The Scottish Wetland Archaeology Programme:

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EVALUATION OF THE PROMONTORY SITE, CULTS LOCH 3, NR STRANRAER

Background

That the promontory which protrudes into Cult's Loch along its northern shore (NX 1202 6058; Figure 1) is an archaeological site has long been suspected. Wilson had observed beams and stakes along the shore (RCAHMS 1912, 23-4) and in 1989 Murray had noted timbers around the promontory. As a result of these observations the promontory was cored during Phase 1 of the South-West Crannog Survey (Barber & Crone 1993). Charcoal was noted in these cores, suggesting evidence of anthropogenic activity on the site. During Phase 3 in 2003 exposed timbers were once again noted around the margins of the promontory as a result of low water levels (Henderson & Cavers 2003). Consequently, during Phase 4 in 2004 a detailed digital elevation model of the promontory was created, and all the visible structural piles were surveyed onto the model (Figure 2) (Cavers *et al* 2006).

In all, 16 vertical piles, all of which appear to be oak (*Quercus* sp.), and one horizontal timber were found encircling the promontory, although a comprehensive search below the water level was not undertaken and this number may be expected to increase if this were carried out. The piling does not appear to constitute any kind of harbour or jetty structure, and possibly represents the remains of a palisade around the promontory. Apart from the charcoal noted when the promontory was cored there was no evidence on the surface to indicate that it is artificial nor was there any evidence of structural remains.

One of the oak piles was removed for recording and dating. It measuring 0.76 m in length and 0.14 m in diameter and had been radially split from a length of much larger diameter roundwood. The oak pile produced a date of 2340 ± 50 BP (GU-12138). The promontory site therefore pre-dates the crannog in the loch, Cults Loch 1, which is dated to 1790 ± 50 BP (GU-10919) (Cavers *et al* 2006).

Objectives

The Cults Loch promontory site is significant in that it may be the first example of a loch-side structure noted in Scotland. An evaluation on the surface of the promontory was undertaken to address the following questions;

1. Is the promontory artificial?
2. Are there archaeological deposits on the promontory and if so, what is their extent, depth and nature?

Methodology

The promontory is *circa* 40 m long from tip to neck and is 20 m at its widest, narrowing to 18 m at the neck. At its highest point it rises only 1 m above the surface of the loch and

is covered in rushes (*Juncus* sp.) (Figures 2 & 4). A trench, 15 m x 1 m wide, was opened which lay along the median line of the promontory and was centred on the highest point (Figure 2). A baulk, 0.5 m wide, was left at the mid-point of the trench. The trench was expanded at specific points to expose significant features seen in Trench 1. All deposits were excavated by hand down to the level of the water-table, which was encountered at *circa* 0.75 m below the surface of the trench. A test-pit, 1 m sq, was dug to investigate the nature of the promontory but the water-table impeded progress and the lower deposits could only be investigated by coring. Bulk samples of all significant deposits were retrieved while representative samples of the exposed timbers were taken (Appendix 2). The bases of the trenches were covered in Terram and backfilled.

A survey was carried out using differential GPS to record all of the timbers visible around the promontory at the time of the excavation. The location of the trench and the timbers encountered were recorded, along with 3D coordinates for all small finds. The extent of an old shoreline was also marked on the survey to plot the likely maximum extents of the loch (Figure 2). The survey is referenced to OSGB coordinates and the project stored in GIS.

Results

Immediately below the thin mantle of vegetation was [100], a very stony deposit which covered Trench 1 and its extensions (Figure 3). The deposit consisted of a mixture of angular and water-rolled stones mainly fist-sized, in a matrix of silty sand (Figure 5). The deposit varied in thickness from only 0.1 m in the southern half of the trench, to 0.4 m thick in the northern half. The upper 0.10 – 0.2 m of the deposit was rich in fibrous rush roots. A piece of flint, SF 01, was retrieved from this deposit.

At the northern end of Trench 1, [100] lay directly over [103], a discrete deposit of yellow-grey gravelly sand, containing a lot of small to medium sized angular and rounded stones (Figures 3 & 6). It did not cover the width of the trench and extended only 1.7 m into the trench. The deposit was a maximum of 0.15 m thick. A piece of flint, SF 04, was retrieved from this deposit.

In the southern half of Trench 1 [100] lay directly over [101], an dark brown organic deposit containing flecks of charcoal, burnt bone and the occasional hazelnut shell, with moderate amounts of small stones (Figures 3 & 7). A small lump of dark red stone, SF 02, and a fragment of chipped quartz, SF 03, was found in this deposit. The deposit was up to 0.20 m thick and was observed across the width of the trench over a length of 4.2 m. [100] was at its thinnest above [101].

