CR WICKHAM-JONES

RHUM : MESOLITHIC AND LATER SITES AT KINLOCH

EXCAVATIONS 1984-86

WITH

A CLARKE B FINLAYSON K HIRONS D SUTHERLAND

AND P ZETTERLUND

AND CONTRIBUTIONS BY

S BUTLER G COOK D DAVIDSON A DUGMORE G DURANT K EDWARDS

D GRIFFITHS D JORDAN M KEMP S LEE B MAHER S MCCARTEN

R MCCULLAGH B MOFFAT R PARISH E SCOTT AND D WATSON

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The availability of Chalcedonic Silica on Rhum G Durant

Raw material provenance survey D Griffiths

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KINLOCH, RHUM: CONTEXT AND FINDS CONCORDANCE, TABLE 30

KEY:
A. PEBBLES
B. CORES
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D. DEBITAGE
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F. RETOUCHED
G. HAZELNUT
H. POTTERY
I. COARSE STONE
J. PUMICE
K. BONE/ SHELL
M/C. MASTER LAYER/ CUT NUMBER

MESOLITHIC: PITS AND HOLLOWS

LAYER	A	B	C	D	E	F	G	H	I	J	K	M/C	INTERPRETATION
1AD117	-	-	-	1	-	-	-	-	-	-	-	117	FILL (NO CUT NUMBER)
1AD151	-	-	2	9	1	-	x	-	-	-	-	151	FILL (NO CUT NUMBER)
1AD155	-	-	-	-	-	-	-	-	-	-	-	155	UNEXCAVATED
1AD156	-	-	2	70	-	-	x	-	-	-	-	156	FILL (NO CUT NUMBER)
1AD165	-	-	-	-	-	-	-	-	-	-	-	165	CUT = AD221
1AD221	-	-	-	-	-	-	-	-	-	-	-	165	CUT = AD165

1AD035	-	-	6	111	1	-	-	-	-	-	-	165	FILL	
1AD118	-	-	-	-	-	-	-	-	-	-	-	165	FILL	
1AD145	-	-	10	49	-	-	x	-	-	-	-	165	FILL	
1AD152	-	-	-	10	-	-	x	-	-	-	-	165	FILL	
1AD154	1	1	24	269	12	4	x	-	-	-	-	165	FILL	
1AD166	-	-	-	14	-	-	x	-	-	-	-	165	FILL	
1AD038	-	-	-	-	-	-	-	-	-	-	-	038	CUT =	AD206
														AD207
1AD206	-	-	-	-	-	-	-	-	-	-	-	038	CUT =	AD038
														AD207
1AD207	-	-	-	-	-	-	-	-	-	-	-	038	CUT =	AD038
														AD206
1AD029	-	8	50	1601	24	2	-	-	1	-	-	038	FILL	
1AD036	-	2	6	94	1	1	-	-	-	-	-	038	FILL	
1AD119	-	-	-	83	-	-	x	-	-	-	-	038	FILL	
1AD144	-	1	16	595	9	-	x	-	-	-	-	038	FILL	
1AD162	1	-	2	75	1	-	x	-	-	1	-	038	FILL	
1AD163	-	1	24	565	15	-	x	-	-	-	-	038	FILL	
1AD224	-	-	4	72	-	-	x	-	-	-	-	038	FILL	
1AD226	-	-	1	10	-	-	x	-	-	-	-	038	FILL	
1AD227	-	-	1	1	-	-	-	-	-	-	-	038	FILL	
1AD040	-	-	-	-	-	-	-	-	-	-	-	040	CUT =	AD234
1AD234	-	-	-	-	-	-	-	-	-	-	-	040	CUT =	AD040
1AD037	-	-	-	34	-	-	-	-	-	-	-	040	FILL	
1AD039	-	-	1	13	-	-	-	-	-	-	-	040	FILL	
1AD141	-	-	3	5	-	-	x	-	-	-	-	040	FILL	
1AD142	-	-	-	7	-	-	-	-	-	-	-	040	FILL	

1AD203	-	-	-	3	1	-	-	-	-	-	-	203	FILL (NO CUT NUMBER)
1AD228	-	-	-	-	-	-	-	-	-	-	-	228	CUT
1AD147	-	-	-	1	-	-	-	-	-	-	-	228	FILL
1AD230	-	-	-	-	-	-	-	-	-	-	-	230	CUT
1AD150	-	-	1	8	-	-	x	-	-	-	-	230	FILL
1AD231	-	-	-	-	-	-	-	-	-	-	-	231	CUT
1AD204	-	-	-	-	-	-	-	-	-	-	-	231	FILL
1AD232	-	-	-	-	-	-	-	-	-	-	-	232	CUT
1AD148	-	-	-	-	-	-	-	-	-	-	-	232	FILL
1AD149	-	-	-	-	-	-	-	-	-	-	-	232	FILL
1AD158	-	-	-	4	-	-	x	-	-	-	-	232	FILL
1AD160	-	-	-	-	-	-	-	-	-	-	-	232	FILL
1AD203	-	-	-	3	1	-	-	-	-	-	-	232	FILL
1AD208	-	-	-	-	-	-	-	-	-	-	-	208	CUT
1AD028	-	8	69	1159	14	4	x	-	14	-	-	208	FILL **
1AD161	1	3	47	920	28	-	x	-	1	1	-	208	FILL
1AD168	-	-	-	3	-	-	x	-	-	-	-	208	FILL
1AD210	-	-	1	67	-	-	x	-	-	-	-	208	FILL OF POST PIPE 1
1AD223	-	-	-	2	-	-	x	-	-	-	-	208	FILL OF POST PIPE 2
1AD233	-	-	-	-	-	-	-	-	-	-	-	208	CUT OF POST PIPE 1
1AD222	-	-	-	-	-	-	-	-	-	-	-	222	CUT
1AD159	-	2	8	248	5	-	x	-	1	-	-	222	FILL
1AD201	-	-	-	4	-	-	-	-	-	-	-	222	FILL OF

													POST PIPE
1AD209	-	-	-	-	-	-	-	-	-	-	-	222	FILL OF POST PIPE
1AD225	-	-	5	53	2	-	-	-	-	-	-	222	FILL
1AG121	-	7	31	1159	9	4	x	-	1	-	x	121	FILL (NO CUT NUMBER)*
1AG122	-	-	-	-	-	-	-	-	-	-	-	121	FILL
1AG214	-	-	-	4	-	-	x	-	-	-	-	121	FILL
1AG191	-	-	-	-	-	-	-	-	-	-	-	191	CUT NATURAL?
1AG123	-	1	2	20	1	-	-	-	-	-	-	191	FILL NATURAL?
1AG190	-	-	-	-	-	-	-	-	-	-	-	191	FILL NATURAL?
1AG192	-	-	-	-	-	-	-	-	-	-	-	191	FILL NATURAL?
1AG193	-	-	-	28	-	-	x	-	-	-	-	193	FILL (NO CUT NUMBER) NATURAL?
1AG238	-	-	-	59	2	-	-	-	-	-	-	238	FILL (NO CUT NUMBER)
1AG187	-	-	-	-	-	-	-	-	-	-	-	187	UNEXCAVATED
1AG188	-	-	-	-	-	-	-	-	-	-	-	188	UNEXCAVATED
1AG189	-	-	-	-	-	-	-	-	-	-	-	189	UNEXCAVATED
1AJ178	-	-	-	-	-	-	-	-	-	-	-	178	CUT
1AJ104	-	1	5	156	1	-	x	-	-	-	-	178	FILL

1AJ175	-	-	7	576	3	-	x	-	-	-	x	178	FILL *
1AJ176	-	-	-	-	-	-	-	-	-	-	-	178	FILL
1AJ177	1	-	1	47	-	-	x	-	-	-	-	178	FILL
1AJ179	-	-	-	-	-	-	-	-	-	-	-	179	CUT
1AJ173	-	-	8	188	2	-	x	-	-	-	-	179	FILL
1AJ180	-	-	-	-	-	-	-	-	-	-	-	180	CUT
1AJ108	-	-	3	83	-	-	x	-	-	-	-	180	FILL
1AJ171	-	-	-	-	-	-	-	-	-	-	-	171	UNEXCAVATED
1BA048	-	-	-	-	-	-	-	-	-	-	-	048	CUT
1BA021	-	3	23	772	6	2	x	-	1	-	-	048	FILL *
1BA053	-	-	-	-	-	-	-	-	-	-	-	053	CUT
1BA023	-	1	19	660	4	1	x	-	1	-	-	053	FILL*
1BA054	-	-	-	-	-	-	-	-	-	-	-	054	CUT
1BA047	-	5	6	246	1	-	x	-	1	-	-	054	FILL
1BA049	-	-	-	-	-	-	-	-	-	-	-	054	FILL
1BA050	-	-	-	-	-	-	-	-	-	-	-	054	FILL
1BA052	1	2	16	668	5	1	x	-	-	1	-	032	FILL (NO CUT NUMBER)*
1BA028	-	-	-	-	-	-	-	-	-	-	-	028	UNEXCAVATED
1BA029	-	-	-	-	-	-	-	-	-	-	-	029	UNEXCAVATED
1BA042	-	-	-	-	-	-	-	-	-	-	-	042	UNEXCAVATED
1BA101	-	-	-	-	-	-	-	-	-	-	-	101	UNEXCAVATED
1BA110	-	-	-	-	-	-	-	-	-	-	-	110	MASTER CONTEXT FOR PIT COMPLEX.
1BA030	-	29	102	3300	36	7	x	-	2	-	x	110	FILL, INC. BA130 AB

													EXTRA LAYER FOR FINDS.
1BA087	-	-	16	965	6	2	x	-	-	-	x	110	FILL
1BA088	1	1	18	435	3	-	x	-	1	-	x	110	FILL
1BA089	-	2	9	709	3	-	x	-	2	-	[illegible]	110	FILL
1BA090	1	11	19	2208	6	2	x	-	1	1	x	110	FILL *
1BA091	-	2	9	774	3	2	-	-	-	-	[illegible]	110	FILL
1BA093	-	2	9	579	3	-	x	-	-	-	[illegible]	110	FILL
1BA094	-	6	26	2576	3	-	x	-	1	1	x	110	FILL
1BA102	-	7	13	571	5	2	x	-	-	-	x	110	FILL
1BA103	-	2	2	244	2	-	x	-	-	-	x	110	FILL
1BA104	-	-	-	13	-	1	x	-	-	-	-	110	FILL
1BA105	-	-	4	227	2	-	x	-	-	-	x	110	FILL
1BA106	-	-	-	19	-	-	x	-	-	-	x	110	FILL
1BA107	-	-	-	-	-	-	-	-	-	-	-	110	FILL
1BA108	-	-	-	-	-	-	-	-	-	-	-	110	FILL
1BA109	-	-	-	-	-	-	-	-	-	-	-	110	FILL

MESOLITHIC: STAKEHOLES

1AC015	-	1	1	26	1	-	x	-	-	-	-	015	FILL (NO CUT NUMBER)
1BA027	-	-	-	-	-	-	-	-	-	-	-	027	UNEXCAVATED
1BA035	-	-	-	-	-	-	-	-	-	-	-	035	UNEXCAVATED
1BA036	-	-	-	-	-	-	-	-	-	-	-	036	UNEXCAVATED
1BA039	-	-	-	-	-	-	-	-	-	-	-	039	UNEXCAVATED
1BA040	-	-	-	-	-	-	-	-	-	-	-	040	UNEXCAVATED

1BA041	-	-	-	-	-	-	-	-	-	-	-	041	UNEXCAVATED
1BA043	-	-	-	-	-	-	-	-	-	-	-	043	UNEXCAVATED
1BA044	-	-	-	-	-	-	-	-	-	-	-	044	UNEXCAVATED
1BA045	-	-	-	-	-	-	-	-	-	-	-	045	UNEXCAVATED
1BA096	-	-	-	-	-	-	-	-	-	-	-	096	UNEXCAVATED
1BA097	-	-	-	-	-	-	-	-	-	-	-	097	UNEXCAVATED
1BA098	-	-	-	-	-	-	-	-	-	-	-	098	UNEXCAVATED
1BA099	-	-	-	-	-	-	-	-	-	-	-	099	UNEXCAVATED CONJOINING TOP FILLS.
1BB025	-	-	-	-	-	-	-	-	-	-	-	025	FILL (NO CUT NUMBER)
1BB028	-	-	-	-	-	-	-	-	-	-	-	028	FILL (NO CUT NUMBER)
1BB031	-	-	-	-	-	-	-	-	-	-	-	031	CUT
1BB032	-	-	-	-	-	-	-	-	-	-	-	031	FILL

MESOLITHIC: SLOTS FOR VERTICAL TIMBERS

1BA095	-	-	-	-	-	-	-	-	-	-	-	095	FILL (NO CUT NUMBER)
1BA100	-	2	4	27	3	-	x	-	-	-	-	100	CONJOINING FILLS?*

MESOLITHIC: PATCHES

1BA025	-	-	-	-	-	-	-	-	-	-	-	025	UNEXCAVATED
1BA026	-	-	-	-	-	-	-	-	-	-	-	026	UNEXCAVATED
1BA031	-	-	-	-	-	-	-	-	-	-	-	031	FILL (NO CUT NUMBER)
1BA032	-	-	-	-	-	-	-	-	-	-	-	032	FILL (NO CUT NUMBER)
1BC026	-	-	-	-	-	-	-	-	-	-	-	026	FILL (NO CUT NUMBER)

MESOLITHIC/NEOLITHIC GRAVEL BANK DUMP

1AE031	-	-	-	-	-	-	-	-	-	-	-	120	
2AM312	-	-	-	6	-	-	-	-	-	-	-	120	
2AM315	-	-	-	2	-	-	-	-	-	-	-	120	
1BA024	-	-	-	-	-	-	-	-	-	-	-	120	
1BF037	-	-	-	-	-	-	-	-	-	-	-	120	SPIT
1BA038	-	-	-	-	-	-	-	-	-	-	-	120	
1BA051	-	-	1	14	-	-	-	1	-	-	-	120	SPIT
1BA070	1	4	8	138	2	1	-	-	3	-	-	120	WATERCOURSE
1BA071	-	-	-	1	-	-	-	-	-	-	-	120	WATERCOURSE
1BA072	-	1	-	41	-	-	-	-	2	-	-	120	WATERCOURSE
1BA074	-	2	2	24	-	-	-	-	-	-	-	120	
1BA081	-	1	1	5	-	-	-	-	-	-	-	120	
1BA086	-	-	-	-	-	-	-	-	-	-	-	120	
1BC018	-	-	-	9	-	-	-	-	-	-	-	120	

