

# Searching for Ice Age Pioneers at Rubha Port an t-Seilich

Steven Mithen

October 2021

Excavations in September 2021 marked the start of a three-year project to complete excavations at Rubha Port an t-Seilich. This site is already the earliest known settlement on Islay – a 9200-year-old campsite of Mesolithic hunter-gatherers. Stone tools from the site, however, suggest there are still older deposits to be discovered, potentially dating to the last ice age. The 2021 excavation started a three-year project to find out what lies below the Mesolithic campsite. The excavation was funded with awards from the University of Reading, the Society of Antiquaries of London, the Society of Antiquaries of Scotland, and the Royal Archaeological Institute.

The aim of this three-year project is to identify, expose and excavate Late Glacial Ahrensburgian deposits at the site of Rubha Port an t-Seilich (RPAS), Isle of Islay. Their likely presence was identified by the 2010 and 2013 site evaluation (Mithen et al. 2015; Berg-Hansen et al 2019) (Figure 1). To reach these deposits requires an excavation of the overlying Mesolithic horizons, which are themselves of considerable significance, indicating that Rubha Port an t-Seilich was a key location in the Mesolithic settlement pattern (Mithen et al. 2020). The project objective is to complete excavation of the Mesolithic deposits, to then expose and excavate the underlying cultural material, anticipating this will represent the first excavation of a Late Glacial, Upper Palaeolithic campsite in Scotland.



*Figure 1: Location of Rubha Port an t-Seilich and excavation, September 2021*

The project began in 2021 with a three-week excavation between the 28 August and 17 September. This was undertaken as part of the University of Reading Archaeological Field School on Islay which also included excavation at Dunyvaig Castle. The RPAS excavation was directed by Steven Mithen, and supervised by Sarah Lambert-Gates and Will Attard, with Rory Williams-Burrell providing technical

support for environmental sampling and processing. Twenty-five undergraduate students gained experience of Mesolithic excavation, with eight being present on any one day (maximum capacity).

The excavation continued the trench that had been started in 2018, this being located to the immediate north of a fireplace exposed in the 2013 site evaluation. The trench has a relatively small area (5m X 4m) within the c. 20 X 30m expanse of the Mesolithic settlement, Figure 2. Excavation is restricted to this scale because of the abundant finds and need for a detailed stratigraphic excavation of Mesolithic deposits known to have accumulated from at least 9200 to 7800 BP.



*Figure 2: Excavation at Rubha Port an t-Seilich, September 2021*

As in 2018 and 2019, excavation used a 0.5m grid. All deposits were excavated stratigraphically and in 50mm spits by grid square. Cut features were excavated stratigraphically, with spits only used where the feature was of particular interest. Large stone artefacts, such as hammer stones, anvils, and notable pieces of chipped stone, were 3D plotted within the trench. All excavation was undertaken with spatulas, trowels & hand shovels – no heavy tools were used to avoid damaging the delicate horizons & finds.

Apart from c. 100 gm of sediment from each sample being reserved for geochemical analysis, the entire excavated sediment from each grid square/spit/context was wet sieved through a 4mm mesh, Figure 3. Samples taken from deposits of interest were processed through stacked sieves (4mm, 2mm, 0.5mm, 0.25mm) to enable recovery of smaller remains, notably plant macros. A total of 206 bulk & geochemical samples were taken during the 2021 season. Excavation ceased when a coherent floor horizon had been exposed across the trench and the maximum capacity for in-field finds processing had been reached.

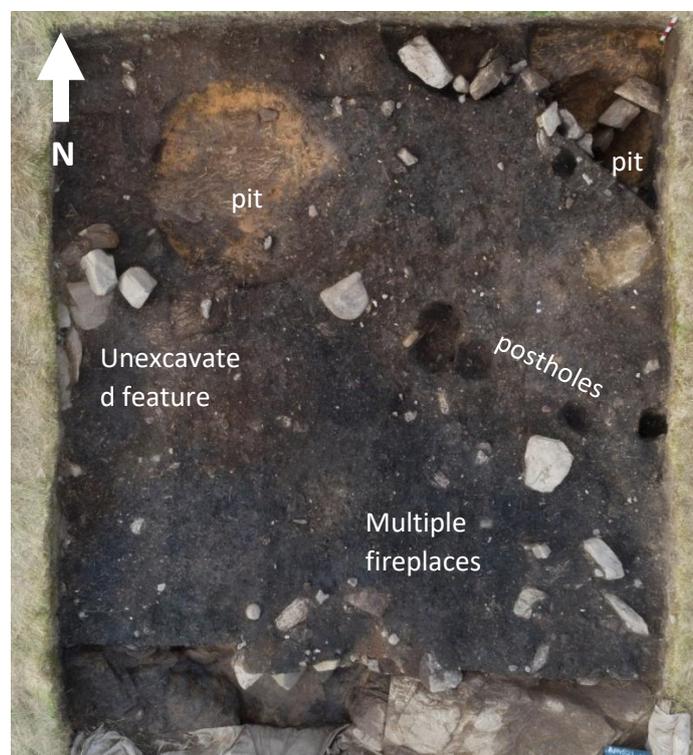


*Figure 3: Wet sieving excavated deposits at Rubha Port an t-Seilich, September 2021*

