

**Channel Tunnel Rail Link  
CTRL UK Limited  
Oxford Wessex Archaeology Joint Venture**

# **The worked flint from Saltwood Tunnel, Saltwood, Kent**

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**CTRL Specialist Report Series  
October 2005**

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## 1 INTRODUCTION

A total of 1781 pieces of struck flint were recovered from the excavations at Saltwood Tunnel (Table 1). At least a further 302 fragments (4005 g) of burnt unworked flint were also retrieved (Table 8). The flint suggests a broad date range, stretching from the early Mesolithic to the Bronze Age, indicating prehistoric activity at the site over a long period of time. There are many distinct features, which will be looked at in a chronological sequence followed by the material from unstratified and later contexts.

*Table 1. Summary of worked flint by event code*

Event Code	ARC SLT98	ARC SLT98C	ARC SLT99	ARC SFB99	ARC SFB01	Total
Flake	43	306	129	717	40	1235
Blade	4	21	11	38	2	76
Bladelet		1		23		24
Blade-like flake	2	17	7	51	6	83
Chip	1	10	12	32		55
Rejuvenation flake core face/edge		1		2		3
Rejuvenation flake tablet				1		1
Flake from a hammerstone			2	2		4
Irregular waste	5	17	11	25	3	61
Multi-platform flake core	2	4	1	29	1	37
Single platform flake core		4	1	7		12
Keeled non-discoidal flake core				1		1
Levallois/ other discoidal flake core				1		1
Core on a flake	1	9	2	4		16
Blade core on a flake				1		1
Unclassifiable/fragmentary core		1	1	2	2	6
Tested nodule		1				1
Microlith				3		3
Horsham point					8	8
End and side scraper	4	8	9	10	1	32
End scraper	3	4	4	15	1	27
Side scraper	1	4	1	2		8
Thumbnail scraper				1		1
Disc scraper			1	4	2	7
Other scraper				1		1
Denticulate	1			1	1	3
Leaf arrowhead				1		1
Barbed and tanged arrowhead	1	1		2		4
Backed knife		1				1
Burin				1		1
Piercer		1	1			2
Fabricator				4		4
Retouched flake		6	2	22		30
Retouched blade	1	2	2	2		7
Serrated flake				4		4
Notch			1			1
Spurred piece				1		1
Miscellaneous retouch	1	3	3	4		11
Hammerstone	2	2		3		7
<b>Total</b>	<b>72</b>	<b>424</b>	<b>201</b>	<b>1017</b>	<b>67</b>	<b>1781</b>

## **2 PROVENANCE**

The worked flint was recovered from 476 contexts spread across the five event code areas (Table 1). The vast majority of material, 1466 pieces, came from unstratified deposits, the topsoil and subsoil, and features dated to the Iron Age or later. It is therefore assumed that this material is redeposited. A small proportion of material (315 pieces) was recovered from supposed in-situ deposits dating from the early Mesolithic to the Bronze Age.

## **3 RAW MATERIAL AND CONDITION**

Where identifiable, the most frequently occurring raw material in the assemblage is gravel flint. It is likely that the nodules derive from river gravel deposits. A small amount (5%) of Bullhead flint is present. This is found in the Bullhead Bed at the base of the Reading Beds (Dewey and Bromehead 1915:18-19) and is identified by a green cortex with an underlying orange coloured band. The closest source is in north Kent, where the Bullhead Bed overlies the chalk beneath the Thanet sands (Dewey and Bromehead 1921:18; Shepherd 1972:114). Just 2% of the assemblage was identified as being chalk flint, which can be found fairly locally.

Condition varies from fresh to heavily damaged. This is to be expected from an assemblage with high rates of redeposition. Damage most often occurs on vulnerable unretouched edges. Pieces with surface alteration are small in number, approximately 10% of the assemblage. These are from a variety of contexts and exhibit a range of degrees from light speckling to all-over heavy cortication. A total of 39% suffer breaks and 6% show signs of burning.

