

## THE LAYER LIST

Doubtful features are preceded on the layer list by a question mark and marked on plan with a dashed line. Where a feature definitely exists but its identification as a particular category is doubtful a question mark is put after the feature. Features are only shown on plans of those phases to which they belong or probably belong. The finds are ordered in the sequence of the finds report.

### List of Abbreviations in Layer List

AF	Architectural fragment	MF	Mortar flecks or fragments
CF	Charcoal flecks	NOP	Not on plan
CP	Clay pipe	Nu	Coin or token
Cr	Crucible	Pb	Lead
Cu	Copper alloy	PH	Posthole
Fe	Iron	Q	Quern
FL	Furnace lining >100g	RT	Stone roof tile
fl	Furnace lining <100g	SD	Surviving depth
FS	Forging slag >100g	SFB	Sunken-featured building
fs	Forging slag <100g	SH	Stakehole
GL	Glass	SW	Spindlewhorl
H	Hone	T	Textile
HAR	Radiocarbon measurement	TS	Tap slag >100g
IF	Ironstone fragment	ts	Tap slag <100g
LF	Limestone fragment	WB	Worked bone
(M)	Munsell colour	WS	Other worked stone

## TRENCH V

LAYER	PHASE	DESCRIPTION
1	4Bii	= (2, 4, 5, 9, 12-20, 22, 25-6, 29, 44, 47, 53; W1, 2, 6, 8, 9, 20, 47, 72-3, 77, 81-3; X3-9; Z3-4, 9, 11, 14). Layer(s); brown (M) sandy loam, MF, CF, IF, mixed pit fills, 'garden soil', and demolition rubble; material spaded off in initial clearance. NOP. Finds: Cu6, 10, 90; Fe33, 40, 113, 114, 115, 127; fl; FS; ts; WS5; GL; CP; WS44. = 1
(2)		
3	4Bii	Pipe trench, SD 0.43m; modern drain pipe and construction trench. NOP.
(4)		= 1
(5)		= 1
(6)		= 1
7	3/4Ai	= (8, 10, 39, 41, 48, 61). Layer; strong brown (M) sand, CF, many MF. NOP.
(8)		= 7
(9)		= 1
(10)		= 7
11	2//4Ai	Layer; reddish yellow (M) sand, CF, MF. NOP.
(12)		= 1
(13)		= 1
(14)		= 1
(15)		= 1
(16)		= 1
(17)		= 1
(18)		= 1
(19)		= 1
(20)		= 1
21	4Ai	= (66-7, 74). Pit, SD 0.67m; .1 yellowish brown (M) clay loam, MF, CF, IF; .2 (66) IF, LF set in very pale brown (M) lime ? mortar slurry; .3 (74) reddish yellow (M) sandy loam, MF. .2 and .3 probably redeposited material from 68. Finds: Fe102. = 1
(22)		= 1
23	4Ai	= (32). Layer; olive brown (M) sandy clay loam, CF, IF, MF. Subsidence into pit 24 but may be redeposited from earlier context. NOP.
24	4Ai	= (46, 49, 50). Pit, SD 0.70m; yellowish brown (M) clay loam, MF, CF, IF. Finds: fl; fs. = 1
(25)		= 1
(26)		= 1
27	3/4Ai	= (33, 42-3, 55-6, 68, 78). Pit; .1 (33) ash; .2 (42) dark greyish brown (M) clay loam, MF, CF, IF; .3 (43, 55) dark greyish

		<p>brown clay loam and light yellowish brown (M) sandy loam, lumps of mortar; .4 (55, 65) strong brown (M) sandy loam, MF; .5 (78) mixed strong brown sandy loam and yellowish brown loam, MF.</p> <p>Finds: Fe41, 89, 90.</p>
28	4A	Wall, ironstone blocks. NOP.
(29)		= 1
30	4Ai	= (31, 52). Pit, SD 0.44m, not bottomed; .1 (30-1) brown (M) clay loam, CF, IF; .2 (52) dark brown (M) sandy loam, CF, IF, patches of pink sand and mortar.
(31)		= 30
(32)		= 23
(33)		= 27
34	4Ai	Pit, SD 0.52m; brown clay loam, IF, CF.
35	4Ai/1i	= (36). Layer, mixed brown (M) clay loam, strong brown (M) sand, IF, CF, MF; subsidence or collapse into pit 34. NOP.
(36)		= 35
37	3/4Ai	Pit, SD 0.23m; brown (M) clay loam, MF, CF, IF.
38	4Ai	= (51, 57, AA210). Pit, SD 0.40m; .1 (38) dark grayish brown (M) clay loam, MF, CF, IF, probably redeposited material; .2 (57) yellowish brown (M) sandy loam, MF, flecks of strong brown sand.
(39)		= 7
40	3	= (62). Layer; dark grayish brown (M) clay loam, CF, MF. NOP.
(41)		= 7
(42)		= 27
(43)		= 27
(44)		= 1
45	4Ai	Pit, SD 0.50m; dark yellowish brown (M) clay loam, CF, IF.
(46)		= 24
(47)		= 1
(48)		= 7
(49)		= 24
(50)		= 24
(51)		= 38
(52)		= 30
(53)		= 1
54	4Ai	Pit, SD 0.40m; brown (M) sandy loam, IF, clay flecks.
(55)		= 27
(56)		= 27
(57)		= 38
58	4A	Pit, SD 0.53m; yellowish brown (M) sandy loam, MF, CF, IF.
59	3/4Ai	Pit, SD 0.77m; ironstone rubble and brown clay loam, CF.
60	3//4Ai1	PH, SD 0.20m; brown (M) sandy loam, MF, CF.
(61)		= 7

(62)		= 40
63	3/4A1	Layer: IF, LF, MF, set in brown (M) sandy loam. Material derived from 68 disturbed by pits 54 and 59. NOP.
64	3	Layer: loose rubble, IF, LF, set in brown (M) sandy loam. NOP.
(65)		= 27
(66)		= 21
(67)		= 21
68	2	= (69-73, 81; W119, 142; see also V81). Foundation trench, SD 0.60m; .1 irregularly laid ironstone blocks, occasional brick fragments, in places lime/mortar around blocks, elsewhere no matrix; .2 strong brown (M) sand, flecks of pinkish grey clay and ash, small IF, natural flint, pebbles.
(69)		= 68
(70)		= 68
(71)		= 68
(72)		= 68
(73)		= 68
(74)		= 21
75	2//4A1	Layer: mortar/plaster fragments in matrix of yellowish brown (M) sandy clay loam. NOP.
76	1	Foundation trench, SD 0.55m; strong brown (M) sandy loam, IF.
77	1	Foundation trench, SD 0.45m; strong brown (M) sandy loam; IF in N half represents packing?
(78)		= 27
79	prob 2	PH, SD 0.20m; plaster chunks, little matrix.
80	prob 2	PH, SD 0.25m; plaster chunks, little matrix.
81	2	= (82, 84; see also V68). Foundation trench; .1 (81) strong brown (M) sand, clay flecks, MF; .2 (84) small IF, LF; .3 (82) strong brown (M) sand, IF.
(82)		= 81
83	1	?PH, SD 0.15m; strong brown (M) sandy loam. IF.
(84)		= 81
85	4A	Foundation trench: IF, LF set in dark yellowish brown (M) loam, MF, CF, IF. NOP.
86	1	PH, SD 0.12m; strong brown (M) sandy loam, IF, CF.
87	1	= (W44, 126, 137, 154-5, 166, 168, 182, 190, 195, 203-4, 231-2, 236; X27, 30-1; Y70, 176, 180, 185-6, 189, 199, 211, 242, 254). Layer: strong brown sandy loam, clayey in places, sandier towards bottom. NOP. Finds: fs; ts; WS1; BL; WB85.

## TRENCH W

LAYER	PHASE	DESCRIPTION
+		Finds: Null; Cu17, 48, 55, 65, 66; AF12-14; RT13, 14; CP.
(1)		= V1
(2)		= V1
3	4Bii	= (7, 237). Cellar, SD 1.50m; ironstone walls. Fill (237) - layers of rubble and clay loam - removed mechanically. NDP. Finds: RT12.
4	4	Wall, ironstone.
5	4Ai	= (16-7). Pit, SD 0.75m; .1 dark brown (M) sandy loam, CF; .2 dark brown (M) sandy loam, CF; .3 dark brown (M) sandy loam, CF, IF; .4 dark greyish brown (M) sandy clay, CF; .5 dark brown (M) sandy loam, CF, IF; .6 yellowish brown (M) sandy loam, MF. Finds: Cu2; Fe45, 73; fs; ts.
(6)		= V1
(7)		= 3
(8)		= V1
(9)		= V1
10	4	=(19,22). Pit/well, SD 0.45m, not bottomed; .1 (19) construction trench and (22) ironstone lining - Phase 4Ai; .2 (10) olive brown (M) clay loam, final infill - Phase 4Bii. Finds: Nu12; fl; fs; GL.
11	4Ai	Pit, SD 0.70m; .1 olive brown (M) sandy loam, IF; .3 brown sand; .4 greyish brown clay loam, MF. Finds: RT2.
12	3	= (40). Pit, SD 0.50m; .1 (12) dark greyish brown (M) sandy clay loam, CF, burnt soil; .2 (40.1) burnt clay; .3 (40.2) black and brown loam; .4 (40.3) burnt clay overlaid by charcoal; .5 (40.4) yellow orange sand; .6 (40.5), burnt loam; .7 (40.6) pale yellow clay, LF. Connected with metalworking? Finds: Pb5; FS; ts; WBB6.
13	3	Pit, SD 0.30m; olive brown (M) loam, MF, IF, CF, lenses of strong brown (M) sand. Finds include material from pit 35. Finds: Fe79; ts; WBB9.
14	3	= (21, 37, 86, 93, X11). Robber trench, SD 0.44m; .1 (14) dark yellowish brown (M) sandy loam, MF; .2 (86.1-.2, .4-.5) yellowish brown (M) sandy loam, many MF, some small IF, natural flint frags; .3 (86.3) strong brown (M) loamy sand, a few MF and small IF, occasional larger IF, LF at bottom and sides. Possibly this layer is

		actually the remains of the bottom of the foundation trench (V68.2) rather than the robber trench.
		Find: Fe80, 129; FB; WBB0, 81.
15	4	PH, SD 0.20m; light olive brown (M) sandy clay.
		Find: Cu67.
(16)		= 5
(17)		= 5
18	4A1	= (25). Pit, SD 0.45m; .1 strong brown (M) silty clay, IF, CF; .2 dark brown (M) silty clay, IF, CF; .3 yellowish brown (M) silty clay, IF; .4 dark brown silty clay; .5 dark brown silty clay, CF, IF.
		Find: WB43.
(19)		= 10
(20)		= V1
(21)		= 14
(22)		= 10
23	4A1	Layer: brown (M) loamy sand, IF, CF, clay flecks, compressed. NOP.
24	3	= (31). Pit, SD 0.20m; olive brown silty clay loam, CF. Relationship with 33 uncertain.
		Find: fs.
(25)		= 18
26	4A	= (27, 38, 62, 68; Y34, 40-2, 164). Pit, SD 0.75m, not bottomed, with ironstone lining; .1 dark brown (M) sandy loam, IF, CF; .2 dark yellowish brown (M) sandy loam, IF, CF; construction trench (62, 68; Y40, 42) orange brown clay loam, IF, strong brown (M) sandy loam, IF.
		Find: fl; fs; H4.
(27)		= 26
28	3	Pit, SD 0.70m; dark yellowish brown (M) clay loam, CF, IF.
		Find: fs.
29	3	Pit, SD 0.60m; dark yellowish brown (M) clay loam, CF, IF.
		Find: Fe70; fs.
30	3	Pit, SD 0.80m; dark brown (M) clay loam, CF, IF, patches of blue clay.
(31)		= 24
32	2	= (80). Layer: yellowish brown (M) sand, MF. NOP.
		Find: GL.
33	prob 3	PH, SD 0.33m; dark brown (M) clay loam, CF, IF. Relationship with 24 uncertain.
34	prob 3	PH, SD 0.12m; dark yellowish brown (M) loam, IF, CF.
35	3	Pit, SD 0.50m; olive brown (M) loam, MF, IF, CF, lenses of strong brown (M) sand.
		Fill removed as part of pit 13.
36	3	Pit, SD 0.60m; .1 dark brown (M) loam, CF, IF, LF; .2 very dark greyish brown (M)

		loam.
(37)		= 14
(38)		= 26
39	4Ai	= (186). Pit, SD 0.25m; yellowish brown (M) clay loam, 1F, CF, MF.
(40)		= 12
41	3	= (96). Pit, SD 0.50m; dark brown (M) loam, 1F, MF, CF.
		Finds: fs.
42	3	Pit: brown sandy loam.
		Finds: fs.
43	3	Pit, SD 0.50m; dark brown (M) clay loam, CF, MF, 1F.
		Finds: fs.
(44)		= VB7
45	1	PH, SD 0.25m; yellowish brown (M) sand.
46	3//4Aii	Pit, SD 0.20m; dark yellowish brown (M) loamy sand.
(47)		= V1
48	4Aii/4Bi	= (58, 63). Pit/well, SD 0.63m; not bottomed; .1 (48.1, 63) construction trench, orange brown clay loam, 1F, LF; (58) ironstone and limestone lining - Phase 4Aii; .2 (48.2) final infill of dark grayish brown (M) loam, 1F - Phase 4Aii/4Bi.
		Finds: Pb6.
49	prob 3	PH, SD 0.15m; brown (M) clay loam, CF, 1F, MF.
	poss 4	
50	2	= (95, 162). Mortar mixer. Central PH (95), SD 0.50m; brown (M) clay loam, CF, 1F, MF. Paddle marks - .2 (= .5), .3 (= .4), .8 yellow (M) mortar, few inclusions. Mix residues - .12 disturbed MF in brown (M) clay loam (? disturbed version of .9); .9 white (M) mortar, small 1F inclusions; .6 yellow (M) mortar, small 1F, LF inclusions; .7 as .6, fewer inclusions. Base of retaining material (162) - yellowish brown (M) sand, patches of dark yellowish brown (M) clay loam and light brownish gray (M) clay, MF, CF, 1F. Spillage material .1 (= .10-.11) yellow (M) mortar, few inclusions.
51	prob 3	PH, SD 0.07m; dark grayish brown (M) clay loam, CF, 1F, MF.
	poss 4	
52	4A	= (53, 57, 59, 67, 69). Pit(s): dark grayish brown clay loam, group of pits removed without detailed examination.
		Finds: Cu96; Pb9; fs; ts; H5.
(53)		= 52
54	4Ai	Pit, SD 0.35m; dark yellowish brown (M) clay loam, CF, MF, 1F, patches of blue clay.
55	4Ai	= (N101). Pit, SD 0.80m; dark brown (M) loam, 1F, CF, MF.
		Finds: ts.

56	3	Pit/PH, SD 0.60m; dark brown (M) clay loam; difficult to distinguish from pits 29, 30. = 52
(57)		= 48
(58)		= 52
(59)		= 52
60	4A	Pit, SD 0.26m; greyish brown clay loam, MF, brick.
61	1A1	Layer; greyish brown clay loam. NOP.
(62)		= 26
(63)		= 48
64	3	Foundation trench, SD 0.13m; brown (M) sandy loam, patches of yellowish brown (M) sand, CF, IF, flint fragments. = (66). PH, SD 0.17m; dark yellowish brown (M) loam, CF, MF, IF.
65	prob 3 poss 4	= 65
(66)		= 52
(67)		= 26
(68)		= 52
(69)		= (74). Layer; dark brown (M) clay loam, MF, LF. NOP.
70	3	= (141). PH, SD 0.10m; dark yellowish brown (M) sandy loam, MF, IF. = V1
71	prob 3 poss 4	= V1
(72)		= 70
(73)		PH/SH SD 0.25m; .1 dark brown (M) sandy loam, CF; .2 yellowish brown (M) sandy loam, CF.
(74)		SH, SD 0.20m; black (M) silt loam. = V1
75	3	Layer; mixed mainly brownish yellow (M) mortar, patches of dark greyish brown (M) clay loam and yellowish brown (M) sand, CF, IF, LF. NOP.
76	3	SH, SD 0.15m; dark brown (M) sandy loam, CF. = 32
(77)		= V1
78	3//4A11	= V1
79	3	= V1
(80)		= V1
(81)		= V1
(82)		= V1
(83)		= V1
84	2//4B11	?= N14. Layer; MF in greenish orange loam. NOP.
85	3/4A1	Pit, SD 0.10m; yellowish brown (M) sandy loam, IF, MF. = 14
(86)		Layer; IF in dark yellowish brown (M) sandy loam. NOP.
87.1	3//4A11	Layer; mixed brown (M) clay loam and yellowish brown (M) sand, CF, MF. NOP.
87.2	3//4A11	= (192). PH, SD 0.60m; yellowish brown (M) sandy clay loam, MF, IF; packing (192) of dark yellowish brown (M) loamy sand, IF, LF.
88	1/2	Layer; dark brown (M) loamy sand, CF, MF. NOP.
89	prob 2	



