7.1 Assessment of Charred Plant Remains and Charcoal

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Introduction

7.1.1 A full sampling programme was conducted during excavation for the retrieval of charcoal and charred plant remains to provide information and interpretation of the economic and palaeo-environmental aspects of the site.

7.1.2 The recovery and assessment of the samples was undertaken in accordance with the Fieldwork Event Aims for the site. The sampling programme aims to allow general questions concerning the diet and economy of the site, and of land-use for the site, as well as more specific information about the function and nature of individual features, building or activities, to be addressed. On a wider, regional level it was hoped to gain information at varying levels from the Bronze Age to Saxon economy and lifestyle of Kent, and to look at the development of the economy and land-use through time.

Methodology

7.1.3 Site sampling strategy ensured that a range of features from all phases were sampled. Within each defined phase the sample suite included a range of different feature or context types, and ensured a spatial array. Priority was given to samples from features or contexts that were dated, or datable, over those that were unlikely to be dated/ datable, except where specific or unusual activities were indicated by the field evidence. Where environmental sampling methodologies differ between Canterbury Archaeological Trust (CAT) and Wessex Archaeology (WA), these are indicated appropriately in text.

7.1.4 Standard processing methods were used. Flotation of bulk samples facilitated the retrieval of flot on 500 μm (WA) or 250 μm (CAT) mesh sieves, with residues retrieved on 1mm mesh sieves. The fractionated residues greater than 5.6mm were sorted, recorded and discarded. Residues of 2mm and 1mm from all flotation samples (WA) were dried and are retained. Artefact samples from which charcoal was retrieved were sieved to 1mm and fractionated on 1mm, 2mm and 4mm/ 5.6mm meshes.

Quantification and Provenance

7.1.5 A total of 547 bulk samples were taken of which 462 were processed (comprising all 353 samples taken by CAT and 109 samples taken by WA), including a representative sample of all feature types and phases. In addition a series of 59 samples were taken for artefact and charcoal recovery. A further 353 samples were taken and processed from the Anglo-Saxon cemetery and grave-related contexts.

7.1.6 The samples processed were from a range of Neolithic, Early Bronze Age, Late Bronze Age/ Early Iron Age, Early Iron Age, Romano-British, Early to Mid Saxon, medieval and undated features, for the recovery and assessment of charred plant remains and charcoal.

7.1.7 The majority of the bulk samples were 10 litres, but varied between 0.5 and 110 litres and artefact samples were up to 800 litres. The volume of the flots was obviously highly variable due to the range in sample size, but in general flots were

average for the sampled contexts, (average flot size is *c*. 60ml per 10 litre of sample) with between 1 – 70% rooty material and low to high numbers of uncharred weed seeds, which may be indicative of stratigraphic movement. **Table 41** quantifies the assessment data.

7.1.8 Charcoal fragments of greater than 5.6 mm were recovered from 73 of the samples. Eight of the Neolithic samples, nine of the Late Bronze Age/ Early Iron Age samples, one of the Late Iron Age/ Early Romano-British, one of the Saxon samples and six of the undated samples contained large quantities of charcoal. The charcoal was mainly large wood fragments.

NEOLITHIC

7.1.9 The ten Neolithic samples from pits W136 and W175 contained charred grain fragments in seven samples, with high numbers in one of them, charred weed seeds, including hazelnut fragments in all samples, with large amounts in seven of these. A few charred chaff fragments were recorded in the sample from W175. Burnt bone fragments were recorded in five of the flots.

EARLY BRONZE AGE

7.1.10 The Early Bronze Age samples from the ring ditch W33 and ditch C4744 produced very few, if any charred remains in the flots.

MIDDLE BRONZE AGE

7.1.11 Only one sample has been defined as Middle Bronze Age and this pit (C6253) produced good quantities of grain and charcoal.

LATE BRONZE AGE/ EARLY IRON AGE

7.1.12 The Late Bronze Age/ Early Iron Age samples produced charred grain fragments in 29 samples, with high numbers in 15 of them, and charred chaff fragments in 21 of the samples, with large amounts in 10 of them. Charred weed seeds, including hazelnut fragments, were observed in 24 of the samples, with large quantities in 5 samples.

7.1.13 The three samples from W207 contained exceptional quantities of charred pea/ bean fragments, with a few pea/ bean fragments present in a sample from W208. Very good preservation and quantities were also noted in pits and especially in pit C2805. The remains from ditches were typically poorer but occasional concentrations (e.g. the sample from C124) were richer. A number of samples were from cremation-related features from which charcoal was generally very good and plant remains largely poor as they were incidental to the pyre firing. Burnt bone fragments were present in six of the flots, bone fragments in a single flot and small mammal bones in one flot. Molluscs were observed in a single flot.