[101] lay directly over [102], an organic, charcoal-flecked layer which contained lots of fragments of very degraded wood as well as larger horizontal timbers, [106] (Figures 3 & 7). The wood fragments were often so degraded as to be very little more than light discolourations within the dark brown matrix of [102]. [102] was observed throughout Trench 1 and its extensions, except at the very northern end where it gradually merged

into [104], a very stony layer in a matrix of loose grey-brown sand, which lay directly under [103]. [102] was not fully removed throughout the trenches, only being cleaned as much as was necessary to expose timbers [106] more fully. Just south of the central baulk [102] lay over [110], a light yellow-brown sandy gravel with no organic content. At this point [102] was 0.22 m thick (Figure 3).

The timbers [106] were scattered throughout Trench 1 but occurred more densely towards the southern end of the trench (Figure 3). Consequently, an extension, 2 m wide and 1 m long along the eastern edge of the trench, was excavated to more fully determine their structure. In the southern extension the timbers lie roughly parallel to each other (Figure 8) while elsewhere they appear to form a grid-like pattern (Figure 9). They are in poor condition and it was often not possible to determine whether one timber lay over or under another. Some of the timbers in the southern extension may be vertical posts, ie T165 and T170, but they are too decayed to appear as anything more than discolourations in the cleaned surface.

Timbers [106] did not occur in the northern quarter of Trench 1 where their distribution appears to be demarcated by a line of three stakes, [105], which lay across the trench some 4 m in from its northern end (Figures 3, 9 & 10). The three stakes occurred at close intervals of approximately 0.3 m. An extension, 2 m long by 1 m wide and lying at right angles to the eastern edge of Trench 1, was excavated to determine the direction of the stake line and its relationship to the stakes around the promontory. The line of stakes did not continue into the extension, but a series of large, plank-like timbers, [111], were encountered in this area lying under and within [102] (Figures 3 & 10). The planks are up to 2 m long and 0.3 to 0.4 m wide. They are overlapping and appear to be stacked. The planks were left *in situ* so the continuation of the stake line could not be determined any further.

A test-pit, 1 m square was dug at a point 3 m north of the southern end of Trench 1. A surface of hard, compacted organic material, [108] had been encountered at this point when cleaning through [102] and the test-pit was dug to determine the nature and extent of this material. During the cleaning of [102] to more fully expose timbers [106], spreads of [108] were subsequently found in the northern half of the trench. This deposit is light orange-brown in colour and highly laminated, with clear lenses of white sand throughout. The surface of [108] is discontinuous, as though consisting of discrete dumps of material (Figure 7). Immediately below [108] in the test-pit was [107], a layer of very angular stones in a gritty, more mineral-rich organic mud (Figures 3 & 7). At the interface between [107] and [108] lay a very distinct deposit consisting of approximately 50 small white quartz pebbles (SF 05), scattered over an area approximately 0.5 m across (Figure 3).

The water-table was encountered at the surface of [107] so the stratigraphy below that was recorded using a Dutch gouge (Figure 3). Below [107] lay an amorphous organic deposit, [109], quite loose in texture and containing small wood fragments but no clearly anthropic material. [109] was approximately 1.1 m in thickness, lying to a depth of 1.65 m below the surface of the promontory. Well-preserved horizontal timbers were

encountered within [109] at depths of 1.30 m and 1.65 m. Below [109] was [112], an organic mud with reeds and fine lens of sands to a depth of 1.90 m, the lowermost 0.05 m becoming increasingly sandy. A hard stony layer, [113] was encountered at 1.90 m.

Provisional interpretation

The stratigraphy encountered during the coring suggests that the promontory may be entirely artificial. If [113], the basal layer encountered during the coring, is interpreted as the natural mineral soil under the loch and [112] as naturally accumulating lacustrine deposits, then there could be some 1.65 m of artificially deposited material making up the promontory. Dating of timbers (Special Sample 11) within [109] will clarify whether this deposit is artificial or naturally deposited.

The layers above [109] in the test-pit appear to be deliberately deposited. The stony layer, [107] and the sandy gravel, [110], may represent mineral deposits laid down to form a firm, dry foundation for the site, while [108] and [102] could represent either *in situ* occupation deposits or redeposited 'land-fill' to raise the surface of the site. Micromorphological analysis of kubiena samples taken through these deposits (Special Samples 2 & 3) will help to clarify the nature of these deposits, as will macrofossil analysis of their contents (Special Sample 1).

