

SMOO AND BORALLIE CAVES, DURNES

A short report on some current issues



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1 Introduction

The writer was contacted by Mr Colin Coventry, “Occupier” of Smoo cave, Durness with a request for three days of archaeological work. This short report represents the outcome of this work.

- 1.1 Smoo cave, Durness, Sutherland (NGR 29/419672) is a large coastal cavern system formed within the local Cambrian Limestone in the Late Tertiary Period (Lawson, 2002; Gleed-Owen 1992). Due principally to a large multi period shell midden dating from the Mesolithic through to the Iron Age (Pollard, 1992) on its eastern wall, it was awarded Scheduled Ancient Monument status in 1992. The cave is owned by the Highland Council. It sees an annual visitor count of c.45,000 people (Donald Mitchell, NW Highland Council Ranger, pers. comm.)
- 1.2 Colin Coventry has been the registered “occupier” of the cave since the Scheduling, during which time he has provided tours for summer visitors, both of the cave and of the inner chamber, which is accessed by a small boat. He has also generally taken care of the site, kept it free of litter, and alerted the authorities to any of issues of care. In 1997 he undertook conservation works in and around the cave with Scheduled Monument Consent under the supervision of the Highland Councils’ Archaeologist. This entailed the creation of a retaining wall to protect the midden deposits from being eroded by Allt Smoo, and the covering of the remaining midden in beach material to protect it from the feet of the many thousands of visitors.
- 1.3 Mr Coventry has enlisted my services as an archaeologist for three separate and quite disparate reasons – which shall therefore be discussed in consecutive sections.

2.0 Conservation works

- 2.1 Firstly, remedial conservation works are again required for the access path. This has been denuded of the beach material added in 1997 such that midden is once more visible on its surface (See Photo 1,2 and 3) and is being progressively destroyed by visitors. Mr Coventry alerted the Highland Council Archaeology department of this issue in a letter sent in October 2011, but has had no response to date. He feels that this matter is of some urgency given the approaching tourist season in which most of the annual 45,000 tourists are concentrated over the summer months.
- 2.2 Mr Coventry is willing to carry out this work (for a small fee) but can not start without Scheduled Monument Consent, which he feels unqualified to apply for. The writer could help him apply (although no money is available for this) but feels that this would more properly be the responsibility of the Owner.
- 2.3 A response from the owner is necessary to move this issue forward.



Photo 1: the access path across the midden



Photo 2: numerous patches of midden show through a thin layer of silty soil



Photo 3: one of the patches of midden showing through, this one with bone as well as shell remains.

3.0 Exploration of a new chamber

- 3.0.1 Consent is requested from Historic Scotland and the Highland Regional Council by Mr Coventry for the exploration of a new chamber which branches off from the main chamber of Smoo cave – see photo 4. The chamber is underneath a “cemented debris fan” (Gleed-Owen 1992 p11), or flowstone talus. This triangular shaped deposit fills the base of a large vertical faultline in the Limestone.



Photo 4: entrance to chamber under flowstone.

- 3.0.2 It has been agreed that the chamber is out with the area of Scheduled Ancient Monument – confirmation of this was sent in a letter from the council to Mr Coventry dating June 29th 2011. However the council, and no doubt HS, require a “detailed written proposal including a plan, method statement and risk assessment, together with confirmation of the archaeologist to be present and evidence of public liability insurance” before a decision can be made. These will be presented to the council by Mr Coventry in due course.
- 3.0.3 Although relatively unexplored, this chamber has long been known about and was included in a detailed study of the paleoenvironmental history of Smoo cave by Gleed-Owen in 1992 (see especially fig 3.1 and fig 4 of that report). This study took samples of the deposits which form the back of the chamber for environmental analysis, and attempted to reconstruct the genesis of the feature as a whole. Although no firm conclusions were drawn, it is clear that the flowstone and underlying material is naturally deposited and covers a significant fault line which has and still does channel fresh water, and is hence is likely to have further chambers up stream.
- 3.0.4 It would be necessary for Mr Coventry to excavate some of these natural deposits in order to reach the pre-existing chamber which they have cut off. The writer was requested to evaluate these deposits in their current position for any trace of archaeology. This inspection affirmed that there was no trace of anthropomorphic activity in the area and that all the visible material was naturally deposited - as indeed Gleed-Owen had found by far more stringent means. This does not mean however that archaeology could not be encountered as the excavation/exploration continued.



Photo 4: Natural deposits under the flowstone

- 3.0.5 To the present writer it would seem acceptable to let Mr Coventry explore this chamber if he had an archaeologist on call. He is after all interested in the archaeology of Smoo and has partaken in archaeological excavations of Smoo as well as other caves and sites around Durness, giving him a good idea of what to look for. Should he come across any traces of archaeology he could then stop and wait for a proper assessment, to be submitted to HS and Highland Regional Council.