## **4 TECHNOLOGY AND DATING**

### **4.1 Early mesolithic pit**

The oldest flints recovered from the excavations at Saltwood Tunnel are a group of eight backed blades, the sole finds from an isolated pit (cut 6677, single fill 6678, ARC SFB01). The feature was oval in plan, with steep concave sides and a flat base. It is suggested that the blades are large examples of Horsham points and can be dated to the early Mesolithic (R. Jacobi, pers.comm). They have continuous retouch along both edges, a trimmed base (the main diagnostic feature) and one end forms a point (Illustrations AH 3140-3147). The similarities between each piece suggest that they may have been made by the same person. One of the points is slightly different to the others as its bulb of percussion is still present and it is a little wider (Illustration AH-3141). Many of the points have broken or damaged tips which is possibly impact damage and suggests use. All exhibit moderate to heavy cortication.

The horizontal distribution of the points within the pit is roughly linear, however the vertical distribution is more erratic. The excavator recorded some bioturbation and so the

flints may well have been moved from their original locations. It is therefore impossible to say whether the points were hafted as a composite tool when they were deposited.

#### 4.2 Early Neolithic pits

Two of the three early Neolithic pits to the east of the site (ARC SFB99) produced flint. Both pits contained a relatively high number of pieces (*Table 2*) and were examined for technological attributes and utilisation.

*Table 2. Worked flint from the early Neolithic pits*

Event Code	ARC SFB99											
Pit	136				175							Total
Context	3371	3372	3492	3493	3278	3279	3280	3297	3298	3299	3300	
Flake	7	1	7	4	2	8	7	4	9	4	1	54
Blade	1	3	3		1				1	1		10
Blade-like flake	2					3		1	2	1		9
Bladelet	1		1			1						3
Chip	2					1						3
End and side scraper	1											1
End scraper	1		1	1		1						4
Retouched blade		2										2
Retouched flake				1								1
Serrated blades	1						2					3
Total	16	6	12	6	3	14	9	5	12	6	1	90

Debitage in both pits comprises flakes, chips, blades, blade-like flakes and bladelets. The blade component in pit 136 is 37% of the debitage category and in pit 175 is 24% (calculated excluding chips). Both figures are within the range suggested for early Neolithic assemblages (Ford 1987:79, table 2). The relatively low number of chips and the lack of cores suggests that the material does not derive from knapping waste.

The tools are confined to scrapers, retouched flakes and blades and serrated blades. The end and side scraper is made on a large circular flake, with direct retouch from the medial left to the medial right and signs of utilisation. The end scrapers all have direct retouch to their distal ends and three have proximal breaks. Blanks with plunging terminations were used for two of the pieces. The scraper from pit 175 is thought to have been deliberately broken into two halves. The distal end was recovered from context 3279, the intermediate pit fill, and the proximal end was recovered from context 3300, the basal fill. A tiny bulb of percussion is present on the break of the distal half. The retouched flake and blades have platform edge abrasion and are made on trimming flakes. The flake has direct retouch on one edge and the blades on both edges. The serrated blades have serrations on one or more edges. Most of the tools are either in a fresh condition or slightly damaged.

The material from the two pits were examined for technological attributes. Due to breaks and damage not all pieces could be examined for each attribute. Of the 66 pieces

assessable for hammer mode, 42 are indeterminate, however, there are considerably more hard than soft hammer struck pieces present (20 and four respectively). This suggests a mixed hammer mode with a concentration on hard hammer percussion. Of the same number, 23 pieces have platform edge abrasion, which is usually seen in the careful flint industries of the Mesolithic and early Neolithic, and is therefore consistent with the early Neolithic date given to the assemblage. The most frequently recorded butt type is plain (23 pieces), however, punctiform and linear are also common (eight pieces each). All but one of the flints with punctiform butts also has platform edge abrasion, which may suggest that this type of butt morphology results from careful platform preparation. The majority of removals have feather terminations (29 pieces), however, plunging and hinged pieces are also present at 15 and five pieces respectively. A total of 47 pieces retain dorsal cortex, just two of which are preparation flakes. This indicates that material from all stages of the knapping process is present.

A total of 28 pieces (40%) is Bullhead flint. This is mainly unretouched debitage, including an equal number of flakes and blades, but also a retouched flake and a serrated flake. This group comprises 42% of the number of Bullhead flint pieces from the whole of the Saltwood assemblage. This may indicate that the resource was more easily available in the Early Neolithic or that it held a special significance.

