

*The Shiant Islands Flaked Lithics Report*  
*Chris Barrowman 2008*

*Introduction*

The following report describes the flaked lithic material from the excavations on the Shiant Islands which ran from 2000-2006. The assemblage consists of 162 flaked lithics from a variety of contexts across House Island and Rough Island. This assemblage is only part of the flaked lithic assemblage taken from the excavations, as large quantities of flaked mudstone are described in the 2005 season interim report which are not accounted for in this assemblage (Foster and Hooper 2005, 29-32).

*Methodology*

All the lithics were recovered by hand during the excavations and test-pitting. All pieces were macroscopically classified according to standard analytical principles (Ballin 2000). Any lithics smaller than 10 mm in the maximum linear dimension are normally identified as waste or debitage from knapping. Only a very small number of waste from knapping was recovered, although this may be due to the collection strategy adopted (ie if no sieving was employed smaller lithics may have been missed).

*Raw Material*

Most of the lithics were flint (156, 96% of assemblage), five pieces were mudstone, one was quartz and one was an unidentified stone.

The flint has a large colour range, with white, grey, brown, yellow, pink and black all represented. The majority of the pieces are grey (55, 35% of flint), with 23 lithics being white (15% of flint) and 20 brown (13%). The remainder are a mixture of the above colours, with shades of yellow, pink and black included.

The discovery of a natural flint nodule from glacial clay deposits exposed at sea cliffs on Rough Island (lithic 403) in 2006 has enabled a comparison to be made with the flint flaked lithics analysed here. The nodule is fairly large, measuring 75 mm x 56 mm x 51 mm, and ranges in colour from a caramel brown, to grey, yellow, and white. It is of relatively good quality, and despite being pitted and fractured, does have good clean faces which would be conducive to clean conchoidal fracture. The quality and size of the piece is therefore superior to much beach pebble flint which is utilised in the Western Isles, being often half the size and heavily abraded. Indeed, a second nodule (lithic 51) was recovered from HI15, context B30, and this is likely to be beach flint, having a darker grey colour although of similar quality to the local nodule (NB the term 'local' will be used to describe any flint which derives from the Shiant Islands based on macroscopic comparison with nodule 403). A rapid macroscopic examination of all the flint pieces shows that at least 37% of them are derived from local flint which is similar to nodule 403. This percentage could be higher, but it is probable that some of the lithics are formed from imported flint.

Reduction of local nodules can be demonstrated by the presence of large chunks – no doubt the by-product of testing nodules for quality (lithics 378a, 538, 542). Lithic 473 however, probably derives from beach pebble flint, being similar in fabric and colour to the split nodule 51 described above.

Metamorphosed mudstone has been utilised for flaked lithics in large quantities on the islands, and

there is a readily available source from outcrops (Foster and Hooper 2005, 29). There are only 5 examples within this assemblage however.

It is surprising that there is only one quartz lithic within the assemblage, given that it is the main lithic type in other assemblages from the Western Isles (Ballin 2004). This is either a reflection of a lack of natural quartz on the Shiant Islands, or the collection strategy during the excavations. Indeed, it may also be that there is an adequate supply of better material, given the presence of flint and mudstone.

#### *Condition*

25 pieces (15%) have some cortex present, and can therefore be described as primary flakes, the first ones removed from a corticated nodule or flint gravel. The presence of this type of lithic shows that nodules were knapped on the site. Over half (55%) the flint pieces appeared patinated, which can give an indication of post-depositional changes in the material, depending on soil conditions. However, the flint nodule 403 has an opaque character, indicating that even freshly struck pieces from this local flint would appear opaque and patinated. There are four burnt flint lithics (544, 545, 563, 653), and one possible burnt lithic (543), three of which come from the same context, test pit 3 (543-545). Burning probably occurred prior to deposition.

35 pieces have fresh faces, these may have derived from imported flint.

#### *Assemblage composition*

The following table shows the composition of lithic types within the assemblage.

