able to answer our central research question about whether or not the cairn was constructed on a shell midden. Since Henshall's aside noting shells in a rabbit scraping (Henshall 1972) there has been speculation in the literature that this monument may be one of a few in Western Scotland constructed on an earlier, presumably Mesolithic, shell midden. So far there has been no evidence recovered by the ATP to support this conclusion. However, if we are to address this question, one of our original motivating factors, it will be essential

that we excavate a central part of the monument. Finally it is hoped that excavating this part of the cairn may allow us to recover stratigraphically secure material for radiocarbon dating that would allow us to date the construction of the cairn.

2.2.5 **Ditch:** Initial geophysical analysis will define the route of the ditch discovered in season 2 and excavated in season 3. If this locates the route of the ditch we will excavate any terminals located outside the scheduled area. This will also allow us to check whether the ditch is a two phase construction throughout its length, as it was discovered to be in the portion already excavated. If the ditch cannot be located by geophysics a series of test pits will be dug outwith the scheduled area in order to track the route of the ditch. The ditch will be excavated where necessary within these test pits in order to check whether it remains two phase. This will allow us to trace the development and route of this feature in relation to the cairn

Shovel Pit Survey

2.2.6 A To maximise our investigative coverage of the rest of Swordle Bay, to situate the use of the cairn and other sites under full excavation in their wider context and to identify areas that may be worth further investigation in the light of this a broad shovel pit survey will be undertaken. Where intensive shovel pitting survey has taken place elsewhere in western Scotland (e.g. the work of the Southern Hebrides Mesolithic Project (Mithen 2000) on Islay and Colonsay) this has revealed large amounts of previously unknown sites and consequently we hope the same may take place in Swordle Bay.

2.2.7 Following the Southern Hebrides Mesolithic Project (henceforth SHMP) test pitting methodology (Mithen 2000: 58) test pits will be dug on a 10m grid and each pit will be 0.5 x 0.5m. The spoil from the test pits will be handsorted rather than wet sieved. Unlike the SHMP however, the contexts within each test pit will be recorded so that any vertical artefact distribution can be understood within its wider spatial context. Sixteen areas around the edges of the lower portion of Swordle Bay will be subject to test-pit excavation. Test-pits will measure 0.5m x 0.5m and be located on a grid within each area.

Lithic Scatter

2.2.8 A small lithic scatter was recorded on the eastern bank of the Swordle burn during field walking in January 2008. The lithic scatter was found to be eroding out of the bank and its extent was never established. Consequently the lithic scatter will be excavated during the 2009 season. A 1m x 1m area will be excavated in the top of the bank above the eroding lithic scatter in order to establish the extent of the scatter and record any associate features. The area for excavation will be extended in size if this is deemed necessary. The scatter will then be recorded and excavated in both plan and section.

3. ARCHAEOLOGICAL RESULTS

3.1 *General*

3.1.1 Numbers in bold in the following sections correspond to contexts listed in Appendix 1.

3.1.2 The remains of the Chambered Cairn lie within the v-shaped inlet valley of Swordle Bay approximately 250m from Swordle Bay House. This cairn is now a Scheduled Ancient Monument (SAM) and as such all work was conducted following consultation with Historic Scotland.

3.1.3 Twelve shovel pits were excavated on a terrace to the west of the cairn in Shovel Pit Area A.

3.1.4 Full details of all excavations are described elsewhere (Cobb *et al*. 2009). For ease of reference and out of completeness all trenches and archaeological deposits recorded during the excavations at Cladh Aindreis completed since 2006 are reproduced here. *The results of the 2009 season are discussed separately in sections 3.10 and 3.11 below.*

3.2 *Trench 1*

'*Small Cairn'*

3.2.1 In the north of the trench a small stone cairn was discovered immediately below topsoil. This stone deposit measured 3.7m long x 2m wide x 1.16m deep. It consisted of medium to small sub-angular rocks (**004**), some of which showed signs of being water rolled. The stones were tipped, showed no signs of being structural and were surrounded by a loose silty soil (**005**).

3.2.2 Only the western portion of this stone mound was removed. The stones were sat on a reddish brown sandy silt old ground surface (OGS) (**011**). This OGS was stratigraphically above subsoil (**008**), into which the two pit features were cut. Thus it appears that **011** was a remnant of the original turf line and subsoil upon which these stones were originally placed. Given this it is presumed that this 'cairn' was the result of a much more recent 'robbing' activity at the site of Cladh Andreis, and may even represent the spoil removed from around the chamber.

Pit Features

3.2.3 A sub-oval pit (**015**) with two phases of use was present in the centre of the trench. The first pit measured 1.6m by 1.1m by 0.2m and contained a compact, stained and humic layer at the base (**019**). This may suggest that it had been lined with turf or other organic matter. The pit was also lined by a series of small stones around the upper edge (**021**). The principal fill consisted of a dark blackish brown sandy silt which contained much charcoal and ash. The upper portion of the feature (**028**) silted up after the pit had gone out of use.

3.2.4 Sometime after the larger feature silted up another smaller pit was cut into it (**020**). In this case the pit was lined by large stones in a smaller sub-oval setting (**022**). This pit contained a compact lower fill (**016**) which contained large quantities of charcoal. Above this was a loose grey-black fill which also contained large quantities of charcoal and carbonised wood. Again the upper fill was silting (**009**).

3.2.5 An oval pit (**014**) was present in the north-west of the trench and consisted of two fills; the lower, a silting action (**013**), was overlain by a silty gravel upper fill (**012**). This feature would also appear to have been re-cut by (**026**) which whilst consisting of similar fills did represent a change in the nature of the cut. Both pits had a very flat base with compressed gravel in the base which may suggest that **014** was a stone hole whilst **026** could be the cut for the removal of the stone.

Ditches (with Lewis Stitt)

3.2.6 A large linear feature (**035**) partially excavated in 2007 was re-exposed and excavations continued across the entire width. Following full excavation in two slots the ditch turned out to have two phases of use. The first ditch (**091**) measured over 3m wide by 1.24m deep and had steep sides and a flat base. It was filled by re-deposited white sand basal fill (**101**), suggesting that the ditch was left open for time and silted up. Following this the ditch was backfilled with a dark brownish black stoney silty sand fill (**092**) very similar in nature to the natural **018**.

3.2.7 Sometime later the backfilled ditch was cut by a second ditch (**035**). This ditch had sloping sides and contained four fills. The basal fill was a charcoal rich sand (**036**) which was a silting deposit following the opening of the ditch. Suggesting the ditch was open long enough for this deposit to have formed. Above this a reddish brown clayey sand (**034**) also containing charcoal was deposited within the ditch. It is unclear whether the burning deposit in these deposits was deposited into the ditch or whether a fire took place on the basal sands. Shortly afterwards a brownish black clayey silt (**032**) was formed in the ditch. The upper fill (**031**), a charcoal rich brown/black sandy silt, appears to be a turf line covering the ditch. This ditch has a shallow amorphous profile and may not be a ditch in the traditional sense; it is just as likely to be a quarry scoop.

3.2.8 Two circular postholes were found to be cut into the base of the ditch. Both features were sealed by (**034**) in the secondary ditch suggesting that they predate ditch **035**. It seems probable that the posts were removed either at the same time or before ditch **091** was backfilled. Both of postholes contained packing stones and survived to a depth of 0.4m. The posts may have been related to revetting at the edge of ditch **091**.

Chambered Cairn

3.2.9 Topsoil was removed from the north west of Trench 1. Beneath the topsoil a layer of loose small stones in the topsoil matrix was recorded. These smaller

stones overlay a more compact layer of similar stones (**048**), some of which appeared to be tipped. In 2007 it was thought that these stones were the result of tumble from the original cairn and extending the trench in 2008 confirmed this. Unexpectedly, however, following the removal of stones **048** no in-situ cairn material was encountered. Instead a layer of grey gravel (**085**) measuring 2.2m wide by 0.6m deep had built up against a further layer of orange gravel (**084**). This layer measured 3.2m wide by 0.6m deep and overlay an orangey black gravel (**124**) which ranged from 0.04m-0.6m deep.

3.2.10 In the south of the excavated area layer **124** overlay a number of large flat stones (**125**) some of which are tipped. These stones may be natural stones in the natural gravel (**018**), however, they may well be paving associated with original use of the cairn.

3.2.11 In the north of the area layer **124** was only partially exposed as it was cut by a linear feature (**123**). This feature was sealed by gravel layer **085** suggesting that the unexcavated fill (**122**) had formed before the gravel layers.

3.2.12 What remains unclear is where the front of the cairn is. Given that no cairn material has been discovered it may be that the cairn has a curved facade similar to that at Monamore on Arran (MacKie 1963-4), a feature common to Clyde cairns (Henshall 1972) generally. The nature of the deposits encountered then is reminiscent of blocking, again common at Clyde cairns, although usually the blocking is of stone. Further work will help understand these processes better.

3.3 *Trench 2*

3.3.1 Following the removal of turf (**039**) and topsoil (**040**) a layer of loose tumbled stones (**041**) were revealed throughout the trench small stones in the topsoil matrix. Below these tumbled stones two further deposits were recorded; in the south east of the trench in-situ cairn (**038**) material was exposed, whilst throughout the majority of the trench a buried soil (**042**) was uncovered. This buried soil (**042**) was removed onto natural sand (**043**) and gravel (**047** and **050**). Within these natural sand and gravel deposits a number of stone holes (**051**) were recorded. One stone (**038**) which may be in-situ was also recorded. A sondage was excavated against the north west baulk to confirm that the sand (**043**) was natural.

3.3.2 The nature of these deposits suggests that this part of the cairn was constructed on natural sand, probably a low dune. At some time later the cairn was robbed down to its base, leaving only stone-holes **051**. Consequently buried soil **042** formed over the exposed area and later tumble **041** covered that. A number of the in-situ cairn stones (**038**) appeared to have been edge set and may mark the extent of an earlier cairn, however this arrangement is more likely to be fortuitous.

3.3.3 Two rabbit burrows were also recorded in the north west of the trench.

Trench 2a

3.3.4 Following the results of the 2007 excavation season, a trench measuring 2m x 4m was excavated between Trenches 2 and 3. The removal of topsoil revealed a natural soil deposit (**065**), equivalent to layer **042** recorded in Trench 2. This was overlain by post-robbing tumble (**068**). Layer **065** overlay a gravelly sandy buried soil (**104**) (**055** in Trench 3), in the south-east end of the trench, onto which in situ cairn material (**046**) was present. This deposit was not present across the whole of Trench 2a, its extent to the north east suggesting either the limit of robbing of cairn material, or how far a potentially later phase of cairn (**046**) extended. Below this lay another possible buried soil or OGS (**086**), was present in the southern half of the trench. This could be the remains of the prehistoric soil that was de-turfed down to natural dune sand during the construction of the earlier phase of cairn, suggested by excavation in Trench 2. The extent of **086** could therefore indicate the southern limit of this earlier phase of cairn prior to robbing. Layer **086** overlay two vestigial deposits of sand (**105** and **049**), probably the result of pre-cairn storm events, under which lay **106** and **087**, suggested to be the remains of a pre-cairn turf-line that formed over the main dune sand (**043**).

3.4 *Trench 3*

3.4.1 The removal of topsoil thin layer of loose small stones (**045**) in the topsoil matrix were recorded. Beneath this layer the majority of the trench was made up of layers of stone. The majority of these (**046**) appeared to be in-situ, a pocket of tipped stones (**057**) in the south west of the trench could also be in-situ. Due to the small area of excavation it was unclear whether stones **057** were in-situ or tumble from the original cairn. The stones were compact in the west and looser in the east but otherwise it was difficult to establish the true nature of this material. Consequently **057** was not excavated in 2007. To the south east of the trench a topsoil matrix (**044**) was removed onto a buried soil (**055**) very similar to, the buried soil deposit in Trench 2 (**042**). However, buried soil **055** was more like a mixed version of the natural sand **043** than buried soil **044**. It would appear that this deposit may well be an OGS on which this part of the cairn was built.

3.4.2 Resolving this sequence of buried soils and OGS has important implications for understanding the phasing and development of Cladh Aindreis. This will be an aim of the 2008 season.

3.4.3 Two further burrows (**056** and **062**) were noted in the south east of the trench.

3.4.4 The nature and extent of deposits present in Trenches 2/2a/3, suggests that there were two phases of cairn building. The earliest phase involved de-turfing a prehistoric topsoil down to natural dune sand (Tr.2). Following cairn construction, another layer of soil formed to the south, either naturally or by design, onto which a second phase of cairn was built. The second phase may not have fully abutted the first phase of cairn, although the evidence for extensive robbing present in Trench 2 and 2a obscures a more definitive answer.

3.5 *Trench 4*

3.5.1 A roughly square accumulation of material to the south west of the cairn was thought to be a later extension. This feature had straight sides to its east, south and west, as well as the clear dip between itself and the cairn (Figure 2) and is thought to be some kind of cellular structure. A trench measuring 4m by 2m was excavated on to in situ material, in order to provide information about the nature of the feature. The trench revealed the possible entrance of the structure. A double skinned sandstone wall (**109**) measuring 0.74m wide by 0.5m high ran from the possible entrance to the southeast. Judging by the shape of the possible cellular feature and from stones protruding through the turf outside the trench this wall extends c.2-3m to the south east and c.1.6m the south west. The west side of the entrance was made up of a similar wall (**111**) although the size of the trench restricted the amount of the wall uncovered to just the outer face the wall appears to extend c.3-4m to the north west. Again this wall appears to extend c.1.6m to the southwest. That both walls extend to the south west like would make the entrance long and narrow being 2.6m long by 0.6m wide. However this can only be confirmed with further excavation.

3.5.2 The part of the entrance exposed in the trench contained flat paving stones (**110**), which continued to the northern edge of wall **109**. Outside the entrance between the entrance and cairn a dense layer of rounded pebbles (**095**) appeared to make up a cobbled surface, creating a path outside the possible entrance. This cobbled surface overlaps with the supposed alignment of the ditch present in Trench 5 and this may not be coincidental. Given that the presence of the ditch in Trenches 6, 1 and 5 coincides with waterlogged deposits the cobbled surface may have been installed as a necessity.

3.5.3 A sub-rectangular feature was inserted on top of paving **110** and cobbles **095** in the entrance of the possible cellular structure. This measured 2.2m long by 1m wide by 0.4m high and comprised upright angular stones (**080**). The feature abutted wall **111** in the west and made use of the outer face of this wall and the cellular structure entrance to form its south west corner. This feature would effectively have blocked the entrance. The feature had a grave/long cist like appearance but no deposits were present below the turf which overlay it. Extending the trench to the northwest would reveal the features full extent and provide further evidence for its form and function.

3.6 *Trench 5*

3.6.1 Topsoil was removed to a depth of 0.3m and following cleaning the upper fill of a linear feature (**075**) was recorded. The feature measured 2.6m long and continued into the northern baulk of the trench. The feature was filled with by a dark grey sandy silt (**070**) of moderate compaction. This fill was similar to the upper fill (**092**) of ditch **091** in Trench 1 and is on the same suspected alignment. However, no further excavations were conducted in this trench and it is not possible to confirm whether the feature in the trench is the same feature as the ditch in Trench 1. Nor were we able to confirm which ditch (**035** or **091**) as no sign of any re-cut was discovered. On present information however, it would not be unreasonable to suggest that the feature recorded in Trench 5 is an extension of ditch **091** excavated in Trench 1.

3.7 *Trench 6*

3.7.1 Trench 6 was also opened in order to trace the line of the ditch in Trench 1. Following the removal of the peat topsoil a linear feature (**107**) was recorded. The feature measured 3.1m long and was filled with by a dark grey sandy silt (**102**). This fill was similar to the upper fill (**092**) of ditch **091** in Trench 1 and is on the same suspected alignment, curving to the north. Due to the waterlogged nature of the trench no further excavations were conducted and therefore it was not possible to confirm whether both of the ditches found in Trench 1 (**035** or **091**) were present.

3.8 *Trench 7*

3.8.1 This trench measured 5m by 1m and again was excavated in order to establish the route of ditch. However no features were discovered. A thick layer of turf and topsoil onto a sand and gravel layer (**097**) within which a large chipped stone was discovered. Below this a sand layer (**098**) overlay a further gravely layer (**099**) which in turn overlay natural sand (**100**). These layers are all thought to be natural events produced either through natural soil formation combined with sporadic inundations from the burn immediately to the south **099** and **097**) and windblown sand storm events (**098**). Interestingly it seems likely that layers **098** and **097** are the same natural layers recorded in Trench 2a (**105** and **065** respectively).

3.9 *Trench 8*

3.9.1 A trench measuring 3m by 1m was excavated across the low lozenge shaped stone knoll to the south-east of the cairn. The knoll measured 10m by 4m and was found to be sandstone bedrock. There were signs of stone quarrying within the trench but root damage was extensive rendering it impossible to identify tool marks. It remains possible that the knoll was quarried for stone for the cairn; however the proximity of the nearby field walls may be more likely destinations for the quarried stone. Further specialist advice will be sought in order to clarify this issue.

3.10 *Chambered Cairn 2009*

Trench 1

Plate 1: Post-excavation shot of Trench 1 west of the baulk

Plate 2: Post-ex shot of Trench 1 east of the baulk

3.10.1 Excavations continued in Trench 1, extending 1m towards the chamber, uncovering both *in-situ* cairn material in the west of the trench and forecourt blocking material.

3.10.2 In the western side of the trench, a stoney dark sandy silt, measuring 1.1m by 1.36m by 0.4m high (**126**) was removed. This material had been thrown up during a robbing event in the recent past. The nearby depression on the surface by the chamber demonstrates that just such a robbing event took place and (**126**) may result from this. Beneath **126** a mixed layer of large stones and yellow sand (**133**), 2m by 2.8m by 0.35m high, was recorded. This layer was a mixture of the bottom layer of upcast spoil and the top layer of cairn material. Beneath this we uncovered large flat stones in a reddy brown silty gravel (**137**), 1.5m by 2.5m by 0.25m high of *in-situ* cairn material. The cairn material continued under the baulk and into the section. The shape of this in situ cairn material suggests the shape of the forecourt is different to other Clyde cairns being convex not concave.

