

AN EARLY MESOLITHIC SITE AT RACKHAM, WEST SUSSEX

by Daryl Garton, B.A.

The site is on Sparrite Farm, on the Parham Estate, Rackham, West Sussex (TQ 048 147). It lies on the Sandgate beds of the Lower Greensand series of the Weald (McRae and Burham 1975, 599), c.300 m to the west of Amberley Wild Brooks, a waterlogged area east of the River Arun, separated from it by a low sand ridge. The South Downs escarpment lies 1500 m to the south. The site is c.400 m south of the late Neolithic site reported by E. Holden and R. Bradley (Holden and Bradley 1975, 85).

INTRODUCTION

The site was located by Mr. and Mrs. E. Holden on clearance of an area of secondary woodland. The removal of a group of conifers just northeast of the Rackham to Greatham road revealed an assemblage of flakes, blades, an obliquely blunted point and a scraper. The tools and the character of the debitage suggested an early Mesolithic date for the assemblage (R. Jacobi, pers. comm.). Money was allocated by the D.o.E. for the excavation of the site on the basis that it was probably early in date, and that as the site had not been ploughed recently, it was hoped that pollen analysis would produce some environmental evidence for this period. Pollen analysis from the nearby late Neolithic site (Holden and Bradley 1975, 85), gave evidence of Neolithic clearance, forest regeneration followed by permanent clearance resulting in heathland with acidification and podzolisation of the soil (Dimpleby and Bradley 1975, 179). The soil profile in the area of the Mesolithic site was much disturbed unlike that of the Neolithic site to the north (K. Thomas and J. Sheldon, pers. comm.). The removal of the shallow rooting conifers had not disturbed the deeper part of the site, but had removed the upper part of the soil profile. Erosion of the sand had also occurred between clearance and excavation so that no samples for pollen analysis were taken as any pollen could not have been related to the artifact levels. The depths at which the artifacts were found vary over the excavated area (5-30 cm). This is thought to be partly dependent on the depth of truncation of the soil profile which was variable, and could not be determined at any single point. The soil material in the area of the excavation was convoluted sand and sandy clays, the textural differences picked out by iron and humic staining, the sands white, the sandy clays orange to dark brown. The most abundant flintwork was recovered from the areas of clean white sand.

EXCAVATION

An area of 260 square metres was excavated. An initial area of 100 square metres was opened, and extended following the heaviest concentration of flintwork. The area was divided into 1 metre squares and excavated by trowel in 2.5 cm levels, all the flintwork being plotted *in situ*, and all the spoil being dry sieved. The flintwork from each 1 metre square, and 5 cm depth was collected together as groups for storage and to be catalogued. The site was excavated to at least a depth of 25 cm, and in some areas to 40 cm, excavation ceasing only when no flintwork was recovered in the last 5 cm. The variability of artifact depth is partly related to the areas of concentration, and

possibly the variability in the depth of the erosion of the soil profile.

All the debitage was in a very fresh state, the edges had not been rolled and were sharp. Most of the flint was of high quality and dark grey, the cortex fresh and chalky and probably from the South Downs 1500 m to the south. Only a small number of the pieces had been flaked from abraded flint nodules.

Two complete microliths were recovered from the excavation, an obliquely blunted point A1a (Clark 1934, 52; 1939, 61), Fig. 3 no. 1, and an elongated trapeze, Fig. 3 no. 3. A retouched broken blade may also have been an obliquely blunted blade A1c (Clark *op. cit.*), Fig. 3 no. 2. Parallels for the obliquely blunted point may be found at Iping (Keef, Wymer and Dimbleby 1965, 89, Fig. 2, no. 13), and West Heath (Clark, 1932, 149, Fig. 2, nos. 4, 12; Brailsford, 1937, 227, no. 18,28); for the possible obliquely blunted point at Iping (Keef, Wymer and Dimbleby 1965, 89, Fig. 2, no. 14), and for the elongated trapeze at Thatcham (Wymer 1962, 373, Fig. 7, no. 67).