NEOLITHIC: PEAT IN WATERCOURSE

2AM313	-	-	-	10	-	-	-	-	-	-	-	020	
1BA060	-	3	2	48	1	-	x	-	-	-	-	020	SPIT
1BA061	-	-	-	4	-	-	-	-	-	-	-	020	SPIT
1BA062	-	-	-	21	-	-	x	-	-	-	-	020	SPIT
1BA063	-	-	-	32	-	-	x	-	-	-	-	020	SPIT
1BA064	-	-	1	34	-	-	x	-	-	-	-	020	SPIT
1BA065	-	-	1	33	1	1	x	-	-	-	-	020	SPIT
1BA066	-	1	-	31	-	-	x	-	-	-	-	020	SPIT
1BA073	-	-	-	8	-	-	-	-	-	-	-	020	
1BA079	-	-	-	-	-	-	-	-	-	-	-	020	
1BB003	-	3	6	48	1	2	-	1	1	-	-	020	
1BB004	-	1	1	25	1	-	-	-	-	-	-	020	
1BC005	-	2	1	133	-	-	x	3	-	-	x	020	
1BC011	-	-	-	-	-	-	-	-	-	-	-	020	
1BC020	1	-	-	34	-	-	-	2	-	-	-	020	
1BC022	-	-	1	8	-	-	-	-	-	-	-	020	
1BC023	1	-	2	28	-	1	x	4	-	-	-	020	
1BC028	-	1	-	2	-	-	-	-	-	-	-	020	
1BC029	-	-	-	-	-	-	-	-	-	-	-	020	
1BC031	1	1	2	77	-	-	-	-	-	-	-	020	

NEOLITHIC: PITS AND HOLLOWS

1AD153	-	-	2	257	3	-	x	-	-	-	-	153	FILL*
1BB027	-	-	-	1	-	-	-	-	-	-	-	027	FILL

NEOLITHIC: DUMPS IN PEAT OF WATERCOURSE

1AG126	1	2	2	332	-	-	x	13	-	-	-	020	ROCKS AND GRAVEL =AG128, BC012, BC014, BC021.
1AG128	1	19	23	2234	16	5	x	52	3	2	x	020	ROCKS AND GRAVEL =AG126, BC012, BC014, BC021.*
1AG185	-	-	-	-	-	1	-	-	-	-	-	020	ROCKS
2AM314	-	-	-	22	-	-	-	1	-	-	-	020	ROCKS IN AM313
1BA076	-	-	-	-	-	-	-	-	-	-	-	020	GRAVEL = BB033
1BA077	-	-	-	10	1	-	x	-	-	-	-	020	MIDDEN AND BRUSHWOOD*
1BA078	-	-	1	1	-	-	-	-	-	-	-	020	STONES

1BB021	-	-	-	-	-	-	-	-	-	-	-	020	STONES
1BB023	-	-	-	-	-	-	-	-	-	-	-	020	BRUSHWOOD
1BB024	-	-	-	-	-	-	-	-	-	-	-	020	BRUSHWOOD
1BB026	-	-	-	-	-	-	-	-	-	-	-	020	GRAVEL
1BB033	-	-	-	-	-	-	-	-	-	-	-	020	GRAVEL = BA076
1BC010	-	-	-	-	-	-	-	-	-	-	-	020	GRAVEL
1BC012	-	2	-	35	-	-	-	1	-	-	-	020	ROCKS AND GRAVEL = AG126, AG128, BC014, BC021.
1BC014	-	-	-	-	-	-	-	-	-	-	-	020	ROCKS AND GRAVEL = AG126, AG128, BC012, BC021.
1BC021	-	1	2	17	-	-	-	1	-	-	-	020	ROCKS AND GRAVEL = AG126, AG128,BC012 BC014.
1BC025	-	-	-	-	-	-	-	-	-	-	-	020	ROCKS

NATURAL

1AA007	-	-	-	-	-	-	-	-	-	-	-	007	TREE HOLE CUT
1AA006	-	-	-	-	-	-	-	-	-	-	-	007	FILL
1AA025	-	-	-	-	-	-	-	-	-	-	-	007	FILL
1AB027	-	-	-	-	-	-	-	-	-	-	-	027	SLOPEWASH?
1AC012	-	-	-	4	-	-	-	-	-	-	-	012	GRAVEL
1AC016	-	-	-	-	-	-	-	-	-	-	-	016	GRAVEL
1AC017	-	-	-	-	-	-	-	-	-	-	-	017	PEBBLES
1AC018	-	-	-	-	-	-	-	-	-	-	-	018	PEBBLES
1AC020	-	-	-	-	-	-	-	-	-	-	-	020	GRAVELS
1AC021	-	-	-	-	-	-	-	-	-	-	-	021	GRAVELS
1AC022	-	-	-	-	-	-	-	-	-	-	-	022	GRAVELS
1AC023	-	-	-	-	-	-	-	-	-	-	-	023	GRAVELS
1AC024	-	-	-	-	-	-	-	-	-	-	-	024	GRAVELS
1AD112	-	-	-	7	1	-	-	-	-	-	-	112	GRAVELS
1AD113	-	-	-	-	-	-	-	-	-	-	-	113	GRAVELS
1AD120	-	-	-	10	-	-	x	-	-	-	-	120	GRAVELLY SAND =AD164
1AD143	1	-	1	55	1	-	x	-	-	-	-	143	SANDY GRAVEL
1AD164	-	-	-	6	-	-	-	-	-	-	-	164	GRAVELLY SAND =AD120
1AD167	-	-	1	20	1	-	x	-	-	-	-	167	SILTY GRAVEL
1AD169	-	-	-	-	-	-	-	-	-	-	-	169	GRAVELS
1AD170	-	-	-	-	-	-	-	-	-	-	-	170	NATURAL
1AD202	-	-	-	-	-	-	-	-	-	-	-	202	CUT OF

														STONE HOLE
1AD229	-	-	-	-	-	-	-	-	-	-	-	-	202	FILL
1AD205	-	-	-	11	-	-	-	-	-	-	-	-	205	NATURAL
1AG184	-	-	-	-	-	-	-	-	-	-	-	-	184	GRAVELS
1AG186	-	-	-	-	-	-	-	-	-	-	-	-	186	STONES
1AG212	-	-	-	-	-	-	-	-	-	-	-	-	212	BURIED SOIL
1AG213	-	-	-	-	-	-	-	-	-	-	-	-	213	CUT OF WATERCOURSE
1AG245	-	-	-	-	-	-	-	-	-	-	-	-	245	BASAL CLAY*
1AG252	-	-	-	-	-	-	-	-	-	-	-	-	213	GRAVEL =BC027?
1AG241	-	-	-	-	-	-	-	-	-	-	-	-	241	SLOPEWASH
1AJ107	-	-	2	162	1	-	-	-	-	-	-	-	107	GRAVELS
1AJ109	-	-	-	24	-	-	x	-	-	-	-	-	109	STONE HOLE
1AJ172	-	-	-	-	-	-	-	-	-	-	-	-	172	GRAVELS
1AJ174	-	-	9	51	1	-	x	-	-	-	-	-	174	ROOTHOLE
2AK302	1	-	-	13	-	-	-	-	-	-	-	-	302	GRAVEL
2AM316	-	-	-	-	-	-	-	-	-	-	-	-	316	BOULDER CLAY
2AN322	-	1	5	92	-	1	-	-	-	-	-	-	322	SLOPEWASH
2AN323	-	2	1	31	-	-	-	-	-	-	-	-	323	SLOPEWASH
2AN324	-	-	-	1	-	-	-	-	-	-	-	-	324	BURIED SOIL
1BA034	-	-	-	-	-	-	-	-	-	-	-	-	034	LOAM
1BA046	-	-	-	-	-	-	-	-	-	-	-	-	046	GRAVEL
1BA075	-	-	-	-	-	-	-	-	-	-	-	-	075	BURIED SOIL
1BA080	-	-	-	-	-	-	-	-	-	-	-	-	080	GRAVELS = BA083
1BA083	-	-	4	12	1	-	-	-	-	-	-	-	080	GRAVELS

													= BA080
1BA082	-	1	1	6	-	-	-	-	-	-	-	082	BURIED SOIL = BA084
1BA084	-	-	2	6	-	-	-	-	-	-	-	082	BURIED SOIL = BA082
1BA085	-	1	3	19	-	-	x	-	1	-	x	085	BURIED SOIL*
1BA092	-	-	-	-	-	-	-	-	-	-	-	092	ROOTHOLES
1BB006	-	1	1	-	-	-	-	-	-	-	-	006	BOULDER CLAY
1BB007	-	1	-	8	1	1	-	-	-	-	-	007	HILL AND STREAM WASH
1BB013	-	-	-	-	-	-	-	-	-	-	-	013	STONES
1BB020	-	-	-	-	-	-	-	-	-	-	-	020	STONE HEAP
1BB029	-	-	-	-	-	-	-	-	-	-	-	029	CUT OF STONE HOLE
1BB018	-	-	1	3	-	-	-	-	-	-	-	029	FILL
1BB030	-	-	-	-	-	-	-	-	-	-	-	030	CUT OF STONE HOLE
1BB019	-	-	-	3	-	-	-	-	-	-	-	030	FILL
1BC003	-	-	-	-	-	-	-	1	-	-	-	003	GRAVEL
1BC007	-	-	-	1	-	-	-	1	-	-	-	007	SLOPEWASH
1BC019	-	-	1	8	-	-	-	-	-	-	-	019	SLOPEWASH
1BC027	-	-	-	-	-	-	-	-	-	-	-	027	GRAVEL =AB2527

UNDATED CONTEXTS

1AC011	-	-	-	1	-	-	-	-	-	-	-	011	PIT CUT?

1AC014	-	1	4	62	1	-	x	-	-	-	-	014	CHARCOAL PATCH
1AG125	-	-	-	-	-	-	-	-	-	-	-	125	UNEXCAVATED PIT FILL WITH POT.
1AJ103	-	-	-	-	-	-	-	-	-	-	-	103	CUT OF LAZYBED FURROW
1AJ102	-	-	2	8	-	-	-	-	-	-	-	103	FILL
1AJ105	-	-	-	1	-	-	x	-	-	-	-	105	FILL OF FURROW (NO CUT NUMBER).

PLOUGHSOIL

1AB001	-	-	1	7	-	-	-	-	-	-	-	001	PLOUGHSOIL
1AB002	-	-	-	3	-	-	-	-	-	-	-	001	MODERN PLOUGHMARKS
1AC001	9	59	48	16587	63	11	x	-	-	-	-	001	PLOUGHSOIL
1AC013	-	-	-	9	-	-	-	-	-	-	-	001	PLOUGHSOIL IN HUMP CAUSED BY AC014.
1AC019	-	-	-	4	-	-	-	-	-	-	-	001	PLOUGHSOIL IN UNDUL- ATION CAUSED

													BY AC014
1AD001	1	36	130	6898	74	17	x	2	2	1	-	001	PLOUGHSOIL. INCLUDES AD270 AS EXTRA LAYER NUMBER FOR FINDS.
1AD008	-	6	73	3209	46	7	x	-	2	2	-	001	CLEANING SPIT BELOW PLOUGHSOIL.
1AD146	-	2	15	219	3	1	x	-	-	-	-	001	CLEANING SPIT BELOW PLOUGHSOIL.
1AE001	-	2	1	70	-	-	-	-	-	-	-	001	PLOUGHSOIL
1AG001	7	44	109	5117	50	10	-	184	2	-	-	001	PLOUGHSOIL INCLUDES AG271 AS EXTRA LAYER NUMBER FOR FINDS.
1AG211	-	1	8	227	2	-	x	-	-	1	-	001	CLEANING SPIT BELOW PLOUGHSOIL.
1AH001	8	27	241	5528	86	7	x	-	1	-	-	001	PLOUGHSOIL INCLUDES AH272, AH273 AS EXTRA

													LAYER NUMBERS FOR FINDS.
1AJ001	10	56	271	14225	144	30	x	2	-	-	-	001	PLOUGHSOIL INCLUDES AJ274, AJ275 AS EXTRA LAYER NUMBERS FOR FINDS.
1AJ106	-	1	28	1183	21	-	x	-	-	-	-	001	CLEANING SPIT BELOW PLOUGHSOIL.
2AK301	-	-	-	56	-	1	-	-	-	-	-	301	PLOUGHSOIL INCLUDES AK303,304.
2AL331	-	-	1	170	-	-	-	-	-	-	-	331	PLOUGHSOIL
2AM311	-	2	1	100	-	1	-	-	1	-	-	311	PLOUGHSOIL
2AN321	5	19	8	496	1	3	-	-	-	-	-	321	PLOUGHSOIL
1BA001	18	335	365	6758	20	82	-	-	20	-	-	001	PLOUGHSOIL INCLUDES BA002-004 AS EXTRA LAYER NUMBERS FOR FINDS.
1BA010	11	122	116	6231	28	25	x	-	17	-	-	001	CLEANING SPIT BELOW PLOUGHSOIL

													INCLUDES BA008-009 AS EXTRA LAYER NUMBERS FOR FINDS.
1BA011	-	2	2	21	-	-	-	-	-		-	001	CLEANING SPIT OF AG86
1BA022	-	5	34	282	1	3	-	-	-	-	-	001	SECOND CLEANING SPIT BELOW PLOUGHSOIL.
1BB001	-	5	5	116	-	2	-	-	-	-	-	001	PLOUGHSOIL
1BB002	1	2	5	142	1	-	-	-	-	-	-	001	CLEANING SPIT BELOW PLOUGHSOIL
1BC001	1	7	14	258	-	-	-	-	1	-	-	001	PLOUGHSOIL
1BC002	1	9	24	897	3	4	x	11	-	-	-	001	CLEANING SPIT BELOW PLOUGHSOIL.
1PS001	26	156	238	27967	318	153	-	3	3	-	-	001	PLOUGHSOIL SAMPLE SQUARES INCLUDES PS002,003 AS EXTRA LAYER NUMBERS FOR FINDS.

