



University of
Reading



Storakaig and Rubha Port an t-Seilich

Archaeological evaluation of new
Mesolithic sites on Islay, western Scotland

by Steven Mithen and Karen Wicks

Report 1 | November 2010



East Islay
Mesolithic
Project



1 Map of Islay showing the location of the Mesolithic sites at Storakaig and Rubha Port an t-Seilich



Steven Mithen is Professor of Early Prehistory in the Department of Archaeology and Pro-Vice Chancellor for Internationalisation and External Engagement at the University of Reading.



Karen Wicks is a Research Fellow in the Department of Archaeology, University of Reading. She is an expert in Hebridean vegetation histories and palaeoenvironmental reconstruction.

East Islay Mesolithic Project

The Mesolithic is the most ancient and least known prehistoric period in western Scotland, lasting for almost 4000 years after the end of the last ice age, between 10,500 and 5800 years ago. Mesolithic people lived by hunting and gathering before the arrival of Neolithic communities, the first people to live by farming in western Scotland. As such, there was considerable excitement in the spring of 2009 when Donald James McPhee and Susan Campbell collected what they thought were Mesolithic stone tools from two locations on the Dunlossit Estate of NE Islay, Storakaig¹ (NR 3985 6270) and Rubha Port an t-Seilich (NR 43035 67449) (1). The artefacts were on the surface, those at Storakaig having been exposed in the up-throw from a ditch and those at Rubha Port an t-Seilich as a result of ground disturbance by foraging pigs. Small fragments of animal bones and charred hazelnut shell were also found at Storakaig, these being rarely preserved on Mesolithic sites.

Professor Steven Mithen (University of Reading) confirmed that both stone tool collections were of a likely Mesolithic date. A piece of charred hazelnut shell from Storakaig was submitted for radiocarbon dating and found to be approximately 6000 years old² – towards the end of the Mesolithic period. These are the first Mesolithic sites to be discovered in eastern Islay and might provide invaluable information about this period. If the animal bones and charred plant remains at Storakaig could be shown to be contemporary with the stone artefacts, and if such material can also be found at Rubha Port an t-Seilich, these sites could provide precious information about the little understood Mesolithic economy and environment: what people ate, the size of their groups, their patterns of movement around the islands and the landscapes in which they lived³. Moreover, peat deposits from a small lake basin located approximately one kilometre north of Storakaig, Loch Bharradail, might provide evidence for the vegetation history of eastern Islay and the impact of Mesolithic people on their environment. In light of these opportunities and with the kind permission of the Dunlossit Estate, small-scale fieldwork was undertaken at Storakaig (2, 3) and Rubha Port an t-Seilich (4) by a team from the University of Reading between 21 August and 5 September 2010 to evaluate their potential for providing new information about the Mesolithic.

² BETA-264734: 5350 ± 50 ¹⁴C BP. All radiocarbon dates have been calibrated from their published radiocarbon ages (¹⁴C years BP) using OxCal v4.1.7 (Bronk Ramsey 2009, *Radiocarbon* 51(1): 337-60) based on the most recent IntCal09 and Marine09 radiocarbon age calibration curves (Reimer *et al.* 2009, *Radiocarbon* 51(4): 1111-1150). Radiocarbon calibration is necessary to convert radiocarbon years into 'actual' or 'calendar' years and are expressed as cal BP (0 cal BP = 1950) at a 2σ (95.4% probability) confidence interval.

³ An initial assessment of the sites is described in the report *Storakaig and Port an t-Seilich: New Mesolithic sites on Islay*, by Steven Mithen (21 November 2009), which is available on request.

¹ The site is in fact approximately one kilometre due north of the modern-day settlement called Storakaig, being located immediately adjacent to the archaeological remains of the Airigh Ghuaidhre township.

2 The site of Storakaig is located in open moorland today, adjacent to the deserted 19th township of Airigh Ghuaidhre. When occupied in the Mesolithic, this landscape is likely to have been heavily wooded with birch hazel, willow and oak. The sediments exposed in the ditch indicate that there had been a mire surrounded by reeds. The Mesolithic people had camped next to this, making their tools and roasting their venison and hazelnuts.

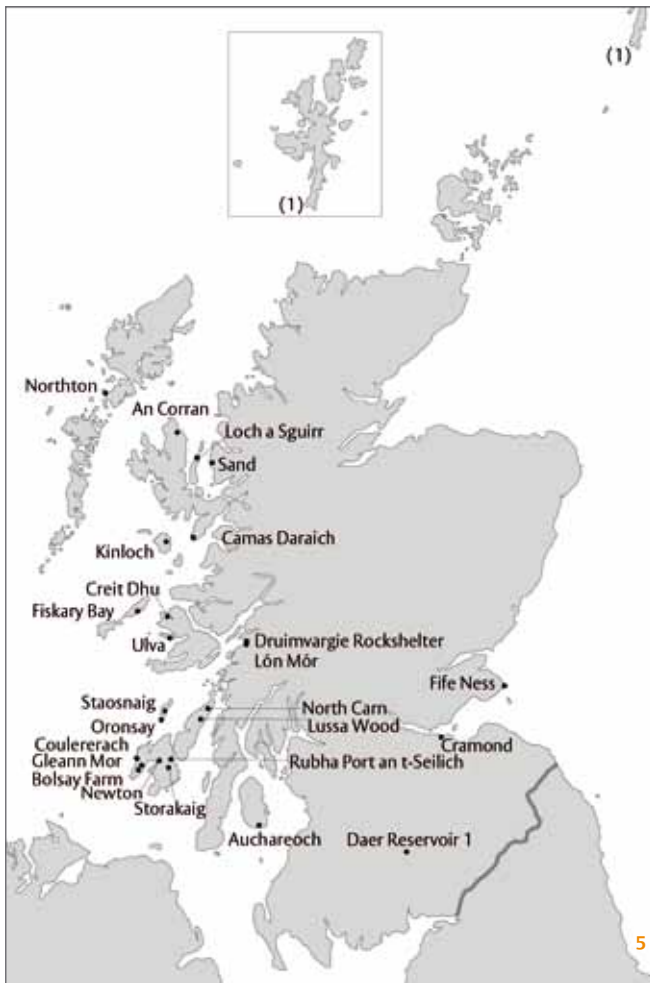
3 The drainage ditch at Storakaig. It was in the up-throw of the ditch that stone artefacts were originally found – by very sharp eyes!

4 The site of Rubha Port an t-Seilich, located on the east side of the Sound of Islay looking towards the Paps of Jura. The excavation of this site was made especially thrilling by not only the fantastic archaeological deposits but also the frequent sightings of basking sharks, seals and diving gannets.





5 Mesolithic sites from western and central Scotland. The earliest dated site is that of Cramond, near Edinburgh. After 9500 years ago, Mesolithic people were exploiting the whole region of western Scotland, although there is still only one site known from the Western Isles.



Background: The Mesolithic in western Scotland

The first people to live in western Scotland arrived after the end of the last ice age at about 10,500 years ago. They were hunter-gatherers who favoured living in coastal regions and rapidly colonised the Hebridean islands. Archaeologists refer to their period of occupation as the Mesolithic. For almost four thousand years these hunter-gatherers exploited the rich marine, coastal and terrestrial resources of western Scotland, living a mobile lifestyle and leaving a sparse archaeological record (5). They had few possessions, most of which were made from wood, bone and antler – materials which are rarely preserved. They did, however, rely on making arrow-points, knife blades and other tools from flint pebbles which can produce razor

sharp blades and flakes when ‘knapped’ with the requisite skill. Such tool parts and the waste from their manufacture are often the only traces that remain of Mesolithic activity, usually buried below blown sand or thick deposits of peat. The Mesolithic hunter-gatherers manufactured their stone tools in a distinctive manner, using what archaeologists call a platform core technology and producing microliths – small blades that are delicately chipped into distinctive forms. During the Mesolithic period western Scotland was covered in woodland and the sea level was generally lower than today. Reconstructing that past environment is critical to understanding the Mesolithic period and why it came to an end. Soon after 6000 years ago a new lifestyle appeared in western Scotland: Neolithic communities with domesticated sheep and cattle. They made pottery, constructed burial monuments and cleared the woodland for farming. It remains unclear whether the original Mesolithic inhabitants had adopted the Neolithic lifestyle via cultural contact with Neolithic people elsewhere in Scotland (or further afield) or whether a new people had arrived in western Scotland, pushing the Mesolithic people into the marginal areas and then to extinction.

