the excavations 2

Rhum

Caroline Wickham-Jones & Dave Pollock

River too spating for net scoring, varied on + off, stayed spating.

in fact it was still high all day yesterday.
Rhum - the excavations 2
Text Caroline Wickham-Jones and Dave Pollock
Drawings + layout Pipeline
Photos Caroline Wickham-Jones p1 p2 p5 p11 p15

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Introduction
Rhum is a small mountainous island in the Inner Hebrides, off the west coast of Scotland. It has only one sheltered landing, at Loch Saresort on the east side.

Kinloch lies at the head of Loch Saresort. Nearby, in one of the Farm Fields, thousands of small stone flakes were uncovered by the Nature Conservancy Council in the summer of 1983. Archaeological excavations started in 1984. These defined a concentration of this lithic debris at the southern end of the field. In this area pits and hollows had survived below the ploughsoil; these contained similar lithic material. They were dated to 8500 years ago, the mesolithic period, and they became the earliest evidence for human settlement in Scotland.

In the spring of 1985 a second season of excavations attempted to make sense of the pits and hollows found the previous year. Four trenches were dug, but only two were encouraging. One uncovered a cluster of pits and hollows but the area excavated was very small. The most promising clipped both a well preserved area of mesolithic activity and hitherto unsuspected early farming (neolithic) activity. RHUM: the excavations tell the story of these excavations.
Strategy of the 1986 excavations

In 1986 we returned to the site. The third season of excavations was designed to provide better information about the mesolithic hunter-gatherer, occupation of the site and to find out about the neolithic activity. In addition we hoped to investigate the remains of a possible landslide associated with the early farming.

We decided to open up a large trench running across the edge of the mesolithic settlement. Our previous trenches, like those of many mesolithic excavations, had been too small to make sense of the complex patterns created by hollows and stakeholes. Only by stripping the topsoil from a large area could we hope to see the shapes and sizes of any buildings. At the same time we hoped to find, probably to the north of the mesolithic activity area, evidence of the neolithic settlement from which people first cultivated the area.
The challenge
A mesolithic site provides more problems than many excavations. Little more than a campsite in the first place, the site is unlikely to have had substantial buildings. Walls are generally represented only by arcs of stakeholes, hearths by fire shattered stones and concentrations of charcoal.

Thousands of years of decay alter the remains, but rarely destroy them completely. Wooden posts, skins, vegetables, bone and shell are all absorbed into the soil at Kinloch, but posts leave behind the holes into which they were set, animal products leave concentrations of phosphate, vegetables and plants leave pollen; most decayed materials have altered the local chemistry of the ground.

Perhaps more seriously, over thousands of years the material in the ground will move. Roots, worms and soil miles churn, and to some extent digest the soil. Cultivation, too, takes its toll. Old ground surfaces, the soily fills of hollows and pits, and the upper part of the subsoil become gradually mixed into the ploughsoil. Although at Kinloch much of the mesolithic ground surface and early pits and hollows have survived, they have all suffered. The soil has become a uniform dark grey-brown and stones have sunk.

The team
To deal with these problems many specialists, and some unusual equipment, were involved in the 1986 excavations at Kinloch. The digging team included a soil scientist, a biochemist, two geophysists, three palaeobotanists, a wood specialist, a computer operator and three artifact specialists.
Evidence of the mesolithic settlement
Most of the main excavation trench, BA, fell within the area of mesolithic activity. The features were identified by their dark, organic rich fills. The careful cleaning of the subsoil surface revealed complex traces of settlement: arcs of stakeholes, a curving timber slot, shallow hollows and pits. To the north this settlement was bounded by a small burn. No certain hearths were uncovered but we hope to relocate them through analysis of both the soil characteristics and the positions and character of fire-cracked stones.

Most of the features were not excavated, merely planned and photographed with their fills intact. Excavation is a slow process and by excavating only selected features, and recording these with care, we were able to study their alteration over 8500 years. It is almost impossible to discover the original functions of the mesolithic pits and hollows but the physical and chemical analysis of samples in the laboratory may shed some light on this.
The unexcavated features are interpreted on the basis of their surface similarity to those we excavated. Inevitably, we have made assumptions about some of them, particularly in labelling some as stakeholes. At the moment there is still a large part of the site left to test our theories with future excavation.