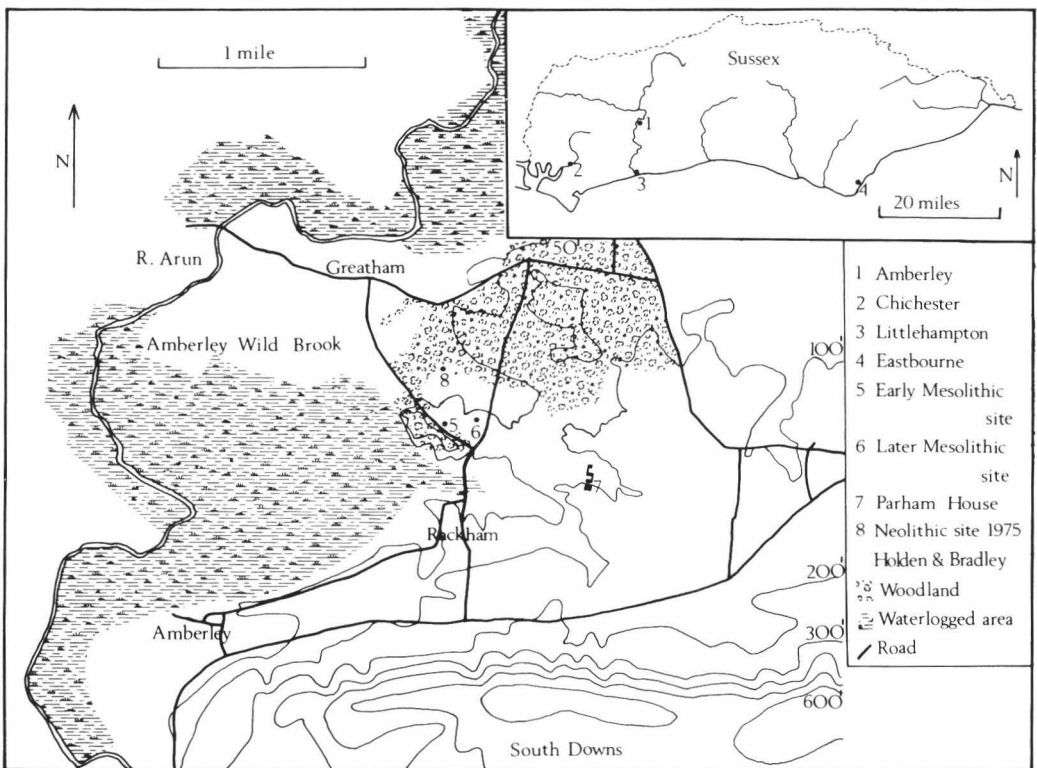


Fig. 1. Location map of the site.

ASSEMBLAGE ANALYSIS

Table 1.

Firecracked flints 108	Flakes 376	Blades 432	Microliths 3	Cores 14	Rough Waste 14
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Only 61 of the blades and flakes show any sign of retouch (i.e. 7.2%), and then it is mostly blades (46). Of these six were scrapers.

Table 2.

Analysis of flakes and blades	Retouched	Core prep.	a.t.f.*	microlith	unused	firecracked
Flakes						
a) complete with cortex	3	3			33	2
b) complete without cortex	3	4	1		59	5
c) incomplete with cortex	2	1			42	11
d) incomplete without cortex	7	15	2		149	34
Blades						
a) complete with cortex	5	1			30	1
b) complete without cortex	18	5		1	92	2
c) incomplete with cortex	5	1			24	4
d) incomplete without cortex	18	8		2	178	37

* Axe thinning flake.

There were six end scrapers on blades, of which four were complete; one was also retouched along part of one side (Fig. 3, no. 4). Other scraper-like tools include one flake which had been prepared but not utilised, and two frost shattered flakes that had been utilised to produce scraper-like tools. (These are not shown on Fig. 3 as scrapers).

No axes or tranche sharpening flakes were recovered, however three axe thinning flakes were found within the central concentration of flintwork (two were recovered in the preliminary fieldwalking). (Fig. 3, no. 13. Table 2).

The number of cores and core preparation flakes would suggest that this was a flintworking area. Fourteen cores were recovered. They may be broadly classified:-

Table 3.