Table 41: Quantification of ecofacts

Period	Feature	Context	Sample	Size	Flot size	Roots	Grain	Chaff	Unburnt weed seeds	Burnt weed seeds	Charcoal	Other	Residue
PHIST	?Pit C2157	2156	36	20	70	10	C	C	c	-	A		C
PHIST	Crem/p-hole C6359	6358	940	10	5		-	-	c	-	-		C
PHIST	Crem/p-hole C6353	6352	942	30	10		A	-	-	C	-		B
PHIST	Crem/p-hole C6363	6362	941	10	10		-	-	c	C	C		-
PHIST	Ditch	2181	38	10	5	2	C	-	-	-	C		-
PHIST	Ditch	3765	810	10	10	3	-	-	c	-	B		-
PHIST	Ditch	2289	39	10	5		-	-	-	-	C		C
PHIST	Ditch C2178	2179	37	10	60	10	C	-	-	-	A		C
PHIST	Ditch C2276	2277	30	10	30	5	-	-	c	-	B		C
PHIST	Ditch C2292	2290	41	10	5	3	-	-	-	-	C		-
PHIST	Ditch C2292	2291	35	10	10		-	-	-	-	C		-
PHIST	Ditch C2306	2305	33	10	5	2	-	-	-	-	C		C
PHIST	Ditch C2308	2307	34	10	10	5	-	-	-	-	C		-
PHIST	Feat C3720	3719	802	10	10	3	-	-	b	-	C	Snails	-
PHIST	P-hole/pit C6347	6346	943	10	5		C	C	-	-	-		C
PHIST	Pit C6351	6350	944	10	5	3	-	-	-	-	-		-
PHIST	Pit C6489	6488	904	10	20		A*	B	-	B	B		C
PHIST	Pit C6489	6514	905	10	5		A	C	-	-	-	H	-
PHIST	Pit C6489	6521	909	10	5		C	C	-	-	C		-
PHIST	Pit C6489	6658	907	10	5		-	-	-	-	-		-
PHIST	Pit C6489	6659	906	10	15		A**	C	-	-	C		-
PHIST	Pit C6489	6660	908	10	5		-	-	-	-	-		-
PHIST	Pit C6499	6431	900	10	10		A*	A	cc	C	B		-
PHIST	Pit C6499	6498	948	20	50	5	A*	A	-	C	A	Fruit stone	C
PHIST	Pit C6499	6499	899	10	80	20	A**	A*	a	A	A		-
PHIST	Pit C6499	6655	901	10	5		A	-	-	-	C		C
PHIST	Pit C6499	6656	902	10	5		C	-	c	-	-	Burnt bone	-
PHIST	Pit C6499	6657	903	20	10		C	C	-	-	B	Smb	-
PHIST	Post hole C6305	6304	911	10	10		A	-	-	A	B	H	-
PHIST	Post hole C6307	6306	913	10	5		A*	-	-	-	C		-
PHIST	Post hole C6309	6308	917	10	5	3	-	-	-	-	C		-
PHIST	Post hole C6317	6316	925	10	5		C	-	-	-	-		C
PHIST	Post hole C6319	6318	928	10	5		C	C	c	-	-		-
PHIST	Post hole C6323	6322	930	10	5	3	C	-	c	C	-		-
PHIST	Post hole C6329	6328	932	10	10	5	C	-	-	-	B		-
PHIST	Post hole C6339	6338	927	10	5		-	-	c	-	C		C
PHIST	Post hole C6341	6340	926	10	10		B	-	-	-	B		-
PHIST	Post hole C6349	6348	945	10	5	2	C	-	-	-	-		C
PHIST	Post hole C6355	6354	947	10	5		C	-	-	-	C		-
PHIST	Post hole C6357	6356	946	10	5		A	-	-	C	-		-

PHIST	Post hole C6395	6394	936	10	5		C	-	-	-	-		C
PHIST	Post hole C6397	6396	938	10	10		-	-	-	-	C		-
PHIST	Post hole C6401	6400	939	10	20		B	C	-	C	B		-
PHIST	Post hole C6409	6408	933	10	10	3	B	C	-	-	B		-
PHIST	Post hole C6414	6413	934	10	5	1	A	C	c	-	C		C
PHIST	Post hole C6445	6444	912	10	10	3	A*	C	c	A	B		-
PHIST	Post hole C6447	6446	918	10	10		B	C	-	C	B		-
PHIST	Post hole C6451	6450	914	10	5		C	-	-	-	C		-
PHIST	Post hole C6453	6452	916	10	5		-	-	-	-	-		-
PHIST	Post hole C6455	6454	915	10	5		-	C	-	-	C		-
PHIST	Post hole C6457	6456	920	10	5		-	-	c	-	-		C
PHIST	Post hole C6459	6458	921	10	5		C	-	-	-	C		C
PHIST	Post hole C6461	6460	922	10	5		-	-	-	-	-		-
PHIST	Post hole C6462	6463	923	10	5		-	-	-	C	-		-
PHIST	Post hole C6465	6464	919	10	10	3	C	C	-	-	C		-
PHIST	Post hole C6467	6466	924	10	5		C	-	-	C	C		-
PHIST	Post hole C6472	6473	937	10	10		C	-	-	-	B		-
PHIST	Post hole C6487	6486	910	10	5		B	-	-	-	C		-
PHIST	Post hole C6585	6584	935	20	30		A	-	c	-	A		-
ENE	Pit W136	3371	245	20	250	12.5	A	-	b	A(h)*	A	-	-
ENE	Pit W175	3278	237	7	50	2	C	-	c	A(h)	A	-	-
ENE	Pit W175	3279	238	4	60	1.8	-	-	c	C(h)	A	Some burnt bone	1
ENE	Pit W175	3280	239	3	60	3	C	-	c	A(h)	A	Some burnt bone	-
ENE	Pit W175	3281	240	4	35	3.5	B	C	a	A(h)	B	Some burnt bone	-
ENE	Pit W175	3297	244	5	50	5	C	-	c	B(h)	A	-	-
ENE	Pit W175	3298	243	6	130	4	C	-	c	A(h)	A	-	-
ENE	Pit W175	3299	242	5	60	6	-	-	c	A(h)	A	Some burnt bone	-
ENE	Pit W175	3300	241	5	60	3	B	-	c	A(h)	A	Some burnt bone	-
BA	Barrow ditch C4744	3827	834	20	20		-	-	c	-	B		-
BA	Barrow ditch C4744	3919	831	10	5	2	-	-	-	-	-		-
BA	Barrow ditch C4744	3921	832	10	5		-	-	c	-	C		-
BA	Barrow ditch C4744	3930	825	10	10	5	-	-	-	-	B	Snails	-
BA	Barrow ditch C4744	3931	826	10	10		-	-	-	-	C		-
BA	Ring ditch C6221	6220	894	10	40		C	C	c	-	A		-
EBA	Ditch W33	1882	233	4	1	0.5	-	-	c	-	-	-	-
EBA	Ditch W33	1886	234	5	2	0.5	-	-	c	-	-	-	-
MBA	Pit C6153	6152	1046	50	40	5	A	-	a	-	A*	Snails	C
LBA/EIA	Pit	1499	93a	10	20		A*	A*		A	B		
LBA/EIA	Pit	1499	93b	10	10		A*	A*		A	B		
LBA/EIA	Pit	1499	93c	10	10		A*	A		A	B		
LBA/EIA	Pit	1499	93	22	10		A*	A*		B	B		
LBA/EIA	Pit C2805	2802	210	20	35	10	A*	C	c		A	Snails	C
LBA/EIA	Pit C2805	2802	248	20	25	5	A*	A	-	B	B	Snails	C
LBA/EIA	Pit C2805	2802	255	10	10		B	-	b	C	B	Snails	C