3.10.3 On the eastern side of the baulk we removed layer **048** from the newly exposed surface. Previously we had interpreted this later as tumbled material. More detailed examination and excavation revealed this year that this was in fact the top layer of a number of blocking events. Beneath (**048**), in sequence, there was a reddish brown sandy silt (**131**) 0.15m thick which contained bone, teeth and a large fragment of cremated bone; a loose dark brown sandy silt 0.2m thick (**136**); and a dark yellow sand 0.25m thick (**138**). **131**, **136** and **138** all contained sherds of pottery provisionally identified as Neolithic. **138** in particular contained several examples. This blocking would have filled in the forecourt of the cairn and remodelled the shape of the monument.

3.10.4 Beneath **138** a long narrow stone was partially uncovered (**146**), measuring 0.82m by 0.12m by 0.23m high, that ran perpendicular to the angle of the chamber. **146** sat on a dark humic layer (**148**) which may be an old ground surface. The limits of **148** were defined by the **146** and did not occur elsewhere in the trench. Given this it is possible that stone **146** is part of the original construction of the cairn, but equally that it **148** was a relic ground surface in existence at the time of the blocking. Further excavation in 2010 will attempt to resolve this by removing **146.**

3.10.5 Behind **146** and beneath **138** an orangey brown silty sand deposit measuring 0.6m by 0.3m by 0.15m high was recorded (**147**). This deposit ran under the baulk and trench edge and was only partially excavated in 2009. **147** ran up to **146** and along the length of the stone but did not continue to the east, suggesting to the excavators that this restricted to the area defined by the stone (**146**) and that therefore **147** was an intentionally localised deposit. At the top of the deposit two sherds of potential Beaker pottery were recovered. Towards the base of the deposit a number of bone fragments were recovered. At this stage it remains unclear whether this deposit formed the initial stage of blocking (see 3.10.3) or was present prior to this event. Further excavation in 2010 will seek to resolve this.

3.10.6 To the east of **146** and also beneath **138** three large stones were uncovered. These may either be the remnants of paving in the forecourt (which would suggest the rest has been removed). Alternatively they may represent the accidental or deliberate collapse of the cairn on the east side of the forecourt. If the latter is the case the facade is different in shape (being convex rather than concave) to other Clyde cairns (as suggested by **137** see also 3.10.2) and also different in size. This potential act of pulling down a facade has been noted at other chambered tombs in Scotland, such as Bargrennan White Cairn (Cummings and Fowler 2007).

3.10.7 The feature (**122**) potentially discovered under gravel layer **085** is no longer considered viable as **085 and 084** were shown in 2009 to be natural banding in the gravel. Flat stones (**125**) discovered under **085** are also now thought to be natural.

Trench 4

Plate 3: Post excavation shot of trench 4 showing possible kerb cairn

3.10.8 A trench measuring 8m by 5m was excavated over the possible structure identified in 2008 (Cobb *et al*. 2009). The trench was positioned in order to clarify the nature of this feature and its relationship to the cairn. Following the removal of layers of tumbled stone two features were identified; further remains of the walled structure **109** identified in 2008 and a roughly circular kerbed feature (**149**).

Structure

3.10.9 The wall **109** identified in 2008 was found to extend to the south by 4m before turning to the east for 2m and was 1.3m thick. The wall appears to be heavily truncated at this eastern end and probably would have continued in this direction. The fact that the wall turns to east and the fact that no further remains of putative wall **111** were uncovered would suggest that the gap between wall **109** and **111** was not in fact an entrance. Given this it is likely that the flat paving stones (**110**) are paving stones around the outside of the structure, associated with cobbles **095** rather than entrance paving.

?Kerb Cairn

3.10.10 The majority of the stone uncovered in 2008 was tumble for structure **109** and following the removal of this stone a rough circular area, measuring 4.3m in diameter, defined by a 'kerb' of upright grey stone (**149**) was recorded. These stones were infilled by sub-rounded cobbles (**150**) and overlain by tumbled cairn material (**151**) and orange silting (**132**). It is on this surface that structure **109** was built, probably using the stone from the kerbed feature **149**. This feature is not unlike the Kerbed cairn built on top of Ardnacross II (Jack Scott unpublished Archive in NMRS) in Kintyre and may well be a Bronze Age Kerbed cairn.

Trench 9

Plate 4: Post-excavation shot of trench 9

3.10.11 A trench measuring 1.5m by 1.5m was excavated immediately behind the chamber in the centre of the cairn. Originally this trench was excavated in order to test the hypothesis that there was midden material beneath cairn material.

3.10.12 However, upon the removal of topsoil and two deposits of recent silting (**128** and **129**), which probably formed following the robbing of the cairn, *in-situ* cairn material and a possible circular, boulder defined feature were recorded. The possible feature (**139**) measured 1.3m in diameter and was covered by a series of small flat stones (**141**) almost in the manner of corbelling The feature was by a dark silty sand (**142**) and appeared to be set with the actual body of the *in-situ* cairn material(**140**).

3.10.13 At present it is unclear whether feature **139** is contemporary with the construction of the cairn are whether the feature was a later insertion cut into already extant cairn. What is apparent however, is that feature **139** is likely to be the remains of a cist; defend by sub-rounded boulders and capped with flat stones, not unlike the small 'closed cists' present at other Clyde type chambered cairns.

3.11 *Shovel Pits 2009*

3.11.1 The aims of the test pit survey of Swordle Bay were:

- To maximise our investigative coverage of the rest of Swordle Bay
- To situate the use of the cairn and other sites under full excavation in their wider context.
- To identify areas that may be worth further investigation,

3.11.2 Area A consists of rough pasture for sheep grazing, sitting on a wave-cut platform to the south-west of Clad Aindreis (Fig. x). Initially, a grid, 10m by 30m, was set up in the northern part of Area A. Two parallel lines of 12 test pits were excavated (Fig. x). Test Pits A1 to A5 were spaced at five meters apart along grid line 1, Test Pits A6 to A12 were spaced at 10m apart along grid lines 1 and 2. Each test pit was 0.5 by 0.5m unless the depth of deposits encountered required a wider working area. The spoil from the test pits was hand-sorted rather than wet sieved. The contexts within each test pit were recorded so that any vertical artefact distribution could be understood within its wider spatial context.

3.11.3 No features of archaeological significance were identified within the excavated test pits. A description of each test pit can be found in Table 1. A full description of each context can be found in Appendix X.

3.11.4 In general, deposits consisted of a topsoil of mid grey- brown silt of depth 0.1-0.2m, over a colluvial layer of mid reddish brown sandy silt of depth 0.2-04.m.

This layer contained occasional small sub-rounded inclusions and charcoal flecks. The colluvial layer overlay bands of loose well sorted marine gravels containing occasional larger sub-rounded cobbles. These gravels were interpreted to be natural subsoil, and excavation ceased once these deposits were reached. Test Pits A1 to A4, A6, A8 and A9 contained an earlier colluvial layer which overlay the marine gravels. This layer consisted of a dark reddish brown silty sand of depth 0.15-0.3m. These test pits were located at the eastern side of Area A, and the greater depth of hillwash deposits here is likely to result from the sloping of the underlying bedrock.

3.11.5 Several small abraded flakes of worked flint were recovered from these colluvial layers, from Test Pits A2, to 4, A5 and A7.These finds may relate to anthropogenic activity and potential archaeological sites on the wave-cut platform immediately upslope from Area A.

3.11.6 The original test pit coverage of Area A, as per the Project Design (Cobb *et al*. 2009), used a 30m by 30m grid. However, due to the nature of the deposits encountered and lack of archaeological features revealed, the present coverage is felt to be sufficient to achieve the aims of the test pit survey in Area A, and no further test pits will be excavated.

3.11.7 Area A is suggested to have been a marine environment, probably during the Mesolithic. Following sea level reduction, colluvial processes resulted in at least one deposit of hillwash from terraces above, possibly relating to anthropogenic activity in the immediate valley vicinity. Recent land-use and soil processes have resulted in modern topsoil formation.

4. DISCUSSION

4.1 *Summary*

4.1.1 Excavations to date at Cladh Aindreis have contributed fundamentally to knowledge of this site. Although we await full confirmation from radiocarbon dates, we can already suggest a broad narrative of the use of the site in prehistory.

4.1.2 Previous seasons excavations have shown that the cairn began life as a round monument, with the tail being added later to create the more trapezoidal shape visible today. In addition a two-phase ditch was discovered enclosing at least part of the forecourt.

4.1.3 Due to the nature of the finds in trenches 1, 4 and 9 the proposed geophysical survey and the recording and excavation of clearance cairns in Swordle bay were not carried out in 2009. Equally the shovel pit survey was not completed. These activities remain important objectives for the project and work will continue on these elements in 2010.

4.1.4 The excavations this year at the front of the cairn (Trench 1) have discovered in situ cairn material that suggests that the cairn was differently shaped to other Clyde cairns, and that a blocking event, involving a series of deposits took place that changed the shape of the monument later in its life. The presence of Beaker material beneath this blocking suggests this took place at some point at the very end of the Neolithic or more likely in the Bronze Age.
Further excavations, along with a post-excavation programme, are required to answer questions both of absolute dating and stratigraphical relationships. In particular the shape of the cairn needs to be confirmed, the size of the deposit **147** needs to be recorded and its stratigraphic relationship to the passage and chamber needs to be ascertained in order to be certain when this deposit formed. This is essential as despite the presence of Beaker pottery towards the top of this layer it remains possible that this deposit represents in situ Neolithic material dating from the use of the monument. Such a deposit would offer the rare chance to securely date the use of such a monument from this part of Scotland, especially if included within a wider programme of radiocarbon dating and Bayesian statistical modelling.

4.1.5 Furthermore, a detailed and well dated post-excavation process including thin section analysis and radiocarbon dates may well allow the different phases of blocking, identified stratigraphically, to be teased apart and to be placed within a more detailed chronological sequence.

4.1.6 Trench 9 in the centre of the monument revealed a closed cist which could date to one of two phases. It may predate, or be contemporary with the initial construction of the first phase circular cairn. As such it would be comparable with a number of other examples from the west coast of Scotland including Achnacreebeag (Sheridan 2004). Alternatively it may represent a later insertion, and could easily be of Bronze Age date in this case, as a number of

Scottish chambered cairns include Bronze Age insertions, notably Bargrennan White Cairn (Cummings and Fowler 2007).

4.1.7 Although a single animal tooth (probably pig) was discovered from beneath the top capping of this feature, which would provide at least a terminus ante quem if radiocarbon dated.

4.1.8 However, to able to adequately answer the question of the date of this feature further excavation is required specifically to resolve the question of the stratigraphic relationship between the cairn and the feature, and to ideally recover chronologically diagnostic material, or material suitable for radiocarbon dating from a secure context within the cist.

4.1.9 Trench 4 revealed both a post-medieval structure and a potential Early Bronze Age kerb cairn. The source of stone from both monuments may have been the Neolithic cairn, which may further explain the denuded state of parts of the monument. The potential kerb cairn furthers the preshistoric sequence at Cladh Aindreis yet again, adding to the complex story of this site. Excavations in 2010 will attempt to ascertain the exact form, date and structure of this feature.

4.1.10 In summary the work of the ATP in its first four seasons has enabled the development of an already detailed narrative of Cladh Aindreis as a site that reflects the many different people who have lived in and around Swordle Bay for at least six thousand years. Yet the findings of the project are not simply of localised importance. If it does reflect the incorporation of two small cairns into a larger trapezoidal one then Cladh Aindreis will join only a handful of other known examples of this practice from Scotland. In addition, as discussed in below, Cladh Aindreis may be unique as the only known *early* Neolithic chambered cairn with an associated ditch (other known examples are late Neolithic), and it is certainly the only known chambered cairn in western Scotland with such an associated feature. The presence of a possible 'closed cist' in Trench 9 and the possible Kerbed cairn in Trench 4 may significantly extend duration of activity at Cladh Aindries and potentially provide a picture of change in burial tradition across the entire Neolithic. Consequently the site is of national importance in understanding Neolithic funerary practices. Further excavations are now required to refine our understanding of the chronology and sequence of changes that the monument has seen over time. Details of this are outlined in Annex 1, our Project Design for our fifth season of work in 2010.

4.2 *Post-excavation*

4.3.1 Sample processing, artefact and eco-fact analyses, a programme of C14 dating and publication of the results from the fieldwork so far is currently underway in order to provide a more conclusive picture of this site.

4.3 *Archiving and Finds Disposal*

4.4.1 The project archive, comprising all ATP record sheets, plans and reports, will be deposited with the National Monuments Record of Scotland on completion of fieldwork and any relevant post-excavation analyses. Finds will be subject

to the Scots Law of Treasure Trove and Bona Vacantia, and will be reported to the Queen and Lord Treasurer's Remembrancer for disposal. Appropriate conservation of finds will be conducted before disposal.

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APPENDIX 1: Context Register

Context	*Trench*	*Site*	*Description*
001	1	37	Topsoil
002	1	37	Reddish brown layer to west of cairn
003	1	37	Colluvial deposit sealing deposits in trench 1
004	1	37	Stones of Cairn in North of Trench 1
005	1	37	Fill Around (004) in Trench 1
006	1	37	Grey Soil Around Stones in South West of Trench 1
007	1	37	Natural in Trench 2
008	1	37	Stoney Layer Under Subsoil in East of Trench 1
009	1	37	Fill of Feature (Pit?)
010	1	37	Fill of Pit in Corner of Trench 1
011	1	37	Soil Layer Under Cairn
012	1	37	Fill of Feature [015]
013	1	37	Black Fill of Feature under (010)
014	1	37	Cut of Feature in North West Corner Trench 1
015	1	37	Cut of Pit in Centre of Trench 1
016	1	37	Fill of Cut [015] under (012)
017	1	37	Layer Surrounding Cut [014]
018	1	37	Natural into which features are cut, under (008)
019	1	37	Burnt Soil in Cut [015] under (016)
020	1	37	Cut of Small Pit Within [015]
021	1	37	Stone Layer Defining Large Pit [015]
022	1	37	Stone Layer Defining Small Pit [020]
023	1	37	Upper Fill of Larger Pit [015]
024	1	37	Upper Fill of Cut [026] (which cuts [014])
025	1	37	Lower Fill of [026]
026	1	37	Cut of Feature In Corner of Trench Cutting [014]
027	1	37	Fill of Small Pit
028	1	37	Top Fill of Big Pit (at edges)
029		242	Topsoil
030		242	Brown Clayey silt with degrading sandstone and charcoal flecks
031	1	37	Grey black sandy clay fill of [035]
032	1	37	Black clay/organic fill of [035]
033	1	37	Pale clay fill of [035]
034	1	37	Dark silty sand fill of [035]
035	1	37	Cut of linear feature
036	1	37	Dark charcoal rich sand
037	1	37	Light sand below charcoal rich sand
038	2	37	Stones of cairn
039	2	37	Topsoil
040	2	37	Matrix surrounding (038)
041	2	37	Tumbled stones of cairn
042	2	37	Possible old ground surface underlying (038)
043	2	37	Natural shell sand
044	3	37	Possible old ground surface underlying (045)
045	3	37	Tumble
046	3	37	Stones of cairn
047	2	37	Gravel subsoil – Quartzy matrix
048	1	37	Stones of cairn in Trench 1 extension
049	2	37	Medium natural gravel band – quartz
050	2	37	Coarse gravel and small sub-rounded stones – natural
051	2	37	Stone holes

Context	*Trench*	*Site*	*Description*
052	2	37	Cut of rabbit burrow
53	2	37	Fill of rabbit burrow
054	4	37	Large stone slabs, possible hearth stones
055	3	37	Sandy layer below (040)
056	3	37	Burrow in (055)
057	3	37	Stones below tumble (045)
058	1	37	Possible cut in of feature 015
059	2	37	Cut of burrow
060	2	37	Fill of burrow
061	3	37	Stone-hole in (055)
062	3	37	Fill of burrow – mixed loose grey clayey silt.
063	2a	37	Possible prehistoric ground surface below 039 and 064
064	2a	37	Possible fill of modern linear, below 034 overlies 063
065	2a	37	Sandy subsoil layer below topsoil
066	2a	37	Cut of linear/furrow. Filled by 067
067	2a	37	Fill of linear 066
068	2a	37	Tumbled cairn material
069	5	37	Angular stones above 070. Possibly tumble from cairn
070	5	37	Dark grey sandy silt upper fill of linear 075
071	5	37	Colluvial deposit in east of trench
072	5	37	Disturbed ground from 2006 excavation
073	2a	37	Tumble form cairn over 065 below 063
074	2a	37	Tumble from cairn over 065 below 064 and 039
075	5	37	Cut of linear filled by 070
076	1	37	Dark brown sandy silt fill of posthole 077
077	1	37	U-shaped cut of posthole, filled by 076
078	1	37	Stoney sand natural in south of trench
079	4	37	Displaced stones of cairn or structure in trench, overlies 110
080	4	37	Flat angular stones of wall of structure or possible blocking of earlier entrance, overlies 095 and 110
081	4	37	Colluvial deposit/topsoil mix, overlies 095 and 083, underlies 080 and 074
082	4	37	Cairn tumble? Overlies 082 and 095
083	4	37	Matrix surrounding stones 082
084	1	37	Orange stoney gravel. Possible material used to block cairn forecourt/facade. Abuts 085
085	1	37	Grey stoney gravel
086	2a	37	Mixed dark brown sandy silt upon which cairn material is built. Underlies 065
087	2a	37	Mid purple sandy gravel overlying natural sand. Possibly filling stone holes. Underlies 065 and overlies 043
088	1	37	Large stone tumble under 048
089	1	37	Circular cut of posthole, filled by 090. Cut into 036
90	1	37	Fill of posthole 089
091	1	37	Cut of linear feature filled by 092 and 101
092	1	37	Fill of linear 091, cut by 035
093	1	37	Natural white sand at base of the ditch
094	1	37	Stoney layer cut by 035. Overlies 093
095	4	37	Rounded small pebbles, possible cobbled surface. Under 081 and 083
096	7	37	Topsoil
097	7	37	Dark grey brown layer below topsoil
098	7	37	Pinkish sand deposit below 097
099	7	37	Gravel layer below 098
100	7	37	Natural sand

