
Tarbat Discovery Programme 1991-2007

Flint Report

Peter Rowe, September 2009

For Field Archaeology Specialists

1 Introduction

1.1 This report summarises an assemblage of 142 lithics collected during archaeological excavations at Tarbat between 1991 and 2007. Table #.1 sets out the quantities of lithics collected per year.

Year	Knapped	Natural	Total
1991	6	2	8
1994	3	0	3
1995	1	1	2
1996	1	3	4
1997	4	0	4
1998	3	0	3
1999	12	1	13
2000	31	7	38
2001	6	1	7
2002	4	0	4
2003	5	1	6
2004	5	0	5
2005	6	0	6
2006	7	4	11
2007	19	9	28
Total	113	29	142

Table #.1: Quantities of lithics per year

As the table demonstrates the quantities of lithics collected per season are low, particularly when naturally occurring pieces are discounted. The majority of the flints are from ploughsoil contexts or soil spreads rather than discrete features unless otherwise noted.

1.2 The entire assemblage has been examined by eye and with supplementary use of a 20x magnification achromatic hand lens. The lithics have been catalogued using Microsoft Excel. The following variables have been catalogued:-

- raw material type (e.g. flint, chert, quartz)
- raw material colour
- percentage of cortex
- cortex type (e.g. reduced, chalky)
- patina colour and percentage
- type of artefact (e.g. flake, blade, core)
- reduction sequence (i.e. primary, secondary, tertiary)
- interpretation (e.g. scraper, arrowhead)
- period
- maximum dimensions
- method of knapping (e.g. hard hammer percussion)
- whether burnt
- whether damaged

The catalogue is available with the site archive.

1.3 The composition of the assemblage is set out in Table #.2 below: -

Flint Type	Quantity
Arrowheads	3
Awl	1
Blades or blade fragments (worked/unworked)	4/2
Burnt fragments	8
Cores, core fragments and trimming flakes	7
Debitage, chips and shatter	37
Flakes (worked/unworked)	28/12
Knife	1
Natural Pebble	29
Scraper	7
Tool Fragment	3
Total	142

Table #.2: Assemblage composition

2 General character

2.1 Raw material

The assemblage is mainly composed of flint with some examples of quartz (7 pieces of which 1 is natural) and fine grained chert (2 pieces). The flint has a varied character, with a mixture of light brown, toffee, red and pink pieces. Many examples retain cortical surfaces. When cortex is present it is worn from glacial or wave action and is extremely thin in section. The variety within the raw materials suggests that secondary sources of flint are likely to have been exploited in the form of small pebbles derived from local glacial deposits, river gravels or most likely beach pebbles from the coast.

2.2 Post-deposition damage

The material has some damage from movement in the soil comprising edge chipping, particularly on pieces from ploughsoil contexts. There were no indications of post depositional oxide staining or polishing. Post-deposition patination is present and varies from a light milky stain to a dark red stain. This type of patina is not common and is restricted to eight pieces (four of which are natural pebbles).

2.3 Burning

There are nine pieces which are burnt. Six of these are heavily fired shattered fragments, with white, grey or pink patination of surfaces, pot-lid fracturing and surface crazing. The original form of the remaining three items can still be made out including a plunging flake from context 1141, the fill of a hearth.

3 Technology

3.1 Assemblage composition

Discounting the natural pebbles and burnt shatter, the predominant technologies are the production of small blades and squat flakes.

Cores are present and tend to be small, well worked, examples or fragments of such items. The most basic core technology present is the tested pebble. Context 2109 produced a small flint pebble (50mm x 32mm x 28mm) with geodetic quartz inclusions, with several removals from a single platform. This pebble was abandoned prematurely probably due to its poor quality. The remaining cores are all much smaller, typical of industries where access to raw materials is problematic. Context 1002 (see Fig. #.1) produced a very small core (24mm x 16mm x 12mm). This has two platforms at right angles to each other to maximise removal of raw material. The remainder of the cores follow a similar pattern of multiple platforms, small size and exhaustion of the raw material.

Blades make up a small proportion of the knapped assemblage. Those present are all small examples with parallel sides and thin sections. There is a high incidence of utilisation of these blades with four of the six items having edge modification in the form of abrupt retouch or edge chipping occasioned by use. A small toffee coloured flint blade from context 1805 (see Fig #.2) has evidence of platform preparation prior to removal with light retouch along the right edge. These blades are likely to date to the Mesolithic or early Neolithic period.

The flakes present tend to be thick and squat. Deliberately struck flakes of quartz are present. This quartz tends to be smooth grained and demonstrates good conchoidal fracture, although there is no evidence for additional retouch. There is some incidence of retouch and edge use on the flint flakes suggesting that they were expediently produced for basic cutting or scraping tasks. There are three examples of small square retouched pieces (Small Finds 1599, 6171 & 6774) which are fairly unusual. Small find 6171 from context 2273, a craftworking dump, typifies this type of artefact (see Fig. #.3).

