

Lussa Bay, Isle of Jura, Argyll: a note on additional tools

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ABSTRACT

More than 2000 additional tools have been recovered from the shore of Lussa Bay since 1969. Blades, flakes, cores and scrapers are the most common forms. The assemblage is compared to the previous finds from the immediate area; of particular interest are the relatively large broad trapeze-triangle microliths, noted elsewhere on Jura and thought to belong to a comparatively early phase within the Mesolithic sequence on the island.

INTRODUCTION

Since the first publication of this site (Mercer 1970), a regular watch on the tidal zone of Lussa Bay has enabled the recovery of a considerable number of additional artefacts. Unfortunately, since our initial researches, many other people have started to collect these flints from the beach and details of them are thus lost. However, 246 artefacts in the hands of Mrs Susan Campbell, at one time resident in Inverlussa, were lent to the late John Mercer for study. These have been added to the 2083 flints picked up between 1970 and the beginning of January 1992 by myself and John Mercer. A total of 2329 flints are thus considered in this short note.

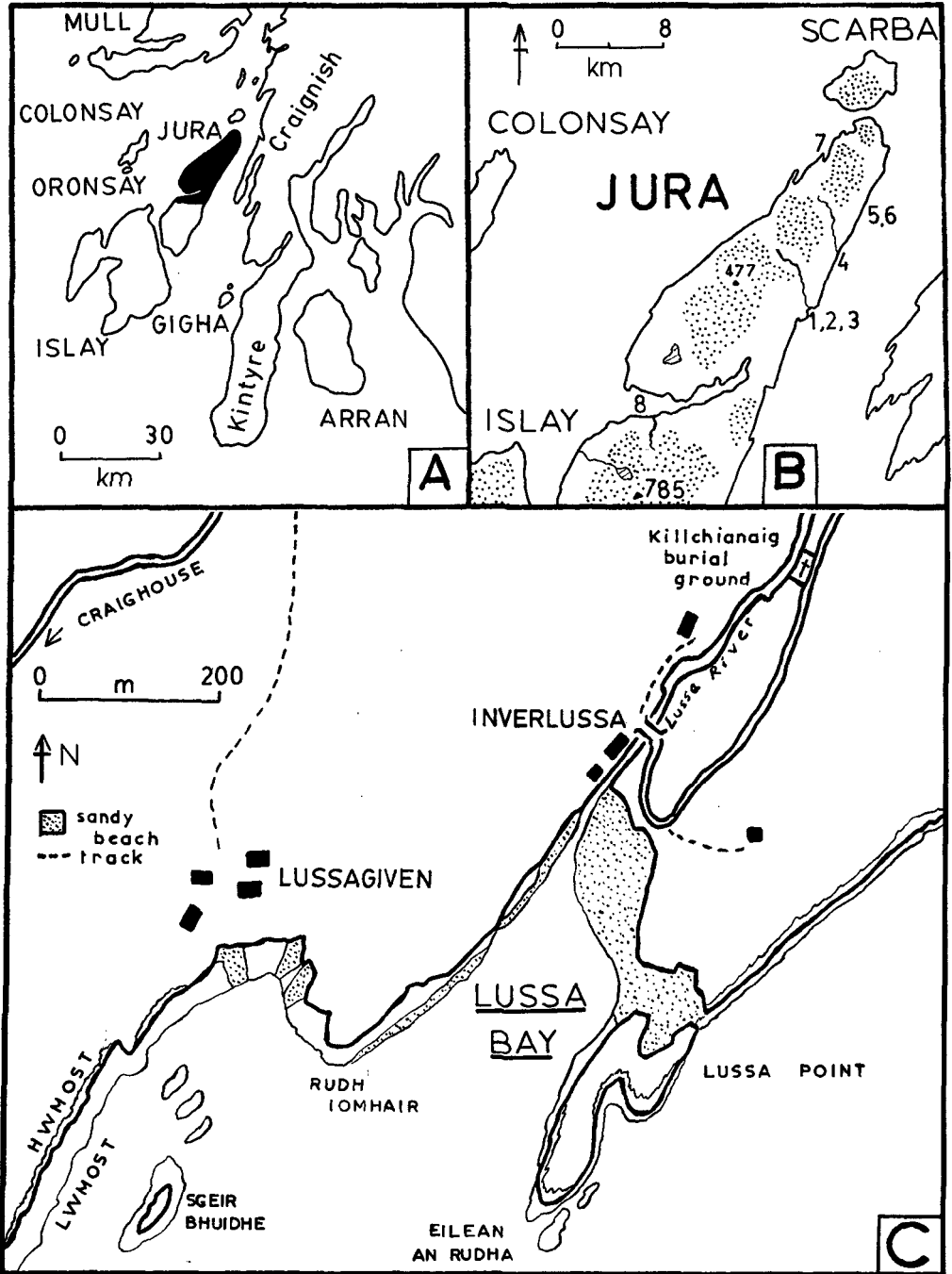
With a view to bringing up to date the information from this site, considered to be one of North Jura's oldest, the new finds are listed below. All have been passed to the National Museums of Scotland to join the collection of 4424 items already in their possession (except for those in the above-mentioned private collections).

