UNCORRECTED ARCHIVE REPORT

APPENDIX 3 – WORKED FLINT by Philippa Bradley

Introduction

A total of 708 pieces of worked flint were recovered from the excavations (a single piece of burnt unworked flint was also collected). The assemblage includes diagnostic Neolithic and Bronze Age flintwork from a range of features including pits, ditches and graves; a quantity came from unstratified and later deposits. Within the descriptive text the overall flint assemblage is summarised and quantified in Tables A3:1 to A3:3, and selected feature groups are tabulated in Tables A3:4 to A3:9. Selected pieces of flint are illustrated with other objects from the assemblages where appropriate, in Figures 11, 12, 15, 16, 23 and 25 in the main printed text and are described in the catalogue at the end of this report.

Methodology

During the initial post-excavation phase various people studied the flint and numerous notes exist in the archive but no formal report was produced, although notes on several aspects of the assemblage were compiled by George Lambrick and selected pieces illustrated. These have been revised and new sections of text written. The flint was rapidly recorded onto an Excel spreadsheet using a typological recording system. Notes on any pertinent technological information, condition, and presence of usewear were also made. It is hoped that these details will provide pointers for future research into the assemblage. Selected groups of flint have been studied in greater detail, these focussed on pit groups which had been little studied in previous post-excavation analyses.

It can be seen from the accompanying tables that certain elements of the assemblage are missing or under represented (eg chips and burnt unworked flint). Burnt unworked flint was not routinely kept from the excavation (G Lambrick pers. comm.), which accounts for its virtual absence.

Raw material

The majority of the flint has good flaking qualities. The flint is mostly dark brown in colour although some grey material was noted. This material has a buff, brown or slightly grey cortex. Likely sources for the flint are the Berkshire Downs to the south or the Chilterns to the east. Two flakes from polished implements were recovered; this material may have come from slightly further afield. A small quantity of Bullhead flint (Shepherd 1972) was recovered including 21 pieces from pit 160. It is possible that some of this material came originally from the same nodules but no refits could be found. This flint was probably chosen for its attractive appearance and is likely to have been brought to the site from sources in the south-east (Durden and Lamdin-Whymark in

prep.). A little poorer quality material was recovered, for example flint with a pebbly cortex from 563/A/A. This material flaked poorly and may have been collected from the local river gravels.

Flintworking

Table 1 provides a summary composition of assemblage. Debitage clearly dominates the assemblage but a relatively high proportion of retouched forms were recovered. This may be explained by the quantity of flint from pit deposits and graves where it might be greater quantities of retouched pieces might be expected. All elements of the reduction sequence have been recovered but some biases can be noted; chips and irregular pieces are perhaps not as well represented as one might expect. The lack of burnt unworked flint has been discussed above. Diagnostic flints of Neolithic and Bronze Age date were recovered, largely consisting of arrowheads.

A single possible Mesolithic piercer was recovered from Iron Age pit F328/A/1 but not in association with other contemporary flintwork.

A single early Neolithic leaf-shaped arrowhead came from pit F555, together with a small group of flint. Other probable early Neolithic flint came from pit F518, although no diagnostic retouched pieces were recovered, the flint has been soft-hammer struck and appear to be similar in character to that from pit F555 (see **).

Neolithic transverse arrowheads (chisel and oblique types) usually considered to be of middle to late Neolithic date came from a range of contexts: pit F38 (4 chisel), pit F160 (1 chisel), Roman ditch F918 (1 chisel), topsoil (1 oblique). The chisel arrowheads from pits F38 and F160 were associated with large assemblages of flint composed of both knapping debris and retouched forms (see Tables A3:4 and A3:5), and these two pits produced very similar radiocarbon dates of 4240-3660 and 4040-3640 cal BC. These deposits contain both burnt and worn pieces implying that they are the debris from domestic activity. Scrapers, serrated and retouched flakes were important forms in these features, indicating a range of processing tasks, including hide working, were being undertaken. The flint from the early Neolithic features (including pits F38, F160) has been carefully worked. Only two cores were recovered from these pits (see Tables A3:4 and A3:5), which reflects the generally low numbers of cores recovered from the site (Table A3:2).