Context	*Trench*	*Site*	*Description*
101	1	37	Redeposited natural basal fill of 091, cut by 035
102	6	37	Fill of linear 107
103	6	37	Colluvial layer underlies 008 cut by 107
104	2a	37	Orange brown gravelly silt under 065 and 046, above 086
105	2a	37	Pinkish orange sand under 086. Overlies 106
106	2a	37	Possible pre-cairn turf line under 105, overlies 043
107	6	37	Cut of linear filled by 102
108	1	37	Cut of posthole in ditch 035, filled by 115 and 116
109	4	37	Possible wall of structure
110	4	37	Flat paved area possibly related to 109 and 111
111	4	37	Possible wall of structure
112	4	37	Disturbed tumble/paving above 095
113	1	37	Tumbled cairn material in silty matrix below 048
114	6	37	Natural deposit of sandy silt
115	1	37	Basal fill of posthole 108
116	1	37	Packing stones within posthole 108
117	1	37	Fill of posthole 118 under 034
118	1	37	Cut of posthole filled by 117. In ditch 035, not cut through ditch fills.
119	8	37	Topsoil
120	8	37	Bedrock
121	8	37	Sand and degraded bedrock
122	1	37	Fill of possible feature in forecourt of cairn 123. Under 084, filled by 123
123	1	37	Cut of possible linear filled by 122
124	1	37	Dark orangey black sand and gravel cut by 123
125	-	-	Unassigned
126	1	37	Stoney deposit with some soil surrounding above 133, spoil heap from Tr.1 robbing
127	9	37	Large stones forming a possible feature/structure, filled by 128?
128	9	37	Dark brown sandy silt deposit, filling space defined by 127
129	9	37	Stoney deposit and dark brown sandy silt, same as 128
130	9	37	Reddy brown sandy silt deposit under large square stone 137
131	1	37	Reddish brown sandy silt deposit under 048, possible blocking or upcast
132	4	37	Orangey silty sand deposit above 151, hillwash
133	1	37	Large flat stones and yellow sand under 126, possible top layer of cairn
134	-	-	Unassigned
135	9	37	Reddish brown silty sand with medium stones under 129, same as 130
136	1	37	Dark brown loose sandy silt under 131, blocking in cairn
137	1	37	Large flat stones under 133, body of true cairn
138	9	37	Dark yellow sand under 136, lowest level of blocking
139	9	37	Large angular boulders forming possible cist, filled by 142, under 141
140	9	37	Stones of cairn, contains 145 and under 141
141	9	37	Capping stones of possible cist, corbelled, above 139 & 142
142	9	37	Orangey brown silty sand filling possible cist, under 141
143	1	37	Natural sand under 138
144	1	37	Possible cairn stones under 138
145	9	37	Reddish brown silty sand around cairn stones 140

Context	*Trench*	*Site*	*Description*
146	1	37	Single stone below 138, possible orthostat or part of chamber
147	1	37	Orangey brown silty sand deposit, possible beaker deposit
148	1	37	Possible old Neolithic/EBA ground surface, below 147. Not excavated.
149	4	37	Volcanic rock, kerb of cairn, abuted by 156, filled by 150
150	4	37	Pebble/cobble fill of cairn, above 149
151	4	37	Tumble from cairn on SE side, within 132
152	4	37	Cell within structure, above 153
153	4	37	Brown sandy silt possible surface within structure, within 109
154	4	37	Matrix of cobble surface within structure
155	4	37	Cobble surface within structure, below 153, within 109
156	4	37	Tumble/rubble abutting cairn, over 110, below 149

APPENDIX 2: Photographic Register

Film 1

No.	*Description*	*From*	*Conditions*
1	Registration shot		
2-7	Site 2, north facing section 1, bracketed east-west	N	O/C
8-11	Site 2, north facing section 2, bracketed east to west	N	O/C
12-13	Site 2, general shot of east facing section	N	O/C
14-19	Site 2, north facing section 1, bracketed east-west	N	O/C
20-21	Site 2, machair foreshore showing wave deposited pebbles	SE	O/C
22-23	Site 2, pre-ex of feature 202 showing deposit 201	S	O/C
24-25	Void		
26-27	Site 2, south facing section of feature 202 showing deposit 201	S	O/C
28-29	Site 2, east facing section of feature 202 showing deposit 201, bracketed north to south	E	O/C
30-31	Site 1, pre-ex Trench 1	E	O/C
32-33	Site 1, pre-ex Trench 1	W	O/C
34-35	Site 1, pre-ex Trench 1	S	O/C

Film 2

No	**Description**	**From**	**Conditions**
1-2	Site 1, Trench 1, post-ex shot of Test Pit 11	SE	O/C
3-4	Site 3, Pre-ex shot	SE	O/C
5-6	Site 1, Trench 1, working shot of deposits 002 and 006	W	O/C
7-8	Site 1, Trench 1, working shot of 004	SE	O/C
9-10	Site 1, Trench 1, working shot of deposits 002 and 006	W	O/C
11-12	Site 1, Trench 1, pre-ex of exposed cairn stones 006	SE	O/C
13-14	Site 1, Trench 1, pre-ex of exposed cairn stones 006	SW	O/C
15-16	Site 1, Trench 1, general working shot	SW	O/C

Film 3

No.	*Description*	*From*	*Conditions*
1 – 2	Site 1, Trench 1, general working shot		O/C
3	Registration Shot	n/a	O/C
4 - 7	Site 1, Trench 1, general working shot		O/C
8 - 11	Site 1, Trench 1, upper fill 009 of pit 015	SE	O/C
12-13	Site 1, Trench 1, upper fill 010 of pit 014	NNW	O/C
14-15	Site 3, Pre-ex shot	N	O/C
16-17	Site 1, Trench 1, lower fill 013, of pit 014	SSW	O/C
18-19	South east facing section of 014, showing fills 010 and 013	SSW	O/C
20-21	Site 1, Trench 1, lower fill 016, of pit 020. part of pit 015		O/C
22-23	Site 1, Trench 1, general working shot	NNW	O/C
24-25	Site 1, Trench 1, general working shot	NNE	O/C

26-27	Site 3, pre-ex shot of deposit 302	S	Bright
28-30	Site 1, Trench 1, lower fill 019, of pit 015	SE	Bright

Film 4

No.	*Digital No.*	*Description*	*From*	*Conditions*
1		Registration Shot		
2-3	1353	Site 1, Test Pit 3, record shot of possible feature in south corner	NNW	Bright
4-5	1354	Site 1, Trench 2, south facing section	S	Bright
6-7	1355	Site 1, Test Pit 1 north north west facing section	NNW	O/C
8-9	1356	Site 1, Trench 1, pit 015 prior to removal of western half	SE	Bright
10-11	1357	Site 1, Test Pit 3, post-ex	NNW	O/C
12-13	1365-6	Site 1, Test Pit 6, showing deposits 6/002 and 6/004	NE	Bright
14-15	1373	Site 1, Test Pit 4, West north west facing section	WNW	Bright
16-17	1374-75	Site 1, Test pit 7, showing deposits 7/001 and 7/002	ENE	Bright
18-19	1377	Site 1, Trench 1, post-ex of '06 trench and pre-ex of 2007	SE	O/C
20-21	1378	Site 1, Trench 1, post-ex of '06 trench and pre-ex of 2007	NE	O/C
22-23	1379	Site 1, Trench 1, post-ex of '06 trench and pre-ex of 2007	NW	O/C
24-25	1380-1	Site 1, Test pit 7, showing deposits 7/001 and 7/000	WNW	O/C
26-27	1383	Site 1, Test Pit 8, west south west facing section	WSW	O/C
28-29	1387-8	Site 1, Test Pit 9, showing possible paleo-channel and/or hill wash	NW	O/C
30-31	1413	Site 1, Test Pit 6, showing deposits 6/005 and 6/006	WNW	Bright
32-33	1443	Site 1, Test Pit 5 post-ex	SE	Bright
34-35	1444	Site 1, Trench 1, Possible tumble above 048 exposed below topsoil	SW	Bright
36	-	Site 1, Trench 1, general shot	SE	O/C

Film 5

No.	*Digital No*	*Description*	*From*	*Conditions*
1		Registration Shot		
2-3	1464	Site 1, Trench 2, pre-ex	SE	O/C
4-5	1470	Site 1, Test Pit 6, showing deposits 6/001 and 6/007	SSE	O/C
6-7	1471-2	Site 1, Trench 1, north west facing section	NW	O/C
8-9	1473	Site 1, Trench 1, north west facing section showing deposit 034	NW	O/C
10-11	1474 -5	Site 1, Test Pit 10, north facing section	N	O/C
12-13	1476	Site 1, Test Pit 10, south facing section	S	O/C

14-15	1477	Site 1, Trench 1, north west facing section showing deposit 036	NW	O/C
16-17		Site 1, Trench 3, pre-ex		O/C
18-20		Site 1, Trench 3, pre-ex		O/C
21		Site 1, Trench 1, cairn stones or tumble 048 in west of Trench 1	NE	O/C
22-23	1527	Site 1, Test Pit 10, post-ex	N	O/C
24-25	1528	Site 1, Trench 1, record shot of 037 in ditch 035	NW	O/C
26-27	1529	Site 1, Trench 1, east south east facing section of pit 015	ESE	O/C
28-29	1530	Site 1, Trench 2, post-ex	NW	O/C
30-31	1531	Site 1, Trench 2, south east facing section	SE	O/C
32-33	1532	Site 4, general shot of trench	NW	O/C
34-35	1533	Site 4, pre-ex shot of possible hearth in trench	W	O/C

Film 6

No.	**Digital No.**	**Contexts**	**From**	**Conditions**
1		Registration Shot		
2-3	1534	Site 1, Trench 1, pre-ex of ditch 035	NNW	Bright
4-5	1535	Site 1, Trench 1, pre-ex of ditch 035	SSW	Bright
6-7	1536	Site 1, Trench 1, pre-ex of ditch 035	NNW	O/C
8-9	1537	Site 1, Trench 1 in-situ cairn/tumble 048	NE	O/C
10-11	1538	Site 1, Trench 2, north east facing section	NE	O/C
12-13	1539	Site 1, Trench 2, south west facing section	SW	O/C
14-15	1540	Site 1, Trench 2, sondage	SE	O/C
16-17		Site 1, Trench 2, post-ex	SE	O/C
18-19	1543	Site 1, Trench 1, stone deposit in pit 020	SE	O/C
20-21	1544 -5	Site 1, ditch cut 035 in Test Pit 6	ENE	O/C
22-23		Site 1, Trench 4, post-ex	NE	O/C
24-25		Site 1, Trench 1, post-ex of pits 026 and 014	SSE	O/C
26-27	1550	Site 1, Trench 1, post-ex 020	SE	O/C
28-29	1568	Site 1, Trench 1, south south west facing section of pit 026, showing deposits 010 and 013	SSW	O/C

Film 7

No.	**Digital No.**	**Contexts**	**From**	**Conditions**
1-2	213-4	Site 1, Trench 1, Pre-ex '08	SE	O/C
3-4	215-6	Site 1, Trench 1, Pre-Ex '08	NW	O/C
5		Registration Shot		
6-7		Training Shots		
8-9	243-4	Site 1, Trench 1, NW extension showing 048	NE	Bright
10-11	245-6	Site 1, Trench 1, NW extension showing 048	SW	Bright
12-15	247	Site 1, Trench 2a, 2 and 3 showing 063 and 064	SE	Bright

16-17	248-9	Site 1, Trench 1, ditch sondage showing cut	W	Bright
18-20	250-1	Site 1, Trench 1, ditch sondage	W	O/C
21-22	252-3	Site 1, Trench 5, Pre-Ex	N	O/C
23-24	254	Site 1, Trench 2a, showing 063, 065, 066, 067, 068	SE	Bright
25-26	255	Site 1, Trench 5, showing ditch 070	N	O/C
27-28	256	Site 1, Trench 2a, showing 065 and 073	SE	O/C
29-30	257-8	Site 1, Trench 1, showing 032	SE	O/C
31-32	259-260	Site 1, Trench 1, showing 032	NE	O/C
33-34	261	Site 1, Trench 1, showing 048	NE	O/C
35-36	262	Site 1, Trench 1, showing 048	SW	O/C
37	263	Site 1, Trench 5, showing 070 in section	N	O/C

Film 8

No.	**Digital No.**	**Contexts**	**From**	**Conditions**
1-2	264	Site 1, Trench 1, showing fill of ditch 034	N	O/O
3-4	265	Site 1, Trench 4, Pre-Ex	N	O/C
5-6	266-7	Site 1, Trench 4, Pre-Ex	S	O/C
7-8	268-9	Site 1, Trench 4, showing 076 and 077	SW	O/C
9-10	270-1	Site 1, Trench 1, showing 084 and 085	S	O/C
11-12	272	Site 1, Trench 2a, showing 043 and 086	SE	Bright
13-14	273	Site 1, Trench 2a and 3, showing SE facing section	SE	Bright
15-16	274	Site 1, Trench 2a and 3, showing SE facing section, oblique shot	S	Bright
17-18	275-6	Site 1, Trench 1, showing 084, 085 and 088	NE	O/C
19-20	281	Site 1, Trench 1, showing sondage of ditch 035	NW	O/C
21-22	282	Site 1, Trench 1, showing sondage of ditch 035	NW	O/C
23-24	283	Site 1, Trench 1, showing sondage of ditch 035	NW	O/C
25-26	284	Site 1, Trench 1, showing sondage of ditch 035	NW	O/C
27-28	285	Site 1, Trench 1, showing 089	SE	O/C
29-30	286	Site 1, Trench 4, showing 079, 080, 081 and 082	NNE	O/C
31-32	287	Site 1, Trench 1, showing 079, 080, 081 and 082	SSW	O/C
33-34	288	Site 1, Trench 1, showing 079, 080, 081 and 082	NNE	O/C
35-36	289	Site 1, Trench 1, showing 036	W	O/C

Film 9

No.	**Digital No.**	**Contexts**	**From**	**Conditions**
1-2	290	Site 1, Trench 2a, Post-Ex showing 043	SE	Bright
3-4	291-2	Site 1, Trench 2a and 3, SE facing section	SE	Bright
5 - 14	293-299	Site 1, Trench 2, 2a and 3 , NNW facing	NNW	Bright

		section		
15-16	300	Site 1, Trench 7, Post-Ex	N	Bright
17-22	301-304	Site 1, Trench 7, E facing section	E	Bright
23-24	305	Site 1, Trench 6, showing 102 and 103	NW	O/C
25-26	306	Site 1, Trench 1, showing 108 and 036	N	Bright
27-28	307	Site 1, Trench 1, showing 084	SE	Bright
29-30	308	Site 1, Trench 1, showing 084 and 085	NE	Bright
31-32	309	Site 1, Trench 1 showing 118 and 117	NE	Bright
33-35	310	Site 1, Trench 8, Post-Ex	NE	Bright

Film 10

No.	Digital No.	Contexts	From	Conditions
1-2		Site 1, Trench 8, Post-Ex showing 119 and 120	NE	Bright
3-4	311	Site 1, Trench 8, Post-Ex showing 119 and 120	NW	Bright
5-6	312	Site 1, Trench 1, showing 092	SE	Bright
7-8	313	Site 1, Trench 1, showing 101 and 091	SE	Bright
9-10	314	Site 1, Trench 1, East facing section showing 084 and 085	SE	Bright
11-12	315	Site 1, Trench 1, SSW facing section showing 084 and 085	SW	Bright
13-14	316	Site 1, Trench 1, NNE facing section showing 084 and 085	NE	Bright
15-16	317	Site 1, Trench 1, Post-Ex showing 084 and 085 in section	NE	Bright
17-18	318	Site 1, Trench 1, Post-Ex showing 084 and 085 in section	SE	Bright
19-20	319	Site 1, Trench 1, Post-Ex showing 084 and 085 in section	SW	Bright
21-22	323	Site 1, Trench 1, Post-Ex	NW	Bright
23-24	324	Site 1, Trench 1, Post-Ex	SE	Bright
25-26	325	Site 1, Trench 1, Post-Ex	NNE	Bright
27-28	326	Site 1, Trench 1, NE facing section showing 035 and 091	NE	Bright
29-30	327	Site 1, Trench 1, SW facing section showing 035 and 091	SW	Bright
31-32	328	Site 1, Trench 1, possible fill of passage aligned with chamber	ENE	Bright
33-36		Site 1, Trench2, 2a and 3, backfilling working shots	E	Bright

Film 11

No.	Digital No.	Contexts	From	Conditions
1-2	329	Site 1, Trench 1, Kubiena Tins in NNE trench edge, 035	SE	Bright
3-4	336	Site 1, Trench 1 Backfilled		Bright
5-6	337	Site 1, Trench 2, 2a and 3 Backfilled		Bright
7-8	338	Site 1, Trench 4 Backfilled		Bright

9-10	339	Site 1, Trench 5 Backfilled		Bright
11-12	340	Site 1, Trench 6 Backfilled		Bright
13-14	341	Site 1, Trench 7 Backfilled		Bright
15-36		Site 1, General Site Shots		Bright