All of the material from the two pits were examined for utilisation, the aim being to identify the key groups that would benefit from more detailed analysis in the future. A total of 32% (29 pieces) were unassessable, this included the chips, flake fragments and bladelets and those pieces that are heavily damaged or burnt. Assessable material was scanned using low power microscopy (x20-x40 magnification) and the presence or absence of damage from utilisation was recorded. Of the remaining number, 67% (41 pieces) have usewear present. This includes all the retouched and serrated blades and flakes and all but one of the scrapers.

### **4.3 Early to middle Bronze Age ring ditches and barrows**

Features containing flint and dated to the early to middle Bronze Age are two ring ditches (Sub-groups 33 and 201 from ARC SFB99) and three barrows (Sub-groups 10055 from ARC SLT98C and 10020 and 10082 from ARC SLT99).

The flint from the ring ditches (*Table 3*) came from just 13 of the 166 contexts that form the features and from 11 of the 34 excavation segments. All the contexts from ring ditch 33 and the majority from ring ditch 201 are interpreted as being deposits laid down after the feature has ceased to fulfil its primary purpose. Contexts 5055 and 5057 are interpreted as being deposits laid down during the period when the feature is performing its intended purpose, however, the flakes recovered from these deposits are similar in terms of technology and condition to those from the other contexts and are therefore also likely to be associated with later activity. Context 1827 produced the largest quantity of flint, 12 pieces in total. The

raw material of 11 of the 12 pieces is very cherty with a thick brown stain beneath the cortex. Although no knapping refits were found, the material is likely to derive from the same nodule of flint. This distinctive raw material was not present in the other contexts.

*Table 3. Worked flint from the early to middle Bronze Age Ring Ditches*

Event Code	ARC SFB99														
Ring Ditch	33					201									Total
Context	1355	1825	1827	1919	1950	5054	5055	5057	5062	5076	5079	5139	5257		
Flake	1	3	9	1		2	1	2	2	4	2	2	1	30	
Blade-like flake			2											2	
Irregular waste			1											1	
Burin					1									1	
Multi-platform flake core		1												1	
Single platform flake core									1					1	
Side scraper									1					1	
Total	1	4	12	1	1	2	1	2	4	4	2	2	1	37	

Debitage from the ring ditches mainly comprises flakes. These show a variety of characteristics, including three with platform edge abrasion, a few with blade-like negative removals and many trimming flakes. Apart from the group from context 1827, few pieces seem to derive from the same nodule. The four flake fragments from context 5076 can be conjoined to form two broken flakes, each of which still has parts missing. Damage along the broken surfaces suggests that these are not recent breaks.

The multi-platform flake core is irregularly worked with small removals and incipient cones of percussion. It is very small, weighing just 24 g. The single platform flake core has removals taken from one side only. It is very cherty, has a corticated base and slight battering at one end. It is of medium size, weighing 276 g. One of the flakes recovered from the same context as the single platform flake core is possibly a removal taken from it. Neither of the cores are chronologically diagnostic.

The side scraper is made on a distal trimming flake with abraded, direct retouch on the distal left. There is a proximal break with a negative bulb suggesting that the piece has been knapped in two. The burin is made on a fairly large flake and stands out from the rest of the material recovered from the ring ditches. It has platform edge abrasion and was probably soft hammer struck, both are characteristic of the more careful flint industries of the Mesolithic and early Neolithic. The flake was struck from the distal end to form the sharp point and has abraded direct retouch on the distal left behind the point. The piece is heavily corticated unlike the rest of the flint from ring ditch 33 which is uncorticated. It is likely that this piece is residual and from an earlier period than the rest of the material.

A wider range of flint than that from the ring ditches was recovered from the barrows (*Table 4*). However, like the ring ditches, only a small proportion of the total number of

contexts produced flint. Unfortunately stratigraphic information for the barrows is unavailable and so the relationship and provenance of contexts is unknown.