There is a clear pattern to the structural timbers [106]. They are lain horizontally in a grid-like arrangement while at the southern end of the trench, towards the middle of the promontory, they are more closely aligned in parallel, somewhat like a log pavement. It is assumed that these timbers represent either the floor, or sub-floor of the structure built on the promontory. The stake-line [105] clearly defines the extent of the structure as *in situ* timbers [106] are not found north of the stake-line. The concentration of plank-like timbers [111] along the projected course of the stake-line, together with their stacked overlapping arrangement, is suggestive of horizontal plank walling that has collapsed.

The stake-line appears to define the border between inside and outside the structure, because to the north of the stake-line, ie outside, the stratigraphy changes. There is no wood and the organic layer [102] gradually merges into [104], a grey-brown sand with stones. This might be a variant of the natural subsoil, as it lies near the neck of the promontory, at its junction with the shore. Overlying [104] is the discrete deposit of yellow-grey gravelly sand, [103]. Given its location, near the junction between shore and promontory, this deposit may represent the termination of a walkway, or path out onto the promontory.

Thus, the albeit limited evidence from the evaluation trench, in which just 1% of the promontory was examined, suggests that the promontory was originally a man-made island built in the shallows of the loch but not joined to the shore. The deposit which covers the site, [100] appears to have created the promontory by joining island to shore but the nature of this deposit is not fully understood. It appears to be natural but the

mechanism for the deposition of a layer of stones in one discrete point along the shoreline is not clear.

Summary

The evaluation has successfully addressed the objectives of the project. It has demonstrated that the core of the promontory is artificial and that there are significant archaeological deposits on the site, which consist of structural timbers and occupation deposits. The site appears to consist of a palisaded structure, built on a man-made mound, in other words, a crannog. However, its position just off-shore is unusual for a crannog. Furthermore, the location of some of the piles at the neck of the promontory suggests that it was deliberately joined to the shore at some point in its history. This site is currently unique in Scotland and appears to be more akin to the lakeside settlements common in Ireland during the Bronze Age (ie Cullyhanna – Hodges 1958; Moynagh Lough – Bradley 1991; Clonfinlough – Moloney et al 1993; Ballyarnet Lake – O'Neill & Plunkett – 2007).

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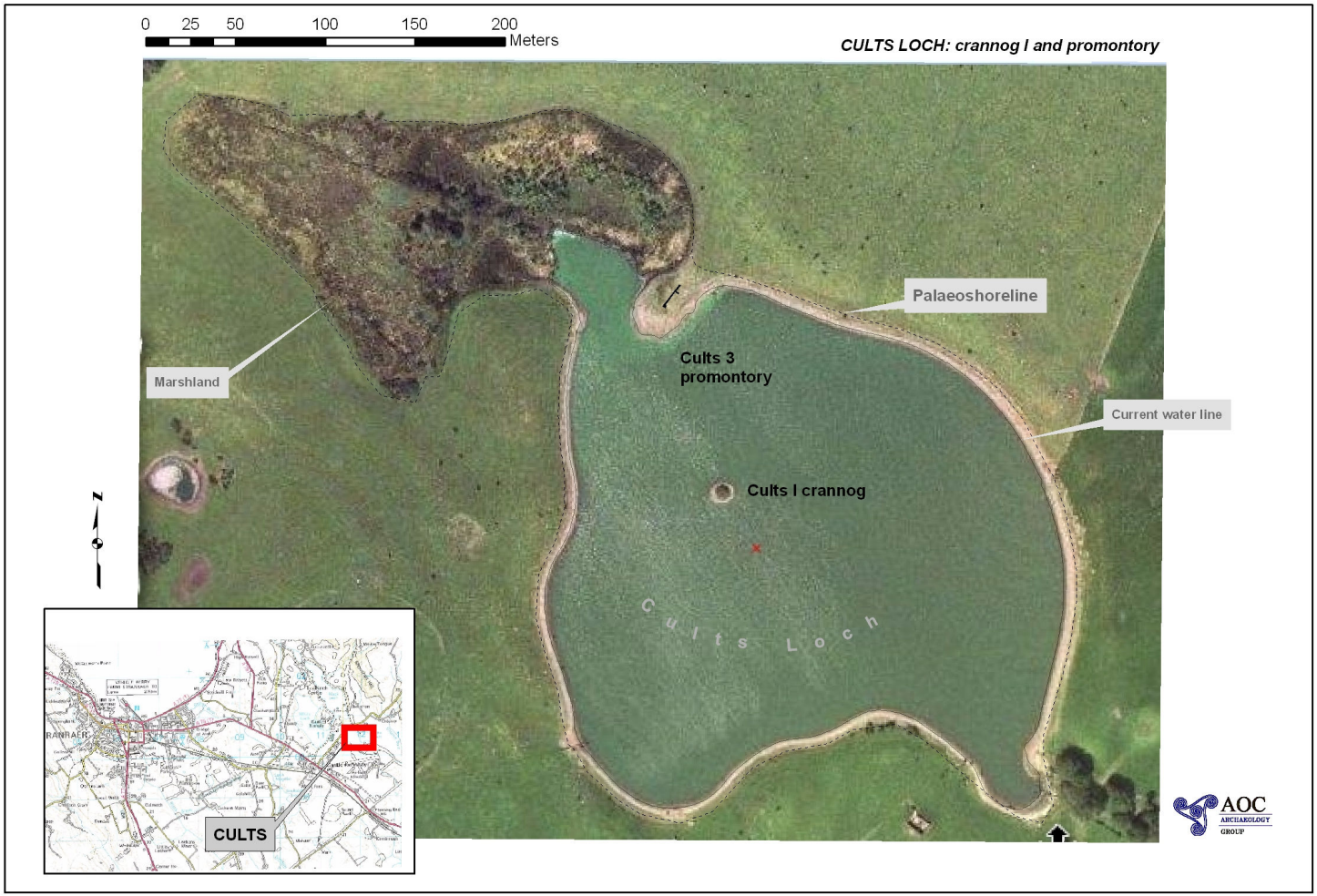