90	1/2	Finda: ts. = (151; N142). PH, SD 0.70m; yellowish brown (M) sandy clay loam, MF, CF; packing (151) of yellowish brown (M) loamy sand, IF, LF.
91	prob 3 poss 4	PH, SD 0.07m; dark yellowish brown (M) clayey sand, CF, MF, IF.
92	prob 3 poss 4	= (130). Trench? SD 0.15m; brown (M) sandy loam, IF.
(93)		= 14
94	prob 3 poss 4	PH, SD 0.14m; brown (M) sandy loam, IF.
(95)		= 50
(96)		= 41
97	prob 3 poss 4	Pit/PH, SD 0.15m; mixed brown (M) clay loam, sand, MF, CF.
98	2	= (N133). Layer; yellowish brown (M) clayey sand, MF, IF. NDP.
99	3	SH, SD 0.25m; dark yellowish brown (M) sandy loam, CF.
100	3	SH, SD 0.28m; dark yellowish brown (M) sandy loam, CF.
101	3	SH, SD 0.15m; dark yellowish brown (M) sandy loam, CF.
102	3	SH, SD 0.13m; dark yellowish brown (M) sandy loam, CF.
103	3	SH, SD 0.15m; dark yellowish brown (M) sandy loam, CF.
104	prob 3 poss 4	PH, SD 0.20m; dark yellowish brown (M) sandy loam, CF, MF, IF.
105	3	SH, SD 0.15m; dark yellowish brown (M) sandy loam, CF, IF.
106	3	SH, SD 0.11m; dark yellowish brown (M) sandy loam, CF.
107	3	PH/SH(s), SD 0.15m; dark yellowish brown (M) sandy loam, CF, MF.
108	3	SH, SD 0.09m; dark brown (M) sandy loam with patches of yellowish brown (M) sandy loam, CF.
109	4A	= (110). Rubble; limestone blocks (109) set in brown (M) sandy loam, mortar/plaster frags.
(110)		= 109
111	4A1	Layer; strong brown (M) sand, MF, NDP.
112	2	= (143). Layer; gravel set in strong brown (M) sand.
(113)		= +
114	3	PH, SD 0.20m; yellowish brown (M) sandy loam, CF, MF, IF.
(115)		= +
116	3	SH, SD 0.15m; dark yellowish brown (M) sandy loam, CF, IF.
117	3	Layer; yellowish brown (M) sandy loam, patches of brown (M) clay loam, CF, MF, IF. NDP.
(118)		= +

(119)		= V68
120	3	Layer; dark brown (M) loam, CF, MF, NDP.
121	3/4	Layer; mortar. NDP.
122	3/4	?PH, SD 0.05m; ash, CF, burnt IF, burnt clay flecks.
123	3/4	= (146). PH, SD 0.28m; strong brown (M) sand, IF, MF. Animal disturbance to upper level.
124	3	Layer; dark brown (M) clay loam, CF, MF, compressed. NDP.
125	3/4	Layer; dark brown (M) sandy loam with yellowish brown (M) sandy loam, MF, IF, CF. NDP.
(126)		= V87
127	2	= (128). Layer; strong brown (M) sand, IF. NDP.
(128)		= 127
129	2	= (133). Mortar mixer. Central PH (133), SD 0.60m; dark yellowish brown (M) loamy sand, IF. Base layer and backfill of PH - .7 yellowish brown (M) sandy clay, IF, LF. Mix residues - .2 brownish yellow (M) sandy mortar, pebbles; .3 light yellowish brown (M) sandy mortar; .1 very pale brown (M) sandy mortar, IF. Unmixed constituents - .5 yellow (M) sand with red (M) and reddish yellow (M) mottling; .6 brownish yellow (M) sand; .4 white (M) sandy ?lime with patch of pale yellow (M) sandy ?lime. Construction material - .8 mixed yellow (M) sand and yellowish brown (M) loamy sand, wattlework impressions. Paddle marks - Phase 1: .17, .18; Phase 2: .9 (= .12), .10 (= .14), possible paddle marks: .11, .13, .15, .16 (? = .19), .19 (? = .16), .20.
(130)		= 92
131	prob 3 poss 4	PH, SD 0.30m; dark yellowish brown (M) clay loam, CF, MF, IF.
132	1	PH, SD 0.25m; strong brown (M) loamy sand, LF, IF.
(133)		= 129
134	2/3	Layer; yellowish brown (M) sand, IF, MF, CF. NDP.
135	2/3	Layer; yellowish brown (M) sand, IF, MF, CF. NDP.
136	prob 3	?PH, SD 0.40m; yellowish brown (M) loamy sand, CF, MF, IF.
(137)		= V87
138	2/3	= (139). Layer; yellow (M) mortar, burnt LF. NDP.
(139)		= 138
140	2	Layer; strong brown (M) loamy sand, LF, plaster chunks. NDP.
(141)		= 71
(142)		= V68
(143)		= 112

144	1	PH, SD 0.13m; dark yellowish brown (M) loamy sand, CF, MF. Post-pipe for 210 showing through at a higher level?
145	prob 3	PH, SD 0.12m; brownish yellow (M) sandy loam, MF, IF.
(146)		= 123
147	1/2	= (179). Layer; strong brown (M) loamy sand, MF. NOP.
148	3/4	Layer; yellowish brown loamy sand, IF. NOP.
(149)		= +
(150)		= +
(151)		= 90
152	prob 3 poss 2	?PH, SD 0.03m; .1 strong brown (M) sand; .2 very pale brown (M) mortar.
153	prob 3 poss 4	?PH, SD 0.08m; brownish yellow (M) sand, MF, IF, LF.
(154)		= V87
(155)		= V87
156	1	= (157; N170). Foundation trench, SD 0.40m; yellowish brown (M) sandy loam, IF.
(157)		= 156
158	1	Pit/PH, SD 0.52m; strong brown (M) clayey sand, IF.
159	1/2	= (202). PH, SD 0.70m; yellowish brown (M) loamy sand, MF, IF, CF, LF; packing (202) strong brown (M) sandy clay IF, MF, CF. Finds: Cu64.
160	prob 3 poss 1/2	PH, SD 0.06m; dark yellowish brown (M) loamy sand, MF, CF.
161	1/2	= (200). PH, SD 0.60m; yellowish brown (M) clay loam, MF, CF, IF; packing (200) IF set in dark yellowish brown loamy sand.
(162)		= 50
163	1/2	= (164-5). Layer; strong brown (M) sandy loam, CF, MF, IF. NOP.
(164)		= 163
(165)		= 163
(166)		= V87
167	1	?PH, SD 0.25m; dark yellowish brown (M) loamy sand, IF.
(168)		= V87
169	1	= (Y198; N199; ?= Y234). Foundation trench, SD 0.75m; .1 strong brown (M) clay loam, sandy mottling, MF, CF, IF; .2 as .1; .3 brown (M) clay loam, MF, CF, IF; .4 yellowish brown (M) sandy loam, small IF; .5 reddish yellow (M) sandy loam, small IF. Finds: Cu60.
(170)		= +
171	1	?PH, SD 0.20m; yellowish brown (M) clay loam, IF, CF, MF, natural flint.
172	1	PH, SD 0.25m; yellowish brown (M) sandy loam, MF, CF, IF, patches of brown clay loam.
173	1	PH, SD 0.40m; yellowish brown sandy loam, CF, MF.

174	prob 1 poss 2	PH; yellowish brown (M) sandy loam, MF, CF, IF.
175	prob 1 poss 2	PH, SD 0.80m; yellowish brown (M) sandy loam, IF.
176	1	?PH, SD 0.25m; strong brown (M) sandy clay, IF.
177	1	?Pit, SD 0.25m; yellowish brown (h) clay loam, IF.
178	1	?Trench, SD 0.20m; yellowish brown (M) loamy sand, IF.
(179)		= 147
180	1	?PH, SD 0.20m; yellowish brown (M) loamy sand, IF.
181	prob 1	= (183). ?Pit/hollow, SD 0.35m; strong brown (M) loamy sand, CF, IF.
(182)		= VB7
(183)		= 181
184	1	?PH, yellowish brown (M) loamy sand, IF.
185	1	?Pit/trench, SD 0.16m; strong brown (M) loamy sand, a few MF.
(186)		= 37
187	1/2	= (194, 205). Layer; strong brown (M) loamy sand, MF. NOP.
188	1	PH, SD 0.27m; yellowish brown (M) loamy sand, IF.
189	1//4	Layer; ironstone rubble. NOP.
(190)		= VB7
191	prob 1 poss 2	?PH, SD 0.10m; strong brown (M) sand, small IF.
(192)		= 88
193	1	?PH, SD 0.07m; yellowish brown (M) sandy loam, IF, CF, MF.
(194)		= 187
(195)		= VB7
196	1	PH, SD 0.32m: .1 strong brown (M) loamy sand, a few MF; .2 strong brown (M) sand, IF.
197	1	?PH/Pit, SD 0.40m; .1 strong brown (M) loamy sand, IF; .2 as .1 but many IF.
198	1	?PH, SD 0.10m; strong brown (M) loamy sand.
199	1	?PH, SD 0.15m; strong brown (M) loamy sand, IF.
(200)		= 161
201	prob 1	?PH, SD 0.05m; strong brown (M) loamy sand.
(202)		= 159
(203)		= VB7
(204)		= VB7
(205)		= 187
206	prob 1 poss 2	?PH, SD 0.36m; strong brown (M) sandy clay, IF.
207	1	?PH, SD 0.10m; brown (M) loamy sand, IF.
208	1	PH, SD 0.15m; strong brown (M) sandy clay, IF.
209	1	PH, SD 0.20m; strong brown (M) loamy sand, IF.

210	1	PH, SD 0.15m; brown (M) loamy sand, IF. 144 may be post-pipe of 210.
211	1	?PH, SD 0.15m; .1 dark yellowish brown (M) loamy sand, IF; .2 strong brown (M) loamy sand, IF.
212	1	?PH, SD 0.15m; strong brown (M) loamy sand, IF.
213	1	?PH; dark yellowish brown (M) loamy sand, MF, CF, IF.
214	1	PH, SD 0.15m; strong brown (M) loamy sand.
(215)		= +
216	1	?PH, SD 0.17m; strong brown (M) sandy clay, CF, MF.
217	1	= (226). ?Trench/gully, SD 0.25m; strong brown (M) sand, IF.
218	1	PH, SD 0.35m; yellowish brown (M) clay loam, IF, LF, CF, MF.
(219)		= 44
220	1	?Trench/gully, SD 0.16m; strong brown (M) sand, IF. Probably animal disturbance.
221	3	PH; brown (M) loam, CF, MF.
222	1	= (223). PH, SD 0.25m; strong brown (M) loamy sand, IF, MF; packing (223) as above with more IF.
(223)		= 222
(224)		= +
225	prob 1 poss 2	?PH/trench, SD 0.25m; strong brown (M) loamy sand, IF.
(226)		= 217
(227)		= +
228	1	?Gully, SD 0.20m; strong brown (M) sand.
229	1	PH, SD 0.07m; strong brown (M) loamy sand, IF.
230	1	?Gully, SD 0.05m; yellowish brown (M) loamy sand.
(231)		= V87
(232)		= V87
233	1	?Gully, SD 0.10m; strong brown (M) sand.
234	1	?PH, SD 0.10m; strong brown (M) loamy sand, IF.
235	1	?PH, SD 0.25m; strong brown (M) loamy sand, IF.
(236)		= V87
(237)		= 3
(238)		= +
239	prob 1 poss 2	?PH, SD 0.07m; strong brown (M) sandy loam, MF, CF, IF.

## TRENCH X

LAYER	PHASE	DESCRIPTION
+		Finds: AF15.
1	4Ai	Layer; dark grey loam, subsidence into pit 2. NOP.
2	4Ai	Pit, not bottomed; yellowish brown clay loam, IF, CF.
(3)		= V1
(4)		= V1
(5)		= V1
(6)		= V1
(7)		= V1
(8)		= V1
(9)		= V1
10	prob 3	= (AA149). Pit, SD 0.70m, not bottomed; brown loam, lenses of charcoal and burnt sand, patches of light grey clay, IF.
(11)		= W14
12	prob 1 poss 2/3	?Trench, SD 0.35m; yellowish brown (M) sand, MF, some pebbles. Animal disturbance?
13	3/4	Layer/disturbance; .1 strong brown (M) sandy clay; .2 brown (M) clay loam, IF, CF. NOP.
14	prob 3 poss 2	?Trench, SD 0.15m; strong brown (M) sand, IF, MF.
15	4Ai	Pit, SD 0.40m; brown (M) clay loam, IF, CF.
16	3	Layer; yellowish brown (M) clay loam, CF, MF, IF, LF. NOP.
17	prob 3 poss 2	?Pit/PH, SD 0.10m; yellowish brown (M) clay loam, sand patches, burnt IF, MF, CF.
18	prob 1 poss 2/3	PH, SD 0.20m; strong brown (M) sandy loam.
19	prob 1 poss 2/3	PH, SD 0.15m; strong brown (M) sandy loam.
20	prob 1 poss 2/3	PH, SD 0.15m; yellowish brown (M) sandy loam, IF.
21	prob 3 poss 2	Pit/PH, SD 0.15m; yellowish brown (M) clay loam, sand patches, burnt IF, IF, MF, CF.
22	prob 1 poss 2/3	?PH, SD 0.10m; strong brown (M) sand, IF, MF, CF.
23	prob 1 poss 2/3	?PH, SD 0.05m; strong brown (M) sand, IF, MF.
24	prob 3 poss 2	PH, SD 0.17m; yellowish brown (M) sandy clay loam.
25	prob 3 poss 2	= (40). ?Pit/PH, SD 0.05m - 0.20m; strong brown (M) sandy clay loam, irregular feature on edge of pit 35, some animal disturbance.
26	2	= (29). Layer; reddish yellow (M) sandy loam, MF, LF, IF. NOP.
(27)		= V87
28	1	Pit/trench, SD 0.25m; reddish yellow (M) loamy sand, IF.
(29)		= 26

(30) = V87  
 (31) = V87  
 32 2 Foundation trench; base for column/post? SD  
 0.12m; ironstone blocks set in strong brown  
 (M) sandy loam.  
 33 prob 1 = (34). PH, SD 0.35m; post-pipe (34) -  
 poss 2 strong brown (M) sandy loam, MF, IF,  
 patches of light grey (M) clay; packing -  
 strong brown (M) sandy loam, MF, IF.  
 = 33  
 (34)  
 35 prob 1 Pit, SD 0.28m; strong brown (M) clay loam,  
 poss 2 CF, MF, IF.  
 36 prob 1 ?PH, SD 0.05m; reddish yellow (M) sand, MF,  
 poss 2 IF.  
 37 prob 1 ?PH, SD 0.10m; reddish yellow (M) sand,  
 poss 2 MF, IF.  
 38 prob 1 PH, SD 0.07m; strong brown (M) sandy loam,  
 poss 2 MF, IF, CF.  
 39 prob 1 PH, SD 0.57m; strong brown (M) clay loam,  
 poss 2 MF.  
 = 2E  
 (40)  
 41 prob 1 PH, SD 0.20m; reddish yellow (M) sand, MF.  
 poss 2

## TRENCH Y

LAYER	PHASE	DESCRIPTION
+		Finds: Nu6, 7, 13; Cu7, 15, 19, 20, 24, 25, 46, 47, 54, 59, 68-71, 91, 93; fw; SW1.
1	4A1	Foundation; ironstone blocks set in greyish brown loam in foundation trench.
2	4B11	= (4). Pit, SD 0.70m; stone lining of ironstone blocks (4); .1 yellowish brown (M) sandy loam; .2 IF set in greyish brown (M) silty clay; .3 greyish brown (M) silty clay, IF. Finds: Q7; 8L; CP.
3	4A11	= (76). Wall; ironstone and limestone blocks, line of stones (76) set against SW end of wall where it is subsiding.
(4)		= 2
5	4B11	Layer; brick and tile floor. NDP.
6	4B11	= (12). Wall; ironstone and limestone blocks with brick relieving arch where wall crosses pit 10.
7	4B11	Layer; greyish brown (M) loam, MF, CF. NDP. Finds: WB39.
8	4A11	= (33). Stone-lined pit, SD 0.90m, not bottomed; greyish brown (M) silty clay with pinkish grey (M) silty clay and pinkish grey (M) ash, limestone and ironstone blocks, CF, IF; lining (33) - ironstone with some limestone; construction trench - stone rubble in dark greyish brown (M) sandy loam. Finds: Cu12; AF3, 4; RT8, 9.
9	4B11	= (13, 16, 21, 23). Stone-lined pit, SD 0.18m; .1 loose dark greyish brown loam, bricks, concrete; .2 dark greyish brown clay loam, IF; lining (13) - subdivided into N wall (16) - ironstone, set in yellowish brown (M) clay loam -, E wall (21) - ironstone set in yellowish brown (M) clay loam -, S wall (23) - ironstone, few pieces of limestone set in brownish yellow (M) sand -, W wall - part of wall 17. Finds: Fe2; CP.
10	4A11/B1	= (28, 36). Stone-lined pit, SD 0.75m; greyish brown (M) silty clay, lumps of brown (M) clay, CF; lining (28) - chiefly limestone slabs, average size c. 0.30m x 0.15m x 0.05m; construction trench (36) - dark greyish brown (M) sandy loam. Finds: Fe6B; AF7, 8.
11	4A11	= (29). Stone-lined pit, SD 0.23m; .1 yellowish brown (M) sandy loam; .2 greyish brown (M) silty clay; .3 very dark grey (M) silt loam; .4 grey (M) clay; lining (29) -