4.0 Loch Borrallie Cave

- 4.1 Loch Borallie is a cave west of Durness at NGR 385 662 which was first discovered by Mr Coventry in 1992. Since this time he has been slowly excavating it, and so far has unearthed fossilized bones from Wolf and Wildcat, as well as bones from Fox, Wild Boar and Lynx (only the 2nd Lynx site in Scotland) and human bone of unknown age (Kitchener, A. NMS, pers comm.. 22.3.99) There is great potential for other fossil bones and for providing a greater understanding of Scotlands ancient past (ibid). The cave is just big enough to crawl or slide down, and reaches around 120 feet into a hillside. After an even narrower "S" bend, a "chamber" is reached, from which most of the bones came from. This is almost big enough for two people to crouch uncomfortably.
- 4.2 Mr Coventry wished to show a professional archaeologist the site and do some more excavation, with the intention of recovering an interesting bone to radiocarbon date – the money for which has been given to the local community council by the Highland Council discretionary fund. Whilst we did access the inner reaches and do some excavation, we were thwarted by torrential rain which filled the areas of interest up with water. In discussion with Andrew Kitchener of the National Museums of Scotland it was therefore decided that one of the bones found in previous years and already stored at the NMS be chosen for dating. The choice of which – Lynx, Wolf, Human, etc – is now up to the community council.
- 4.3 Mr Coventry wishes to continue digging in this promising cave. Given the cramped and exceptionally difficult conditions it seems more important that Mr Coventry carry on actually retrieving these bones than it is to attempt to retrieve them by modern archaeological excavation standards – i.e. Any attempt at normal archaeological recording would be so severely restricted as to be of little or no value. Although occasional input is recommended it would therefore not seem necessary for an archaeologist to be present.
- 4.4 The Loch Borallie cave excavation has been extremely valuable and interesting on a national and even international level. Mr Coventry should be applauded and every effort should be made to support him and encourage further interest and investigation into the Durness caves.

Bibliography

- Gleed-Owen, C.P., 1992 *The Flandrian Palaeoenvironmental History of Smoo Cave, Sutherland: Faunal and Sedimentological Evidence* Unpublished BSc(Hons) thesis, Dept of Geography, Coventry Polytechnic
- Lawson, T.J. 2002 *The Geomorphological evolution of Smoo Cave and the immediate surrounding area* Scottish Natural Heritage (SNH) Research Survey and Monitoring (RSM) Report no 184
- Pollard, T., 1992 *Smoo Cave* GUARD report. No 60.

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Smoo Cave - Proposed Cave Extension

For many years I have been intrigued by an obvious line of weakness high above the east wall of Smoo cave (see page 4, Geomorphological report by T.J. Lawson). This weakness or fault manifests as a vertical crack 10m above ground level in the south east corner of the cave – see photo 1:



Photo 1: the fault line

This crack appears to expand from around 1cm to 15cm over a vertical distance of 2m and should this crack continue to expand it should be several metres wide at ground level. However this chamber has been cut off by a large collapse of roof material which has subsequently been covered in flowstone, or Stalagmite – see photo 2:



Photo 2: The flowstone

There is a chamber underneath the flowstone. The plan is to dig from this existing chamber towards the fault.

Present day access to the chamber under the flowstone, where the proposed cave extension would begin, is by a very muddy crawl through a 30cm high gap – enough to deter the casual visitor, even prehistoric visitors, apparently – in fact in 25 years of Smoo cave tours the only person I saw entering the cave was Christopher Gleed- Owen (see Sedimentology report).

However, should permission be given for the dig to begin I intend to construct a gate inside the existing chamber which will be padlocked. No member of the public will be given access to the dig site. See photo 3 for the entrance.



Photo 3: entrance to chamber under flowstone

From here it would be necessary to excavate up through some non-archaeological material at a 45 degree angle. Contact would be kept with the solid east wall of the main Smoo chamber and with the underside of the 18inch thick flowstone. The only exposure to potentially loose material will be to the right (west) of the proposed route. The nature of this material is extremely dry and compact and collapse is not anticipated. However, neither can it be ruled out and with this in mind I intend to construct a retaining wall to prevent any danger of collapse.

My own personal safety is covered by the Mackay family of Smoo Cottage, adjacent of Smoo cave car park, who will be informed when I enter and exit the proposed extension. The coastguard have a well trained local team, available at a moments notice.

Colin Coventry
March 2012



ceavertry, in front of proposed
Smoo Cave extension