The features and their interpretation

stakeholes and slots
We cannot, yet, point out individual buildings; we found only fragmentary lines of slot or stakeholes that may mark out walls. We await the results of geophysical and phosphate surveys; using these and our information on finds distribution we hope to be able to complete the outlines of separate structures.

The slot was only a few centimetres deep. Along its length the stone fill stood on end, typical of stones packed against timbers that had either decayed or been uplifted and in sharp contrast to the stones in the subsoil into which it was cut. In one area it crossed a shallow hollow into which stones had been dumped, presumably to provide a better foundation.

Stakeholes appeared as relatively large patches of dark soil, far larger than the likely diameter of the original hole. Lower down something closer to the original hole had survived. The excavation of a group of these suggested that the original posts were less than 10 cm in diameter.
ii. hollows and pits
The larger dark patches uncovered at the base of the ploughsoil were the tops of a variety of hollows and pits.

In one area, a series of mesolithic ground surface features that are only the deeper traces of a cluster of hollows (sunked BA1:13) was uncovered. To the west of these an area of hollows (BA14:15) survived in better condition. Over 5000 years the site had become thoroughly mixed together, but a level section to the east had not been disturbed. The site was excavated around the bases of large hollows and pits, and features as excavation proceeded down. The results of this work have not been published, but we are evaluating the results of other excavations.

iii. ploughsoil finds
Much of the mesolithic ground surface has survived, preserved in shallow hollows and sealed under a dump beside the burn. However, in some areas it has become incorporated into the present ploughsoil. This now contains large numbers of bloodstone flakes, all that survive from features now destroyed.

In order to see the distribution of debris in the ploughsoil a uniform sample of soil from every 4 x 4 metre square of the site grid was extracted to recover the flints and other artifacts. Analysis of the results from the ploughsoil in previous years suggests that very little movement of deposits has taken place. Any concentration of artifacts in the ploughsoil is either associated with original dumps on the mesolithic ground surface, or in the tops of hollows.
The artifacts
Much of the evidence from the site comes from the stone artifacts: mainly the tools used in everyday life and the debris from making them.

Stone suitable for the manufacture of such tools is in short supply in Scotland but Rhum is unique in providing a source of hard flint-like rock, commonly called bloodstone. When struck with a hammer of stone or antler bloodstone breaks like flint or glass to produce sharp flakes and long blades. An experienced stone knapper can shape the nodule, or core, so that a series of flakes or blades of a particular shape will be produced. Many of these may be used as they are, for butchering meat or processing vegetables or fish. In the mesolithic, some, however, were altered in shape: many were chipped into tiny microolithic arrowheads, others had one edge blunted to make scrapers for the preparation of hides.

The unexcavated surface seems to have been strewn with broken potsherds and blackish lumps of fulgarite, probably pieces of charcoal that had been heated to the point of fusion. The former gave a series of unetched sherds which are characteristic of both the Mesolithic and later periods, the latter perhaps having been used in the making of peat fires.

The feature interpretation is as follows:

1. The slot was perhaps a post socket. The stone fill stratigraphically overlies the timbers that were placed in the slot. In contrast to the post sockets, however, one area it is not clear if the material had been dumped.

2. Stakeholes, though not far larger than the slots, are still in the excavation. The majority of the posts were...
Bloodstone outcrops on the west side of Rhum, towards the top of Bloodstone Hill. It is also found as pebbles on the beach at Guirdil Bay below. Preliminary analysis of the material at Kinloch suggests that the mesolithic hunter-gatherers collected the pebbles, breaking them first on the beach to test their quality. They then prepared cores which could be carried the eight miles back across the island. The vast amount of lithic debris on site demonstrates that the bulk of tool manufacture was carried out at Kinloch.

