

Rubha Port an t-Seilich, Isle of Islay

The discovery of ice age pioneers in Scotland

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*Trial-excavation
at Rubha Port an
t-Seilich, August 2013*



Rubha Port an t-Seilich, Isle of Islay

The discovery of stone tools sandwiched between layers of volcanic ash on the east coast of Islay has opened a new chapter in the prehistory of Scotland. The stone tools, found in 2013 at Rubha Port an t-Seilich, provide the first dated evidence for ice age hunter-gatherers in Scotland.

It was originally thought that people first arrived in Scotland after the end of the ice age, around 10,500 years ago, in what is known as the Mesolithic period. At this time, global warming had caused woodland to replace tundra and people explored this new landscape and settled within the highlands and islands living as hunter-gatherers. They hunted red deer and wild boar, fished for salmon and gathered many types of wild plants. Several Mesolithic sites are known on Islay, such as at Bolsay, Coulererach and Storakaig, the earliest being dated to 9300 years ago.

The new discovery at Rubha Port an t-Seilich adds an earlier period of human settlement to this story, one preceding the Mesolithic: the Palaeolithic. About 12,000 years ago, a group of ice age hunter-gatherers visited Islay, discarding broken stone tools at their camp site on the east coast. At that time the highlands of northwest Scotland remained covered by glaciers and Britain was still attached to the continent by low-lying bogs and marshes, a region we now call Doggerland. Islay would have been an island, one covered by tundra with scattered herbs, shrubs and dwarf birch.

Although there have been other finds of a few isolated stone tools possibly from the ice age, Rubha Port an t-Seilich is a unique discovery, one that provides the first opportunity to excavate an ice age campsite in Scotland.

The discovery and dating of the ice age campsite

In 2010 Rubha Port an t-Seilich was identified as the location of a Mesolithic settlement, and was explored with a small trial excavation in 2013, by the kind permission of the Dunlossit Estate.



Stone tools from Rubha Port an t-Seilich. These were used as the tips of spears and arrows, as scrapers for cleaning skins and working antler. Their specific shapes and method of manufacture are distinctive of the ice age Ahrensburgian culture.



The trial excavation showed Rubha Port an t-Seilich to be one of the best preserved Mesolithic sites in Scotland, with a diverse range of stone tools, animal bones, plant remains, a fireplace, pits and postholes. The site also produced traces of Neolithic activity.

However the most exciting discovery was made towards the end of the 2013 excavation, when traces of the ice age campsite were found, buried beneath the Mesolithic deposits. Despite only a tiny part of the ice age sediment being exposed, it was enough to provide a number of distinctive ice age stone tools.

Tephrochronology is a new sophisticated dating technique in archaeology, which analyses microscopic fragments of volcanic ash.

Volcanic eruptions in Iceland resulted in ash clouds over Scotland, with layers of volcanic ash deposited over the landscape. Each eruption produced volcanic ash with a distinct chemical composition, and many of these eruptions have been accurately dated. Several layers of volcanic ash were found at Rubha Port an t-Seilich coming from both above and below the stone artefacts, which has enabled us to date them at 12,000 years old, 3000 years older than any previous discovery on Islay.

Their age and distinctive style means they had been made by people of the Ahrensburgian culture, which flourished in mainland Europe towards the end of the last ice age.

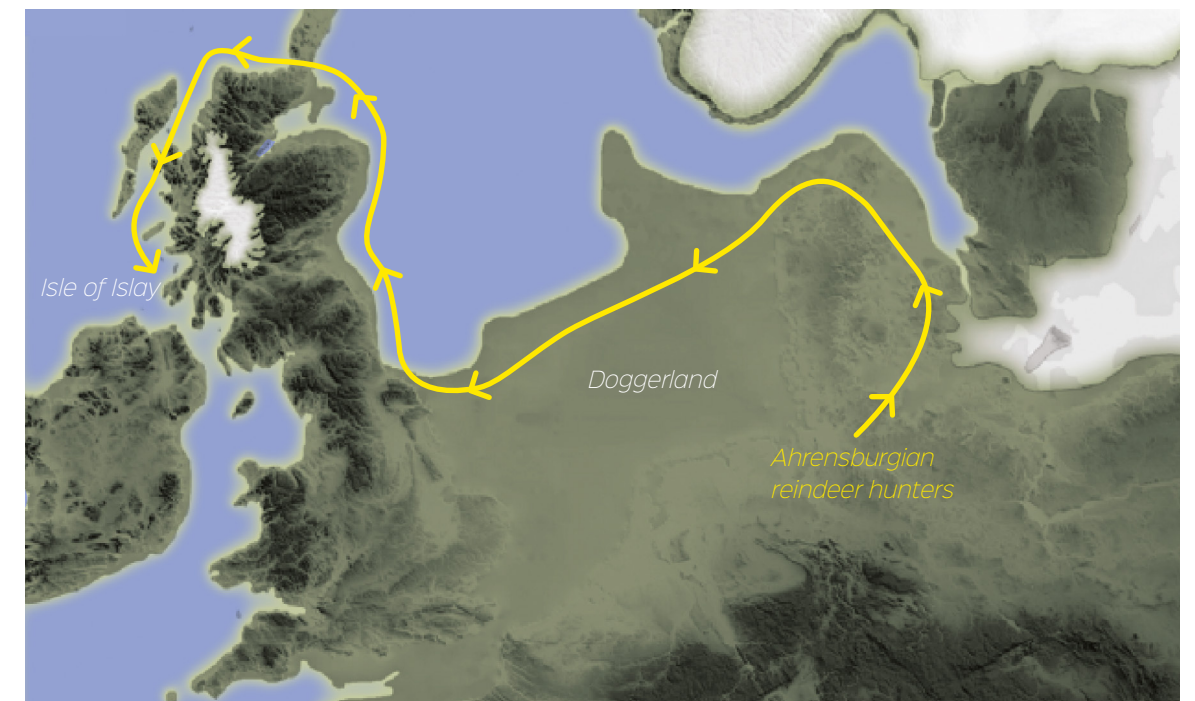
From reindeer hunting to seafaring in the ice age

Originating in north-central Europe, the Ahrensburgian people were ice age hunters who used stone tools as points for spears and arrows to hunt reindeer, ambushing herds during their migrations across the tundra.

