APPENDIX 4: ASSESSMENT OF WORKED AND BURNT FLINT

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1. Introduction

1.1 Small groups of worked flint were recovered from the excavations. The worked flint consists of mostly hard-hammer struck flakes. A few retouched forms (retouched, used flakes or serrated flakes, a knife) were recovered, together with some minimally worked cores and tested nodules. The flint is not closely datable but is consistent with a Neolithic-Bronze Age date.

1.2 Burnt unworked flint was recovered throughout this zone. The burnt unworked flint consists of a range of small to large sized fragments or pebbles of heavily calcined flint.

2. Methodology

2.1 The worked and burnt unworked flint was recorded onto the Oracle database using standard MoLSS methods. The material was recorded by typological group, where appropriate notes were made on pertinent technological attributes. Brief notes were also made on the general condition of the material. The burnt unworked flint was briefly scanned and quantified, a general note of the condition of the material was also made. Natural unworked flint was discarded.

3. Quantifications

3.1 A total of 252 pieces of worked flint and 1664 pieces of burnt unworked flint (weighing 35,985g) were recovered from ARC TLG 98, ARC CRS 98 and ARC 330 98.

4. Provenance

4.1 The worked flint was recovered from only a limited number of contexts. The burnt unworked flint was spread over more contexts but, apart from a few contexts, the numbers of pieces recovered was generally less than 10. The distribution by weight is slightly more varied (see tables below).

4.2 The flint came from a range of features across the zone including cut features, natural features and layers. Given the predominance of Late Bronze Age/Early Iron Age and later ceramics from the site and the sparse nature of the lithics it is likely that the majority of the lithics are redeposited. The condition of some of this material would support this suggestion, many pieces exhibiting abrasion and wear consistent with redeposition. A couple of contexts produced material that was very fresh with sharp edges and some material which may refit (eg contexts [187] (Figure 11) and [433] (Pit 434, Figure 8), but these are relatively isolated instances.

5. Conservation

5.1 The flint is appropriately bagged and boxed for long-term storage. Some of the burnt unworked flint is beginning to disintegrate, however, there is little that can be done to prevent this. No conservation is required. All of the natural flint has been discarded.

5.2 Selected burnt unworked flint could be discarded, keeping only a selection of representative material for archive purposes. The full quantification, by weight and number, together with a description of the material discarded, would provide sufficient records for any future work.

6. Comparative material

6.1 In the local context this flint compares well with material from adjacent sites. Lithics were recovered from the Neolithic mortuary enclosure at Tollgate (URL 1995) and flint from the evaluation at ARC TGS 97 was identified as ranging in date from the Mesolithic to the Bronze Age (URL 97). A single Lower Palaeolithic bifacial hand axe was recovered from this evaluation (URL 97) (Figure 5).

6.2 The flint compares well with other material recovered from the CTRL route. Considerable quantities of Neolithic and Bronze Age flintwork have been recovered from Kent principally through the fieldwork undertaken for the CTRL but also from other, mostly as yet unpublished excavations.

7. Potential for further work

7.1 Given the restricted range of material recovered and given that the flint is largely redeposited, the potential for further analysis is low. The lack of diagnostic dating precludes anything other than a very broad date range being proposed for this material. The flint indicates sparse prehistoric activity occurring in the area. However, the flint takes on slightly more significance; the possible denuded megalithic monument from Zone 4 and the mortuary enclosure at Tollgate provide a background for this small group of lithics. Although there is little within the groups of flint that would suggest ritual activity *per se*, some of the artefacts may have been used in ritual activities or activities associated with the monuments. As a group the material is not closely datable, a few soft-hammer struck flakes, and blade-like flakes may indicate Neolithic activity but the retouched forms recovered could equally belong to the earlier Bronze Age. A single core had some platform edge preparation, other examples were minimally worked.

7.2 The flint can to a limited extent contribute to the Research Objectives identified:

- *Farming communities (2000-100BC)*

7.3 Lithics may help to clarify the pre-Late Bronze Age activities on site but given the generally small numbers and the lack of diagnostic forms this may be somewhat limited.

7.4 The lithics may also shed light on the ritual and ceremonial use of the landscape, but, again, the numbers of pieces involved may hamper a detailed analysis.

7.5 If the flint is to be included within the publication, it is recommended that this assessment report can be used as a basis, a little time would be required to prepare the text for publication purposes. The possible refitting flints are examined, and the fresh material, should be looked at in order to identify possible usewear that may shed light on the activities carried out on the site. The flint would be compared with the material from Tollgate and other sites as necessary. No illustrations would be required.