- ironstone and limestone blocks. Probably over dug into underlying pit 32.  
 = 6  
 = 9  
 (12) 14 4A11/B1 = (15, 22, 37). Construction = Phase 4A11; final infill = Phase 4B1. Stone-lined pit, SD 0.50m; .1 (14) soft greyish brown loam; .2 (15.1) dark yellowish brown (M) clay loam; .3 (15.2) very dark grey (M) clay loam ash, CF; .4 (15.3) dark yellowish brown (M) clay loam, CF, clay lenses; .5 (15.4) dark yellowish brown (M) and brown (M) clay loam, IF; .6 (22, 37) lining - ironstone and limestone blocks set in soft dark brown (M) loam, IF, CF, and clay flecks.  
 Finds: Fe69; H12.  
 = 14  
 = 9  
 (15) 17 3/4 = (18, 19, 25, 38, 74, 84). Construction (17.1); final destruction (17.2). Wall; ironstone blocks set in strong brown (M) sand, reddish yellow (M) sand, yellowish brown (M) sandy clay loam, light yellowish brown (M) loamy sand; includes step (25) and foundations (84); set down into pit 102 where the wall crosses it.  
 Finds: Cull.  
 = 17  
 = 17  
 (19) 20 3 Pit, SD 0.50m; strong brown (M) sandy loam, yellow mortar flecks, CF.  
 = 9  
 = 14  
 = 9  
 (21) 24 4B11 Shallow pit/PH, SD 0.13m; strong brown (M) sand.  
 = 17  
 (23) 26 4B11 ? Shallow pit/PH, SD 0.07; dark yellowish brown (M) sandy loam, MF. NOP.  
 27 3 Pit, SD 0.30m; strong brown (M) sandy loam. Finds: WB2.  
 = 10  
 = 11  
 (28) 30 4A11/B1 Layer; yellowish brown (M) clay loam. NOP.  
 (29) 31 4A11 Trench, SD 1.80m, not bottomed; .1 olive brown (M) loam, IF; .2 very dark greyish brown (M) clay loam, CF, ash; .3 dark olive grey (M) clay loam; .4 olive grey (M) clay loam; .5 olive grey (M) clay loam, MF, CF. Finds: Fe56; fa; AF5, 6; Q5, 6; RT7; GL10; WB38.  
 32 4A11/B1 Pit, SD 0.64m; .1 dark brown (M) clay loam, CF, IF; .2 soft dark greyish brown (M) ashy loam, CF, burnt IF; .3 dark brown (M), dark greyish brown (M) and yellowish brown (M)

- clay loam, IF, CF; .4 dark brown (M) loam, CF, IF; .5 dark brown (M) loam, CF, IF; .6 dark greyish brown (M) and dark brown (M) loam, CF; .7 dark brown (M) loam, CF, IF; .8 yellowish brown (M) and dark brown (M) loam and sand, CF, IF.  
 Finds: Cu26, 72; Pb14; Fe12, 20.  
 = 8  
 = W26
- (33) 35 4A1 Pit, SD 1.00m, not bottomed; brown (M) loamy clay.  
 = 10  
 (36) = 14  
 (37) = 17  
 (38) 3 = (52, 120, 125, 128). Pit, SD 0.85, not bottomed; capping (39, 120) - limestone and ironstone set in strong brown sandy loam; subsidence (125) dark yellowish brown (M) sandy loam IF, CF; .1 (52) dark brown (M) and dark yellowish brown (M) clay loam CF, cut by 14 ?ataholes (52.1-.14); .2 (128.3) dark brown (M) clay loam, IF, CF, LF; .3 (128.2) dark brown (M) loam, CF, IF; .4 (128.6) dark brown (M) clay loam, CF; .5 (128.5) strong brown (M) sandy clay loam, IF; .6 (128.7) dark brown (M) clay loam, CF; .7 (128.8) strong brown (M) loamy sand, IF; .8 (128.9) dark brown (M) and dark greyish brown (M) clay loam, CF, IF; .9 (128.10) yellowish brown (M) loamy sand; .10 (128.11) dark brown (M) and dark yellowish brown (M) clay loam; .11 (128.13) yellowish brown (M) loamy sand, IF.  
 Finds: WB13, 14, 46-48, 82, 90.  
 = W26  
 = W26  
 = W26
- (40) 43 3 PH, SD 0.27; light olive brown (M) sandy loam, strong brown sand mottling, IF, CF.  
 (41) 44 3 Slot? SD 0.15m; IF set in yellowish brown sandy clay loam.  
 (42) 45 4A1 Pit, SD 0.60m, not bottomed; .1 dark yellowish brown (M) loam; .2 compacted IF; .3 dark greyish brown (M) clay loam, CF.  
 Finds: Cu95; Pb7.
- 46 4A1 Layer; dark brown (M) sandy loam, CF. NOP.  
 47 4A1 Layer; thin compacted white ash lenses interspersed with lenses of clay loam. Occupation/floor level. NOP.
- 48 4A1 Layer; dark brown (M) and dark greyish brown (M) clay loam, many CF. Occupation level. NOP.
- 49 4A1 Layer; very pale brown (M) and white (M) ash. Occupation/floor level. NOP.
- 50 4A1 Layer; dark brown (M) and dark greyish brown (M) clay loam, CF. Occupation level.

		NOP.
51	4A1	Layer; dark brown (M) loam, CF. NOP.
(52)		= 39
53	4A1	= (87). Robber trench, BD 0.35m; .1 yellowish brown (M) sand, LF, IF, some burnt, some pebbles; .2 dark brown (M) clay loam, CF, IF, clay and sand patches; .3 dark yellowish brown (M) loamy sand, CF, IF.
54	3/4A1	Layer; dark brown (M) sand loam. NOP.
55	3	= (59, 141, 148, 173, 175). Layer; olive brown (M) sandy loam, IF, CF, LF. NOP. Finds: Cu45, 94; Pb2, 11; Fe74; Cr; 8L2; NB4, 15, 42, 49, 78, 79, 85, 102.
56	4A1	Layer; dark brown (M) and dark yellowish brown (M) sandy loam, CF, MF, LF. Occupation level. NOP.
57	4A1	Wall; ironstone and limestone blocks set in dark yellowish brown (M) clay loam.
58	prob 3	= (172, 157, 146-7, 169). Pit, BD 0.50m; olive brown (M) sandy loam, IF, CF. Finds: Pb12.
(59)		= 55
60	4A1	Layer; dark brown (M) and dark yellowish brown (M) clay loam, CF, MF, IF. NOP.
(61)		= +
62	4A1	= (63, 69, 80, 88, 98, 127). Robber trench, BD 0.70m; .1 light yellowish brown (M) sandy loam, IF; .2 yellowish brown (M) clay loam, IF. Finds: Cu27; Fe43, 44, 91, 92, 123; fs.
(63)		= 62
(64)		= +
65	4	Layer; white and gray ash. Floor/occupation level. NOP.
66	4	Layer; CF. NOP.
67	4A1	Layer; dusky red (M) and dark red (M) burnt sand, CF. Floor level/occupation level. NOP.
68	4A1	= (101). Foundation trench; ironstone blocks set in yellow and gray clay; set down deeper into pit 13, where wall would have crossed.
(69)		= 62
(70)		= VB7
71	4A1	Layer; dark yellowish brown (M) sandy loam, with clay lenses, IF, CF, MF. NOP.
72	4A1	= (77). Wall; small ironstone blocks set in yellowish brown loam.
73	4A1	Pit, BD 0.40m, not bottomed; yellowish brown (M) sandy loam, IF.
(74)		= 17
75	4A1	Layer; dark yellowish brown (M) clay loam, IF, CF. NOP.
(76)		= 3
(77)		= 72

78	4A1	Layer; dark yellowish brown (H) sandy loam, IF, CF, MF. Occupation level. NOP.
79	4A1	Layer; brown (H) sandy loam, CF. Occupation level. NOP.
(80)		= 62
81	4	Layer; mixed yellowish brown (M) sand and dark yellowish brown (H) sandy loam, IF, CF. NOP.
82	4A1	= (265). Pit/PH, SD 0.10m; dark brown (M) clay loam, CF.
83	3	= (121, 139, 140). Pit, SD 0.33m; disturbed brown (M) clay loam, with lens of yellowish brown (H) sandy loam. Excavated outline suggests originally two pits (139, 140).
(84)		= 17
85	prob 3 poss 4A1	PH, SD 0.22m; dark yellowish brown (M) loam, CF. NOP.
86	4A1	Layer; dark yellowish brown (H) sandy loam, CF, IF. NOP.
(87)		= 53
(88)		= 62
89	3/4A1	Pit, SD 0.43m; light olive brown (H) clay loam.
90	3/4A1	= (137). Pit, SD 1.20m; not bottomed; .1 olive brown (M) sandy loam; .2 IF. Finds: FS.
91	4A	Layer; dark brown (H) sandy loam, CF, IF, MF. NOP.
92	4A1	Layer; dark yellowish brown (M) sandy loam, CF, IF, hard packed. NOP.
93	3/4A1	Layer; dark yellowish brown (M) sandy loam, CF, IF, hard packed. NOP.
94	3/4A1	Layer; charcoal and burnt sand. NOP.
95	3/4A1	Layer; charcoal, ash, burnt sand. NOP.
96	3	Layer; yellowish brown (H) sandy loam, CF. NOP.
97	3/4A1	Layer; dark yellowish brown (H) sandy loam, CF, IF, LF. NOP.
(98)		= 62
99	4A1	= (119). Pit, SD 0.45, dark brown (M) sandy loam, IF, LF, CF. Finds: WB103.
100	4A1	= (104). Robber trench, SD 0.35m; yellowish brown (H) clay loam.
(101)		= 68
102	3	Pit, SD 0.55; .1 IF set in strong brown (M) sand; .2 CF; .3 yellowish red (H) sandy loam; .4 CF; .5 dark yellowish brown (M) sandy loam. In W site section. Finds: Q4.
103	3/4A1	Inhumation, SD 0.15m; yellowish brown (M) sandy loam. Finds: fs.
(104)		= 100
105	4A1	Layer; dark grayish brown loam, CF. NOP. Finds: Fe71, 75.

106	4A1	Layer/foundation; ironstone blocks set in dark yellowish brown (M) clay loam.
107	4A1	Wall, ironstone blocks.
108	prob 3 poss 4	?PH, SD 0.06m; light yellowish brown (M) sandy loam.
109	4A1	Robber trench, SD 0.13m; dark yellowish brown (M) silt loam, IF; three well laid pieces of limestone part of foundation trench?
110	4A1//Bi	Layer; yellowish brown (M) loam. NOP.
111	4A1	Pit, SD 0.80m, not bottomed; yellowish brown (M) sandy loam.
112	3/4A1	Layer; dark grayish brown (M) loam, patches of yellowish brown (M) sandy loam, MF, CF, IF. NOP.
113	4A1	Foundations/pit capping; rounded ironstone blocks. NOP.
114	4A1	Layer; dark yellowish brown (M) clay loam. NOP.
115	4A1	= (117). Pit/PH, SD 0.53m; olive brown sandy loam, ashy lenses.
116	3	= (142, 171, 172). Layer; cobbled surface, natural flints and pebbles, IF, LF, set in dark yellowish brown (M) and light olive brown (M) sandy loam. Find: WB16.
(117)		= 115
118	3//4A11	= (143). Layer; yellowish brown (M) sandy loam. NOP. Find: fl.
(119)		= 99
(120)		= 39
(121)		= B3
(122)		= 58
123	prob 3 poss 4	?PH, SD 0.10m; light olive brown (M) sandy loam.
124	4A1	= (126). Pit, SD 0.30m; brown (M) sandy loam, CF. = 39
(125)		= 124
(126)		= 62
(127)		= 39
(128)		
129	4A1	Pit, SD 0.80m; olive brown (M) sandy loam.
130	3	= (136, 143). Pit, SD 1.00m; greenish brown loam. IF. Find: ts; BL4.
131	3/4A1	Inhumation, SD 0.23m; dark brown (M) loam, CF.
132	4A1	Pit, SD 1.50m, not bottomed; dark yellowish brown (M) clay loam, patches of light brownish gray (M) clay and light yellowish brown (M) sandy loam, CF, LF, IF and rubble.
133	4A1	Shallow pit, SD 0.06m; brownish yellow (M) sand, IF. Find: Pb13.

134	3/4A1	Inhumation, SD 0.10m; dark yellowish brown (M) loam.
135	3	Pit, SD 0.12m; olive brown (M) sandy loam, CF, ash, grey clay. Finds: Cu58; Pb10; Cr; WB3. = 130
(136)		= 90
(137)		
138	3/4A1	Inhumation, SD 0.40m; dark brown (M) loam, CF. = 83
(139)		= 83
(140)		= 55
(141)		= 116
(142)		= 118
(143)		
144	3/4A1	Inhumation, child; yellowish brown (M) sandy loam.
145	3/4A1	Inhumation, SD 0.15m; dark brown (M) sandy loam, CF.
146	3/4A1	Inhumation, SD 0.15m; dark brown (M) sandy loam, with patches of brown (M) sand, CF. Finds: WB4.
147	3/4A1	Inhumation, SD 0.25m; dark yellowish brown (M) loam, CF, IF. = 55
(148)		
149	3/4A1	Grave, SD 0.15m; dark yellowish brown (M) loam, CF, IF.
150	3/4A1	(151). Inhumation, SD 0.20m; yellowish brown (M) sandy loam. = 150
(151)		
152	3/4A1	Inhumation, SD 0.30; dark brown (M) loam, IF.
153	3/4A1	Inhumation, SD 0.10m.
154	3/4A1	Inhumation.
155	3/4A1	Inhumation, SD 0.10m; dark yellowish brown (M) loam, IF.
156	3/4A1	Inhumation, SD 0.20m; dark yellowish brown (M) loam, CF, IF. = 58
(157)		
158	3	= (165, 194, 196). Probable SFB, SD 0.55m; .1 reddish yellow (M) sandy loam, IF; .2 olive brown (M) clay loam, LF; .3 dark grayish brown (M) clay loam, CF, burnt; .4 possible PH at N end, fill as .3. Finds: WB50.
159	3	Layer; reddish yellow (M) sandy loam, MF, clay mottling. NOP.
160	3	Layer; white fine sand. NOP.
161	3	Layer; olive brown (M) sandy loam, reddish mottling. NOP.
162	3	Layer; light olive brown (M) clay loam. strong brown sand mottling. NOP. = 130
(163)		= W26
(164)		= 158
(165)		= 58
(166)		= 58
(167)		

168	3/4A1	Inhumation, SD 0.15m; yellowish brown (M) sandy loam.
(169)		= 58
170	4A1	?PH, SD 0.10m; dark brown (M) loam, CF, IF.
(171)		= 116
(172)		= 116
(173)		= 55
174	3	Layer; metalised surface; IF, LF, set in brown ( ) sandy loam.
(175)		= 55
(176)		= V87
177	prob 1 poss 2	= (195). Pit/PH, SD 0.35m; .1 strong brown (M) loamy sand, IF; .2 IF set in strong brown (M) loamy sand.
178	prob 1 poss 2	Pit/PH SD 0.22m; .1 strong brown (M) loamy sand; .2 strong brown (M) loamy sand; .3 IF set in strong brown (M) loamy sand.
179	prob 1 poss 2	Trench, SD 0.35m; brown (M) sandy loam, IF, yellow sand.
(180)		= V87
181	prob 1 poss 2	PH, SD 0.10m; strong brown (M) sandy silt loam, IF, CF.
182	prob 1 poss 2	Trench, SD 0.25m; strong brown (M) loamy sand, IF.
183	prob 1 poss 2	?PH, SD 0.35m; yellowish brown (M) sandy loam.
184	prob 1 poss 2	?PH, SD 0.35m; olive brown (M) sandy loam, IF.
(185)		= V87
(186)		= V87
187		= +
188	1	PH, SD 0.20m; .1 post-pipe, brownish yellow (M) sand; .2 packing strong brown (M) loamy sand.
(189)		= V87
190	1	?PH, SD 0.11m; strong brown (M) loamy sand, IF.
191	1	Trench/hollow, SD 0.15m; strong brown (M) loamy sand.
192	1	?PH, SD 0.12m; strong brown (M) loamy sand.
193	1	?PH, SD 0.12m; strong brown (M) loamy sand.
(194)		= 158
(195)		= 177
(196)		= 158
197	prob 3 poss 4	?Blot, SD 0.25m; yellowish brown (M) loamy sand.
(198)		= M167
(199)		= V87
200	prob 1 poss 2	PH, SD 0.23m; .1 dark yellowish brown (M) sandy loam, IF, CF; .2 reddish yellow (M) sandy loam, IF.
201	prob 1 poss 2	= (202). ?Trench, SD 0.11m; dark yellowish brown (M) sandy loam, IF, CF.
(202)		= 201
203	prob 1 poss 2	PH, SD 0.20m; dark yellowish brown (M) sandy loam, IF.