A long blade knife, a serrated blade and other utilised blades and a few flakes were associated with middle Neolithic Burial F602, with radiocarbon dates of 3490-2890 and 3640-3370 cal BC. Other early to middle Neolithic groups include F512, F518 and F555 (see Tables A3: 6 and A3:7)

A little late Neolithic flint came from pits F287 and F288 but unfortunately this material is not particularly diagnostic being dated largely by associated pottery. A possible later Neolithic piercer with a long point was recovered from the topsoil.

Other possible Neolithic material came from later features, including end and side

scrapers (F301/B/1, F508/A/2). The latter example had two flakes removed from its scraping edge, possible attempts to resharpen it, which may have resulted in its discard. An interesting scraper fragment (topsoil) had been snapped twice, leaving a neat quarter section. A similar scraper fragment was recovered from a Neolithic context at Barrow Hills, Radley (Barclay and Halpin 1999, 52, fig. 4.11, F21).

A scraper from Beaker Burial F618 (Fig 16) and a few flakes from F906 represent the only Beaker period flintwork.

A single barbed and tanged arrowhead was recovered from Bronze Age ditch F320. Other probable Bronze Age flintwork includes a backed knife and scraper (topsoil), and an oval scale-flaked knife from a Roman ditch (F51/E/1). A triangular arrowhead, possibly a chisel or barbed and tanged fragment, came from the middle Bronze Age ring ditch (F101). Some probable early Bronze Age flint was recovered from later contexts and includes a scraper and scale-flaked or backed knives (topsoil/unstratified, F51/E/1).

A little possible mid to late Bronze Age flint was recovered from the site. This included a denticulated scrapers (F124/A/1, F605/A/1), and an irregular retouched thermal flake (F533/A/1).

Table A3:1 Summary quantification of flint assemblage (no. and %)

					<u> </u>		
Flakes	Blades and blade-like flakes*	Chips			Retouched forms	Burnt unworked flint**	Total
433* 61%	56	78	3	26	112	1	709
	7.9%	11%	0.4%	3.7%	15.8%	0.1%	

^{*} including 2 flakes from polished implements and a core rejuvenation flake

Table A3:2 Summary of core types (no. and %)

Multi- platform flake core	Single platform flake core	Single platform blade core	Keeled and discoidal cores	Core on a flake	Core fragments	Total
5	2	1	4	1	13	26
19.2%	7.7%	3.8%	15.4%	3.8%	50%	

Table A3:3 Summary of retouched forms (no. and %)

^{**} burnt unworked flint was not kept

Arrowheads	Scrapers	Knives	Piercers and awls	Serrated and retouched flakes	Miscellan eous retouch	Total
10	26	4	7	43	22	112
8.9%	23.2%	3.6%	6.25%	38.4%	19.6%	

Assemblage descriptions

Pit 160

An assemblage of 75 pieces of worked flint was recovered from the fills of this pit (Table A3:4, Fig. 11 nos. 1-7). Pit 160 contained a similar range of debitage as pit 38 although proportionally fewer blade-like flakes and chips were recovered. Sixteen Bullhead flint flakes were recovered and although no refits could be made it is likely that this material originally came from the same nodule or a small number of nodules. Two Bullhead chips attest to this material having been worked in the vicinity. A small number of retouched pieces were made on Bullhead flint (an end scraper, an end and side scraper and a serrated flake). A single discoidal core, weighing 30 g, was recovered; this example has been neatly worked. It is of note that this type of core was frequently used to produce flakes for chisel arrowheads (Green 1980; Healy 1985).

A moderately wide range of retouched forms was recovered (Table A3:4). The serrated flakes have serrations varying from 8-15 per 10 mm, and one example is very worn and may be the result of use rather than formal retouching (Fig. 11 nos. 1-3). The scrapers have been neatly worked on thin blanks (Fig. 11 nos. 4-6). The chisel arrowhead has been quite finely made but has been broken prior to deposition (Fig. 11 no. 7).