LBA/EIA	Pit C2805	2803	211	10	15		B	C	c	-	B	Snails	C
LBA/EIA	Pit C2805	2803	256	10	30	5	C	C	-	-	A	Snails	C
LBA/EIA	Pit C2805	2804	212	20	20	5	A*	C	c	B	B	Snails	-
LBA/EIA	Pit C2805	2804	249	10	20	5	A	A	c	C	B	Snails	C
LBA/EIA	Pit C2805	2804	257	10	20		B	C	c	-	B		-
LBA/EIA	Pit C2805	2813	213	20	20	5	A	A*	-	B	B	Snails	C
LBA/EIA	Pit C2805	2813	250	10	10	3	B	C	c	-	B	Snails	-
LBA/EIA	Pit C2805	2813	258	10	30	5	C	C	-	-	B		-
LBA/EIA	Pit C2805	2814	214	20	10	3	B	B	b	B	C		-
LBA/EIA	Pit C2805	2814	251	20	15		C	C	c	-	B	Snails	-
LBA/EIA	Pit C2805	2814	259	10	30	5	A	A	-	A	A		-
LBA/EIA	Crem W100	1727	120	0.5	10	1.5	-	-	c	-	-	Some burnt bone	-
LBA/EIA	Crem W100	1727	121	1.5	25	5	-	-	b	C	C	Some burnt bone	-
LBA/EIA	Crem W101	1729	122	1	10	2	-	-	c	-	C	Some burnt bone	-
LBA/EIA	Crem W101	1729	123	1	15	2.25	-	-	b	-	C	Some burnt bone	-
LBA/EIA	Crem W102	1700	109	1	10	1	-	-	c	-	C	-	-
LBA/EIA	Crem W102	1700	113	1.5	10	1.5	-	-	b	-	C	-	-
LBA/EIA	Crem W102	1700	110	3	25	5	C	-	b	-	C	-	-
LBA/EIA	Crem W102	1700	112	3.5	30	4.5	C	-	c	C	C	-	-
LBA/EIA	Crem W102	1701	114	1.5	5	2	C	-	c	-	C	-	-
LBA/EIA	Crem W102	1701	115	3	5	1.5	C	-	c	-	C	-	-
LBA/EIA	Crem W102	1701	111	3.5	10	4	-	-	c	C	-	mollusc (C)	-
LBA/EIA	Crem W106	1723	116	4	20	4	-	-	c	C	C	-	-
LBA/EIA	Crem W107	1725	117	3	10	2	-	-	b	-	C	-	-
LBA/EIA	Crem W223	3603	277	10	500	5	C	-	c	C	A*	Some burnt bone	-
LBA/EIA	Crem W223	3608	278	10	250	5	-	-	c	C	A*	Some burnt bone	-
LBA/EIA	Crem W223	3609	279	10	650	6.5	-	-	c	C	A*	Some burnt bone	-
LBA/EIA	Crem W223	3610	280	10	1100	11	-	-	c	C	A*	Some burnt bone	-
LBA/EIA	Crem W223	3611	281	10	1500	15	C	-	c	C	A*	Some burnt bone	-
LBA/EIA	Crem W99	1704	118	2	10	2	C	-	c	-	C	-	-
LBA/EIA	Crem W99	1704	119	0.5	10	2	-	-	c	C	C	-	-
LBA/EIA	Ditch W165	3152	219	10	10	1	A	B	b	C	C	-	-
LBA/EIA	Ditch W165	3646	287	10	60	3	A	-	b	C	B	Some burnt bone	-
LBA/EIA	Ditch W165	3646	288	10	60	3	C	-	c	C	A		-
LBA/EIA	Ditch W3	1023	6	20	10	1	C	-	c	C	-	-	-
LBA/EIA	Ditch W62	1698	108	10	50	5	C	-	a	C	B	-	-
LBA/EIA	Ditch W62	1702	124	20	40	16	B	-	a	-	-	-	-
LBA/EIA	Pit W207	5236	341	10	50	7.5	C	C	b	C	B	P/beans (A*)	-
LBA/EIA	Pit W207	5250	324	10	500	1	A	-	c	C	A	P/beans (A**)	-
LBA/EIA	Pit W207	5265	342	10	600	6	A	A	c	A	A	P/beans (A**)	-
LBA/EIA	Pit W208	5030	311	10	100	15	A	A	c	C(h)	A	Smb (C), mollusc (C), p/beans (C), bone	-
IA	Pit	4589	858	20	5	3	-	-	c	-	C		-
EIA/MIA	Grave W64	1306	55	20	15	4.5	C	-	b	C	C	-	-
EIA/MIA	Grave W69	1412	63	10	25	5	-	-	a	-	C	-	-