THE SITE

As the site has already been fully described (Mercer 1970), here it is necessary to say only that Lussa Bay (site no 1 in illus 1) is a wide, shallow bay open to the prevailing south-west wind. Lussa River, North Jura's most important watercourse, flows out at the north-western end of its sandy shingle beach.

As in the past, over 99% of the flints recovered came from the beach, and from the adjacent river channel near its mouth. Less than 1% was found in the storm-tide zone of the river, which stretches some 150 m upstream of the back of the beach. The scouring properties of river and/or tidal action have resulted in the greatest accumulation of finds on the broad area east of the river channel.

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ILLUS 1 A: Southern Hebrides
 B: North Jura Sites 1, 2, 3 – Lussa Bay, Lussa River, Lussa Wood. 4 – Lealt Bay. 5, 6 – South Carn, North Carn. 7 – Glengarrisdale. 8 – Glenbatrick.
 C: Lussa Bay and surroundings, showing High-Water Mark of Ordinary Spring Tides (HWMOST) and Low-Water Mark (LWMOST). Based upon the Ordnance Survey map 1901

A total of 4424 flints were picked up between 1966 and 1969 (Mercer 1970). Despite the considerable number of flints picked up since the original collection, the size of the additional assemblage (2329 specimens) and the 23 years it took to amass them suggests that the supply is very much reduced.

THE ARTEFACTS (illus 2)

The flints reported here are of the same rich copper colour as those already published, although the occasional white flint did still appear. It has been noted that tools in the dry sand, well above the high-water mark, tend to be white, ie the staining comes from the river. It was also observed in July 1985 that the heavy rain and storms that had resulted in the flooding of the village of Inverlussa, with the Lussa River well over its banks, revealed one white flint on the beach. Was this artefact freshly washed out from somewhere upstream by the heavy downflow of the river? (See later for discussion.)