204	1	?PH, SD 0.20m; dark yellowish brown (M) sandy silt loam, IF, CF.
205	prob 1 poss 2	?PH, SD 0.20m; strong brown (M) loamy sand, IF.
206	prob 1 poss 2	?PH, SD 0.10m; strong brown (M) loamy sand, IF.
207	prob 1 poss 2	= (213). PH, SD 0.13m; brown (M) clay loam, IF (packing) at side.
208	prob 1 poss 2	= (214). PH, SD 0.31m; strong brown (M) and dark yellowish brown (M) sandy loam and loamy sand, IF.
209	prob 1 poss 2	PH, SD 0.20m; brown (M) loamy sand, IF, CF, MF.
210	prob 1 poss 2	?PH, SD 0.05m; dark yellowish brown (M) clay loam, CF.
(211)		= VB7
212	prob 1 poss 2	?Pit, SD 0.10m; yellowish brown (M) silty sand, IF.
(213)		= 207
(214)		= 208
215	prob 1 poss 2	?Pit, SD 0.15m; dark yellowish brown (M) sandy loam, IF.
216	1	PH, SD 0.05m; brown (M) clay loam, IF, CF.
217	1	Trench, SD 0.10m; yellowish brown (M) sandy loam, IF.
218	1	?PH, SD 0.15m; brown (M) loamy sand.
219	prob 1 poss 2	?SH, SD 0.07m; greenish brown, loamy sand.
220	1	= (230) ?Trench, SD 0.15m; reddish yellow (M) loamy sand.
(221)		= +
222	1	PH, SD 0.23m; .1 strong brown (M) sandy loam, IF; .2 strong brown (M) sandy loam, IF.
223	1	?PH, SD 0.20m; strong brown (M) loamy sand, CF, MF, IF.
224	1	?PH, SD 0.11m; strong brown (M) sandy loam, IF, CF.
225	1	PH, SD 0.10m; brown (M) sandy loam, CF, IF.
226	1	PH, SD 0.10m; strong brown (M) sand.
227	1	?PH, SD 0.12m; yellowish brown (M) sandy loam, IF, CF.
228	1	?PH, SD 0.12m; dark yellowish brown (M) sandy loam, IF, CF.
229	1	PH, SD 0.10m; yellowish brown (M) sandy loam, IF, LF.
(230)		= 220
231	1	PH, SD 0.25m; dark yellowish brown (M) sandy loam, IF, CF.
232	1	?PH, SD 0.10m; strong brown (M) sandy loam, IF.
233	1	PH, SD 0.05m; strong brown (M) clay loam, red mottling, IF.
234	1	?= W169. Trench, SD 0.55m; reddish yellow (M) sand, red iron-rich mottling.
235	1	PH, SD 0.13m; strong brown (M) sandy loam,



		CF, IF.
236	1	PH/Trench, SD 0.11m; strong brown (M) sand, IF.
237	prob 1 poss 2	PH, SD 0.15m; yellowish brown (M) sand, IF.
238	1	PH, SD 0.12m; strong brown (M) loamy sand, IF.
239	prob 1 poss 2	PH, SD 0.60m; yellowish brown (M) clay loam, IF.
(240)		= 237
241	prob 1 poss 2	= (243,247). Pit, SD 0.35m; strong brown (M) - reddish yellow (M) sand, CF, IF, red and green mottling.
(242)		= V87
(243)		= 241
244	prob 1 poss 2	= (248). ?Pit, SD 0.38m; .1 strong brown (M) sand, IF; .2 yellowish brown (M) sand.
245	1	SH, SD 0.20m; dark brown (M) sandy loam, IF.
246	1	?Trench, SD 0.10m; strong brown (M) loamy sand, IF, CF.
(247)		= 241
(248)		= 244
249	prob 1 poss 2	PH/Pit, SD 0.40m; strong brown (M) sandy loam, IF.
250	1	PH, SD 0.22m; strong brown (M) sand, IF.
251	1	= (252). Pit, SD 0.30m; .1 (252) yellowish brown (M) loamy sand, IF, MF; .2 (251) strong brown (M) sand, IF.
(252)		= 251
253	1	?Pit/PH, SD 0.17m; yellowish brown (M) sand, IF, lenses of yellowish red (M) sand.
(254)		= V87
255	1	Pit/PH, SD 0.12m; strong brown (M) loamy sand, IF, CF.
256	1	Pit, SD 0.21m; strong brown (M) loamy sand, IF, CF.
257	1	PH, SD 0.13m; brownish yellow (M) sand.
258	1	PH, SD 0.29m; brownish yellow (M) sand.
259	1	PH, SD 0.40m; yellowish brown (M) sand, IF.
260	1	?PH, SD 0.12m; brownish yellow (M) sand.
261	1	?Trench, SD 0.25m; brownish yellow (M) sand.
262	1	PH, SD 0.28m; yellowish brown (M) sand, IF, natural flint gravel. Animal disturbance?
263	1	PH, SD 0.10m; yellowish brown (M) sand.
264	1	PH, SD 0.14m; yellowish brown (M) sand, IF.
265	1	?PH, SD 0.25m; yellowish brown (M) sand, IF. Animal disturbance?
266	3/4A1	Grave (?), SD 0.30m; yellowish brown (M) sandy loam.
267	3/4A1	Grave, SD 0.15m; recognised in W site section.
(268)		= 153
269	3/4A1	Grave, SD 0.10m; yellowish brown (M) sandy loam; recognised in W site section.

270	1	PH, SD 0.28m; yellowish brown (M) sand, IF, flint gravel.
271	1	PH/trench, SD 0.21m; strong brown (M) sand.
272	prob 1 poss 2	PH, SD 0.25m; brown sandy (M) loam.
273	3/4Ai	Grave, SD 0.15m; yellowish brown (M) sandy loam, seen in W site section.
274	3/4Ai	Grave, SD 0.15m; yellowish brown (M) sandy loam, seen in W site section.
275	3/4Ai	Grave, SD 0.15m; yellowish brown (M) sandy loam, seen in W site section.

## TRENCH Z

LAYER	PHASE	DESCRIPTION
+		Finds: CP.
1	4Bii	Drain trench, SD 0.36m; limestone flagged cover and base, brick sides. Finds: Cu18.
2	4Bii	Pit, SD 0.10m; sides lined with bricks and ironstone, floor of limestone flags; fill of ash and burnt organic debris. Finds: GL.
(3)		= V1
(4)		= V1
5	4	= (54,58). Wall; ironstone blocks set in matrix of pale brown (M) sandy clay, CF; blocks dressed on W face only; E cellar wall and robbed residue of N wall.
6	4	Wall; ironstone blocks set in a matrix of yellowish brown (M) sand; dressed faces with rubble core. S cellar wall.
7	4	= (13). Wall; ironstone blocks set in a matrix of light yellowish brown (M) sandy mortar. Part of W cellar wall.
8	4	= (24). Wall; small ironstone blocks, many burnt, set in a matrix of brown (M) clay loam, IF, CF.
(9)		= V1
10	4Bii	Trench, for modern water pipe.
(11)		= V1
12	4Bii	= (42-4, 46, 49-51). Layer(s), fills of cellar, not fully excavated; .1 (12, 42) brown (M) clay loam, IF, CF, MF, clay patches; .2 (43-4, 49) light yellowish brown (M) sandy clay, CF, IF, MF; .3 (46, 50) strong brown (M) sandy loam, MF, CF, IF; .4 (51) very dark greyish brown (M) loam, CF, IF. NOP. Finds: Cu89; Fe111, 112; CP.
(13)		= 7
(14)		= V1
(15)		= +
(16)		= +
17	3/4	Pit, SD 0.40m, not bottomed, .1 yellowish brown (M) sandy loam, IF, CF; .2 strong brown (M) sand, MF.
(18)		= 15
19	prob 3 poss 4	PH, SD 0.25m; brown (M) clay loam, CF, IF.
20	3/4	Layer; IF in mixed brown (M) clay loam, CF, with patches of strong brown (M) sand. Hard core surface or cap over pits 56, 57 and SFB 260. NOP.
21.1	4Aii	= (21.2-.5, 41, 55.1-.2). Layer(s); subsidence into and capping of pits 21.3 and 55; .1 very dark grey (M) ash with patch of grey (M) clay; .2 (55.1) ironstone

		blocks set in brown clay loam; .3 (21.5) dark greyish brown (M) clay loam, IF, CF; .4 (21.4) ironstone fragments; .5 (21.2, 55.2) reddish yellow (M) sand and ironstone fragments. NDP.
(21.2)		= 21.1
21.3	4Ai	Pit, SD 0.70m, not bottomed; dark yellowish brown (M) clay loam, CF.
(21.4)		= 21.1
(21.5)		= 21.1
22	3/4	Pit, SD 0.25m; .1 brown (M) clay loam, CF, IF, MF, brick fragments; .2 dark greyish brown (M) clay loam, CF, IF, MF.
23	3/4	Pit? SD 0.05m; brown (M) clay loam, CF, IF.
(24)		= B
25	3	= (26). Pit, SD 0.30m; dark yellowish brown (M) clay loam, IF, CF. Finds: Fel.
(26)		= 25
27	4Ai	= (45). Pit(?) SD 0.13m; mixed brown (M) clay loam, IF, CF, MF.
28	4	Construction trench? SD 0.10m; .1 pale brown (M) sand, CF, IF; .2 dark yellowish brown (M) sand, CF, IF, MF; .3 pale brown (M) sand, CF.
29	4Bii	Pit, SD 0.80m; brown (M) clay loam, IF, CF, MF, clay patches. Finds: CF.
30	3	PH, SD 0.40m, not bottomed, yellowish brown (M) clay loam, CF, IF.
31		= +
32	3	= (35, 52). Pit, SD 0.30m; .1 (35) reddish brown (M) sand and ash; .2 (32.3) strong brown (M) sand, IF; .3 (32.1) olive brown (M) clay loam, CF; .4 (52) strong brown (M) sand, IF; .5 (32.2) dark greyish brown (M) clay loam, CF.
33	3/4	= (47). Pit, SD 0.50m; .1 strong brown (M) sand, IF; .2 mixed ash and burnt sand; .3 pinkish grey (M) clay; .4 brown (M) sandy loam; .5 brown (M) sandy loam with blue grey clay patches; .6 (47) small IF.
34	3	Pit, SD 0.20m; dark yellowish brown (M) sandy loam, IF, CF, MF.
(35)		= 32
36	3/4	Pit? SD 0.11m; yellowish brown (M) clay loam, CF, MF, IF, patch of reddish brown (M) clay.
(37)		= +
(38)		= +
39	4Ai	Pit, SD 0.14m; .1 olive brown (M) clay loam, IF, CF, ash; .2 strong brown (M) sand; .3 brown (M) clay loam, CF, IF.
40	3	= (62). Pit, SD 0.30m; olive brown (M) clay loam, CF, ash, IF.
(41)		= 21.1
(42)		= 12

(43)		= 12
(44)		= 12
(45)		= 27
(46)		= 12
(47)		= 33
48	4	Layer; reddish yellow (M) sand. Floor of cellar. NOP.
(49)		= 12
(50)		= 12
(51)		= 12
(52)		= 32
(53)		= +
(54)		= 5
(55.1)		= 21.1
(55.2)		= 21.1
55.3	4Aii	Pit, SD 1.00m; partially stone lined with ironstone blocks (.5); .3 dark brown (M) clay loam, CF, IF; .4 dark greyish brown (M) clay loam, IF, CF, ash; .7 olive brown (M) silty loam, CF; .8 yellowish brown (M) silt loam, CF, clay flecks; .6 light olive brown (M) silty clay, IF, CF.
-6		Finds: Fe7; GLB.
56	3/4	Pit, SD 0.45m; yellowish brown (M) clay loam, IF, CF.
57	3/4	Pit, SD 0.35m; dark greyish brown (M) clay loam, CF, IF, MF.
(58)		= 5
59	4	Construction trench? yellowish brown (M) sandy loam, IF, MF, CF. Not excavated. NOP.
60	1	SFB, SD 0.30m; brown (M) fine sandy loam, CF, IF. Not fully excavated.
61	4	Finds: Nul; fs; ts; Ql; WB75. Layer, SD 0.20m; brown (M) clay loam, CF, IF; subsidence into PH 69. NOP.
(62)		= 40
63	1	SFB, SD 0.15m; dark brown (M) fine clay loam with sand, CF, IF.
64	3/4Ai	Pit, SD 0.28m; olive brown (M) clay loam, CF, IF, strong brown (M) sand patches.
(65)		= YB2
66	3/4Ai	Pit, SD 0.30m; olive brown (M) silt loam, CF, IF.
67	3/4Ai	Pit, SD 0.25m; yellowish brown (M) silt loam, IF, light blue and grey clay flecks.
68	prob 3 poss 4Ai	PH, SD 0.45m; brown (M) fine sandy loam, CF, IF. Limestone packing.
69	4	PH, SD 0.30m; strong brown sand, IF.
70	prob 3	PH, SD 0.40m; yellowish brown (M) sandy silt loam CF, IF, limestone packing.

## TRENCH AA

LAYER	PHASE	DESCRIPTION
+		Finds: Nu5, 8, 10; Cu1, 9, 14, 16, 21, 43, 57, 98; Fe32, 35, 114, 117; Cr; FL; F8; ts; AF16; RT15; H7-9, 13-15; WS4; WB2, 40, 45, 71, 73, 74, 77, 84, 101.
(1)		= +
(2)		= +
(3)		= +
(4)		= +
5	4Bi	Pit, SD 1.13m; ironstone rubble and grey clay loam fill; stone lined. Finds: AF9, 10.
(6)		= +
7	3	Pit, SD 1.22m, not bottomed; .1 dark brown (M) clay loam, CF, IF; .2 crushed ironstone and rubble; .3 olive brown (M) silt loam, CF, IF; .4 dark greyish brown (M) silt loam, CF, IF. Finds: ts; WB83.
8	4Ai1/4Bi	Pit, SD 0.61m, not bottomed; brown (M) sandy loam, CF, MF, IF, some limestone blocks.
9	3	Pit, SD 1.00m, not bottomed; .1 dark brown (M) silt loam, IF, CF, with a band of light grey (M) sandy clay; .2 dark brown (M) silt loam, IF, CF. Finds: Fe38; F8.
10	4Ai	Pit, SD 0.75m; dark brown (M) loose clay loam, CF, MF; .1 stone lining; .2 dark yellowish brown (M) sandy loam, CF, MF, patches of very pale brown (M) sand and clay, IF and rubble. Finds: Fe45, 47.
11	4Ai	Pit, SD 0.55m; dark brown (M) clay loam, CF, IF; .1 very dark greyish brown (M) ash; .2 dark brown (M) clay loam, CF, IF; .3 brown (M) sandy loam, IF. Finds: WB21.
12	4Ai	Pit, SD 0.91m, not bottomed; yellowish brown (M) friable sandy loam; .1 stone lining; .2 very dark greyish brown (M) lens of ash.
13	4Ai	= (33). Pit, SD 0.45m; brown (M) clay loam, CF, IF, MF. Finds: fs.
14	4Ai	= (15). Oven, SD 0.83m; firing chamber: (14.1) dark yellowish brown (M) clay loam, CF, IF, MF; (14.2) ash and burnt limestone fragments - residual lining of base; stoke chamber: (15) brown (M) clay loam, CF, ash patches. Finds: Fe21.
(15)		= 14

16	3	Pit, SD 0.56m; dark brown (M) silt loam, IF, CF, MF.
17	3	Pit, SD 0.14m, not bottomed; dark brown (M) silty clay loam, CF, IF.
(18)		= +
19	4Ai	Pit, SD 0.43m; dark brown (M) clay loam, CF, IF, MF.
20	4Ai	Pit, SD 0.95m, not bottomed; brown (M) clay loam, CF, MF.
21	3/4Ai	Pit, SD 0.11m; brown (M) clay loam, CF, IF.
(22)		= +
(23)		= +
(24)		= +
25	prob 3	Pit, SD 0.90m, not bottomed; .1 angular ironstone blocks; .2 dark brown (M) clay loam, CF, IF; .3 yellowish brown (M) light silt loam/cess, MF, CF, IF. Finds: Cu100; Fe81; Cr.
26	4Ai	Pit, SD 0.22m; two stone lined cess pit bases.
27	3?	Pit, SD 0.09m; brown (M) clay loam, CF, IF.
28	3	Pit, SD 0.60m; dark brown (M) silty clay loam, MF, CF, IF.
29	3	= (31-2). Pit, SD 0.40m; mixed fill, mainly brown (M) silt loam, with grey (M) clay, sand patches, LF, MF, CF. Finds: WBS, 94.
30	3	Pit, SD 0.70m; dark brown (M) silt loam, CF, IF, MF.
(31)		= 29
(32)		= 29
(33)		= 13
34	3/4Ai	Pit, SD 0.50m; dark yellowish brown (M) clay loam, CF, IF and rubble, partial ironstone lining to east edge.
35	4Ai	Pit, SD 0.65m; dark greyish brown (M) clay loam, MF, CF, IF, clay patches and ash lenses, mixed limestone and ironstone lining, inclined sides.
(36)		= +
(37)		= +
(38)		= +
(39)		= +
(40)		= +
(41)		= +
(42)		= +
(43)		= +
(44)		= +
(45)		= +
(46)		= +
47	4Ai	Pits, SD 1.80m; probably two pits; a). .1-.4 and b). .5-.12. .1 very dark greyish brown (M) clay loam, CF, IF; .2 very dark greyish brown (M) clay loam, IF,

- CF, sand patches, ash lenses; .3 dark greyish brown (M) silt loam, 1F, CF and ash, MF, sand patches; .4 ash lenses, very dark red (M) - red (M); .5 very dark greyish brown (M) silty clay loam, CF, LF; .6 mixed dark brown (M) - dark yellowish brown (M) clay loam, 1F, CF; .8 mixed dark brown (M) - dark yellowish brown (M) clay loam, 1F, CF; .9 lens of CF; .10 mixed yellowish brown (M) - brownish yellow (M) sand with mortar; .11 mixed dark yellowish brown (M) - yellowish brown (M) loam and sandy clay loam, MF, CF, LF; .12 dark yellowish brown (M) sandy clay loam, 1F, LF.
- Find: Fe50.  
= +
- (48) 49 4Ai = (B2). Pit, SD 1.10m, not bottomed; brown (M) clay loam, 1F and rubble, CF, sand patches, ash.  
Find: Fe24; H1.  
= +
- (50) 51 4Ai Pit, SD 0.90m, not bottomed; brown (M) clay loam, CF, 1F, MF; .1 crushed ironstone rubble; .2 ironstone lining.  
= +
- (52) = +  
(53) = +
- 54 4A Pit, SD 0.37m; dark brown (M) clay loam, CF, MF, 1F, some iron panning.  
Find: Fe28, 29, 66, 67.
- 55 4Ai1 Pit, SD 0.45m; dark brown (M) clay loam, CF, MF, 1F, ash lenses.  
Find: Fe26.
- (56) 3 Robber trench; general number for robber of Phase 2 buildings; some later finds under this number, perhaps from later slumping into the trench. For robber proper see 123. NOP.
- 57 4A Pit, SD 1.20m, not bottomed; brown (M) very light, friable clay loam, 1F, CF, MF.  
Find: Cu97; Fe31, 110; fs; GL6; WB36, 37, 70.
- 58 3 Pit, SD 0.92m; dark brown (M) clay loam, patches of brown (M) sand, CF, MF, 1F; .1 dark greyish brown (M) silt loam, 1F, CF, MF.  
Find: Fe3.
- 59 4Ai1 Pit, SD 0.55m; dark yellowish brown (M) sandy clay loam, 1F and rubble, CF.
- 60 4Ai1 Pit, SD 0.51m; .1 dark brown (M) silty loam, CF and ash; .2 dark brown (M) sandy loam, CF, 1F.
- 61 4Ai Pit, SD 0.65m; brown (M) clay loam, CF, 1F, MF. NOP.
- 62 4Ai1 = (66.2, 363). Pit, SD 0.90m; dark yellowish brown (M) clay loam, CF, 1F, MF.