EIA/MIA	Grave W69	1412	68	10	25	4	C	-	b	-	C	Bone	
EIA/MIA	Grave W70	1605	96	20	15	3	C	-	c	-	-	mollusc (C), bone	-
EIA/MIA	Grave W97	1733	125	20	60	36	C	-	a	C	A	-	-
EIA/MIA	Grave W97	1735	129	20	40	10	A	C	b	C	C	-	-
EIA/MIA	Posthole W67	1410	64	10	40	6	C	C	a	C	B	-	-
LIA/ERO	?Crem	336	30	48	40	5	-	-	-	-	B	Burnt bone	-
LIA/ERO	?Crem	2944	254	10	5	3	-	-	-	-	C		-
LIA/ERO	?Hearth	3985	839	30	120		A**	B	-	B	B	Snails	C
LIA/ERO	?Pit C4586	4585	853	20	10		-	-	a	-	C		-
LIA/ERO	Crem	59	8	12	10	5	C	C	c	-	C		-
LIA/ERO	Crem	59	11	20	10	5	-	-	-	-	C		-
LIA/ERO	Crem	62	91	10	5	-	C	-	-	-	-		-
LIA/ERO	Crem	82	89	8			20		-	-	B	Burnt bone	C
LIA/ERO	Crem	2186	17x	120	710	40	-	-	c	-	A	Snails	B
LIA/ERO	Crem	2186	24x	30	500	50	-	-	-	-	A**	Snails	B
LIA/ERO	Crem	2201	20x	35	80	15	A	-	c	-	A	Snails	C
LIA/ERO	Crem	2208	18x	100	200	40	-	-	-	-	A	Snails	B
LIA/ERO	Crem	2208	25x	50	3000	10	-	-	-	-	A**		B
LIA/ERO	Crem	2216	27x	10	50	10	C	-	-	-	A	Burnt twigs, burnt bone	C
LIA/ERO	Crem	2232	28x	25	100	10	A*	-	c	B	A	Burnt bone, twigs, bird	C
LIA/ERO	Crem	2287	31x	10	5	2	C	-	c	-	C		C
LIA/ERO	Crem	2301	32x	10	5	2	-	-	-	-	C	Snails	-
LIA/ERO	Crem	2826	216	12	25	5	A	-	-	C	B	Burnt bone	-
LIA/ERO	Crem	3007	501	50	100	30	C	-	c	-	A*	Snails	C
LIA/ERO	Crem	3192	525	60	2040		-	-	-	-	A**		A
LIA/ERO	Crem	3704	801	30	70	5	-	-	c	-	A*		C
LIA/ERO	Crem	3708	800	20	20	5	-	-	c	-	B		-
LIA/ERO	Crem	3710		10	10	5	-	-	c	-	B	Burnt bone, snails	-
LIA/ERO	Crem	3737	809	10	30	5	C	C	c	-	A	Snails	-
LIA/ERO	Crem	3776	812	10	10	3	-	-	c	-	C		-
LIA/ERO	Crem	3805	815	10	20		-	-	-	B	B	?Seed heads	-
LIA/ERO	Crem	3809	816	20	20		C	-	c	C	B	?seed heads, bone	-
LIA/ERO	Crem	3894	821	10	5	3	-	-	-	-	C		-
LIA/ERO	Crem	3933	827	10	5	2	-	-	-	-	C		-
LIA/ERO	Crem	3934	828	10	10		C	-	c	-	C		-
LIA/ERO	Crem	6366	898	10	15		C	-	-	-	C		-
LIA/ERO	Ditch	4563	854	20	10	3	-	C	c	-	C		-
LIA/ERO	Ditch	4564	855	20	15		-	-	c	-	C	Snails	-
LIA/ERO	Ditch	4587	863	10	10		-	-	a	-	C		-
LIA/ERO	Ditch	4605	864	10	10		-	-	b	-	C		-
LIA/ERO	Ditch C2042	2040	3x	10	15	5	-	-	c	-	B		-
LIA/ERO	Ditch C2100	2103	6x	10	5		-	-	c	-	C	Snails	C
LIA/ERO	Ditch C2101	2102	7x	10	5	3	C	-	c	-	C		C
LIA/ERO	Ditch C2116	2115	5x	10	10	3	-	-	c	-	C		C

LIA/ERO	Ditch C2118	2117	4x	10	5		C	-	-	-	C		-
LIA/ERO	Ditch C2122	2121	8x	10	5		-	-	-	-	C		-
LIA/ERO	Ditch C2128	2126	14x	10	10		-	-	c	-	-	Snails	C
LIA/ERO	Ditch C2128	2127	13x	10	20	7	-	-	c	-	B	Snails	C
LIA/ERO	Ditch C33	32	64	10	30	5	C	-	-	-	C		-
LIA/ERO	Ditch C4566	4589	857	20	10	3	C	-	b	-	-	Snails	-
LIA/ERO	Ditch C71	34	65	20	20	5	A	C	c	-	C		-
LIA/ERO	Feat C3937	3936	829	10	20		-	-	b	-	B	Fish	C
LIA/ERO	Feat C4609	4608	861	10	10		C	-	a	-	C		-
LIA/ERO	Feat C4611	4610	862	10	20		C	-	c	-	C		-
LIA/ERO	Hollow	2282	40x	10	10	5	-	-	c	-	C	Snails	-
LIA/ERO	Pit	3911	841	60	200		A**	A**	-	A	A		B
LIA/ERO	Pit	3975	842	10	20		A*	A	-	-	A	Burnt bone	-
LIA/ERO	Pit C3800	3799	814	10	5		C	-	c	-	-		-
LIA/ERO	Pit C3910	3982	843	10	10		A	-	-	-	C		-
LIA/ERO	Pit C42	40	1	20	200	20	A	-	c	-	A		-
LIA/ERO	Post hole C2250	2251	29x	10	10	5	-	-	-	-	C		C
LIA/ERO	Post hole C4514	4513	850	40	35		-	-	a	C	B		-
LIA/ERO	Scoop C644	643	47	10	20	5	A	C	c	C	C		-
RO	Crem	49	3	8	5	5	-	-	-	-	-		-
RO	Crem	58	9	10	5	3	C	-	-	-	-		-
RO	Crem	85	12	8	5	5	-	-	-	-	-		-
RO	Crem	95	13	25	5	5	-	-	-	-	-		-
RO	Crem	113	14	20	30	20	-	-	-	-	C		-
RO	Crem	2152	10x	30	180	20	-	-	c	-	A	Snails	B
RO	Cut C176	177	67	20	20	10	C		c		C		
RO	Cut C178	179	66	20	25	55	C	C			B		
RO	Ditch	733	74	15	10		A	A		C	C		
RO	Ditch C164	163	68	10	15	8	C		c	C			
RO	Ditch C18	17	71	20	20	3	B	C		C	C		
RO	Ditch C187	204	70	10	10	5		C	c		C		C
RO	Ditch C227	180	17	10	5		-	-	-	-	C		-
RO	Ditch C450	449	37	20	20	5	A	C			B		
RO	Ditch C592	591	42	20	30	5	A	C	c		B		
RO	Ditch C618	617	45a	10	10	2	C	C	c		C	mussel	
RO	Ditch C806	801	88	10	5		C	C					
RO	Ditch C806	801	90	20	5	3	B						
RO	Feature C66	65	72	10	5	3	C		c				
RO	Grave	23	6	8	20		B	-	c	-	C		-
RO	Grave	23	19	8	10		C	-	-	C	B		-
RO	Grave	23	5	10	40	5	A	B	-	C	B	Lmb, smb	-
RO	Grave	23	18	10	15		C	-	-	C	B		-
RO	Hollow way C896	622	44a	10	20	10	A*	C		B	B		
RO	Layer C143	143	16	10	5		-	-	-	-	-		-