Islay has a particularly important archaeological record for the Mesolithic and early Neolithic. Rod McCullagh excavated the first known Mesolithic site on Islay at Newton in 1985⁴. Between 1987 and 1995 Steven Mithen undertook a major fieldwork project on the island, locating and excavating several Mesolithic sites primarily in the western Rinn peninsula – notably at Bolsay, Gleann Mor, Rockside, Aoradh and Coulererach. He also undertook fieldwork on Colonsay, finding and excavating the site of Staosnaig⁵. Mithen sought to develop a regional picture of Mesolithic set-

⁴ McCullagh 1991 *Glasgow Archaeological Journal* 15, pp. 23–50.

⁵ Mithen 2000 *The Southern Hebrides Mesolithic Project* (2 volumes). McDonald Institute, Cambridge.

tlement by also drawing on the previous research by John Mercer⁶ on Jura, who excavated a series of artefact scatters, and Paul Mellars on Oronsay⁷, who excavated Mesolithic shell middens – waste heaps of shell, bones and artefacts from coastal foraging. Since 2004 Mithen has extended his research programme by locating and excavating Mesolithic sites on Tiree, Coll and Mull. Research across such an extensive region is vital because the Mesolithic hunter-gatherers were highly mobile, using log canoes or skin-boats to move between the islands and mainland. It is likely that just one or two communities exploited the whole of the Hebridean chain of islands from Lewis to Arran⁸ (6).

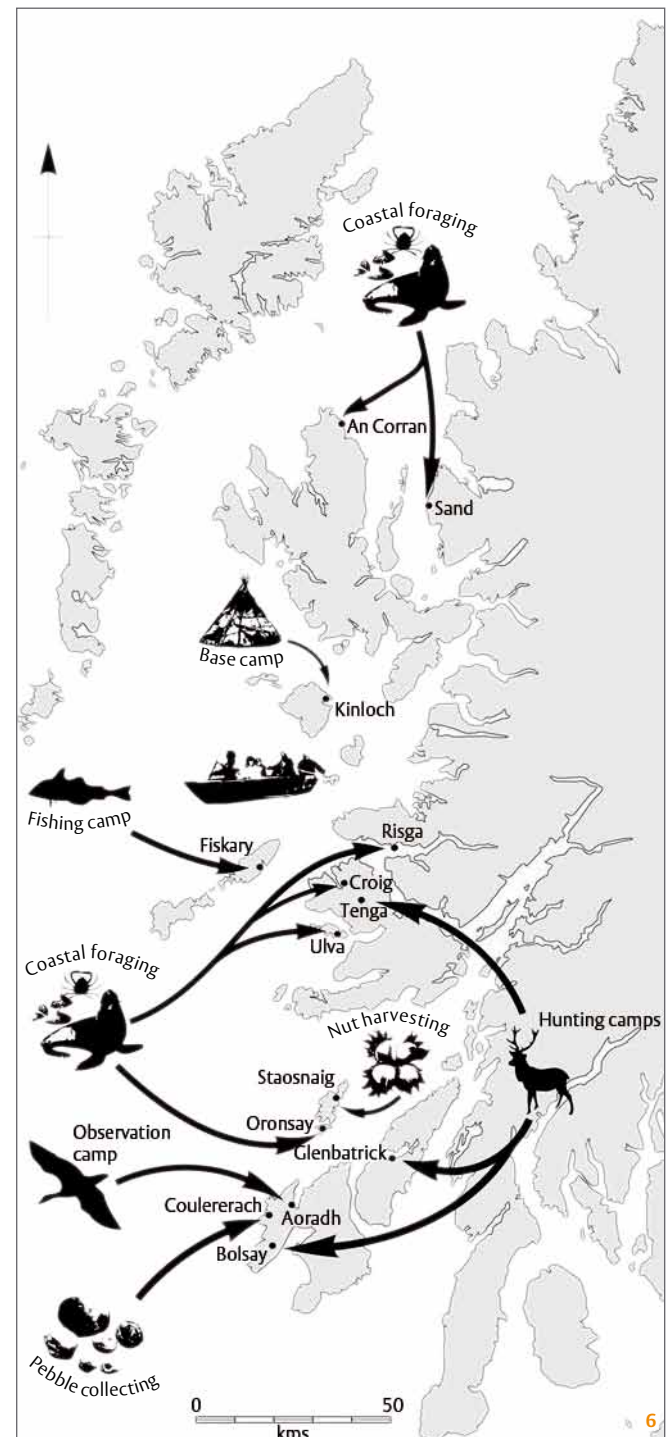
It is within the context of this research that the two new sites discovered on Islay by Donald James McPhee and Susan Campbell are of particular interest. Steven Mithen was unable to locate any Mesolithic sites in north-east Islay despite walking all of the available ploughed fields and inspecting all erosion scars during his field campaign between 1992 and 1995 on the island. Also, none of the sites elsewhere in Islay have produced animal bones and hence all interpretations have been based on stone artefacts and charred plant remains alone. As such, Storakaig and Rubha Port an t-Seilich are important discoveries which required archaeological evaluation.

6 John Mercer discovered and excavated several Mesolithic sites on Jura, published in the *Proceedings of the Society of Antiquaries of Scotland* (1968, pp 1–100; 1970, pp. 1–30; 1971, pp. 1–32; 1972, pp. 1–22; 1974, 9–32; 1980, pp 1–31; his work was continued by Susan Searight, *Proceedings of the Society of Antiquaries of Scotland* 1990, pp. 2–16)

7 Five shell middens are known on Oronsay – heaps of shells, fish bones, animals and stone artefacts deriving from Mesolithic coastal foraging. Following initial excavations of these middens by antiquarians in the late nineteenth and early twentieth century, these were excavated by Mellars (1987, *Excavations on Oronsay*, Edinburgh University Press). He demonstrated that the middens date to the end of the Mesolithic period, between 6800 and 5400 BP.

8 An account of Steven Mithen's fieldwork in the Hebrides is provided in his 2010 book *To The Islands*, Two Ravens Press.

6 Steven Mithen's reconstruction of the Mesolithic settlement pattern in western Scotland, prior to the discovery of Storakaig and Rubha Port an t-Seilich. This shows how the archaeological evidence from each of the known sites suggests a different type of hunting and gathering activity, indicating how the Mesolithic people would have moved around the islands and mainland, exploiting different type of resource at different times of the year.





Sue Mithen
Cook

Sarah Elliott
Environmental
Supervisor

Karen Wicks
Field Director

Darko Maričević
Excavation
Supervisor

Steven Mithen
Project Director

Matt Gittins
Excavation
Supervisor



Claire Rambeau
Quaternary Scientist

Françoise Voisard
Photographer,
Surveyor, GIS

⁷ The Islay 2010 field team – a mix of professional archaeologists, students and academics from the University of Reading, friends and family.

Archaeological Evaluation

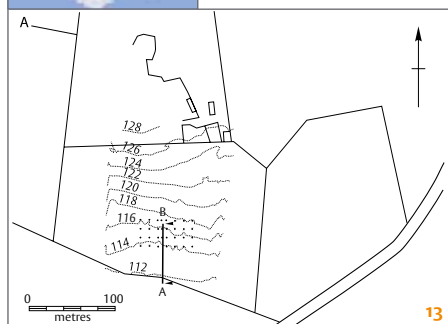
Fieldwork was undertaken at both sites with the aims of:

- Acquiring systematically collected samples of archaeological materials
- Mapping the distribution of artefacts to assess the total extent of archaeological deposits
- Identifying whether any features, such as hearths, rubbish pits and postholes are present
- Establishing the stratigraphic sequence at both sites
- Acquiring samples for radiocarbon dating

The excavation at Storakaig was supervised by Matt Gittins and that at Rubha Port an t-Seilich by Dr Darko Maričević, who also undertook a geophysical survey at Storakaig, extending this to cover some of the archaeological remains of the Airigh Ghuaidhre township located adjacent to the Mesolithic site⁹. Dr Claire Rambeau and Dr François Voisard undertook survey and photography of the sites and the coastal survey along the Sound of Islay. As a whole, the field team involved 20 archaeologists and students (7). Analyses of the samples acquired by the fieldwork were undertaken by Dr Anne Pirie (chipped stone), Dr Claire Ingrem (animal bone) and Dr Karen Wicks (charred plants). Analysis of the coarse stone artefacts is on-going by Dr Anne Clark¹⁰. Ten samples of charred hazelnut shell, three from Storakaig and seven from Rubha Port an t-Seilich were submitted for radiocarbon dating. During the fieldwork season, Karen Wicks undertook an evaluation of the peat deposits within Loch Bharradail. A sample of the peat from the maximum depth she was able to core was also submitted for radiocarbon dating.

⁹ The geophysical survey of monuments at Airigh Ghuaidhre township has been reported by Dr Maričević in *Discovery and Excavation in Scotland* (2010).