Single platform with flakes removed part of the way round (Fig. 3, no. 5)	3
Single platform, near conical (Fig. 3, no. 6)	1
Two platforms	6
Shattered pieces from cores	4

The cores vary in quality, and only four could still produce useful flakes. One core had been crested (Fig. 3, no. 5). The production of blades necessitates careful core preparation. Core preparation flakes include crested blades (15) (Fig. 3, no. 7, 8), a technique used to ensure production of narrow blades (M. Newcomer pers. comm.); core tablets, that is flakes struck parallel to an existing platform (15) (Fig. 3, no. 9, 10, 11); and core rejuvenation flakes which may be divided into two groups, those from the bottom of a core to produce a striking platform (4), and those struck parallel to existing flakes (4), one of which has a double bulb of percussion (Fig. 3, no. 12). Thirty two of the core preparation flakes have no cortex. This probably indicates that once a core was prepared it was utilised to the end of its useful life. This may also be illustrated by the high proportion of core preparation flakes to cores compared to available figures from other sites.

Table 4.

	Core prep. flakes : Cores
Rackham	38 : 14
West Heath (Clark 1932, 148)	4 : 14
Iping (Keef, Wymer and Dimbleby, 1965, 90)	"common" : 55
Thatcham (Wymer 1962, 340)	129 : 283
Oakhanger (Rankine 1952, 32)	341 : 705

