Old Sarum Water Pipeline Specialist Reports

Flint and Ground Stone Axe

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Worked flint was recovered from four areas of the pipeline route (Sites 2, 3, 5 and 6). A total of 807 pieces was recovered, which have been quantified and shown by feature and period in Table FL1. The total comprises 679 (84%) blade/lets and flakes, including broken material, 9 (1%) cores and 30 (4%) tools. This category contains 11 flake scrapers and 19 other tools including a barbed and tanged arrowhead, a microdenticulate, a denticulate (scraper), a chisel and nine other tools, including eight flint hammerstones and 6 pieces with used/damaged edges or miscellaneous retouch. The assemblage also contains nine natural, unused spherical flint nodules, including some hollow fossil sponges.

Site 2

The 100 flints from 10 features are predominantly unpatinated and made from locally available surface flint present on the clay with flints, which caps the bedrock Chalk. Sixty-four pieces of stratified flint were found in pits 1083 and 1034, dated by Early Bronze Age and Beaker pottery, of which 46 pieces were from pit 1034. The flakes represent by-products of core trimming and are typical of the technology characterising the Late Neolithic and early Bronze Age periods. There were three retouched tools, including a barbed and tanged arrowhead, an end scraper on a flake and a retouched naturally backed knife. The arrowhead lacks a barb and the tang but is likely to be of Green's Conygar Hill type, which have square ended barbs and a base that is convex in plan. This type is included as a 'fancy', or deliberately shaped, form of arrowhead. They are most frequently associated with Beaker pottery and are common throughout England, although they occur in below average densities within Wessex. The end scraper is made on a short, thin, tertiary flake blank and retouched at the distal end with irregular, direct abrupt flaking and is also in keeping with Beaker associations.

The remaining material from Site 2 is likely to be residual. It has weathered surfaces and damaged edges and was recovered from the fills of Romano-British ditches and undated post holes or pits.

Site 3

A total of 517 pieces of worked flint, or just under half of the entire worked flint assemblage, was found in 28 features, including 17 pits, excavated in this sector of the pipeline. The total included 136 pieces of worked flint from sieved samples. The largest group comprised 135 pieces of worked flint, including small groups of refitting material and knapping chips, from pit 3328 that was associated with later prehistoric pottery. There were also 104 pieces of worked flint from pit 3119, which also contained chips and was one of six pits dated by associated pottery to the Middle Neolithic. Pit 3007 produced 57 pieces of worked flint from sieved samples. There were also 4 other pits with no pottery. Apart from pits 3328, 3119 and 3007 the density of material in the remaining features is only 11 pieces per feature and generally low.

All flint from this sector of the pipeline is patinated and often covered with a veneer of calcium concretion, deposited by ground water precipitation. The raw material used includes both fresh Chalk flint that may have been encountered when the individual pits were first dug

and nodules that were probably found on the surface. All flake edges are in mint condition indicating that the material was deposited while the pit was in use.

Middle Neolithic

The flint from the Middle Neolithic pits was composed mainly of waste core trimming flakes, however blades account for 22% of the flake and blade component. This is in keeping with an Early to Middle Neolithic date. The blades include irregular pieces but others are well struck and show careful preparation of the striking platform before they were removed.

The material from pit 3119 includes a comprehensive selection of Early to Middle Neolithic stone tool technology. Most of the material is undiagnostic core trimming flakes. The two cores include a semi-biconical flake core, worked by bifacial flaking around part of the circumference and a single platform 'Levallois' type flake/blade core. This core has a dressed back with trimming around the edges of the flaking face. The striking platform is prepared but not facetted. The tool component comprises a chisel, 111 mm long, with a thick, triangular cross-section. The implement is well made but undoubtedly presented problems with regard to thinning. Core tool production is also apparent by the presence of four soft hammer struck core tool thinning flakes. There is also a microdenticulate on a naturally backed flake and two elongated tools, one naturally backed, with marginal edge damage/retouch, which is likely to have resulted from use.

The small collection of material from pit 3020 includes a well-struck blade with an abraded striking platform and assorted flakes, however the principal component is the collection of seven spherical flint nodules, four of which have been subjected to limited use as hammerstones. They range in size from 2,210g to 129g. All appear to be solid although one clearly contains thermal fractures and is unlikely to have lasted long in use. They were intentionally collected for use and were deliberately included in the pit-fill. Pit 3007 also contained a well-used spherical flint hammer stone.

Pits 3000, 3005, 3007 and 3197 contained blades and flakes but no diagnostic cores or tools.

Middle Bronze Age

Four pits, two linear features, a post hole/pit and a tree throw all produced limited quantities of worked flint associated with the Middle Bronze Age phase of activity. The material from the pits is similar in condition to the Middle Neolithic flint although flakes from the linear features were more weathered in appearance and probably silted into the features at a later date. The table of contents shows that there are fewer blades than in the Middle Neolithic pits, which undoubtedly reflects the reduced technological competence of the Middle Bronze Age knappers. The retouched tools included a large end scraper on a secondary flake with regular, marginal and semi abrupt direct retouch at the distal end from tree throw 3095 and a side scraper/knife on a primary flake from post hole 3091.