Table A3:4 Summary of flint from pit F160

	_	_		
Flakes	Blade-like flakes	Chips	Core	Retouched forms
45	6	11	1	12
			(discoidal)	(1 chisel arrowhead, 2 end
				scrapers, 1 end and side scrapers, 1
				other scraper, 4 serrated flake, 1
				retouched flake, 2 miscellaneous
				retouch)

Pit 38

The fills of this pit contained a total of 166 pieces of worked flint (Fig. 12 nos. 1-5, Table A3:5). The flint is very fresh and edges remain sharp indicating that little post-depositional damage has occurred; possible usewear was noted on some pieces. A large

Bullhead flake was recovered. It is of note that both burnt and used pieces have been included in this deposit. The flint is summarised in Table A3:5. It can be seen that debitage dominates but a range of retouched forms was recovered. Four chisel arrowheads provide mid-late Neolithic dating for this assemblage (Fig. 12 nos. 4 and 5). Two of these have been broken and burnt. The end and side scrapers have been neatly worked on round non-cortical blanks (Fig. 12 nos. 1, 3). The serrated flake, a coarsely worked example, has been heavily burnt prior to deposition (Fig. 12 no. 2). The miscellaneous retouched piece is a flake with an area of secondary working. The core is a fairly large flake weighing 51 g that has had some flakes removed down one side.

Table A3:5 Summary of flint from pit F38

Flakes	Blade-like flakes	Chips	Core	Retouched forms
101	22	34	1	8
			(core on a flake)	(4 chisel arrowheads, 2 end and side
				scrapers, 1 serrated flake, 1
				miscellaneous retouch)

Pit 512

This feature produced 10 flakes, a chip and a serrated blade. All of the flakes are very fresh but eight have been broken. The serrated blade is worn, both edges have been worked and gloss is visible on the right-hand side (bulbar face) (Fig. 12 no. 6)

Pit 518

A large assemblage of 77 pieces of worked flint came from this feature (Table A3:6). The flint has generally been carefully worked and good quality raw material has been used. Some flakes have been soft-hammer struck. The flint is in a very fresh condition with some use wear recorded. A number of chips were recovered and two flake core fragments indicating that the deposit includes knapping debris. A relatively restricted ranges of retouched forms are present (Table A3:6), including six serrated flakes. Five examples are worn, one has been coarsely retouched, and one example has been made on a side trimming flake and one on a blade-like flake. The other retouched forms comprise a retouched flake and a miscellaneous piece, neither of which are very dateable. However the technology and general appearance of this material may indicate an early Neolithic date.

Table A3:6 Summary of flint from pit 518

Flakes	Blade-like flakes	Chips	Core	Retouched forms
44	6	17	2	8
			(flake core fragments)	(6 serrated flakes, 1 retouched
				flake, 1 misc. retouch)

Pit 555

An early Neolithic date for this small group of flint is indicated by the presence of a finely worked leaf-shaped arrowhead (Fig. 12 no. 7). Possible impact damage was noted, suggesting it had been fired (and retrieved) rather than just lost. The flint from this feature is summarised in Table A3:7. The scraper has been minimally but steeply retouched and some possible use wear was noted (Fig. 12 no. 8). The retouched flakes have also been minimally retouched, in fact it may just be use damage rather than formal retouch.

Table A3:7 Summary of flint from pit 555

	J	1	
Flakes	Bladelets	Chips	Retouched forms
9	4	2	5
			(1 leaf-shaped arrowhead, 3 retouched flake, 1 end
			scraper)

Middle Neolithic burial 602

Eight pieces of worked flint were recovered from burial 602, a male. Four retouched pieces (one serrated flake, two retouched flakes and a knife), two flakes and two bladelike flakes came from the burial (Fig. 15 nos. 1-6). Some probable usewear was noted on the flakes and silica gloss on the serrated flake (Fig. 15 no. 1, 3-6). The knife has been made on a large blade-like edge trimming flake (Fig. 15 no. 2). It has been minimally retouched along both edges and it has very worn and rounded or polished ends. This wear is similar to that found on the fabricators. This type of knife is a well known type from middle Neolithic contexts. A very fine example was recovered from the oval barrow at Radley, Oxfordshire. This example had also been polished (Bradley 1999, 25, fig. 3.3). Related types have been found at Linch Hill Corner, Oxfordshire (Grimes 1960, 157, fig. 64) and other polished examples have a wide distribution (Bradley 1999, 224).