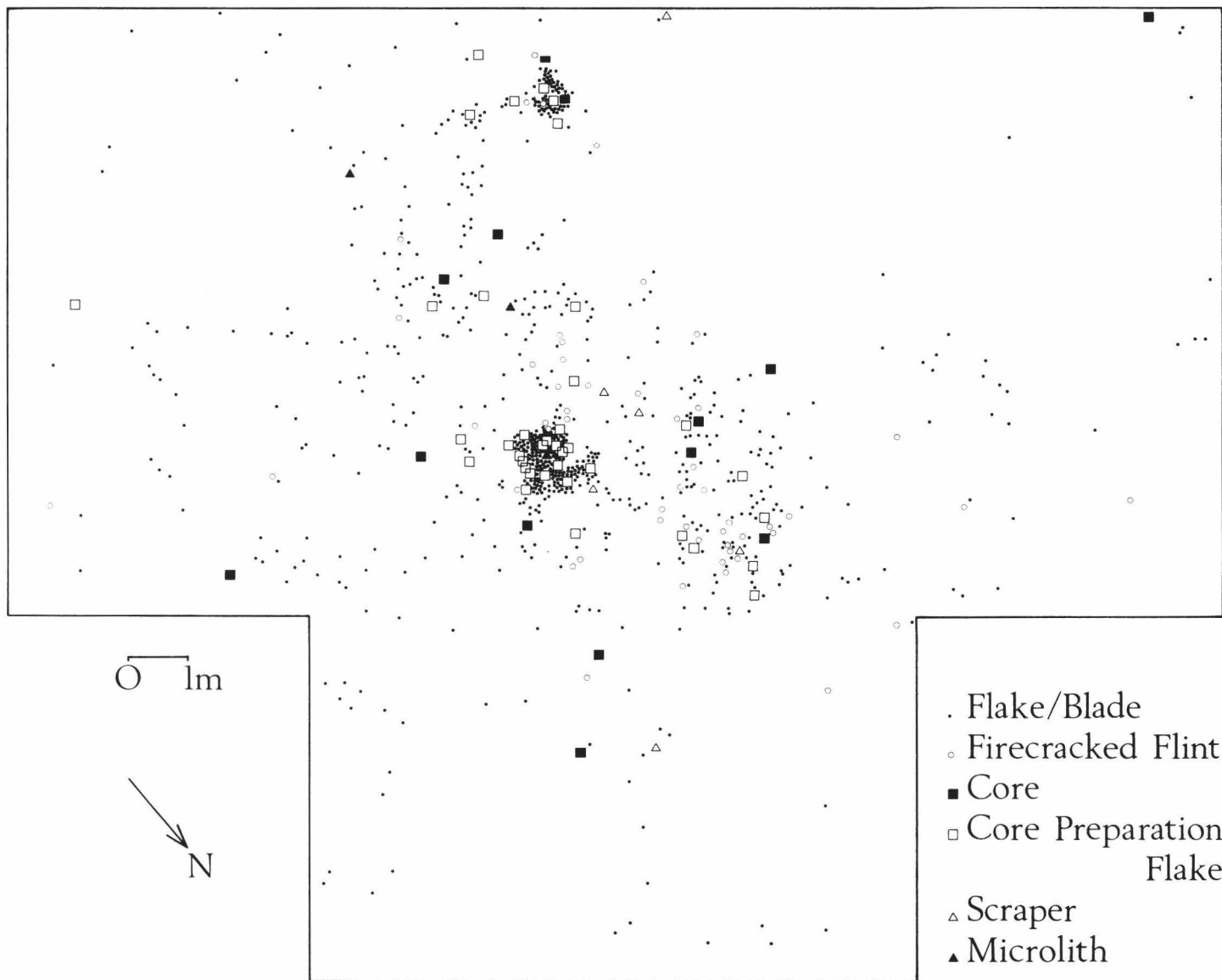


Fig. 2. A plan of the excavation, flintwork plotted *in situ*

Fourteen pieces of rough waste were also recovered (defined as a piece of flint where some flakes have been intentionally removed but soon abandoned).

The cores recovered were prepared for blade production. Blades comprise 51% of the total knapped assemblage, and are more abundant than flakes. (Table 1). Blades were divided into three groups by width, Blade widths between 1.2 and 1.9 mm are most numerous, with a smaller number of the smaller and larger blades.

Table 5.

Blade width	<1.1 mm	1.2-1.9 mm	>2.0 mm
Complete	39	68	48
Incomplete	92	155	30

Only 155 of the blades were complete. The Breadth : Length ratios of the complete blades and flakes are presented below.

Table 6.

Breadth : Length (M. Pitts and R. Jacobi, 1979, 163)

B : L	<.2	.2-.4	.4-.6	.6-.8	.8-.10	1.0-1.2	1.2-1.6	>1.6
%	2.7	28.3	36.5	12.3	5.7	5.3	6.1	3.1

Visual comparison with data from other Mesolithic sites (supplied by R. Jacobi and M. Pitts) would group Rackham with those sites designated as early (M. Pitts and R. Jacobi 1979, 165-7).

The assemblage from Rackham may best be compared with sites of Maglemosian type (R. Jacobi, pers. comm.). Cluster analysis of sites typologically (Jacobi 1978, 7), grouped Sussex sites of the southwest arc of the Lower Greensand e.g. Iping (Keef, Wymer and Dimpleby 1965, 85), with Thatcham (Wymer 1962, 329); which Jacobi (1978, 19), would date to the early eighth millennium B.C. Rackham is probably part of this Sussex group, geographically and typologically. The sites from West Heath were not included for cluster analysis as only a small proportion of the material survives, however, Jacobi considers the published assemblages to fit a Maglemosian context (Jacobi 1978, 17). No site provides an exact parallel to the Rackham assemblage, this may be due to the different functions of the sites.

Table 7.
(See also Mellars 1976, 387).

	Rackham	West Heath Clark 1932	West Heath Brailsford 1937	Iping Keef et al. 1965	Thatcham Wymer 1962
Conical cores	1	✓	✓	x	4
One platform cores	3			37	100
Two platform cores	6	✓		18	155
Other cores	4				24
Core prep. flakes	38	✓	✓	✓	283
Obliquely blunted pt.	2	✓	3	105	187
Other microliths	1	✓		3	98
Microburin		✓	x	26	72
Scraper	6	✓	9	10	132
Transverse sharpening flake		2	x	7	16
Notched flake		✓			
Graver/awl/burin		2	1	2	61
Serrated edge blade		✓			19
Axe/adze					17
Fabricator				1	6
Ground edge blade					9
Punch				2	8
Pick				1	
Segmented blade		✓		46	40

At Rackham, Iping and Thatcham, single and two platform cores are the most common, with few conical cores, whereas the latter were the predominant type at West Heath (Clark, 1932, 151; Brailsford 1937, 228). Otherwise the assemblage from West Heath (Brailsford 1937, 224), most closely parallels the Rackham assemblage, both having a restricted range of tools; three microliths, and six and nine scrapers respectively with no microburins or transverse sharpening flakes at either site. (Note that three axe thinning flakes were recovered from Rackham implying some axe use). This West Heath site, as Rackham, has very few microliths in contrast to other sites (Mellars 1976, 387). The West Heath sites reported (Clark 1932, 145; Brailsford 1937, 224), appear to be of different characters; this could be due to their different functions, or the limited size of the excavations.