Film 12

No	Digital No.	Contexts	From	Conditions
1-6	440-1	Site 1, Trench 1, Pre-Ex 048	W	O/C
7-8		Registration		
9-10	442-3	Site 1, Trench 9 Pre-Ex	SW	O/C
11-12	444-5	Site 1, Trench 4 Pre-Ex	SW	O/C
13-14	446-7	Site 1Trench 4 Pre-Ex	NW	O/C
15-16	448-50	Site 1Trench 9, showing 127	NW	O/C
17-18	451-2	Site 1Trench 9, showing stone feature under 127	NW	Bright
19-20	453-4	Site 1Trench 1,showing 131	SE	O/C
21-22	ORT	Site 1Trench 9 after removal of (130) and (129)	NW	O/C
22-23	458-61	Site 1Trench 1,showing 133 after removal of 126	SW	O/C
24-26	462	Site 1, Trench 1, showing 084 and 134	NW	O/C
27-28	463-8	Site 1, Trench 4, working shots	Various	Bright
29-30	469	Site 1, Trench 1, showing 138	NE	Mixed
31-32	470-2	Site 1, Trench 9, Pre-Ex	SW	Bright
33-34	473	Site 1, Trench 9, showing 139	SE	O/C
35-36	474-5	Site 1, Trench 9, showing 139	SW	O/C

Film 13

No.	Digital No.	Contexts	From	Conditions
1-3	476-7	Site 1, Trench 1, Post-Ex of 137	NW	O/C
4-6	478	Site 1, Trench 1, Post-Ex of 143, 144 and 084	NW	O/C
7-8	479-80	Site 1, Trench1, Cremated bone within 131	N	O/C
9-10	481	Site 1, Trench 1, Possible in situ bone in 147	West	Overcast

APPENDIX 3: Drawings Register

No.	*Sheet No.*	*Scale*	*Description/Contexts*
1	11	1:20	Site 37, Trench 1, pre-ex plan
2	12	1:20	Site 37, Trench 1, pre-ex plan
3	9	1:20	Site 37, Trench 1, pre-ex plan
4	10	1:20	Site 37, Trench 1, post-ex plan
5	5	1:50	Site 241, pre-ex plan
6	6	1:20	Site 241, plan
7	6	1:20	Site 241, plan
8	7	1:20	Site 241, plan
9	8	-----	Survey points and controls
10	4	1:20	Site 240, plan of feature 202
11	16	1:10	Site 37, Test Pit 3, plan of 3/001 and 3/002
12	17	1:10	Site 37, Test Pit 2, plan of 2/000
13	16	1:20	Site 37, Test Pit 1, post-ex plan
14	18	1:10	Site 37, Test Pit 3, post-ex plan
15	18	1:20	Site 37, Test Pit 4, post-ex plan
16	19	1:20	Site 37, Test Pit 7, post ex plan
17	20	1:20	Site 37, Test Pit 9, post-ex plan
18	21	1:20	Site 37, Test Pit 8, post-ex plan
19		1:20	Site 37, Test Pit 6, post-ex plan
20	43	1:20	Site 37, Trench 1, plan (W)
21	45	1:20	Site 37, Trench 1, plan (E)
22	42	1:20	Site 37, Trench 1, plan tumble and cairn stones 048
23	35	1:20	Site 37, Test Pit 10, post-ex plan
24	45	1:20	Site 37, Trench 1, plan of cairn stones 048
25	32	1:20	Site 37, Trench 2, post-ex plan
26	33	1:20	Site 37, Trench 3, post-ex plan
27	34	1:20	Site 37, Trench 2, pre-ex plan
28	36	1:20	Site 37, Test Pit 5, post-ex plan
29	37	1:20	Site 37, Trench 3, post-ex plan
30	22	1:20	Site 37, Test Pit 6, post-ex plan
31	46	1:20	Site 37, Trench 1 post-ex plan of ditch 035
32	48	1:20	Site 37, Trench 4, pre-ex plan
33	49	1:20	Site 37, Trench 4, post-ex plan
34	50	1:20	Site 37, Trench 2, plan of possible track 064
35	51	1:20	Site 37, Trench 1, plan of 048
36	52	1:20	Site 37, Trench 5, post-ex plan
37	53	1:20	Site 37, Trench 2, phosphate sample grid
38	54	1:20	Site 37, Trench 2, plan of cairn tumble onto subsoil 065
39	52	1:20	Site 37, Trench 5, intermediate plan
40	55	1:20	Site 37, Trench 1, plan of 048
41	52	1:10	Site 37, Trench 5, west facing section
42	56	1:20	Site 37, Trench 1, plan of post-hole 076/77 and ditch
43	57	1:20	Site 37, Trench 4, pre-plan
44	58	1:20	Site 37, Trench 1, plan of 084 and 085
45	58	1:10	Site 37, Trench 1, section of modern posthole 077
46	59	1:10	Site 37, Trench 2a, Southeast facing section of trench
47	61	1:20	Site 37, Trench 1, plan
48	62	1:10	Site 37, Trench 1, Southwest facing section of ditch
49	63	1:20	Site 37, Trench 4, plan of cobble floor and stone arrangement

50	64	1:10	Site 37, Trench 7, southeast facing section of trench
51	65	1:20	Site 37, Trench 6, post-ex plan
52	65	1:20	Site 37, Trench 6, south facing section of trench
53	66	1:10	Site 37, Trench 2a, southeast facing section
54	67-8	1:10	Site 37, Trench 2a, southeast facing section
55	58	1:10	Site 37, Trench 1, northeast facing section of posthole 108
56	69	1:20	Site 37, Trench 4, interpretative plan
57	70-1	1:20	Site 37, Trench 8, post-ex plan
58	72-3	1:10	Site 37, Trench 1, west-northwest facing section of ditch 035/091
59	72-3	1:10	Site 37, Trench 1, NNE facing section through forecourt/facade of cairn
60	74	1:10	Site 37, Trench 1, NNE facing section of ditches 035/91
61	72-3 and 77	1:10	Site 37, Trench 1, SE facing section through forecourt/facade of cairn
62	75	1:10	Site 37, Trench 1, west facing section of trench 1. Links to drawing 48
63	76	1:10	Site 37, Trench 1, SW facing section through forecourt/facade of cairn
64	60	1:20	Site 37, Trench 2a, plan of deposits 086 and 087
65	78		Site 37, plan of site grid
66	79	1:10	Site 37, Trench 1, NNE facing section through forecourt/facade of cairn
67	80-2	1:20	Site 37, Trench 1, post-ex plan showing ditch and extensions
68	83-4	1:10	Site 37, core sections, N-S Transect
69	85-6	1:10	Site 37, core sections, E-W Transect
70	87	1:20	Pre-ex plan of NW Extension of Trench 1
71	88	1:20	Continuation of dr. 70
72	89	1:20	Pre-ex plan of Tr.4 , South half. Attaches to dr.76
73	90	1:20	Pre-ex plan of Tr. 9
74	91	1:20	Overlay of (127) in Tr. 9
75	92	1:20	Plan of base stone and deposit (130) of feature (127) following removal of side stones
76	93	1:20	Pre-ex plan of Tr.4, south half. Attches to dr. 72
77	92	1:20	Working plan of (135) after removal of (130) and (129)
78	94	1:20	Working plan of SW part of NW extension of Tr. 1
79	95	1:20	Working plan of NE side of NW extension of Tr. 1
80	96	1:20	Working plan of (139) after removal of (130) and (135)
81	97	1:20	Post-ex plan of Tr.9 showing top of possible cist (overlay of drawing 80)
82	98	1:10	SW facing section through Tr.1
83	98	1:10	SE facing section through Tr.1
84	98	1:20	Post-ex plan of E side of NW Extension of Tr.1
85	99	1:10	S facing section through Tr.1
86	95	1:20	Post-ex plan of in-situ cairn material in W side of Tr.1
87	100-103	1:20	Post-ex plan of Tr.4 (in 4 parts)
88	104	1:20	Overlay of (146) and (147) in E side of NW Extension of Tr.1 (Overlay of dr. 84)

Section No.	*Scale*	*Contexts*
201	1:10	North Facing Section of Erosion Face (W)- site 240
202	1:10	North Facing Section of Erosion Face (E)- site 240
203	1:75	PLAN of Cairn – Tape Survey
204	1:10	Section of [014] (013) (010)
205	1:10	NE Facing Section of [014] (013) (010)
206	1:10	NW Facing Section of [026] [024]
207	1:10	E Facing Section of [020] (021) (028) (022) (023) (027) (019) (009) (012) (016) [015]
208	1:10	E-W Section Through Cairn (004) Evaluation
209	1:20	Feature [202] Within N Facing Section of Erosion Face, site 240
210	1:10	WSW Facing Section of Test Pit 2
211	1:10	ENE Facing Section Test Pit 1
212	1:10	NNW Facing Section of Test Pit 3
213	1:10	WNW Facing Section of Test Pit 4
214	1:10	NW Facing Section of Test Pit 7
215	1:10	NW Facing Section of Test Pit 9
216	1:20	Test Pit 8 Post-Ex Section
217	1:10	Test Pit 6 SSE Facing Section
218	1:10	ESE Facing Section of Trench 1 Central Pit
219	1:10	NNE Facing Section of [035]
1-14	1:10	Drawings of Soil Horizons
15-27	1:10	Soil Coring Illustrations
28-38	1:10	Soil Coring Illustrations
239	1:10	Possible Posthole at SE ½ Trench 1
240	1:20	NW Facing Section Trench 2
241	1:20	NE Facing Section Trench 2
242	1:20	SW Facing Section Trench 2
243	1:20	SE Facing Section Trench 2
244	1:20	Trench 3 NW Facing Section
245	1:10	Test Pit 10 N Facing Section
246	1:10	(5/001), (5/002), (5/003), (5/000)
247	1:10	E Facing Section ------
248	1:10	NNW Facing Section Through Ditch Trench 1
249	1:10	NE Facing Section of Test Pit 6
250	1:20	
251	1:10	Cut of Feature in Corner of Trench 1 Cutting [014]

APPENDIX 5: Small Finds Register

SF no	*Context*	*Area*	*Trench*	*Description*
1	201	Site 240	Section 1	Flint
2	201	Site 240	Section 1	Flint
3	201	Site 240	Section 1	Bone
4	001	Site 37	Trench 1	Bulk Flint and Quartz
5	002	Site 37	Trench 1	Charcoal
6	002	Site 37	Trench 1	Bulk Flint and Quartz
7	003	Site 37	Trench 1	Flint Blade
8	007	Site 37	Test Pit 11	Bulk Flint and Quartz
9	003	Site 37	Trench 1	Bulk Flint and Quartz
10	006	Site 37	Trench 1	Bulk Flint and Quartz
11	012	Site 37	Trench 1	Charcoal
12	301	Site 241	Trench	Possible Rove
13	301	Site 241	Trench	Animal Bone
14	Unstratified	Site 240	Section 1	Possible Weight
15	201	Site 240	Section 1	Modern pottery
16	Western Sondage (002 and 006)	Site 37	Trench 1	Bulk Flint and Quartz
17	Unclear but between 008 and	Site 37	Trench 1	Flint flake with coretex
18	Old land surface	Sanna Bay	n/a	Pottery
19	Old land surface	Sanna Bay	n/a	Pottery
20	Old land surface	Sanna Bay	n/a	Flint flake
21	001	Site 37	Trench 1	Poss. Quartz Core
22	003	Site 37	Trench 1	Poss. Quartz Core
23	003	Site 37	Trench 1	Poss. quartz anvil split pebble
24	Western Sondage (002 and 006)	Site 37	Trench 1	Poss. Quartz Core
25	Western Sondage (002 and 006)	Site 37	Trench 1	Quartz Flake
26	001	Site 37	Trench 1	Coarse stone tool
27	9/003	Site 37	Test Pit 9	Small Piece Struck Flint
28	8/001	Site 37	Test Pit 8	Bulk Finds/ Stone
29	Unstratified	Site 37	Trench 1	Bulk Quartz
30	9/001	Site 37	Test Pit 9	Bulk Quartz
31	Unstratified	Site 37	Test Pit	Unstratified Chert
32	7/001	Site 37	Test Pit 7	19th Century Pottery
33	7/001	Site 37	Test Pit 7	Bulk Quartz
34	7/001	Site 37	Test Pit 7	Worked Quartz
35	Unstratified	Site 37	Trench 1	Quartz
36	Unstratified	Site 37	Trench 1	Worked Quartz
37	Unstratified	Site 37	Trench 1	Hammer Stone
38	Unstratified	Site 37	Trench 1	Worked Flint
39	2/001	Site 37	Test Pit 2	Quartz
40	3/002	Site 37	Test Pit 3	Bulk Quartz

41	3/003	Site 37	Test Pit 3	Bulk Quartz
42	1/001	Site 37	Test Pit 1	Bulk Quartz
43	6/001	Site 37	Test Pit 6	Quartz
44	Unstratified	Site 37	Trench 1	Worked Quartz
45	Unstratified	Site 37	Trench 1	Worked Quartz
46	2/002	Site 37	Test Pit 2	Bulk Quartz and Stone
47	9/003	Site 37	Test Pit 9	Bulk Flint
48	8/001	Site 37	Test Pit 8	Quartz
49	6/003	Site 37	Test Pit 6	Quartz
50	8/002	Site 37	Test Pit 8	Bulk Quartz
51	7/002	Site 37	Test Pit 7	Modern Glass
52	001	Site 37	Trench 1	Bulk Quartz
53	030	Site 242	Trench 4	Flint Flake/Quartz
54	018	Site 37	Trench 1	Flint/Pebble Flake
55	031	Site 37	Trench 1	Worked Quartz/Flint
56	001	Site 37	Trench 3	Stone
57	018	Site 37	Trench 1	Chipped Stone
58	029	Site 242	Trench 4	Bulk Quartz
59	034	Site 37	Trench 1	Chipped Stone
60	034	Site 37	Trench 1	Chipped Stone
61	038	Site 37	Trench 2	Possible Hammer Stones
62	043	Site 37	Trench 2	Flint, Natural Flint
63	043	Site 37	Trench 2	Mudstone
64	034	Site 37	Trench 1	Bulk Quartz
65	034	Site 37	Trench 1	Flint
66	031	Site 37	Trench 1	Flint
67	034	Site 37	Trench 1	Bulk Quartz
68	034	Site 37	Trench 1	Flint
69	023	Site 37	Trench 1	Chipped Quartz
70	055	Site 37	Trench 3	Pottery
71	055	Site 37	Trench 3	Flint
72	019	Site 37	Trench 1	Chipped Quartz
73	6/003	Site 37	Test Pit 6	Bulk Quartz
74	Unstratified	Site 37	Trench 2	Chipped Stone
75	039	Site 37	Trench 2	Bulk Quartz From Cleaning
76	Unstratified	Site 37	Trench 1	Chipped Stone - Spoil Heap
77	048	Site 37	Trench 1	Flint
78	031	Site 37	Trench 1	Bulk Quartz
79	032	Site 37	Trench 1	Bulk Quartz
80	065	Site 37	Trench 2a	Flint Flake
81	065	Site 37	Trench 2a	Flint Flake
82	065	Site 37	Trench 2a	Flint
83	Unstratified	Site 37	Unstratified	Worked quartz
84	065	Site 37	Trench 2a	Worked Flint
85	065	Site 37	Trench 2a	Quartz
86	065	Site 37	Trench 2a	Worked Flint
87	031	Site 37	Trench 1	Flint
88	065	Site 37	Trench 2a	Worked Flint

89	065	Site 37	Trench 2a	Worked Flint
90	-	Site 37	Trench 1	Bulk Quartz
91	065	Site 37	Trench 2a	Bulk Quartz
92	065	Site 37	Trench 2a	Bulk Quartz
93	048	Site 37	Trench 1	Volcanic Rock
94	085	Site 37	Trench 1	Flint
95	085	Site 37	Trench 1	Bulk Quartz
96	085	Site 37	Trench 1	Flint
97	086	Site 37	Trench 1	Flint
98	086	Site 37	Trench 1	Bulk Quartz
99	087	Site 37	Trench 1	Bulk Quartz
100	087	Site 37	Trench 1	Flint
101	090	Site 37	Trench 2a	Quartz
102	084	Site 37	Trench 1	Bulk Flint
103	084/085	Site 37	Trench 1	Bulk Quartz
104	034	Site 37	Trench 1	Bulk Quartz
105	034	Site 37	Trench 1	Pummice
106	034	Site 37	Trench 1	Quartz
107	084	Site 37	Trench 1	Worked Flint
108	034	Site 37	Trench 1	Worked Quartz
109	034	Site 37	Trench 1	Bulk Quartz
110	081	Site 37	Trench 1	Stone
111	083	Site 37	Trench 1	Fire Cracked Stone
112	?	Site 37	Trench 1	Iron Nail
113	083	Site 37	Trench 4	Quartz
114	081	Site 37	Trench 1	Flint
115	083	Site 37	Trench 1	Stone
116	036	Site 37	Trench 1	Pottery
117	036	Site 37	Trench 1	Bulk Quartz
118	Topsoil	Site 37	Trench 1	Flint
119	036	Site 37	Trench 1	Bulk Quartz
120	031	Site 37	Trench 1	Flint
121	084	Site 37	Trench 1	Flint
122	084	Site 37	Trench 1	Bulk Quartz
123	085	Site 37	Trench 1	Bulk Quartz
124	031	Site 37	Trench 1	Bulk Quartz
125	034	Site 37	Trench 1	Bulk Quartz
126	084	Site 37	Trench 1	Bulk Flint
127	084	Site 37	Trench 1	Bulk Flint
128	085	Site 37	Trench 1	
129	085	Site 37	Trench 1	Bulk Quartz
130	034	Site 37	Trench 1	Bulk Quartz
131	119	Site 37	Trench 1	Iron – Possibly Medieval
132	085	Site 37	Trench 1	Possible Grinding Stone
133	092	Site 37	Trench 1	Possible Flint Scraper
134	085	Site 37	Trench 1	Bulk Quartz
135	085	Site 37	Trench 1	Bulk Quartz
136	034	Site 37	Trench 1	Bulk Quartz