*Table 1 showing composition of assemblage.*

<i>Type</i>	<i>Sub-type</i>	<i>Number (% of total assemblage)</i>
Pebble	Regular	7 (4%)
Chunk	Regular	13 (8%)
	Irregular	28 (17%)
Core	Single platform	1 (1%)
	Multi-platform	2 (1%)
	Bipolar	1 (1%)
Flake	Irregular	2 (1%)
	Regular	48 (30%)
	Irregular	45 (28%)
Blade	Regular	6 (4%)
	Irregular	1 (1%)
Chip		8 (5%)
Total		162

The high number of chunks may suggest that the raw flint material used for knapping was often not fracturing satisfactorily, hence a high number of irregular chunks being left. Likewise, it may purely be a result of there being an ample supply of lithic material on the islands, and the manufacturers could therefore afford to be wasteful when it came to testing nodules and selecting pieces for knapping.

There are six cores present in the assemblage (53, 521, 543, 571, 619, 671). These range in length from

14-48 mm, an average of 28 mm. They are all made of flint, and have crushed and prepared platform edges. 53 is the largest (22 x 31 x 36 mm) and is a single platform core of patinated white flint. It is almost pyramid in shape, and shows signs of previous flake removals. The care taken in preparing the platform edge shows confidence in knapping and a knowledge of core management, common in prehistoric assemblages. Likewise, 571 also has prepared platform edges but has been worked to a smaller end core size (14 x 27 x 21). This has at least two platforms, one of which shows signs of heavy abrasion – this combined with step fractures on the face indicate an attempt at flake removals which has failed, perhaps rendering the piece useless to the knapper.

543 (25 x 15 x 10 mm) is a short and broad core, which is most likely truncated given its short length. Narrow blades have been removed from one main platform, which has been subject to edge abrasion, but there are other blade removals from an opposing face, and from an adjacent face at 90 degrees to these. The core is opaque and white and may have been burnt although does not have a cracked surface. A similar core in that it is very short and broad, is 671. This is much larger however (48 x 31 x 17 mm), and flake removals are less uniform and more haphazard. There are at least two platforms at right angles, the creation of one on the end of the piece allows the opposing end of the core to act as a handle, similar to a handle-core.

619 is an amorphous core, which has been struck with much force as there are bulbar spalls present. This piece is badly damaged and may be the result of natural erosion. The final core, 521, is squat and has abraded opposing ends, similar to that found in bipolar cores where the piece is placed on a stone anvil and bashed in a rather haphazard fashion, with little preparation of a platform, and the inability to predict size and shape of resultant flakes. This piece also has abraded lateral edges and has therefore been rotated through 90 degrees during knapping. The flake scars on the ventral face show heavy conchoidal ripples.

### *Flake analysis*

The table below shows the size variation of the flakes from the assemblage.

	<i>Primary (average L x W x B mm (N))</i>	<i>Secondary (average L x W x B mm (N))</i>	<i>Tertiary (average L x W x B mm (N))</i>
Regular	25 x 21.5 x 7 mm (2)	18.75 x 16 x 4.75 mm (4)	20 x 16 x 4.5 mm (42)
Irregular	34.5 x 16.5 x 10 mm (2)	19.2 x 16.7 x 6.2 mm (10)	19.45 x 16.4 x 5.4 mm (33)

Table 2 showing size variation and numbers of flakes

The results of this analysis are to be expected, with a progressively higher proportion of flakes through the reduction sequence (more secondary flakes than primary, and more tertiary than secondary). There are more regular tertiary flakes than irregular, suggesting a reasonable amount of skilled and managed knapping is taking place, which would be expected in the prehistoric period.

Lithic 452 is made from mudstone and shows all the signs of conchoidal fracture, with a nicely prepared and abraded platform edge, and a crested dorsal face, indicating where two previous flakes have been removed parallel to each other, prominent ripples on the ventral surface, and an obvious bulb of percussion. There is also some edge damage along the right hand side of this flake.

There are few blades, which is to be expected in a flake dominated assemblage. A blade dominated assemblage is indicative of the earlier prehistoric period, specifically the Mesolithic, at present still undiscovered in the Western Isles.