RO	Layer C352	352	31	45	30	5	A*	-	c	-	B		-
RO	Oven C630	629	51	10	20	5	C			C	B		
RO	Oven C630	629	80	30	40						A		
RO	Pit	754	63	10	10	5	B		c		C		
RO	Pit C175	174	15	20	20	5	A*	-	-	-	C		-
RO	Pit C4550	4551	851	30	150	20	B				A	Snails	
RO	Pit C518	582	40	20	10	7	C				C		
RO	Pit C612	611	78	20	20	3	A*	A		B	B		
RO	Pit C703	702	69	22	10	5	A			C	C		
RO	Pit C9	10	4	40	125		A*	A*	-	A	B	H	-
RO	Pit C9	261	20	10	10		C	-	-	-	C		-
RO	Post hole C382	381	33	10	30				c		B		
RO	Scoop C644	643	47	10	200	5	A	C	c	C	B		
RO	Stoke hole C638	637	52	10	125					C	A		
RO	Stoke hole C638	637	58	20	450		A				A**		
RO	Stoke hole C638	637	59	10	250						A**		
RO	Stoke hole C638	637	60	10	125		C				A*		
RO	Stoke hole C638	637	61	10	30						B		
RO	Stoke hole C638	637	62	10	40						B		
RO	Stoke hole C638	637	81	20	800	10	A			C	A**	H	A
RO	Stoke hole C638	637	82	20	300		A				A**		B
RO	Stoke hole C638	637	83	20	300		A				A**		B
RO	Stoke hole C638	637	84	10	200					C	A**		B
RO/EM	Grave W59	1390	59	20	50	25	A	C	a	C(h)	C	-	-
RO/EM	Layer W46	1612	97	20	40	20	C	-	a	C(h)	C	-	-
EM	?Grave	2480	60	10	10	5	C				C	Snails	
EM	?Post hole	642	50	10	10	3					C		
EM	Feature C2835	2836	218	10	20	5			c		C	Snails	
EM	Feature C2835	2838	219	100	5	3					C	Snails	
EM	Feature C2835	2842	221	10	5						C		
EM	Feature C2835	2844	222	100	10	3	C		c		C		
EM	Feature C2835	2861	226	20	5						C		
EM	Feature C2835	2863	227	10	5						C		
EM	Feature C2835	2865	228	10	5	5							
EM	Feature C384	383	34	20	30	5	A*		c		A		B
EM	Feature C384	415	36	45	2900		A**	A**		A	A		A
EM	Grave	2886	233	20	10	5	C				C	Snails	
EM	Grave	3035	528	10	20	10			c		B		
EM	Grave	3061	529	10	15	5	C				B		C
EM	Grave	3220	527	60	150	40					A	Burnt bone	C
EM	Grave	3714	808	20	20	5	C		b	C	B	Burnt bone, snails	
EM	Grave	3725		10	10	3			c		B	Charred stalks, bone	
EM	Grave	3750	805	10	20	3	B		c	C	A		
EM	Grave	3758	807	10	10						B		C

EM	Grave	3763	813	70	50		C		c		A	Bone	C
EM	Grave	3997	840	60	30	10	C		a		B		
EM	Grave	4501	845	50	50		C		a		C		
EM	Grave	4501	846	10	5				c				
EM	Grave	4501	847	10	5	3					C		
EM	Grave	4501	848	10	20				a				
EM	Grave	4565	856	20	10	5			c		C	Snails	
EM	Grave	4592	866	20	20	5			b	C	B	Human bone	
EM	Grave	4613	865	110	60				a		C	Human bone	
EM	Grave	4613	870	20	10	5	C		c		C		
EM	Grave	4616	867	30	10				b		B		C
EM	Grave	4622	868	10	20				c		B		
EM	Grave	4646	871	30	25	5	C		a	?C	C	Snails	
EM	Grave	4660	879	30	20	3	C	C	c		B		C
EM	Grave	4664	889	50	25		C		c	C	A		C
EM	Grave	4678	884	20	5	3					C		C
EM	Grave	4681	876	20	15		C		b	C	B		
EM	Grave	4687	878	10	5				c		C		
EM	Grave	4700	875	10	10				c		C		
EM	Grave	4705	877	30	30	5	C	B	b	C	B		
EM	Grave	4709	883	10	10				b		C	H	
EM	Grave	4995	860	10	5								
EM	Grave	6132	892	10	10	5			c		C	Bone	
EM	Grave	6200	893	10	10		C	C	c	C	C	?textile	
EM	Grave	6522	897	10	5	3							
EM	Grub hut	631	48	45	75	10	B		c		A	H, burnt smb, mussel	C
EM	Grub hut	632	49	65	50	10	B		c		A		C
EM	Layer C191	191	21	10	30	5	C		c		A		
EM	Layer C238	238	29	45	60	5	A*	B	c	C	A		B
EM	Pit C3753	3752	806	10	5	2			c		C		
EM	Pit C4596	4595	859	20	40				c		B		
EM	Grave W104	1706	147	20	30	12	A	C	a	C	-	-	-
EM	Grave W111	1812	180	15	20	10	C	-	a	C	-	-	-
EM	Grave W12	1147	5	20	10	1.5	C	-	a	-	-	-	-
EM	Grave W120	1897	200	20	10	5	C	-	b	C(h)	-	-	-
EM	Grave W121	1899	205	20	15	4.5	B	-	b	C	C	-	-
EM	Grave W122	1465	181	20	30	7.5	C	-	b	C	C	P/beans (C), mollusc (C)	2
EM	Grave W123	1855	186	20	50	5	A	C	a	C	A	-	6
EM	Grave W13	1072	2	20	10	1	-	-	b	C	-	-	-
EM	Grave W13	1075	3	20	10	1	C	-	c	C	-	-	-
EM	Grave W18	1125	7	20	15	7.5	B	C	a	C	-	-	-
EM	Grave W185	1320	47	20	10	1.5	A	-	b	C	-	mollusc (C)	-
EM	Grave W19	1121	17	20	20	3	A	-	a	C	-	-	-
EM	Grave W190	1647	101	10	25	15	C	C	a	C	-	-	-