137	084	Site 37		Bulk Quartz
138	124	Site 37		Bulk Quartz
139	001	Site 37		19th Century Pot Sherd
140	Unstratified	Site 37		Quartz
141	039	Site 37	Trench 3	Flint
142	001	Site 37	Trench 2a	Quartz
143	048	Site 37	Trench 1	Bulk Quartz
144	005	Site 37	Trench 1	Quartz
145	101	Site 37	Trench 1	Flint
146	Unstratified	Site 37	Trench 1	Quartz
147	084/085	Site 37	Trench 1	Quartz
148	001	Site 37	Trench 1	Quartz
149	048	Site 37	Trench 1	Flint
150	048	Site 37	Trench 1	Quartz
151	065	Site 37	Trench 2a	Bulk Quartz
152	085	Site 37	Trench 1	Bulk Quartz
153	248	Site 37	Quartz Survey	Bulk Quartz
154	248	Site 37	Flint Survey	Bulk Flint
155	084	Site 37	Trench 1	Flint
156	039	Site 37	Trench 3	Bulk Quartz
157	239a	ORMS1	TP 1	
158	092	Site 37	Trench 1	Bulk Quartz
159	036	Site 37	Trench 1	Flint
160	239b	ORMS2	TP 2	1940 Glass Bottle
161	001	Site 37	Trench 9	Bulk Quartz
162	001	Site 37	Trench 1	Modern Pottery
163	001	Site 37	Trench 4	Quartz
164	001	Site 37	Trench 1	Bulk Quartz
165	001	Site 37	Trench 4	Flint
166	001	Site 37	Trench 4	Chert
167	001	Site 37	Trench 4	Flint
168	001	Site 37	Trench 4	Possible Worked Quartz
169	001	Site 37	Trench 4	Bulk Quartz
170	131	Site 37	Trench 1	Bone
171	131	Site 37	Trench 1	Tooth
172	001	Site 37	Trench 1	Bulk Quartz
173	002	Site 37	Trench 4	Flint
174	002	Site 37	Trench 4	Flint
175	131	Site 37	Trench 1	Bone
176	048/13	Site 37	Trench 1	Bulk Quartz
177	130	Site 37	Trench 1	Pottery
178	131	Site 37	Trench 1	Tooth
179	128	Site 37	Trench 9	Bulk Quartz
180	131	Site 37	Trench 1	Pottery
181	126	Site 37	Trench 1	Bulk Quartz
182	131	Site 37	Trench 1	Stone
183	131	Site 37	Trench 1	Pottery
184	131	Site 37	Trench 1	Pottery

185	131	Site 37	Trench 1	Pottery
186	131	Site 37	Trench 1	Pottery
187	132	Site 37	Trench 4	Flint
188	131	Site 37	Trench 1	Pottery
189	132	Site 37	Trench 4	Modern Pottery
190	132	Site 37	Trench 4	Flint
191	132	Site 37	Trench 4	Stone
192	132	Site 37	Trench 4	Flint
193	079	Site 37	Trench 4	Hammerstone
194	131	Site 37	Trench 1	Pottery
195	132	Site 37	Trench 4	Bulk Quartz
196		Site 37	Trench 4	Worked Stone
197	001	Site 37	Trench 4	Flint
198	131	Site 37	Trench 1	Bulk Quartz
199	126	Site 37	Trench 1	Bulk Quartz
200	132	Site 37	Trench 4	Bulk Quartz
201	132	Site 37	Trench 4	Flint
202	135	Site 37	Trench 9	Flint
203	135	Site 37	Trench 9	Shell
204	142	Site 37	Trench 9	Pigs Tooth
205	132	Site 37	Trench 4	Burnt Flint
206	131	Site 37	Trench 1	Bone
207	136	Site 37	Trench 1	Pottery
208	132	Site 37	Trench 4	Flint
209	132	Site 37	Trench 4	Flint
210	136	Site 37	Trench 1	Worked Stone
211	136	Site 37	Trench 1	Bulk Quartz
212	133	Site 37	Trench 1	Bulk Quartz
213	137	Site 37	Trench 1	Bulk Quartz
214	129	Site 37	Trench 9	Shell
215	129	Site 37	Trench 9	Bulk Quartz
216	130	Site 37	Trench 9	Bulk Quartz
217	129	Site 37	Trench 9	Bulk Quartz
218	135	Site 37	Trench 9	Bulk Quartz
219	138	Site 37	Trench 1	Pottery
220	138	Site 37	Trench 1	Pottery
221	138	Site 37	Trench 1	Shell
222	138	Site 37	Trench 1	Pottery
223	132	Site 37	Trench 4	Stone
224	138	Site 37	Trench 1	Pottery
225		Site 37	Trench 4	Fire Cracked Stone
226	132	Site 37	Trench 4	Quartz
227	138	Site 37	Trench 1	Pottery
228	138	Site 37	Trench 1	Pottery
229	138	Site 37	Trench 1	Pottery
230	138	Site 37	Trench 1	Stone
231	138	Site 37	Trench 1	Stone
232	131	Site 37	Trench 1	Tooth

233	131	Site 37	Trench 1	Charcoal
234	131	Site 37	Trench 1	Cremated Bone
235	131	Site 37	Trench 1	Cremated Bone
236	147	Site 37	Trench 1	Tooth
237	147	Site 37	Trench 1	Possible Mandible
238	147	Site 37	Trench 1	Bone
239	147	Site 37	Trench 4	Pottery
240	132	Site 37	Trench 1	Bulk Quartz
241	138	Site 37	Trench 1	Bulk Quartz
242		Site 37	Trench 1	Quartz
243	Unstratified	Site 37	Trench 1	Bone
244	Unstratified		Mingarry Castle	Possible Bone Comb
245	132	Site 37	Trench 4	Possible Stone Axe
246	001	Site 37	Trench 4	Flint

APPENDIX 6: Sample Register

Sample No.	*Context No.*	*Volume*	*Description*
001	003	20ltr	Bulk sample
002	002	5ltr	Bulk
003	006	5ltr	Bulk
004	011	10ltr	Bulk
005	009	5ltr	100%
006	010	15ltr	100%
007	012	20ltr	100%
008	013	7ltr	100%
009	016	20ltr	100%
010	019	10ltr	100%
011	6/004	10ltr	Dark organic layer – possible turf line
012	6/003	10ltr	Stoney gravely layer between turf lines
013	1/001		Top soil in Trench 1
014	2/00		Top soil in Test pit 11
015	030		Clay with degraded sandstone and charcoal inclusions Site 242
016	6/006	20ltr	Brown organic layer – probable peat Test Pit 6
017	5/003	10ltr	Turf layer above sand Test Pit 6
018	1/001		Top soil Trench 1
019	031		Grey sandy clay Trench 1
020	032		Black clay organic layer Trench 1
021	033		Pale grey clay Trench 1
022	034		Silty sand layer SW corner Trench 1
023	032		Dark black organic clay from SW Trench 1
024	031		Stoney layer, upper fill [035]
025	036		Dark charcoal rich sand Trench 1
026	034		Ditch fill with charcoal, Trench 1
024	036		Dark charcoal rich sand from specific location, Trench 1
028	036		Dark charcoal rich sand from specific location, Trench 1
029	009		Grey brown sandy silt fill of fire pit Trench 1
030	012		Dark brown black gravely silt fill of fire pit Trench 1
031	012	30 ltr	Dark brown black gravely silt fill of fire pit Trench 1
032	042		Mid orange brown gravely sand Trench 2
033	054		Mid brown and orange from between possible hearth stones, Trench 1
034	028	40 ltr	Dark brown black silt fill of fire pit, Trench 1
035	028		Dark brown black silt fill of fire pit, Trench 1
036	023	10 ltr	Dark black charcoal fill of fire pit Trench 1
037	016	10 ltr	Dark black charcoal fill of fire pit Trench 1
038	016	10 ltr	Dark black charcoal fill of fire pit Trench 1
039	023		Dark black charcoal fill of fire pit Trench 1
040	010	10 ltr	Grey gravel upper fill of pit, Trench 1
041	013	10 ltr	Dark blackish lower fill of pit, Trench 1
042	019	10 ltr	Brown black lower fill of central pit [20], Trench 1
043	019	10 ltr	Brown black lower fill of central pit [20], Trench 1

Sample No.	*Context No.*	*Volume*	*Description*
044	065	10 ltr	Mid orange sand layer in Trench 2a
045	085	20 ltr	Grey gravel layer in forecourt of Trench 1
046	087	10 ltr	Purple brown gravelly sand layer in Trench 2a
047	086	10 ltr	Brownish gravelly silt layer in Trench 2a
048	034	40 ltr	Ditch fill
049	084	20 ltr	Orange layer in forecourt of Trench 1
050	036	2 small bags	Burning at top of 036, in ditch Trench 1
051	036	3 small bags	Burning at top of 036, in ditch Trench 1
052	036	1 small bag	Burning at top of 036, in ditch Trench 1
053	036	1 small bag	Burning at top of 036, in ditch Trench 1
054	036	40 ltr	Burning at top of 036, in ditch Trench 1
055	036	4 small bags	Burning at top of 036, in ditch Trench 1
056	036	3 small bags	Burning at top of 036, in ditch Trench 1
057	115	2 small bags	Fill of posthole 108
058	Void		
059	084	40 ltr	Orange layer in forecourt of Trench 1
060	085	40 ltr	Grey gravel layer in forecourt of Trench 1
061	092	40 ltr	Fill of 091
062	117	5 ltr	Fill of posthole 118
063	101	40 ltr	Basal fill of 091
064	128	5 ltr	Fill of (127)
065	130	-	Deposit beneath stone (127)
066	131	-	Layer in cairn under (048)
067	129	-	Deposit in Tr. 9
068	132	10 ltr	Deposit
069	135	-	Deposit
070	133	5 ltr	Deposit
071	136	5 ltr	Deposit
072	131	5 ltr	Deposit from baulk with cremated bone
073	147	5 ltr	Deposit with bone

APPENDIX 7: Site 1 Test Pit Register

Number	*Contexts*	*Description*
1	1/000, 1/001	Bedrock
2	2/000, 2/001	Bedrock
3	3/000, 3/001, 3/002, 3/003	Natural degraded bedrock and sand.
4	4/000, 4/001	Bedrock
5	5/000, 5/001, 5/002, 5/003	Ditch 035- unexcavated
6	6/000, 6/001, 6/002, 6/003, 6/004, 6/005, 6/006	Ditch 035- excavated
7	7/000, 7/001, 7/002	Compact sand
8	8/000, 8/001, 8/002	Compact sand and stones
9	9/000, 9/001, 9/002, 9/003	Natural sand
10	10/001, 10/002, 10/003, 10/004, 10/005	Ditch 035- unexcavated (extension of Trench 1)

APPENDIX 8: Area A Shovel Pit Registers

Test Pit No.	**Dimensions (m) (length x width x depth)**	**Contexts**	**Finds**
A1	1.0 x 0.5 x 1.1	A1001-A1004	None
A2	0.95 x 0.5 x 0.8	A2001-A2005	Bulk flint, 19th century pottery, worked flint
A3	1.0 x 1.0 x 0.4	A3001-A3003	Worked flint?
A4	1.0 x 0.5 x 0.75	A4001-A4003	Bulk flint
A5	1.0 x 0.86 x 0.85	A5001-A5004	Bulk flint
A6	0.5 x 0.5 x 1.0	A6001-A6007	None
A7	0.5 x 0.5 x 0.72	A7001-A7004	Worked Flint
A8	0.5 x 0.5 x 0.63	A8001-A8004	None
A9	0.45 x 0.5 x 0.6	A9001-A9004	None
A10	0.5 x 0.5 x 0.7	A10001-A10004	None
A11	0.5 x 0.5 x 0.8	A11001-A11004	None
A12	0.5 x 0.5 x 0.68	A12001-A12004	None

Table 1 Area A Test Pit Summary Table

Context Nos.	*Description*	*Test Pits*
A1001-A12001	Topsoil. Mid grey-brown sticky silt with <2% small angular stone inclusions, well sorted	A1-A12
A1002-A12002	Hillwash. Mid reddish brown plastic sandy silt, 5% small to large angular-sub-angular stone inclusions, poorly sorted with diffuse/merging boundary	A1-A12
A3003-A3003 A6003-A9003	Hillwash. Dark reddish brown silty sand, 5% small to large angular-sub-angular stone inclusions, poorly sorted with diffuse/merging boundary	A1-A3, A6-A9
A2004/5, A8005, A9004	Hillwash/Marine Gravels. Dark brown sandy clay with <1% charcoal flecks, frequent small pebble inclusions and occasional larger sub-rounded cobbles moderately sorted with merging boundary.	A2, A8, A9
A4003, A5003, A6004, A10003-A12003	Marine Gravels. Very fine well rounded gravels in a mid orange brown silt sand matrix. Well sorted.	A4-6, A10-12
A1004, A5004, A6005, A10004-A12004	Marine Gravels. Small-medium well rounded gravels. Mid brown silt sand matrix. Well sorted.	A1, A5-6, A10-12

A6006	Marine Gravel. Coarse rounded to sub-rounded gravels and cobbles in mid orange brown sand matrix. Poorly sorted.	A6
A6007, A7004	Marine gravels and sand. Fine yellow sand and gravels.	A6, A7

SF no	*Context*	*Test Pit*	*Description*
1	A3001	A3	Bulk Flint
2	A2001	A2	Bulk Flint
3	A4001	A4	Bulk Flint
4	A2002	A2	19th century Pottery
5	A4002	A4	Bulk Flint
6	A5002	A5	Bulk Flint
7	A2003	A2	Worked Flint ?
8	A7002	A7	Worked Flint ?
9	A3002	A3	Worked Flint ?
10	A2004	A2	Worked Flint?
11	A7003	A7	Worked Flint?

No.	*Sheet No.*	*Scale*	*Description/Contexts*
1	1	1:10	SW facing section of Test Pit A6
2	1	1:10	NE facing section of A11
3	2	1:10	NE facing section of A10
4	2	1:10	NE facing section of A9
5	1	1:20	Post-ex plan of A3
6	1	1:10	SW facing section of A3
7	1	1:10	SW facing section of A1
8	2	1:10	SW facing section of A7
9	2	1:10	SW facing section of A2
10	1	1:10	NE facing section of A12
11	2	1:10	NE facing section of A8
12	3	1:10	SW facing section of A5
13	4	1:50	General plan of Area A Test Pits

Film 1/Digital

Shot	*Digital*	*Description*	*Taken From*	*Conditions*
-	1-8	General working shots of test pitting in Area A (A1-A5)	E,N	O/C
3-4	9	SW facing section of A5	SW	O/C
5-6	10	Post-ex shot of A5	NW	O/C
7-8	11	SW facing section of A6	SW	O/C
9-10	12	Post-ex shot of A6	SW	O/C
11-12	13	NE facing section of A11	NE	O/C
13-14	14	Post-ex facing section of A11	NE	O/C
15-16	15	NE facing section of A10	NE	O/C
17-18	16	Post-ex shot of A10	NE	O/C
19-20	17-19	Post-ex shot of A3	NE	O/C
21-22	20-21	SW facing section of A3	SW	Sunny
23-24	22-23	NE facing section of A9	NE	O/C
25-26	24-25	Post-ex shot of A9	NE	Sunny
27-28	26	SW facing section of A2	SW	Sunny
29-30	-	Registration Shot	-	-

31-32	27	Post-ex shot of A2	SW	Sunny
33-34	28	SW facing section of A7	SW	Sunny
35-36	29	Post-ex shot of A7	SW	Sunny
37	30	SW facing section of A4	SW	Sunny
38	31	SW facing section of A1	SW	O/C

Film 2/Digital

Shot	*Digital*	*Description*	*Taken From*	*Conditions*
1-2	-	Registration Shot	-	-
3-4	32-33	SW facing section of A1	SW	O/C
5-6	34	NE facing section of A12	NE	Cloudy
7-8	35	Post-ex shot of A12	NE	Cloudy
9-10	36	NE facing section of A8	NE	Cloudy
11-12	37	Post-ex shot of A8	NE	Cloudy
13-14	38	SW facing section of A4	SW	Rain
15-16	39	Post-ex shot of A4	SW	Rain

Ardnamurchan Transitions Project

Cladh Aindreis Chambered Cairn
Swordle Bay, Ardnamurchan

Season Five, 2010:
Archaeological Excavations
Project Design

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Annex 1
in

Ardnamurchan Transitions Report no. 12

CONTENTS

LIST OF FIGURES

5. BACKGROUND

1.1 The Ardnamurchan Transitions Project (henceforth ATP) was formulated in order to investigate transitions in prehistory on the Ardnamurchan Peninsula. Whilst research into the Mesolithic, Neolithic and Bronze Age periods in Western Scotland has been intensive over the last few decades, the Ardnamurchan Peninsula remains a relatively understudied area for all of these key periods. Consequently little is known of the transitions from hunting and gathering to farming and the arrival of metalworking in the area. It seems likely, however, that this paucity of knowledge does not reflect the true record. A number of finds have been noted by local amateur enthusiasts over the last 20 years. Furthermore, given the geographical position of the peninsula between the northern and southern Inner Hebrides (Figure 1.1), it seems likely that this area could have played an important role during critical periods of early prehistoric change in Western Scotland. As such, the ATP aims to investigate these key transformations in the area through a combination of site specific excavation and wider survey work.

1.2 Work began in 2006 and after four successful seasons excavating at Cladh Aindreis chambered cairn, and surveying in Swordle Glen (in which the cairn is situated) (Figure 1.1. and 1.2), the project has discovered 40 previously unrecorded sites. Our work focusing on the cairn has revealed a series of insights into the structure and history of the monument. We are now in a position to

directly address our remaining sources of uncertainty about the cairn. Full background information and the results of the study so far are available on our website and in the above data structure report which summarises our findings from Seasons 1, 2 and 3 and details the results of Season 4.

1.3 The overall success attained during the first four seasons can not only be measured in the excellent archaeological results that were brought to light but the wealth of interest that was generated within the local community, the standard of the training provision for undergraduate students and the introduction of qualitatively better recording systems. Large-scale attendance at all five of the excavation open days (two were held in season three) and both public lectures also showed the high level of success in public outreach and overall local interest, as did popular school visits undertaken in 2007.

