

Submerged Landscape of Orkney

Project Interim Report December 2008

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The Bay of Firth showing the islands of Damsay and Holm of Grimbister (Fiona Stewart)

Project Work

Fieldwork, Bay of Firth

Hydrographic survey work was carried out in the Bay of Firth from Ferry Point on the east side to Backaquoy on the west, using side scan sonar operated by Fiona Stewart of **HighResolution** Geoservices and the *Charles-Ann* skippered by Harvey Groat from Stronsay.

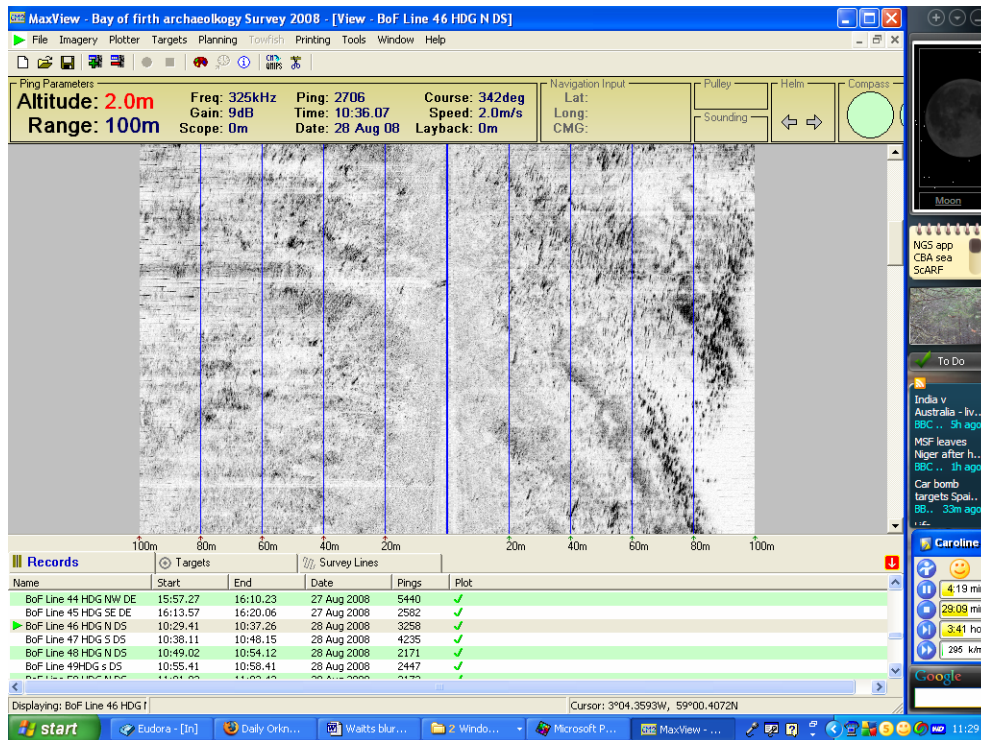


The Charles-Ann, skippered by Harvey Groat (Fiona Stewart)

This work had three aims:

- To investigate, and if possible verify, persistent rumours of a submerged structure including vertical slabs in the vicinity of Damsay
- To recover data relating to the pre-submergence landscape of the Bay of Firth
- To examine the sea bed for cultural heritage, including both wrecks and built structures

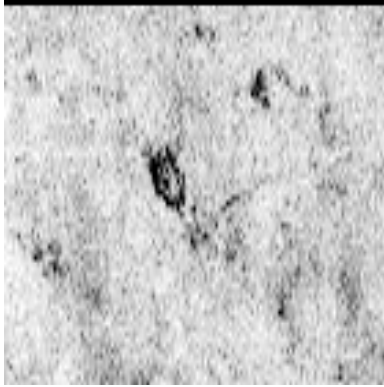
The results of this survey are presented in appendix 1 and revealed several positive anomalies which have now to be investigated further using a camera, ROV and shallow diver work (appendix 2). Most of these anomalies are likely to relate to recent cultural heritage, but at least one clear reading came from the area of interest indicated by local informants. The existence of a submerged prehistoric structure in the Bay has not yet been ruled out.



CMax screen during Bay of Firth Survey, showing development of typical Nav line with feature showing up to right side. Scale across image is 200m, water depth about 4m.