¹⁰ This report summarises the reports prepared by Matt Gittins, Darko Maričević, Anne Pirie and Claire Ingrem. Anne Clark's study of the coarse stone artefacts is on-going.



8 The first few days of the field season were beset by wet weather. This made cleaning the section of the drainage ditch at Storakaig a particularly muddy task. Once cleaned, however, the section provided an excellent view of the Mesolithic occupation horizon sealed between the peat and underlying glacial clays.

9 Everything on an archaeological dig must be meticulously recorded. Here we see Matt Gittins who supervised the work at Storakaig recording the ditch section that exposed the horizon of black occupation deposit.

10 Once cleaned, the black occupation horizon at Storakaig that contains stone artefacts, fragments of animal bones and charred plant material is clearly exposed in the section of the ditch, below the peaty topsoil and above the orange clay that had once been deposited below a glacier during the last ice age.

11 Section drawing of the ditch at Storakaig. The ditch section is 30m long and must be recorded by accurately drawing all the features contained within the ditch, along with their elevation relative to ordnance datum. Even though the section drawing is drawn to a reduced scale, its length means that it was necessary to split the drawn section in to two halves so that it fits neatly and can be examined on the same page. The black Mesolithic occupation horizon (SK106) can be seen cropping out as a thin lens on the right-hand side of the upper half of the drawn section (A) and almost entirely throughout the lower half (B).

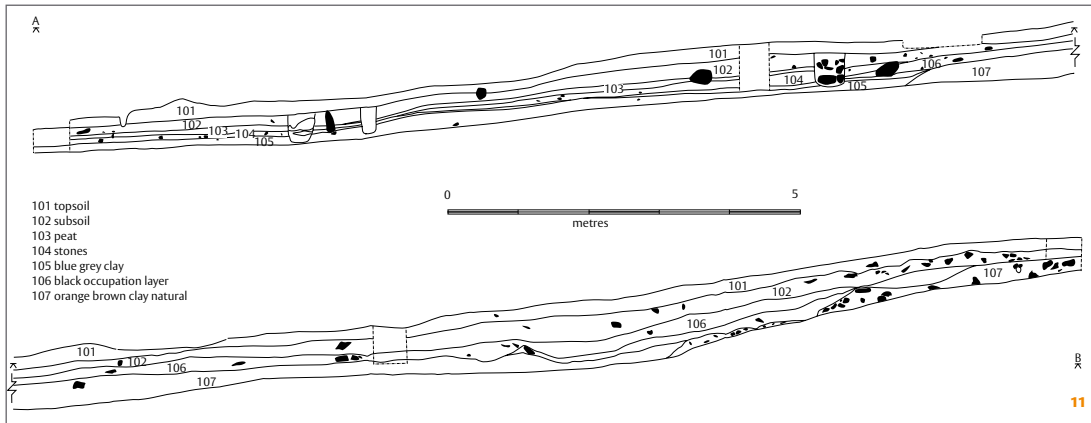
Storakaig

Site stratigraphy and the spatial extent of the Mesolithic occupation

The artefacts at Storakaig were found within the up-throw of a drainage ditch, running approximately north-south and dug into a gently sloping expanse of open moorland, immediately adjacent to the deserted township of Airigh Ghuaidhre. A thirty meter length of the east-facing drainage ditch section, between 112m and 116m OD, was cleaned (8), photographed and drawn (9). This revealed a black band of organic-rich deposit (context SK106), sandwiched between peaty sediments (above) and silty clays (below) (10, 11). It contained chipped stone artefacts, coarse stone artefacts, fragments of animal bone and charred plant material. These appeared to be at varying densities along the course of the section. This horizon extended for approximately twelve meters on the higher part of the slope (above 114m OD); it reached a maximum thickness of 270mm, and lensed out at c. 113m OD, where it was

replaced by a thin (2cm) horizon of peat within the silty clay. As such, we interpret the organic and artefact rich horizon (SK106) as being the remnants of an *in situ* Mesolithic occupation, located immediately upslope from an area of boggy ground that resulted in the formation of the peat horizon.

To determine the spatial extent of the Mesolithic occupation deposit and to acquire samples of stone artefacts a test-pit (12) and augur survey was undertaken. Thirty-eight 0.5m square test-pits were excavated on a 10m grid covering a total area of 30m (N-S) by 60m (E-W) centred on the drainage ditch (13, 14). All sediment from each test-pit above the underlying natural geology (either silty-clay or bedrock) was excavated as a single unit. Thirty litres of sediment from each test-pit (two rubble sacks) was washed through a basket sieve with a 3mm mesh (15, 16, 17); the



12 The test-pits at both Storakaig and Rubha Port an t-Seilich produced large numbers of chipped and coarse stone artefacts. This shows a typical collection of flint and quartz artefacts left to dry after they had been picked from the wet sieve residue and then washed. Once dry they were sealed in a poly-bag and labelled, before being sent to Dr Anne Pirie who catalogued each artefact as to its raw material, whether it is burnt, rolled or fresh and what type of waste flake or tool it represents.

13 Illustrated site plan of the Storakaig excavation showing the location of the ditch and test-pits positioned on the slopes just south of the Airigh Ghuaidhre township.



14 Test-pitting at Storakaig. This is the only way to map the distribution of artefacts and the occupation deposits. Samples of the sediment are washed through a wet sieve and then the residue sorted for artefacts.

15 Wet sieving at Storakaig. This is a time-consuming but essential part of the excavation process because the small artefacts, fragments of bone and pieces of charcoal would not otherwise be found within the peaty, muddy sediment – and some of the smallest artefacts are the most important.

16 A typical residue left in the bottom of the wet sieve after all of the fine sediment has been washed away. Pieces of chipped flint and quartz can be seen among the stones.

17 The second week of the field season was blessed with hot, sunny and dry weather. This enabled us to dry the residues from the wet sieving at Storakaig in the sun before beginning the painstaking task of sorting them to remove all artefacts and other materials.

18 & 19 Once the residues from the wet sieves have been dried, they must be meticulously sorted, removing any artefacts, bones and indeed anything that may be of archaeological significance – nice work in the sunny weather towards the end of the dig.

residue was then sorted for archaeological materials (18, 19). The stratigraphy within each test-pit was recorded. The Mesolithic occupation deposit (context SK106) was only found within the test-pits located 10m west from the ditch; elsewhere peaty top-soil and loamy-sub-soil was located directly on the underlying geology. With few exceptions, however, all test-pits contained stone artefacts. In light of the cultivation of the area by the past inhabitants of the Airigh Ghuaidhre township, only those stone artefacts found within the Mesolithic occupation horizon (SK106) can be assumed to be in situ. Four test-pits revealed archaeological features: two were modern, the remnants of a slate wall and a still active stone-built field drain; two are indeterminable of date, a stake-hole and shallow pit (or the terminus of a linear feature).

To ascertain the distribution of the occupation horizon

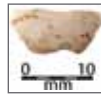
on the eastern side of the ditch, an augur survey was undertaken. Nineteen cores were taken at either one metre or two metre intervals up to 10m east of the trench. The lithostratigraphy of each core was recorded and the occupation horizon was found within nine of them. From the test-pitting, auguring and the ditch section, we estimate the surviving Mesolithic occupation horizon to cover a sub-elliptical area approximately 17m by 20m. This coincides with the area delimited by test-pits with particularly large numbers of chipped stone artefacts: 75% of the 4362 recovered came from just eight of the test-pits, all located within the bounds of the elliptical area where the occupation horizon is inferred to exist. Although a geophysical survey was undertaken, this failed to identify any anomalies likely to be Mesolithic features within this occupation area.



20 Here we see the occupation horizon within the 3x3m trench at Storakaig being excavated. The trench had been gridded into 0.5m squares so that we could maintain some degree of spatial control over where the artefacts had come from. Samples were taken from this black deposit for wet sieving and produced large quantities of animal bone fragments and charred hazelnut shells as well as stone artefacts.