Close analysis of both the waste and the finished tools helps us to understand the techniques of manufacture and the uses to which tools were put. We are just starting to examine in detail the 150,000 pieces of stone recovered from the site so far.
The mesolithic environment
Inland from the site there was heather moorland, very similar to that of today. In places, light tree cover included hazel, birch and willow. We have found no evidence for forests on the island.

Much of the island vegetation would provide useful resources for hunters living off the land. Samples from the site reflect the inevitable disturbance of the humans and their rubbish: weeds like nettles grew in profusion. Other species were brought onto the settlement; hazelnuts were collected from the surrounding scrubland, their charred shells survive in many of the pit fills. Also in the pit fills, surviving pollen indicates the use of the nearby sea strand, doubtless a source of both food and fuel. Larger vegetation would provide not only fuel and food, but also building materials. At least one post was of birch; its pollen together with the spores from a fern that grows on birch bark were found at the bottom of a post pit. The small post whose ghost outline we saw so clearly in the fill of the pit must have been a birch branch which retained its bark.
Many people using birch posts today will leave the bark to prolong the life of the post.

The environmental analysis is continuing in the laboratory. *Rhium: the excavations* will present the picture of everyday life at Kinloch drawn from all of our information.

The duration of the mesolithic settlement

Kinloch provides the earliest evidence so far for human settlement in Scotland. We do not know exactly when the first settlers moved into Scotland after the end of the last ice age but by 10,000 years ago the last ice had retreated and, as the climate grew warmer, so people and animals moved back. It is likely that by the time of the settlement at Kinloch people had already been in Scotland for a few hundred years. Earlier sites await discovery.

The mesolithic period in Scotland lasted for about four thousand years. At Kinloch it seems that the site we have excavated was only in use towards the beginning of that period, between 8500 and 7500 years ago. We have found no evidence of people on the site between 7500 and 4000 years ago although it is unlikely that the island was uninhabited throughout this period.
Neolithic activity on the site

About five thousand years ago we get the first evidence of farming communities in Scotland. Shortly after this we have evidence from Kinloch.

Throughout the mesolithic the settlement was bounded to the northeast by a burn; this would have provided the most convenient fresh water supply. On one side of the burn the settlement lies on well drained gravels, on the other side is impervious, heavy boulder clay. In the neolithic period the burn flowed less freely and in the sluggish water peat started to form. Brushwood, upcast gravel and stones were dumped into this peat and along the southern bank of the burn.

These dumps are artificial and not a natural deposit (such as a landslide) as we previously thought. It is difficult to explain this dumping. At present we can only suggest that it results from an unsuccessful attempt to halt the development of the boggy ground. This attempt involved the movement of hundreds of tons of gravel. We do not know where this was quarried, but the larger stones within it were probably removed from the derelict mesolithic campsite.

In one area domestic pottery was included amongst the larger stones in a likely causeway. All of this material was dumped from the southwest side of the burn, and it now seems likely that the evidence of neolithic habitation must lie there, on the mesolithic site, in an area so far unexcavated.
Acknowledgements
The site was brought to our notice by the Royal Commission for the Ancient and Historical Monuments of Scotland. Many, many people are involved with the Rhum Excavation Project both on site and in the labs; this booklet presents the results of their work and we owe them all great thanks: A Barlow, SBellamy, R Blakemore, S Butler, N Cartwright, A Clarke, D Clarke, G Cook, D Davidson, G Durant, K Edwards, J Flenley, N Fouat, D Griffiths, K Hrons, L Johnston, D Jordan, M Kemp, S Lee, B Maher, S McCartan, R McCullagh, VJ McLellan, B Moffat, M O’Neil, N Oliver, S Ozer, D Powlesland, D Reed, PR Ritchie, N Sharples, L Sinclair, D Sutherland.

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The radiocarbon determinations
So far we have obtained twenty radiocarbon determinations from deposits associated with the site. Eight of these relate to the environmental analysis. Of the remaining twelve, nine date the mesolithic occupation, whilst three came from amongst the neolithic dumps.

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<td>1 8770+90</td>
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<td>HAR-6608</td>
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