A Mesolithic site at Streat Lane, Streat, East Sussex

by Chris Butler

THE EXCAVATED FLINTWORK

THE RAW MATERIAL

The flint raw material comprises some six different types:

1 Black flint with rare white specks, and a smooth off-white to buff-coloured cortex. This is the most common type of flint on the site, and derives from the local Head deposit from where identical nodules were collected for comparison.

2. A dull dark grey to brown patchy patinated flint with rare white specks, having a smooth buff to light brown cortex. This also derives from the local Head deposit.

3. Light blue grey patinated flint occasionally with darker blue speckles, and a smooth off-white cortex. Probably from the Clay-with-flints on the South Downs.

4. Blue grey to white patinated lustred flint with a smooth buff cortex. A few examples only. Unknown source.

5. White heavily patinated lustreless flint with irregular buff cortex. A few examples only. From the South Downs.

6. Olive-brown to grey streaky lustreless flint. A few examples only. Probably from the local Head deposit.

Most of the raw material appears to derive from either the local Head deposit or from the South Downs. The Head deposit material is available in the immediate vicinity of the site where nodules could have been recovered either from the bed of the adjacent stream, or through having been exposed by the digging of the pits at the site. The flint seen in the Head deposit during the excavations was predominantly Type 1, with smaller quantities of Type 2 and 6. The selection of Type 1 flint nodules would have provided a reasonably good quality raw material, suitable for the manufacture of most implement types. However, it was noted that most of the microliths were manufactured from Type 3 flint. Types 2 and 3 were present in roughly equal quantities. Type 3 flint is typical of the flint that could have been collected from the Clay-with-flint deposits on the South Downs which cap most of the higher parts of the South Downs to the south of the site. Recent surveys at Redhill and Pyecombe, both to the north of Brighton, have shown that the Clay-with-flints was being exploited throughout the Mesolithic period (Butler & Holgate 2002; Butler 2001).

AN ANALYSIS OF A SAMPLE OF FLAKES, BLADES AND BLADELETS

A sample of 100 complete flakes, blades and bladelets from selected sealed contexts was analysed in more detail (Table 2). Due to the high proportion of broken pieces in the assemblage, and to achieve a reasonably sized sample, the flakes, blades and bladelets in the sample had to be drawn from eight different contexts from Pits 1, 2 and 3. A comparison was made with the Hengistbury Head assemblage (Barton 1992), which is one of only a few Mesolithic assemblages that have been statistically analysed.

51% of the sample had evidence of platform abrasion consistent with the preparation of the platform. The blades and bladelets had the highest proportion (71%) of platform abrasion, whilst 45% of the soft hammer-struck flakes, and 31% of the hard hammer-struck flakes had prepared platforms. At Hengistbury 23.6% of the flakes and 77.8% of the blades and bladelets had platform abrasion.

A total of 24% of the sample had hinge terminations. Most of these were on flakes, with 25% of the hard hammer-struck flakes, and 32% of the soft hammer-struck flakes having hinges, whilst only 9.6% of the blades and bladelets terminated in hinges.

Some 47% of the sample had no cortex remaining on the dorsal side, with 17% having between 75% and 100% of the dorsal side covered with cortex. 58% of the blades and bladelets had no cortex, whilst 45% of soft hammer-struck flakes and 31% of the hard hammer-struck flakes had no cortex remaining. The hard hammer-struck flakes had the highest proportion of pieces (31%) with between 75% and 100% cortex remaining. At Hengistbury 50% of the flakes and 24.4% of the blades and bladelets retained 'significant areas of cortex'.

Over 75% of the sample had unidirectional dorsal scars. Multi-directional scars were slightly more common on hard hammer-struck flakes, and could be from a lateral edge as well as the opposing end. On soft hammer-struck flakes and blades/bladelets the multi-directional dorsal scars tended to be opposed. At Hengistbury 46% of the flakes and 53% of the blades and bladelets had unidirectional scars.

