

Coarse stone tools from the excavations at Sand rock shelter, Applecross and Test Pit sites around the Inner Sound, Skye

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A total of 40 coarse stone tools was recovered from the excavations at Sand and from the test pit sites from the Inner Sound, (table x). They are all cobble tools of some form and, with two exceptions which have been ground to shape, they are unmodified before use. In the discussion below ST numbers refer to the catalogue of coarse stone tools (section xx). Also collected was a quantity of fractured rock that was non-artefactual and this is discussed below.

SITE	Facially pecked cobble	Facially pecked/dished cobbles	Plain hammerstone	Ground stone	Beveled pebbles	Faceted cobbles	Whetstone/rubber?
Sand	14	9	4	1			
SFS 02 Crowlin 1			1	1	1		
SFS 30 An Corran C	1						
SFS 20 Toscaig 2					1		1
SFS 42 Toscaig 10			1				
SFS 57 Rubha a Ghair					1		
SFS 68 Allt na Criche						1	
SFS 89 Coire Sgamhadail 1					1	1	
SFS 104 Fearnmore 1	1						

Table x: Coarse stone tool types by site

THE ARTEFACTS

Facially pecked cobbles (T=16) and facially pecked/dished cobbles (T=9)

Facially pecked cobbles are the most numerous tool type. They are characterised by a spread of pecking on one or both faces. They are all made on rounded cobbles of sandstone with a size range of 50mm – 120mm in length. The pecking is generally very light and placed on one face only, either as a spread or as a circular patch (ST1, 12, 2, 10), on two cobbles, however, there are linear patterns of pecking (ST9 and ST28). In contrast, the facially pecked/dished cobbles have more developed use wear with a central depression formed on one (ST 5, 31) or both faces (ST6, 7, 4). This dished face is about 20mm in diameter and 2mm – 3mm deep and is usually quite smooth. Coarser grained sandstones are preferred for these tools and their size range is more limited than the facially pecked cobbles with a significant cluster 60mm- 80mm long and 50mm – 70mm wide. Interestingly, there is a

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cluster of facially pecked cobbles within these dimensions suggesting that many simple facially pecked tools may in fact be underdeveloped forms of the dished cobbles (*not sure that this agrees with discussion below which suggests they are not a separate tool type – omit?*).

The function of these tools is not known. The location and amount of pecking on most of them makes it unlikely that they were used for flint knapping though some cobbles such as the two with linear pecking may have been used for knapping with bipolar lithic reduction (see the discussion of lithic technology *section xxx*). The rest of the facially pecked cobbles have much lighter wear patterns and the similarity of the wear patterns on individual tools suggests that they were probably all used for a similar purpose. The facially pecked cobbles with dished faces are likely to be more heavily used forms of the simple pecked tools. The small size of these cobbles suggests that they were hand-held and perhaps used as a hammer rather than as an anvil, and given the relatively light wear patterns they may have been used in tasks such as cracking nuts or shells, providing percussion for bone or wood piercers in leather working, or any repetitive job involving percussion of a small object. The dishing of the working surface on some pieces may well be due to the hardness of the stone since many of the dished cobbles are of coarse-grained sandstone whilst those that are less worn are of a finer grain. Continuous hammering will form a hollowed area more quickly on the coarse grained stones which are of softer material and thus wear more rapidly.

Plain hammerstones (T=6)

These are simple cobble tools with wear in the form of pecking or flaking on the ends or sides. This wear is generally light, with no repetitive patterning to suggest specific actions. There are obviously many tasks requiring percussion to which tools like these might have been put.

Beveled pebbles (T=4)

The bevelled pebbles are all made on long, narrow cobbles on which an end has been bevelled by two pecked facets worked at an angle to each other. Within this group there is no uniformity of size, shape or wear pattern. The most regularly formed tool is ST15 whose broken end was originally beveled, whilst another tool (ST21) has a bevel formed by a pecked facet and a naturally angled face. Although beveled pebbles have been associated with Mesolithic sites elsewhere, eg Rum (Clarke 1990), there were none at Sand.