- Investigate possible refitting flint and possible usewear
- Comparison with Tollgate lithics and material from evaluations
- Time for preparing a summary publication

8. Bibliography

URL 1995, 'Assessment of worked flint from Tollgate', unpublished report prepared by Bradley, P for OAU

URL 1997, 'South-East of Tollgate (ARC TGS 97)' Evaluation Flint assessment prepared by Cotton, J, for MoLAS

Table 11: Worked Flint ARC TLG 98

Event code	Context	Count	Period	Comments
ARC TLG 98		-		Natural Sample 8
ARC TLG 98		-		2 Natural, Sample 9
ARC TLG 98		-		1 natural, Sample 10
ARC TLG 98		-		3 Natural, sample 11A
ARC TLG 98		-		1 Natural, sample 11B
ARC TLG 98		-		5 Natural, sample 12
ARC TLG 98		-		1 Natural, Sample 13
ARC TLG 98		-		1 Natural, sample 17
ARC TLG 98		2		2 small flakes, sample 18
ARC TLG 98		1		1 small wholly cortical flake, 1 natural , sample 19
Total		3		

Table 12: Burnt Flint ARC TLG 98

Event code	Context	Count	Weight (g)	Comments *
ARC TLG 98		2	3	Sample 25
ARC TLG 98		1	1	Sample 2
ARC TLG 98		2	5	Sample 26
ARC TLG 98		3	9	Sample 15
ARC TLG 98		1	4	Sample 18
ARC TLG 98		1	2	Sample 19
ARC TLG 98		3	6	Sample 3
Total		13	30	

* all heavily calcined white to grey

Table 13: Worked Flint ARC CRS 98

Event code	Context	Count	Period	Comments

ARC CRS 98	17	2		1 slightly blade-like
Total		2		

Table 14: Worked Flint ARC 330 98

Event code	Context	Count	Period	Comments
ARC 330 98	32	1		Broken flake
ARC 330 98	80	9		All worn and battered, some broken, 1 or 2 are irregular, also 11 natural
ARC 330 98	82	1		Small burnt flake, also 14 natural
ARC 330 98	89	3		3 poss SH flakes, inc 1 with thermal scars, also 2 natural
ARC 330 98	143	-		2 natural
ARC 330 98	177	6		Inc 1 wholly cortical flake, 1 chunky flake, several HFs
ARC 330 98	186	1		Flake
ARC 330 98	187	3		Inc 1 flake with thermal surfaces – poss used? Very fresh and sharp edges
ARC 330 98	190	1		Bullhead flake, wholly cortical dorsal face
ARC 330 98	192	5		Flakes, also 1 natural
ARC 330 98	196	2		Small flakes, also 2 natural
ARC 330 98	198	1		Flake
ARC 330 98	222	1		Small flake
ARC 330 98	373	1		Flake
ARC 330 98	418	1		HF flake
ARC 330 98	418	1		Large HF flake with much later damage, 1 small area of possible use
ARC 330 98	418	1		Flake
ARC 330 98	433	6		?poss refits – several trimming flakes all very sharp and fresh
ARC 330 98	436	1		Flake
ARC 330 98	448	2		Flakes
ARC 330 98	448	1		Core on a large thermal flake, some flakes taken from the dorsal cortical side, also 2 natural
ARC 330 98	529	4		Flakes inc 1 very large flake
ARC 330 98	529	1		Core fragment, irregularly worked
ARC 330 98	538	1		?Axe thinning flake from polished axe
ARC 330 98	553	2		Flakes 1 has thermal surfaces
ARC 330 98	571	1		Flake
ARC 330 98	614	6		All worn and battered, 1 has been broken post-ex, also 5 natural
ARC 330 98	615	4		All small flakes, also 1 natural
ARC 330 98	617	1		slightly blade-like, heavily corticated
ARC 330 98	631	6		All worn
ARC 330 98	633	7		All worn, also 1 natural
ARC 330 98	680	7		Flakes inc a couple of slightly blade-like flakes
ARC 330 98	681	4		Flakes inc 2 large ?trimming flakes
ARC 330 98	681	1		Thick flake