A few sites from this culture have recently been discovered in Denmark and Sweden, suggesting the Ahrensburgian people may also have been coastal foragers, perhaps hunting sea mammals from skin boats. The discovery at Rubha Port an t-Seilich not only confirms this, but suggests a level of seafaring and exploration entirely unexpected for the ice age.

Western Scotland was the northwest frontier of the ice age world, a continuous landmass stretching across Europe to Asia. The ice age hunters probably sailed in skin boats along the rivers and marshes of Doggerland and then around the north of Scotland to arrive at its west coast, where Rubha Port an t-Seilich provided an attractive camp site.

Europe at 12,000 years ago, showing the now drowned landmass of Doggerland and glaciers still covering the highlands of Scotland and Scandinavia. The journey to Islay was most likely by boat around the north of Scotland.



What remains hidden?

This is a hugely important project for understanding the prehistory of Islay and Scotland.

The 2013 trial excavation only scratched the surface of what might be buried at Rubha Port an t-Seilich. Further excavation of the Mesolithic remains will add a crucial piece to the jigsaw of Mesolithic activity in western Scotland that has been gradually come together over the last three decades, especially on Islay from sites such as Bolsay and Storakaig. Moreover, further excavation of the Neolithic remains at Rubha Port an t-Seilich will enable us to explore the transition from hunting and gathering to the farming way of life, additional evidence for which is demonstrated by the presence of Neolithic burial mounds on Islay such as those at Nereabolls.

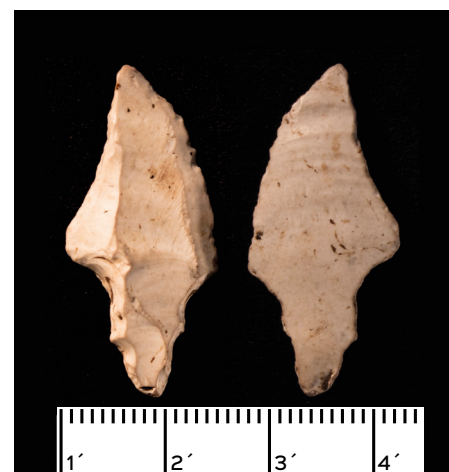


More understanding

Importantly, excavation of the underlying ice age campsite at Rubha Port an t-Seilich will take us into completely new archaeological territory for Scotland. The discovery of additional stone artefacts will help us understand more about the cultural background of these ice age pioneers in Scotland and other evidence of fireplaces, rubbish pits and post-holes will give us new insights into ice age life.

Excavation will also enable us to extract more volcanic ash, along with pollen and other microscopic evidence from the buried sediments, helping us to learn more about the ice age environment into which these intrepid explorers had ventured.

This flint point recovered from Rubha Port an t-Seilich is the oldest know artefact ever found on Islay. Its particular shape and the way it was made suggests that it was either lost or discarded 12,500 years ago. It is likely to have be an arrowhead used for hunting reindeer on the ice age tundras of Scotland – although whether these animals were ever found on Islay we simply do not know. Excavation at Rubha Port an t-Seilich will enable more artefacts to be recovered and provide the first ever insights into an ice age campsite in Scotland.



For more information

For the full story of the discovery, analysis and interpretation see: 'A Late Glacial archaeological site in the far north-west of Europe at Rubha Port an t-Seilich, Isle of Islay, western Scotland: Ahrensburgian-style artefacts, absolute dating and geoarchaeology.' Steven Mithen, Karen Wicks, Anne Pirie, Felix Riede, Christine Lane, Rowena Banerjea, Victoria Cullen, Matthew Gittins and Nicholas Pankhurst. *Journal of Quaternary Science*. 2015. DOI: 10.1002/jqs.2781



Dr Karen Wicks is based in the School of Archaeology, Geography and Environmental Sciences, at the University of Reading. Her research concerns the earliest colonisation history of NW Europe, with a focus on human responses to climate and environment change at the end of the ice age and the start of the Holocene period. Karen's expertise lies in geoarchaeology, particularly with regard to radiocarbon dating, sediment analysis and the reconstruction of vegetation history. She has worked on the Hebridean Islands since 2005, leading several excavations including the 2014 excavation at the Mesolithic site of Criet Dubh on the Isle of Mull which located the earliest dwelling structure in Western Scotland.

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Steven Mithen is Professor of Early Prehistory and Deputy Vice Chancellor at the University of Reading. He has been reconstructing the Mesolithic of Western Scotland since his first visit to Islay in 1986, discovering and excavating sites on Islay, Colonsay, Mull, Tiree and Coll. On Islay, with the help of residents and colleagues, he has discovered and excavated Gleann Mor, Bolsay, Coulererach, Storakaig as well as Rubha Port an t-Seilich. In 2015 he is undertaking a survey of the Nereabolls Neolithic burial cairn. He is an active member of the Islay community, regularly providing public lectures, and has introduced the archaeology of Islay to school children, residents and visitors to the island.

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The 2013 preliminary excavation at Rubha Port an t-Seilich was undertaken with the kind permission of the Dunlossit Estate, and with funding support from the University of Reading.



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