Faceted cobbles (T=2)

These are cobble tools, one of which, though damaged resembles a pounder/ grinder with broad pecked facets on either end. The other tool is a flat oval in shape and has broad single pecked facets on either end with some flaking from the edge. They are more heavily worn, and larger, than most of the cobble tools found on Mesolithic sites and they resemble faceted cobbles tools from later prehistoric sites dating from the Bronze Age or Iron Age, which would be more in keeping with other evidence from their find spots (*section x*).

Whetstone/rubber (T=1)

This tool is long and narrow with a sub-rectangular cross-section. Though the shape is natural and the faces appear unworn there are streaks of residue, which may indicate that the stone was used to sharpen a metal blade, or as a rubber. This is another tool that is most likely to be of a late prehistoric date and this is supported by the dates from the site (*section x*).

Ground stone (T=2)

There are two ground stone tools. One, from Sand, is a sandstone pebble (ST13) that has been ground around the perimeter to form two broad, smooth facets at either end that don't quite meet at the sides. The facets appear to have been deliberately ground to a slightly concave profile at the ends. On each face there is a small circular patch of pecking. It is impossible to tell whether the form of this piece results from use or whether it has been ground to a deliberate shape.

The other ground stone tool, from Crowlin 1, is a piece of tabular sandstone which appears to have been ground on both faces to form an acute edge angle with a curved outline (ST40). It is very similar in shape and dimensions to a piece from the Mesolithic site at Kinloch, Rùm (Clarke 1990, ill 78.4) though the grinding is not as obvious as that on the Rùm piece.

DISCUSSION

Coarse stone tools from Sand

The cobble tools from Sand comprise mainly facially pecked cobbles and dished cobbles with a few plain hammerstones and a single ground stone tool ([table x](#)).

Context		Facially pecked cobble	Facially pecked /dished cobble	Plain hammerstone	Ground stone
1	Topsoil	3	1	1	1
13 13/23/24	Shell Midden, Trench B	2	2		
7 & 7/8	Slopewash, Area B3	2	1		
14	Palaeo-channel, Area B3	1	1		
17	Sandy soil, Trench A	2	2	1	
22	Lower organic rich silt, Trench A	2	2		
27	Slumping, Trench A	2		1	
unstratified				1	

[Table x: Sand coarse stone tools by context.](#)

This is a narrow range of tool types and suggests a concentration on limited activities requiring coarse stone tools. It is interesting that beveled tools were absent from Sand,

though they are common elements of Mesolithic assemblages elsewhere (Clarke 1990). (*put something into disc about relationship between bone and stone beveled tools – did not serve same purpose?*) The narrow range of coarse stone tools at Sand contrasts with the wider range at Kinloch, Rùm (Clarke 1990). At Kinloch anvils, beveled pebbles, knapping hammerstones and cobbles with modified sides were all present and though one or two have circular patches of pecking like that found on the facially pecked cobbles from Sand (ibid ill 78.2, ill 80.2), it is likely that a wider range of tasks was represented. **The evidence of the coarse stone tools from Sand suggests a more specialized site.**

Ground stone tools are known from Mesolithic sites in Scotland, though they are very rare (Clarke 1990; Saville 1994). The ground stone tool from Sand (ST13) is sub-circular in shape and does not resemble any existing pieces. It was found away from the midden in the topsoil so that it is possible that it does not relate to Mesolithic activity at all.

There are no other illustrated examples of facially pecked/dished cobbles from published Mesolithic sites though a counter-sunk hollowed stone with rather deeper hollows than those from Sand is illustrated from the Tweed Valley (Lacaille 1954, fig 61.2).

Although they are few in number, the coarse stone tools are spread evenly across the site at Sand and throughout the contexts. There is no difference in tool type between the midden deposits and those deposits away from the midden and no specific activity areas can be identified. **This uniformity of stone tool types suggests that the deposits may have built up rapidly.**