The flint from pit 3328 was associated with later prehistoric pottery and is composed entirely of undiagnostic blades and flakes, with no cores or tools. The flakes from different contexts are similar in appearance and may be from the same nodule. Three small groups of flakes in fill 3365 refit and there is a higher proportion of flakes with cortex, suggesting that the material is the by-product of preparing a single core. The metrical blade component comprises 13%, although most were probably accidental. In the absence of diagnostic flint artefacts to contradict the later prehistoric, Middle to Late Bronze Age, date suggested by the pottery it is most likely that this pit also formed part of the Middle Bronze Age settlement.

The remaining 14 features from this stretch of the pipeline, including seven pits and five post holes, are all undated or contain Romano-British or medieval pottery. Pit 3031, with medieval pottery and 32 pieces of worked flint, was the only feature with a sizable

assemblage; the remainder each contain eight pieces of flint or less. Individual artefacts that deserve mention include a single platform blade/flake core with prepared striking platform and retouched knife from pit 3122, a denticulate (scraper) on a large secondary flake from pit 3011, an end scraper on a flake from post hole 3212 and a side/end scraper on the proximal end of a flake from pit 3332.

Site 5

The flint assemblages from the five Middle Neolithic pits in this sector of the pipeline were relatively modest, comprising only 117 blades and flakes, including 30 pieces from sieved residues. There was also the butt of a well made broken ground stone axe from pit 6056. The composition of the flint assemblages was similar to those from Site 3 with a predominance of flakes, the blade component accounting for only 6% of the assemblage. There was a flake core with two striking platforms and an end scraper on the proximal end of a 'blade', with use as a piercer at the distal end, from pit 6056. There was also a broken secondary flake with edge damage/use from pit 6061 and a microdenticulate on a blade from pit 6100. Four of the pits contained spherical flint nodules, which were generally 200 – 300 g in weight, some of which had been used as hammer stones. Pit 6100 contained four, of which only one had been used extensively as a hammer, the remainder were untouched. Pit 6056 contained two examples, one with limited use as a hammer, pits 6061 and 6093 contained one hammer stone each.

The butt of the ground stone axe measured 92 mm long and weighed 300 g. It was pecked and ground from a coarse grained, dark grey-green rock with no conchoidal fracture. It seems to have snapped at the point at which it protruded from the haft, a common form of stone axe breakage. Some limited damage along one edge of the snapped surface suggests that it may have undergone limited re-use as a hammer-stone.

Pit 6153, which contained 40 worked flints including a side scraper and a small unpatinated end scraper, represented the largest worked flint assemblage from this sector of the pipe-line. The flint was weathered and was associated with a mixed ceramic assemblage, which was principally of Late Bronze Age date, but also included a small number of Beaker and Romano-British sherds.

The remaining features, which included pits and ditches, were either undated or of medieval date.

Site 6

A small amount of undiagnostic flintwork was recovered from contexts in this area. It included an end scraper on a flake from pit 8080, which was associated with Late Bronze Age pottery.

Conclusion

The most significant discovery rests with the Middle Neolithic pits from sites 5 and 6. The flint assemblages are generally small and of limited use for detailed analysis. The associated Peterborough Ware pottery may indicate some non-domestic activity in the area and there appears to be some deliberate selection of stone artefacts in these pits, particularly hammer stones and unused flint spheres. There can be no doubt that these nodules were deliberately selected and may have taken some degree of effort to collect. They are not associated with large quantities of knapping waste or cores, a fact confirmed by the relatively low frequency with which material was recovered from sieved residue and the almost total absence of microdebitage, only 65 chips were present from 21 pit fill samples. Only pit 3119 contained a

significant number of pieces, which represent a wider range of flint knapping products, including core tools and this material could well be domestic.

The source of the stone axe fragment must remain uncertain without petrological thin section analysis, however the probability is that it is of Cornish origin. Axes of Group 1 origin, which represents only one of a group of factories in Cornwall, are amongst the axes that have been traded furthest from their source of manufacture. Implements occur in large numbers in Essex (Cummins 1979) suggesting that they were transported along the South coast to the Thames estuary. There is also a small, enhanced cluster of axes from this source emanating from Christchurch Bay up the River Avon valley. Production from the Cornish axe factories varied both in the time at which they were established and in their duration; some enjoyed a relatively short life span, while others continued throughout the Neolithic (Smith 1979). In the absence of a precise petrological source and without a current radiocarbon date very little else can be said about this implement. This is not, however, the first discovery of a stone axe from the immediate area. A porcellanite axe, now in Salisbury Museum, from Tievebulliagh or Rathlin Island, Co Antrim (Group IX) was found at the back of the Old Castle Inn (VCH Wilts Vol 1, part 1 1957, 101).