The size of the area of flint debitage recovered may be paralleled at Iping (Keef, Wymer and Dimpleby 1965, 85) and West Heath (Clark 1932, 148). A comparison of the density of flintwork is difficult due to a lack of published data. However, it would appear that the flint densities at Rackham are lower than comparable published sites of the same size, e.g. Iping (Keef, Wymer and Dimpleby 1965, 88). This, taken with the site size, and patterning, suggest that Rackham is a single phase site.

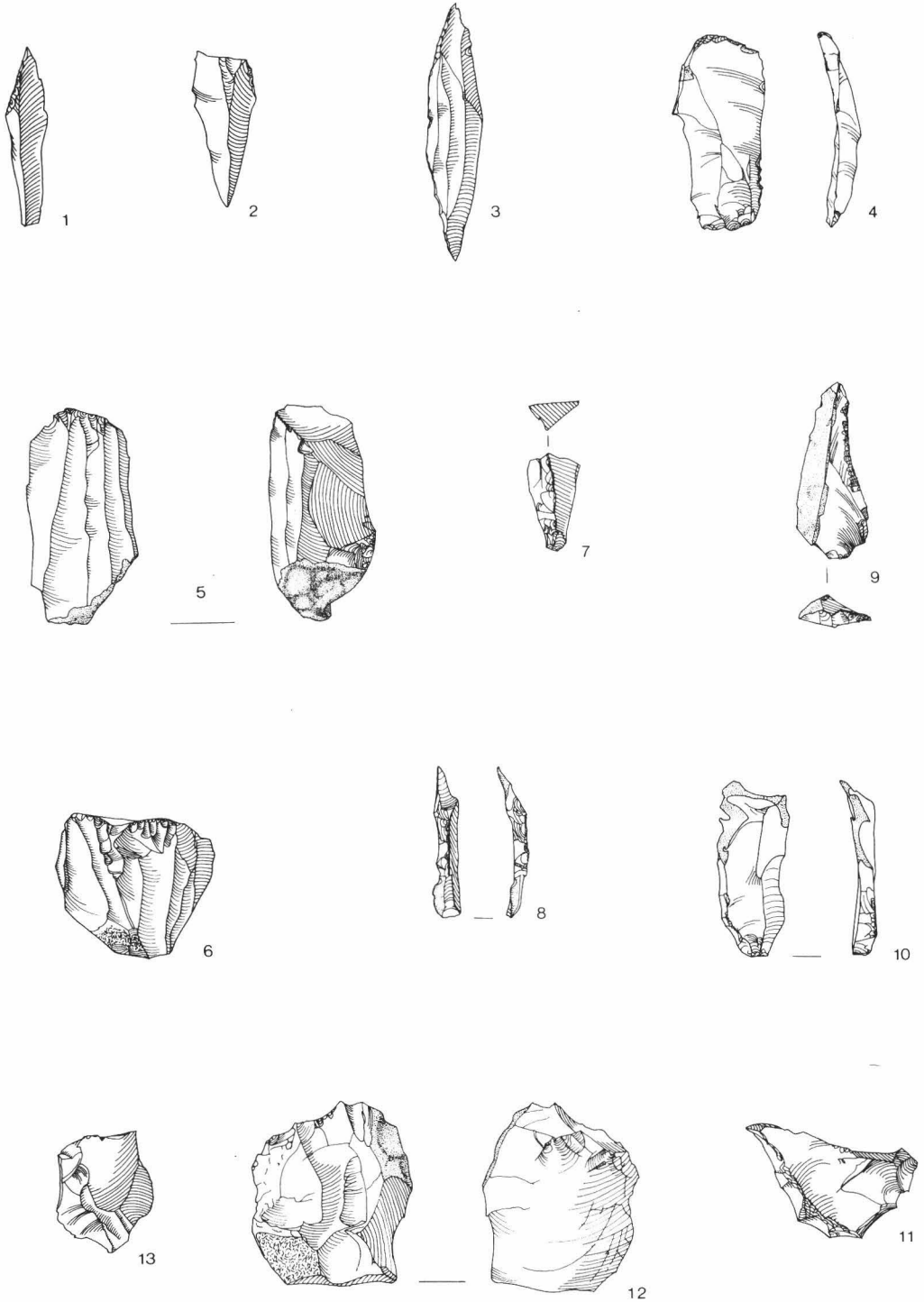


Fig. 3. Examples of the flintwork. Nos. 1-3 microliths 1/1. Nos. 4-13, scraper, cores, core preparation flakes and axe trimming flake 1/2.