Figure 1: Cults Loch showing location of crannog, promontory and palaeoshoreline

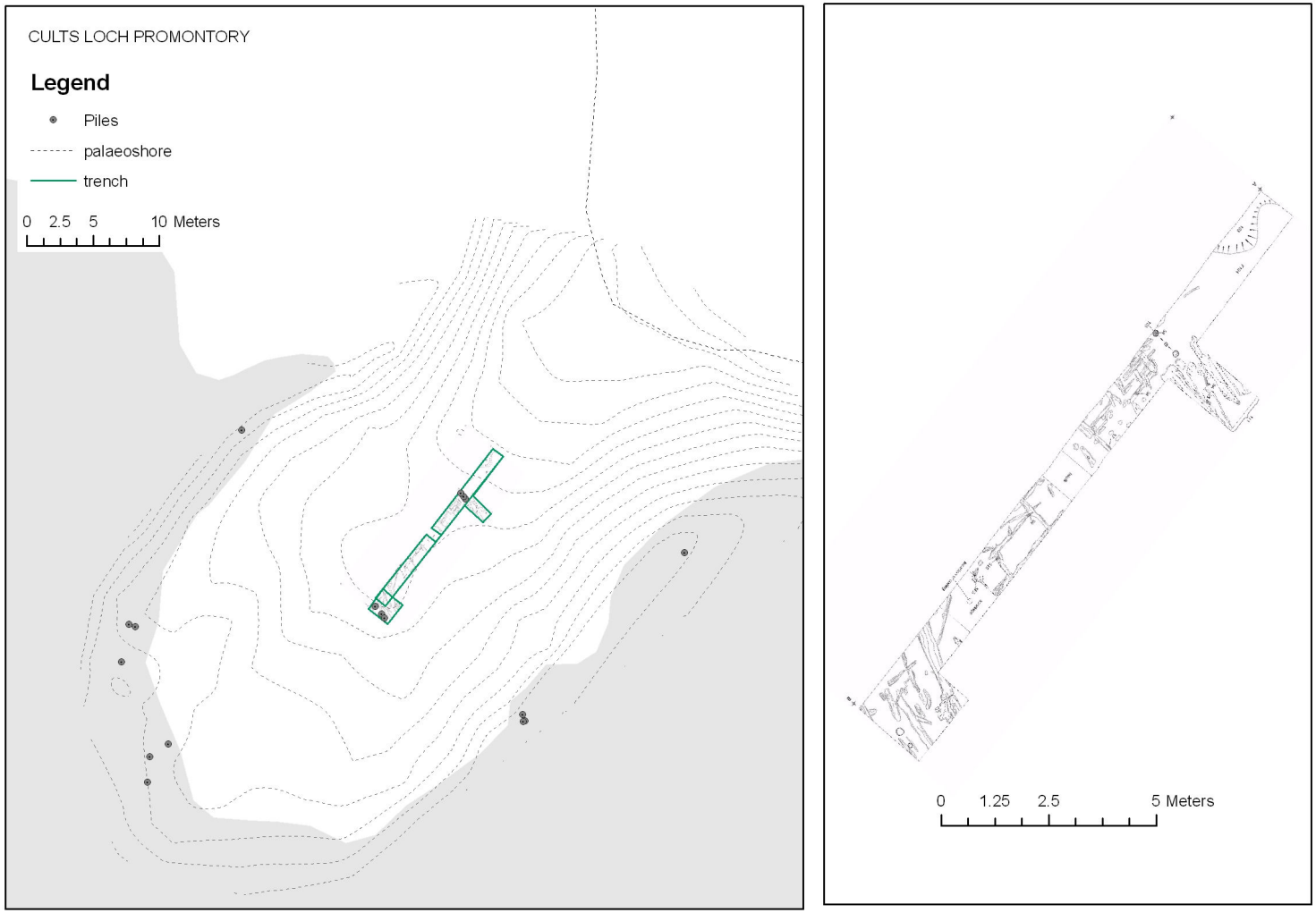

Figure 2: differential GPS survey of the promontory and the evaluation trench

Fig 4: Cults Loch 3, looking NE

Fig 4: [100] visible in the spoil heaps on either side of Trench 1

Fig 5: [103] exposed at the northern end of Trench 1

Fig 6: the east-facing section above the test-pit in Trench 1. The charcoal-flecked [101] is just visible under the stony layer [100]. The brown organic layer [102] is clearly visible below [101], within which are the lighter patches of [108]. At the base of the trench is the angular stony layer [107].

Fig 7: Timbers [106] in the extension at the southern end of Trench 1 – looking E

Fig 8: Trench 1 looking N. The grid-like pattern of timbers [106] is visible in the foreground. In the background the three stakes of [105] are visible

Fig 9: Timbers [111] looking E along extension. The stakes of [105] are visible in the foreground, as are timbers [106]

APPENDIX 1: CONTEXT DESCRIPTIONS

No.	Area	Description	Function	Stratigraphically		Dimensions (m) as seen			
				Below	Above	L	W	H	D
100	Trench 1 & 2	layer of small stones, angular & water-rolled. In loamy matrix	layer		101, 102, 104				0.4
101	Trench 1	organic layer containing flecks of charcoal, hazelnut shell & burnt bone with moderate amounts of small stones	layer	100	102	?	4.1		0.2 - 0.25
102	Trench 1 & 2	organic layer containing large pieces of wood (F106), charcoal, and hard, compact lumps (F108)	layer	100, 101	108				0.25+