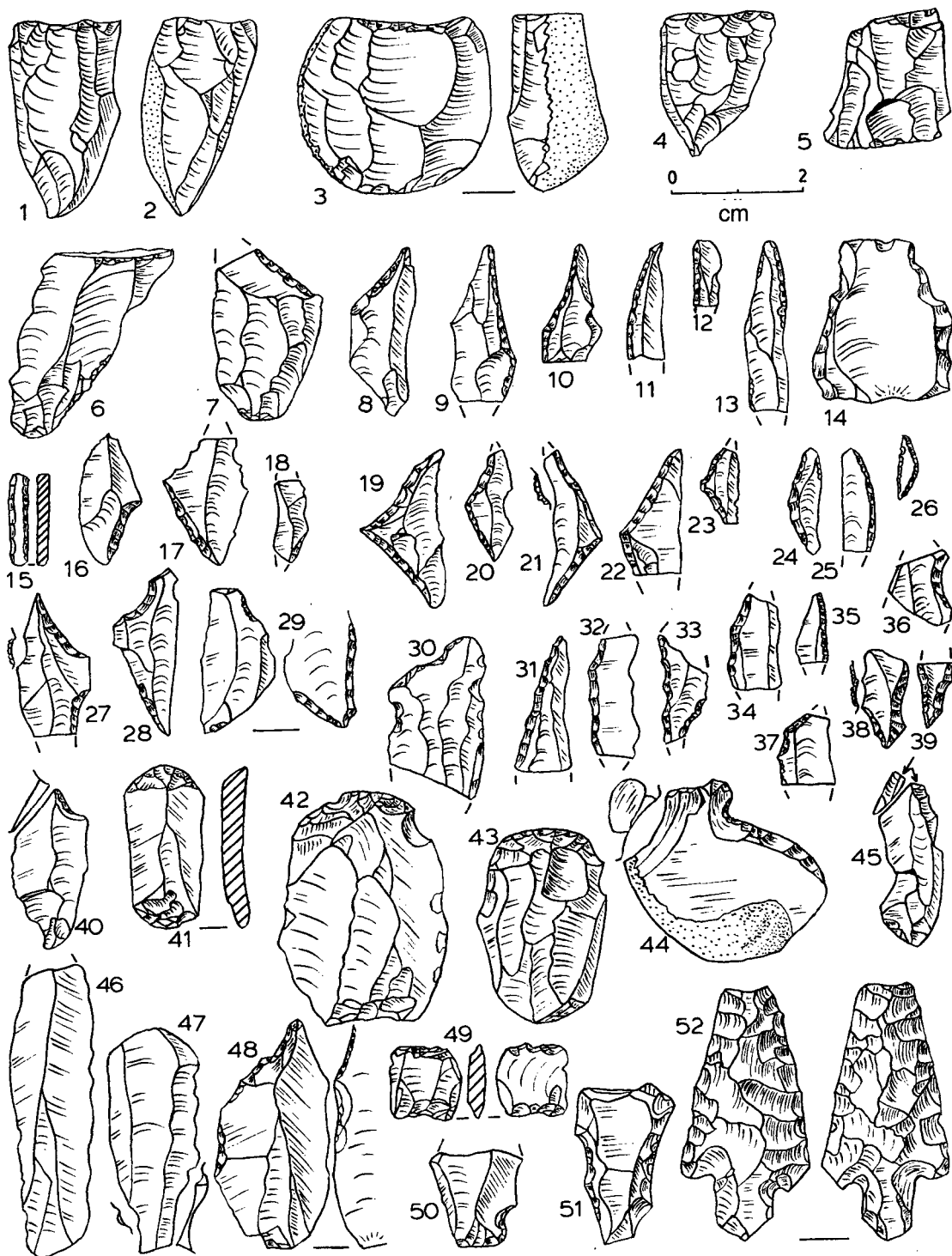
The flints show the same degree of rolling, though here again some have relatively sharp edges. The 2329 artefacts recovered weighed 5.25 kg, of which 3.55 kg represented unclassified material (1912 items). The 417 classified tools weighed 1.7 kg. While it is generally possible to study knapping technique from material not obviously converted into tools, the rolled and broken state of much of the Lussa Bay collection renders this operation hazardous. The breakdown of the material put aside here as unclassified has been limited to noting that 450 pieces retain some cortex and 1462 are cortex-free. A total of 254 of these cortex-free pieces are either flat, regular, more or less complete flakes 20 mm or more in length, or items with sub-parallel, straight edges but not conforming to blade standard (broken or with ratio length: breadth insufficient).

Fifteen whole flint pebbles were picked up, 17–40 mm for the largest measurement (total weight: 150 g). Many of these pieces are very battered and show signs of flake removal. These are felt to be natural and not shaped by man. The breakdown of tool forms given here follows that of the first report (excluding arched, tip-heavy flakes and leaf-shaped flakes).