*Table 4. Worked flint from the early to middle Bronze Age Barrows*

Event Code	ARC SLT99	ARC SLT98C							ARC SLT99			
Barrow	10020	10055							10082			Total
Context	4640	1037	1038	1103	1105	1126	1245	1476	3702	3765	3919	
Flake	1	9		5		3	3			3	1	25
Blade			1									1
Blade-like flake		1		1								2
Irregular waste			1						1			2
Core on a flake		1			1							2
Unclassifiable core		1										1
End and side scraper	1	1	1									3
End scraper										1		1
Side scraper								1				1
Retouched flake		1										1
Total	2	14	3	6	1	3	3	1	1	4	1	39

Like the material from the ring ditches, the debitage from the barrows mainly comprises flakes. Characteristically the material from the two groups are similar, however a small number of pieces from the barrows, including the blade and one of the blade-like flakes show signs of utilisation. The blade-like flake from context 1037 stands out from the rest of the material, it is from an opposed platform core, was probably soft hammer struck and has edge gloss. The cores on flakes both have removals taken from their ventral surfaces. One is made on a primary flake and the other is a reused end and side scraper. The unclassifiable core has possible negative removals, a worn cortex, light cortication and weighs 134 g.

Of the end and side scrapers, two have direct retouch on their distal ends and sides and the third has direct retouch on the distal end and inverse retouch on the left side. The end scraper has abrupt direct retouch on the distal end and has been hard hammer struck. The side scraper was made on thermal flake with retouch along a long edge. It is iron stained but in good condition. The retouched flake was possibly soft hammer struck and is of an irregular shape with minimal direct retouch on the right edge. The dorsal surface shows previous hinged removals and the flake itself has a hinge termination. It has an old distal left break and moderate cortication.

Apart from the burin, which is probably earlier than the rest of the material, none of the pieces from the ring ditches or barrows are chronologically diagnostic. However, they are all technologically consistent with a later prehistoric date and are likely to have either become incorporated into the features during construction, or to derive from later activity at the sites. It is unlikely that the material was deliberately deposited. The condition of the flint supports this suggestion as many pieces exhibit damage, breaks and cortication.

#### 4.4 Late Bronze Age/early Iron Age pits and linear ditches

A number of pits and linear ditches from across the site contain flint are dated to the late Bronze Age or early Iron Age. A total of eight pits produced 55 pieces of flint (*Table 5*). Most of the pits contained less than ten pieces of flint, however, 30 pieces were recovered from pit 206, with the majority of flint coming from context 5224, the upper fill. Flint in the other pits is spread between basal, mid and upper fills.

*Table 5. Worked flint from the late Bronze Age/early Iron Age Pits*

Event Code	ARC SFB99												ARC SFB01			
Pit	82	206			207	208			211				236	369	369	Total
Context	1377	5216	5223	5224	5239	5030	5182	5184	5147	5149	5153	5154	5343	6661	6662	
Flake	3	1	2	19	2	2	1	2		1	1	1	2	2	4	43
Blade									1							1
Blade-like flake				2		1										3
Chip				5								1				6
Irregular waste										1						1
Multi-platform flake core				1												1
Total	3	1	2	27	2	3	1	2	1	2	1	2	2	2	4	55

Debitage dominates the flint material from the pits. The flakes and blades show a variety of characteristics including trimming flakes, some with platform edge abrasion and some with incipient cones of percussion. There is evidence for both hard and soft hammer percussion, suggesting a mixed hammer mode. Nearly half of the pieces are broken (43 in total) and eight are burnt. This is quite high compared to that seen from other features at the site. Also, a high proportion of pieces are damaged, which is indicative of post-depositional disturbance. The multi-platform flake core is irregularly worked using three main platforms. It is small to medium in size, weighing 88 g.

The linear ditches produced 86 pieces of flint (*Tables 6 and 7*), with less than 10 pieces in each context. Ditch 225 contained the highest number of pieces, 18 in total. Thedebitage mainly comprises flakes, however there is a small blade component. Like the material from the pits, the flakes and blades show a variety of technological characteristics and many are broken (41 pieces) and damaged. The only piece of flint from pit 209 was a flake from a hammerstone. It is badly damaged, broken and burnt.

The multi-platform flake cores are all irregularly worked and range in size from 60 g to 116 g. The largest has two main platforms and quite a few incipient cones of percussion. The single platform flake core is also irregularly worked but has quite small removals. This is consistent with its small size (36 g). The blade core on a flake is the only chronologically diagnostic core and is likely to date to the Mesolithic or early Neolithic, making it residual.