1FW001	17	203	55	5165	29	41	-	-	1	-	-	001	FIELDWALKING OF WHOLE SITE INCLUDES FW002.
1US001	-	-	-	-	-	-	-	-	2	-	-	001	STRAY FINDS

MODERN

1AB009	-	-	-	-	-	-	-	-	-	-	-	009	RECENT DOWNSLOPE MOVEMENT CAUSED BY PLOUGHING.
1AB034	-	-	-	-	-	-	-	-	-	-	-	034	PLOUGH DAMAGE
1AD114	-	-	1	7	-	-	-	-	-	-	-	114	PLOUGH DAMAGE
1AD115	-	-	-	-	-	-	-	-	-	-	-	115	PLOUGH DAMAGE
1AD116	-	-	-	-	-	-	-	-	-	-	-	116	PLOUGH DAMAGE
1AE030	-	-	-	-	-	-	-	-	-	-	-	030	FIELD DRAIN
1AE033	-	-	-	-	-	-	-	-	-	-	-	033	FIELD DRAIN
1AE041	-	-	-	-	-	-	-	-	-	-	-	041	GULLY CUT
1AE032	-	-	-	-	-	-	-	-	-	-	-	041	FILL
1AG127	-	-	3	55	-	-	-	18	-	-	-	127	FIELD DRAIN
1AG181	-	-	-	-	-	-	-	-	-	-	-	181	DRAIN CUT
1AG129	-	-	-	-	-	-	-	-	-	-	-	181	FILL
1AG183	-	-	-	-	-	-	-	-	-	-	-	183	DRAIN CUT
1AG124	-	3	4	273	5	-	x	1	-	-	-	183	FILL

1AG130	-	-	-	-	-	-	-	-	-	-	-	183	FILL
1AG182	-	-	-	-	-	-	-	-	-	-	-	183	FILL
1AG242	-	-	-	-	-	-	-	-	-	-	-	242	DRAIN CUT
1AG243	-	-	-	-	-	-	-	-	-	-	-	242	FILL
1AG256	-	-	-	-	-	-	-	-	-	-	-	256	DRAIN CUT
1AG215	-	-	-	3	-	-	-	-	-	-	-	256	FILL
1AG216	-	-	-	-	-	-	-	-	-	-	-	256	FILL
1AG253	-	-	-	-	-	-	-	-	-	-	-	256	FILL
1AG254	-	-	-	-	-	-	-	-	-	-	-	256	FILL
1AG255	-	-	-	-	-	-	-	-	-	-	-	256	FILL
1BA012	-	3	4	40	-	-	-	-	-	-	-	012	DRAIN FILL
1BA013	-	-	-	-	-	-	-	-	-	-	-	013	DRAIN FILL
1BA014	-	1	1	11	-	1	-	-	-	-	-	014	DRAIN FILL
1BA015	-	-	4	77	-	-	-	-	-	-	-	015	DRAIN FILL
1BA016	-	-	-	2	-	-	-	-	-	-	-	016	DRAIN FILL
1BA017	-	-	-	-	-	-	-	-	-	-	-	017	DRAIN FILL
1BA018	-	-	-	-	-	-	-	-	-	-	-	018	DRAIN FILL
1BA019	-	-	-	-	-	-	-	-	-	-	-	019	DRAIN FILL
1BB005	-	-	-	-	-	-	-	-	-	-	-	005	MODERN PLOUGHMARKS
1BB008	-	-	-	2	-	-	-	-	-	-	-	008	DRAIN FILL
1BB009	-	-	-	-	-	-	-	-	-	-	-	009	DRAIN FILL
1BB010	-	-	-	-	-	-	-	-	-	-	-	010	DRAIN FILL
1BB011	-	-	-	-	-	-	-	-	-	-	-	011	DRAIN FILL
1BB012	-	-	-	-	-	-	-	-	-	-	-	012	DRAIN FILL
1BB014	-	-	-	-	-	-	-	-	-	-	-	014	DRAIN FILL
1BB015	-	-	-	-	-	-	-	-	-	-	-	015	DRAIN FILL

1BB016	-	-	1	4	-	-	-	-	-	-	-	016	DRAIN FILL
1BB017	-	-	-	1	-	-	-	-	-	-	-	017	DRAIN FILL
1BB022	-	-	-	-	-	-	-	-	-	-	-	022	DRAIN FILL
1BC004	-	-	-	-	-	-	-	-	-	-	-	004	DRAIN CUT
1BC006	-	-	-	-	-	-	-	-	-	-	-	004	FILL
1BC008	-	-	-	-	-	-	-	-	-	-	-	008	DRAIN CUT
1BC009	-	-	-	-	-	-	-	-	-	-	-	008	FILL
1BC015	-	-	-	-	-	-	-	-	-	-	-	015	DRAIN CUT
1BC016	-	-	1	1	-	-	-	-	-	-	-	015	FILL
1BC017	-	-	-	-	-	-	-	-	-	-	-	017	DRAIN CUT
1BC013	-	-	-	9	-	1	-	-	-	-	-	017	FILL

THE ILLUSTRATION OF THE ARTEFACT ASSEMBLAGE: CONTEXTS AND FINDS RECORDING NUMBERS OF ILLUSTRATED ARTEFACTS, TABLE 31

ILL 26 CORES

1. 1PS001UV; 2. 1PS001OX; 3. 1AG001BL; 4. 1AG271CF; 5. 1AD001VK; 6. 1AD270BD; 7. 1AD001WF; 8. 1AG001GB; 9. 1AG001HN.

ILL 28 CORES

1. 1PS001UU; 2. 1PS001UT; 3. 1AG001NM; 4. 1AG271NH; 5. 1AD001XL; 6. 1PS002EH; 7, 1AG271MV; 8. 1PS001UR.

ILL 29 BLADES

1. 1PS001VY; 2. 1PS001UH; 3,4. 1PS001UA; 5-10. 1PS001 QA & QB; 11. 1PS001VY, 1PS001UH, 1PS001UR.

ILL 54 RETOUCHED ARTEFACTS, SCRAPERS

1. 1PS001HU; 2. 1BA021CU; 3. 1AD154AY; 4. 1BA003MB; 5. 1BA003DK; 6. 1PS003MH; 7. 1PS002XT; 8. 1BA010CJ; 9. 1PS001LB; 10. 1PS003AM; 11. 1PS001TE; 12. 1PS001MU.

ILL 55 RETOUCHED ARTEFACTS, SCRAPERS

1. 1PS002PK; 2. 1BA004AM; 3. 1FW001SC; 4. 1AJ001DD; 5. 1FW001PQ;

6. 1PS001GF; 7. 1PS002QH.

ILL 56 **RETOUCHED ARTEFACTS, SCRAPERS**

1. 1AJ274CA; 2. 1PS001BB; 3. 1PS001AK; 4. 1BA010SQ; 5. 1BA022FT;
6. 1PS002VD; 7. 1AD008HK; 8. 1BA009RV; 9. 1AH001LY; 10. 1PS001PC;
11. 1BA004CK; 12. 1BA009QD; 13. 1PS001WB; 14. 1PS002EW;
15. 1AG001PE; 16. 1AD001LI; 17. 1PS003QE; 18. 1BA001NV.

ILL 57 **RETOUCHED ARTEFACTS, EDGE RETOUCHED PIECES**

1. 1BA001MY; 2. 1AE001BP; 3. 1BC001DI; 4. 1PS001RE; 5. 1PS003LU;
6. 1BA002CD; 7. 1PS001AW; 8. 1AG001AC; 9. 1AD001AW; 10. 1AD154AZ;
11. 1BA004IN; 12. 1PS003QJ; 13. 1AC001HN; 14. 1PS001PD;
15. 1PS002AC; 16. 1FW001JD; 17. 1PS003PZ; 18. 1AJ001KV.

ILL 58 **RETOUCHED ARTEFACTS, BORERS**

1. 1BA008LL, 1BA002KB; 2. 1AD029CF; 3. 1AG121AD; 4. 1BA023CU;
5. 1PS002NF; 6. 1BA004AB, 7. 1AD001DD; 8. 1BA002DW; 9. 1FW001HK;
10. 1PS001NY; 11. 1BA002AS; 12. 2AM311AU; 13. 1BA070AH;
14. 1AD154CZ.

ILL 59 **RETOUCHED ARTEFACTS, INVASIVE FLAKED POINTS**

1. 1AD028AT; 2. 1PS003LR; 3. 2AK301AC; 4. 1BA004GW; 5. 1BC023AB;
6. 1AG128FV; 7. 1PS002JU; 8. 1AJ001EB; 9. 1PS003LE; 10. 1PS002JV;

11. 1PS003LD; 12. 1AJ001OK; 13. Farm Fields 1983; 14. Hallival;
15. 1AG271FQ.

ILL 63 **MICROLITHS**

1. 1AD001AX; 2. 1AD270EG; 3. 1AJ275HW; 4. 1AG126CA; 5. 1AH273ET;
6. 1AD028ER; 7. 1AH001JK; 8. 1AD143AG; 9. 1AH273EQ; 10. 1AJ274CD;
11. 1PS003EB; 12. 1AJ001JA; 13. 1AH272HD; 14. 1PS003ZW;
15. 1PS003FF; 16. 1PS003KR; 17. 1PS003ID; 18. 1AD001XO;
19. 1AJ106BP; 20. 1BC002AZ; 21. 1PS003PC; 22. 1AC001CB;
23. 1PS001YJ; 24. 1AD270CQ; 25. 1AD270CJ; 26; 1AH001HK;
27. 1AJ274CC; 28. 1BA130DZ; 29. 1AD154BZ; 30. 1AG001EH;
31. 1AH001VE; 32. 1FW001DQ; 33. 1AG271EA; 34. 1AD144AF;
35. 1AG121BY; 36. 1AD029EN; 37. 1AH001WQ; 38. 1AD029DQ;
39. 1AD029DE; 40. 1AD029EF; 41. 1AD029GE; 42. 1AD029ED;
43. 1AD029EE; 44. 1AG271BW; 45. 1AG001LV; 46. 1AG271BG;
47. 1AD028DY; 48. 1AJ001WW; 49. 1AC001OZ; 50. 1AD001NC;
51. 1AJ001WX; 52. 1AJ275IN; 53. 1AD161BJ; 54. 1AJ104AV;
55. 1AG128CN; 56. 1BA030XN.

ILL 64 **MICROLITHS**

1. 1AJ001PH; 2. 1AG211AW; 3. 1AG271AF; 4. 1AH001AY; 5. 1BA065AD;
6. 1PS003NJ; 7. 1AG001SN; 8. 1BA009XI; 9. 1BA002NU; 10. 1AG001XJ;
11. 1BA090BB; 12. 1BA090HW; 13. 1AJ001LZ; 14. 1BA030XA;
15. 1BC002BZ; 16. 1BA102BD; 17. 1BA030WR; 18. 1AG001KT;
19. 1AD029DQ; 20. 1FW001CB; 21. 1AG271LI; 22. 1AD001DQ;

23. 1BA090BD; 24. 1PS001VK; 25. 1PS001VM; 26. 1AD001EQ;
27. 1AC001KE; 28. 1PS002BS; 29. 1AC001LK; 30. 1AJ106ER;
31. 1BB004BA; 32. 1AJ001TU; 33. 1AJ001PB.

ILL 86 **POTTERY**

1. 1AG271AV; 2. 1AG271UJ; 3. 1AG127AP; 4. 1AG271OC; 5. 1AG271UC;
6. 1AG271QC; 7. 1AG128SL; 8. 1AG124CY.

ILL 87 **POTTERY**

1. 1AG271WB; 2. 1AG271RQ; 3. 1AG271OM; 4. 1AG128RR; 5. 1AG271OT;
6. 1AG271UU; 7. 1AG271NW; 8. 1AG271NU; 9. 1AG128SE; 10. 1AG128RY;
11. 1AG271SB; 12. 1AG271PR; 13. 1AG271PB.

ILL 78 **COARSE STONE TOOLS**

1. 1BA008VJ; 2. 1BA088AW; 3. 1BA004HL; 4. 1AD029BC.

ILL 81 **COARSE STONE TOOLS**

1. 1AD028HR; 2. 1AD028HW; 3. 1AD028HT; 4. 1PS003OS; 5. 1BA008VC;
6. 1AD028HS; 7. 1BA004HI; 8. 1BA008VH; 9. 1AD270FB.

ILL 80 **COARSE STONE TOOLS**

1. 1AD008ID; 2. 1US001AA; 3. 1P6003DT; 4. 1AD028HY; 5. 1BA089AT; 6. 1BA070AT; 7. 1BA070A5.

ILL 88 **PUMICE**

1. 1AD0081A; 2. 1AD008IB.

LAYER CONCORDANCE FOR THE INTERPRETED CONTEXTS IN TEXT, TABLE 32

AC1: 1AC014

AC2: 1AC015

AD1: (1AD165 = 221) CUT; (1AD035, 1AD118, 1AD145, 1AD152, 1AD154, 1AD166) FILLS.

AD2: (1AD206 = 207 = 038) CUT; (1AD029, 1AD036, 1AD119, 1AD144, 1AD162, 1AD163, 1AD167, 1AD224, 1AD226, 1AD227) FILLS.

AD3: (1AD234 = 040) CUT; (1AD037, 1AD039, 1AD141, 1AD142) FILLS.

AD4: (1AD232) CUT; (1AD148, 1AD149, 1AD158, 1AD160, 1AD203) FILLS.

AD5: (1AD208) CUT; (1AD028, 1AD161, 1AD168, 1AD210, 1AD223, 1AD233) FILLS.

AD6: (1AD222) CUT; (1AD159, 1AD201, 1AD209, 1AD225) FILLS.

AD7: (1AD153) FILL.

AJ1: (1AJ179) CUT; (1AJ173) FILL.

AJ2: (1AJ178) CUT; (1AJ104, 1AJ175, 1AJ176, 1AJ177) FILLS.

AJ3: (1AJ180) CUT; (1AJ108) FILL.

BA1: (1BA053) CUT; (1BA023) FILL.

BA2: (1BA054) CUT; (1BA047, 1BA049, 1BA050) FILLS.

BA3: (1BA048) CUT; (1BA021) FILL.

BA4/5: (1BA090, 1BA102, 1BA103, 1BA104, 1BA106, 1BA109) FILLS.

BA6: (1AG238) FILL.

BA7: (1BA087, 1BA088, 1BA105, 1BA107) FILLS.

BA8: (1BA089, 1BA094, 1BA108) FILLS.

BA9: (1BA091, 1BA093) FILLS.

BA10: (1BA052) FILL.

PEAT: 1BA020, 1BA060-66, 1BA073, 1BB003, 1BB004, 1BC005, 1BC020, 1BC031.

MAIN DUMP: 1AG185, 1BC012, 1BC018, 1BC019, 1BC021.

BANK: 1AE031, 1BA024, 1BA037, 1BA051, 1BA070-72, 1BA074, 1BA081, 1BA086.

MAIN DUMP/BANK ABUTTING: 1AG128, 1BC022, 1BC023.

DUMP1: 1BA076, 1BA077, 1BB023, 1BB024, 1BB033.

DUMP2: 1BC025.