TABLE 1
Total of artefacts classified

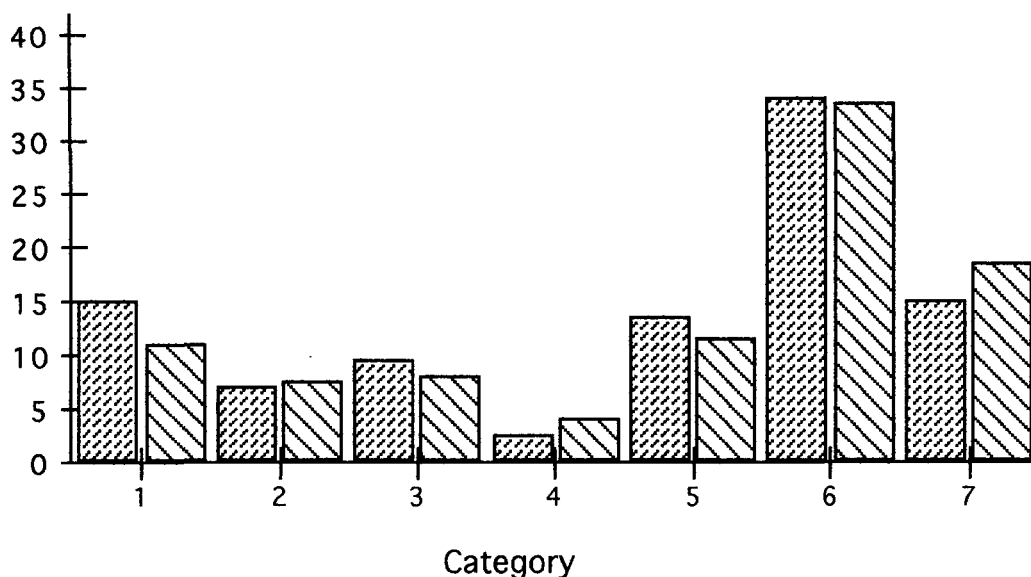
| | | (1970) |
|--------------------------------|-----|--------|
| Cores | 51 | 134 |
| Platform rejuvenation evidence | 32 | 66 |
| Microliths | 36 | 84 |
| Micro-burins | 12 | 20 |
| Scrapers | 50 | 127 |
| Gravers | 2 | 7 |
| Blades | 142 | 309 |
| Perforators | 2 | – |
| Chisels | 7 | – |
| Flakes part-backed with cortex | 76 | 137 |
| Miscellaneous trimming | 6 | 1 |
| Scale-flaked work | 1 | 5 |
| Total | 417 | |

Table 2 (see p 5) compares the percentage of the principal tool types in the 1970 report with the figures given here.



ILLUS 2 Artefacts

1-5 Cores; 6 Platform rejuvenation; 7-39 Microliths; 40 Micro-burin; 41-4 Scrapers; 45 Graver; 46, 47 Blades; 48 Perforator; 49 Chisel; 50, 51 Miscellaneous trimming; 52 Scale-flaked point



▨ 1970 report ▨ This report

TABLE 2
Percentage of principal tool types

Note: The categories are as follows: 1 cores, 2 evidence of platform rejuvenation, 3 microliths, 4 micro-burins, 5 scrapers, 6 blades, 7 flakes part-backed with cortex.

The percentages are based on classified totals of 893 for 1970 (excluding leaf-shaped flakes, arched, tip-heavy flakes, and those trimmed but not classified) and 417 for the present report. Tool forms representing under 2% of the total have been calculated but are not illustrated here.

Cores: Sizes ranged from 17 to 40 mm maximum measurement. Mercer's 'laterally compressed leaning' specimens were still well represented (eight pieces, nos 2, 3). This unorthodox description was applied by Mercer to cores with an internal angle between platform and cortex 'back' of over 90°. In general, the cores were quite heavily worked, 20 having more than one platform (no 5, two opposed platforms and the second smallest core of all).

| Description | Total | No of platforms | | |
|------------------------------|-------|-----------------|----|---|
| | | 1 | 2 | 3 |
| No trace of cortex (no 1, 5) | 10 | 3 | 6 | 1 |
| With cortex (no 2, 3, 4) | 41 | 28 | 12 | 1 |
| Totals | 51 | 31 | 18 | 2 |

Platform rejuvenation evidence: From 24 to 48 mm in length. Struck at right angles to the platform or from the opposite end (no 6).