The blade removals truncate the distal end of the original side trimming flake (Illustration AH-2535). The tools recovered from the ditches are scrapers and a denticulate. The scrapers have direct retouch to their distal ends and the end and side scraper has platform edge abrasion. The denticulate has five notches removed from its distal end (Illustration AH-3185). It is quite damaged and has incipient cones of percussion on its ventral surface. The range of tools and their technological characteristics are consistent with a later prehistoric date.

*Table 6. Worked flint from the late Bronze Age/early Iron Age Linear Ditches (Orientated NNE/SSW, except Ditch 72 which is N/S)*

Event Code	ARC SFB99				ARC SFB01		ARC SFB99			ARC SFB01					Total
	28	28	28	72	80	80	165	166	166	225	225	225	225	383	
Ditch	28	28	28	72	80	80	165	166	166	225	225	225	225	383	
Context	1217	1237	1244	1370	6522	6563	3152	3183	3225	6528	6535	6553	6572	6616	
Flake	1	1	1	2		1	8	4	1	3	4	1	4	1	32
Blade			1		1					1					3
Blade-like flake										1					1
Irregular waste			1					1		2		1			5
Blade core on a flake									1						1
Denticulate											1				1
Total	1	1	3	2	1	1	8	5	2	7	5	2	4	1	43

*Table 7. Worked flint from the late Bronze Age/early Iron Age Linear Ditches (Orientated WNW/ESE, ARC SFB99)*

Event Code	ARC SFB99																Total	
	3	4			63			87	161	162	168	209	210	227				
Context	1015	1024	1219	1036	1098	1251	1304	1341	2030	3523	3511	3172	5014	5010	5163	5282	5284	
Flake		3	2	1	1	1	4	1	1	1	2	1		1	7	2	1	29
Blade	1					1												2
Blade-like flake															2			2
Chip	1					1												2
Flake from hammer stone													1					1
Multi-platform flake core		2					1											3
Single platform flake core						1												1
End and side scraper										1								1
End scraper											1			1				2
Total	2	5	2	1	1	4	5	1	1	2	3	1	1	2	9	2	1	43

The technological characteristics of the flint recovered from the later Bronze Age or early Iron Age pits and linear ditches is varied and indicates the presence of material from both earlier and later prehistoric industries. The presence of a blade core on a flake (probably Mesolithic or early Neolithic) and a denticulate (probably Bronze Age) supports this suggestion. The relatively small number of pieces recovered from each feature, the poor condition and the mixed stratigraphy suggests that the flint has become unintentionally incorporated into the deposits and does not suggest deliberate deposition.

#### **4.5 The remaining material**

The rest of the assemblage from Saltwood Tunnel was recovered from unstratified deposits, the topsoil and subsoil, and features dated to later periods. This forms the bulk of the assemblage, 1466 pieces in total. The vast majority of this number are categorised as unretouched debitage, 1271 pieces. Flakes dominate this total, although there is a small proportion of blades and blade-like flakes (11%, calculated as total flakes to blades/blade-like flakes). Some pieces in the blade component have characteristics often associated with earlier prehistoric industries, such as platform preparation and soft hammer percussion, and possibly derive from the Mesolithic or early Neolithic. A total of 21 bladelets were also recovered, many of which were broken. The assemblage also includes 43 chips, 52 pieces of irregular waste and four rejuvenation flakes, which indicates the presence of knapping waste. Three of the rejuvenation flakes were struck to remove the platform edge, either because of an overhang or an abundance of negative scars and the fourth is a rejuvenation tablet, taking away the whole of the platform. The three flakes from hammerstones suggest either the re-use of hammerstones as raw material, or accidental removals from the hammerstone whilst in use.