- ash lens at sides, ironstone lining (62.1) and (66.2, 363) mottled, mainly gray (M) clay base.  
 Finds: Fe25, 27, 57, 59, 103, 104, 119, 130; fl.
- 63 3/4Ai Pit, SD 0.28m; brown (M) clay loam.  
 64 3 Pit/PH?, SD 1.15m; .1 dark yellowish brown (M) silt loam, CF, IF; .2 dark yellowish brown (M) clay loam, IF and rubble, CF, MF. .3 dark yellowish brown (M) silt loam, IF, CF.  
 = +
- (65) = (66.3, 372). Pit, SD 1.00m; brown (M) clay loam, CF, IF, MF, clay flecks; .1 ironstone lining; .3 yellowish brown (M) silty clay loam, CF, MF, IF and ironstone blocks, probably part of lining set in pit 66.4.  
 66.1 4Ai Finds: RT1, 3, 4.  
 = 62  
 (66.2) = 66.1  
 (66.3) = (374). Pit, SD 0.45m, not bottomed; dark yellowish brown (M) clay loam, CF, IF, ash patches.  
 66.4 4Ai Finds: Fe18; H2.  
 = +
- (67) = +  
 (68) = +  
 (69) = +
- 70 3 Pit, SD 1.50m, not bottomed; brown (M) silty clay loam, CF, MF, IF.  
 Finds: Fe83; FL; NB6, 17-19, 41, 51-54.
- 71 4Ai Pit, SD 0.95m, not bottomed; .1 olive brown (M) soft silty clay loam, CF, IF; .2 brown (M) soft sand, loam, CF, IF; .3 olive brown (M) hard silty clay loam, CF, IF and rubble; .4 olive (M) firm silt loam, CF, IF; .5 olive gray loose silty clay loam, IF; .6 olive brown (M) firm silt loam, CF, IF, sand patches, light gray (M) ash lenses.  
 Finds: WB7-9.  
 = (91). Pit, SD 0.95m, not bottomed; .1 brown (M) firm sandy silt loam, CF, MF, IF; .2 dark yellowish brown (M) firm sandy silt loam, CF, MF, IF; .3 reddish brown (M) firm silt loam, CF, MF, IF; .4 olive gray (M) firm silty clay loam.  
 Finds: fs.
- 72 4Ai Pit, SD 0.40m; dark grayish brown (M) clay loam, MF, CF, IF and rubble.  
 Finds: Cu5, 13; Fe22; H6, 11.
- 73 4Ai = (75). Pit, SD 0.40m; dark brown (M) silt loam, CF, IF, with lens of sand and mortar at base and against sides.  
 Finds: WB91.  
 = 74
- 74 3
- (75)

- (76) = +  
 77 3 Pit, SD 1.02m, not bottomed; brown (M) clay loam, MF, CF, IF.  
 Finds: Fe82, 120.
- 78 3 Pit, SD 1.40m; dark brown (M) clay loam, IF, ash, mortar and sand lenses, some animal disturbance.
- 79 4A1 Pit, SD 0.80m; dark brown (M) clay loam, IF, CF; .1 dark greyish brown (M) clay loam, CF, IF, MF, LF.  
 Finds: Fe49, 122; fa; BL3; WB87.
- 79.2 3 Pit, SD 1.00m, not bottomed; dark yellowish brown (M) sandy clay loam, CF, IF, sand and ash lenses.  
 Finds: Cu99; ts.
- 80 3/4A1 = (146). PH, SD 0.36m; brown (M) sand with one limestone fragment; possibly animal disturbance.
- 81 prob 4A1 Pit, SD 0.45m; dark greyish brown (M) clay loam, CF, IF, ash lenses.  
 = 49
- (82) 83 4A1 Pit, SD 0.48m; .1 dark yellowish brown (M) clay loam, CF, MF, IF; .2 dark yellowish brown (M) clay loam, as .1 with more IF; .3 dark yellowish brown (M) loam, IF, CF, MF.  
 Finds: Fe51.
- 84 4A1 Pit, SD 0.35m; dark brown (M) clay loam, CF, IF, MF, sand patches.  
 Finds: WB66.
- 85 prob 4A1 Pit, SD 0.20m; dark yellowish brown (M) sandy clay loam, IF, CF, MF.
- 86 3 = (133). Pit, SD 0.40m; brown (M) silty clay loam, CF, MF, IF.
- 87 3/4A1 Bully, SD 0.20m; dark yellowish brown (M) clay loam, CF, MF, IF.
- 88 prob 2 = (160). Floor; mixed mottled grey (M) and brown (M) clay with dark brown (M) loam, MF, IF, CF, LF.
- 89 4A1 = (90). Oven, SD 0.25m; firing chamber (90); dark yellowish brown (M) sandy silt loam, CF, IF and rubble, disturbed stone lining, some ash and traces of burning on base; stoke hole (89); .1 dark reddish brown (M) ashy loam, CF; .2 dark yellowish brown (M) silt loam, MF, IF; .3 dark brown (M) loam, IF and gravel, CF, MF, some patches of sandy clay loam.  
 Finds: Fe118; fa; ts.
- (90) = 89  
 (91) = 72  
 (92) = +
- 93 4A1 = (226). Bully, SD 0.13m; brown (M) clay loam, IF, CF.  
 Finds: BL1.

- 94 4A1 Pit, BD 0.73m; .1 olive (M) silty clay loam CF; .2 olive grey (M) silty clay loam, MF, CF; .3 olive brown (M) silty clay loam, MF; .4 yellowish brown (M) sand; .5 mixed sand, grey ash, MF, CF; .6 olive (M) silty clay loam, CF.  
Finds: Fe48; WB23, 88.
- 95 4A1i Pit, BD 0.33m; very dark grey (M) silty loam, ash lenses, IF, stone lining.  
Finds: Cu28-32, 73-77; Fe8, 9, 60, 61, 105; WB93.
- 96 3/4A1 Pit, BD 0.80m; very dark greyish brown (M) silt loam, CF, IF.
- 97 4A1 Pit, BD 0.90m, not bottomed; .1 dark brown (M) sandy loam, CF, IF; .2 very dark greyish brown (M) sandy loam, CF; .3 dark brown (M) sandy loam, IF; .4 dark greyish brown (M) soft ashy loam, CF; .6 very dark greyish brown (M) sandy loam, CF; .7 dark yellowish brown (M) clay loam, IF, CF; .8 dark yellowish brown (M) loam, IF, CF; .9 dark yellowish brown (M) sandy clay loam, ironstone rubble; .10 dark brown (M) clay loam, IF, CF. 97.5 possibly = 101.  
Finds: Cu33; Fe6, 94, 121, 126; WB67, 92.
- 98 4A1i Pit, BD 0.95m, not bottomed; .1 loose ironstone rubble set in brown (M) clay loam, CF; .2 brown (M) clay loam, IF, CF; .3 soft ashy loam, CF, IF.  
Finds: Cu34; Fe19, 37, 106; SL7, 9.
- 99 4A1 Pit, BD 1.05m, not bottomed; dark yellowish brown (M) loam, MF, IF, CF, lenses of sand and IF.  
Finds: Fe17, 93.
- 100 4A1 Pit, BD 0.35m; dark yellowish brown (M) loam, CF, IF, LF.
- 101 4A1 Pit, BD 0.60m, not bottomed; .1 dark yellowish brown (M) sandy loam, CF, IF, MF; .2 dark yellowish brown (M) clay loam, IF and gravel; .3 dark yellowish brown (M) sandy loam, CF, MF, IF and some blocks. 101 possibly = 97.5.
- 102 3/4 Pit, BD 0.35m; .1 mixed yellowish brown (M) sandy silt loam, IF, MF, CF; .2 ash and CF.
- 103 3 Pit, BD 0.60m; .1 dark brown (M) silty clay loam, CF, MF, IF; .2 and .3 lenses of loose charcoal and crushed mortar.
- 104 27 = (199). PH, BD 0.33m; dark yellowish brown (M) sand with strong brown (M) mottling, CF, MF, IF, flint pebbles, limestone packing.
- 105 27 = (198, 600). PH, BD 0.30m; strong brown (M) - dark yellowish brown (M) sand MF, CF, IF, large limestone block as packing.

		Partially overlaid by 148; probably Phase 2.
106	2/3	Layer; crushed ironstone over ash. NOP. Finds: FB.
107	4A1	Pit, SD 0.37m; dark brown (M) clay loam, MF, CF, IF.
108	4A1	Pit, SD 0.45m; dark brown (M) clay loam, IF, CF, MF, patches of sand, burnt sand and ash. Finds: WB72.
109	27	Layer; IF and flint pebbles. NOP.
(110)	.	= +
(111)		= +
112	27	Layer; IF and flint pebbles. NOP.
(113)		= +
114	3	Pit, SD 0.30m; dark brown (M) silty clay loam. = +
(115)		= +
(116)		= +
117	4A1	Pit, SD 1.10m, not bottomed; brown (M) clay loam, ironstone lining. Finds: Fe52, 95; WB104.
(118)		= +
(119)		= +
(120)		= +
(121)		= +
(122)		= +
123	3	= (124-6, 129-32, 135, 148, 364-7, 382-7, 534, 587-90). Robber trench. .1 (124-5, 130-2, 135), SD 0.57m; inclined layers and lenses, yellowish brown (M) - dark yellowish brown (M) sandy loam - loam, MF, CF, IF, LF, occasionally with light olive (M) - cream and gray clay flecks; strong brown (M) - yellowish brown (M) - dark yellowish brown (M) sand - sandy loam, MF, CF, IF, LF; strong brown (M) sand - sandy loam, MF, CF, LF, IF and gravel; various layers forming the uppermost fill of the robber trench may be later deposits subsided into robber:- dark yellowish brown (M) - dark brown (M) loam - sandy loam, MF, CF, LF, IF and gravel. .2 (364-7) SD 0.19m; mainly horizontal layers; dark yellowish brown - light olive brown (M) fine sandy loam, MF, CF, IF, LF; strong brown (M) - brown (M) sand, MF, CF, IF; mixed strong brown (M) - yellowish brown (M) sand, MF, CF, IF. .3 (534, 587, 589) SD 0.34m; inclined layers and lenses except for horizontal layering in northernmost 2m of E robber trench section. Predominantly mixed yellowish brown (M) sand and dark olive brown (M) - dark greyish brown (M) silt loam, varying quantities of IF, LF, CF, MF;

also lenses/layers of dark greyish brown (M) silt loam and silty clay loam, MF, CF, LF, IF; light olive brown (M) sandy clay loam - sandy silt loam, varying amounts of CF and MF, IF, LF; olive (M) - olive brown (M) silt loam - clay loam, CF, MF, few IF; yellowish brown (M) sand, CF, MF, numerous IF.

.4 (588) horizontal layers of dark greyish brown (M) clay loam - olive brown (M) sandy silt loam, varying amounts of MF (but more common between 143.00 and 147.00/179.00 and 181.00, CF, IF; yellowish brown (M) sand with some dark greyish brown (M) clay loam, MF, CF, IF, LF; yellowish brown sand, IF, LF, CF, MF; loose olive brown (M) silty clay loam, CF, MF, IF. It is possible that 123.4 includes animal disturbance.

.5 (590) SD 0.30m; olive brown (M) silt loam, MF, CF, IF, LF; yellowish brown (M) sand, MF, CF, IF, LF.

.6 (384) SD 0.43m; yellowish brown (M) loamy sand, MF and lumps, CF, IF, LF; strong brown (M) sand, CF, MF, IF; brown (M) sandy loam, CF, IF, LF.

.7 (382-3, 385) SD 0.32m; brown (M) fine sandy loam, CF, MF, IF; mixed dark brown (M) sandy loam and mortar; strong brown (M) sand, IF.

.8 (386-7) SD 0.42m; yellowish brown (M) sandy clay loam with patches of strong brown (M) sand, MF, CF, IF, LF; yellowish brown (M) sandy loam, MF, CF, IF; brownish yellow (M) sandy loam, CF, MF, IF.

.9 (126. ?Robber trench/disturbance, SD 0.16m; brown (M) clay loam with patches of strong brown (M) sand and mortar, IF and LF.

.10 (129) SD 0.32m; dark yellowish brown (M) sandy loam, MF, CF, IF, LF.  
Finds: Cu50; Fa4, 16, 34, 84, 86, 88; FL; FB; TB; WB3; GL5; WB20, 65.

(124)

= 123.1

(125)

= 123.1

(126)

= 123.9

127 2

= (142-3, 404-7, 422, 901, 1113). Wall foundations for main Phase 2 hall.

.1 (143) mixed blocks of limestone and Northampton Sands neatly set in a matrix of strong brown (M) - dark yellowish brown (M) sand and small IF. Six courses surviving.

.2 (142) as .2. Six courses surviving 0.55m deep.

.3 (142, 407) scatter of isolated limestone blocks along bottom of N wall trench.

.4 (1113) wall fragment of limestone and

ironstone blocks set in yellowish brown (M) sandy loam.

.5 (901.7-.9) wall fragments of limestone and ironstone blocks set in strong brown (M) sand. Mainly scattered blocks one course deep but two courses in limited area in NE corner.

.6 (901.3-.7) wall fragments of limestone blocks set in matrix of strong brown (M) sand. Three courses surviving at 143.50/180.00.

.7 (901.2) single disturbed course of limestone blocks, some ironstone rubble, set in a matrix of strong brown (M) sand.

.8 (901.1) up to three courses of limestone blocks with some ironstone rubble set in matrix of strong brown (M) sand.

.9 (406) single limestone block, possibly part of wall.

.10 (405) four courses of limestone blocks with a few IF and other stones set in a matrix of yellowish brown (M) - strong brown (M) sand.

.11 (404) six courses of limestone blocks with a few IF and other stones set in a matrix of yellowish brown - strong brown (M) sand, some small IF.

.12 (127, 422) seven courses of limestone blocks with a few IF and other stones set in a matrix of strong brown (M) sand (foundation survived 0.60m deep). A layer of very pale brown (M) mortar with patches of strong brown (M) sand and brown (M) clay loam spread over the northern part of the top of the wall and the ground surface to the N and probably relates to the superstructure of the wall.

Finder Q2, 3.

(128)

= +

(129)

= 123.10

(130)

= 123.1

(131)

= 123.1

(132)

= 123.1

(133)

= 86

134 4A1

Pit. SD 0.55m; mottled sandy loam, mainly dark yellowish brown (M), IF and gravel, MF, CF, and lenses of yellowish brown (M) sandy loam.

Finder: WB10-12, 22, 24-34, 96.

(135)

= 123.1

136 3

= (137). SFB, SD 0.35m; .1 (137.1, 3)

brown (M) sand, IF and rubble; .2 (137.2)

dark yellowish brown (M) sandy loam, IF,

MF, CF; .3 (137.4) brown (M) sand, IF and

rubble; .4 (136) yellowish brown (M) sandy

loam, CF, MF, LF, IF. Associated PHs 140,

- 141, 144 and 145.  
 Finds: Cu42; Fe5, 13, 36, 65, 87.  
 = 136
- (137) 138 prob 4A11 Pit, SD 0.25m; .1 strong brown (M) sandy clay loam, MF, limestone blocks; .2 brown (M) sandy loam, CF; .3 brown (M) sandy loam, MF, IF, CF; .4 brown (M) sandy loam, CF.
- 139 3? Pit, SD 0.62m, not bottomed; brown (M) clay loam, CF, IF.
- 140 3 PH, SD 0.48m; packings: .1 mottled strong brown (M) - dark yellowish brown (M) sandy loam, MF, CF, LF and IF; post pipes: .2 dark yellowish brown (M) sandy loam, CF, LF, MF. Associated with SFB 136.
- 141 3 PH, SD 0.21m; packings: .1 dark yellowish brown (M) sandy loam, CF, LF, IF, MF; post pipes: .2 strong brown (M) sandy loam IF, MF, CF. Associated with SFB 136.
- (142) = 127.2, 3
- (143) = 127.1
- 144 3 ?PH, SD 0.35m; yellowish brown (M) sandy loam, CF, MF, LF, IF. Associated with SFB 136.
- 145 3 PH, SD 0.47m; dark yellowish brown (M) sandy loam IF, LF. Associated with SFB 136.
- (146) = 80
- (147) = +
- 148 3 Layer; yellowish brown (M) - strong brown (M) sand with some brownish yellow (M) patches, MF, CF. NOP.
- 149 3? = (X10). Pit, SD 0.23m; .1 dark brown (M) clay loam, CF, burnt IF, gray clay flecks; .2 dark yellowish brown (M) clay loam, CF, IF, gray clay flecks.
- 150 3 Robber trench for stone building extension (151.1), SD 0.31m; dark yellowish brown (M) sandy loam, MF, CF, IF, LF.
- 151 2 = (159).  
 .1 (151) wall fragment, Phase 2 hall extension (cf 208); limestone blocks with very occasional IF set in strong brown (M) sand. Very few stones remaining.  
 .2 (159) wall fragment, limestone and ironstone blocks, occasional tile fragments (many stones had mortar adhering to them but were not mortar bonded in this feature) loosely packed with dark yellowish brown (M) friable loam matrix, MF, CF. Remains of apparent mortar capping noted. With 208, and V6B forms annexe to main building (127)
- 152 3 Pit, SD 1.02m; .1 brown (M) clay loam, IF, LF, CF, reddish yellow (M) mortar, ironstone rubble; .2 very dark greyish brown (M) clay loam, CF, IF; .3 yellowish brown (M) sandy clay loam, CF, MF, IF.