SITE		1, 2		
TRENCH		AA-AN, BA-BC		
CONTEXT		0001-9999	(Trench Specific)	
FIND CODE		AA-ZZ		
NUMBER OF PIECES		1-254		
TYPE	Pebbles	(1)	Cores	(2)
	Blades	(3)	Flakes	(4)
	Flake Debris	(5)	Chunks	(6)
	Retouched Cores	(7)	Retouched Blades	(8)
	Retouched Flakes	(9)	Retouched Flake Debris	(10)
	Retouched Chunks	(11)	Microliths	(12)
	Coarse Stone Tools	(13)	Sherds	(14)
	Carbonised Object	(15)	Pottery Fragment	(16)
SUB TYPE	Whole	(1)	Flaked	(2)
	With Cortex	(3)	Without Cortex	(4)
	Primary	(5)	Secondary	(6)
	Inner	(7)	Cobble	(8)
	Stone Flake	(9)	Rim	(10)
	Base	(11)	Body	(12)
	Worked Pumice	(13)	Unworked Pumice	(14)
CLASSIFICATION	Bipolar	(1)	Platform	(2)
	Disc	(3)	Amorphous	(4)
	Crested	(5)	Plain	(6)
	Core Rejuvenation	(7)	Core Trimming	(8)
	Regular	(9)	End Scraper	(10)
	Side Scraper	(11)	Edge Retouched	(12)
	Bifacial Leaf Point	(13)	Bifacial Indeterminate	(14)
	Miscellaneous	(15)	Broken	(16)
	Notched	(17)	Borer	(18)
	Disc Scraper	(19)	Microburin	(20)
	Rod	(21)	Backed Bladelet	(22)
	Scalene Triangle	(23)	Crescent	(24)
	Fine Point	(25)	Broken Fragment	(26)
	Obliquely Blunted	(27)	Lamelle à Cran	(28)
	Invasive Flaked Point	(29)	Rounded Hammerstone	(30)
	Faceted Hammerstone	(31)	Ground Edge Tool	(32)
	Anvil	(33)	Spherical	(34)
	Undamaged	(35)	Scraper Resharpening Flake	(40)
	Burin	(41)	Tanged Scraper	(42)
	Double Ended Scraper	(43)	Burin Spall	(44)
	End + Two Sides Scraper	(45)	End + One Side Scraper	(46)
	Blip-Borer	(47)	Truncated Scraper	(48)
	Double Edged Crescent	(49)		

Table 33 On-site artifact catalogue: fields, attributes and code numbers

			Coarse Pottery	(80)
	Gun Flint	(81)	Tile Field Drain	(82)
	Plain Pottury	(83)	Decorated Pottery	(84)
	Indeterminate Pottery	(85)		
MATERIAL			Pottery	(2)
	Flint True	(7)	Lava ?	(8)
	Ambiguous Rock	(9)		
	Stone	(21)	Bloodstone	(22)
	Chert	(23)		
	Sandstone	(29)		
	Bone	(31)		
	Charcoal	(41)		
	Shell	(43)		
	Hazel Nut	(47)		
	Pumice	(49)		
			Quartz	(54)
	Agate	(57)	Quartzite	(58)
	Pitchstone	(59)		
CONDITION			Burnt	(2)
	As New	(9)		
	Abraded	(17)		
RECOVERY METHOD			Surface Collection	(2)
	Manual	(3)	Part Removed	(4)
	Unstratified	(5)		
	Dry Sieved	(7)	Wet Sieved	(8)
LOCATION	[8 Figure grid reference]			
NOTES	[Text]			

Type	Sub Type	Classification
1	1 - 2	
2	3 - 4	1 - 4
3	5 - 7	5 - 6
4	5 - 7	7 - 9
5	5 - 7	
6	5 - 7	
7	3 - 4	10 - 19, 29, 40 - 48
8	5 - 7	10 - 19, 29, 40 - 48
9	5 - 7	10 - 19, 29, 40 - 48
10	5 - 7	10 - 19, 29, 40 - 48
11	5 - 7	10 - 19, 29, 40 - 48
12	5 - 7	20 - 28, 49
13	8 - 9	30 - 35
14	10 - 12	83 - 85
15		
16		
	13 - 14	

Table 34 On-site artifact catalogue: relationships of type, sub-type and classification

FLAKES, BLADES AND RETOUCHED

COLOUR ______________________________ [1]

Light Green	(1)	Dark Green	(2)
Grey	(3)	Cream	(4)
Purple	(5)	White/Grey	(6)
Cream/Grey	(7)	White	(8)
Purple/Green/Cream	(9)	Light Green/White	(10)
White/Tan/Green	(11)	Dark Green/White	(12)
Dark Green/Purple/Green	(13)	Light Brown	(14)
Dark Brown	(15)	Tan	(16)
Purple/Green	(17)		

SURVIVAL ______________________________ [2]

Small Fragment Missing	(1)	Proximal Surviving	(2)
Distal Surviving	(3)	Right Side Surviving	(4)
Left Side Surviving	(5)	Segment Surviving	(6)
Complete	(7)		
Indeterminate	(9)		

PLATFORM TYPE ______________________________ [3]

Platform Missing	(1)	Platform Delib. Removed	(2)
Scalar	(3)	Planar Artificial	(4)
Faceted Artificial	(5)	Natural ie. Cortical	(6)
Broken	(7)	Retouched	(8)
Indeterminate	(9)		

PLATFORM MORPHOLOGY ______________________________ [4]

Punctiform	(1)	Linear	(2)
Crescentic	(3)	Lozenge	(4)
Triangular	(5)	Amorphous	(6)
Indeterminate	(9)		

PLATFORM TRIMMED ON CORE FACE	[5]	Y/N
PLATFORM TRIMMED ON PLATFORM EDGE	[6]	Y/N
PLATFORM ISOLATED	[7]	Y/N
RING CRACKS VISIBLE	[8]	Y/N
PLATFORM LIP PRESENT	[9]	Y/N
PLATFORM WIDTH	[10]	___mm
PLATFORM THICKNESS	[11]	___mm
PLATFORM ANGLE	[12]	___

BULB CHARACTERISTICS ______________________________ [13]

Positive	(1)	Negative	(2)
Flat Bulb Area	(3)		
Indeterminate	(9)	Not Applicable	(10)

Table 35 Detailed lithic analysis: extract catalogue, fields attributes and codes

BULB TYPE ______________________ [14]

Diffuse	(1)	Pronounced	(2)
Punctiform	(3)	Planar	(4)
		Artificially Removed	(6)
Indeterminate	(9)	Not Applicable	(10)

BULB THICKNESS ______________________ [15] ___mm

TERMINATION ______________________ [16]

Bipolar	(1)	Feather	(2)
Obtuse	(3)	Step	(4)
Hinge	(5)	Overshot	(6)
Broken	(7)	Modified	(8)
Indeterminate	(9)	Not Applicable	(10)

FLAKE MORPHOLOGY ______________________ [17]

Parallel	(1)	Divergent	(2)
Convergent	(3)	Displaced	(4)
Irregular	(5)	Modified	(6)
Indeterminate	(9)	Not Applicable	(10)

MORPHOLOGY OF THE DORSAL SCARS ________ [18]

Parallel	(1)	Angular	(2)
Rounded	(3)	Miscellaneous	(4)
Cortical	(5)		
Indeterminate	(9)		

PREDOMINANT ORIENTATION OF DORSAL SCARS_[19]

Same Direction	(1)	Opposed	(2)
Oblique	(3)	Lateral	(4)
Multiple	(5)	Cortical	(6)
Indeterminate	(9)		

LONGITUDINAL PROFILE ______________________ [20]

Straight	(1)	Concave	(2)
Convex	(3)	Sinuous	(4)
Irregular	(5)		
Indeterminate	(9)		

NUMBER OF PREVIOUS REMOVALS ON DORSAL __[21] ___

POSITION OF RETOUCH ON DORSAL __________[22]

By polar coordinates 1 - 8

POSITION OF RETOUCH ON VENTRAL ________[23]

By polar coordinates 1 - 8

GENERAL MORPHOLOGY OF RETOUCH _________[24]

Scalar	(1)	Oblique-Parallel	(2)
Sub-Parallel	(3)	Straight-Parallel	(4)
Irregular	(5)	Fine	(6)
Combination	(7)		

INVASIVENESS OF RETOUCH ______________ [25]

Surface (to centre)	(1)	Invasive (not quite centre)	(2)
Edge	(3)	Combination	(4)

AVERAGE MORPHOLOGY OF RETOUCHED EDGES __ [25a]

Convex	(1)	Concave	(2)
Notch	(3)	Straight	(4)
Sinuous	(5)	Irregular	(6)
Denticulate	(7)	Point	(8)

ANGLE OF RETOUCH ____________________ [26]

Abrupt	(1)	Acute	(2)
Irregular	(3)		

AVERAGE DEPTH OF RETOUCH SCARS ________ [27]

Deep	(1)	Shallow	(2)
Irregular	(3)		

AVERAGE TERMINATION OF RETOUCH SCARS ___ [28]

Step	(1)	Scalar	(2)
Feather	(3)	Combination	(4)

MACROSCOPIC EDGE DAMAGE ON DORSAL ______ [29]
By polar coordinates 1 - 8

MACROSCOPIC EDGE DAMAGE ON VENTRAL _____ [30]
By polar coordinates 1 - 8

MACROSCOPIC GLOSS ON DORSAL EDGE _______ [31]
By polar coordinates 1 - 8

MACROSCOPIC GLOSS ON DORSAL SURFACE ____ [32]
Randomly situated Y/N

MACROSCOPIC GLOSS ON DORSAL SURFACE ____ [33]
By polar coordinates 1 - 8

MACROSCOPIC GLOSS ON VENTRAL EDGE ______ [34]
By polar coordinates 1 - 8

MACROSCOPIC GLOSS ON VENTRAL SURFACE ___ [35]
Randomly situated Y/N

MACROSCOPIC GLOSS ON VENTRAL SURFACE ___ [36]
By polar coordinates 1 - 8

HAMMERSTONES

PITTING PRESENT ______________________ [37]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

FLAKING PRESENT ______________ [38]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

FACETING PRESENT ______________ [39]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

ROUNDED GROUND SURFACE PRESENT ______ [40]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

GROOVES PRESENT ______________ [41]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

PERFORATIONS PRESENT ______________ [42]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

POLISH PRESENT ______________ [43]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

INDENTATIONS PRESENT ______________ [44]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

STRIATIONS PRESENT ______________ [45]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

SPREAD OF WEAR ______________ [46]

One Area Localised	(1)	More than One Area Localised	(2)
Diffuse	(3)	Random	(4)
Mixed	(5)		

COBBLE SHAPE ________________________ [47]

Spherical	(1)	Sub-Round	(2)
Ovoid	(3)	Elongated Oval	(4)
Rectangular	(5)	Irregular	(6)
Flat Oval	(7)	Flat Round	(8)

FLAKING ALTERATION BEFORE USE __________ [48]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

GRINDING BEFORE USE ________________ [49]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

PECKING BEFORE USE ________________ [50]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

POLISHING BEFORE USE ______________ [51]

Proximal End	(1)	Distal End	(2)
Left Side	(3)	Right Side	(4)
Ventral Surface	(5)	Dorsal Surface	(6)
Not Present	(7)		

NUMBER OF FACETS __________________ [52] ___

RIDGES BETWEEN FACETS _____________ [53] Y/N

AVERAGE AREA OF FACETS ____________ [54] ___

NUMBER OF GROOVES _________________ [55] ___

SIZE OF GROOVE ____________________ [56]

Length	___mm
Width	___mm
Depth	___mm

LOCATION OF PERFORATIONS __________ [57]

Central	(1)	Offset	(2)
Cannot Determine	(3)		

MEANS OF PERFORATION ______________ [58]

Pecking	(1)	Drilling	(2)
Cannot Determine	(3)		

SHAPE OF PERFORATION ______________ [59]

Conical	(1)	Parallel	(2)
Hour Glass	(3)	Irregular	(4)

PERFORATION SIZE ____________________ [60]

Length			___mm
Width			___mm
Depth			___mm

LOCATION OF INDENTATIONS ______________ [61]

Central	(1)	Offset	(2)
Cannot Determine	(3)		

MEANS OF INDENTING ____________________ [62]

Pecking	(1)	Drilling	(2)
Cannot Determine	(3)		

PLAN VIEW OF INDENTATION ______________ [63]

Round	(1)	Long	(2)
Irregular	(3)		

INDENTATION SIZE ____________________ [64]

Length			___mm
Width			___mm
Depth			___mm

CORES

PLATFORM SHAPE ______________________ [65]

Punctiform	(1)	Round	(2)
Oval	(3)	Amorphous	(4)
Bipolar	(5)	Mixture	(6)

NUMBER OF FLAKE SCARS VISIBLE ________ [66] ___

GENERAL TYPE OF REMOVAL ______________ [67]

Blades	(1)	Flakes	(2)
Mixture	(3)		

PREDOMINANT TERMINATION ______________ [68]

Bipolar	(1)	Feather	(2)
Obtuse	(3)	Hinge	(4)
Stepped	(5)		
Indeterminate	(9)		

ABANDONMENT _________________________ [69]

Natural Flaw	(1)	Knapping Error	(2)
Overhang	(3)	Nothing Obvious	(4)

AVERAGE PLATFORM SIZE ________________ [70] ___mm

AVERAGE PLATFORM ANGLE _______________ [71] ___

ALL PIECES

LENGTH ________________________________ [72] ___mm

WIDTH _________________________________ [73] ___mm

THICKNESS AWAY FROM BULB ______________ [74] ___mm

PROXIMAL EDGE ANGLE, if appropriate ____ [75] ___

DISTAL EDGE ANGLE, if appropriate ______ [76] ___

RIGHT EDGE ANGLE, if appropriate _______ [77] ___

LEFT EDGE ANGLE, if appropriate ________ [78] ___

KINLOCH, RHUM: POTTERY CATALOGUE, TABLE 36

MB KEMP

FABRIC 1A: Coarse pottery, orange buff outer surface, darker buff inner surface, crumbly sand tempered black core.

Nos. 1-23 Featureless sherds.
21 AG271, 2 AG128

No. 24 Simple carination on body sherd with a lug below it, the tip of which is lost.
Sherd size 70mmx65mm.
AG271

No. 25 Possible fragment of a flat based vessel.
Sherd size 60mmx35mm.
AG271

No. 26 Curved sherd, possibly a plain shoulder.
AG271

No. 27 Curved sherd, possibly a plain shoulder.
AG271

No. 28* Very abraded small sherd with a possible simple cordon, or maybe a shoulder fragment.
AG271/AG128

No. 29 Curved sherd, possibly a plain shoulder.
AG128

FABRIC 1B: Coarse pottery, dark orange buff outer surface well prepared orange buff inner surface, core like that of fabric 1A. Worn.

Nos. 30-88 Featureless sherds.

11 AG126, 11 AG127, 1 AG128,26 AG271,7 BC02,1 BC07, 2 BC23.

No. 89 Single fine incision on outer surface of sherd. Not decoration.

AG271.

No. 90 Possible incised decoration: one horizontal line (2mm wide) and two oblique ones below it.

Sherd size 40mmx35mm.

AG271.

No. 91 Plain shoulder.

AG 271.

No. 92 A waster or possibly a bit off a trumpet lug.

AG271.

No. 93 Sherd showing prepared edge where lug would have been stuck. The break occurred where the coils joined.

Sherd size 100mmx50mm.

AG 127/271.

No. 94 Sherd broken where edge has been flattened and prepared to join another coil.

AG271.

No. 95 Plain shoulder.

AG127.

FABRIC 1C: Coarse pottery, with good surface preparation, orange buff inner and outer surfaces, sandy grey to black core.

Nos. 96-128 Featureless sherds.
2 AD270, 1 AG126, 1 AG128, 16 AG271, 1 BC02, 1 BC03, 1 BC12, 1 BC21, 2 BC23.