Microoliths: One found and drawn by J M in 1973, shown here (no 27) but not available in the collection.

TABLE 3

| Description of microliths | Quantity | Illustrations (illus 2) |
|--|----------|---|
| Pointed, base not separately shaped | | |
| 1A Partially trimmed one side, obliquely | 3 | nos 7, 8 |
| B Fully trimmed one side | 4 | nos 9–12; no 10 bulbar |
| C Partially trimmed each side | 1 | no 13 |
| D Fully trimmed one side, partially the other | 1 | no 14 |
| 2 'Evolved rod' | 1 | no 15 – compare with Lussa River |
| Pointed, base separately shaped | | |
| 3 Base tapered | 3 | no 16 (bulbar), 17, 18 |
| Triangles | | |
| 4A Isosceles | 2 | nos 19, 20 |
| B Scalene | 3 | nos 21, 22 (probable), 23 |
| Crescents | | |
| 5 | 3 | nos 24–26 |
| Quadrilaterals | | |
| 6B Trapezoid | 3 | nos 27–29. No 27 considered by J M more a tanged point, on account of angle of lower trimming |
| Fragments difficult to attribute | 11 | nos 30–37, 39 |
| Miscellaneous Fully trimmed each side but not as 1E or 2 | 1 | no 38 |

Micro-burins: Largest 24.5 mm, smallest 11 mm. Butt end, right hand notch: 8 (no 40 the biggest); butt end left hand notch: 2; tip end, right hand notch: 1; impossible to determine: 1.

Scrapers: Complete end-of-blade specimens rare, some possible fragments. Cortex-free flake scrapers include some thumbnail. Not as informative a batch as in the original report.

| | Quantity | Illustrations (illus 2) |
|--|----------|-------------------------|
| 1A End of blade (25–40 mm) | 4 | (no 41) |
| 1B End of cortex-free flake (18–35 mm) | 14 | (nos 42, 43) |
| End and side of cortex-free flake | 4 | |
| 2 Broken, cortex-free working part of 1A, 1B (15–20 mm) | 8 | |
| 3 End and/or side of cortex-bearing flake (22–36 mm) | 14 | (no 44 nosed) |
| Double-ended cortex-bearing flake | 1 | |
| 4 Steep: length 35 mm, width 25 mm, thickness 17 mm (the biggest); length 25 mm, width 20 mm, thickness 13 mm (the smallest) | 4 | |
| – Core rejuvenation adapted as scraper (length 31 mm) | 1 | |

Gravers: Two certain specimens (no 45, 25 mm).

Blades: Cortex-free, length–width ratio 2:1. Many broken. Still an elegant production. Big (40 mm or over): 19 (no 46, standard; the longest, broken: 53 mm); medium (between 40 and 25 mm): 63 (no 47, possibly thinned for hafting); small (under 25 mm): 60 (1 notched; the smallest 10 mm).

Perforators: These easily broken tools were missing from the earlier collection, probably because they are easily broken. Lengths 18 mm and 35 mm (no 48).

Chisels: This term is used to describe flat flakes showing bi-polar flaking on each face, resulting in proximal and distal ends forming a potential cutting edge. Despite current opinion on the subject, I do not consider that they are simply bi-polar cores. All very small (11–21 mm). No 49 a good example.

Flakes part-backed with cortex: This category is included here, as it figured in the first report. More an indication of technique than an intentional tool, this group is to be distinguished from the cortex-bearing pieces in the unclassified group by the full-length cortex covering part of the flake. Mercer (1970) associated these primary flakes with the knapping of the small but distinctive group of cores having the shape of asymmetrical laterally compressed leaning cones. Sizes in the present collection range from: 1 of 52 mm, 1 of 42 mm, 23 over 30 mm, 30 over 20 mm and 21 under 20 mm with the smallest measuring 15 mm.

Miscellaneous trimming: 3 notched (no 50). No 51 pseudo petit tranchet, thick (7 mm).

Scale-flaked work: A barbed-and-tanged point (no 52) of this size is unique among North Jura finds. But scale-flaked work has already been picked up at Lussa Bay – compare with no 191 in Mercer 1970.