Recovering archaeological samples and material for radiocarbon dating from the occupation horizon

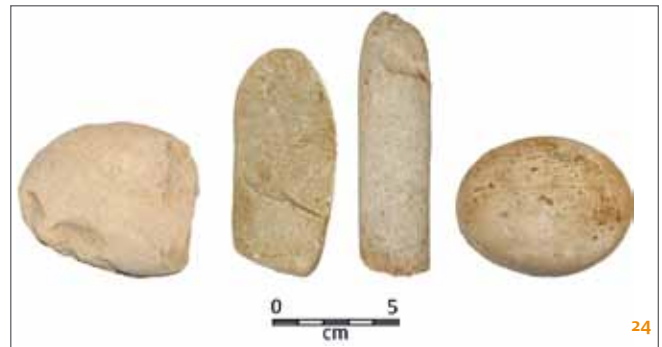
A 3m by 3m trench was excavated at 114m OD within the area of the occupation deposit, the eastern edge of this trench being provided by the ditch section (20). Following removal of the peaty top-soil (context SK101) the underlying sub-soil (SK102) had a 0.5m grid imposed across its surface and 10 litres of sediment was taken from each of the resulting 36 squares for wet sieving through a 3mm mesh; a further five litres was taken for sieving through 4mm/2mm/1mm/0.5mm meshes in laboratory conditions. The remaining sediment within each square was sorted by hand for archaeological materials. Removal of the sub-soil in this manner exposed the surface of the occupation deposit (SK106) that appeared entirely homogeneous across the extent of the trench. This was sampled in the same manner, although time constraints meant that only 10 of the 36 squares of this horizon could be excavated.



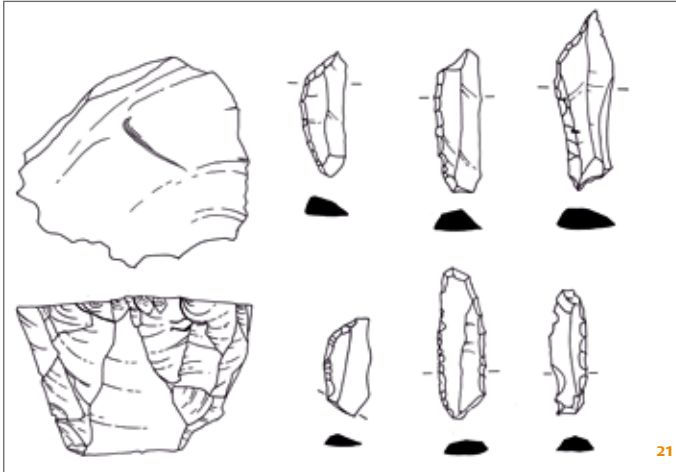
22



23



24



21

The stone artefacts

This small scale fieldwork generated a large sample of chipped stone artefacts: 4362 from the test pits, 4184 from horizon SK102 in the 3m by 3m trench, and 1969 from the underlying and only partially excavated horizon of SK106. Artefacts that were greater than 5mm in size coming from the trench (contexts SK102 and SK106) and from the occupation horizon (SK106) within the two test-pits in which this was found, were catalogued according to their artefact class, raw material and condition. Artefacts from these contexts less than 5mm were counted and their raw material recorded. The artefacts coming from the test-pits were counted and scanned.

The collection as a whole is clearly Mesolithic with no significant sign of more recent periods as would be denoted by distinctive Neolithic or Bronze Age artefacts. Diag-

21 Mesolithic chipped stone artefacts from Storakaig and Rubha Port an t-Seilich. A platform core is illustrated on the far left next to six microliths.

22 Mesolithic hunter-gathers used a range of different geological materials to make their stone tools. After flint, quartz was the most popular, as illustrated in this artefact from Storakaig. Because quartz does not fracture so cleanly as flint, it takes a particularly high level of archaeological expertise to identify a deliberately made quartz artefact from pieces of quartz that have naturally fractured. This piece has been flaked to produce a tool that is likely to have been used for scraping skins.

23 Microliths can be very small and require a magnifying glass to appreciate the skilful flint knapping used to make them – as Lord George Robertson is doing so here. They were most likely the components for a wide range of tools, including arrow points and barbs, knife blades and drill points.

24 A typical range of the coarse stone artefacts recovered from the Mesolithic sites at Storakaig and Rubha Port an t-Seilich. Some of these would have been used as hammer stones for making stone tools from flint pebbles; others would have been used for processing plant foods, pummelling skins to make them soft and for removing limpets from rocks to use for either food or fish bait. The chips on the surfaces of three of the stones in this image may have occurred during their use as striking implements.

nostic Mesolithic artefacts such as microliths, bladelets, microburins and platform cores are all present, the large majority being made from flint with some use of quartz and occasional other materials (21, 22, 23). There are some interesting differences between the assemblages from the occupation horizon (SK106) and that from the non-occupation horizon contexts in the test-pits. The latter appears to have more traditional ‘narrow-blade’ elements with numerous scalene triangles and sub-pyramidal cores. Diagnostic Mesolithic elements and signs of tool-making itself are relatively rare within the occupation horizon (SK106), which also has a higher frequency of artefacts made from quartz (45%) rather than flint (11%). If this difference is real, then there are two possible interpretations that will need to be tested by further excavation: either there are two cultural phases at the site or there is spatial variability within the site activities resulting in the deposition of contrasting chipped stone debris.

Two hundred and seventy artefacts of coarse stone were recovered from Storakaig (24). These included spherical pebbles which had most likely to have been used as hammerstones. Some of these rounded pebbles had signs of abrasion, or ‘plecking’, on their surfaces and have been identified by Dr Ann Clark as a distinctive coarse stone tool type for the Mesolithic of western Scotland. Elongated pebbles which are traditionally described as ‘limpet hammers’ but were most probably used for numerous functions, and large flakes of stone were also part of the coarse stone tool assemblage.

The animal bone

Several thousand fragments of animal bone were recovered from Storakaig (25). These were all found within the occupation horizon (SK106) and collected by either hand picking from the deposits or extracting from the wet sieve residues. Samples for the laboratory sieves (4mm/2mm/1mm/0.5mm) remain to be processed. The majority of fragments are less than 10mm making identification of diagnostic anatomical features extremely difficult, a challenge that is exacerbated by distortion of exposed surfaces by burning.

All pieces over 2mm were examined as to their degree of erosion, each piece being assigned a score between 1 (excellent) to 5 (poor). The majority were found to be of a good condition, although almost all were cracked and calcined, indicating exposure to high temperatures which is the likely cause of the fragmentation. This may have occurred during cooking but is more likely a consequence of being placed directly into hot ashes, either simply as discard or possibly as a source of fuel.

An attempt was made to identify each fragment of bone to species and anatomical part¹¹. Fifty-two pieces were identifiable to species. More than half of these are from roe deer (*Capreolus capreolus*) (26); several are from red deer (*Cervus elaphus*) (27) with wild boar (*Sus scrofa*) (28) and badger (*Meles meles*) (29) represented by single specimens. Almost all of the identifiable pieces are foot bones, especially carpals and phalanges, although pieces of femur, tibia and tarsal bones are present.



¹¹ The challenge of making species identification from such small fragments was compounded by the morphological similarity between red deer (*Cervus elaphus*) and roe deer (*Capreolus capreolus*), especially as a dwarf population of red deer appears to have been present during the Mesolithic.



27



28



29

25 Thousands of fragments of burnt and calcined animal bone were found in the Mesolithic occupation horizon at Storakaig. The cracks and bluish white discolouration to the surfaces of the bone arise from exposure to naked flames after de-fleshing.

26 Foot bones from either the smaller native deer species, the roe deer (*Capreolus capreolus*), or possibly from a native dwarf species of red deer that existed in Scotland during the Mesolithic period.

27 Tiny foot bones from red deer (*Cervus elaphus*). Bones from the feet of variety of different animals were found preserved in the Mesolithic horizons at Storakaig and Rubha Port an t-Seilich. These are likely to derive from the waste of domestic fires. Foot bones are commonly encountered in archaeological hearth deposits while other skeletal components have rotted away. This is because the small bones of the foot are denser than other bones, and tend to preserve better.

28 A foot bone (3rd phalanx) from wild boar (*Sus scrofa*). Bone fragments from wild boar were found both at Storakaig and Rubha Port an t-Seilich.

29 Burnt bone from the foot (2nd phalanx) of a badger (*Meles meles*) found in the black occupation horizon at Storakaig. Were the Mesolithic inhabitants of Storakaig hunting, killing and consuming badgers along with larger mammals such as wild boar and deer?



The plant remains

The charred plant material included 7 fragments of charcoal from four test-pits distributed across the test-pitted area, while 41 fragments of charred hazelnut shell were recovered from two test-pits located to the west of the ditch at c. 114m OD. These were collected either by hand-picking or sieving through a 3mm mesh on site. All the charred plant remains from the test-pits were highly fragmented and less than 4mm in size. Approximately 1500 fragments of charred hazelnut shell were recovered from the occupation horizon (SK106) either by hand-picking or wet sieving on site using a 3mm mesh with a further c. 90 fragments collected in sieves (4mm, 2mm, 1mm, 0.5mm) in the laboratory (30, 31). Twenty five fragments of wood charcoal were also collected from the occupation horizon using the same methods of recovery. These pieces were well-preserved and larger than 4mm in size and on-going work will determine the source of wood to provide information about the composition of local woodland. The overlying sub-soil (SK102) contained less charred plant remains with 6 fragments of charred hazelnut shell and c. 15 pieces of wood charcoal collected either by hand-picking or sieving through a

30 Hundreds of fragments of charred hazelnut shell were found in the Mesolithic horizons at Storakaig and Rubha Port an t-Seilich.