No. 129 Fragment of flat base.
Sherd size 35mmx45mmx12mm thick.
AG271.

No. 130 Plain shoulder.
AG128.

No. 131 Externally expanded bevelled rim probably from same pot as no. 132.
Sherd size 21mmx36mm15mm thick.
BC02.

No. 132 Fragment from an apparently similar rim to no.131.
BC02.

FABRIC 1D: Coarse pottery, orange buff outer surface, grey abraded inner surface, grey to black fine core. Worn.

Nos. 133-184 Featureless sherds.
2 AG127, 25 AG128, 24 AG271, 1 035/895.

No. 185 Plain rounded rim.
Sherd size 25mmx30mmx10mm thick.
AG271.

No. 186 Plain fine carination which may have been just below the rim (now lost).

AG124

No. 187 Sherd showing coil join and an incision on the inner surface.
AG271.

FABRIC 2: Hard pottery, well built with good surface treatment (almost like a slip). Orange buff on inner and outer surfaces, fine grey core.

Nos. 188-208 Featureless sherds.
1 AG127, 18 AG271, 1 BB03, 1 BC02.

No. 209 Plain thinned rim.
Sherd size 40mmx30mmx5mm thick.
AG271.

No. 210 Plain thinned rim.
Sherd size 20mmx15mmx6mm thick.
AG128.

No. 211 Plain thinned rim.
Sherd size 30mmx20mmx6mm thick.
AG271.

No. 212 Sherd showing edge prepared to join coil.
AG271.

No. 213 Plain rounded rim with a simple narrow cordon below it.
Sherd size 30mmx45mmx8mm thick.
AG271.

FABRIC 3: Very fine pottery, brown/black burnished outer surface, fine black core, 5mm thick.

No. 214 Featureless body sherd.

AG128.

FABRIC 4A: <u>Coarse pottery</u>, orange buff surfaces, grey thick core with large inclusions. Very worn.

Nos. 215-241 Featureless sherds.

12 AG128, 14 AG271, 1 BA51.

No. 242 Body sherd with broken lug.

Sherd size 55mmx45mmx13mm thick.

AG271.

FABRIC 4B: <u>Thick vesicular pottery</u>, 'corky ware', orange buff surfaces, brown core. Worn.

Nos. 243-248 Featureless sherds.

6 AG271.

No. 249 Possible sherd of plain rounded rim.

AG271.

FABRIC 4C: <u>Refired pottery</u>, orange to red buff surfaces with grey cores like those in fabric 4A. Very worn.

Nos. 250-253 Featureless sherds.

1 AG126, 1 AG127, 2 AG271.

FABRIC 5A: Coarse pottery, orange buff surfaces

with fine grey core. Very abraded and worn.

Nos. 254-276 Featureless sherds.

2 AG127, 17 AG271, 2 AJ275, 1 BA20, 1 135/853.

No. 277 Sherd with simple cordon, 8mm wide.

AG271

No. 278 Sherd with incision on inner surface.

AG271.

FABRIC 5B: Fine pottery, brown buff surfaces,

fine grey to black core. Very abraded.

Nos. 279-298 Featureless sherds.

17 AG271, 1 AM314, 1 BA20, 1 008/899.

No. 299 Sherd with impressed line on rough outer surface.

AG271.

NB * signifies a sherd made up of two conjoining pieces from different contexts.

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KINLOCH, RHUM: COARSE STONE CATALOGUE, TABLE 37

Ann CLARKE

KEY: CONTEXT AND FINDS REGISTRATION NUMBER; LENGTH x WIDTH x THICKNESS; MATERIAL TYPE (IF OF A SEDIMENTARY ROCK THEN GRAIN SIZE ONLY IS GIVEN); CONTEXTUAL INTERPRETATION.
For definitions see text (Chapter 9.1).

PLAIN HAMMERSTONES

1AD028HX: 120 x 49 x 28; MEDIUM GRAINED; AD5.
1AD028HY: 80 x 62 x 50; COARSE GRAINED; AD5.
1AD028HZ: 127 x 102 x 80; COARSE GRAINED; AD5.
1AD028IA: 160 x 47 x 24; COARSE GRAINED; AD5.
1AD161FD: 130 x 88 x 63; COARSE GRAINED; AD5.
1AB128UE: 66 x 50 x 43; COARSE GRAINED; MAIN DUMP/ BANK ABUTTING.
2AM311AW: 71 x 67 x 42; COARSE GRAINED; PLOUGHSOIL.
1BA004HM: 85 x 43 x 29; COARSE GRAINED; BROKEN; PLOUGHSOIL.
1BA004HN: 106 x 70 x 28; MEDIUM GRAINED; PLOUGHSOIL.
1BA004HO: 98 x 67 x 58; COARSE GRAINED; PLOUGHSOIL.
1BA004IT: 129 x 49 x 35; COARSE GRAINED; PLOUGHSOIL.
1BA004IU: 63 x 50 x 23; FINE GRAINED; BROKEN; PLOUGHSOIL.
1BA008VO: 77 x 58 x 30; COARSE GRAINED; PLOUGHSOIL CLEANING LAYER.
BA072AL: 96 x 60 x 30; COARSE GRAINED; BANK.
1BA085AJ: 97 x 35 x 25; MEDIUM GRAINED; BROKEN; BURIED SOIL.

1BA094BN: 43 x 53 x 29; MEDIUM GRAINED; BROKEN; BA8.

BEVELLED PEBBLES

1AD028HR: 120 x 50 x 21; MEDIUM GRAINED; AD5.

1AD028HS: 114 x 34 x 14; TUFF; AD5.

1AD028HT: 108 x 45 x 21; MICROGABBRO; AD5.

1AD028HU: 152 x 54 x 20; MICROGABBRO; AD5.

1AD028HV: 118 x 51 x 26; COARSE GRAINED; AD5.

1AD028HW: 107 x 56 x 24; MEDIUM GRAINED; AD5.

1AD270FB: 99 x 38 x 22; FINE GRAINED; PLOUGHSOIL.

1BA004HH: 120 x 44 x 24; MEDIUM GRAINED; PLOUGHSOIL.

1BA004HI: 160 x 61 x 33; FINE GRAINED; PLOUGHSOIL.

1BA004HJ: 108 x 40 x 24; MEDIUM GRAINED; PLOUGHSOIL.

1BA008VC: 115 x 38 x 22; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VD: 103 x 38 x 19; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VE: 109 x 38 x 23; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VF: 95 x 48 x 23; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VG: 108 x 44 x 20; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VH: 90 x 40 x 27; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA023DY: 102 x 32 x 18; FINE GRAINED; BA1.

1PS00308: 91 x 22 x 15; FINE GRAINED; PLOUGHSOIL.

FACETED HAMMERSTONES

1AD270FC: 48 x 36 x 29; MEDIUM GRAINED; PLOUGHSOIL.

1AG271WQ: 50 x 37 x 28; UNIDENTIFIED; PLOUGHSOIL.

1BA008VI: 65 x 56 x 27; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA008VU: 56 x 36 x 24; MEDIUM GRAINED; BROKEN; PLOUGHSOIL CLEANING LAYER.

1BA008VV: 103 x 51 x 24; COARSE GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA021EU: 89 x 59 x 34; COARSE GRAINED; BA3.

1BA070AS: 54 x 38 x 28; COARSE GRAINED; BANK.

1BA070AT: 75 x 36 x 29; MEDIUM GRAINED; BANK.

1BA089AT: 78 x 50 x 22; MEDIUM GRAINED; BA8.

ROUNDED HAMMERSTONES

1AD008ID: 63 x 49 x 38; COARSE GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA004HK: 86 x 48 x 36; COARSE GRAINED; PLOUGHSOIL.

1BA070AR: 50 x 44 x 36; COARSE GRAINED; BANK.

1FW001ZW: 66 x 48 x 36; MEDIUM GRAINED; PLOUGHSOIL.

1PS0030T: 63 x 56 x 47; COARSE GRAINED; PLOUGHSOIL.

1PS0030U: 79 x 63 x 35; MEDIUM GRAINED; PLOUGHSOIL.

1US001AA: 67 x 59 x 43; QUARTZ; STRAY FIND.

ANVILS

1AG128UD: 108 x 67 x 36; COARSE GRAINED; BROKEN; MAIN DUMP/BANK ABUTTING.

1BA004HL: 125 x 81 x 36; FINE GRAINED; FLAT SIDED; PLOUGHSOIL.

1BA004IR: 123 x 61 x 29; COARSE GRAINED; PLOUGHSOIL.

1BA004IS: 120 x 56 x 33; TUFF; PLOUGHSOIL.

1BA030EE: 68 x 58 x 26; MEDIUM GRAINED; BROKEN; BA4-9.

1BA047CE: 112 x 67 x 19; MEDIUM GRAINED; BROKEN; FLAT SIDED; BA2.

1BA088AW: 86 x 70 x 37; MICROGABBRO; BROKEN; BA6.

FLAT SIDED COBBLES

1BA004HL: 125 x 81 x 36; FINE GRAINED; ANVIL; PLOUGHSOIL.

1BA008VJ: 120 x 60 x 33; MEDIUM GRAINED; PLOUGHSOIL CLEANING LAYER.

1BA047CE: 112 x 67 x 19; MEDIUM GRAINED; BROKEN; ANVIL; BA2.

1US001AB: 136 x 75 x 34; COARSE GRAINED; STRAY FIND.

GROUND EDGE FLAKE

1AD029GC: 80 x 24 x 10; EDGE ANGLE 55 ;MICROGABBRO; AD2.

? POLISHER

1BA004IV: 68 x 35 x 10; FINE GRAINED; PLOUGHSOIL.

LOCATION OF MANUPORTS

1AD008 x 1 PLOUGHSOIL CLEANING LAYER

1AD028 x 4 AD5

1AD159 x 1 AD6

1AG121 x 1 MESO PIT

1AG128 x 1 MAIN DUMP/ BANK ABUTTING

1AG271 x 1 PLOUGHSOIL

1AH273 x 1 PLOUGHSOIL

1BA004 x 7 PLOUGHSOIL

1BA008 x 6 PLOUGHSOIL CLEANING LAYER

1BA030 x 1 BA4-9

1BA072 x 1 BANK

1BA089 x 1 BA8

1BA090 x 1 BA4/5

1BB003 x 1 PEAT

1BC001 x 1 PLOUGHSOIL

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OTHER LITHIC SCATTERS ON RHUM: CATALOGUE

Ann CLARKE

This catalogue covers only those sites found during fieldwalking in 1984. For locations of previously known sites see RCAMS 1983 nos.10, 12, 13, 14.

(SEE ILLUSTRATION 101)

PORT NA CARANEAN NM425 988, 264 ARTEFACTS

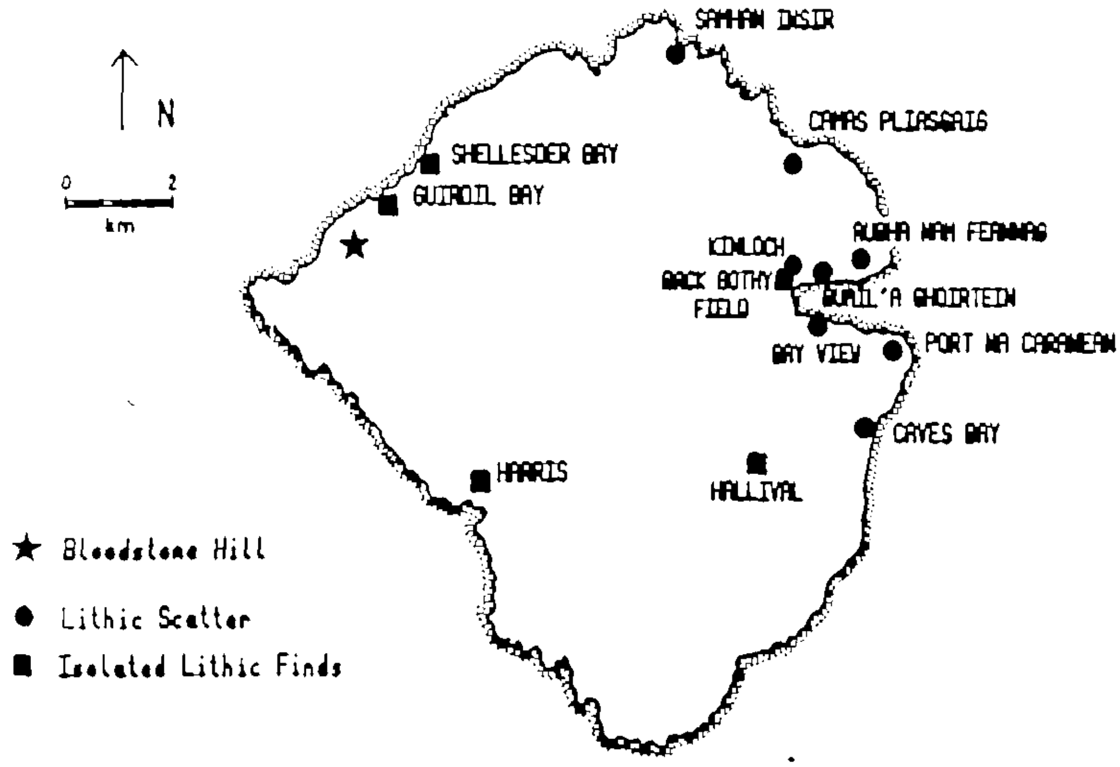
Site lies 25-50m LD on flat area beyond beach. The main collection of artefacts was found in a forestry drainage ditch, c20m long, lying parallel to the old settlement. A few pieces were found in an area of forestry ploughing to the south. Most of the ploughing was too shallow to expose the OGS through the peat.

BAY VIEW NM402 994, 25 ARTEFACTS

The site lies <8m LD. It was revealed by a cutting in the gravel for an electricity cable in 1983. Most of the lithics were found in gravel at the top of the cutting or above it where tree roots had been disturbed. Three pieces were found in the wood across the road in disturbed tree roots.

CAVES BAY NM421 973, 43 ARTEFACTS

The site first came to our attention with a flake found



ILL 101: **Rhum. Location of lithic scatters**

during forestry ploughing by the NCC. There were three main areas of ploughing: to the north the ploughing was on steep ground and nothing was found; to the south the ploughing was on flatter land but it was too shallow to break the peat cover. Flakes were found in the central ploughed area just seawards of the 10m break of slope. Most of these lithics were found in the NE quadrant of this area beside break of slope.

HARRIS NM337 962, 1 ARTEFACT

On a bluff on the south bank of the river.

HARRIS NM338 961, 3 ARTEFACTS

In a drainage ditch running parallel to road and forestry plantation. Two pieces of pottery were also found here.

SHELLESDER CAVE NG327 020, 3 ARTEFACTS

The flakes were found on the surface of a midden at the entrance to the cave. The cave sits at the back of the present day beach.