Grooved ware Pit F287 and pit F288

Pits 287 and 288 produced one and three worked flakes respectively. Unfortunately these are chronologically diagnostic and little more may be said of them.

Pit 906

More flint was recovered from a pit that contained a sherd of beaker pottery, F906 (Table A3:8). A little probable usewear was noted on some of the flakes but was not analysed further. The serrated flake is broken and a very worn example; both of its edges have been worked (Fig. 12 no. 10). The miscellaneous retouched piece is probably a fragmentary scraper which has been steeply and neatly retouched.

Table A3:8 Summary of flint from pit 906

Flakes	Chips	Retouched forms	Burnt unworked flint
14*	3	2	1 (9)
		(1 serrated flake, 1 miscellaneous	
		retouch)	

^{*} including one face/edge rejuvenation flake

Beaker burial 618

An end and side scraper was recovered from burial 618. It had been very neatly retouched. A small patch of cortex remained on its dorsal face (Fig. 16 no. 2).

Bronze Age ditch 320

Four pieces of worked flint including a barbed and tanged arrowhead came from the ditch fills. The arrowhead has been crudely worked and has probable impact damage at its tips and barbs (Fig. 23 no. 1). A flake, a blade-like flake and a miscellaneous retouched flake were also recovered from this context.

Ring ditch 101

The fills of the ring ditch contained 24 pieces of worked flint (Table A3:9, Fig. 23 nos. 2-5). Some use wear was noted amongst the flakes. Only a single blade-like flake was recovered. The core fragments are all from flake cores and included a pebble core. The end scraper has been steeply worked on a side trimming flake (Fig. 23 no. 3). The side scraper is quite crude with slightly denticulated retouch (Fig. 23 nos. 4). The retouched flake has been minimally worked. The piercer has been extensively worked and has a worn point (Fig. 23 no. 5). A triangular-shaped arrowhead was also recovered (Fig. 23 no. 2). It is damaged and is possible that it may have been either a chisel or barbed and tanged arrowhead.

Table A3:9 Summary of flint from ring ditch 101

Flakes	Blade-like flakes	Cores	Retouched forms
14	1	3	6
		(flake core fragments including 1	(1 end scraper,
		pebble core fragment)	1 side scraper,
			1 retouched flake,
			1 misc. retouch,
			1 arrowhead,
			1 piercer)

Bronze Age hollow 164

Seven pieces of flint (flakes, a flake core and a flake core fragment, Fig. 25 no. 1) were recovered from various layers within the Bronze Age hollow. A couple of flakes had macroscopic usewear present. The core is a multi-platform type weighing 33 g; the core fragment is also from a flake core.

Pit 343

Nine flakes were recovered from this feature. They are all very fresh with sharp edges and some use wear noted. The flint is good quality dark brown material. Little more may be said of this small assemblages of flakes, except that the material is more consistent with the Neolithic or Bronze Age date suggested by the cereals than the anomalous early Mesolithic radiocarbon date on charcoal.

Catalogue of illustrated pieces

Figure 11

Pit F160

- 1. 160/A.2, SF 11. Serrated flake, right-hand side quite coarsely serrated, broken.
- 2.160/A/2, SF 8. Serrated flake, both edges serrated, some gloss. Made on a partially corticated slightly blade-like flake. Slight break at distal end.
- 3. 160/A/2. Serrated/retouched blade-like flake, broken.
- 4.160/A/2. End and side scraper, steeply retouched on a partly cortical blank. Bullhead flint.
- 5. 160/A/2End and side scraper, steeply retouched on a partly cortical blank. Slight break at proximal end. Bullhead flint.
- 6. 160/A/2. End scraper, made on a slightly blade-like flake. Steeply retouched, worn.
- 7. 160/A/3. Chisel arrowhead, broken leading edge and at base. Minimally retouched.