31 Modern hazelnuts from the hazel tree (*Corylus avellana*). This small tree/tall shrub was an important natural resource to Mesolithic hunter-gatherers who collected its nuts during the late summer and early autumn and used the straight, flexible branches of coppiced hazel to provide materials for manufacture, fuel and structures.

3mm mesh on site. Charred stems and seed heads of *Juncus* spp. (rush) were also recovered from the sub-soil. Charred hazelnut shells are frequently encountered on Mesolithic sites in western Scotland. Hazelnuts provided a staple ingredient in Mesolithic diets served either roasted or mashed into a paste. While the nutritious nuts were eaten, their shells were discarded in domestic fires as waste or perhaps used to add fuel to the fire. Furthermore, the charcoal preserved on site is likely to derive from wood used to fuel these domestic fires.



The radiocarbon dates

A fragment of charred hazelnut shell¹² collected during reconnaissance of Storakaig in June 2009 returned a radiocarbon date of 5350 ± 50 ^{14}C BP (Beta-264734). When calibrated, this provides an age of between 6277 and 5996 cal BP¹³ which is within the final phase of Mesolithic activity in western Scotland immediately prior to the start of the Neolithic. The only other sites with dates of this period currently known in western Scotland come from the shell middens on Oronsay and Staosnaig on Colonsay. This date is, however, of limited value because the specific context from which the dated fragment of hazelnut shell derived is unknown, it being collected from the up-throw of the ditch. The fieldwork determined that all charred plant remains at Storakaig are located within the occupation deposit (SK106) and consequently we can be confident that this is the horizon dated by the radiocarbon date. To verify this, three further fragments of charred hazelnut shell

recovered from this horizon were submitted for radiocarbon dating, with the following results:

SK Trench 1 106	5120 ± 40 ^{14}C BP (Beta-288429, 5930-5750 cal BP)
SK Trench 1 106	4970 ± 40 ^{14}C BP (Beta-288430, 5860-5600 cal BP)
SK Trench 1 106	5130 ± 40 ^{14}C BP (Beta-288431, 5940-5750 cal BP)

When calibrated, these dates lie between 5750 and 5930 cal BP, slightly younger than the original date had suggested but with precisely the same implications for the date of the occupation horizon at Storakaig: late Mesolithic activity overlapping in age with the fishing and coastal foraging on Oronsay. As such, the Storakaig site appears to provide a complementary element of the Late Mesolithic settlement system, once concerned with hunting deer and wild boar and gathering hazelnuts, and presumably other food, at an inland location on Islay.

¹² Charred hazelnut shell rather than wood charcoal is the preferred dating material because the latter may already have been 'old', in terms of being dead wood, when used and burned by Mesolithic people. We can be confident that a hazelnut shell is burned in the same year as the nut was collected.

¹³ cal BP refers to calibrated years 'Before Present', which is formally designated by archaeologists as AD1950. Consequently a date of 6000 BP is in fact 6061 years old from the actual present day of 2011.

32 Loch Bharradail provided an excellent location for peat coring on a particular sunny day during the excavation. Here we see Karen Wicks and her assistant about to take a core from 6.5 metres deep – a surprisingly deep deposit of peat. Even more surprising the peat at 6.5m deep was only 2000 years old, suggesting that there are several more metres of peat at Loch Bharradail yet to core.

33 Peat from 6.5 metres deep at Loch Bharradail. This will contain pollen grains that will tell us about the trees and shrubs that used to grow where there is now open moorland. It may also contain microscopic pieces of charcoal from prehistoric fires and even volcanic ash that had once fallen on Islay originating from eruptions on Iceland.





33



32

Loch Bharradail

A location to the immediate south of the standing water within Loch Bharradail was selected for a test-core. A depth of 6.5 metres was reached using the available coring equipment – with no sign that the base of the peat was being approached (32). A sample of peat from the base of the core (6.5m) was radiocarbon dated to 2020 ± 40 ^{14}C BP (Beta-288422, 2100-1880 cal BP). This indicates a rapid accumulation of peat within the basin, suggesting that pollen and other indicators will be able to provide a detailed record of the recent environmental history, one influenced by climate change, ecological succession and human activity (33). Whether the Loch Bharradail deposit will also reach back into the Mesolithic period remains to be determined. This will require a further programme of coring along transects perpendicularly aligned across the basin to determine the position of the deepest peat deposits. Once established, multiple cores will be collected for radiocarbon dating and potentially detailed palaeoenvironmental analysis.

It was an absolute privilege to work so closely with the University of Reading's world class team of leading archaeologists, technical specialists, knowledgeable locals and bright students on the excavations at the Dunlossit Estate in summer 2010. As a complete novice volunteer, it was so rewarding to know that my very small contribution – hand-washing the artefacts – will help the team to complete its project and the people of Islay to better understand their heritage. Thank you to Professor Mithen and his team for making me feel so welcome – a real highlight of my year.

Richard Norman (University of Reading Alumni Office)

Living and working on Islay

Although several of the 20-strong field team had extensive prior experience of excavating Mesolithic sites in the Hebrides, only Steven Mithen and his family had previously worked on Islay and knew the island. The team stayed in the Craigard apartments and Robolls Croft Cottage, Ballygrant. Although we were a little squashed, especially at meal times (34), this provided excellent accommodation with plenty of outdoor storage space for our equipment and room to process our finds (35). After a few wet days at the start of the excavation, the weather was simply fantastic – dry, warm and brilliantly sunny that made tea-break on site simply idyllic (36). The weather even tempted many of the team into the sea, which wasn't quite so warm! (37). The days-off and evenings were spent exploring Islay, including bird-watching, pony-trekking, distillery tours (38) and enjoying the Gaelic folk music in the Port Charlotte Hotel (39). We found that wherever we went on Islay, people had heard about the excavation and were keen to learn what we had found. Several groups appeared at the site for a tour of the excavation (40) and as the field season came to its close, it was a particular pleasure to provide a presentation about our finds in the Dunlossit Estate Office (41).



I have worked in the Hebrides on Professor Mithen's excavations for several years and always enjoy it. Working and living with the team is great fun, the archaeology important and the landscape beautiful – even when it's raining!

Lauren Hale (Department of Archaeology undergraduate student)

My main activity on these beautiful wild Islay sites was wet sieving and washing, drying and identifying the Mesolithic artefacts for further sorting and cataloguing. I was also volunteered to make the breakfast porridge for the other 15 members of the team! During tea break a pleasant distraction was watching the Basking sharks circling below us in the Sound of Islay.

Jim Hill (volunteer)



37

34 Digging is hungry work! During the field season the 20 strong field team were based at Craigard Cottages in Ballygrant. With its outhouses this provided excellent accommodation for storing our equipment, wet clothes and finds. The team just managed to squeeze into one of its dining rooms for dinner each day – lunch being eaten in the field. Sue Mithen did a sterling job as the dig cook – one of the most important positions on the dig.

35 All the stone artefacts need washing by hand – and the two week field season produced more than 20,000 specimens. This work is good to do on sunny days but one must be wary of sudden breezes that risk blowing away the labels that tell us where each artefact was found.

36 Tea-break at Storakaig – a chance to enjoy the fantastic sunny weather of the second week of the excavation.

37 Day off – diggers playing frisbee in the sea at Machir Bay.

38 A visit to Bunnahabhain Distillery.

39 An evening enjoying Gaelic music and the Islay ales and malts in the bar of the Port Charlotte Hotel.

40 Steven Mithen showing visitors the site of Storakaig.

41 Steven Mithen showing artefacts to Lord George Robertson, Malcolm Ogilvie and staff in the Dunlossit Estate Office. Informing residents and visitors to Islay about the finds from his digs has always been one of Steven's priorities – this way he encourages others to go looking for artefacts and more sites can then be found.