GUIRDIL BAY NG320 010, 20 ARTEFACTS

This, and Glen Guirdil were fieldwalked on a very wet day so much may have been missed. There were no fixings for the three find spots although two were located to the east of the river and one to the west. They were generally areas where the peat had been eroded by running water to reveal the OGS.

BACK BOTHY FIELD NM402 998, 6 ARTEFACTS

The field immediately to the west of Farm Fields where the site lies. A small number of artefacts were found during potato planting.

BUAIL NA GHORTEIN NM404 998, 632 ARTEFACTS

Four lithic scatters were found along a track to the east of the excavations (BNG1-4). BNG1 was located at the eastern end of the track and included over half of the pieces found. BNG2 at stream crossing of track. BNG3 c.50m west of the stream. BNG4 an area of c.100m square around SE corner of excavations. All the sites lie on an area of gently shelving land similar to that of the excavation. BNG1 at 11.97m LD.

A CLARKE, ROYAL MUSEUM OF SCOTLAND, ARTEFACT RESEARCH UNIT,
5 COATES PLACE, EDINBURGH.

THE AVAILABILITY OF CHALCEDONIC SILICA, INCLUDING BLOODSTONE, ON RHUM AND SOME POSSIBLE METHODS OF DISTINGUISHING IT FROM FLINT IN EXCAVATED SAMPLES.

DR G DURANT

Introduction

Rhum has long been famed as a source of bloodstone and agate for use by lapidarists and jewellers. The demand for bloodstone was sufficiently high for a small quarry to be opened at the northern end of Bloodstone Hill to exploit a particularly good 'seam' of it. It is because of the popularity of such varieties of chalcedonic silica that any assessment of the current availability of these materials must be regarded as being considerably less than in former times although the isolation of Rhum has served to protect naturally occurring stocks. Nevertheless a good deal of bloodstone, agate and other varieties of chalcedonic silica can still be found on Rhum, testifying to a considerably much greater abundance in the past.

The various types of chalcedonic or cryptocrystalline silica occur in association with the lavas of Tertiary age which form Fionchra and Bloodstone Hill in western Rhum. The silica minerals occupy amygdales, irregular cavities and fissures within the lavas where they were deposited from hydrothermal solutions which percolated through the rocks at some stage after consolidation of the lavas. It is not currently known why several different varieties of silica are present and there seems to be no obvious control on which of the varieties occurs where within the lava pile.

The principal sources of bloodstone and agate at present are in the screes beneath Fionchra and Bloodstone Hill and also on the beaches to the west of Bloodstone Hill and in Guirdil Bay. It is still possible to collect both bloodstone and agate at outcrop but since the principal outcrop of the lavas is in the steep, largely inaccessible western cliff of Bloodstone Hill it is unlikely that this ever provided much material other than by natural erosion.

In addition to the main varieties of chalcedonic silica present, bloodstone, jasper, plasma and chalcedony, a vein of opaline silica is still present on the north side of Bloodstone Hill. However opal is unlikely to be significant for working and it is only of interest here because of its rarity.

Samples of chalcedony, bloodstone, plasma and jasper were found amongst the excavated material at Kinloch. There seems to be no natural way that significant amounts of bloodstone, agate or chalcedony could have moved naturally from the areas of outcrop in the west of Rhum to Kinloch. The direction of ice-movement appears to have been from east to west, and although longshore drift could disperse pebbles northwards from the beach below Bloodstone Hill it is unlikely that such movement would carry pebbles right around the north of the island. It is envisaged that the material now in Kinloch was deliberately collected and carried across the island.

Flint or Chalcedony?

Samples of the various forms of chalcedonic silica were collected from Rhum for subsequent analysis in an attempt to discover the best method of distinguishing such material from flint, within excavated assemblages (table 38).

Hand specimen examination

Several features enable flint and chalcedonic silica to be distinguished by simple visual inspection. The chalcedony which occurs on Rhum shows a great variety of colours many of which can be directly distinguished from flint. For example no dark green, light green, pink or red varieties of flint occur within the current area of interest. Some of the grey chalcedony shows agate banding which readily distinguishes it from flint. Most importantly much of the chalcedonic silica from Rhum contains small (1-2mm), rounded spherulites of ferroan calcite. This is seen as small round, brown spots on the surface of the sample. Such spots are absent from flint samples. If these spots are not seen on the surface of the sample it may be worth breaking it to see if any are revealed. The opal found on Rhum is readily distinguished due to its opalescence.

A simple examination of any excavated material should therefore distinguish chalcedonic silica from flint and could indicate a provenance from Rhum. However, there will usually be samples of chalcedony and other material present which cannot be readily distinguished from flint in this way and other techniques may be required. The white variety of chalcedonic silica is particularly difficult to distinguish from flint in the absence of the ferroan calcite spherulites.

Sample Number	
1)	Green chalcedonic silica, Fionchra, Rhum
2)	Pale green chalcedonic silica, Guirdil Bay, Rhum
3)	White flint-like chalcedony, Guirdil Bay, Rhum
4)	Pink and grey chalcedony, beach below Bloodstone Hill, Rhum
5)	Butterscotch chalcedony, beach below Bloodstone Hill, Rhum
6)	Dark green chalcedony, beach below Bloodstone Hill, Rhum
7)	Grey chalcedony, beach below Bloodstone Hill, Rhum
8)	Opaline silica, from a vein within lavas, Bloodstone Hill, Rhum
Flint	Cretaceous flint in chalk, Antrim, Northern Ireland

Table 38 Samples used for the analysis of the differentiation between flint and chalcedony

Thin section examination

(The photographs of the thin sections are kept with the excavation archive at the Royal Commission for Ancient and Historical Monuments, Edinburgh.)
Examination of thin sections can in some cases provide a rapid and definitive means of distinguishing between flint and chalcedonic silica. However since flint and chalcedony are both varieties of cryptocrystalline silica they do look remarkably similar (plates 3b, 4b, 6b, 7b).

Flint often contains traces of organic remains which, if recognised, readily distinguishes flint of sedimentary origin from the chalcedonic silica of Rhum formed by hydrothermal activity (plates 8 & 9).

The presence of ferroan calcite spherulites in some of the chalcedonic silica from Rhum distinguishes it from flint (plates 1, 2 & 3a). A thin section may reveal these when they are not obvious in the hand specimen. Pyrite was seen to be present in one of the Rhum samples and was not observed in flint (plate 3b). Some forms of chalcedony show agate-banding which is clearly revealed in thin sections even if it is not obvious in hand specimen (plate 5). The recognition of such a texture in a sample would clearly distinguish it from flint.

In thin section the opal from Rhum is distinguished by its tendency to fracture (plate 6a) and by the infilling of such fractures.

The sample of flint examined showed a greater amount of crystalline quartz of coarser grain size infilling cavities and other irregularities, than was observed in any of the chalcedonic silicas (plate 7a). However such more-coarsely crystalline silica was also present in one of the thin sections of chalcedony examined and since chalcedony is frequently associated with quartz on Rhum this feature is considered to have only limited importance as a means of discrimination.

Chemistry

Eight of the collected samples were analysed for major and trace elements and the results compared with an analysed flint from Antrim (table 39).

The hardness of the samples led to minor preparation problems and a chromium anomaly was introduced during the crushing process which uses chrome-steel jaws for breaking the sample. The results listed for chromium are therefore all higher than the actual results but not by a fixed factor. The high totals for the analyses are the result of the high levels of silica which fall outside the normal range of calibration for rock analysis.

In terms of the major elements the principal constituent is silica and all of the samples show relatively similar values with the exception of the heliotrope sample (no. 6) which has a lower amount. This sample is exceptional in other ways insofar as it shows much higher Al_2O_3, CaO and K_2O than the other chalcedonic silicas. Further analysis of this type of material would be required to determine whether all of the dark green chalcedony (heliotrope) shows these chemical characteristics. The major elements which appear to be of most value as discriminants between flint and the Rhum chalcedonic silicas are Al_2O_3, TiO_2, FeO, Fe_2O_3 and K_2O which are lower in the analysed flint. CaO and P_2O_5 values are higher in the flint than in the chalcedonic silicas (except for no. 6).

Of the analysed trace elements barium, gallium and rubidium are higher in the flint than in the chalcedonic silicas. The content of uranium is also slightly higher in the flint and this may open up the possibility of using the low levels of radioactivity as a discriminant function. The other analysed elements in the flint are present in amounts within the total range of those of the other samples and hence these are of limited value for discriminatory functions.

The use of selected elements to distinguish between flint and chalcedony is illustrated (Ill.102a-c). Plots of CaO and Al_2O_3, $FeO+Fe_2O_3$ v Na_2O+K_2O and P_2O_5 v TiO_2 show that the flint sample is chemically distinct from the analysed chalcedonic silica. However further analyses of chalcedony from Rhum and particularly of flint from various other localities must be made to fully test this idea.

Summary

There seems to be potential for discriminating between flint and chalcedony from Rhum on the basis of three main criteria:

1. Rounded spherulites of a ferroan calcite are present in many of the samples of chalcedony from Rhum. These spherulites are absent

in flints.

2. Examination of thin-sections in plane polarised light often reveals some trace of fossils in flint, reflecting its sedimentary origin. Such fossils are absent in Rhum chalcedony.

3. Chemical analysis of flint and chalcedony seems to offer potential for discrimination since flint tends to have lower amounts of iron, aluminium, titanium and potassium and higher amounts of calcium and phosphorus.

Recommendations for future work

There is clearly a need for a technique or series of techniques which can distinguish flint from the various types of chalcedony from Rhum. Such methods will need to be accurate and cost effective, particularly in the current financial climate.

Simple examination of the excavated samples could successfully discriminate between flint and chalcedony for a good deal of a particular sample. This is a non-destructive technique which has no costs over and above the time of the person undertaking the examination.

A follow up to this would be a thin-section study to see whether there are any fossils or trace fossils present, indicative of flint. However thin-section preparation takes time and can become expensive if these are obtained commercially. The technique is destructive insofar as samples have to be cut up in thin-section production. If biological traces are present then this is a clear indication of a sedimentary origin and hence of flint.

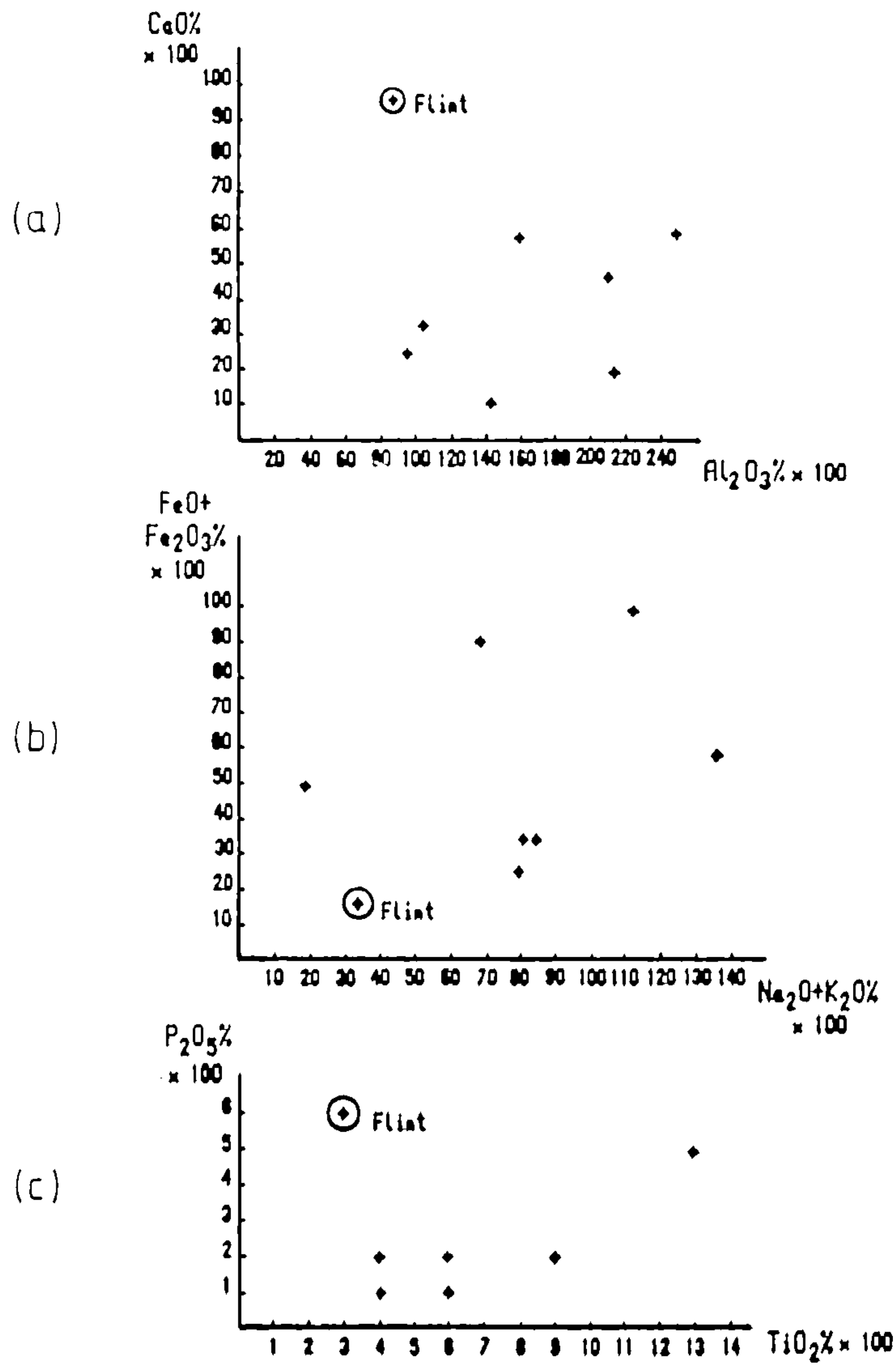
A technique which may be useful for detecting fossils or former-fossils if they have been replaced by silica is cathodoluminescence. In this technique a polished slice of a rock/artefact can be examined. Areas of silica replacement may luminesce differently to the remainder and reveal features not visible optically. A smaller sample size would be required than for conventional thin-sectioning. Preparation time is less than for a thin-section.

Chemical analysis of excavated samples is a destructive technique but one which does offer considerable potential as a means of discriminating between samples of flint and chalcedony. The technique is however destructive and expensive if costed on a commercial basis. In addition there is a minimum sample size which means that it may not be possible to analyse small samples. With the currently available database there is also some uncertainty about the interpretation of the results. Further analysis of flint from various localities would have to be undertaken as a prerequisite to any future study.

Stable isotopic analysis offers considerable potential as a means of discriminating between flint and chalcedonic silica since these form in markedly different ways. Oxygen isotope analysis may offer a failsafe way of distinguishing between the two materials. However it is likely that there is a lack of data currently available and a database would need to be built up. The technique is destructive but only needs relatively small amounts of sample for analysis. The techniques involved are currently available at the Scottish Universities Research and Reactor Centre, East Kilbride.