- (153) = +  
 (154) = +  
 155 3 = (164). Pit, SD 0.40m; .1 mixed strong brown (M) and dark yellowish brown (M) sandy loam and clay, IF and gravel, CF, MF, LF; .2 dark yellowish brown (M) clay loam, MF, CF, IF; .3 dark greyish brown (M) ashy silt loam, CF, MF, LF.  
 156 prob 3 PH, SD 0.18m; mottled dark yellowish brown (M) - yellowish brown (M) sandy loam, MF, CF, grey - cream clay flecks. (Possible contamination of 681 by this PH)  
 157 3 ?PH, SD 0.18m; dark yellowish brown (M) sandy loam, MF, LF, CF, IF.  
 (158) = +  
 (159) = 151.2  
 (160) = 68  
 161 2 = (163, 177-8, 606). Layer, patchy mortar spread (max thickness 0.05m); along N and W edges of main stone building trenches and NE wall of annex.  
 162 3? Pit, SD 2.00m, not bottomed; .1 dark yellowish brown (M) sand, IF, LF; .2 ironstone rubble with limited dark yellowish brown (M) sand matrix; .3 ironstone rubble in loose strong brown (M) sand matrix; .4 yellowish brown (M) sandy clay loam, MF, CF.  
 Finds: AF1.  
 (163) = 161  
 (164) = 155  
 165 2 = (164). PH, SD c. 0.31m; yellowish brown (M) sandy loam and sand, MF, CF, occasional flint pebbles. Visible in the top of 167 but probably overlaid by 161 and cut by 123. Apparently contemporary with wall 127.  
 (166) = +  
 167 2 = (170-1, 173, 420; ?= 184, 190). Layer; strong brown (M) sand, MF, CF, IF, (184 dark yellowish brown (M) at highest level). 184 and 190 both clearance/cleaning layers but apparently = 167 (see Fig (M)4).  
 Finds: H10.  
 168 2 = (172, 174, 176, 191, 197, 421, 610-12). Layer; mainly compact flint pebble spread, some IF and LF in strong brown (M) sand matrix. LF concentrated in three areas centred on 128.00/201.00, 115.00/199.00 and 117.00/195.00, the latter comprising a small spread of IF, overlaid by pebbles, overlaid by LF, and approximately 0.10m thick (see Fig (M)3).  
 169 prob 3 Wall rubble; limestone blocks, no matrix, some associated mortar, probably collapsed rubble from Phase 2 wall.



(170)		= 167
(171)		= 167
(172)		= 168
(173)		= 167
(174)		= 168
175	2	Layer; mottled dark yellowish brown (M) CF, IF, MF. NOP.
(176)		= 168
(177)		= 161
(178)		= 161
179	2	= (186, 223, 225, 230, 435-6, 443, 608, 635, 644). Layer; strong brown (M) - dark yellowish brown (M) sand, MF, CF, IF (latter more concentrated in areas centred on 129.00/184.00 and 131.00/187.00). May be either 167 or 432 (see Figs (M)2, 3).
180	17	PH, SD c. 0.24m; strong brown (M) - yellowish brown (M) silty sand, CF, IF.
181	17	?PH, SD 0.44m; .1 strong brown (M) sand, CF, IF, LF; .2 loamy sand, otherwise as .1. Probably overlaid by 179 but relationship with 187 not clear.
182	prob 2	Layer; strong brown (M) loamy sand, MF, LF, IF, CF. NOP. ?= 179.
183	2	Gully, SD 0.19m; .1 mottled strong brown (M) - dark yellowish brown (M) sandy loam, MF, CF, IF, LF; .2 strong brown (M) sand. Cut by 159 and cuts 187. Possibly an earlier wall line than 159 - note presence of some mortar flecks. Finds: FL; FS. ?= 167
(184)		
185	prob 2 poss 3	PH, SD 0.31m; strong brown (M) sand, MF, IF, CF.
(186)		= 179
187	2	= (189, 231, 433, 437, 444, 602, 609, 613, 620, 622, 626, 643, 645, 649, 651-2, 657, 666, 733, 749; ?= 614.1, 4, 7) Layer, moderate - sparse scatter of small - medium IF set in strong brown (M) - brown (M) sand (with localised variations - yellowish brown (M), red (M) and reddish yellow (M)). PH?, SD 0.35m; strong brown (M) sand, MF, IF, CF.
188	prob 2 poss 3	= 187
(189)		= 167
(190)		= 168
(191)		
192	prob 3 poss 4	?PH, SD 0.12m; dark yellowish brown (M) sandy loam, LF.
193	3/4A1	Pit/PH, SD 0.34m; dark yellowish brown (M) loam, CF, IF.
(194)		= +
(195)		= +
196	3/4A1	PH, SD 0.40m; dark yellowish brown (M) loam, CF, IF, MF.
197)		= 168

(198)		= 105
(199)		= 104
200	4	Pit, dark grey (M) silt loam, IF, CF, MF; lining: ironstone blocks set in grey clay. NOP.
(201)		= +
202	4	Pit, dark grayish brown (M) clay loam, MF, CF, IF, brick. NOP.
203	4Ai	Pit, SD 0.30m; brown (M) clay loam, CF, IF, MF. Finds: Fe90, 96, 97, 100; fl; fs; WB68, 69, 99.
204	4Ai	Pit, SD 0.75m, not bottomed; dark brown (M) sandy clay loam. Finds: Cu3; Fe76; Cr; fs; H3; WB35, 98, 100.
205		= +
206	3	= (219). Robber trench, of Phase 2 hall extension (208), SD 0.50m; .1 dark olive (M) silt loam, IF, MF, CF; .2 dark olive (M) silt loam, orange (M) sand patches, MF, CF, IF; .3 orange brown (M) sandy silt loam, light olive patches, MF, IF; .4 light olive brown (M) sand, MF, IF; .5 orange brown (M) sand, MF, IF; .6 dark olive brown (M) silt loam IF, CF, MF; .7 dark olive brown (M) silt loam, IF, MF, CF; .8 as .2. Finds: Cr; fs; WB55-62, 95.
207	4Ai	Layer; IF/rubble set in sandy loam, CF. NOP.
208	2	Wall SD 0.42m; jumbled small ironstone and limestone rubble, matrix of mixed mainly light olive brown (M) silt loam with patches of dark grey (M) silt loam and orange brown sand, CF, MF. With 151 and V68 forms annexe to main Phase 2 building (127).
(209)		= +
210	4Ai	Pit, SD 0.29m; dark brown (M) loam, MF, CF, IF.
211	4Bi	Pit, SD 0.25m, not bottomed; brown (M) clay loam, IF, CF, blue and grey clay flecks. Finds: fs.
(212)		= +
213	4Ai	Pit, SD 0.30m; .1 strong brown (M) sand IF; .2 dark yellowish brown (M) sandy loam, MF, IF, CF, lenses of brown (M) sand.
(214)		= +
215	4	Layer; IF, set in brown (M) sandy loam, MF, CF. Probably spread from 208. NOP.
216	4	PH, SD 0.27m; grey silt loam, MF.
217	3?	Pit, SD 0.25m; tip lenses of light olive green silt loam and orange sand, MF, CF, IF.

218	37	Pit, SD 0.55m; light green (M) - orange (M) sandy silt loam, MF.
(219)		= 206.
220	prob 1	PH, SD 0.25m; light olive brown (M) sand, CF, MF, IF. Not normal fill for Phase 1/2 but presumably contaminated from above.
221	prob 3	PH, SD 0.15m; dark olive green (M) silt loam with orange brown (M) sand patches, IF, MF, CF.
222	prob 3	SH? SD 0.07m; dark olive green (M) silt loam, with orange brown (M) sand patches, IF, MF, CF.
(223)		= 179
224	prob 3	PH, SD 0.30m; post pipe: .1 olive brown (M) silt loam with orange brown (M) sand patches, IF, CF, MF; packings: .2 strong brown (M) clay loam.
		Finds: WB63, 64.
(225)		= 179
(226)		= 93
227	2	= (229). Shallow gully, SD 0.20m, with PHs and SH in bottom; .1 top fill - strong brown (M) sand, MF, IF.
		.2 PH, SD 0.40m from top of gully; strong brown (M) sand, IF, MF, CF; post pipe (229), mixed orange sand and olive green silt loam (not a normal Phase 2 fill).
		.3 PH, SD 0.17m; strong brown (M) sand, IF, MF, CF, limestone and ironstone blocks.
		.4 SH, strong brown (M) sand, IF, MF.
		.5 PH? SD 0.10m; strong brown (M) sand, CF, IF.
		The quantity of mortar in the slot suggests it post-dates the main stone building and stratigraphically it predates wall 208.
		Finds: Nu2.
228	3/4A1	PH, SD 0.25m; .1 mixed orange sand, olive green (M) silt loam, CF, MF, IF; .2 strong brown (M) sand, MF, LF.
(229)		= 227.2
(230)		= 179
(231)		= 187
232	prob 1	PH, SD 0.28m; strong brown (M) sand, dark yellowish brown (M) mottling, CF, MF, IF.
233	1	= (238, 240, 242, 415, 445, 469, 490, 492-4, 615, 619, 642, 646, 654, 667-8, 670, 674, 734, 748, 750, 761-5, 770, 907, 931, 935, 947, 982, 1002, 1020-1, 1104, 1107).
		Layer; strong brown (M) sand - sandy loam, MF, CF, IF. NOP.
		Finds: Cu51.
234	1	PH, SD 0.17m; dark yellowish brown (M) sandy silt loam, CF, MF, IF, burnt IF.
235	1	= (907). ?PH, SD 0.07m; yellowish brown (M) sandy loam, CF, MF.

236	prob 1	?PH, SD 0.20m; strong brown (M) sand, MF, CF.
237	prob 1	?PH, SD 0.12m; strong brown (M) sand, MF, CF.
(238)		= 233
239	1	PH, SD 0.15m; .1 dark brown (M) sandy loam, MF, CF, IF; .2 yellowish brown (M) sandy loam, MF, CF.
(240)		= 233
241	prob 1	?PH, SD 0.25m; dark yellowish brown (M) silt loam, MF, CF, IF.
(242)		= 233
243	1	?PH, SD 0.10m; strong brown (M) sandy loam, MF, IF.
244	prob 1	?PH, SD 0.12m; strong brown (M) sandy loam, IF.
245	prob 1	PH, SD 0.10m; strong brown (M) sandy loam, IF, CF.
246	prob 1	PH, SD 0.10m; brownish yellow (M) sand.
247	prob 1	?PH, SD 0.07m; reddish yellow (M) loamy sand, IF.
(300)		= +
(301)		= +
(302)		= +
(303)		= +
(304)		= +
(305)		= +
306	4A11	Pit, SD 0.55m; dark greyish brown (M) clay loam, CF, IF; rough, incomplete ironstone lining. Finds: Cu22, 78.
307	4A1	Pit, SD 0.61m, not bottomed; brown (M) clay loam, CF, IF, ash, sand and IF lenses, ironstone lining. Finds: AF2.
308	4A11	= (318). Drying oven, SD 0.75m; oven chamber (308): dark greyish brown (M) sandy clay loam, IF, CF, MF, inclined mainly ironstone lining, base mainly limestone flags; stoke chamber (318): dark greyish brown (M) clay loam, with vertical lining, mainly ironstone. Finds: Cu79.
309	4A1	= (316, 352). Oven, SD 0.22m; two phases. First phase (352): brown (M) clay loam, MF, CF, IF; limestone flagging with ironstone lining in circular oven area; stoke area robbed out. Second phase (309): yellowish brown (M) sandy silt loam, lenses of ash, burnt sand and grey clay; lining mainly ironstone and base mainly limestone. Oven set into wall 327. Finds: Fe53, 98.
(310)		= +
311	3?	= (915). PH, SD 0.10m; olive brown (M)

- sandy clay loam, CF, MF, IF, LF.  
 = +  
 (312) 313 3/4 = (900). Pit, BD 0.38m; olive brown (M) clay loam, IF, CF, MF.  
 = +  
 (314) = +  
 (315) = +  
 (316) = 309  
 (317) = +  
 (318) = 308  
 319 prob 4Aii Drain, BD 0.85m, not bottomed; dark brown (M) silty clay loam, CF, IF; capped with limestone flags.  
 320 4A Pit(s), BD 0.40m, not bottomed; .1 brown (M) sandy loam, MF, CF, IF, probably subsidence; .2 dark brown (M) clay loam CF, IF; two pits in outline but only one fill discerned.  
 Finds: Fe128.  
 321 4Ai Lime kiln, BD 0.90m; brown (M) clay loam, CF, IF, lens of red and black ash on lining; ironstone lining of neatly laid blocks.  
 322 3/4 Pit, BD 0.75m; dark greyish brown (M) clay loam, CF, IF, MF, sand patches. NOP.  
 323 3/4 = (333-4). Pit, BD 1.25m, not bottomed; .1 (334.3) brown (M) clay loam, MF, CF, LF, IF; .2 (333.3, 334.2) dark greyish brown (M) silt loam; .3 (333.2, 334.1) dark greyish brown silt loam, MF, CF; .4 (333.1) dark yellowish brown (M) sandy clay loam, MF, CF, sand patches.  
 (324) = +  
 (325) = +  
 326 4A Robber trench, BD 0.20m; brown (M) clay loam, predominantly ironstone rubble with occasional limestone pieces. Robs wall 327.  
 327 4Ai = (347.3, 379-81). Wall, runs N-S; ironstone blocks, some well dressed, minimal core, occasional limestone. Oven 309 set into this wall. At 135/185 break in wall faced on both sides with ashlar blocks and floored with burnt limestone flags. Area to S badly disturbed but to N was a shallow depression which may have been stone-lined. This is probably the remains of some sort of oven.  
 Finds: Fe99.  
 328 4Aii Wall, runs E-W; ironstone blocks surviving in pit 307 as deeper foundation. Construction trench, brown (M) clay loam with clay patches. Wall line suggests that the wall abuts and forms a right angle with wall 327.  
 (329) = +  
 (330) = +  
 (331) = +

332	4A1	Wall stub; one course of ironstone blocks, c. 1.2m long, matrix of brown (M) sandy clay loam.
(333)		= 323
(334)		= 323
335	4A	Robber trench, SD 0.20m; ironstone rubble in brown (M) clay loam, MF, IF, clay patches. Robs wall 327.
336	3/4	Pit, SD 0.60m, not bottomed; dark greyish brown (M) silty clay loam, MF, CF, IF.
(337)		= +
(338)		= +
(339)		= +
(340)		= +
341	4A1	Pit, SD 0.45m; yellowish brown (M) clay loam, IF, CF.
342	4A17	Pit, SD 0.10m; olive brown (M) silt loam, CF, IF.
343	4A1	Pit, SD 0.37m; dark yellowish brown (M) clay loam, CF, MF, IF and rubble.
344	4A1	= (347.1-.2, 361, 368). Various deposits of olive brown (M) silty clay loam, brown (M) clay loam, clay and rubble to N and E of 327 filling area centred on 135/185. Finds: Fe54, 99.
345.1	4A1	= (345.2, .4-.5). Pit, SD 0.7m; dark yellowish brown (M) sandy clay loam, MF, IF, CF, patches of very pale brown (M) clay; brownish yellow (M) sandy silt loam, lenses of yellowish red (M) ash and brownish yellow (M) sand. Base layer possibly debris from wall 127. Note 345.3 = 356.
		Finds: Fe14.
345.3	4A1	= (356). Pit, SD 0.70m; ironstone lining and base, dark yellowish brown (M) sandy clay loam, IF, CF, MF, patches of light brownish grey (M) clay.
346	4A1	Pit, SD 0.80m, not bottomed; .1 brown (M) sandy clay loam, IF, CF, very dark greyish brown (M) silty clay loam, IF, CF, ash; .5 dark brown (M) clay loam, IF, MF.
(347.1)		= 344
(347.3)		= 327
(348)		= +
(349)		= +
(350)		= +
351	37	Pit, SD 0.50m; dark brown (M) clay loam, CF, IF, MF.
(352)		= 309
353	4A1	PH, SD 0.20m; dark greyish brown (M) clay loam, CF, MF, IF. NOP.
(354)		= +
(355)		= +
(356)		= 345.3
357	prob 4A11	Pit, SD 0.44m; crushed ironstone set in

358	4A11	brown (H) sandy loam. Pit, SD 0.57m; brown (H) clay loam, IF, CF, MF, patches of brownish yellow (H) sand.
(359)		= +
360	prob 4A11	Pit? yellowish brown (H) sandy clay loam, CF, MF, IF. Most of this feature unexcavated.
(361)		= 344
(362)		= +
(363)		= 62
(364)		= 123.2
(365)		= 123.2
(366)		= 123.2
(367)		= 123.2
(368)		= 344
369	3/4	Pit, SD 0.13m; light olive brown (H) silt loam, IF, LF.
370.1	4A1	= (370.3). Pit, SD 0.65m; brown (H) clay loam, IF, MF, CF, LF, patches of light grey (H) clay; dark yellowish brown (H) loam, IF, KF, CF.
370.2	4A1	= (389). Pit, SD 0.53m; brown (H) clay loam, IF, MF, CF, LF, light grey (H) clay patches; black (H) sandy clay ash, MF, IF, CF.
371	4A1	Pit, SD 0.50m, not bottomed; dark grayish brown (H) sandy clay loam, CF, IF, MF.
(372)		= 66
373	4A1	Pit, SD 0.41m, not bottomed; .1 dark brown (H) clay loam, MF, ash lenses, IF and rubble; .2 brown (H) sandy clay loam, IF, MF, LF.
(374)		= 66.4
375	4A1	Pit, SD 0.62m, not bottomed; .1 dark brown (H) clay loam, CF, IF; .2 dark brown (H) clay loam, ash patches, IF, CF, MF, LF. Finds: RT5.
376	4A1	Pit/PH, shallow; brown (H) clay loam, CF. NOP.
377	4A1	Pit, SD 0.84m, not bottomed; dark yellowish brown (H) clay loam, MF, IF, CF.
378	4A1	Pit, SD 0.62m; yellowish brown (H) loam, CF, MF, IF.
(379)		= 327
(380)		= 327
(381)		= 327
(382)		= 123.7
(383)		= 123.7
(384)		= 123.6
(385)		= 123.7
(386)		= 123.8
(387)		= 123.8
388	4A1	Pit, SD 0.46m; grayish brown (H) sandy loam, CF, IF; ironstone lining with occasional limestone pieces.

