New evidence from the Inner Sound of Skye which extends the area traditionally covered by the "Obanian", and expands our knowledge of the west coast Mesolithic of Scotland.

The area of study extends from Skye and the Inner Sound in the north, to Islay in the south, and covers the areas studied by many scholars over the past few decades. An antiquarian called Henderson Bishop commissioned a study of the shell middens on the west coast in the 1920; Anderson studied those around Oban at the turn of the century. This was followed by a long break, until Paul Mellars started to look at the middens again in the 1970s. He intensively studied those on Oronsay and sparked off an interest in the area again. This interest was continued by Caroline Wickham-Jones excavating a microlithic site on Rhum in the mid 1980s; Dr Steven Mithen ran a excavation called The Southern Hebrides Mesolithic Project in the late 80s, & 90s, yet to be published; and the most recent study of the area is the excavation I went on earlier in the year, the Scotland's First Settlers Project, based around the Inner Sound of Skye and run by Karen Hardy and Caroline Wickham-Jones. Not forgetting of course, Clive Bonsall's work on Ulva, and Tony Pollard's work on Risga.

The Scotland's First Settlers Project studies the area between Skye and the mainland: it is a coastal project aimed at discovering information on the settlement, territoriality and mobility of the peoples within the area. The area is defined by the eastern edge of Skye, the western edge of the Applecross Peninsula and the islands of Raasay, Rona, Scalpay, and the Crowlins.

The main site investigated last season was a shell midden in a rock shelter, halfway up the Applecross peninsula, called Sand. The test pits done in the 1999 season dated the midden to 7715±55bp, 7545±50bp, and 7520±50bp (uncalibrated), so full excavation was undertaken in 2000. The midden was found to contain more limpet shells than I could ever have previously conceived, bone tools and the presence of a narrow blade microlithic industry. Shell middens, until recently, were thought to be archaeologically separate from lithic scatters, so the discovery of the two assemblages in conjunction with each other is important in the wider context of the area.

The "Obanian" was a term first coined in the 1940s by Movius to describe the middens in caves and rockshelters around Oban and the open-air sites on Oronsay. These were seen as distinct enough from any other type of Mesolithic site (eg. lithic scatters), to be a different culture. The basic assumptions that made sites such as Druimvargie rock shelter and Cnoc Coig "Obanian", was that:

- they belonged to a distinct geographical area (Argyll);
- they were seen as a later development in the Scottish Mesolithic because of their later date (6500-6000bp);
- they were only found on coastal areas where there were no microlithic industries were present;
- and the manufacture of microliths was not characteristic of the groups responsible for the Obanian middens (Bonsall, in Pollard & Morrison, 1996).

The theory that the Obanian was confined to a distinct geographical area has been disproved in recent years. Not only are there bone tools of a

similar type at Morton on the east coast, but they have also been found at An Corran and at Sand. An Corran was the first site where "Obanian" bone tools were found in undisputed and direct association with microliths of the narrow blade type. The data from Sand is also interesting. Most of the bone artefacts from Sand are either pointed or bevel ended, with one exception: a fragment of harpoon was found in the midden. This is similar to finds from other sites with middens, such as at MacArthur's Cave near Oban. These finds seem to extend the area thought to be Obanian much further north than was originally believed.

The Obanian was assumed to be a separate culture because of its later date. Previous to the last two decades, all the known shell middens were dated to 6500bp or later. The fact that this is the approximate date of the Postglacial marine transgression and that any middens before this date would have been destroyed by wave action and rising sea levels was overlooked, or not known about in the past. New dating on Druimvargie Rockshelter and Ulva Cave put them at approximately 7800 and 7660bp respectively, alongside the occupation of Jura, Islay and Rhum, which were all microlithic sites. Even more recent data from An Corran has shown the mesolithic layers to be dated to 7600bp, and Sand is dated to 7700bp. So therefore the Obanian was not restricted to a later date, taking more away from the separate culture definition.