INTERPRETATION AND DISCUSSION

It is not intended here to repeat the arguments already put forward in favour of an early date for the flint tools from Lussa Bay (see Mercer 1970). It is simply recalled that their position offers three possibilities: they could date from a period *before* the Post-Glacial transgression; *after* the return of the sea to approximately its present position; or, finally, they could be washing out of some undetermined site upstream of unknown date.

In connection with this last possibility, a short distance upstream of the modern bridge crossing the Lussa River, a series of cemented stones (not modern) slows the progression of the river towards its mouth. Were the flints at present found on the tidal flats and in the last few metres of the riverbed to have come from a site higher up the river, periodically washed out of the bank, one would expect to find both a number of larger flints trapped in the pools upstream of the damming blocks as well as flints among the gravels of the riverbed upstream of the bridge (often exposed in periods of drought); and, finally, to note contrasting patinas between the newly washed out and the older flints.

As already mentioned, only a handful of flints has ever been found just upstream of the bridge and they could easily be the result of vigorous tidal or storm action. They showed no difference in patina. Nor, despite searching upstream for several hundred metres, have any flints been found in the river banks.

The recent find of a complete large barbed-and-tanged point of Bronze Age type was a surprise. It can date from a period only when the sea-level had dropped back. Its presence might seem to plead in favour of a late date (in the Bronze Age) for *all* the material. I prefer, however, to see it as a stray find unrepresentative of the rest of the collection.

Further consideration of the place occupied by the material from Lussa Bay in the Mesolithic sequence proposed for North Jura is certainly necessary. This will form part of a forthcoming article taking into account a recent radiocarbon date for an unpublished Phase 2 site.

However, attention is drawn to the presence at Lussa Bay, Lussa Wood (Mercer 1980) and Glenpatrick (Mercer 1974), of relatively large, *broad* trapeze-triangle microliths. These have been dated at Lussa Wood to around 6000 BC (uncalibrated) from associated charcoal. Even if this association has been considered doubtful by some authors (see, in particular, Myers 1988, and Woodman 1989), it is interesting to note that no large, broad trapeze-triangles were found at the late sites of Lussa River (Mercer 1971) or Glengarrisdale (Mercer & Searight 1986). These forms are likewise absent from the intermediate sites of Lealt Bay (Mercer 1968) and North Carn (Mercer 1972). While an absence from an excavation does not necessarily mean effective absence of a tool form, the fact is nonetheless significant.

'The presence of a few trapezes is no indication of period as they occur at all sites' (Woodman 1989). This is so – but a glance at the illustrations indicates a fundamental difference between the large, broad trapeze-triangles from Lussa Bay, Lussa Wood and Glenbatrick, and the small, thin specimens from Lealt Bay or Lussa River, for instance. Without wishing to labour the point, it is not suggested that the 'broad' trapeze-triangles were the *only* forms in use in an early phase of occupation; it is more likely they formed part of a tool kit including a small amount of the thinner specimens which are so common in later sites on Jura. Progressively, these larger microliths were completely replaced by the smaller forms (and are thus only present in early sites).

In this connection it is useful to note Coles's comments on a 'backed blade' and a 'tanged point' from Kilmelfort Cave, Argyll (Coles 1983, fig 2 nos 6 & 11), which he related to the Jura material. While pointing out the danger of too great a reliance on typology alone, Coles suggested, on the basis of affinities with the Jura material, that his Kilmelfort finds might belong to an early phase of the settlement of Scotland rather than a late one.

It is to be expected that current work on Islay and Colonsay (Mithen 1989; Mithen & Finlayson 1990) will enable the Mesolithic occupation of the islands of the Southern Hebrides to be put into a satisfactory typological and chronological sequence and the interrelationships explained. At first glance, the published artefacts from Gleann Mor, Islay, would appear to correlate with Jura's Phase 2, rather than with the proposed early 'large' trapeze-triangle phase. The exact place of these larger artefacts awaits the discovery of a single occupation site where their presence can be securely dated. Until then, their position at the beginning of the North Jura sequence seems, to me, to be highly possible, though new information can always upset cherished theories.

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