Event code	Context	Count	Period	Comments
ARC 330 98	688	-		Natural
ARC 330 98	689	1		Flake
ARC 330 98	691	-		Natural
ARC 330 98	700	1		Flake also 1 natural
ARC 330 98	726	2		1 flake has platform preparation
ARC 330 98	735	10		inc some trimming flakes - dorsal and side
ARC 330 98	736	1		Small HF flake
ARC 330 98	737	12		inc some trimming flakes - dorsal and side, also 1 natural
ARC 330 98	737	6		Flakes, also 1 natural
ARC 330 98	737	1		HF flake
ARC 330 98	737	1		Flake
ARC 330 98	737	1		Large worn and damaged flake
ARC 330 98	742	1		Flake
ARC 330 98	747	3		Flakes
ARC 330 98	747	1		Core fragment - flake core
ARC 330 98	747	1		Possible smoother, oval pebble with some signs of use, also lightly burnt
ARC 330 98	750	1		Flake
ARC 330 98	751	3		Flakes, also 1 natural
ARC 330 98	771	4		Flakes, inc trimming flakes
ARC 330 98	805	1		Flakes
ARC 330 98	814	2		Flakes
ARC 330 98	830	2		Flakes
ARC 330 98	832	5		Flakes
ARC 330 98	832	1		Core on a partly cortical flake, some plat preparation
ARC 330 98	832	1		Flake
ARC 330 98	835	3		Flakes inc 2 burnt flakes, also 8 natural
ARC 330 98	835	1		Retouched flake, very worn and some later damage
ARC 330 98	835	1		Serrated flake, worn edges both poss originally used
ARC 330 98	835	1		Possible tested nodule, some thermal fractures but a couple of flake scars, also 35 natural
ARC 330 98	835	1		Core fragment, also 30 natural
ARC 330 98	844	1		Thick, almost cortical dorsal trim flake
ARC 330 98	863	3		Inc 1 thick flake
ARC 330 98	867	1		Flake, also 1 natural and 1 pebble - not worked
ARC 330 98	872	5		Flakes
ARC 330 98	873	29		Many small HF flakes, also 1 CRF tablet - irregular, also 9 natural
ARC 330 98	873	1		Small core flake removals
ARC 330 98	873	1		Heavily burnt flake fragment
ARC 330 98	875	2		Flakes
ARC 330 98	878	9		Flakes, also 16 natural
ARC 330 98	878	1		Retouched flake, minimal retouch poss just use

Event code	Context	Count	Period	Comments
ARC 330 98	884	-		Large natural pebble
ARC 330 98	939	-		Large natural pebble
ARC 330 98	946	1		Small HF flake
ARC 330 98	959	-		Natural
ARC 330 98	978	1		Flake
ARC 330 98	978	1		Core fragment, very irregularly worked, some incipient cones
ARC 330 98	981	1		1 flake, also 1 natural
ARC 330 98	984	1		Flake
ARC 330 98	998	-		Natural
ARC 330 98	1045	1		Creamy flint flake
ARC 330 98	1149	1		Possible flake, worn
ARC 330 98	1173	1		Small fragment
ARC 330 98	1173	1		Wholly cortical flake from smallish flake
ARC 330 98	1173	1		?knife some retouch but a lot of damage, partly cortical blank
ARC 330 98	1173	6		All fairly small flakes
ARC 330 98	1182	1		Flake
ARC 330 98	1186	4		Also 3 natural
ARC 330 98	1189	-		1 natural
ARC 330 98	1189	1		Small flake
ARC 330 98	1209	1		Irregular flake, concreted with ?iron pan
ARC 330 98	1210	10		Some trimming flakes, also 1 natural
ARC 330 98	1230	-		1 natural lump
ARC 330 98	1232	-		Natural
ARC 330 98	1236	-		Natural
Total		247		

Table 15: Burnt Flint ARC 330 98

Event code	Context	Count	Weight (g)	Comments *
ARC 330 98	32	1	83	
ARC 330 98	80	4	108	
ARC 330 98	82	1	11	
ARC 330 98	143	10	259	
ARC 330 98	177	20	338	
ARC 330 98	179	4	61	
ARC 330 98	194	2	1	
ARC 330 98	196	1	15	
ARC 330 98	198	2	5	
ARC 330 98	217	1	12	
ARC 330 98	225	1	2	
ARC 330 98	250	2	40	
ARC 330 98	352	24	233	
ARC 330 98	373	3	159	
ARC 330 98	379	1	60	
ARC 330 98	384	25	120	
ARC 330 98	386	1	61	

Event code	Context	Count	Weight (g)	Comments *
ARC 330 98	390	231	2027	
ARC 330 98	399	6	70	
ARC 330 98	400	1	46	
ARC 330 98	417	77	2248	
ARC 330 98	418	19	232	
ARC 330 98	428	10	5	
ARC 330 98	433	22	199	
ARC 330 98	436	1	87	
ARC 330 98	448	39	897	
ARC 330 98	462	1	42	
ARC 330 98	480	7	58	
ARC 330 98	526	4	14	
ARC 330 98	527	3	15	
ARC 330 98	529	41	2839	
ARC 330 98	535	2	11	
ARC 330 98	538	2	80	
ARC 330 98	567	6	89	
ARC 330 98	570	5	19	
ARC 330 98	575	5	19	
ARC 330 98	611	2	5	
ARC 330 98	614	7	28	
ARC 330 98	631	2	130	
ARC 330 98	633	5	6	
ARC 330 98	680	2	29	
ARC 330 98	686	2	6	
ARC 330 98	688	8	79	
ARC 330 98	700	6	8	
ARC 330 98	701	3	33	
ARC 330 98	735	1	11	
ARC 330 98	736	2	69	
ARC 330 98	736	6	24	
ARC 330 98	737	6	322	
ARC 330 98	747	2	62	
ARC 330 98	754	11	95	
ARC 330 98	756	7	193	
ARC 330 98	771	3	158	
ARC 330 98	773	10	13	
ARC 330 98	805	1	56	
ARC 330 98	809	4	2	
ARC 330 98	811	3	6	
ARC 330 98	812	3	172	
ARC 330 98	818	5	58	
ARC 330 98	820	4	46	
ARC 330 98	825	3	7	
ARC 330 98	828	2	20	
ARC 330 98	831	3	24	
ARC 330 98	832	6	62	
ARC 330 98	833	1	57	
ARC 330 98	835	5	37	