The type of working seen throughout the majority of this assemblage suggests lithic working in the later prehistoric periods, either the Bronze Age or Iron Age.

### *Modified pieces*

The table below shows the lithics with edge damage and modification.

Site ID	Context	Find No	Blank	Sub-blank	Name	Notes (including type of retouch and history)
unknown	F54	531	flake	regular	scraper	60% edge retouch lateral and proximal, thumbnail-like. Late Neolithic/Bronze Age
HI15A	5	390	flake	regular	strike-a-light?	small notch taken from LHS half way down - from striking on iron? possible strike-a-light. Iron Age/ Medieval?
HI15A	A112	373	flake	irregular	retouched flake	thick flake, slight truncation and crushing along 2 lateral edges.
HI15A	A2	60	flake	irregular	retouched flake	possible retouched notch RHS, crushed ventral, retouch on dorsal.
HI15E	231	631	flake	regular	ovoid scraper	fine retouch around whole circumference, scraper. Late Neolithic/ Bronze Age.
HI15F	F265	659	flake	regular	retouched flake	edge damage on both lateral edges, retouched, bulbar spall, prominent bulb, abraded platform edge. Bronze Age?
HI15F	F54	526	flake	regular	retouched flake	slight truncation on distal end, prominent ripples. Bronze Age?
HI15F	F54	593	flake	regular	scraper/ strike-a-light	retouch at end and slight notch. Bronze Age?
HI15G	110	286	chunk	regular	retouched chunk	uneven chunk with shouldered point 1/3 of distal end slight retouch on ventral face on RHS at shoulder
HI15G	130G	366	flake	irregular	scraper/ strike-a-light	retouch ventral 50% of circumference in notch and RHS, possibly used as strike-a-light. Late prehistoric.
HI15G	138	376	flake	regular	retouched flake	heavy retouch down RHS distal ventral. LHS has crushed edge, possible point/ awl. Late prehistoric.
HI15G	G130	375	flake	regular	gunflint	possible ED with spall from ventral face proximal edge. Late medieval/Historic
HI15G	G169	540	flake	regular	retouched flake	small element retouch proximal RHS corner
HI16	17	667	flake	irregular	large flake	possible modified as bore with crude retouch
HI8	2	430	blade	regular	retouched blade	snapped blade, possible notched LHS and retouched in notch, ED top RHS
RI41B	43 passage	445	flake	irregular	retouched flake	possible piercer/ borer
RI41B	53N	384	flake	irregular	retouched irregular flake	LHS dorsal edge retouch, ED to distal end

Site ID	Context	Find No	Blank	Sub-blank	Name	Notes (including type of retouch and history)
RI41B	57	466	flake	regular	retouched flake	wide platform, retouch one end, ED lateral, bulbar spall on ventral
RI41B	8	380	flake	irregular	retouched flake awl/point	retouch ventral distal RHS, dorsal distal RHS opposing sides and edges

All the retouched pieces would fit with lithic working in later prehistory. There are five notched pieces, 593 and 366 may have been used as strike-a-lights, but they have not been subject to heavy use, which would be indicated by heavy crushing on both sides of the notch. Two well-made scrapers (531 and 631) have fine retouch, and are fairly small, the remaining scrapers are again more ad hoc and could not be described as diagnostic tools (366 and 593).

Five pieces are possible awls or borers (376, 667, 445, 380, 286). These are all fairly crude, with 376 and 286 having crushed edges forming the point, the latter being large with a snapped point. 445 is the snapped point of an awl, which has fine retouch.

Many of the flakes show opportunistic or ad hoc retouch, with few diagnostic pieces present. This may be indicative of lithic use in the later prehistoric periods (Late Bronze Age/ Iron Age). The diagnostic tools (scrapers 531, 631) are more likely to be Early Bronze Age. The gunflint is obviously indicative of a later historic period, and is made from imported flint.

#### *References*

Ballin, T B 2000 'Classification and description of lithic artefacts: a discussion of the basic lithic terminology', *Lithics* 21, 9-15.

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