The assemblage contains 63 cores of seven types. There are 32 multi-platform flake cores, 10 single platform flake cores, 14 cores on flakes, a keeled core and a Levallois core, four unclassifiable cores and one tested nodule. No blade cores, of any type, were recovered. The multi and single platform flake cores range in size from 12 g to 198 g. Some have platform edge abrasion suggesting careful preparation and others are irregularly worked. The cores on flakes are the smallest pieces, weighing between 24 g and 70 g. The removals are most commonly taken from the ventral surface, however one has removals taken from the dorsal surface and one has bifacial removals. The keeled core is quite small at 42 g and utilises a nodule of Bullhead flint. Keeled cores are generally associated with the middle to late Neolithic. The Levallois core is made on a thick, primary flake of gravel flint, weighing 104 g. It has platform preparation around three edges and the removals are taken from the ventral surface. Like the keeled core, Levallois cores are usually dated to the middle to late Neolithic. The unclassifiable cores are by and large irregularly worked and have minimal removals, one is a re-used platform edge rejuvenation flake. They are all quite small,

weighing less than 40 g each. The tested nodule, weighing 94 g, has a few removals taken from a thermal surface.

The tools category comprises 134 pieces. Possibly the earliest tools are the three microliths. Two of the three are oblique points with direct retouch along both sides, similar to Jacobi's type 1b (1978:16, fig. 6). They are most likely to date to the early Mesolithic. The third has direct retouch along both edges, forming a rod shape, and is similar to Jacobi's type 6 (1978:16, fig. 6). This is probably of a later Mesolithic date. The leaf arrowhead has invasive direct retouch and minimal inverse retouch (Illustration AH-2595). The proximal end (the narrow tip) is missing and it suffers from later damage. Leaf arrowheads are chronologically diagnostic and can be dated to the early Neolithic (Green 1984:19). The barbed and tanged arrowhead from context 1322 at ARC SLT98C is quite unusual. The barbs are unequal lengths, with one being significantly shorter than the other. It is possible that the shorter one broke during manufacture, but the piece was still thought to be of use and continued to be worked. Also, in addition to the bifacial invasive retouch, the piece has serrated edges (Illustration AH-3295). The other three barbed and tanged arrowheads are more fragmentary, with broken barbs and/or tangs. All three have bifacial retouch, two with invasive removals and one, made on a corticated flake, is restricted to the edges. Barbed and tanged arrowheads can be dated to the early Bronze Age (Green 1984:19).

Scrapers dominate the tools assemblage, 62 in total. There are 27 end and side scrapers, 20 end scrapers, six side scrapers, seven disc scrapers, one thumbnail scraper and one other scraper. All the end and side scrapers have direct retouch on the distal end and one or more sides. Similarly, the end scrapers most commonly have direct retouch on the distal end and the side scrapers on either one or both lateral edges. Many are made on trimming flakes. The disc scrapers are all roughly circular and have direct retouch on most of the edges. One is moderately burnt. The thumbnail scraper is very small and almost circular in shape. Again, it has direct retouch on most of the edge. The other scraper is the broken distal end of a flake with direct scraper-like retouch. It is probably part of a broken scraper. Most scrapers are hard to date, however, some of the pieces are finely worked and have technological characteristics reminiscent of earlier prehistoric flint industries, such as platform edge abrasion and evidence of soft hammer percussion, and others are more crudely worked and are likely to derive from later prehistoric activity. The thumbnail scraper is the only chronologically diagnostic scraper, and is of a type likely to be found in early Bronze Age assemblages. Unusually, only one of the scrapers, an end and side scraper, has any inverse retouch.

There are two denticulates. The first is made on a hard hammer struck primary flake and has four denticular removals taken from the right edge and the other is made on a soft hammer struck, distal trimming flake with four denticular removals taken from the distal end.

The backed knife has direct retouch along its left edge and is made on a side trimming blade (Illustration AH-3336). The four fabricators have rounded usewear on the edges, which is characteristic of their supposed function. Cortical trimming flakes are used for two of the pieces and all have been shaped using bifacial retouch. Both the piercers are made on side trimming flakes with direct retouch that creates a point on either the proximal or distal end.