The flintwork was found in an area c. 10 m x 10 m. There are two concentrations of flintwork, the largest in the centre of the excavation, and the other 5 m to the southwest. (Fig. 2).

The central concentration of flintwork comprises mainly of flakes and blades (128, 14 of which were retouched), with seventeen core preparation flakes and one microlith and scraper. Fourteen additional core preparation flakes were found within 3 m, four cores within 2 m, and a further eight cores within 5 m of the concentration of flintwork. This strongly suggests that this was a flint working area. Conjoining of debitage has not been attempted. Most of the core preparation flakes outside the main concentration, but within 3 m of it, lie to the west and northwest. This patterning is reproduced by the scrapers (with one exception), the majority of firecracked flints, and is also the area with the highest proportion of retouched blades and flakes. It should also be noted that the highest proportions of blades, and of debitage with cortex occurred in this area.

The flintwork concentration by the northwestern edge of the excavated area is much smaller, comprising 75 flakes and blades, with two cores and four core preparation flakes. Two core preparation flakes were found within 1 m of it.

INTERPRETATION OF THE RECOVERED DATA

1. The assemblage is typologically early Mesolithic. The proportions of the debitage confirm this interpretation.
2. The site was visited on a limited number of occasions, probably only once.
3. Cores were prepared and worked within the excavated area.
4. Few microliths were recovered. These may have been removed at the time of production, although the total lack of microburins would argue against this as a microlith production site.
5. The site may be divided into two flint knapping areas, with an activity area to the west and northwest of the largest flint knapping area.
6. The proposed activity area may have been bounded on its northwest edge by a rough shelter or windbreak, the flintwork and firecracked flint densities drop rapidly, although there is no structural evidence (cf. Mellars 1976, 377).
7. The highest proportion of scrapers and retouched blades and flakes occur in the proposed activity area. This patterning is also recovered at other sites where the distribution of retouched tools has been plotted (Mellars 1976, 377).
8. It may be proposed that the site was a short stay camp for a small group of hunter/gatherer people. The limited number of tools and size of assemblage being indicative of this function.

There were no structural features which could be associated with the Mesolithic assemblage, although it should be noted that the areas of abundant flintwork coincided with those of clean white sand. Part of the site had been disturbed by 'U' shaped gulleys (12-20 cm wide, and 13-60 cm deep), cut into the sand of the Mesolithic levels, and filled with humic earth. A section of one of the gulleys contained part of a stem of clay pipe; no flintwork was recovered in those sections excavated, and they did not appear to disturb the patterning of the Mesolithic assemblage. The purpose of these gulleys is unclear.

Fieldwalking in an adjacent ploughed field (TQ 052 147) and a subsidiary excavation (36 square metres conducted as described above) revealed a heavy concentration of flintwork.

Table 8.

<i>Tools</i>	Excavation	Fieldwalking
Cores	12	12
Crested blades	9	
Core tablets	6	5
Axe thinning flakes	4	
Tranшет sharpening flakes	2	1
Notched blades	9	
Scrapers	10	10
Backed rods	3	1
Hollow based point		1
Barb and tanged arrowhead		1
Microburin		1

Table 9.

Excavation	With Cortex		Without Cortex		Total
	Retouched	Unused	Retouched	Unused	
Flakes	23	129	22	186	360
Blades 2.0 mm	7	11	13	10	41
Blades 1.2-1.9 mm	17	47	50	125	239
Blades 1.1 mm	3	37	25	173	238
Fieldwalking					
Flakes	15	79	13	68	175
Blades 2.0 mm	3	8	1	2	14
Blades 1.2-1.9 mm	0	13	13	24	50
Blades 1.1 mm	2	5	1	20	28

The composition of the fieldwalking and excavation assemblages suggest a later Mesolithic date. The amount of flintwork would suggest a large site, or perhaps a site visited on a number of occasions. The small area of the excavation, and the effects of ploughing, do not favour a discussion of patterning to discern activity areas.

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The flintwork is lodged at Barbican House, Lewes, by kind permission of Mrs. V. Tritton, as is a catalogue of the flintwork and all the site plans.

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