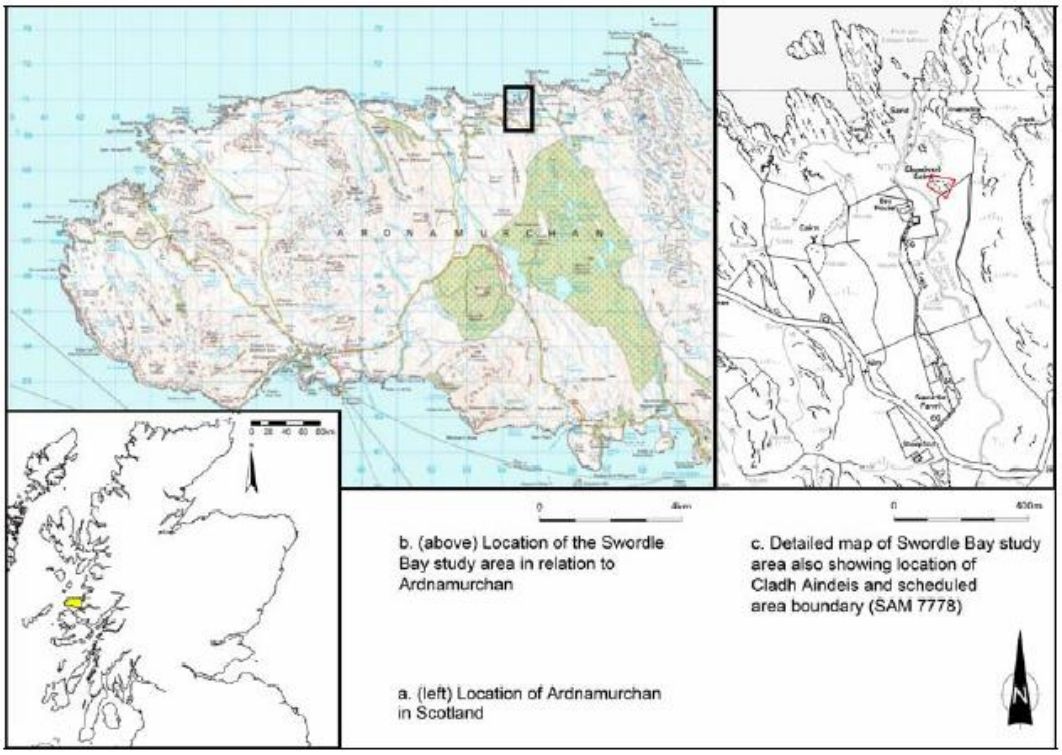

Figure 1.1: The location of Cladh Aindreis and the Swordle Bay study area

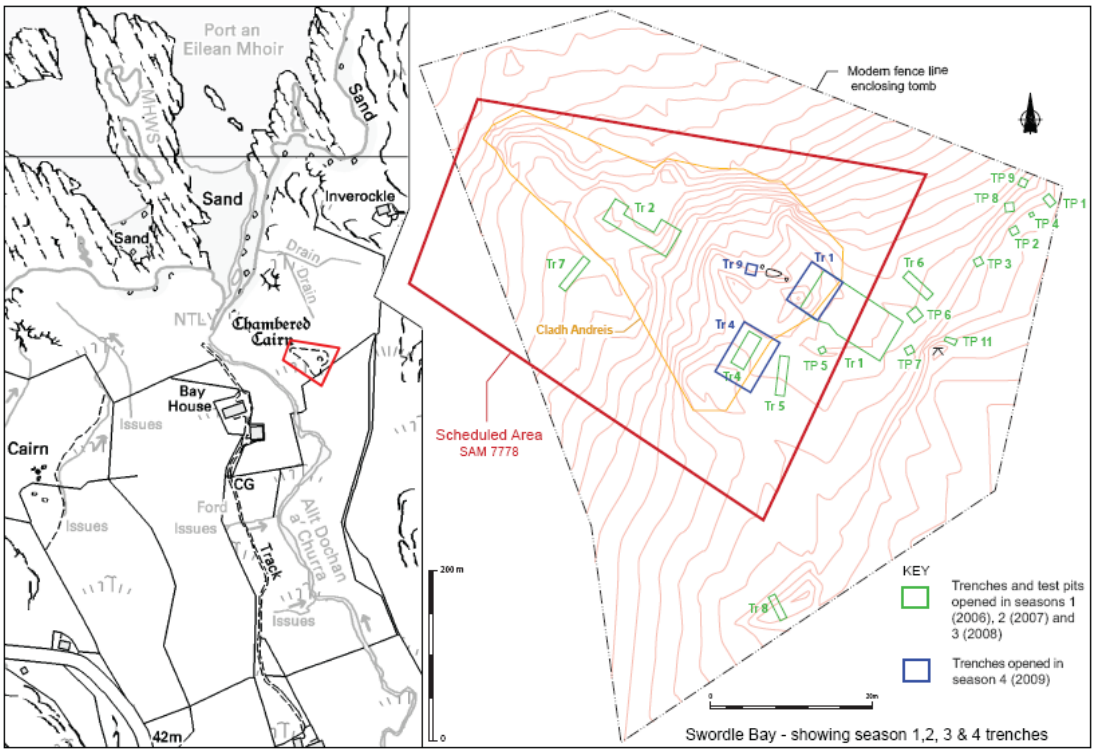

Figure 1.2: The location of trenches opened in previous work by the ATP at Cladh Aindreis, Season 1 (2006) – Season 4 (2009)

6. AIMS AND OBJECTIVES

2.1 The principal aims of the project are:

2.1.1 To rectify the paucity of information regarding the Ardnamurchan Peninsula in prehistory.

2.1.2 To study a particular landscape on the peninsula (Swordle Glen) in order to assess the potential of the archaeological remains in Ardnamurchan of all periods. In particular to focus on the different phases of use of the chambered cairn Cladh Aindreis specifically to resolve the question of the stratigraphic relationship between the cairn and the kerbed cairn feature, and to ideally recover chronologically diagnostic material, or material suitable for radiocarbon dating from a secure context within the cist.

2.1.3 To develop a full outreach programme in order to; attract new audiences (participatory and non-participatory); Increase the benefits of this project to a wider geographical audience; provide opportunities for interested parties to get involved in the archaeology of Ardnamurchan and disseminate information about the project and its findings to local community groups (discussed in Section 4 below).

2.1.4 To develop practical methodologies which integrate and situate core theoretical questions within archaeological practice (see Gray et al. 2009).

2.2 To meet ATP's broad aims a range of specific objectives have been identified to meet each aim satisfactorily. The objectives require a set of tasks to be carried out over seasons four and five in order to bring this phase of the project to a successful conclusion. These tasks are defined as follows (a full strategy for the completion of each task is provided in section 3 below):

2.3 The principal objectives of the project in Season Five (2010) are:

2.3.1 Continue excavations at Cladh Aindreis in order to find the front facade of cairn (Trench 1)

2.3.2 To excavate the putative 'closed cist' to the immediate west of the chamber (Trench 9)

2.3.3 To extend Trench 4 to explore the potential Bronze Age kerb cairn (Site 1, Fig 3.1).

2.3.4 Investigate the immediate area around the Cladh Aindreis by geophysical survey (including GPR) in order to locate the possible continuation of the ditch discovered and partially excavated in 2007 and 2008 (see Cobb *et al*. 2009 and Cobb *et al*. 2010) and any other visible structural elements of the cairn.

2.3.5 Investigate by survey and trial excavation a sample of the clearance cairns within the Swordle Glen (Fig 3.2). Including completion of excavations at Site 3.

2.3.6 Continue the shovel pit survey of the lower Swordle Glen (Fig 3.3).

2.3.7 Excavate the lithic scatter identified during the 2008 walk-over survey (Fig 3.2).

2.3.8 Continue excavations at Coldstream Clearance cottages begun in Season Four (2009) (Fig 3.4) (see section 3.7 for further detailed aims of work at Coldstream Cottages)

7. METHODS STATEMENT

3.1 General

3.1.1 ATP follows the Institute for Archaeologists' Code of Conduct, Standards and Guidelines as appropriate, and those set out by the University of Manchester.

3.1.2 The following text provides an account of the main tasks to be conducted in 2010. The Outreach Programme is detailed in Section 4.

3.1.3 All excavation will be hand excavation and all deposits will be recorded by drawing (at an appropriate scale usually 1:10 for sections and 1:20 for plans), photography (SLR slide and digital), and by completing standard ATP record forms.

3.1.4 All excavation work will be undertaken by a team of 12 staff and 20 students during a three week field season between 15th August and 5th September 2010.

3.1.5 At all times, both leading up to and whilst undertaking excavation, we will be in active consultation with the Highland Archaeologist (currently Kirsty Cameron) and the Highland Inspector for Ancient Monuments at Historic Scotland (currently John Malcolm), and his team.

3.1.6 Points marked * will take place within the scheduled area (Table 1) and therefore are subject to permission being granted by Historic Scotland.

3.1.7 For all proposed work within the scheduled area: A full electronic topographical contour survey of the entire scheduled area was created in Season 2 and this will be used in Season Four to enable the full reinstatement of all excavated areas to pre-excavation conditions. Additionally electronic survey methods will also be used to provide detailed data of all trenches opened and any finds will be surveyed in 3 dimensions.

Southwest	Northwest	Southeast	Northeast
x- 154659.20	x- 154668.08	x- 154704.48	x- 154725.34
y- 770761.07	y- 770784.60	y- 770730.89	y- 770775.28

Table 1: Scheduled Area Coordinates

*3.2 *Task 1: Excavations at Cladh Aindreis (Figure 3.1)*

Trench No	Area	Extent
Trench 1	Front of cairn	6m x 4m
Trench 4	Possible Bronze Age kerb cairn	7.5m x 6.5m
Trench 9	Putative 'closed cist'	3m by 2.5m

Table 2: Summary dimensions of the proposed archaeological trenches within the scheduled area.

3.2.1 The first task at the cairn will be to partially re-open and expand the northwest extent of Trench 1 (see Figure 3.1). The aim is to locate more *in situ* cairn material further delineating the edge of the cairn façade and to clearly establish the physical and chronological relationship between this, the chamber and the hypothesised blocking material found in Season Four (see paragraphs 3.10.1 to 3.10.12 in the 2009 season DSR above for full details of our findings). Finding additional *in situ* evidence of the façade is vital for understanding Cladh Aindreis as we will be able to conclusively demonstrate the shape of the façade which the original work by Henshall (1972) was unable to identify. Excavations in 2009 had suggested a convex shape. Expanding Trench 1 towards the chamber (Figure 3.1) will therefore help to address Research Aim 2.1.2 by helping us to identify the front of the monument, clarify its shape and investigate whether the chamber was accessible from the front of the monument. The trench will be 6m wide, and re-expose some 2m (in length) of material uncovered in 2009. The baulk that remains between the material uncovered in 1009 will be removed. The trench will also be extended by 2 metres towards the chamber and all deposits will be excavated in full apart from *in situ* cairn material. The trench will be L shaped at this stage, allowing us to extend the running section from the existing baulk. This will include the removal of the hypothesised gravel blocking material and the removal of the stones found at the base of this material. In this way we hope this trench will yield secure material for radiocarbon dating in order to date the construction of the monument. Kubiena Tin samples will be taken from the putative blocking material and from the section in which *in-situ* cairn material is present. Both sets of samples will be subject to thin section analysis and will potentially offer invaluable paleo-environmental and dating evidence. On the advice of our environmental archaeologist, Dr Mike Cressey, an OSL dating sample will be taken from under the *in-situ* cairn material recorded in the south of the trench in 2009. Trench 1 then:

- Will be re-opened and extended towards the chamber in the northwest portion of the trench (see fig 3.1).
- Have all deposits, excluding *in-situ* cairn material excavated in order to confirm the original form of the cairns Facade and the nature of the putative blocking material.
- Provide the physical and chronological relationship between cairn material, the chamber and the putative blocking material.
- In combination with the material already excavated in Trenches 1, 2 and 9, and the proposed extension of Trench 9, will be vital in allowing us to meet our research aims and develop a detailed understanding of when the cairn was constructed and altered, potentially through Bayesian modelling of radiocarbon dates (see appendix 2).
- Have all deposits reinstated following the 2010 season.

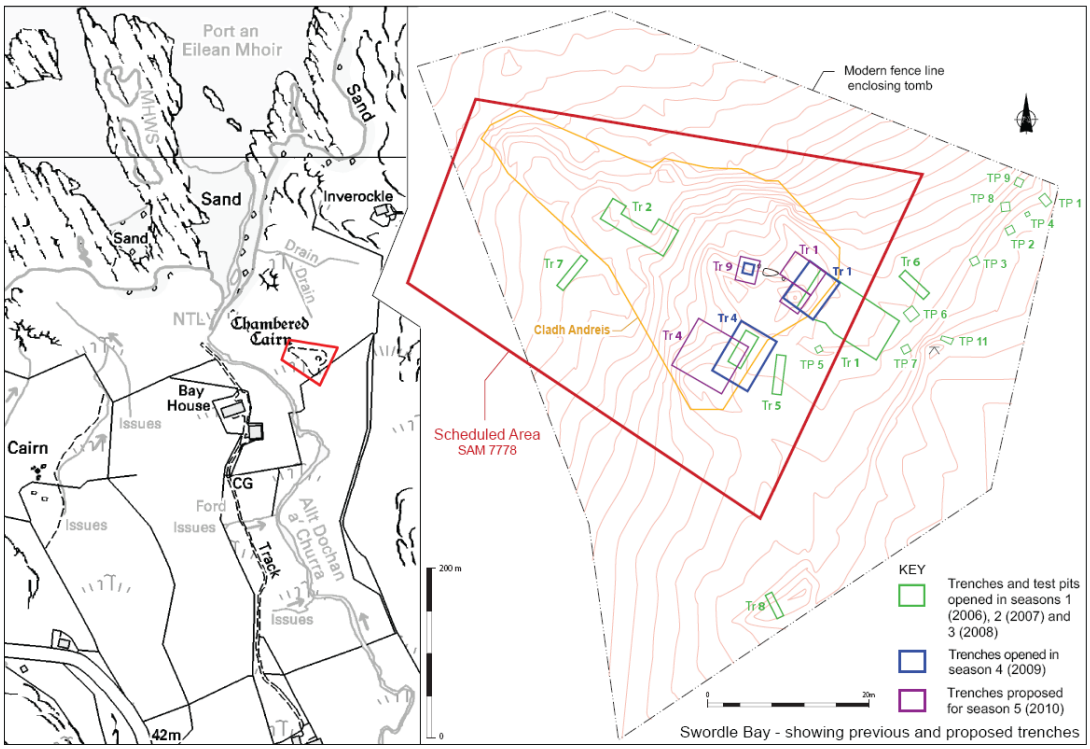

Figure 3.1: Location of previous and proposed trenches

3.2.2 A 7.5 x 6.5m trench (Trench 4) will be opened (this will represent an extension to the existing Trench 4) in order to explose the structure believed to be a Bronze Age kerb cairn that was identified and partially revealed in Season Four (2009) (see paragraphs 3.10.1 to 3.10.12 in the 2009 DSR above for full details of our findings). The whole cairn will initially be exposed and all *in situ* material will be cleaned. The cairn will then be divided into four equal quadrants and the south-east and north-west quadrants will then be fully excavated, by context, down to the natural in order to establish an understanding of the construction sequence of this.

3.2.3 Trench 9 will be extended to 3 x 2.5m (see Fig 3.3) with the aim of fully identifying, excavating, and situating stratigraphically the putative closed cist that was partially uncovered during excavations in Season Four (see paragraphs 3.10.1 to 3.10.12 in the 2009 DSR above for full details of our findings). This trench will be excavated, by context, down to the natural in order to provide a highly detailed stratigraphic sequence which will also provide secure material to enable Bayesian modelling of radiocarbon dates to provide a chronology for the cairn construction. This is important due to the unique opportunity to excavate such a feature under modern scientific conditions, with the consequent environmental and dating evidence potentially adding much our understanding of early Neolithic monument construction and use. The lack of dating material at chambered cairns on the west coast of Scotland and our lack of understanding of sequence of use at such sites means that the putative closed cist has the potential to answer a number of significant questions, thus meeting our research aims. Trench 9 is

also sited at the location most likely to contain midden material (based on findings at comparative sites). Trench 9 will therefore help us to answer our central research question about whether or not the cairn was constructed on a shell midden. Since Henshall's aside noting shells in a rabbit scraping (Henshall 1972) there has been speculation in the literature that this monument may be one of a few in Western Scotland constructed on an earlier, presumably Mesolithic, shell midden. So far there has been no evidence recovered at Cladh Aindreis to support this conclusion.

3.2.4 Following consultation with Historic Scotland we feel it is important to approach this excavation with a clear sampling strategy (which will be implemented under the guidance of the ATP palaeoenvironmental scientist Dr Mike Cressey, CFA Archaeology Ltd) and radiocarbon dating programme. Our sampling strategy is outlined in detail in Appendix 1 with specific reference to proposed trenches and our radiocarbon dating programme is outlined in Appendix 2.

*3.3 *Task 2: Geophysical survey around Cladh Aindreis*

3.3.1 A geophysical survey of the area immediately surrounding the cairn, both within and out with the scheduled area, will be conducted using a magnetometer (exact model to be confirmed) and/or resitivity meter. This will be undertaken in order to define the route of the ditch discovered in season 2 and excavated in season 3, and to find any additional features.

3.3.2 If geophysical survey locates the route of the ditch we will excavate any terminals located outside the scheduled area. This will also allow us to check whether the ditch is a two phase construction throughout its length, as it was discovered to be in the portion already excavated. If the ditch cannot be located by geophysics a series of test pits will be dug out with the scheduled area in order to track the route of the ditch. The ditch will be excavated where necessary within these test pits in order to check whether it remains two phase. This will allow us to trace the development and route of this feature in relation to the cairn.

3.3.3 Subject to its availability and budgetary constraints, the project will hope to utilise Ground Penetrating Radar (henceforth GPR) to examine the full extent of the cairn and area immediately around it area immediately surrounding the chamber to assess the potential location of any shell midden deposits, any further chambers and to explore the relationship between the cairn and later material.