EM	Grave W20	1119	9	20	30	6	C	-	a	C	-	-	-
EM	Grave W21	1117	8	20	10	1	-	-	a	C	C	-	-
EM	Grave W22	1324	44	20	10	1.5	B	-	a	C	C	mollusc (C)	-
EM	Grave W24	1115	11	20	20	2	C	-	c	-	C	-	-
EM	Grave W27	1322	45	20	10	1.5	C	-	b	C	C	-	-
EM	Grave W38	1515	95	20	10	3.5	C	-	b	C	-	-	-
EM	Grave W41	1768	173	20	30	21	B	-	a	-	-	-	-
EM	Grave W43	1574	82	20	15	10	B	-	c	-	-	mollusc (C), bone	-
EM	Grave W45	1578	192	20	50	15	A	-	a	C	C	Bone	1
EM	Grave W45	1858	194	20	50	15	A	-	a	C	-	Bone	-
EM	Grave W57	1635	168	20	15	4	C	-	c	-	C	-	-
EM	Grave W60	1454	206	20	30	9	A	-	a	C	C	P/beans (C)	-
EM	Grave W60	1458	73	20	30	10	A	-	a	C	-	-	-
EM	Grave W7	1177	16	6	5	1	C	C	a	C	-	-	-
EM	Grave W7	3032	172	20	15	1.5	-	-	b	C	-	Bone	-
EM	Grave W77	1100	4	20	25	7.5	C	-	a	-	-	-	-
EM	Grave W78	1152	18	20	40	28	C	-	a	C	-	-	-
EM	Grave W83	1300	25	20	25	5	C	-	a	C	-	-	-
EM	Grave W84	1280	20	20	30	9	C	-	b	C	-	-	-
EM	Grave W93	3008	141	20	10	2	C	-	c	-	-	mollusc (C)	-
EM?	?Hearth C3891	3890	824	10	10		C				B		
EM?	Ditch	3831	835	20	5				c		C		
EM?	Ditch	3917	830	20	30	5				C	B		
EM?	Ditch C3917	39917	837	30	25	5	A				B		
EM?	Ditch recut	3829	833	20	20		B	C			B		
MD	Beam slot	660	57	100	30	5	C		c		B		
MD	Ditch C267	266	22	10	15	3	A				B		C
MD	Ditch C316	310	25	10	20		C		c		B	Smb	
MD	Ditch C360	361	32	20	20		A		c		B	Lmb	
MD	Ditch C504	503	39	10	5	3							
MD	Ditch C520	549	79	20	20	5	A	C	c	C	B	H	B
MD	Ditch C590	589	41	20	10	5	B	C			B	H	
MD	Ditch C646	645	56	15	20	55	C		c		B		
MD	Layer C389	389	35	20	10	5	C	C	c		C		
MD	Layer C413	413	38	10	25		A*			B	B		B
MD	Pit C281	280	23	20	10		A			B	B		
MD	Pit C281	309	24	20	30		A*				B	Fish	B
MD	Pit C603	602	43	10	30	5	C		c		B	Fish	
MD	Pit C614	613	45	10	250		A**	A		A	A		B
MD	Pit C614	636	46	10	10	3	A*				B	Lmb, fish	C
MD	Pit C792	791	76	30	75	10	A*	C	c		A	H, lmb, smb, fish	
MD	Pit C792	796	77	45	225	10	A*		c	C	A	H, lmb, fish, eggshell,	B
MD	Pit C872	411	26	10	30	10	B	C			B		B
MD	Ditch W44	1569	94	1	3	0.4	B	-	c	-	-	P/beans (C)	-

MD	Ditch W66	1598	92	20	50	25	B	C	a	C	C	-	-
MD	Pit W47	1310	50	10	40	8	A*	C	a	C	B	-	-
UN	Ditch W132	3131	232	10	10	2.5	C	C	a	C	-	-	-
UN	H.way W170	3234	221	3	2	1	C	C	c	-	-	-	-
UN	Pit W137	3345	252	3	10	1	-	-	b	-	C	-	-
UN	Pit W137	3405	253	4	10	0.5	-	-	c	C	B	-	-
UN	Pit W137	3406	254	4	10	0.5	C	-	c	C	C	-	-
UN	Pit W137	3407	255	4	5	0.5	-	-	c	C	C	-	-
UN	Pit W137	3408	256	5	5	0.75	-	-	c	-	-	-	-
UN	Pit W137	3409	257	4	5	0.75	-	-	c	C	-	-	-
UN	Pit W138	3397	246	10	40	4	C	-	c	C	A	-	-
UN	Pit W138	3398	247	5	40	6	-	-	b	C	A	Some burnt bone	-
UN	Pit W138	3399	248	5	35	5.25	-	-	b	C	C	Some burnt bone	-
UN	Pit W138	3400	249	4	60	3	C	-	c	C	B	Some burnt bone	-
UN	Pit W138	3401	250	2	5	1	-	-	b	-	C	Some burnt bone	-
UN	Pit W138	3404	251	2	5	1	C	C	c	C	-	-	-
UN	Pit W138	3491	261	10	70	7	C	-	c	C	A	Some burnt bone	-
UN	Pit W139	3335	258	10	60	12	C	-	b	C	B	Some burnt bone	-
UN	Pit W139	3410	259	10	20	10	C	C	a	C	C	-	-
UN	Pit W139	3411	260	10	10	3	C	-	b	C(h)	C	Some burnt bone	-
UN	Pit W139	3499	266	10	10	3	C	-	c	C	B	-	-
UN	Pit W139	3500	267	10	10	1.5	C	-	c	-	B	-	-
UN	Pit W180	3383	264	5	60	3	-	-	b	C	A	-	-
UN	Pit W180	3498	265	5	60	6	C	-	b	C	A	-	-
UN	Pit W37	1595	93	10	90	9	A*	-	b	C	A	P/beans (A)	-
UN	?Pit C2723	2722	206	10	20	3	C	C	c	C	C		
UN	?Post hole C2536	2535	62x	30	10	3			c		C	Snails, modern insects	
UN	?Post hole C2737	2736	203	7	2	2							
UN	?Ring ditch	2503	55x	10	5	2	C		c			Snails	
UN	?Ring ditch	2509	56x	10	5			C				Snails	
UN	Cut C2720	2719	200	5	5	3			c				
UN	Cut C2923	2922	238	10	5	4	C						
UN	Cut C2937	2838	246	20	10	3			c		C	H	
UN	Ditch	2330	81x	10	5	2			c				
UN	Ditch C2471	2470	63x	10	10	3	C		c	?C	C	Snails	
UN	Ditch C2583	2582	67x	10	10	5			c			Snails	
UN	Ditch C2621	2622	70x	10	5	3	C				C	Snails	
UN	Ditch C2710	2890	245	10	25	5	C		c				
UN	Ditch C2718	2718	261	20	15	5	B	B	c	B	B	modern millipedes	
UN	Ditch C2718	2771	269	20	15	5	C				C	Snails	
UN	Ditch C2718	2775	270	20	15	5			c		C	Snails	C
UN	Ditch C2718	2787	266	20	10								
UN	Ditch C2718	2791	263	10	30	10	C		c		B	Snails, fish bone	
UN	Ditch C2718	2796	264	20	20	10	C				B	Snails	