- (389) = 370.2  
 390 4Ai Pit, SD 0.25m; dark yellowish brown (M) sandy clay loam, IF, MF, CF, NOP.  
 391 4Ai Pit, SD 0.22m; very dark grayish brown (M) sandy clay loam with sand patches.  
 392 4Ai Pit, SD 0.22m; .1 very pale brown (M) sand and clay with patches of white (M) clay, LF; .2 olive brown (M) sandy clay loam, CF, IF, MF.  
 393 3/4Ai Pit, SD 0.11m; dark grayish brown (M) clay loam.  
 394 4 Wall; ironstone construction, matrix dark brown (M) sandy clay loam. Extended off site to S.  
 395 4Ai Pit, SD 0.24m; dark brown (M) sandy loam, IF and rubble, some pebbles.  
 396 prob 4Ai Pit, SD 0.45m; dark brown (M) clay loam, CF, MF, IF.  
 397 4Ai Pit, SD 0.58m; .1 brown (M) sandy loam, CF, MF, IF and rubble; .2 dark olive gray (M) clay loam, CF, IF; .3 rough ironstone block lining, occasional limestone; .4 construction trench for .3, brown (M) sandy loam, CF, MF, IF and rubble, gray (M) clay patches.  
 398 3/4Ai Pit SD 0.15m; brown (M) clay loam, IF, MF, CF, NOP.  
 399 3/4Ai Pit, SD 0.70m; dark brown (M) sandy clay loam, IF, CF, MF.  
 400 4Ai Pit, SD 0.56m, not bottomed; brown (M) clay loam, IF, MF, CF.  
 401 3/4Ai = (402). Hearth, SD 0.19m; burnt depression in natural ironstone; .1 red (M) burnt sand; .2 dark yellowish brown (M) loam, IF, CF. (NOP Phase 4Ai).  
 (402) = 401  
 403 3 Pit, SD 0.20m; dark grayish brown (M) silt loam, CF, IF.  
 (404) = 127.11  
 (405) = 127.10  
 (406) = 127.9  
 (407) = 127.3  
 408 1 PH, SD 0.18m; yellowish brown (M) loose sandy loam, CF, MF.  
 409 1 PH, SD 0.24m; .1 strong brown (M) sand, surface scatter MF; .2 as .1, no MF, occasional IF.  
 410 1 = (427, 429, 452-4, 953). Foundation trench, SD 0.55m; strong brown (M) - brownish yellow (M) - yellowish brown (M) sand, IF, CF, MF. PH's .1 SD 0.28m; strong brown (M) sand, CF; .2 SD 0.30m; as .1; .3 SD 0.33m; as .1; .4 SD 0.35m; strong brown (M) sand, IF over brown (M) sandy clay loam, CF, MF; .5 SD 0.31m; brown (M) loamy sand, CF; .6 SD 0.40m; yellowish brown (M)



		- brownish yellow (M) loamy sand, CF, IF; .7 SD 0.50m; as .6 with MF and more IF at base; .8 SD 0.58m; as .6 with MF; .9 SD 0.55m; reddish yellow (M) - strong brown (M) loamy sand, IF, MF; .10 SD 0.60m; as .9; .11 SD 0.26m; as .9; .12 SD 0.21m; reddish yellow (M) - strong brown (M) loose loamy sand, more IF at base; .13 SD 0.34m; reddish yellow (M) - strong brown (M) compact sand, IF, CF, MF; .14 SD 0.32m; strong brown (M) compact loamy sand (with bright orange (M) and yellow (M) sand flecks), CF, MF, IF; .15 SD 0.31m; reddish yellow (M) - strong brown (M) loose loamy sand, CF, MF, IF.
411	1	PH, SD 0.11m; strong brown (M) friable loamy sand, MF, CF.
412	1	PH, SD 0.31m; yellowish brown (M) sandy loam, MF, CF, IF, and flint pebbles.
(413)		= +
414	17	?PH, SD 0.06m; strong brown (M) loose sand, MF and patches, CF, IF.
(415)		= 233
416	17	= (478). ?PH, SD, 0.11m; mottled brown (M) sand.
417	1	PH, SD 0.24m; strong brown (M) sandy loam, CF, MF.
(418)		= +
(419)		= +
(420)		= 167
(421)		= 168
(422)		= 127.12
423	1	= (424-26, 430, 447-451, 474, 476). Foundation trench, SD 0.40m; strong brown (M) loamy sand, IF and 1 gravel. PHs; .1 SD 0.37m; strong brown (M) loamy sand, IF, more concentrated at base; .2 SD 0.30m; strong brown (M) sandy loam, IF; .3 SD 0.32m; as .2; .4 SD 0.28m; as .2; .5 SD 0.28m; as .2; .6 SD 0.30m; as .2; .7 SD 0.35m; as .2; .8 SD 0.40m; as .2; .9 depth not recorded (cut by later pit); as .2; .10 SD 0.20m; IF in sparse strong brown (M) sandy loam.
(424)		= 423
(425)		= 423
(426)		= 423
(427)		= 410
428	17	= (1109). ?PH, SD 0.06; strong brown (M) silty sand, CF.
(429)		= 410
(430)		= 423
431	1	Foundation trench, SD 0.59; strong brown (M) sand, IF, MF. N edge only was clearly defined as most of slot removed by Phase 2 wall construction trench.

- 432 2 = (604, 616-18, 623, 625). Layer; strong brown (M) - brown (M) sand, IF, MF, CF, (see Fig (M)2).
- (433) = 187
- 434 prob 1 PH, SD 0.50; yellowish brown (M) sandy loam, MF, IF. Overlaid by 168, cuts 233, probably associated with Phase 1, unless construction of Phase 2.
- (435) = 179
- (436) = 179
- (437) = 187
- 438 1 Layer; SD 0.33m; yellowish red (M) sandy loam, IF (some heavily burnt), CF. Either layer across top of 79FB 441 or top fill of it.
- 439 1 Layer; small area of charcoal surrounded by burnt sand and IF. Probably equivalent of 440, 641, 689, 766.1, and 1101.
- 440 1 Layer; mainly charcoal, occasional burnt IF, overlying patches of white clay. Probably equivalent of 439, 641, 689, 1101.
- 441 1 = (442). 8FB? IF in strong brown (M) loamy sand over charcoal layer mixed with dark yellowish (M) clay loam, IF, grey clay flecks. Cut away on all sides - no posts surviving.  
Finds: HAR-5557; ts.
- (442) = 441
- (443) = 179
- (444) = 187
- (445) = 233
- 446 1 7PH, SD 0.41m; strong brown (M) sandy loam, CF, MF, IF.
- (447) = 423
- (448) = 423
- (449) = 423
- (450) = 423
- (451) = 423
- (452) = 410
- (453) = 410
- (454) = 410
- 455 prob 1 PH, SD 0.30m; .1 strong brown (M) sandy loam; .2 strong brown (M) sandy loam, IF; possibly animal disturbance. Either contemporary with 410 which it cuts or later; perhaps contemporary.
- 456 1/2 PH, SD 0.30m; .1 brown (M) sand, much mortar, IF, CF; .2 strong brown (M) sandy loam, IF, CF and some LF. .1, c. 0.28m across, may be post pipe but is of very irregular shape.
- 457 1 7PH, SD 0.10m; brown (M) sandy silt loam, CF.
- 458 1 7PH, SD 0.07m; strong brown (M) sandy loam, CF.
- (459) = +

460	3/4A1	Pit? brown (M) sandy loam, CF, IF, limestone blocks. Not excavated. NOP.
461.2	1?	?PH, SD 0.08m; yellowish brown (M) sandy loam, CF, IF, MF.
462	1?	?PH, SD 0.18m; strong brown (M) sandy loam, CF, IF.
463	1?	?PH, SD 0.08m; strong brown (M) sandy silt loam, CF.
464	prob 1	Pit, SD 0.50m; strong brown (M) sandy silt loam, IF, MF, CF, occasional flint pebbles. NOP.
465	1	= (472, 675, 693). Foundation trench: SD 1.19m; strong brown (M) sandy loam - loamy sand, IF and I gravel, CF, occasional cream clay flecks and flint and ?sandstone pebbles over IF in sparse strong brown (M) - reddish yellow (M) sandy loam. PHs in foundation trench: .1 SD 0.47m; brown (M) friable loamy sand, CF; .2, SD 0.54m; as .1 with occasional MF; .3 SD 0.49m; brown (M) sandy silt loam, CF, MF; .4 SD 0.38m; dark yellowish brown (M), IF and I gravel, CF; .5 SD 0.43m; strong brown (M) sandy loam, IF (across base), CF; .6 SD 0.45m; partially void, remaining fill brown (M) sandy silt loam, IF, CF, MF; .7 SD 0.53m; strong brown (M) very loose sandy silt loam, IF, CF, MF; .8 SD 1.05m; void; .9 SD 0.71m; strong brown (M) loose sandy loam, I gravel, CF MF; .10 SD 0.91m; strong brown (M) sandy loam, MF, CF, and IF and I gravel; .11 SD 0.90m; as .10; .12 (doubtful) SD 0.24m; loose IF in strong brown (M) loamy sand; .13 SD 0.16m; strong brown (M) sandy silt loam; .14 SD 0.20m; brown (M) sandy silt loam, IF, CF. Finds: HAR-5555.
466	prob 1	Pit, SD 0.45m; brown (M) - dark yellowish brown (M) sandy silt loam, IF, CF, MF, occasional flint pebbles. NOP.
467	1?	?PH, SD 0.02m; strong brown (M) sand, CF.
(468)		= +
(469)		= 233
470	1	PH, SD 0.21m; strong brown (M) sandy silt loam, IF, CF, MF.
(471)		= +
(472)		= 465
(473)		= +
(474)		= 423
475	1/2	PH/BH; SD 0.38m; brown (M) sandy loam, CF, MF.
(476)		= 423
477	1	PH, SD 0.09m; strong brown (M) sandy loam, IF, CF, MF.

478	1	PH, SD 0.40m; strong brown (M) sandy loam, IF, LF, CF.
479	1	= (913, 954). Foundation trench, SD 1.08m; fills: strong brown (M) sandy loam, IF and gravel, CF, MF; strong brown (M) - reddish yellow (M) compact sand IF, CF, MF; light brown (M) sand, IF, CF, MF; strong brown (M) loamy sand, IF, MF, CF; reddish yellow - strong brown (M) loamy sand, IF. In places fills show some horizontal banding. PHs: .1 SD 0.64m; strong brown (M) compact loamy sand, IF, MF, CF; .2 SD 0.74; strong brown (M) loose loamy sand, IF, CF; .3 SD 0.74m; strong brown (M) - reddish yellow (M) compact sand, CF, MF; .4 SD 0.56m; as .1; .5 SD c. 0.94m fill not described; .6 SD c. 1.08m fill not described; .7 SD 0.95m; yellowish brown (M) compact sand, IF, CF; .8 SD 0.93m; as .7; .9 SD 0.41m; reddish yellow (M) sand, IF; .10 SD c. 0.73m; fill not described; .11 SD 0.70m; yellowish brown (M) compact sand, IF, CF, MF; .12 SD c. 0.40m; strong brown (M) sandy silt loam, IF, CF, MF; .13 SD 0.53m; dark yellowish brown (M) compact sandy loam, IF, CF, MF; .14 SD 0.51m; as .12; .15 SD 0.51m; mottled strong brown - dark yellowish brown (M) sandy loam, CF (especially in upper fill), IF, MF; .16 SD 0.58m; as .12; .17 SD 0.53m; as .12. Finds: HAR-5551, 5553, 5554, 5558.
(480)		= +
(481)		= +
(482)		= +
483	1	Pit, SD 0.24m; strong brown (M) sandy silt loam, IF, CF, MF.
484	1	PH, SD 0.26m; strong brown (M) sandy loam, IF, CF, MF.
485	prob 1	PH, SD 0.37m; strong brown (M) sandy loam, IF, CF.
486	1	?PH, SD 0.42m; strong brown (M) sandy loam, IF, CF, MF; relationship with 487 uncertain.
487	1	?PH, SD 0.38m; strong brown (M) sandy loam, CF, MF; relationship with 486 uncertain.
(488)		= +
(489)		= +
(490)		= 233
491	1	PH, SD 0.47m; .1 strong brown (M) sandy silt loam, IF, MF, CF; .2 strong brown (M) - dark yellowish brown (M) sandy silt loam, IF, LF, CF, MF.
(492)		= 233
(493)		= 233

- (494) = 233  
 495 1 ?PH, SD 0.25m; strong brown (M) loamy sand, IF, CF. Cut by 465.  
 496 1 ?Foundation trench; SD 0.11m; mottled brown (M) loamy sand, IF. Probably continuation of 497, 766.2 and 767, here much eroded.  
 497 1 ?Bully, SD 0.07m; mottled strong brown (M) sand, IF, CF. Probably continuation of 496, 766.2 and 767 here much eroded.  
 (498) = 416  
 499 1 ?PH, SD 0.17m; brown (M) loamy sand, IF.  
 (501) = +  
 (502) = +  
 (503) = +  
 504 4Aii Robber trench, SD 0.17m; light greenish gray clay loam, small - medium IF, MF and many CF.  
 Finds: Nu9; Cu35, 56, 80, 81, 82; Fe62.  
 (505) = +  
 506 prob 4Ai = (519.31, 537). Wall; .1 irregular poss 4Aii ironstone blocks; .2 large ironstone blocks containing rubble core; .3 ironstone and limestone blocks, rubble core; .4 ironstone and sandstone blocks, rubble core, partially burnt; .5 limestone and ironstone blocks; .6 (519.31) limestone and ironstone blocks under thin capping of mixed clay; .7 (537) construction trench, fill not described. .3 may be earliest surviving wall section (with part being incorporated into 519.67), .1-.2, .4-.5 later walling and/or rebuilds, (.4 and .5) after oven complex (519) went out of use.  
 507 = +  
 508 prob 4 Pit stone lined. Not excavated.  
 Finds: Cu53.  
 509 4Ai Pit, SD 0.91m; .1 light olive brown (M) sandy clay loam, many small IF, some CF; .2 as .1, fewer IF, CF, MF; .3 stone lining (only W end surviving), ironstone blocks.  
 Finds: fs.  
 510 4Aii Wall; only fragments surviving; .1 (510) mixed ironstone and limestone rubble, matrix as 504, two courses surviving; .2 (515) as 510; .3 (516) as .1, four courses surviving (partially subsiding into underlying pit).  
 511 4 = (551). Stone foundation; .1 (511) limestone and ironstone blocks, a few sandstone and flint frags in light grey mortar; .2 (551) construction trench, loose olive brown clay loam, IF.  
 512 4Ai Pit, SD not recorded; stone lining and base (limestone slabs) only surviving.  
 513 3/4 = (549). Pit, SD 0.49m; .1 light olive

- brown (M) silt loam, CF, MF, IF. .2 (549)  
olive brown (M) clay loam, CF, IF and MF.  
Possibly construction trench or robber for  
wall 506.
- 514 4A Pit, SD c. 0.14m; only lining surviving -  
limestone and ironstone blocks, olive brown  
(M) silt loam matrix.
- (515) = 510  
(516) = 510
- 517 4 Pit, SD 0.69m; .1 mixed olive (M) silt  
loam, IF, CF, MF; .2 mixed white, gray and  
yellow clay. Traces of stone lining  
surviving but only at uppermost level.
- (518) = +
- 519.1 4 = (519.2-.4). Layer, mixed light - dark  
greyish brown (M) clay loam and silt loam,  
ironstone rubble, MF, CF, etc. NOP.  
Destruction levels or deposits after ovens  
had gone out of use.  
Finder: AF11.
- 519.6 4 = (519.7-.11, .16-.20, .23-.24, .28, .30,  
.32-.33, .35). Oven, SD 0.33m; two phase  
firing chamber. First phase (519.11,  
.18-.20, .23, .24, .28-.30, .32, .33, .35):  
floor - limestone and ironstone slabs,  
burnt, with burnt clay matrix and some ash  
overlying construction trench and other  
fills (mixed silt loams, sandy and clay  
loams, IF, rubble etc.); wall - large  
ironstone blocks neatly laid, backed by I  
rubble, burnt on inner face. Second phase  
(519.6-.10, .16-.17): floor - limestone  
slabs, burnt, with mixed burnt silt loams  
and clay loam matrix and some ash overlying  
make-up, between first and second phase  
structures, of mixed silty clay loam loam  
and burnt clay, ash etc; wall - large  
limestone and ironstone blocks over small  
IF rubble, burnt on inner face. .24, .28,  
.32, .33 and .35 lie under 519.6 but also  
beneath .20 and .26 in various  
combinations. Possibly they may be part of  
an earlier (?oven) structure or  
construction/levelling for the complex as  
it stands.
- 519.20 4 = (519.25). Oven, - stoke chamber for  
519.6 and/or 519.21? (partly built over  
519.26); floor limestone and ironstone  
paving, mixed clay matrix and ash, wall -  
irregular ironstone blocks in mixed clay  
and loam.
- 519.21 4 = (519.22, .27). Oven, SD 0.38m; single  
firing chamber; floor - burnt limestone  
slabs with ash and charcoal where paving  
absent, wall - limestone and ironstone  
blocks in mixed clay matrix.