35



38



39



36



40

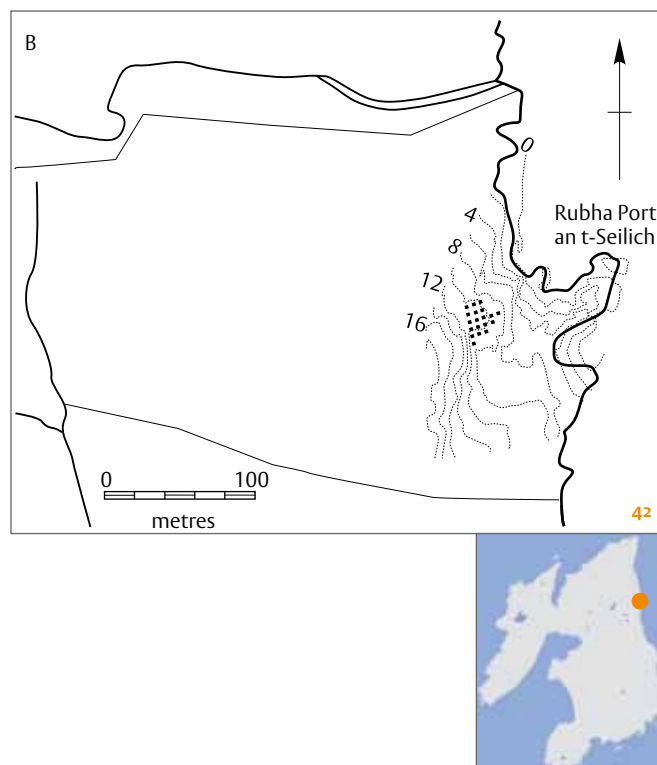


41

Imagine isolating yourself on a remote island with fascinating archaeology, spectacular scenery, diverse wildlife and a friendly local community. Pretty much sums up my time on Islay.

Rizwan Ahmad (Department of Archaeology undergraduate student)





42 Site plan showing the distribution of test-pits across the coastal terrace at Rubha Port an t-Seilich.

43 & 44 Because of the depth of the deposits and the presence of multiple layers, the test-pits at Rubha Port an t-Seilich were one metre squares. Artefacts were collected by hand as the sediment horizons were excavated and then a sample of each horizon was washed through a wet sieve with a 3mm mesh.

Rubha Port an t-Seilich

Site stratigraphy and spatial extent of Mesolithic deposits

Rubha Port an t-Seilich is a rocky promontory which protrudes between the bays of Port Mòr in the north and Fionn-phort in the south on the west coast of the Sound of Islay. The stone artefacts had been collected from a terrace forming a flat area approximately 40m by 30m, its boundary being formed by a steep slope to the east (leading to the seashore), a sallow thicket and small burn to the north, a small (3m) vertical cliff to the west, and a protruding rock outcrop and slope towards boggy ground to the south. Traces of recent activity in the form of rig and furrow cultivation, walls and ditches are located on and immediately surrounding the terrace; the extent of vegetation cover precluded a survey of these standing remains during the archaeological evaluation.

To explore the terrace, twenty 1m² test-pits were excavated on a five metre grid, covering its entire extent (42, 43); the size of the test pits reflected the depth and nature of the deposits, several requiring large angular stone blocks (collapse from the cliff) to be removed. The test-pits were designated by grid co-ordinates, 0/0 in the south-west corner to 15/20 in the north-east. Each was fully excavated to the underlying bedrock, this being found at a depth of 10–20cm immediately below the top soil on the eastern edge of the terrace but over a metre deep at the western edge, below the low cliff and where colluvium had accumulated (44). These test-pits and those within the central part of the terrace contained stratified deposits. Artefacts were hand collected during excavation and by sorting wet sieve residues: 30 litre samples from each test-pit



45

were washed through a 3mm mesh (45), while further samples were taken from selected contexts that appeared of particular archaeological importance. The stratigraphic sequences within each test-pit were given their own unique set of context numbers. A provisional correlation between test-pit contexts was made to derive an overall sequence of deposits, these being given generic unit numbers within this report (RPS1, RPS2 and so on).

Deposits of varying coloured sands (2–10cm thick, yellow to grey, RPS1) were found immediately above the bedrock. These were culturally sterile and most likely derived from degraded bedrock. Overlying these were mottled sandy-silts (RPS2¹⁴) that filled bedrock crevices within some of the test-pits and contained low densities of stone artefacts. Features had been cut into this horizon: post-holes were found in two of the test-pits (15/5 and 15/10) and traces of a wall within test-pit 10/15. The bed rock exposed at the base of the posthole in test-pit 15/5 was noticeably cracked and reddened, suggesting intense heat.

Following the activity designated by these features, a horizon of black peaty silt containing a high percentage of gravel (RPS3) formed across the site, either sealing these

45 Wet sieving at Rubha Port an t-Seilich, perhaps the most picturesque location in the Hebrides to get soaking wet.

features or forming directly above the mottled sands (RPS2). This horizon and all later horizons contained high densities of chipped stone artefacts and coarse stone artefacts. Two of the test-pits (5/0) and (10/15) had a thin band of clean peat (lacking gravel) on either side of this horizon, while several test-pits (5/0, 5/10, 10/15, 5/15 and 15/10) had a distinct 'shingle' horizon (RPS4) either between or underlying the peaty-horizons (RPS3). The peaty and shingle horizons in test-pits 0,10, 5,10 and 10,15 contained small fragments of animal bone.

These peaty and shingle horizons were sealed by poorly-sorted colluvium (RPS5) in the test-pits at the western side of the terrace close to the small cliff; immediately above this, and above the black peaty silts (RPS3) in the test-pits to the eastern side of the terrace, there was a loamy subsoil (RPS6) containing fragments of glazed pottery. This had a uniform character across the site suggestive of a cultivated soil, most likely relating to the surrounding walls, ditches and rig & furrow and was immediately below a top-soil/bracken root mass (RPS7).

¹⁴ RPS2 encompasses the following contexts by test pit: (7) in 0/0; (154) in 0/5; (34) in 0/10; (178) in 0/15; (167) in 5/0; (201) in 10/15; (105) in 15/10



46 In this photo fractures on the sides of a flint platform core can be seen, which have been meticulously struck in a very precise way to remove flakes for use as tools and blades. This platform core was found at Rubha Port an t-Seilich.



47 Microliths from the Mesolithic site at Storakaig.

The stone artefacts

Approximately 9500 chipped stone artefacts were recovered from Rubha Port an t-Seilich. As at Storakaig, this is a notably high total for such small scale fieldwork suggesting intensive Mesolithic activity. The artefacts from Rubha Port an t-Seilich derived from all contexts above the degraded bedrock and were notably dense within the topsoil (RPS6), subsoil (RPS5) and colluvium (RPS4). Limited resources meant that only a small sample (400) of these artefacts could be catalogued, these being primarily selected from the sandy (RPS2), peaty (RPS3) and shingle (RPS5) horizons. All horizons contained diagnostic Mesolithic artefacts in the form of either microliths, bladelets, blade cores and/or core trimming elements. A few artefacts of a potential Neolithic date were identified within the assemblage coming from the shingle layer (RPS4), which accords with similar artefacts found within the initial surface collection of 2009. Other than these few artefacts, the artefact collection as a whole represents a 'classic' Mesolithic narrow blade assemblage. There is a wide range of tool types – microliths (of various types), scrapers, notches, denticulates and so forth, suggesting a diverse range of past activities.

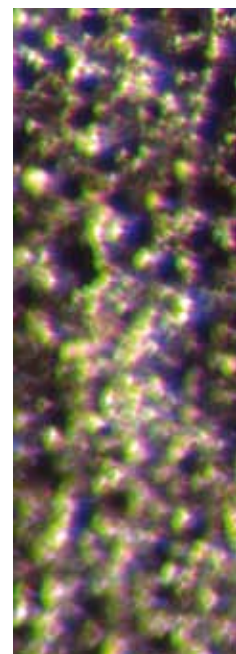
Flint and quartz had been used as the raw materials, with the highest percentage of quartz artefacts (13%) coming from the mottled sand horizon (RPS2). The majority of artefacts are in good condition, with only 2% having battered edges and 3% rolled edges. Nearly 20% of the assemblage is burnt. The flint artefacts had been made from small beach pebbles, but few had any cortex present. This suggests that the initial stages of artefact manufacture had been undertaken elsewhere,

either in the immediate vicinity of the site or at some distance – the primary source of flint pebbles on Islay being on the west coast. In light of the platform core technology represented (46), the intention has evidently been to produce small, fine blades, a selection of which was then retouched to form tools such as microliths (47), awls and burins. Larger tools, such as scrapers and notches had been made from flakes.

There are considerable differences in the artefact collections coming from the different horizons at the site. That from the basal sandy layers represents higher levels of tool making activity, a higher frequency of blades rather than flakes, and a greater use of quartz than the collection from the overlying peat and colluviums layers. The artefacts from within the peat and shingle layers are more frequently burnt. There is also considerable variability in the artefact collections coming from the same horizon but different test-pits: the peat horizons in test-pits 10/5 and 0/5 had notable differences in the frequencies of burnt artefacts, regular bladelets and proportion of quartz. Overall, the artefact collections suggest there had been changes in the activities taking place at Rubha Port an t-Seilich over the period of occupation, while there had also been different activities taking place in different areas of the site at any one time.