This horizon is illustrated in figure 4a. In the NW corner, the orange clay natural is exposed at the base of a shallow circular pit excavated in 2019. The northern part of the stone construction of the fireplace sectioned within the 2013 trench has been partially exposed in plan, while a further structural feature is now apparent to its immediate east, possibly a second fireplace. A deep pit is in the NE corner of the trench, Figure 4b. This had been cut into the underlying natural and divided into two halves by positioned stones and demarcated by a ring of stones, prior to the accumulation of a fill with high densities of carbonized plant material and calcined bone. A fourth feature involving positioned stones is at the western edge of the trench and remained unexcavated. Between these stone-constructed features is a line of postholes, some of which are of a substantial size.

*Figure 4a: Mesolithic surface exposed at the end of the 2021 excavation, showing fireplaces, pits and postholes with Trench (4m X 5m)*

*Figure 4b: Pit in the NE corner of trench*



While these finds and the analysis of the geochemical samples will provide considerable information about the past activities at the Mesolithic campsite, we hope to extend this by using sedimentary ancient DNA (SedaDNA) analysis. Initial samples had been taken in 2018 by Dr Alejandra Perotti (University of Reading) and a second collection was made during the 2021 excavation by Dr Kate Britton (Aberdeen University). She took 26 samples from three locations: (1) across the surface of the site, (2) from the section through the fill of the pit (Figure 4b) and (3) from the re-exposed section of the 2013 evaluation trench where the basal Mesolithic and underlying deposits could be sampled.

Preparation of that section for SedaDNA sampling required it to be cut back and cleaned. This resulted in a collection of chipped stone artefacts from the deposit underlying the Mesolithic horizon. This

contained several large blades and an end scraper that, although not diagnostic, confirms the possibility that this material is Ahrensburgian, Figure 5.

The residues from the wet sieving of excavated deposits were dried and sorted in the field, removing all pieces of chipped stone (n=18,506), charred plant material (n=9641) and bone fragments (n=6683), Figure 6. The spatial distributions of these artefacts, Figure 7, indicate high densities of chipped stone and bone in the fireplace and pit. The residues from samples that were passed through finer sieve meshes were also sorted, with the charred material removed by flotation. These materials, and coarse stone artefacts (c. n=70) are now being catalogued, analysed and interpreted by post-excavation specialists: chipped stone by Dr Inger Berg-Hansen (Oslo), coarse stone by Dr Ruth Shaffrey (Reading), bone by Dr Ingrid Mainland (Orkney), charred wood by Cathie Barnett (Reading), charred hazelnut shell by Dr Amy Hogluin (Oxford) and plant macros by Dr Rosie Bishop (Stavenger).

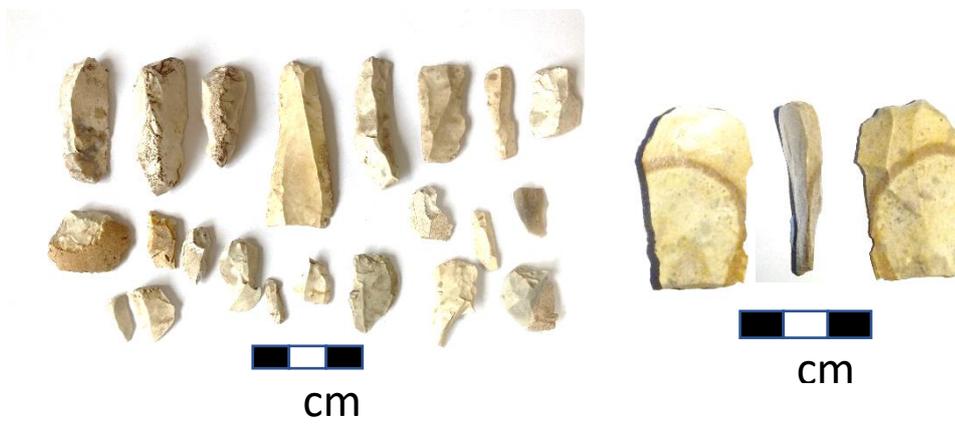


Figure 5: Chipped stone artefacts recovered during cleaning of the exposed section of deposits below the Mesolithic horizons at Rubha Port an t-Seilich, 2021