Event code	Context	Count	Weight (g)	Comments *
ARC 330 98	864	8	47	
ARC 330 98	872	1	82	
ARC 330 98	873	7	253	
ARC 330 98	875	7	163	
ARC 330 98	878	14	889	
ARC 330 98	884	11	625	
ARC 330 98	901	2	85	
ARC 330 98	934	1	6	
ARC 330 98	939	1	96	
ARC 330 98	948	3	116	
ARC 330 98	951	2	12	
ARC 330 98	890	6	12	
ARC 330 98	905	3	7	
ARC 330 98	981	3	27	
ARC 330 98	984	4	11	
ARC 330 98	998	1	7	
ARC 330 98	1084	2	23	
ARC 330 98	1168	1	23	
ARC 330 98	1173	1	17	
ARC 330 98	1173	15	139	
ARC 330 98	1175	2	31	
ARC 330 98	1175	39	193	
ARC 330 98	1182	1	37	
ARC 330 98	1182	1	11	
ARC 330 98	1186	1	9	
ARC 330 98	1186	3	64	
ARC 330 98	1188	1500	1416	
ARC 330 98	1206	6	26	
ARC 330 98	1210	1	22	
ARC 330 98	1216	1	13	
ARC 330 98	1218	3	5	
ARC 330 98	1226	1	17	
ARC 330 98	1231	6	49	
ARC 330 98	1232	5	7	
ARC 330 98	1236	5	20	
ARC 330 98	777	3	3	
ARC 330 98	448	7	76	
ARC 330 98	974	2	4	
ARC 330 98	839	5	39	
ARC 330 98	190	5	58	
ARC 330 98	555	2	3	
ARC 330 98	625	2	1	
ARC 330 98	956	5	25	
ARC 330 98	1182	16	41	
ARC 330 98	878	7	1	
ARC 330 98	1138	3	7	
ARC 330 98	674	23	67	
ARC 330 98	420	9	58	
ARC 330 98	1196	2	4	

Event code	Context	Count	Weight (g)	Comments *
ARC 330 98	713	2	4	
ARC 330 98	840	1	37	
ARC 330 98	458	2	9	
ARC 330 98	862	8	6	
ARC 330 98	836	4	11	
ARC 330 98	771	7	80	
ARC 330 98	844	5	18	
ARC 330 98	875	3	39	
ARC 330 98	736	3	6	
ARC 330 98	944	4	41	
ARC 330 98	689	4	34	
ARC 330 98	873	2	28	
ARC 330 98	676	5	17	
ARC 330 98	1177	2	7	
ARC 330 98	638	2	10	
ARC 330 98	832	2	10	
ARC 330 98	990	3	4	
ARC 330 98	823	4	16	
ARC 330 98	402	10	299	
ARC 330 98	949	3	13	
ARC 330 98	1047	3	7	
ARC 330 98	691	9	75	
ARC 330 98	771	13	121	
ARC 330 98	939	2	49	
ARC 330 98	726	5	7	
ARC 330 98	982	4	26	
ARC 330 98	812	14	407	
ARC 330 98	401	99	758	
ARC 330 98	867	34	5281	
ARC 330 98	908	3	1	
ARC 330 98	754	18	59	
ARC 330 98	450	3	34	
ARC 330 98	576	1	3	
ARC 330 98	615	3	19	
ARC 330 98	807	5	23	
ARC 330 98	1193	18	24	
ARC 330 98	1150	1	3	
ARC 330 98	980	2	31	
ARC 330 98	710	150	2681	
ARC 330 98	412	125	2926	
ARC 330 98	712	5	8	
ARC 330 98	741	38	652	
ARC 330 98	390	44	1407	
ARC 330 98	143	1000	2778	
ARC 330 98	835	7	557	
Total		1651	35955	

* all heavily calcined white to grey