Corrected sidescan survey of seabed showing potential features. Scale across image is 200m, depth is c.10m.



Bay of Firth, sidescan image of the sea bed:
possibly a small dinghy.

In addition a number of potential landscape features were recorded. Areas within the bay are very shallow and considerable skill was needed. We are currently seeking funding to ground truth the recorded anomalies and hope that this work can be undertaken in May 2009.

Dating

Historic Scotland has allocated a number of radiocarbon dates to the project. Sediment cores collected from Loch of Stenness in June 08 exhibit exciting lithostratigraphic changes which will allow a more complete chronology of the loch to be obtained. In addition, core samples from Loch of Harray demonstrate a change in sedimentation with the emplacement of the sluice gates separating Harray and Stenness. Samples for radiocarbon assay are currently being isolated and analysed ready for submission in late 2008.

Website

Website draft produced. Aberdeen University, Department of Archaeology will host the website. The text will be updated and work on the website with Aberdeen will start over the winter of 2008

Funding

- Historic Scotland have confirmed funding of £12,000 for 2009-10, but a revised bid for up to £20,000 has been submitted with the aim of completing analysis of all the core samples taken to date and preparing a report for publication by the end of March 2010.
- A separate grant of up to £10,000 is being sought for 2009-10, to ground truth the anomalies in the Bay of Firth. We are currently discussing the possibility of funding from the National Geographic Society for much of this.
- Crown Estate funding (£4000 per year for three years) finishes in March 2009.
- The level of potential SFLP funding has been confirmed as £25,000 (see below).

Developments and Liaison

Scapa Flow Landscape Partnership

Development details of a project to investigate the submerged landscape of Longhope and Flotta have been submitted to the SFLP. A budget of £25,000 has been confirmed by SFLP. A budget of this size would normally mean that the project has to go out to tender, but as this project provides unique skills and service HLF have waived that condition. SFLP have submitted their overall application to HLF, and await a decision in March 2009. Assuming a positive outcome work should start in May 2009.

University of Hull

Liaison continues with Dr Jane Bunting and Michelle Farrell, palaeo-environmental specialists at the University of Hull, over a variety of collaborations, in which they provide added data from our samples or supplementary material from their own projects.

Orkney College

The Archaeology Department at Orkney College have applied for use of equipment to do a LIDAR survey of Orkney. They have offered to provide coverage of areas of interest such as the lochs of Stenness and Harray, and the Bay of Firth.

Lectures

- CWJ lecture at the *World Archaeology Congress* in Dublin to present a joint paper outlining the work of the project. Considerable discussion of the underwater heritage took place.
- SD (panel Member) presentation at the inaugural meeting of the Marine and Maritime Panel of ScARF (Scottish Archaeological Research Framework), Society of Antiquaries, November 2008.
- CWJ asked to deliver a public lecture on the project in Marischall College, Aberdeen on 17th Feb 2009.
- CWJ asked to deliver a public lecture on the project to Orkney Archaeology Society in May 2009

Media coverage

- BBC Radio Orkney – 28th August 2008
- Orcadian
- Orkney Today
- STV – filmed the project during survey work – shown on North Tonight.
- BBC Radio 4 – featured the project in a programme on submerged landscapes to be broadcast in the winter of 2008/9
- *Current Archaeology* - August 2008
- *Archaeology Scotland* – September 2008

Projected work

- Potential participation in Scapa Flow Landscape Partnership *Submerged Landscapes of Longhope* project
- Preliminary sediment analysis of cores from Stenness, Harray, Waulkmill – 2008/9
- Final Sediment analysis of cores from Stenness, Harray, Waulkmill – 2009/10
- Selection of further samples for dating - winter 2008
- Ground-truthing of Bay of Firth hydrographic anomalies - 2009
- Echnaloch stratigraphy – 2009
- Final construction, publication, and maintenance of project website –winter 2008
- Basic bathymetric survey of lochs of Harray and Stenness – 2009/10
- Report writing – winter 2009/10

Acknowledgements

Funding 2008-9
The Crown Estate
Historic Scotland

Assistance
Alastair Dawson
Richard Bates
Fiona Stewart
Harvey Groat
Captain Billy Sclater
Lewis Munro

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