Each piece in the sample was also measured for length/breadth analysis, following the method outlined by Saville (1980), the results of which are summarized in Table 3. Each piece in the sample was measured using the following method:

Length: *The maximum dimension at right angles to the striking platform (after Alexander* et al. *1960).*

Breadth: *The maximum dimensions at right angles to length.*

Thickness: *The maximum thickness of piece from ventral to dorsal face.*

Table 2. Summary of sample of flakes, blades and bladelets.

		Flakes	Blades/bladelets	Total
Number		69 (69%)	31 (31%)	100
Hard hammer-struck		16 (23%)		16
Soft hammer-struck		53 (77%)	31 (100%)	84
Platform preparation:	Hard hammer	5 (31%)		5
	Soft hammer	24 (45%)	22 (71%)	46
Hinged Termination	Hard hammer	4 (25%)		4
	Soft hammer	17 (32%)	3 (9.6%)	20
Cortex	(None present)Hard hammer	5 (31%)		5
	Soft hammer	24 (45%)	18 (58%)	42
Dorsal scars	Hard hammer	4 (25%)		4
(multi-directional)	Soft hammer	12 (22%)	7 (22%)	19

Table 3. Length/breadth analysis of the flintwork sample

Part A:
Summary of mean length, breadth and thickness measurements (all measurements in mm)

		Flakes	Blades/bladelets	Total
Mean	Length	33.09	44.74	36.70
	Breadth	23.61	14.84	20.89
	Thickness	7.61	5.29	6.89

Part B:
Analysis of length/breadth (L/B) index

		L/B Index	Number	%
Broad			< 0.5	0
		0.6–1.0	18	18
Medium		1.1–1.5	19	
		1.6–2.0	21	40
Narrow		2.1–2.5	18	
		2.6 >	24	42
Total			**100**	**100**

The results of this exercise confirm the expected trend towards long and narrow flakes and blades/bladelets during the Mesolithic, with 42% of the sample falling into the Narrow category, and only 18% being Broad.

Measurement of the Hengistbury assemblage showed that the flakes had mean dimensions of 23.36 mm in length, 18.87 mm in breadth and 5.24 mm in thickness. Thus the Streat Lane flakes were on average much larger than those from Hengistbury. The blades and bladelets at Hengistbury had mean measurements of 30.57 in length, 11.3 mm in width and 3.6mm in thickness, again showing a trend towards being smaller than those at Streat Lane. This difference may reflect the larger size of the raw material available at the Streat Lane site. A comparison of the Streat Lane assemblage with that from Finglesham in Kent shows that the size of the debitage may also be related to the type of implements that were being manufactured. No microliths were present in the Finglesham assemblage, and the main implement being manufactured was the tranchet axe. The resulting debitage was not only much larger than that at Streat Lane, with 54% falling into the Medium category, but the composition of the debitage in the assemblage was also different with blades and bladelets only making up 9% of the flakes, blades and bladelets at Finglesham (Butler, forthcoming).

THE MICROLITHS

Obliquely blunted bladelets

The largest single group of microliths is the 12 obliquely blunted bladelets (nos 15–26). These microliths are classified as Type A by Clark, and Type 1 by Jacobi. All except one (no. 17) have been retouched on the left leading edge, although a few have some additional retouch on the right-hand edge at the tip. At least three have evidence of impact damage (Barton 1992). All of the complete obliquely blunted bladelets from Streat Lane are manufactured on narrow bladelets, and are much smaller than the early Mesolithic obliquely blunted bladelets from Hassocks (Butler 1989) and other early sites.