UN	Ditch C2718	2821	267	10	20				c	?C	C	Snails	
UN	Ditch C2718	2902	262	20	20	10	?C				B		
UN	Ditch C2718	2918	265	30	25	5	C		c		C	Snails	
UN	Ditch C2718	2947	268	20	30	10			c		B	Snails	
UN	Ditch C2739	2738	205	20	30	5	C		c				
UN	Ditch C2741	2740	230	20	20	5	B	C	c		B	Snails, modern earwig	
UN	Ditch C2812	2811	207	20	60						A	Snails	B
UN	Ditch C2812	2811	234	10	10	3		C				Snails, modern earwig	
UN	Ditch C2840	2846	225	20	30	10	C	C	c		B	modern beetle	
UN	Ditch C2840	2867	229	20	20	20			c		B	modern millipede	
UN	Ditch C2911	2912	253	20	10	5			c		B	Snails, modern millipedes	
UN	Feature	2751	282	10	10	5			c			Snails	
UN	Feature	2755	276	10	10	3			c		C	Snails	
UN	Feature	2759	280	10	40	5	C		c		B	Snails, mod beetle/millip	
UN	Feature	2761	278	10	10	5			c			modern woodlice/beetles	
UN	Feature	2763	283	10	10	3					C	Snails	
UN	Feature	2777	275	10	10	3	C		c		C	Snails, modern beetle	
UN	Feature	2781	279	10	10	3			c		C	Snails	C
UN	Feature	2783	277	20	10	3	C		c		C	Snails	
UN	Feature	2904	281	20	5	3	C	C	c			Snails	
UN	Feature	3005	502	10	20	10	C	C	c		B	Snails	
UN	Feature	3013	500	20	60	30	C		c	C	B	modern beetle	
UN	Feature	3031	503	20	10	3			c		C		
UN	Feature	3031	505	10	10	5	C		c		C		
UN	Feature	3033	504	20	20	10			c		B		
UN	Feature	3057	511	10	10	3	C				C		
UN	Feature	3059	514	10	10	3	C		c		C	Fish bone, modern insects	
UN	Feature	3063	512	10	5	3				C			
UN	Feature	3065	510	10	5								
UN	Feature	3070	513	10	5		?C						
UN	Feature	3079	516	10	50	5		C		C	A		
UN	Feature	3081	517	10	15	5	?C	?C			B		
UN	Feature	3115	518	10	500	20					A**	Snails	
UN	Feature	3119	519	30	30	5	A	C	c		B		
UN	Feature	3123	520	10	15	3			c		B		
UN	Feature	3124	521	10	15	3					B	Fruitstone	
UN	Feature	3142	524	20	10	3	C				B		
UN	Feature	3079/3081	515	20	100	5			c	C	A**		
UN	Feature	3145/3149	523	10	10	5							
UN	Feature C2730	2729	202	10	5	3							
UN	Feature C2801	2800	204	20	5	2	C	C	c		C	Snails	
UN	Feature C2939	2938	247	20	50						A	Snails	
UN	Feature C3041	3039	507	20	30	10	C		c		B		
UN	Feature C3083	3082	508	10	30	10	C		c		B	Snails	

UN	Feature C3516	3515	531	10	20		?C				B	Snails, cockle shell	
UN	Feature C3525	3524	541	10	15	5							
UN	Feature C3534	3532	540	10	200	20	A**						A
UN	Pit C2354	2355	80x	25	30	5			c		B	Snails, modern insects	C
UN	Pit C2609	2608	68x	10	15	3	C		c		C	Snails	B
UN	Pit C2636	2635	69x	20	10	2	C		c	C	C	Snails, modern millipede	
UN	Pit C2678	2677	72x	10	5	2	C		c		C	Snails	
UN	Pit C2704	2703	217	10	5	4							
UN	Pit C2952	2951	260	12	10	3			c		C	Snails, mod fly puparia	
UN	Pit or post hole C2588	2589	65x	10	5	2			c		C	Snails	
UN	Pit or post hole C2591	2590	66x	10	5	3							
UN	Post hole	3723	804	20	20	5					B		C
UN	Post hole	3767	811	10	10			C		C	B		C
UN	Post hole C2431	2430	52x	10	5	2						Snails, modern fly puparia	
UN	Post hole C2455	2454	61x	10	25	5	A*			C	A	Snails	B
UN	Post hole C2461	2460	57x	10	5	5							
UN	Post hole C2546	2545	64x	10	5						C		
UN	Post hole C2653	2652	73x	10	10	3	C		c		C	Snails	
UN	Post hole C2819	2818	209	10	15	3	B	B	c		B	Snails	
UN	Post hole C2848	2847	223	2	5	3			c				
UN	Post hole C2850	2849	224	5	5	3							
UN	Post hole C2871	2970	243	12	5	3			c				
UN	Post hole C2881	2880	240	12	5								
UN	Post void C3939	3938	836	10	20				c		B		
UN	Ring ditch	2507	54x	10	5	2							
UN	Ring ditch	2511	51x	10	10	5		C	c		C		

EARLY IRON AGE

7.1.14 The Early Iron Age samples contained charred grain fragments in small quantities in four samples, a few charred chaff fragments in a single sample and low numbers of charred weed seeds in two samples. Bone fragments were present in two samples and molluscs in a single sample.

EARLY – MIDDLE IRON AGE

7.1.15 Charred remains were generally sparse in the six samples and the origin and taphonomy of the remains in these samples is less well understood. One sample from W97 contained a number of charred cereal grains. Burnt bone fragments were observed in four samples. A single post-hole attributed to this period did not produce enough charcoal to indicate the original timber. As with the graves the origin and taphonomy of the charred remains may be questionable from these contexts.

UNDIAGNOSTIC PREHISTORIC

7.1.16 A number of features only remain broadly ascribed to the prehistoric period, which in general contain moderate to poor grains and chaff preservation. However, the significance and potential of these will largely rely on their final phase ascription.

LATE IRON AGE/ EARLY ROMANO-BRITISH

7.1.17 The majority of the 58 samples was from cremation-related features and in general contained good to abundant quantities of charcoal, but little charred plant remains. The likelihood is that the latter are largely incidental to the funerary activities, however some were relatively rich (cremation sample C2232) and others contained seed heads (cremation samples C3805, C3809) which might relate to pyre items and tributes. Pits and hearths typically contained larger assemblages (pit sample C3911 and hearth sample C3985).