Figure 6: Drying and sorting wet sieve residues

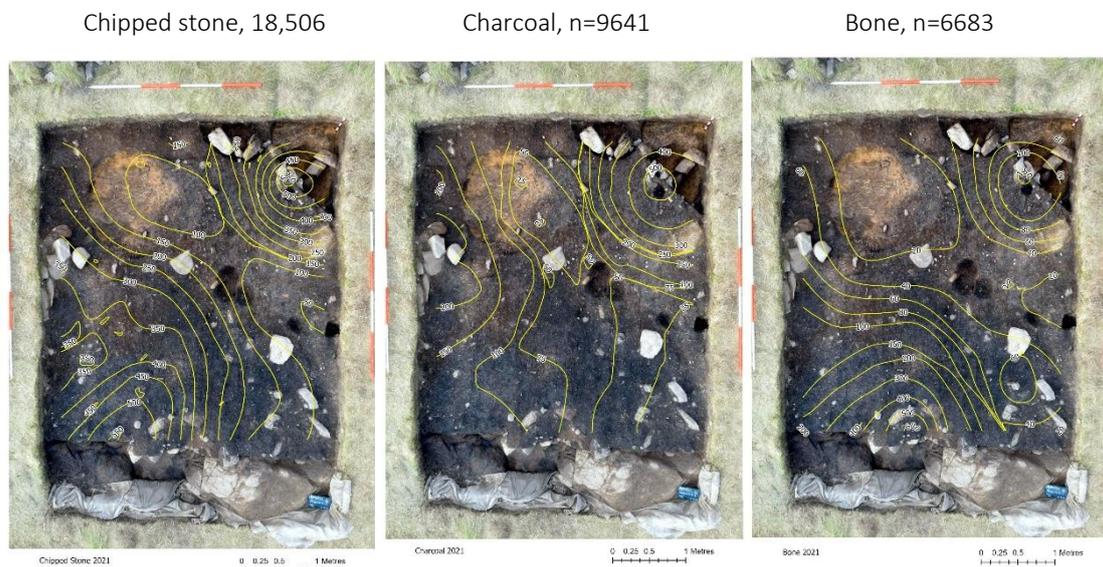


Figure 7: Spatial distributions of artefacts

As illustrated in Figure 8, the excavation has now reached the basal deposits of the Mesolithic accumulation. Provided that funding is forthcoming, these deposits will be excavated in 2012 to expose the underlying horizon. We remain confident that the artefacts from this horizon are of the Ahrensburgian culture and will represent the first *in situ* remains of this period found in northern Britain.

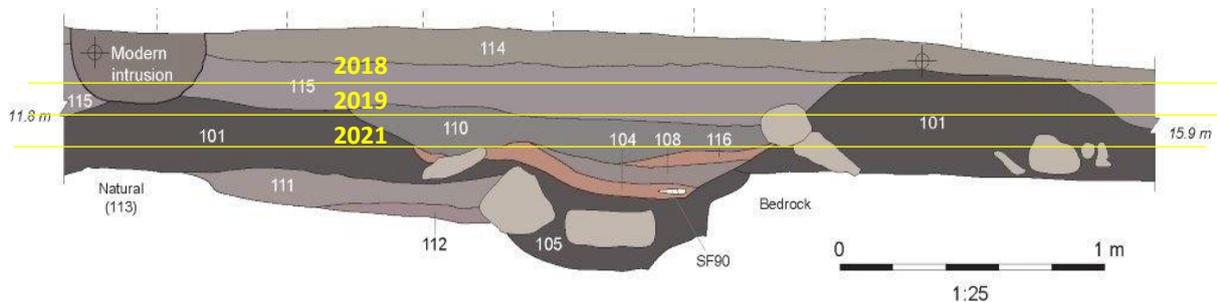


Figure 8: Schematic progress of excavation through the Rubha Port an t-Seilich deposits from 2018 to 2021. The anticipated Ahrensburgian horizon as context 111 can now be exposed in 2022

In summary, excellent progress has been made towards achieving the aims and objectives of the project. The Mesolithic deposits have proved to contain greater quantities of artefacts and features than anticipated, and hence have taken longer to excavate. These will make a critically important contribution to our understanding of the Mesolithic period. Further indications were recovered that the underlying deposits contain material of the Ahrensburgian culture which will be excavated within the timeframe of the project.

## References

Mithen, S.J., et al. 2015. A late glacial archaeological site and tephra sequence in the far northwest of Europe: Ahrensburgian artefacts and geoarchaeology at Rubha Port an t-Seilich, Isle of Islay, western Scotland. *Journal of Quaternary Science* 30, 396-416. DOI: 10.1002/jqs.2781

Mithen, S.J., et al. 2020. The Mesolithic coastal exploitation of Western Scotland: The impact of climate change and use of favoured place. In A. Schülke (ed) *Coastal Landscapes of the Mesolithic: Human Engagement with the Coast from the Atlantic to the Baltic Sea*. London: Routledge. Pp. 147-178.

Berg-Hansen, I., Wicks, K. & Mithen, S.J. 2019. A tanged point and two blade technologies from Rubha Port an t-Seilich, Isle of Islay. *Journal of Lithic Studies*, 6 (1). <https://doi.org/10.2218/jls.2892>