The retouched blades and flakes exhibit a range of characteristics, including direct, inverse and bifacial retouch. A couple show macroscopic signs of utilisation and another is a possible knife. Platform edge abrasion is present on many pieces, suggesting a careful and planned reduction strategy, however many other pieces are quite crudely worked. The serrated flake is made on a blade-like flake with platform edge abrasion. It has direct retouch on the left edge, forming tiny removals, and more irregular inverse retouch on the right edge. There are no macroscopic signs of edge gloss which are often seen on serrated flakes that have been used for plant processing (Juel-Jensen 1994). The notched piece has a hinge termination and pronounced ripples on the ventral surface which suggests it has been removed using hard hammer percussion. There is a possible retouched notch on the right side. The spurred piece has direct retouch on the distal end which forms a spur. The pieces with miscellaneous retouch also show a variety of characteristics. They include a possible scraper, knives and one piece that is a possible laurel leaf, unfinished arrowhead or knife (Illustration AH-2411). Unfortunately, none of the informal, retouched pieces are chronologically diagnostic and it is likely that they represent material from a range of periods.

The assemblage also includes seven hammerstones, one of which is a possible anvil. Size varies from quite small (96 g) to quite large (1052 g). A couple are re-used multi-platform flake cores, indicated by areas of battering that truncate the flake removals. The possible anvil is a river pebble that has a battered side and edges.

## **5 DISCUSSION**

The flint from Saltwood Tunnel covers a wide time span stretching from the Mesolithic to later prehistory. There are defined groups of material and redeposited finds from each of the main periods, which suggests a long term human presence at the site. The Horsham points from the early Mesolithic pit are unusually large and their deposition in the pit is intriguing. It is unfortunate that we can not say if they were deposited in a hafted state as a composite tool. The high proportion of Bullhead flint recovered from the early Neolithic pits is also curious and may indicate a special significance. Unfortunately, the interpretation of the Bronze Age ring ditches, barrows, pits and linear ditches was limited by the lack of information about horizontal and vertical distributions. However, it is suggested that the material is later prehistoric in date and is not directly associated with the primary use of the features. The vast

proportion of material came from unstratified and later deposits and contained a wide range of cores and tools which probably derive from all of the previously mentioned periods.

Table 8. Summary of burnt unworked flint by event code

Re-used assessment data (Harding, P, Wilson, T and Crockett, A, 2002:39, table 20)

Event code	Count	Weight (g)
ARC SLT98	35	1554
ARC SLT98C	30	639
ARC SLT99	3	22
ARC SFB99	234	1790
ARC SFB01	Figures not available	
Total	302	4005

## 6 CATALOGUE OF ILLUSTRATED FLINT

Table 9. Catalogue of illustrated flint.

Fig.	Event Code	Context	Category/description
AH-3140	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at proximal end, old distal break, early Mesolithic.
AH-3141	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on the right and distal left, forms a point at the distal end, bulb is still present, early Mesolithic.
AH-3142	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on both edges, forms a point at the distal end, early Mesolithic.
AH-3143	ARC SFB01	6678	Horsham point. Heavy cortication, continuous direct retouch on both edges, forms a point at the distal end, proximal break, pointed tip broken, early Mesolithic.
AH-3144	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on both edges, forms a point at the distal end, early Mesolithic.
AH-3145	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at distal end, damaged tip, early Mesolithic.
AH-3146	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on both edges, forms point at proximal end, damaged tip, early Mesolithic.
AH-3147	ARC SFB01	6678	Horsham point. Moderate cortication, continuous direct retouch on 1 edge and discontinuous on the other, old proximal and distal breaks, early Mesolithic.
AH-2535	ARC SFB99	3225	Blade core on a flake. Blade removals truncate the distal end of the side trimming flake, likely to be early Neolithic.
AH-3185	ARC SFB01	6535	Denticulate. Five notches on the distal end, damaged, incipient cones on ventral surface, probably Bronze Age.
AH-2595	ARC SFB99	3000	Leaf arrowhead. Direct, invasive retouch and minimal, inverse retouch, proximal end missing (narrow tip), later damage, early Neolithic.
AH-3295	ARC SLT98C	1322	Barbed and tanged arrowhead. Serrated edges, continuous invasive retouch, one large barb, one shorter barb - retouched not broken, early Bronze Age.
AH-3336	ARC SLT98C	1030	Backed knife. Proximal break, made on side trimming blade, direct retouch along left edge.
AH-2411	ARC SFB99	1001	Miscellaneous retouch. Invasive, inverse retouch, small portion of original ventral surface remains, proximal and distal breaks, possible laurel leaf, unfinished arrowhead or knife.

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