Both of the latter sites have microlithic industries and are situated near other lithic scatters, which contradicts one of the assumptions that underlay the definition of the "Obanian". It was presumed that the shell middens were on coastlines where there were no lithic scatters, in other words, only the one type of Mesolithic site, therefore emphasising its status as a separate culture. It is now thought that the shell middens

represent task specific sites (Woodman 1989), and were probably not used as places of residence. Structural remains have not been found on the majority of midden sites, which seems to be to do with their position on the shoreline. It is impractical to live right on the shoreline or in a cave or rockshelter, which are damp places, although they offer shelter. I can't imagine the smell of constant shellfish processing would have been too pleasant either.

Evidence from Risga is somewhat contradictory though: there is evidence for some kind of temporary structure very close to the midden. This may have been a consequence of the midden site being one of the few sheltered areas on the island (Pollard, 1996), foragers perhaps wanting protection from the strong Atlantic wind and rain. Evidence from Lon Mor near Oban may add credence to the task site theory: there are remains of a structure next to a major lithic scatter, and only a short distance from a shell midden, thought to be linked to the occupants. So they didn't use the middens for living next to, they lived slightly further away and used them purely for processing. The shell midden at Sand was built up over a very short period of time (no apparent stratigraphy) and is thought by the excavators perhaps to be the result of a famine, further enhancing the task specific theory (Hardy & Wickham-Jones, 2000). In other words, the foragers went there for one specific purpose: food.

Evidence from An Corran also supports the task specific theory: most of the bone tools found there were of the bevel ended type, and five of them were radiocarbon dated. They ranged from 7590 to 3660±65bp, showing that these tools were not just used in the Mesolithic, but also in later periods (Hardy, pers comm.). This adds credence to the idea that they were used in limpet processing, rather than for any other function, such as

skin working (Finlayson, n.d.). Modern microwear studies have given similar results to the wear marks on bevel ended tools, further emphasising their probable use as "limpet scoops" (Bonsall, pers comm).

The fourth assumption about the characteristics of the Obanian is that microlith production was not a feature of the culture; also that the type of artefacts found in Obanian assemblages were not common to other Mesolithic sites in Scotland. Finds from An Corran, Sand, and Risga prove this is not true. Microliths have been found in conjunction with shell middens at all of these sites. At Sand they were discovered within the midden; at Risga and An Corran there was evidence of a lithic scatter right beside the midden, inferring that the two items were linked. The midden at Sand has produced 7 microliths amongst the catalogued lithics, while more are known to exist in the sizeable quantity that have not been catalogued. There seems to have been some stone working on the site, as the table shows.

The type of flaking material on the site is of some interest. The area shows a distinct lack of good quality flint, unlike Risga, which is one of the few sources of flint on the west coast. This is one of the reasons postulated for the presence of lithics and microliths in particular being present at Risga, where they are not at other shell middens.

Moving back to the Inner Sound: the lack of flint meant that the Mesolithic popl had to search for other types of raw material that were suitable for flaking. The area has several sources of good material, some of which are restricted in their geographical location. Seven different types of raw material have been found at Sand: Baked Mudstone, Rhum Bloodstone, Chalcedonic Silica, Quartz, Flint, Chert, and various Agates.

The first three are very specific in their outcrops: baked mudstone only occurs at Staffin on the NE coast of Skye, very close to An Corran; bloodstone only occurs on Bloodstone Hill on Rhum; and chalcedonic silica again outcrops near Staffin, on the Stenscholl river, however it is virtually indistinguishable from local flints and cherts with the naked eye, so for the purposes of analysis they are lumped together.

It is proposed that the distribution of good quality flaking material is related to dominance of an area and therefore high status. Where the materials outcrop and where they are found in the area can be used to infer movement of peoples; but perhaps it could also be used to imply that groups of hunter-gatherers controlled the movement of stone resources, and that certain groups in areas surrounding An Corran and Rhum were more dominant than others because they could control the resources. Not so much hunter-gatherers helping themselves to the common sources of quartz, or the flint and chert on the beaches, but access being controlled. There are several lines of evidence to back up this theory: the first comes from the lithics themselves.