Approximately 200 coarse stone artefacts were recovered from Rubha Port an t-Seilich – a particularly large and impressive collection for the Mesolithic of western Scotland. This collection was more diverse than that from Storakaig, including some particular fine, flat elongated artefacts, and rounded, surface-pecked beach cobbles.

48 A vertebra bone from the spine of a sea bass (*Dicentrarchus labrax*), a marine fish that lives in the littoral zone only to c. 10m in depth. This fish bone is likely to have come from a fish that was caught, cooked and eaten by the shores of the Sound of Jura as it was found in a Mesolithic horizon at Rubha Port an t-Seilich.



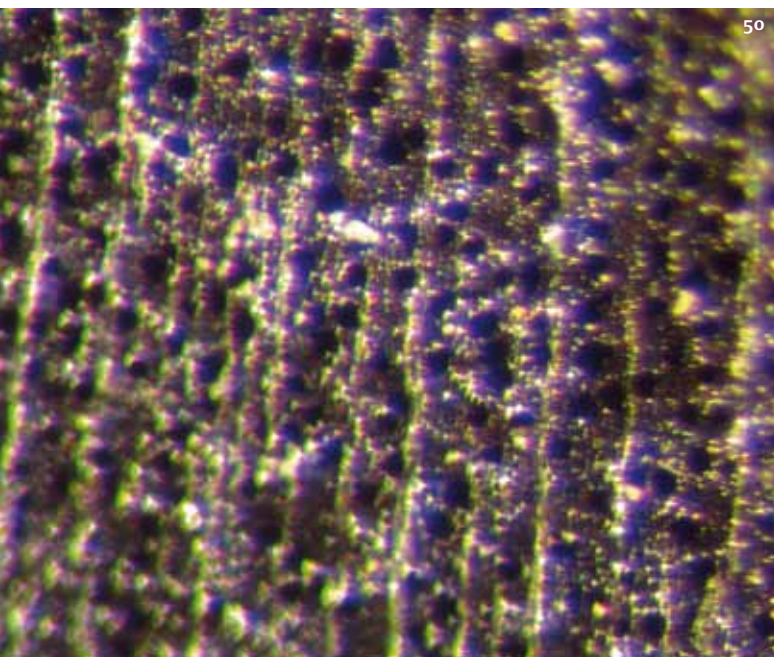
The animal bones

Seventeen fragments of animal bone were recovered from Rubha Port an t-Seilich, these coming from the sand (RPS2) and peat (RPS3) horizons. Their condition was strikingly similar to the bone fragments from Storakaig: the majority being less than 10mm in size, heavily burnt but otherwise in good condition. Only five fragments were identifiable: roe deer is represented by a sesamoid, red deer by a scaphoid carpal, and wild boar by a patella. Two fish caudal vertebrae probably come from sea bass (*Dicentrarchus labrax*) (48). As at Storakaig, the highly calcined nature of the bone fragments suggests that they had originally been placed within a fire, either as a source of fuel or simply when discarded.

The plant remains

Approximately 270 pieces of wood charcoal were collected from thirteen of the twenty test-pits at Rubha Port an t-Seilich¹⁵. These were collected on-site either by hand-picking or sieving using a 3mm mesh (49, 50). The distribution of wood charcoal is restricted to the test-pits located within the centre of the terrace, with peripheral test-pits largely devoid of charred plant remains. Approximately 90% of the wood charcoal assemblage is well-preserved, consisting of fragments larger than 4mm. As such, it has considerable potential for reconstructing local woodland growing within the vicinity of the site. Approximately 160 fragments of charred hazelnut shell were also collected with a similar distribution across the site to that of the wood charcoal. Whether the Rubha Port an t-Seilich wood charcoal assemblage changes in species diversity and frequency over time remains to be determined, as does the relationship between the site stratigraphy and the occurrence of preserved plant remains. This will require a further systematic programme of bulk sampling and sieving of specific contexts.

¹⁵ Test-pits 0/0, 0/5, 0/10, 0/15, 5/0, 5/5, 5/10, 5/15, 10/0, 10/5, 10/10, 10/15, 15/5.



50

49 Fragments of wood charcoal were found at Storakaig and Rubha Port an t-Seilich that are likely to derive from the hearths of domestic fires used to cook food and to provide sources of light and warmth.

50 The study of the wood charcoal assemblage will provide information about the composition of local woodland growing on Islay during the Mesolithic period. The distribution of tiny vessels and cell structural elements in wood charcoal can be examined at high magnifications to determine the species of tree or shrub from which the charcoal derived. This photo of wood charcoal was taken using a camera attached to a high-powered epi-illuminating microscope and shows the anatomical arrangement of vessels from a birch tree (*Betula spp.*). The wood charcoal section is shown at a magnification of x100.

The radiocarbon dates

Six samples of charred hazelnut shell fragments from Rubha Port an t-Seilich were submitted for radiocarbon dating. These were selected from either the basal sand layers (RPS1) or the peat horizons (RPS2), and each came from a different test-pit:

RPS1 (RPS 0/10)	7540 ± 40 ¹⁴ C BP (Beta-288424, 8410-8320 cal BP)
RPS2 (RPS 10/5)	7660 ± 40 ¹⁴ C BP (Beta-288428, 8540-8390 cal BP)
RPS1 (RPS 5/15)	8240 ± 40 ¹⁴ C BP (Beta-288427, 9400-9080 cal BP)
RPS2 (RPS 0/5)	7820 ± 40 ¹⁴ C BP (Beta-288423, 8650-8540 cal BP)
RPS2 (RPS 5/0)	8230 ± 40 ¹⁴ C BP (Beta-288426, 9380-9030 cal BP)
RPS2 (RPS 0/15)	7010 ± 40 ¹⁴ C BP (Beta-288425, 7950-7710 cal BP)

These dates specify that the two lower horizons of Rubha Port an t-Seilich fall into the earlier Mesolithic period for western Scotland, there only being two sites within the region with older dates – Kinloch on Rùm (GU-81873: 8590 ± 95 ¹⁴C BP) and Creit Dhu, Mull (Beta-288421: 9080 ± 40 ¹⁴C BP). They indicate that activity at Rubha Port an t-Seilich occurred across at least a 1500 year period, appearing to have three phases of activity at around 9400 BP, 8500 BP and 7900 BP. The overall duration of Mesolithic settlement has not been established because dates have not, as yet, been secured from the uppermost horizons of the site. The presence of Neolithic artefacts suggests that there may be continuity throughout the Mesolithic and into the Neolithic.

51 Rubha Port an t-Seilich is just one of several terraces along the Sound of Islay. Artefacts were found on other terraces where the ground had been disturbed suggesting a number of Mesolithic sites along this coastline.

Coastal survey along the Sound of Islay

The coastline directly south of Rubha Port an t-Seilich has numerous terraces at the same elevation and consequently which may also have been the location of Mesolithic activity. A walking survey over these terraces, searching for artefacts wherever the ground surface had been disturbed, such as by pigs or erosion. Six possible sites were discovered in the distance between Rubha Port an t-Seilich and Fionn-phort, approximately one kilometre to the south (51). These were scatters of either flint artefacts or pieces of quartz that had likely been worked, and in some cases both materials together. No artefacts diagnostic to the Mesolithic were identified, but there is every reason to expect that these locations may have a similar sequence of deposits as discovered at Rubha Port an t-Seilich and hence would warrant an archaeological evaluation. The lack of finds south of Fionn-phort may simply be a consequence that this was beyond the limit of foraging by the pigs because this appeared to be the source of the disturbance leading to the other finds. Several caves exist on this coast line and were inspected for their potential to contain prehistoric deposits. This appeared unlikely in all of those considered because they were low lying and would have been flooded by the rise in sea known to have occurred around 6500 BP on Islay. This would have washed out any Mesolithic deposits from the caves before the sea level fell to its current level.





Overview

The fieldwork at Storakaig and Rubha Port an t-Seilich has established that both sites have stratified, *in situ* archaeological remains of the Mesolithic period; both sites have rich and diverse stone artefact assemblages, features, preserved animal bones and charred plant materials. As such they provide important additions to the archaeological record of the Mesolithic period. Their significance is enhanced by the contrast in dates: Rubha Port an t-Seilich falling at the earlier phase of the Mesolithic and Storakaig towards the end (52).