103	Trench 1	yellow-grey gravelly sand containing lot of small-medium angular & rounded stones	deposit	100	104	1.7	0.7		0.16
104	Trench 1	Very stoney layer in matrix of loose, grey-brown sand	layer	100, 103					0.2
105	Trench 1	line of 3 stakes *in situ*	structural	104					
106	Trench 1	horizontal wood, lying in apparent grid pattern	structural	102					
107	Trench 1 sondage	stoney layer of very angular stones in matrix of gritty, mineral-rich mud	layer	102, 106, 108	109				0.1
108	Trench 1	Discontinuous deposits of hard, compact organic material with lenses of sand. Light orange-brown, highly delaminated	deposits	102	107				0.08

109	Trench 1sondage	organic deposit, loose texture containing lots of small fragments of wood & twigs. No anthropic material visible	layer	107					1.9	
110	Trench 1	light yellow-brown sandy, gravelly mineral soil - no organics		102, 106, 108						
111	Trench 2	plank-like wood lying horizontally	structural	102						

APPENDIX 2: SAMPLES

Sample no.	Context	Context description	Type	No. of bags	Purpose
	101		bulk	2	retrieval of bone, charcoal & macroplant
	102		bulk	2	
	104		bulk	1	
1	108		special	1	macroplant
2	varied		kubiena	/	micromorph
3	varied		kubiena	/	micromorph
4	F105	Timber T124	special	1	ID & C14 dating
5	F111	Timber T132	special	1	ID
6	F111	Timber T131	special	1	ID
7	F106	Timber T139	special	1	ID
8	F106	Timber T134	special	1	ID
9	F106	Timber T146	special	1	ID
10	F106	Timber T151	special	1	ID
11	F109	Timber T124	special	1	ID & C14 dating

APPENDIX 3: FINDS

Find no.	Context	Description
1	100	worked flint?
2	101	small lump of red stone
3	101	chipped quartz
4	103	flint
5	107	concentrated scatter of small quartz pebbles