15: Mid portion of an obliquely blunted bladelet. Context 35.
16: Mid section of an obliquely blunted bladelet with possible impact break at the proximal end. Context 64.
17: Mid section of an obliquely blunted bladelet retouched on its right margin, with an impact break at the proximal end. Context 64.
18: Obliquely blunted bladelet retouched on its leading edge, with missing distal end. Context 65.
19: Obliquely blunted bladelet. Context 72.
20: Obliquely blunted bladelet retouched at the distal end, and missing its proximal end. Context 72.
21: Obliquely blunted bladelet retouched on its leading edge, with possible impact damage at the tip. Context 92.
22: Obliquely blunted bladelet retouched on its leading edge, with missing distal end. Context 77.
23: Proximal end of an obliquely blunted bladelet. Context 77.
24: Proximal end of an obliquely blunted bladelet. Context 77.
25: Small obliquely blunted bladelet. Context 138.
26: Small obliquely blunted bladelet. Context 141.

Straight backed bladelet

This single microlith coms under Clark's Type B, but is more closely defined by Jacobi as a Type 5b (Jacobi pers. comm.).

27: Straight backed bladelet with semi-abrupt retouch on its leading edge. Context 64.

Partially backed bladelets
These two microliths, one of which was broken and abandoned during manufacture, can be classified under Clark's Type B or Jacobi's Type 1ac.

28: Partially backed bladelet that has failed in manufacture. Context 74.
29: Narrow partially backed bladelet with missing distal end. Context 134.

Obliquely truncated bladelet
This obliquely truncated bladelet corresponds to Clark's Type C, and closely corresponds to Jacobi's Type 3a, and is almost a rhombic bladelet.

30: Obliquely truncated bladelet with additional retouch on its lower leading edge. Context 65.

Isosceles triangles
The isosceles triangles fit Clark's Type D and Jacobi's Type 2.

31: Broken isosceles triangle with retouch on the leading edge. Context 56.
32: Broken isosceles triangle with retouch on the leading edge. Possible Horsham point. Context 72.
33: Mesial section of isosceles triangle with retouch on the leading edge, or alternatively the mesial section of a tanged point. Context 60.

Scalene triangles
This group of five microliths also fits Clark's Type D, whilst scalene triangles more closely fit Jacobi's Type 7, or Type 6 where a 'rod' is a more appropriate description.

34: Mesial fragment from a scalene triangle or rod. Context 2.
35: Scalene triangle/rod. Context 5.
36: Lower half of a scalene triangle or rod. Context 36.
37: Scalene triangle. Context 77.
38: Scalene triangle. Context 77.

Tanged points
The tanged points come within Clark's Type G, and have similarities with the tanged points from the early continental sites such as Ahrensburg (Clark 1936), and would thus fit an early Mesolithic date.

39: Tanged point with a broad tang at the proximal end retouched at the proximal end and along one side of the tang. The point has been partially retouched on both edges. Context 27.
40: Tanged point with a narrow tang formed at the distal end by abrupt retouch. The point has probable impact damage. Context 48.
41: Tanged point with a narrow tang at the proximal end formed by abrupt retouch. Context 77.
42: Tanged point with a broad tang at the distal end partly retouched on one side. Context 77.

The two microlith fragments include one small fire-fractured piece (possibly from a rod or scalene triangle), whilst the other fragment has been obliquely blunted, but cannot be accurately assigned to one particular type (no. 43).

PLANT REMAINS

by Pat Hinton

A total of 543 litres of soil from 14 different contexts was wet sieved through a series of sieves starting from 10 mm and 4 mm in size to remove the larger pieces of fire-fractured flint, and then through 1 mm and 500 micron sieves to extract charcoal and charred plant remains.

All of the samples included recent uncharred seeds, root and stem fragments, and fungal sclerotia in various proportions. Charcoal was present in all samples, always as small pieces and often merely flecks. No other charred plant material was found.

POLLEN ANALYSIS

A sample from Context 65 in Pit 1 was sent to Palaeoecology Research Services for analysis and was examined for pollen by Dr Allan Hall of the Environmental Archaeology Unit, University of York. The analysis of an initial sub sample produced no evidence of pollen, or indeed any other organic material, and therefore no further investigation was undertaken.