The period covered at Rubha Port an t-Seilich, 9400–7710 cal BP, overlaps with Mesolithic activity at numerous sites elsewhere in the Hebrides: at Bolsay, Gleann Mor and Coulererach on Islay, at Staosnaig on Colonsay, at Fiskary Bay on Coll and Creit Dhu on Mull. Each of these sites has evidence for a different range of activities: fishing at Fiskary Bay, plant gathering at Staosnaig and the initial stages of flint knapping at Coulererach. As such, Rubha Port an t-Seilich provides a further element of the early Mesolithic settlement pattern in which hunter-gatherers moved between the islands to exploit different resources at different times of the year. It appears to have been a locality where a mix of activities occurred including hunting deer, fishing and gathering plant foods – but the samples are too small to draw any strong conclusions. The survival of mammal bones makes the site especially important, indeed unique for a site of this period. When a larger sample of these has been acquired one ought to be able to ascertain not only the full extent of hunting and fishing activities but also the season in which these occurred.

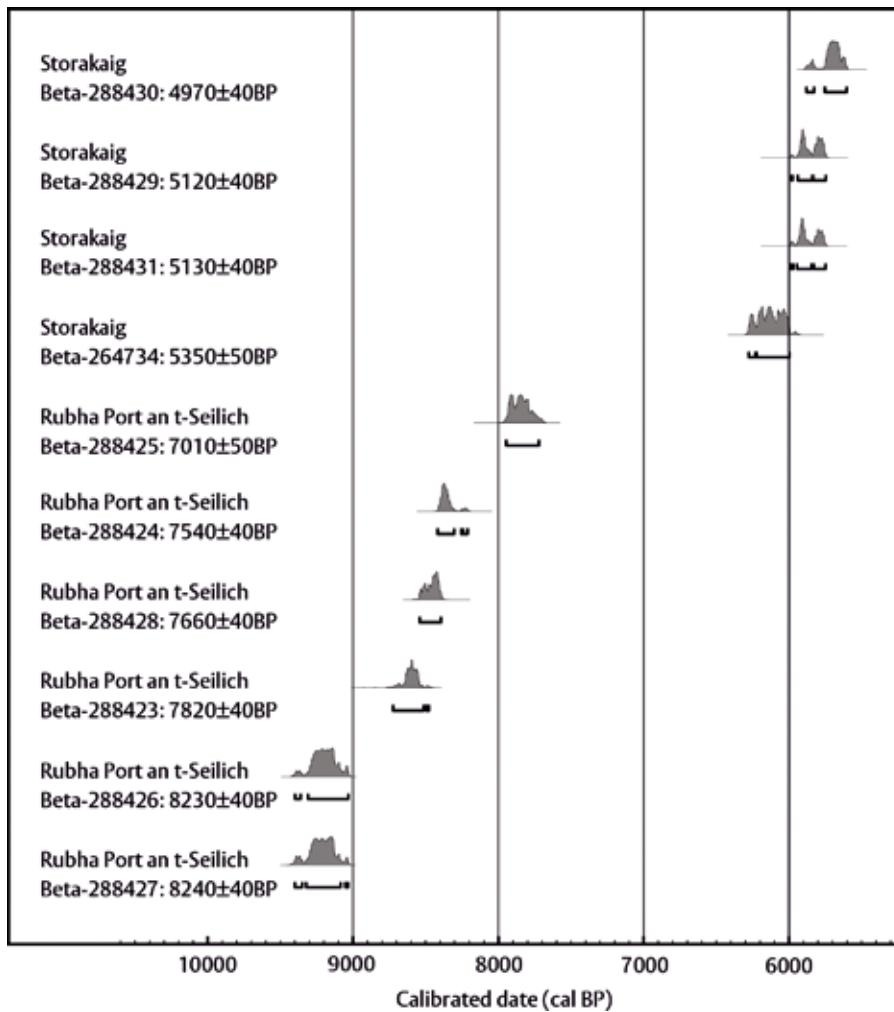
The importance of Rubha Port an t-Seilich also lies in the presence of deeply stratified deposits. While only the lowermost horizons have so far been dated,

it appears likely that the deposits cover the entire duration of the Mesolithic period and the transition to the Neolithic. This would also make the site unique in western Scotland and provides an opportunity for making a detailed analysis of changing stone technology across this crucial prehistoric boundary.

Storakaig has been shown to be of equal significance to Rubha Port an t-Seilich. The radiocarbon dates indicate that its Mesolithic activity occurred at the end of this period, 6000–5600 cal BP. This is contemporary with and slightly after the Mesolithic coastal foraging activity on the island of Oronsay that led to the creation of shell middens. This is the first discovery of a site contemporary with the Oronsay middens showing that people remained mobile between the islands in this late Mesolithic period rather than living all year round on Oronsay, as others have argued¹⁶. Storakaig provides unique opportunities to not only make a detailed comparison between its artefact assemblages and those from Oronsay but to also recover a substantial collection of animal bones and plant remains to investigate the hunting and gathering activity of the late Mesolithic period, and to contrast it with that from the earlier Mesolithic as represented at Rubha Port an t-Seilich.

The potential value of these two Mesolithic sites is further enhanced by the peat deposits in Loch Bhar-radail. Although the test-core did not reach the base of the peat deposits, it demonstrated that this basin

¹⁶ Mellars & Wilkinson (1980, *Proceedings of the Prehistoric Society* 46, pp. 19–44) argued that people lived on Oronsay all year round in light of the otoliths (ear bones) from saithe indicating occupation at different middens at different times of the year; Richards & Mellars (1998, *Antiquity* 72, pp. 178–84) supported this view with stable isotope evidence from skeletal remains suggesting an entirely marine based diet. Mithen (2000 *Antiquity* 74, pp. 304–7) showed that radiocarbon dates for Mesolithic settlement on Islay and Colonsay could support this view, while also arguing that other interpretations of existing evidence is possible and that there is no ecological rationality for people to remain on the tiny island of Oronsay.



52 Radiocarbon date plot providing the range of ages for Mesolithic occupation at Storakaig and Rubha Port an t-Seilich. The earliest known occupation at Rubha Port an t-Seilich occurred at the start of the Mesolithic period between 9400-9033 cal BP and extended over a period of c. 1200 years. Occupation of the site at Storakaig occurred c. 1700 years after the activity at Rubha Port an t-Seilich lasting for c. 400 years during the late Mesolithic period. As we have seen in this report, throughout the Mesolithic period hunter-gatherer activity is likely to have involved hunting red deer, roe deer, badger and wild boar, fishing and the gathering of hazelnuts (and presumably other plant foods).

has deep deposits of rapidly accumulating peat that can enable an environmental history for the region to be determined at a fine chronological resolution. The woodland that had surrounded Rubha Port an t-Seilich between 9400 and 7100 cal BP and then Storakaig between 6000 and 5400 cal BP can be reconstructed, and an evaluation made of the relative significance of climate change and human interference on the changing composition and eventual loss of the woodland. In summary, the evaluation of Rubha Port an t-Seilich and Storakaig has demonstrated that these are especially important Mesolithic sites. With their well preserved artefacts, animal bones and plant remains, the existence of features and their dates at either end of the Mesolithic period, along with the nearby sediments from Loch Bharradail, they have enormous

potential to inform us about the lifestyles and landscapes on Islay and western Scotland in general during the Mesolithic period. To do full justice to these sites a substantial research project is required, involving area excavation at both sites over a three year period followed by a further three years of post-excavation study and publication. Such a project would make a seminal contribution to our understanding of Mesolithic settlement in western Scotland and the long-term human and environmental history of the Dunlossit Estate.

Acknowledgements

We are grateful to the Schroder family for their permission to work at Storakaig and Rubha Port an t-Seilich and for their continued interest. Our thanks to David Gillies, Islay Heads, John Morris, Islay Campbell and Donald James MacPhee at the Dunlossit Estate for their advice and help, [and especially for the storage of equipment over the winter period]. Malcolm Ogilvie of the Islay Natural History Trust, Kathleen Johnston at Keills Primary School and Stephen Harrison & Freddie Bell at Islay High School all kindly enabled us to share new understanding of Islay's heritage with the island's community. The project has been supported financially by the University of Reading, the Society of Antiquaries of Scotland and Mrs Leonie Fane. The fieldwork was undertaken by a team of twenty archaeologists and students from the University of Reading with support and advice from the Dunlossit Estate.

Storakaig and Rubha Port an t-Seilich

 For more information, please contact:

Karen Wicks

University of Reading
Whiteknights
Reading, RG6 6AB

k.wicks@reading.ac.uk
Tel (0118) 378 7973

www.reading.ac.uk



THE QUEEN'S
ANNIVERSARY PRIZES

2009