Scanning electron microscopy offers potential for discriminating flint from chalcedony of various forms since the structure of the two varieties of cryptocrystalline silica is different. Work is currently in hand to evaluate the likely effectiveness of this technique.

DR G DURANT. HUNTERIAN MUSEUM. UNIVERSITY OF GLASGOW. GLASGOW.



ILL 102: Use of selected elements to distinguish between flint and chalcedony. (a) Calcium and aluminium. (b) Iron and potassium. (c) Phosphate and titanium.

1 : F6

Chemical analyses of silica minerals from Rhum and flint from Antrim

	1	2	3	4	5	6	7	8	Flint
SiO_2	93.80	96.20	97.52	95.77	98.77	79.69	98.57	95.75	97.16
TiO_2	0.06	0.04	0.04	0.06	0.06	0.09	0.04	0.13	0.03
Al_2O_3	2.11	2.13	1.43	1.61	0.95	6.85	1.06	2.50	0.88
Fe_2O_3	0.54	0.38	0.00	0.31	0.29	0.73	0.10	0.20	0.02
FeO	0.45	0.20	0.25	0.60	0.20	0.38	0.24	0.14	0.14
MnO	0.00	0.01	0.00	0.02	0.01	0.05	0.02	0.01	0.00
MgO	0.41	0.37	0.32	0.48	0.32	0.49	0.36	0.34	0.34
CaO	0.46	0.18	0.10	0.57	0.25	3.35	0.33	0.58	0.96
Na_2O	0.43	0.51	0.50	0.38	0.06	0.10	0.57	0.55	0.22
K_2O	0.70	0.86	0.30	0.30	0.12	5.37	0.28	0.26	0.12
P_2O_5	0.01	0.02	0.01	0.02	0.02	0.02	0.01	0.05	0.06
H_2O^+	1.58	0.60	0.79	0.85	0.66	0.49	0.70	1.12	0.51
CO_2	1.15	0.10	0.28	0.70	0.16	2.40	0.30	0.02	0.75
TOTAL	101.70	101.61	101.52	101.67	101.87	100.01	102.58	101.65	101.19
Ba	11	29	25	42	16	67	12	207	bdl
Ce	3	2	bdl	2	3	7	bdl	9	4
Cr	143	108	128	103	148	89	59	28	127
Cu	29	31	9	12	55	43	18	bdl	18
Ga	3	3	2	2	3	7	2	2	1
La	7	bdl	1	bdl	6	3	0	3	3
Pb	1	2	bdl	1	2	19	3	2	bdl
Rb	13	17	8	10	5	77	7	12	4
Sr	22	10	10	19	12	24	8	154	19
U	2	1	2	0	2	2	0	2	3
Y	3	4	2	3	5	4	1	4	7
Zn	19	27	8	10	48	32	16	7	18
Zr	33	18	10	16	14	28	11	24	11

bdl = below detection limit

Analysts C. Farrow, D. MacIntyre, Dept. of Geology, University of Glasgow.
Major and trace elements determined by X.R.F. analysis, FeO by titration.

Table 39 Chemical analysis of silica minerals from Rhum and flint from Antrim

RAW MATERIAL PROVENANCE SURVEY: PRELIMINARY REPORT

DR D GRIFFITHS

Having examined the lithic material excavated at Farm Fields, Kinloch, Rhum in the 1984 season, the following locations were examined to determine whether they might provide a source of raw material for the Farm Fields assemblage:

Kinlochewe (Glen Docherty and Abhainn Bruachaig)

Shieldaig beach

Stontian, Loch Sunart

Gribun, Mull

Carsaig, Mull

Torosay Castle, Mull

Isle of Kerrara

Port Appin

Guirdil beach and Bloodstone Hill (Isle of Rhum)

The majority of these locations were chosen because of reports in the geological literature of bloodstone having been found at them. While the raw materials used in the Farm Fields assemblage are not (for the most part at least) bloodstone in the strict geological sense of the word, they are the sort of material that one might expect to find in geological association with bloodstone. Thus the examination of bloodstone sources as a starting point in looking for raw material sources is well justified.

KINLOCHEWE. Glen Docherty NH 064597

Examined stream bed on NE side of road. Mostly mica schist (the geological descriptions in this report must be regarded as provisional). Some quartz veins. No microcrystalline silica found.

KINLOCHEWE. Abhainn Bruachaig valley, ENE of Kinlochewe

Followed path from road to south side of river, examining path stones and gravel. Traversed up from about NH 045623 up to the screes below the first major crag of the valley at the top of the stream (NH 056622). The road and river gravel contain much ?granite with bright red and green minerals and also a metamorphosed red and green rock. The bulk of the river gravels is sedimentary or lightly metamorphosed fine grained rock. There is also some white quartzite. No microcrystalline silica rock was found and none of the rocks exhibited conchoidal fracture. The outcrops of rock passed during the upward traverse were examined without finding anything of note. The main outcrop and the scree below were of a ?slightly metamorphosed sedimentary rock showing ?mica flakes parallel to the bedding and having a few narrow veins of quartz. No microcrystalline silica found.

Descended from the crag to the main river via the stream course examining the bed along the way. This yielded mostly the same rock as the crag, though with some quartz and red and green rocks, especially near the main river. Followed the main river NE up the valley on the SE bank, and crossed at the weir/waterfall at NH 058628. The rock in the track on the north bank of the river was similar to that already mentioned. In some parts white quartzite predominated, but this was too sugary upon fracture to be useful for tools.

The valley provided no microcrystalline silica rock. It is possible that the dark green and red rock, which often looks at first glance as though it might be bloodstone, or at least heliotrope, may have been mistaken for bloodstone by laymen. As for all tho locations examined, our failure to find bloodstone or microcrystallline silica rock does not discredit previous reports of its discovery nor prove that there is none there. The fact that we could search for hours without finding a single sample does suggest that the locations are rather implausible as sources for the large amount of raw material necessary to produce the Farm Fields assemblage.

SHIELDAIG

The beach opposite the island was examined in view of the proximity of the Shieldaig and Redpoint sites. No microcrystalline silica found. Mostly a red sandstone. The quartzite four was too sugary for tools.

STRONTIA' .och Sunart

The river mouth gravels at NM 814614 were examined and one lump of green ?chert was found. Up the valley amongst the spoilheaps around the mineshafts and quarries NM 833659 better quality green ?chert was found. This material appears to occur in ?silicified bands in the common green local rock.

GRIBUN, Mull

At the coast NM 444333 are outcrops of red conglomerate sandwiched between more homogenous rocks. The fragments in the conglomerate (which sometimes tended to breccia) were predominantly red-brown ?quartzite or ?granite. Most of the rock around Gribun is ?metamorphosed granite with a few veins of quartz. Examined outcrops, veins, boulders and beach pebbles from approximately NM 444333 to NM435327. Beach pebbles provided ?silicified chalk, ?lightly silicified mudstone, ?silicified green material similar to that found above Strontian but no material similar to that used at Farm Fields, or indeed anything very knappable.

CARSAIG, Mull

Examined the beach pebbles, scree and outcrops from the pier NM 534213 along the coast to Rubh'a'Chromain point NM 523303. This yielded no material similar to that used at Farm Fields. The best flaking stone was ?pitchstone, a black glassy rock with some pale veins and inclusions. This was fairly common, especially SW of the bay. There was also a fine grained ?basalt which might serve for flaking in the absence of the ?pitchstone. Some rounded flint pebbles were present in a grey matrix in boulders on the beach, but these were quite rare.

TOROSAY CASTLE, Mull (1 mile SSE of Craignure)

Stopped at a small quarry on the west side of the A849 just south of the castle entrance NM 726352. Nothing better for knapping than some reasonably fine-grained quartz pebbles.

PORT APPIN NM9054

Walked around the peninsula. Much fine-grained quartzite suitable for knapping, with veins of purer more coarsley crystalline quartz running through. A broken flake, possibly man-made, was found between the jetties to the seaward of the road at NM 903454.

ISLE OF KERRARA

Not able to get a boat across to the island, but Heddle says there are pebbles of coarse heliotrope in the Old Red Conglomerate of Kerrara. Accordingly examined outcrops of this rock on the mainland opposite the island NM 835284 and pebbles along the beach. No microcrystalline silica found.

GUIRDIL BEACH and BLOODSTONE HILL, Rhum

Ample material on the beach to replicate, in appearance at least, the majority of the Farm Fields lithics. Microcrystalline silica in all colours and good quality material for knapping. Larger chunks on the screes below the crags on Bloodstone Hill (largely overgrown) and large in situ pockets of pale and dark green material in the crags near the top of Bloodstone Hill overlooking Guirdil. The outcrops on top of Bloodstone Hill and Fionchra did not yield suitable material for replicating Farm Fields artefacts as far as I could tell, but my acquaintance with the material is limited and I did not search for very long as there was a rich source nearby.

A possible mismatch between the Farm Fields and the Bloodstone Hill material occurs in the case of the opaque off-white flint like material from Farm Fields. There were a number of pieces of this in the sample bag of Farm Fields material I took with me, but no similar material from Guirdil bay or Bloodstone Hill was found.

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RAW MATERIALS: SURFACE ALTERATION EXPERIMENTS, TABLE 40

B.FINLAYSON

Catalogue of experiments conducted to examine surface alteration of bloodstone. The EP numbers refer to the experiment number and may include more than one piece. Pieces shattered and subsequently further treated account for many pieces although a lot of very small fragments were not saved. NB temperature is given in degrees centigrade.

EP1 Nodule Dark Green bloodstone

Heated to 300° over 200 minutes, temp maintained 20 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP2 Nodule Light Green bloodstone

Heated to 300° over 200 minutes. temp maintained 20 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP3 Flake Light Green bloodstone

Heated to 400° over 150 minutes, temp maintained 60 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP4 Nodule Translucent Grey bloodstone

Heated to 300° over 100 minutes. temp maintained 20 minutes. cooled overnight, partially immersed in sand bath. Exposed portion cracked.

EP5 Flake Dark Green bloodstone

Heated to 400° over 150 minutes, temp maintained 20 minutes, cooled overnight, partially immersed in sand bath. Exposed portion cracked, some small pieces detached.

EP6 Flake Light Green bloodstone

Heated to 300° over 100 minutes, temp maintained 150 minutes, rapid cooling, fully immersed in sand bath. No visible change.

EP7 Flake Light Green bloodstone

Placed in 10% HCl for 6 months. Colour gradually fading.

EP8 Flake Chalk flint

Heated to 300° over 200 minutes, temp maintained 60 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP9 Flake Dark Green bloodstone

Placed in 10% HCl for 6 months. Colour gradually fading.

EP10 Flake Chert

Placed in 10% HCl for 6 months. No visible change.

EP11 Flake Chert

Heated to 300° over 200 minutes, temp maintained 30 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP12 Chunk Chalk flint

Placed in 10% HCl for 6 months. Partial patination.

EP13 Flake Beach flint

Placed in 10% HCl for 6 months. Partial patination.

EP14 Flake Beach flint

Placed in 10% HCl for 6 months. Partial patination.

EP15 Flake Translucent Grey bloodstone

Placed in 10% HCl for 6 months. Colour gradually fading.

EP16 Flake Purple bloodstone

Placed in 10% HCl for 6 months. Colour gradual darkening.

EP17 Nodule Light Green bloodstone

Heated to 600° over 500 minutes, temp maintained for 200 minutes, cooled overnight, fully immersed in sand bath. Bleaching.

EP18 Nodule Dark Green bloodstone

Heated to 600° over 100 minutes, temp maintained 50 minutes, rapid cooling, partially immersed in sand bath. Nodule completely shattered.

EP19 Flake Translucent Grey bloodstone

Heated to 500° over 150 minutes, temp maintained for 100 minutes, fully immersed in sand bath, cooled overnight. Bleaching, some cracking.

EP20 Flake Light Green bloodstone

Shaken 120 minutes in topsoil with stones. No visible change.

EP21 Flake Dark Green bloodstone

Shaken 120 minutes in topsoil with stones. No visible change.

EP22 Flake Translucent Grey bloodstone

Shaken 120 minutes in topsoil with stones. No visible change.

EP23 Flake Chalk flint

Shaken 120 minutes in topsoil with stones. No visible change.

EP24 Chunk Chert

Shaken 120 minutes in topsoil with stones. No visible change.

EP25 Flake Beach flint

Shaken 120 minutes in topsoil with stones. No visible change.

EP26 Flake Light Green bloodstone

Placed in 10% NaOH over 6 months. No visible change.

EP27 Chunk Dark Green bloodstone

Placed in 10% NaOH over 6 months. No visible change.

EP28 Chunk Chert

Placed in 10% NaOH over 6 months. No visible change.

EP29 Chunk Purple bloodstone

Placed in 10% NaOH over 6 months. No visible change.

EP30 Flake Chalk flint

Placed in 10% NaOH over 6 months. No visible change.

EP31 Flake Beach flint

Placed in 10% NaOH over 6 months. No visible change.

EP32 Flake Translucent Grey bloodstone

Placed in 10% NaOH over 6 months. No visible change.

EP33 Flake Light Green bloodstone

Placed in 10% NaOH over 6 months. No visible change.

EP34 Chunk Light Green bloodstone

Placed in water, frozen, allowed to warm slowly. No visible change.

EP35 Flake Dark Green bloodstone

Placed in water, frozen, warmed quickly. No visible change.

EP36 Flake Light Green bloodstone

Placed in wet topsoil, frozen, warmed quickly. No visible change.

EP37 Flake Light Green bloodstone

Heated to 400° in 150 minutes, temp maintained for 100 minutes, cooled rapidly, partially immersed in sand bath. Partial shattering.

EP38 Chunk Dark Green bloodstone

Heated to 500° in 100 minutes, exposed. Exploded before cooling.

EP39 Chunk Chert

Heated to 600° in 400 minutes, temp maintained 200 minutes, cooled overnight, fully immersed in sand bath. No visible change.

EP40 Flake Dark Green bloodstone

Immersed in 20% HCl over 4 weeks. Colour turned brown.

EP41 Flake Light Green bloodstone

Immersed in 20% HCl over 4 weeks. Colour fading.

EP42 Flake Light Green bloodstone

Immersed in 5% HCl over 6 months. No visible change.

EP43 Flake Dark Green bloodstone

Immersed in 5% HCl over 6 months. No visible change.

EP44 Chunk Chert

Immersed in 5% HCl over 6 months. No visible change.

EP45 Flake Chalk flint

Immersed in 5% HCl over 6 months. Faint patina.

EP46 Flake Beach flint

Immersed in 5% HCl over 6 months. No visible change.

EP47 Flake Light Green bloodstone

Frozen exposed, warmed quickly. No visible change.

EP48 Flake Light Green bloodstone

Frozen exposed, warmed quickly. No visible change.

EP49 Flake Light Green bloodstone

Shaken in dry sand for 120 minutes. No visible change.