Flint work from sites 2 and 6 is generally undiagnostic and probably of Beaker and Bronze Age date.

Table FL1 Worked flint by feature and period

Context	*Flake/ blade*	*Irregular waste*	*Chip*	*Core/core trimming*	*Fossil/ nodule*	*Scraper*	*Other tool*	*Total*
7	1	-	-	-	-	-	-	1
12	1	-	-	-	-	-	-	1
20	1	-	-	-	-	-	-	1
subtotal	3	0	0	0	0	0	0	3
Site 2								
1016	1	-	-	-	-	-	-	1
1026	1	-	-	-	-	-	-	1
1035	26	3	15	-	-	1	1 broken barbed & tanged	46
1037	15	-	7	-	-	-	-	22
1039	1	-	3	-	-	1	-	5
1074	1	-	-	-	-	-	-	1
1084	2	-	-	-	-	-	-	2
1085	9	-	7					16
subtotal	56	3	32	0	0	2	1	94
Site 3								
3001	5	-	-	-	-	-	-	5
3002	9	-	-	-	-	-	-	9
3006	7	-	-	-	-	-	-	7
3008	2	-	1	-	-	-	-	3
3009	1	-	-	-	-	-	-	1
3011	5	4	-	-	-	-	-	9
3012	2	-	1	-	-	-	-	3
3021	11	4	-	-	1*	-	-	16
3022	14	1	-	-	1*+5	-	-	21
3032	23	5	2	2		-	-	32
3043	1	-	-	-	-	-	-	1
3075	1	1	-	-	-	-	-	2
3092	3	-	-	-	-	-	-	3
3096	1	-	-	-	-	-	-	1
3108	1	-	-	-	-	-	-	1
3111	1	-	-	-	-	-	-	1
3114	1	-	-	-	-	-	1 edge retouched	2
3120	58	1	31	3	-	-	1 chisel, 1 serrated	95
3122	1	-	-	2	-	-	-	3
3133	4	-	-	-	-	-	-	4
3173	3	-	-	-	-	-	-	3
3174	1	-	-	-	-	-	-	1
3188	2	-	-	-	-	-	-	2
3189	5	-	-	-	-	-	-	5
3200	1	-	-	-	-	-	-	1
3201	4	-		-	-	-	-	4
3205	2	1		1 (on nodule)	2	-	-	6
3211	1	-		-	-	-	-	1
3213	2	-		-	-	-	1 edge retouched	3
3217	1	-	1	-	-	-	-	2
3218	2	-	-	-	-	-	-	2
3229	1	-	-	-	-	-	-	1
3320	2	-	-	-	-	-	-	2
3329		3	17	-	-	-	-	20
3330	21	6	26	-	-	-	-	53
3331	13	-	-	-	-	-	-	13
3333		-	-	-	-	1	-	1
3365	39	1	16	-	-	-	-	56
subtotal	251	27	95	8	9	1	4	395

Context	*Flake/ blade*	*Irregular waste*	*Chip*	*Core/core trimming*	*Fossil/ nodule*	*Scraper*	*Other tool*	*Total*
Site 5								
6003	1	-	-	-	-	-	-	1
6027	4	-	-	-	-	-	-	4
6057	11	1	-	-	1	-	-	13
6058	5	1	-	1	-	1 (end)	-	8
6060	-	-	-	-	1	-	-	1
6062	8	-	-	-	-	-	-	8
6063	13	-	3	-	1*	-	-	17
6064	7	-	7	-	-	-	-	14
6066	23	-	-	-	-	-	-	23
6067	5	-	-	-	-	-	-	5
6068	8	-	3	-	-	-	-	11
6086	3	-	-	-	-	-	-	3
6094	4	-	-	-	-	-	-	4
6097	1	-	-	-	-	-	-	1
6099	3	-	-	-	1*	-	-	4
6101	3	-	-	-	1*+2	-	-	6
6102	-	-	-	-	1	-	-	1
6124	2	1	-	-	-	-	-	3
6154	33	4	3	1	-	1	-	42
6156	-	2	-	-	-	-	-	2
6185	2	-	-	-	-	-	-	2
6186	2	-	-	-	-	1	-	3
6199	1	-	-	-	-	-	-	1
6240	1	-	-	-	-	-	-	1
6248	1	-	-	-	-	-	-	1
subtotal	141	9	16	2	8	3	0	179
Site 6								
8016	1	-	-	-	-	-	-	1
8048	4	2	-	-	-	-	-	6
8081	3	-	-	-	-	-	-	3
8083	1	2	-	-	-	1	-	4
8085	2	-	-	-	-	-	-	2
8159	2	2	-	-	-	-	-	4
8165	1	-	-	-	-	-	-	1
subtotal	14	6	0	0	0	1	0	21
Total	465	45	143	10	17	7	5	692

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