- o Baked mudstone, chalcedonic silica and bloodstone are all high quality materials, whereas the quartz, flints and cherts of the area are of unpredictable quality, but also outcrop in many locations in the region. The only one out of the six materials mentioned which dominates on sites is quartz. This is perhaps surprising because of its variable quality, but might be because the better quality materials were being restricted in their distribution.
- on the sites. At Sand there are 17 cores, but out of a lithic assemblage totalling 8000 so far, this is not many. More of the cores are made of quartz than of any other material, none of

bloodstone were present. Ann Clarke, a specialist who worked with Wickham-Jones at Rhum, noted a lack of cortical material away from the source areas (Clarke, in Wickham-Jones, 1990). From the initial analysis of the Inner Sound there is no evidence of bloodstone cores in the entire region, only flakes and debitage, suggesting that preliminary knapping was not taking place in the Inner Sound.

o As can be seen from the table, quartz comprises over half of the assemblage from Sand. This ratio is present at two other sites to the north of Sand, which have been looked at recently. The site of Shieldaig on the north of the Applecross peninsula came up with 6000 lithics, of which 88% were of quartz, including some microliths. Also examined was Redpoint, somewhat further north, by the SFS team in 1999. They collected 1748 pieces of which 95% was quartz, in addition to Gray's work in 1960, when 1356 pieces were collected, 80% of which was quartz (Hardy & Wickham-Jones, 2000). The second table also supports this, with quartz and quartzite making up three quarters of the raw materials used across the Inner Sound (Hardy & Wickham-Jones, forthcoming). If there were better quality materials in the area, why would the people at these sites not be using them if they were freely available? The journey from Redpoint to Staffin is not that far by boat, and they certainly had marine transport, otherwise the stone could not have got from Rhum to the mainland or to other islands. So it is suggested that a group was controlling the good quality lithic materials.

Evidence from Norway shows that hunter-gatherers there lived for the most part on the shore and exploited marine resources, with only seasonal trips to the mountains to hunt reindeer. The Fosna culture sites are "widely interpreted as fishing and sea-hunting stations functioning within a mobile, coastal procurement strategy dominated by relatively frequent seasonal residence relocations" (Indrelid, 1975). "However, a variable occurrence of projectile points in the site inventories also implies an element of terrestrial hunting" (Bang-Andersen, 1996). Although there doesn't seem to be any evidence for permanent upland residence, the Fosna culture is not purely a coastal phenomenon (Bang Andersen, 1996). Perhaps the situation was similar in Scotland: both countries have similar geographies, they were settled with the same time gap after deglaciation (as far as we know), and both seem to show a reliance on the rich marine economy in the mesolithic.

The settlement pattern in Norway is suggested to follow the pattern of resource exploitation: four main categories of site have been proposed.

- A permanent or semi-permanent base camp on the coast,
- A certain number of extended extraction sites for seasonal hunting, fishing and gathering activities,
- A larger amount of transitory sites,
- And an indefinite number of special purpose sites or single activity loci.

This is suggested for a pattern of upland hunting, but could equally be applied to the Scottish evidence. Perhaps with more research and an upland survey, a pattern similar to this may be discovered.

Conclusions

It is not now thought that the shell midden sites of the west coast represent a separate culture. They are no longer confined to a distinct geographical area and so cannot be called "Obanian". The evidence from AN Corran and Sand does not hold up the theory that the people responsible for the shell middens did not make microliths.

Most scholars agree nowadays that the middens represent specific task sites, but it remains to be seen whether it was common to live beside them or not.

The occurrence of stone types can be used to infer movement of peoples across the sound, but can perhaps also imply a controlling source.

There also seems to be remarkable similarity between Norway and Scotland, so perhaps we can learn from their pattern of investigation and apply it to the west coast of Scotland.

THAT'S IT FOLKS!