Figure 12

Pit F38

- 1. 38/A/1. End and side scraper, steeply retouched.
- 2. 38/A/1. End and side scraper, invasively retouched.
- 3.38/A/1S. Serrated blade-like flake, both edges quite coarsely serrated, worn and heavily burnt. Both ends broken.
- 4. 38/A/1. Chisel arrowhead, extensively retouched.
- 5. 38/A/1S. Chisel arrowhead, broken leading edge, extensively retouched.

Pit F512

6. 512/A/1. Serrated flake, both edges serrated but very worn. Gloss on right hand side, broken.

Pit F555

7. 555/A/1, SF 18. Leaf-shaped arrowhead, small break at tip (possible impact damage), finely retouched over dorsal and most of bulbar surfaces.

8. 555/A/1. End scraper. Large oval blank with minimal retouch at distal end, steep retouch, ?usewear.

Pit F906

10. 906/A/1. Flake, possible usewear. ?Beaker pit.

Roman ditch F534

NB This ditch cuts middle Neolithic and Beaker burials F602 and F618 (see below) so the flints could be redeposited from one or both burials.

11. 534/B/1. End scraper, minimally retouched example, very steep retouch at distal end.

12. 534/B/1. Backed knife, oval blank which has been neatly retouched with slightly invasive working. An area of cortex opposite provides backing.

Figure 15

Burial F602

unillus 602/A/1 Blade-like trimming flake with possible usewear.

- 1. 602/A/1. Blade-like flake slightly twisted profile, with possible usewear.
- 2. 602, SF 24. Kinfe made on an edge trimming blade, minimally retouched along both edges, some usewear. Distal and proximal ends retouched, very worn with rounded or polished ends.
- 3. 602, SF 23. Serrated blade, a slight break at distal tip. Both edges very finely serrated, gloss.
- $4.\,602/A/1$. Flake, side trimming flake, blade scars on dorsal face, possible usewear, hinge fracture.
- 5. 602/A/1. Blade-like flake, broken and burnt.
- 6. 602/A/1. Flake, partly cortical. Possible usewear, broken.

Figure 16

Burial F618

2. 618/2 SF 33. End and side scraper, round blank that steep, neat retouch. Beaker burial.

Figure 23

Boundary Ditch F320

1. 320/B/1, SF 39. Barbed and tanged arrowhead, tip and both barbs are broken. Possible impact damage at tip. Extensively but crudely retouched over both faces

Ring Ditch F101

- 2. 101/F/1, SF 13. Triangular-shaped arrowhead. Tip and right-hand side are broken. Possibly either a chisel or barbed and tanged fragment originally
- 3.101/D/1. End scraper, made on a side trimming flake, steeply retouched.
- 4. 101/G/2. Side scraper, quite crudely retouched with denticulated removals. Made on a core fragment?.
- 5. 101/A/2. Piercer made on a chunky side trimming flake. Extensively worked to form a point. Worn at point.

Figure 25

Burning hollow F164

1. 164/A/4. Core. flake removals, some cortex remaining. 33 g.

References

Barclay, A, and Halpin, C, 1999 Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age Monument Complex, Oxford Archaeological Unit, Thames Valley Landscapes Volume 11, Oxford

Bradley, P, 1999 Worked flint, in Barclay and Halpin 1999

Durden, T and Lamdin-Whymark, H, in prep, Flint report, in Allen *et al.* in prep b Opening the wood, making the land: the archaeology of the Eton Rowing Course and the Maidenhead to Windsor Flood Alleviation Scheme: the Neolithic and early Bronze Age, Oxford

Green, H S, 1980 *The flint arrowheads of the British Isles*, BAR Brit Ser **75**, Oxford Grimes, W F, 1960 *Excavations on defence sites*, 1939-1945, 1: mainly Neolithic-Bronze Age,

Ministry of Works Archaeol Rep 3, HMSO London

Healy, F, 1985 The struck flint, in The excavation at the Tye Field, Lawford, Essex (S J Shennan, F Healy and I F Smith), *Archaeol J* **142**, 177-207

Shepherd, W, 1972 Flint: its origins, properties and uses, London