3.4 Task 3: Clearance cairns (Figure 3.2)

3.4.3 The study area contains a large number of possible cairns (Figure 3.2). These cairns range in size from little over a metre in diameter to over 7m in diameter. The cairns take the form of low grassed over mounds to up-standing stone piles. It is likely that these cairns relate to field clearance activity from the recent past but given the proximity of prehistoric remains there is a possibility that some of these cairns are also prehistoric in date.

These cairns have the potential to provide significant land-use and dating evidence for the whole of Swordle Bay.

3.4.4 All the cairns in the study area will be mapped using industry standard sub-metre GPS equipment and planned at an appropriate scale.

3.4.5 Sample excavation will be carried out at selected cairns in order to recover information related to construction method and dating material. As wide a range of cairn forms will be excavated in this way in order to provide the best coverage possible.

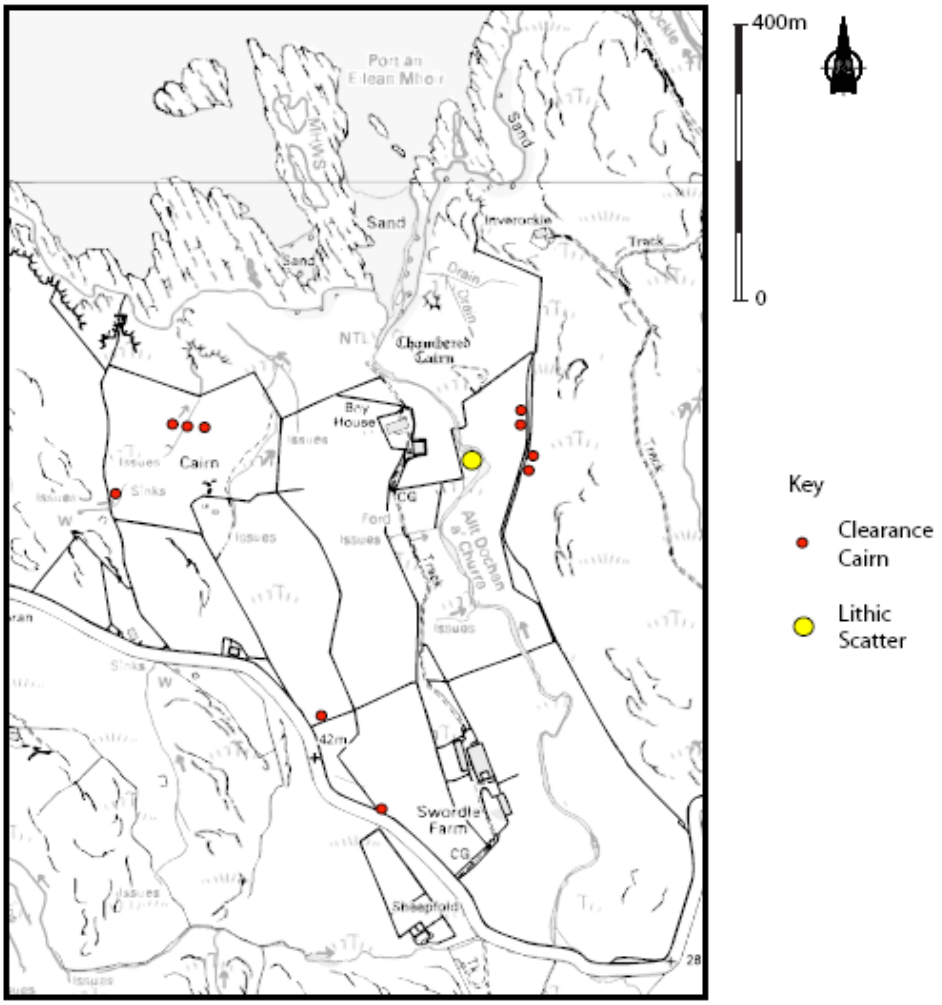

Figure 3.2: Location of clearance cairns and lithic scatter

3.5 Task 4: Test Pit Survey (Figure 3.3)

3.5.1 To maximise our investigative coverage of the rest of Swordle Bay, to situate the use of the cairn and other sites under full excavation in their wider context and to identify areas that may be worth further investigation, a broad shovel pit survey will be undertaken. Where intensive shovel pitting survey has taken place elsewhere in western Scotland (e.g. the work of the Southern

Hebrides Mesolithic Project (Mithen 2000) on Islay and Colonsay) this has revealed large amounts of previously unknown sites and consequently we hope the same may take place in Swordle Bay.

3.5.2 Following the Southern Hebrides Mesolithic Project (henceforth SHMP) test pitting methodology (Mithen 2000: 58) and that employed during Season Four. Shovel pits will be dug on a 10m grid and each pit will be 0.5 x 0.5m. The spoil from the test pits will be hand-sorted rather than wet sieved. Unlike the SHMP however, the contexts within each test pit will be recorded so that any vertical artefact distribution can be understood within its wider spatial context.

3.5.3 Sixteen areas around the edges of the lower portion of Swordle Bay have been identified as suitable for test pit survey. Area A was test pitted during Season Four. All other areas will be subject to test-pit survey in Season Five (Fig 3.3).

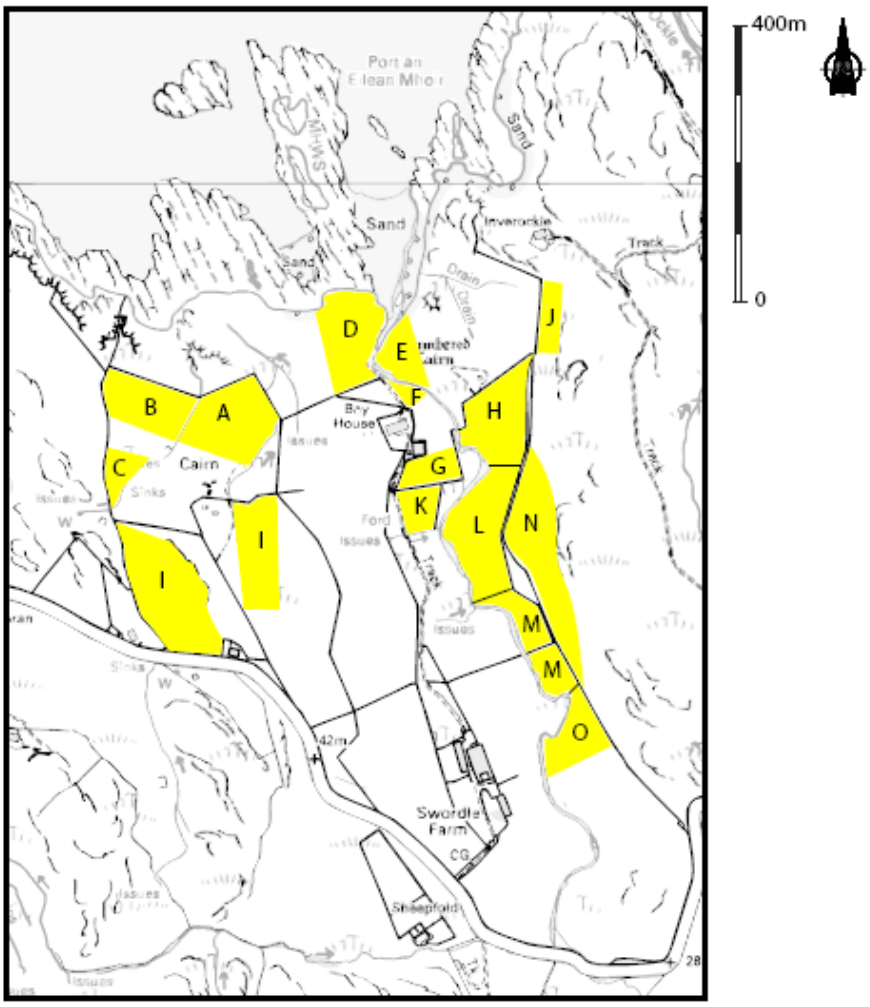

Figure 3.3: Location and sizes of areas for shovel pit survey

3.6 Task 5: Lithic scatter (Figure 3.2)

3.6.1 A small lithic scatter was recorded on the eastern bank of the Swordle burn (Figure 3.2 above) during field walking in January 2008. The lithic scatter

was found to be eroding out of the bank and its extent was never established. Consequently the lithic scatter will be excavated during the 2010 season.

3.6.2 A 1m x 1m area will be excavated in the top of the bank above the eroding lithic scatter in order to establish the extent of the scatter and record any associate features. The area for excavation will be extended in size if this is deemed necessary. The scatter will then be recorded and excavated in both plan and section.

3.7 Task 6: Excavations at Coldstream Clearance Cottages (Figure 3.4)

3.7.1 Excavations in 2009 began to explore one of the several Coldstream Clearance Cottages. One building was selected and initial excavations were undertaken in one quadrant of this building (see Figure 3.4).

3.7.2 The aims of work at the Coldstream Clearance Cottages are:

- To contribute to understandings of the post-medieval period in Swordle Bay.
- To explore whether and how this relates to wider regional patterns of life in post-medieval Western Scotland.
- To examine the impact of the clearances on the local community.
- To understand how far archaeological interpretations support or contrast with documentary evidence for this area and this period.
- To develop a detailed narrative and understanding of the changing rhythms of daily life throughout the long-term processes of prehistory and history in Swordle Bay.

3.7.3 In Season Five (2010) the initial quadrant (Figure 3.4) will be reopened and excavations in this quadrant will be completed. The area will be excavated by context down to the natural. A trench will also be opened over the diagonally corresponding quadrant in the same building and this will also be excavated by context down to the natural.

3.7.4 The results from the 2009/2010 Coldstream excavations will help us to develop our excavation strategy at the other Coldstream buildings in future seasons of work.

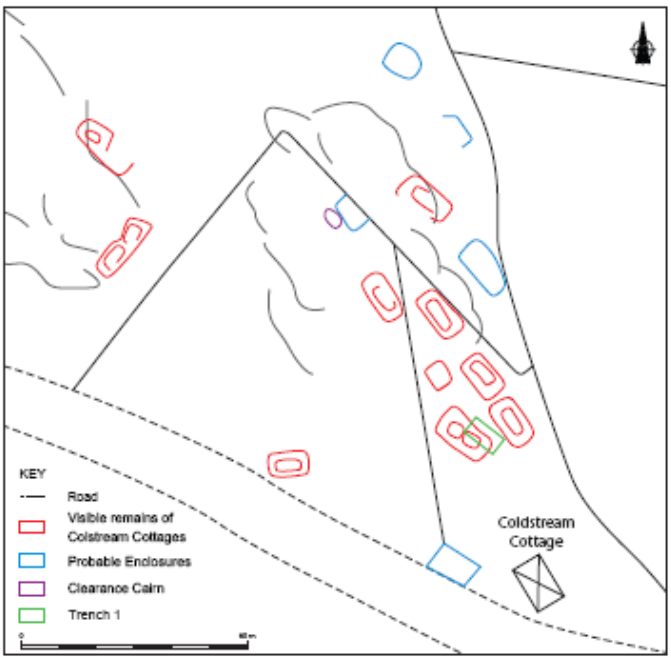

Figure 7.4: Coldstream Clearance Cottages and Season Four (2009) Excavation

8. PUBLIC OUTREACH/VOLUNTEER TRAINING

8.1 *Programme of informal and formal archaeological training*

4.1.1 Thus far archaeological training has been provided based on workshops, lectures and on-site training. The project is run as a field school for undergraduate students who are trained in all aspects of the projects work (see Cobb and Richardson 2009 and Gray *et al*. 2009). It is envisaged that volunteers will undertake an adapted version of the student training programme and will include the following elements:

1) All ATP members will receive an Archaeological Site Manual, with staff receiving a Staff Manual. This will be in the form of an A5 folder with all recording information provided relevant to the project. This will form an archaeological excavation logbook that will track all the relevant training modules.
2) All ATP members will be encouraged to keep their own site notebook;
3) A series of workshops will be given providing training on single context recording methodology and how to complete site recording forms;
4) Training will be given in archaeological photography and the use of 35mm and digital photography;
5) Archaeological survey techniques will also include use of the Total Station and its use with *PenMap* for general plan surveying and elevation recording;
6) Training will be given in standing building survey and use of the software used to produce final drawings;
7) Training in post excavation handling of pottery and other finds will be provided;
8) Students and volunteers returning from previous seasons will be encouraged to act as Site Assistants and encouraged to pass on their experience of excavation to the new members of the ATP team;
9) Training will be given on maintenance and updating the ATP web site. Members of the task groups will be encouraged to produce a news update for inclusion on the web site. The group will receive training on format and house style to enable to work together as a team to produce web site output.
10) Training will be given to a designated ATP press officer, a person who will be responsible for putting material on the web site once it has been edited.

8.2 *Attract new audiences (participatory and non-participatory)*

4.2.1 In 2006 and 2007 public seminars were held to take the project into the community. In 2010 a third seminar will be held in Kilchoan. At this seminar people attending the meeting will be asked if they would like to sign up to be involved in the project. We will build on the success of previous seasons by encouraging new volunteers to join the existing volunteer force. This will be achieved by contacting all the individuals who sign up at the public seminar and advertising in the press.

4.3 Continued and new project deliverables

ATP Website Group

4.3.1 ATP has an active and continually updated project website (http://ardnamurchantransitionsproject.googlepages.com). A new ATP website task group made up of interested volunteer members will be encouraged to further enhance this by providing regular news items and updates as the project progresses. ATP will provide guidance on the format and house style of the material to be included on the web site.

School Groups

4.3.2 ATP will work with local schools to provide resources and training for educators to engage and involve local school children in the archaeology of the area, and to increase the use of archaeology within the Scottish Curriculum of Excellence (following initiatives by Archaeology Scotland). This will involve the creation of resources such as teachers' packs, material/finds boxes, dig boxes, and posters. ATP will provide further support and resources as required to maintain and continue these initiatives.

4.4 Dissemination

4.4.1 **Exhibition Materials:** ATP will contribute appropriate material (site plans, drawings, excavation photographs (previous and new) for exhibitions and educational use. ATP will aim to provide a permanent but flexible exhibition to be housed in the Kilchoan Community Centre.

4.4.2 **Public Lecture:** A public lecture will be given by ATP in 2010. A series of lectures will be given to local history societies and community groups and appropriate regional conferences.

4.4.3 **Popular Articles:** Articles about the project will be published in appropriate local and national media publications (both popular and academic) for example, *British Archaeology, De Dha Dol*, *Scottish Archaeological News*, *History Scotland*, *PAST* etc. This will include a minimum of three summary articles at the end of the project for submission to *British Archaeology*, *Scottish Archaeological News* and *The Archaeologist* and two summary articles for submission, following each respective year, to be submitted to *PAST* (the news letter of the Prehistoric Society) and *A Touch of Gas*.

4.4.4 **Open Days:** Building on previous success at least two Open Days will be held allowing members of the public to visit the excavations and view the finds. A series of short lectures, probably over the course of a day, by the Project specialists, if appropriate, will be given to the local community to highlight importance of the site.

4.4.5 **Scottish Archaeology Month and Highland Archaeology Fortnight:** To coincide with Scottish Archaeology Month and Highland Archaeology Fortnight, ATP will run a series of activities targeted at various age and capability groups that fulfil the goals of Scottish Archaeology Month. The activities, which will include training events and open days, will be listed in the appropriate guides and event literature.

4.4.6 **Cultural Heritage Creation Strategies:** A long term aim of the ATP (part of the project legacy) will be the construction of Archaeological trails through Swordle Glen and the immediate area will be designed and constructed (subject to land-owner permission and liaison). These will involve designated pathways through the Swordle landscape to various sites excavated and surveyed by ATP, and will include interpretation boards and potentially small scale reconstruction. The trails will be advertised in current tourist information media with the aim of aiding local economic development. Alongside, it is hoped that the fieldwork task group, and wider community, can be involved in the management, monitoring and improvement of the trails and the archaeological sites in the area.

8.3 *Links to wider archaeological audiences*

4.5.1 ATP sees the importance of linking the ATP Project with other archaeological projects, such as Shorewatch, Scotland's Rural Past and Adopt-A-Monument.

4.5.2 To date, ATP has given six papers regarding our recording methodologies and student training at the IfA Conference in 2006, at the EAA conference September 2006 (Cobb and Richardson 2008) and 2007 and the TAG conference December 2007 and 2008 (Cobb *et al*. in prep). ATP aims to continue to disseminate the results of our fieldwork, training and community outreach programmes at appropriate future conferences, as well as publishing articles in relevant academic journals. ATP as also presented the results of the first two seasons at the Highland Archaeology Seminar in 2007 and will aim to present a similar paper in 2010.

9. PRODUCTS

5.1 The products of the project in 2010 will include:

5.1.1 A full written report. This report will detail the work carried out and contain a synthesis of the results and conclusions and recommendations for any further work. This report will contain an account of the site archive, fulfilling all the requirements of an Historic Scotland Data Structure Report.

5.1.2 A summary report for Discovery and Excavation in Scotland.

5.1.3 A Costed Assessment for post-excavation and publication (as appropriate).

5.1.4 A digital copy of the DSR with plans and DES entry on CD in a PDF format.

5.1.5 An outline for projected costs and timetable for any successive phases of work to be undertaken by the Ardnamurchan Transitions Project.

5.1.6 A minimum of three summary articles at the end of the project for submission to *British Archaeology*, *Scottish Archaeological News* and *the Archaeologist*.

5.1.7 Two summary articles for submission, following each respective year, to be submitted to the *PAST* and *A Touch of Gas*.

5.1.8 The project archives, comprising all ATP record sheets, plans and reports, will be deposited with the National Monuments Record of Scotland within six months of completion of fieldwork and any relevant post-excavation analyses. Finds will be subject to the Scots law of Treasure Trove and Bona Vacantia, and will be reported to the Crown Agent for disposal. Appropriate conservation of finds will be conducted before disposal.