ROMANO-BRITISH

7.1.18 A total of 47 samples from a range of Romano-British features (cremations, ditches, graves, ovens, trackways, pits, post-holes and stokeholes) produce a wide array of preservation. Six samples in particular stood out with useful quantities of grain or chaff and included ditch sample C733, trackway C896, layer C352, and pits C175, C612 and C9.

'SUB-ROMAN'

7.1.19 The two sub-Roman samples contained varying quantities of charred grain fragments and low levels of charred weed seeds, including hazelnut fragments. A few charred chaff fragments were retrieved from sample of grave C59.

SAXON

7.1.20 A total of 77 samples from graves were assessed. They generally represent a single sample from each grave. Nearly all produced some grain, but largely in low quantities. Only graves W19 and W185 produced relatively high numbers of cereal grains. Hazelnuts were present in grave W120 and peas/ beans in grave W121 and W60. The remains in these graves, as with other graves, are generally low and the origin and taphonomy is not secure in view of the multiperiod activity on the site.

7.1.21 The samples processed from Saxon pits (pit C3753 and C4596), hearths (hearth C38912), post-holes, ditches and other features (feature C2835) generally produced

very sparse remains with only low numbers of charred and charcoal remains. A possible sunken-featured building produced some grain (samples C631 and C632), and apart from the single isolated ditch recut (sample C3829) were the only Saxon samples to contain even moderate quantities of charred remains.

MEDIEVAL

7.1.22 Twenty-two samples were examined from medieval contexts. Ditches contained low quantities in general through the sample from medieval ditch W44 contained a moderate amount of charred grain fragments and a few charred pea/ bean fragments. Many of the medieval samples from all produced high numbers of charred grain and small quantities of charred weed seeds and charred chaff fragments, in particular those from pits W47, C281, C614 and C792.

UNPHASED

7.1.23 About 115 processed samples remain unphased. the remains from very few are high, and unless these can be dated and related to the assemblages described above they are not of any great significance.

Conservation

7.1.24 The processed samples are all stored in a dry and stable condition. If retained in the current and dry state they are suitable for long term archive until further decisions about a programme of analysis is decided. The unprocessed samples (WA) are not suitable for long term storage or retention. Any further processing of these if required should be undertaken in the near future. The remaining unprocessed samples are unsuitable for archive in their current state, and should be considered for discard if not processed.

7.1.25 It is acknowledged that charred remains are present in the residues of the processed samples and will be extracted from all samples proposed for further analysis. The charred remains that exist in the samples for which no further work is proposed will be discarded. The flots of these samples will, however, be retained in the archive so a record of this proportion of the sample is always available for further examination.

Comparative material

7.1.26 Kent is relatively poorly served for well-preserved analysis of charred plant remains from prehistoric contexts until the later Iron Age (cf. Scaife 1987). The present publication of charred remains from Neolithic to Saxon sites in Kent is relatively sparse, although it is acknowledged that there are significant assemblages coming to light as a result of recent field work (much largely a result of that associated with CTRL).

7.1.27 Secure preserved Neolithic remains must be considered a priority in Kent and are of regional and national significance in view of their general scarcity (cf. Scaife 1987). Elsewhere isolated pits have produced good 'snap-shots' of early farming e.g. Grooved Ware pits at Down Farm (Robinson in Barrett *et al*. 1991), and the Stonehenge landscape (Carruthers in Richards 1990).

7.1.28 The Iron Age and Romano-British assemblages find more suitable examples with which to compare in Kent. These include sites at Gravesend (Arthur and Metcalfe in Johnston 1972) and Keston Camp (Hillman unpubl., cf. Scaife 1987), and

Wilmington gravel pit (Hillman 1982). Published records of Iron Age and Romano-British date tend to be dominated by spelt wheat with barley.

Potential for further work

7.1.29 The following section discusses the potential for further work of the charred and charcoal remains in the relation to the Landscape Zone

7.1.30 In general, the charred remains provide the potential to define a number of landscape-related activities and site-based activities relating to agricultural practise. The presence of grain, and peas/ beans indicate the range and diversity of crops, while the charcoal has the potential to define the nature of the exploited landscape and the place of that activity within the landscape. Furthermore, the charred remains also have the potential to provide some indication of the farming economy and changes through time, especially the later Bronze Age to Saxon periods. Information of this type from Saxon periods is particularly sparse in much of the country nationally, but recent work in Kent has also provided some further information (e.g. Waitrose site, Margate).

7.1.31 The presence of weed seeds may provide information about the wider landscape and which soil types were cultivated. They may provide some information on summer and winter sown crops.

7.1.32 In the earlier prehistoric periods (Neolithic and earlier Bronze Age) information about landscape, land-use and agricultural economy is particularly important, and here can be related to a broader spectrum of landscape data defined from Godwin's pollen analysis at Frogholt (Godwin 1962).

7.1.33 The presence of the better-preserved remains enables a detailed picture of the site developments, although this is biased by the changing use (burial vs settlement) reflected in different periods. The charred remains will help define specific activities (crop processing etc, placement of ritual bundles on pyres), and with the technology present on site. The presence of seed-heads in cremation related contexts enable details of funerary practice and ritual to be added to.

7.1.34 The charcoal from domestic and settlement context, in particular, can help define the nature and management of the local woodland. In other features the identification of species and timber ages can help in defined the nature and technology of the activities i.e. furnaces and pyres with high burning temperatures.

7.1.35 Charcoal may be able to facilitate radiocarbon dating, but the likelihood is that a closer and more useful chronology will be established by the artefacts. Although the human bones have the potential to provide absolute dates for burials, statistically there is not a sufficient sample to allow detailed analysis of burial sequence, either within individual cemeteries or between separate cemeteries.

7.1.36 On a regional scale the information from the pyres and particularly from a selection of Saxon samples can contribute to a level of information poorly examined from these features and this period.

7.1.37 With specific reference to the material from the Neolithic pits, the material is not exceptional in its own right but it is exceptional for the Neolithic in southern England. There are very few non-monumental, non-funerary Neolithic sites in Kent (Clarke 1982; Holgate 1981) and south-east England. Where such exist, very few

which have been excavated in recent times (i.e. non-antiquarian) and even fewer from which detailed palaeo-environmental studies have been undertaken (see Clarke 1982).

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