Flake technology also forms the basis for a number of scrapers amongst the assemblage of which there are seven in total. The most basic scraper present is an unusual example of a natural pebble fragment with direct retouch to one of its edges (Small find 583, Context 1002, Fig. #.4). This basic technology is likely to be driven by a lack of decent raw materials in the area. It may also be indicative of later prehistoric flint working (Young & Humphrey 1999).

Later period scrapers are also present in the form of two thumbnail types from contexts 1881 and 2696. The example from context 1881 (see Fig. #.5) is based on a thick primary flake with invasive retouch along the majority of its circumference. This piece is atypical in that there is evidence for the thinning of the ventral surface. A potential reason for this is that the scraper blank may have been a natural pot lid fracture with a convex surface. This class of scraper is typical of the early Bronze Age period and has particular associations with Beaker assemblages (Edmonds, 1995, p. 141).

A carefully made, invasively flaked and symmetrical scraper from context 1001 (Small Find 233) is also likely to be of Later Neolithic or Bronze Age in date (see Fig. #.6).

Earlier scrapers are also present in the form of an end scraper (Small find 6002, Context 2170; see Fig. #.7) based on a primary flake likely to be Mesolithic or early Neolithic in date.

An elongated flake is present in the assemblage with an invasively flaked, knife edge (Small Find 24; see Fig. #.8). This is a good quality dark brown flint with its left edge largely unmodified. It is typical of knives of the Neolithic period.

A single awl is present in the assemblage (Small Find 7868, Context 3324). This is based on a small flake with retouch along two edges to produce a shallow waist with a point below. It is not period diagnostic.

There are three projectile points present. The first is a leaf shaped example (Small Find 4376, context 2793) with breaks to the tip and base (see Fig. #.9) conforming to Green's Type 3B, i.e. ogival with a rounded base (Green, 1980). The second is an unusual, leaf-like, but asymmetric biface (Small Find 2655, Context 1663; see Fig #.10) which fails to fit a particular class and is probably an apprentice piece. Both of these are Neolithic in date. The third arrowhead is a small barbed and tanged example (Small Find 3410, Context 2968; see Fig. #.11) with a broken tip and a missing barb. The item is finely worked, using good quality dark brown flint, with pressure flaking covering both sides. The remaining barb is squared and the tang is rounded with the barb shorter than the tang. The item has a small length to breadth ratio making it conform to Green's Sutton (BG) sub-category (Green 1980). This style of arrowhead is commonly associated with the early Bronze Age period.

4 Conclusion

The earliest technology represented is a blade industry characteristic of Mesolithic or early Neolithic utilisation of the landscape. The Neolithic period is also represented by scrapers, a knife and two arrowheads, whilst the Bronze Age is represented by thumbnail scrapers and a barbed and tanged arrowhead.

The assemblage is small but is typical of a residual multi-period collection based on locally available raw materials, with no particular bias to any one period or technology.

The lithics are from a variety of contexts, usually ploughsoil or sub-soil rather than discrete features. A notable exception are twenty pieces recovered from Context 2109, the floor of the vellum yard, with a further four pieces from 2353, the preparation for the yard. These are either natural pieces, shattered fragment or residual prehistoric pieces. The site has not produced clear evidence for the use of lithics in the historic periods.

Although the lithics are largely unstratified they demonstrate a previous prehistoric presence in this area that might be further revealed by future fieldwork.

5 Recommendations

There are eleven flints that could be drawn to illustrate this report. The captions for these are set out below and a sketch guide has been prepared to assist the archaeological illustrator. Other than this the material should be permanently curated with the site archive.

Bibliography

Edmonds, M. 1995. *Stone Tools and Society*. Batsford.

Green, H.S. 1980. The Flint Arrowheads of the British Isles. *British Archaeological Reports (British Series) 75*.

Young, R. & Humphrey, J. 1999. Flint use in England after the Bronze Age: Time for a re-evaluation? *Proc. Prehist. Soc.* **65**, 1999, pp. 231-242.

Captions for suggested illustrations

Fig No.	Small Find No.	Description
#.1	1597	Small core with platforms at right angles
#.2	4230	Blade with retouched edge
#.3	6171	Retouched flake with squared edges
#.4	583	Scraper based on natural pebble fragment
#.5	6176	Thumbnail scraper
#.6	233	Invasively flaked scraper
#.7	6002	End scraper
#.8	24	Knife
#.9	4376	Lead shaped arrowhead
#.10	2655	Asymmetric arrowhead
#.11	3410	Barbed and tanged arrowhead