5.1.9 A press release will be prepared for the local paper

5.1.10 A public lecture will be given by the ATP.

5.1.11 Two public open days with guided tours will be held, coinciding if possible with Scottish Archaeological Month and Highland Archaeology Fortnight.

10. HEALTH AND SAFETY

6.1 All ATP staff have been inducted into ATP's Health and Safety Policy.

6.2 All work for the projects will be subject to Risk Assessment procedures. A risk assessment has been drawn up for each aspect of the work and this takes into account all the procedures necessary to minimise the risk of injury to the ATP staff and volunteers (Appendix 1). Each trench or test pit will have to be assessed whether it poses any risks to not only the professional staff but also the community workers.

6.3 All volunteer workers will be given a health and safety induction and equipped with all necessary personal protective equipment prior to commencement of fieldwork.

6.4 ATP's Health and Safety advisor, Mike Cressey is accredited by a nationally recognised Health and Safety in Archaeology Programme.

6.5 The project will have 5 registered first aiders, Hannah Cobb, Mike Cressey, Alasdair Curtis, Helena Gray, and Phil Richardson.

11. POST EXCAVATION

7.1 A full (costed) post-excavation will be produced, following consultation with Historic Scotland, Dr Mike Cressey and Dr Melanie Johnson (CFA Archaeology Ltd), which will set out the analysis needed. Relevant specialists will be engaged to conduct such analysis.

7.2 All finds and samples will be analysed by the project team in the first part and then sent to appropriate experts where necessary.

7.3 All chipped stone will be analysed by Dr Hannah Cobb with the support of Dr Elizabeth Healy and Dr Chantal Conneller (University of Manchester).

7.4 Any prehistoric pottery will be analysed by Phil Richardson with the support of Dr Melanie Johnson (CFA Archaeology Ltd).

12. TIMETABLE

8.1 It is envisaged that the investigations in Swordle will take place over three weeks in 2010. Finds cleaning and wet-sieving will be carried out within each task group, with the wet-sieve tank and other facilities set up at Coldstream Cottage. The walkover survey should highlight other important targets for consideration during future phases of work, at present the most important sites would be all evidence of earlier settlement and medieval remains.

Milestones	**Projected date**
Completion of 2010 fieldwork	September 2010
Completion of 2010 DSR	March 2011
Post-excavation processing and analysis for Cladh Aindreis	March 2011
Completion of all publications (final report etc)	December 2011

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APPENDIX 1 – SAMPLING STRATEGY

Following consultation with Historic Scotland we feel it is important to approach this excavation with a clear sampling strategy which will be implemented under the guidance of the ATP palaeoenvironmental scientist (Dr Mike Cressey, CFA Archaeology Ltd). This is outlined below. Clauses marked † will not be undertaken without a detailed consultation with Historic Scotland as these will require some (although a minimum amount) intrusive sampling into in situ deposits. All deposits not collected as part of this sampling strategy will be sieved on site using a sieve of no greater size than 10mm. This strategy is highly dependent on the nature of the deposits encountered, however, it is envisaged that the following will be included:

- ***Bulk Sampling*** - Bulk samples will be taken from each deposit. These samples will be collected in bags and tubs in order to recover organic materials and very small artefacts. Such samples will be processed in a water separation/flotation tank, where light material can be collected as coarse/fine flots (1mm – 300 micron mesh) and heavy material as residue (1mm mesh). A number of vertical monolith bulk samples will also be taken, as appropriate, in order that they can be used for other kinds of analysis. This will apply to all trenches excavated.

- †***Phosphate Analysis*** - Where appropriate, test-tube size samples for phosphate analysis from a series of grid squares will be taken. Samples taken below the modern root level (c.20cm) will have their location recorded and be taken in bags for laboratory analysis. This will apply in Trenches 1 and 9.

- †***Magnetic Susceptibility*** – This is particularly relevant to soils and sediments adjacent to hearths. Magnetic susceptibility offers a means of recognising palaeosols on which fires have been used for clearance or ash has been spread. Either horizontal samples, taken in the same manner as the phosphate samples, or vertical samples (i.e. from sections using test tubes) will be taken, as appropriate. This will be undertaken in any circumstances where suitable material is discovered, particularly in Trenches 1 and 9.

- †***Soil thin section micromorphology*** - Usually associated with old ground surfaces or similar, soil thin section micromorphology will be used to identify, describe and interpret the natural and anthropogenic features of the palaeosols associated with the cairn. The samples will be taken (usually from sections) in Kubiena tins (80mm x 50mm x 4mm) or as soil blocks in areas that are too stony. Samples will be taken from Trenches 1 and 9, providing that a suitable subsoil is discovered (it is possible that the centre of the cairn will be composed mainly of large stones making thin sections unviable). Tin samples sections will also be taken of sections in Trench 1, particularly through the material suspected to have been imported to deliberately block the possible passage.

- †***Microfossil analytical techniques*** – These include analysis of soil pollen amongst other things and will be used in order to provide environmental information relating to the vegetation prior to the monument construction. These will be taken on a judgement basis by the ATP paleoenvironmental scientist in Kubiena tins (80mm x 50mm x 100mm) or in bags where it is too stony in both Trenches 1 and

9 where in situ cairn material will be removed. An assessment as to the potential of a core analysis will also be conducted as part of this process.

APPENDIX 2: RADIOCARBON PROGRAMME

Introduction

The establishment of a radiocarbon chronology for the chambered cairn at Cladh Aindreis presents a significant challenge both in terms of the complex taphonomic issues associated with the excavated deposits and the inherent difficulties in dating some of the types of material available from chambered cairns (especially cremated human bone, fish bone and organic residues adhering to pottery). Nonetheless there are a number of reasons why this challenge should be faced. Firstly the site is clearly an important one, both in terms of its local/regional context and in the suggestion that it is typologically variant, and may well be multi-phased. This means our findings have the potential to provide a vital contribution to the current ongoing debate regarding the nature and chronology of Neolithic colonisation along the European Atlantic façade. We believe, therefore, that archaeological understanding of this important site would be best served by an explicitly problem-driven radiocarbon dating programme which will specifically address the problems and potentials of the material that are likely to be encountered. Furthermore, this dating programme will be published as part of the general taphonomic consideration of the deposits. The best opportunities for radiocarbon dating relate to the sequence of deposits excavated within Trenches 1 and 9. Also test pits which expose the ditch will also provide good opportunities for radiocarbon dating. Contexts will be selected for radiocarbon dating based on the results of the soil micromorphology analysis. The Ardnamurchan Transitions Project regards it critical to design a dating strategy as this is a key aim of the project. By entering the field with a concerted dating strategy already outlined such issues will be at the forefront of the teams' excavation strategy and explicit questions may be investigated in the field. This will minimise errors, both human and methodological, and thus result in the smallest amount of disturbance to in situ archaeological deposits possible.

Likely character of the dateable materials:

- **Cremated bone:** This material, derived from secure contexts, would be suitable for sampling for AMS dating.
- **Unburnt human and animal skeletal remains**: Originally we suspected this material would not survive in the acidic soils, however following its recovery from both trench 1 and 9, we have now included it in our strategy for radiocarbon dating.
- **Pottery:** Certain sherds may have interior organic residues. It is hoped organic residue analysis will also be conducted.
- **Fish bone:** In situ remains maybe suitable for AMS dating, following close examination of the stratigraphic record and associated taphonomy.
- **Plant macrofossils:** Again in situ remains maybe suitable for AMS dating, following close examination of the stratigraphic record and associated taphonomy.
- **Wood charcoal:** Again in situ remains maybe suitable for AMS dating, following close examination of the stratigraphic record and associated taphonomy.

Radiocarbon Programme Aims:

- To provide an indication of the periods of activity (both human and animal) that can be observed from the assemblages of dateable material incorporated in the deposits.
- To examine whether these remains relate to what originally were single deposits of fish-bone, wood charcoal, cremated human bone and plant macrofossils, as opposed to the repeated deposition of the same types of material.
- To establish whether the surviving remains could relate to sporadic rather than continuous activity – can we for example identify chronologically distinct "pre-Neolithic", "Neolithic" and "Beaker" uses of the cairn, with a hiatus between?
- To confirm that these assemblages represent activity that occurred during the period of use of the cairn for burial activity rather than later.

Radiocarbon Programme Limitations:

In proposing the following dating strategy, it is recognised that:

- As work will be undertaken within the scheduled area, any intrusive sampling for radiocarbon dating will only take place following a detailed consultation and obtaining full permission from the Highland Inspector for Ancient Monuments with Historic Scotland.
- Most, if not all, of the sediment strata contain conflations of re-deposited material, potentially of different ages. Thus, sediment deposits may not relate to single depositional events. It may, therefore, not be possible to accurately date individual sediment deposits by dating the materials contained within them.
- Not all the chronological history of use of the cairn need be represented by the materials available for dating. It is possible, for example, that the cairn could have been in use before any of the surviving fills entered the cairn, and that earlier deposits were deliberately removed. The same may be true of any sealed old ground surface (OGS) or turf line beneath the cairn. Such contexts may be subject to OSL dating in future seasons of work although this will be beyond the remit of the project this year.
- There may be taphonomic uncertainties surrounding any wood charcoal and plant macrofossils, and to a lesser extent fish bone. There are also issues relating to the accuracy of dates obtained from fish bone, organic pottery residues and both cremated and unburnt human and animal bone. A dating strategy restricted to a single material is therefore inadvisable.

The best dating strategy is therefore one which does not rely solely upon dating a single material or a single context, but rather one which examines a range of contexts and materials. A strategy will be devised during the post-excavation process based upon the stratigraphic and other data following the processing and analysis of all samples. In advance of this a mixed dating strategy can be provisionally put forward. A number of dates taken from each of the potential materials identified above (i.e. human bone, fish bone, plant macrofossils, wood charcoal) will allow periods of use of materials within the deposits to be established. This can then be compared to the same materials dated from other deposits. This is of importance for understanding chronological patterns in the character of material introduced into the cairn. This strategy will also allow the implementation of a Bayesian statistical approach to chronological resolution. Bayesian statistics is a mathematical modelling technique which combines radiocarbon dating results with archaeological relative dating

evidence such as stratigraphy. By incorporating prior knowledge with the processing power of computer based statistical packages this allows a more precise dating model to be constructed by determining which parts of simple calibrated radiocarbon dates are unlikely because of the known relationships between the samples (Whittle and Bayliss 2007). This is based on probability and as such is interpretative; however it has been used successfully on a number of important projects such as Stonehenge (Bayliss *et al*. 1997), Hambledon Hill (Bayliss *et al*. 2008) and five British long barrows (Bayliss and Whittle 2007; Benson and Whittle 2006). Employing this cutting edge technique to sufficient numbers of well stratified dates will allow Cladh Aindreis to become the best dated chambered cairn in Scotland, potentially adding unprecedented levels of chronological sophistication to our narratives of the whole region, as well as to the specific landscape under investigation.

APPENDIX 3: RISK ASSESSMENT

SCHOOL OF ARTS, HISTORIES & CULTURES
FIELD COURSE RISK ASSESSMENT

Subject Area: Archaeology

The Ardnamurchan Transitions Project
15th August – 5th September 2010

COURSE STAFF: Project Directors: Hannah Cobb (University of Manchester), Helena Gray (CFA Archaeology Ltd), Oliver Harris (Newcastle University) and Phil Richardson (Newcastle University)

OTHER: Eleanor Casella, and Beth Thomas (University of Manchester), Paul Murtagh (University of Durham), Mike Cressey and Cara Jones (Highland Archaeology Unit), Eleanor Rowley-Conwy (Tyne and Wear Museums), Gemma Midlane, and Iain Pringle (Freelance)

MOBILE NUMBER: Hannah Cobb: 07833 710044

DATE OUT: Sunday 15th August 2010
DATE IN: Sunday 5th September 2010

ACCOMMODATION: Swordle Bay House, Achateny, ACHARACLE, PH36 4LG

TEL: 01972 510 363

Documentation attached: General Risk Assessment Form (6 pages)

MANCHESTER 1824

The University of Manchester

SCHOOL OF ARTS, HISTORIES AND CULTURES
General Risk Assessment Form

Date: 09/06/09	Assessed by: Hannah Cobb	Validated by: (3)	Location: Swordle Bay, Ardnamurchan, Scotland	Assessment ref no n/a	Review date: 09/06/10
Task / premises: General archaeological field excavation and field survey work in various locations on the Ardnamurchan Peninsula					

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Use of manual excavation equipment	Danger of physical injury from incorrect use of equipment	All those using and in the vicinity of those using manual excavation equipment	A Health and Safety lecture will be provided and students will be instructed in the safe use of manual equipment (mattocks, shovels etc). They will also be provided with a field manual instructing them in appropriate use of the equipment. All project members will wear a high visibility vest to ensure they can be clearly seen. A fully trained first aider will be on site at all times and there will be a first aid kit on site at all times and in all vehicles**.** Also mobile phone on site at all times and transport will always be available on site.	Low	A
Vehicles on site	Danger of project members walking in front of vehicles or equipment being left in the path of vehicles	All those driving in or as passengers in vehicles, all those on site who may be near vehicles	Students will be instructed to be aware of project vehicles on roads and tracks, and of other vehicles including those supplying a service to the excavation. At all times the project staff will endeavour to keep vehicles a safe distance from the site.	Low	T

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Excavation in trenches	Trench Collapse	All those within and by the sides of trenches	Helmets will be provided for anyone in trenches below 1.20m. Shoring will be provided if trenches are below recommended depths. All project members will be fully briefed to keep a reasonable distance from trench edges and not to sit or stand on them, to prevent collapse.	Low	A
All fieldwork (including excavation and survey)	Wet weather, very hot weather, insect bites and stings.	All project members	Students will be advised to bring their own suncream, waterproof clothing, and insect repellent. We have explained the environmental conditions to them, and will assist in taking them to local stores where they can purchase extra protection if necessary. All project members will be given adequate time for breaks and all fresh water needed in order to prevent dehydration. No work will be undertaken in extreme weather. Project members with allergies to insect bites and other allergies have informed the project directors, and all staff will be made aware. Additionally any required medication for those with allergies will be available on site for immediate use if necessary.	Low	A
Driving to the project and around the peninsula	Vehicle failure or accident	All project members	Drivers will be responsible for checking the vehicles they are driving are in good order before making journeys. Students will be required to wear seatbelts when travelling in project vehicles. A First Aid box will be kept in all vehicles. Drivers will have mobile phones with them at all times.	Low	A

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Field survey or work away from site that may involve walking on roads or tracks	Traffic on roads or tracks	All project members undertaking work near roads or tracks or work that is accessed by roads or tracks	Project member will be advised to be alert to traffic on the public highway and on the forestry tracks. Where project members are required to walk on a road or track without a pavement they will walk on the right hand side of the road towards on coming traffic. All project members will wear a high visibility vest so that they are visible	Low	T
Food preparation	Food Safety	All project members who eat communally prepared food and who will cook and prepare food in the communal kitchen areas	All project members will be instructed on food safety and hygiene, and will be shown a food safety poster which will be kept in both kitchens in the dig accommodation. They will be required to follow basic food safety and hygiene precautions as outlined on that document. Furthermore, we require all students with specific dietary needs and especially food allergies to notify us of these so we can ensure their dietary needs are met.	Low	A

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
General personal safety and personal illness	General personal safety and personal illness	All project members	We do not monitor all students continually during off-site hours, most notably after the evening meal has finished. We consider there are times when we supervise the students and times when they can be reasonably expected to supervise themselves, and they are notified of this. We will, however, step in and supervise them at those times if the need is apparent to us or is communicated to us. Therefore we ask students to tell us if they experience any difficulties in the evenings rather than checking on them. However the excavation team forms a very small community. Absences at meals or at social gatherings will be noted and if there is good reason to suspect a student is unwell or otherwise at risk staff will check up on them. Students will be asked to inform staff immediately if they are feeling unwell, including by phone and including by waking up a member of staff. They are also asked to look out for one another and let us know immediately if they think another student is unwell or otherwise at risk. Students will be told that if they have any concerns over security or personal safety they must tell a member of staff immediately, even if that means waking them up. We provide all of the students with our own mobile phone numbers, and ask them to provide theirs for us so we can reach them if we have reason to be concerned about their well-being. Phones can be charged at the accommodation.	Low	A

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
General personal safety and personal illness ctd…			Students are required to tell staff if they leave the general vicinity of the project (meaning by day the excavation site or house if on cooking duty and by evening the house but also meaning at any time when they are present with a member of staff) and notify us of their likely time of return. While we expect them to work every working day unless they are unwell etc, we do not require them to stay within our supervision outside of working hours (usually on site c.9-5.30, but those on cooking duty will have duties in the early morning and evening). We do not consider them our responsibility if they are away from the project (e.g. if they visit friends or relatives including overnight), though we ask them to notify us of these absences. Staff will take any unexplained and prolonged absences as cause for concern and attempt to contact the student. If we cannot contact that student and if a sufficiently long time has passed since their movements were known we will follow any relevant lines of enquiry and if we are not satisfied the student is well and safe we will contact emergency services at our discretion. On the day off we often run field trips to sites of local interest and to local towns. We supervise students who accompany us on these trips – we ask those who are not with us to supervise themselves according to the project practices, and follow the usual codes of conduct.		

Activity (8)	Hazard (9)	Person(s) in danger (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
General personal safety and personal illness ctd…			We ask those who do not come on field trips to act responsibly and we leave them with full access to the house. If they go into local towns or take their own vehicles off elsewhere we do not consider them our responsibility for that time. If necessary project staff may work on site on a day off. If this happens students will be given the option of joining us and being supervised, or taking a day off under their own supervision. Students will be required to call us on our mobile phones if any accidents occur, if they are unwell, or if they experience other problems during the day off and we will then act appropriately.		

REFERENCES:

HSE guide to Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995. (RIDDOR) HSE
Health and Safety at Work Act 1974.HSE
Health and Safety (First-Aid) Regulations 1981. HSE
Management of Health and Safety at Work Regulation 1999.HSE
Advice on travel-related DVT. The Department of Health