Coarse stone tools from the test pitted sites

The assemblage of stone tools from the test pitted sites is very different to that from Sand (**table x**), no doubt reflecting the varied nature, and often more recent dates, of these sites. One facially pecked cobble was found at SFS 104 Fearnmore 1 (ST35), one from SFS 30 An Corran C, both of which have just a light spread of pecking on the surface. The beveled pebbles all came from test pitted sites. Elsewhere they have been held to indicate a likely Mesolithic date, but though all the sites have flaked lithics none have specifically Mesolithic material. The earliest dates associated with these beveled tools relate to the third millennium BC from SFS89 at Coire Sgamhadail, though the site at Crowlin 1 also produced the ground edge tool (ST40) which is similar to a tool from the Mesolithic site at Kinloch, Rùm (Clarke 1990). It is of course likely that many of these sites were used throughout prehistory into recent times so that the material remains from any specific activity or period are likely to be both sparse and mixed. Probable later prehistoric activity (Bronze Age or Iron Age) on the sites is also indicated by the faceted cobbles (ST34, ST26) and whetstone/rubber (ST30) from sites 89, 68 and 20 respectively.

The similarity of the ground edge piece ST40 from Crowlin 1 to the one from Rùm (Clarke 1990, ill 78.4) is of interest particularly since they are both made on tabular fragments of sandstone with simple ground edges. The tool from Crowlin 1 appears barely to have been worked at all. There is as yet no information on function and it is clearly worth looking out for this tool form on other sites, bearing in mind that the working can be minimal.

FRACTURED STONE

Fractured stone was not collected uniformly across the site. In most areas, where it was rare, all pieces of apparently heat-fractured stone were recovered, though it was sometimes difficult to distinguish on site between this and natural shillet from the decomposition of the rockshelter so that heat fractured stones may be under-represented. In Area A, however, heat fractured stones were so abundant that they comprised the body of contexts 17, 29 and 17/27. It was not practical to recover all fractured stone from this area so that it was laid out alongside the excavated quadrants and photographed in order to give a visual impression of quantity (illus xx).

For analysis, the fractured stone that had been recovered was divided according to whether it was a fractured cobble (defined by the presence of cortex) or whether there was no cortex, and then individual fragments were counted. The fractured cobbles were clearly broken by heat damage and it is most likely that they had been used in certain cooking practices. Though cobbles such as these are commonly termed pot boilers, whereby they are heated in a fire then plunged into a vessel of water in order to heat the water and/or contents of the pot, it must be remembered that clay vessels were not in use during the Mesolithic so that other containers such as troughs made out of wood, bark or even hides must have been used instead. Alternatively, a hole dug in the ground into which the wrapped food and hot stones were placed is another way to cook food without the direct heat of the fire (Wickham-Jones et al 1986). Whether it is possible to determine cooking method according to the way the stone has fractured remains a problem for experimental archaeology.

The fragments of non-cortical stone are mostly red sandstone and it is likely that these fell naturally from the rock mass of the rockshelter roof as it weathered.

Context	Burnt cobble fragments	Fractured rock – no cortex
001/2	433	242
5	2	0
007/8	17	23
11	3	27
12	8	26
13	61	70
13/23/24	29	72
14	0	23
17	427	294
17/27	8	5
21	0	7
22	19	81
24	19	10
25	17	43
26	1	6
27	16	18
28	75	94

29	265	110
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Table x: Fractured rock from Sand needs correcting?

Table x indicates the quantities of fractured rock from Sand. Though not measured by volume the total amount of fractured rock would fit into two wheelbarrows, it is not a huge amount. Contexts 1 and 2, topsoil, and 17 and 29 have the greatest quantity of fractured rock and the excavators interpreted the latter two contexts as slope wash. The precise derivation of the fragments is thus unclear, but it is likely that the use of the heat fractured material occurred somewhere up-slope, towards, or perhaps into, the rockshelter. No putative related features were recovered during excavation. It is clear that the slope was unstable throughout this period because fractured rock, both heat cracked and weathered occurs in small quantity throughout the Mesolithic midden deposits as well.

Away from Sand, heat fractured cobbles were also recovered from 17 of the test pitted sites including the sites with coarse stone tools (catalogue, Appendix xx).

Clarke A 1990, Coarse Stone Tools, in Wickham-Jones CR 1990 *Rhum, Mesolithic and later sites at Kinloch*. Edinburgh: Society of Antiquaries of Scotland monograph series no 7, 117-126.

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Wickham-Jones CR, Clarke A, & Barlow A 1986, A project in experimental archaeology: Avasjö 1982, *Rosc*, 2 1986, 97-104.