EP50 Flake Dark Green bloodstone

Shaken in dry sand for 120 minutes. No visible change.

EP51 Flake Chalk flint

Shaken in dry sand for 120 minutes. No visible change.

EP52 Flake Translucent Grey bloodstone

Shaken in dry sand for 120 minutes. No visible change.

EP53 Flake Chert

Shaken in dry sand for 120 minutes. No visible change.

EP54 Flake Light Green bloodstone

Shaken in dry sand for 120 minutes. No visible change.

EP55 Flake Light Green bloodstone

Shaken in damp sand for 120 minutes. No visible change.

EP56 Flake Dark Green bloodstone

Shaken in damp sand for 120 minutes. No visible change.

EP57 Flake Chalk flint

Shaken in damp sand for 120 minutes. No visible change.

EP58 Flake Translucent Grey bloodstone

Shaken in damp sand for 120 minutes. No visible change.

EP59 Flake Red bloodstone

Heated to 600° in 300 minutes, temp maintained for 100 minutes, partially immersed in sand bath, rapid cooling. Exploded, many pieces brown, surface texture ruined by crazing.

EP60 Flake Dark Green bloodstone

Heated to 600° in 200 minutes, temp maintained for 200 minutes, partially immersed in sand bath, rapid cooling. Exploded, pieces exposed of a darker colour.

EP61 Flake Light Green bloodstone

Heated to 600° in 200 minutes, temp maintained for 200 minutes, partially exposed in sand bath, slow cooling. Shattered, pieces exposed darker, surface texture damaged by crazing and fracturing.

EP62 Chunk Translucent Grey bloodstone

Heated to 600° in 200 minutes, temp maintained for 200 minutes, partially exposed in sandbath, slow cooling. Shattered, lighter in colour. Exposed surfaces white and exposed surface textures ruined by crazing and shattering.

EP63 Flake Chalk flint

Heated to 600° in 200 minutes, partially exposed in sand bath, slow cooling. Shattered, exposed surfaces paler, surface texture damaged by crazing and fracturing.

EP64 Nodule Light Green bloodstone

Heated to 500° in 150 minutes, exposed. Exploded on heating, tiny frags.

EP65 Flake Light Green bloodstone

Heated to 600° in 250 mniutes, fully immersed in sandbath, temp maintained for 100 minutes, cooled overnight. Some cracking along texture boundary.

EP66 Flake Translucent Grey bloodstone

Heated to 600° in 250 minutes, fully immersed in sandbath, temp maintained for 100 minutes, cooled overnight. Some cracking along texture boundary.

EP67 Flake Light Green bloodstone

Immersed in 10% HCl 2 weeks (no visible change), heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling. Shattered, cracking, loss of surface texture, some pieces darker, a few lighter. Shaken 120 minutes in topsoil.Abrasion of weakened surface.

EP68 Flake Dark Green bloodstone

Immersed in 10% HCl 2 weeks (no visible change), heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling. Partially shattered, some small fragments brown, some cracking. Shaken in topsoil 120 minutes, no visible change in colour.

EP69 Flake Translucent Grey bloodstone

Immersed in 10% HCl for 2 weeks (no visible change), heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (partially shattered, cracking, many fragments lighter in colour, serious damage to surface texture), shaken in topsoil 120 minutes (some abrasion).

EP70 Flake Chalk flint

Immersed in 10% HCl 2 weeks (no visible change), heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (exposed shattered, cracking, bleaching), shaken in topsoil 120 minutes (no visible change).

EP71 Flake Translucent Grey bloodstone

Heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (shattered, cracking, loss of surface texture paler, some pieces very pale with chalky insides), Immersed in 10% HCl 2 weeks (possibly slightly paler), shaken in topsoil 120 minutes (surface abrasion, some fragments broken).

EP72 Flake Light Green bloodstone

Heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (exposed surfaces shattered, some cracking, occasional damage to surface texture, no colour change), immersed in 10% HCl 4 weeks (no visible change), immersed in 20% HCl 2 weeks (slight patination), shaken in topsoil 120 minutes (no visible change).

EP73 Flake Dark Green bloodstone

Heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (exposed surfaces partially shattered, especially on texture boundaries, occasional cracking, darker), immersed in 10% HCl 4 weeks (no visible change), immersed in 20% HCl 2 weeks (no visible change), warmed in 20% HCl (slight discolouration), shaken in topsoil 120 minutes (no visible change).

EP74 Flake Light Green bloodstone

Heated to 600° over 300 minutes, temp maintained 100 minutes, partially exposed, slow cooling (exposed surfaces shattered, some cracking, exposed surfaces darker, some erosion of surface texture), and some rapid cooling (much cracking), immersed in 10% HCl 4 weeks (faint discolouration), shaken in topsoil 120 minutes (no visible change), frozen in mud (further cracking).

EP75 Flake Purple bloodstone

Heated to 600° over 300 minutes, temp maintained for 100 minutes, slow cooling, partially exposed (exposed surfaces shattered, covered surfaces cracked along flaws and texture changes, browning, some cracking), immersed in 10% HCl 4 weeks (no visible change), immersed in 20% HCl 2 weeks (no visible change), heated in 20% HCl (browner), shaken in topsoil 120 minutes (some abrasion of damaged surfaces), frozen in mud (no visible change).

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1) Colour		
	a) Coverage	uniform/mottled/banded/varied
	b) Actual Colour	white/off white/grey-white/light grey/med grey dark grey/yellow/yellow-white/translucent brown translucent grey/translucent yellow/pink purple/red/pale green/dark green
2) Surface Alteration		
	a) Condition	fresh/weathered/burnt
	b) Edge	sharp/rounded/crushed
	c) Surface	smooth/matt smooth/part abraded/abraded/chalky crazed/cracked/hairline cracks/heat spalls
3) Cavities		
	a) Micropitting	present/absent
	b) Larger Cavities	present/absent Shape circular/elliptical irregular Diameter (mm) Fill empty/colour Core & Rim present/absent Frequency: rare common frequent
4) Fossils	Presence	present/absent
5) Crystals		
	a) Presence	present/absent
	b) Extent	
	c) Size	(mm)
6) Cortex	Presence	present/absent
7) "Fresh Centre" [without breaking]		
	a) Not Visible	
	b) Visible	present/absent
	c) Colour	
8) Dimensions		Length, Width, Thickness (mm)
9) Hardness		hard/medium/soft/very soft

Table 41 Lithic raw materials: attributes used to differentiate between materials

MATERIAL	Significance	Features
Bloodstone	Obvious	colour/texture/presence of vesicules/agate banding
	Probably	less clear traces of colour/texture/presence of vesicules/agate banding
	Possibly	even less clear traces of above, spherulites, for example are only visible with a magnifying glass, texture unclear due to weathering of surface
Ambiguous		pieces without any clear discriminating features
Flint	Possibly	smooth textured grey/white mottled pieces
	Probably	as above, but with other features, such as pitted rough cortex, frequently with grey unpatinated area next to cortex
	Obvious	as with the 'probable' significance, but with presence of fossils
Lava ?		used to describe the very soft grey material, with a hard black centre where visible, not actually a lava, probably a siliceous rock, but the term was retained to distinguish this material

CONDITION	Features
Fresh	fresh or nearly fresh surface
Particelly Weathered	partially or lightly patinated
Weathered	completely or heavily patinated, partially abraded
Abraded	surface completely eroded/chalky, edges rounded or crushed, loss of weight
Burnt	hairline crazing, heat spalls

Table 42 Lithic raw materials : classification

1 : 011

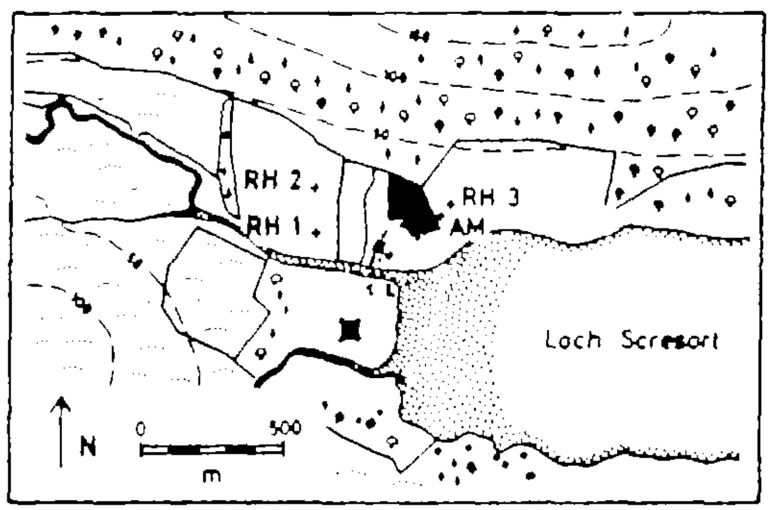
would have been maintained by periodic burning - if this had occured only on the uplands it may expain why no charcoal was found in the core.

Zone 4b 0.35-0m Gramineae-Potentilla-Plantaginaceae PAZ

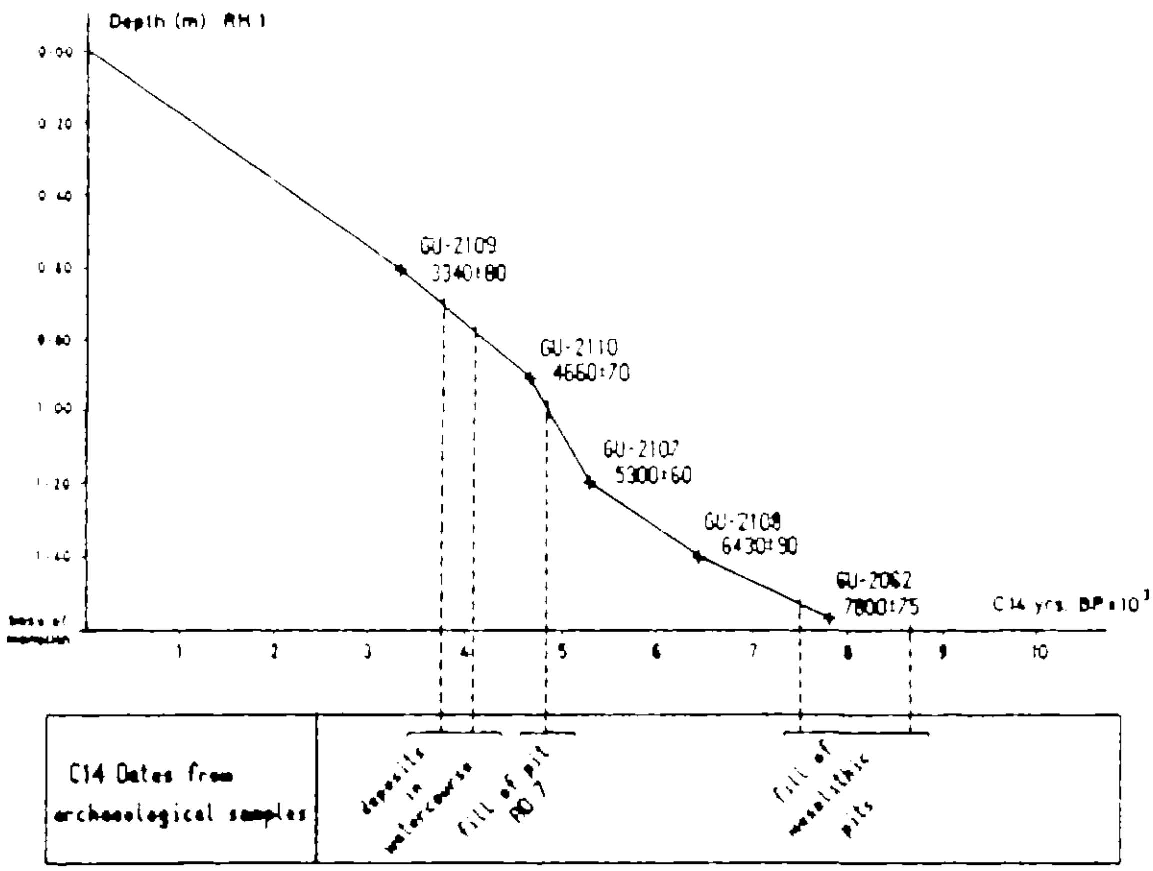
The beginning of this zone is marked by a sudden rise in the importance of Potentillau, Plantago spp, Rumex and Artemisia; the last three of which are weeds of arable cultivation. There are several species of Plantago on Rhum today but the pollen in this core is presumed to be predominantly P.lanceolata and P.maritima.

Quercus and Pinus both decline towards the surface, and Betula resumes dominance. Alnus persists at a low fluctuating level. Acer reappears at the surface. No other tree taxa were identified. Juniperus and Ulex occur near to the surface, and Corylus persists intermittently. Herbaceous taxa consist of a sustained high level of Ericaceae, lower levels of Gramineae and a slight rise in Compositae. Many taxa make their first appearances in the pollen record: Anthemis, Aster, Arctium, Drosera, Cirsium and Rubiac ie. Many of these may derive from species of agricultural weeds.

Sphagnum and Polypodium are the only spores identified in the surface sample, although higher frequencies of the latter were expected. However, the grazing pressures reduced due to the



ILL 104 : Location of environmental sampling sites



ILL 107 : RH1. Time depth curve for the growth of peat. Constructed by interpolation between the means of the radiocarbon age determinations assuming a date of zero years BP. for the surface

Sample	Mn		Zn		Ca		Mg	
P1	500		120		6000		7200	
P2	310		60		5000		6800	
P3	700		70		13000		20000	
P4	240		80		8000		8600	
P5	410		80		11000		7800	
P6	320		90		10000		13000	
P7	180		50		4000		5800	
P8	260		70		5000		8200	
P9	330		100		8000		11000	
P10	350	330	40	40	5000	5000	4200	4350
	310		40		5000		4500	
P11	230		80		8000		7800	
P12	150		40		3000		4200	
P13	250		60		8000		8300	
P14	480	505	50	55	10000	10000	8600	9300
	530		60		10000		10000	
P15	270		50		6000		6800	
P16	330		50		8000		11000	
P17	290		110		7000		10000	
P18	180	240	50	55	7000	7000	6500	6750
	300		60		7000		7000	
P19	210		110		6000		7900	
P20	700		100		9000		12000	
P21	360		60		7000		7300	
P22	250		80		7000		7000	
P23	210		180		7000		5900	
P24	410		60		9000		8600	
P25	250		40		8000		8400	
P26	270		70		6000		6200	
P27	200	200	60	65	7000	7500	7500	7700
	200		70		8000		7900	
P28	180		70		6000		6900	
P29	270		50		8000		7100	
P30	210		70		8000		7300	
P31	360		80		7000		9000	
P32	200		60		8000		8500	
P33	290		90		7000		7800	
P34	360		60		8000		10000	
P35	290		70		9000		12000	
P36	230		80		8000		8100	

Table 52 Chemical analysis across the excavation site : trace element analysis, results (ppm)