- 519.26 4 Oven, floor only of earlier phase firing chamber surviving - burnt limestone slabs. Possible position of wall on SE side indicated by change from burnt to unburnt sand.
- (519.31) = 506.6  
520 4A = (521). Pit, SD 0.22m; .1 olive brown (M) silt loam, MF, CF; .2 olive (M) clay loam, IF, ash lenses with CF and burnt sand; .3 light yellowish brown (M) silt loam, MF; .4 olive mortar with dark olive clay loam patches; .5 pale yellow (M) sandy silt loam, mortar lumps; .6 (521) light olive brown (M) sandy silt loam, MF, CF, IF. Finds: Fe109.
- (521) = 520  
522 4A1 Pit, SD 0.38m; .1 olive brown (M) silty loam, mortar lumps, CF, IF; .2 olive brown (M) sandy silt loam, MF, IF, CF.
- 523 3 Pit, SD 0.62m; .1 light olive brown (M) silt loam, CF, IF; .2 red (M) loamy sand, lenses of charcoal and off-white ashy clay; .3 ash, charcoal, sand and mottled cess lenses interspersed with light olive brown (M) silt loam containing much mortar; .4 mixed sand and light olive brown (M) silt loam, CF, IF; .5 yellowish brown (M) clay loam with much mortar; .6 orange sand and light olive brown (M) silt loam, CF, IF; .7 mixed dark greyish brown sand loam with much CF. Finds: WB1.
- 524 4A1 Pit, SD 0.12m; olive brown (M) sandy silt loam, much charcoal, some MF lumps.
- 525 4A1 Pit, SD 0.49m; .1 olive brown (M) silty loam, MF, IF, CF; .2 dark greyish brown (M) clay loam, IF, CF.
- 526 prob 4A1 Pit, SD 0.53m; olive brown (M) silty loam, CF, MF, IF, LF.
- 527 4A1 = (528, 560). Pit, SD not recorded; olive brown (M) sandy silt loam, MF, CF, IF, (some ironstone rubble at lowest level).
- (528) = 527  
529 4A1 Pit, SD 0.59m; .1 light olive brown (M) silt loam, many IF and CF, some MF and patches of light gray ashy clay; .2 stone lining of ironstone and limestone blocks set in construction trench.

- 530 4A1 Pit, SD 0.62m; .1 olive brown (M) sandy silt loam, IF, CF, mortar lumps and mixed clay patches; .2 yellowish brown (M) sandy silt loam, IF, CF; .4 olive brown (M) silty clay loam, IF, CF, MF and mixed clay patches; .5 olive (M) clay loam, CF, IF and clay patches; .3 stone lining - ironstone and sandstone blocks and construction trench.  
Finds: Cu49.
- 531 4A1 Pit, SD 0.23m; olive brown (M) sandy silt loam, IF, MF and CF.
- 532 3/4 Pit, SD 0.34m; light olive brown (M) sandy silt loam with patches of sand and dark brown clay loam, much mortar, CF, IF, LF.
- 533 4A1 Pit, SD 0.61m, not bottomed; loose olive brown (M) clay loam, CF, MF, IF.  
= 123.3
- (534) 535 3/4 Pit, SD 0.66m; .1 light olive brown (M) sandy loam, CF, MF, LF, IF; .2 dark yellowish brown (M) sandy clay loam, MF and lumps, CF, IF.
- 536 4A Pit, SD 0.64m; .1 sparse off-white ashly silt loam; .2 olive brown (M) silt loam, CF, small IF and larger ironstone and limestone blocks in upper fill.  
Finds: Cu4, 23.  
= 506.7
- (537) 538 4A1 Pit, SD 0.96m, not bottomed; olive brown (M) clay loam, CF, MF, IF.  
Finds: Fe101.
- 539 4A1 = (541). Pit, SD 0.55m; olive brown (M) sandy silt loam, many CF, MF some IF.
- 540 3/4A1 PH, SD 0.65m; .1 post pipe, dark grayish brown (M) silt loam, CF, MF, IF; .2 mixed light olive brown (M) - olive brown (M) clay loam and strong brown (M) - reddish brown (M) sand, IF (concentrated at base), one large piece of limestone, MF, CF. Width of post pipe not recorded.  
Finds: Fe42.
- 541 4A11 Pit, SD 0.30m; olive (M) silt loam, CF (and bone ash?), IF, MF.  
Finds: Cu36-9, 63; Fe107.
- 542 3/4 PH, SD 0.05m; .1 mixed dark gray (M) silty clay loam with much charcoal, olive brown (M) silt loam and light gray (M) clay; .2 olive brown (M) silt loam, with some orange brown sandy silt loam, CF, IF.
- 543 4A11 Pit, SD 0.95m, not bottomed; .1 light olive brown (M) sandy clay loam, CF, IF, MF; .2 light olive brown (M) silt loam, CF, MF and much animal bone (especially horn cores); .3 olive brown (M) clay loam, IF, MF, CF; .4 very firm olive brown (M) sandy



- clay loam, tightly packed IF; .5 firm olive (M) clay loam, many CF, MF, IF; .6 as .2; .7 firm dark - very dark greyish brown (M) clay loam, many MF, CF, IF.  
 Finds: fs; TS; RT10, 11.
- 544 4Ai PH, SD 0.28m; .1 (post pipe?) dark greyish brown (M) silty clay loam, CF, IF; .2 mixed orange sand and greenish grey clay loam, IF; .3 as .1; .4 loose dark greyish brown clay loam, CF; .5 post pad - large limestone block.  
 Finds: RT6; SL.
- 545 3 = (591). Pit, SD 0.76m; .1 olive (M) silt loam, LF, CF, MF; .2 olive brown (M) clay loam, IF, LF, MF, CF; .3 light olive brown (M) sandy loam, IF (some burnt), LF, CF and lenses, MF.  
 Finds: WB97.
- 546 4Ai Pit, SD 0.26m; olive brown (M) sandy silt loam, CF, mortar lumps, IF.
- 547 prob 3 PH/SH, SD 0.16m; light olive brown (M) sandy silt loam, MF, CF, one vertical LF.
- 548 4Ai? PH/Pit, SD 0.17m; pale brown (M) ashy clay loam, CF, IF, one large IF. NOP.  
 = 513
- (549) 550 3? Pit, SD 0.25m; olive brown (M) clay loam, IF, CF, MF.  
 = 511
- (551) 552 3/4 PH, SD 0.30m; .1 white - very pale brown (M) ashy silt with light olive brown (M) silt loam patches, CF; .2 olive brown (M) sandy clay loam, IF, CF, MF.  
 = +  
 = +
- (553) 555 prob 3 PH, SD 0.36m; .1 mottled dark yellowish brown (M) - strong brown (M) loam and sandy loam, MF, CF, IF, burnt sand flecks; .2 strong brown (M) sandy loam, IF, CF; .3 dark yellowish brown (M) sandy loam, CF, burnt sand.
- 556 prob 3 PH, SD 0.40m; soft dark yellowish brown (M) sandy loam, IF (more dense at top), CF and ash flecks, MF.  
 Finds: fs.
- 557 prob 3 PH, SD 0.15; .1 olive brown (M) ashy silt loam, CF; .2 dark yellowish brown (M) silt loam, IF.
- 558 4Ai Pit, SD 0.50m; .1 light olive brown (M) silt loam, IF, CF; .2 olive brown (M) silt loam, IF, CF, MF; .3 as .1, sandy silt loam, MF; .4 yellowish brown (M) loamy sand, IF, CF, MF; .5 as .2 without MF; .6 as .4; .7 as .3; .8 olive (M) silt loam, MF, IF, CF.  
 Finds: fs.
- 559 4Ai Depression? SD 0.15m; dark brownish grey

- (M) silt loam, CF, MF, IF. Beneath is a patchy band of very pale brown (M) ashy clay and CF which may have subsided into or be top fill of underlying pits. Possibly spread of material from 575, NDP.
- (560) = 527
- (561) = 539
- 562 4Ai Pit, SD not recorded; olive (M) sandy silt loam, IF, MF, CF.  
Finds: Nu4; CuB; ts.
- (563) = +
- 564 4Ai Pit, SD 0.76m, not bottomed; .1 light olive brown (M) silt loam, CF, MF, IF; .2 light olive brown (M) clay loam, CF, IF; .3 light grey ashy clay, CF
- 565 3/4Ai Pit, SD 0.66m; .1 olive (M) silt loam, CF, IF, MF; .2 mixed loam as .1 and orange sand. CF, MF, IF; .3 as .1 more MF, additional LF.  
Finds: Fe39.
- 566 3 Pit, SD 0.40m; .1 light olive brown (M) sandy silt loam, MF, CF, IF; .2 strong brown (M) loamy sand with light olive brown (M) clay loam patches, IF (some burnt), CF. .2 may have been an earlier feature cut by .1.
- 567 4Ai Pit, SD 0.15m; olive (M) silt loam with off-white ash lenses, sand and IF.
- 568 4Ai = (578). Pit, SD 0.45m; dark greyish brown (M) clay loam, ash, CF, IF.  
Finds: Cu40, 41, 44, 52, 61, 62, B3-B7; Fe10, 11, 15, 30; T1.
- 569 prob 4Ai1 Pit, SD 0.35m; .1 firm light olive brown (M) silt loam, ash, CF, large LF and sandstone pieces, small IF; .2 loose mixed light olive brown (M) and dark greyish brown (M) clay loam, ash, CF; .3 loose olive brown (M) sandy silt loam, ash, CF; .4 firm olive (M) sandy silt loam, CF, IF; .5 firm olive brown (M) sandy silt loam, CF, MF, IF.  
Finds: Fe63.
- (570) = +
- 571 4Ai PH, SD 0.19m; olive (M) clay loam, CF, IF.
- 572 4Ai Pit, SD 0.69m; .1 olive brown (M) silty loam, CF, MF, IF, LF; .2 light olive brown (M) silty loam, CF, MF, IF; .3 as .2; .4 olive brown (M) silty clay loam, MF, CF.  
Finds: Fe55.
- 573 3/4Ai Pit, SD 0.16m; light olive brown (M) sandy silt loam, IF, MF and lumps, CF.
- 574 prob 4Ai Pit, SD 0.51m, not bottomed; olive brown (M) clay loam, IF, MF, CF.
- 575 4Ai7 Pit, SD 0.18m; .1 light olive brown (M) sandy silt loam, CF, MF, IF; .2 off-white - reddish clay, charcoal on upper surface; .3

- red (M) - dark red (M) burnt sand; .4 stone lining - ironstone and sandstone blocks, burnt on inner faces.
- 576 4Ai Pit, SD 0.78m, not bottomed; olive brown (M) clay loam, orange sand patches, CF, MF, IF, LF.  
Finds: Fe124, 125.
- 577 4Ai? Pit/PH, SD 0.21m; very loose olive brown (M) clay loam, CF, IF, (and one larger block at bottom) and lens of very pale brown (H) sand. NDP.  
= 568
- (578) 579 4Ai Pit, SD 0.70m, not bottomed; olive brown (M) clay loam, CF, IF, LF, MF and lumps.  
Finds: Nu3; Cu88, 92; Fe64, 65, 108.
- 580 4Ai Pit, SD 0.35m; .1 very loose olive grey (M) clay loam, CF, MF, IF, ash patches; .2 light grey ash clay over dark brown (M) clay loam, IF; .3 olive brown (M) sandy clay loam, IF.
- 581 4A? Pit, SD 0.37m; .1 compact yellowish brown (M) sandy loam, CF, MF, IF; .2 dark greyish brown (M) sandy clay loam, CF, MF, IF orange sand patches; .3 as .2 with more sand.
- 582 4Ai Pit, SD 0.87m, not bottomed; .1 olive brown (M) sandy silt loam, IF, CF, mortar lumps; .2 olive brown (M) clay loam, IF, CF. Four post holes were noted, one in each corner, in the upper fill of the pit but were removed with the fill itself and not visible at the level at which excavation stopped.
- 583 prob 4Ai Pit, SD 0.19m; olive brown (M) clay loam, MF, IF and sand flecks.
- 584 4Ai Pit, SD 0.22m; light olive brown (M) sandy clay loam, MF, IF, LF, CF, orange sand patches.
- 585 prob 4Ai SD 0.16m; olive brown (M) silt loam, MF and lumps, CF, IF.
- 586 4Ai Pit, SD 0.25m; .1 light olive (M) silty clay loam, CF, MF, IF; .2 orange with greenish tinge, sandy loam, IF, MF, CF; .3 as .1 without MF. NDP.  
= 123.3  
(587) = 123.4  
(588) = 123.3  
(589) = 123.5  
(590) = 545  
(591)
- 592 4Ai? = (593). Gully, SD 0.37m; .1 (592) mixed olive yellow (M) - olive (M) sandy silt loam, CF, MF, IF, LF; .2 (593) olive brown (M) sandy silt loam.  
= 592
- (593) 594 3/4Ai Pit, SD 0.46m; light olive brown (M) sandy loam, CF, MF, IF, LF.

595	3/4Ai	Pit, SD 0.46m; olive brown (M) silty loam, MF, IF, CF.
596	3/4Ai	PH? SD 0.11m; fill removed before being described. NOP Phase 4.
597	3/4	PH, SD 0.35m; .1 mixed olive brown - dark gray sandy clay loam, IF, CF, MF; .2 olive brown (M) sandy clay loam, CF, MF, IF and gray clay patches; .3 orange brown sand, IF; .4 as .2; .5 very loose mixed dark greyish brown loam, CF, MF, IF; .6 post pad - one large ironstone block; .5 post pipe c. 0.14m wide, with .1-.4 as packing.
598	3?	= (922). PH, SD 0.17m; mixed light olive brown (M) clay loam and yellowish brown (M) sand, MF, CF and two large limestone blocks.
599	3?	Pit, SD 0.55m; .1 I rubble, olive brown (M) clay loam matrix, MF, CF; .2 as .1, no rubble; .3 mixed clay, CF, MF, IF, with lenses as .2 and of charcoal; .4 charcoal and pink and yellow ashy clay patches; .5 mixed olive brown (M) and dark grayish brown (M) clay loam, CF, MF, pale yellow (M) ashy silt loam lens and sand patches; .6 burnt limestone slabs; .7 grey (M) clay loam over pale yellow (M) ashy silt loam, CF, sand patches (signs of this layer being burnt where adjoins .6).
(600)		= 105
601	1	Pit/PH, SD 0.40m; strong brown (M) sand. Relationship with various sand levels uncertain but possibly cut from top of 233. Possibly cut by 740, 741 and 753.
(602)		= 187
603	1/2	PH, SD 0.22m; strong brown (M) sand, MF, LF, CF, IF.
(604)		= 432
605	2	PH, SD 0.32m; yellowish red (M) to dark yellowish brown (M) ashy burnt sand, CF, MF over strong brown (M) sand, CF, IF.
(606)		= 161
607	2?	PH, SD 0.35m; dark yellowish brown (M) sandy loam burnt sand, CF, MF. Possibly later than Phase 2.
(608)		= 179
(609)		= 187
(610)		= 168
(611)		= 168
(612)		= 168
(613)		= 187
(614.1)		?= 187. =(614.4, .7).
614.2	1	=(.3, .5, .6, .8, .9). Foundation, SD 0.34m; yellowish brown - reddish brown (M) sandy loam. Regarded as continuation of 655.
(615)		= 233

(616)		= 432
(617)		= 432
(618)		= 432
(619)		= 233
(620)		= 187
621	1/2	Pit, SD 0.34m; .2 reddish yellow (M) silt loam, occasional flint pebbles over .3, as .2 but harder and more pebbles. Contained two possible PHs: .1 SD 0.24m; yellowish brown (M) silt loam, occasional flint pebbles; .4 brown (M) sandy loam, CF, IF. .1 and .4 could possibly have been cut into earlier pit (.2 and .3) rather than being part of it. Cuts 711.
(622)		= 187
(623)		= 432
624	1/2	PH, SD 0.15; strong brown (M) sandy loam, IF, MF.
(625)		= 432
(626)		= 187
627	1	?PH, SD 0.09m; strong brown (M) friable sandy loam, IF.
628	2?	PH, SD 0.35m; yellowish brown (M) - dark yellowish brown (M) sandy loam, MF, IF, LF.
629	1/2	PH, SD 0.18m; strong brown (M) sandy loam, MF, occasional flint pebble and white clay flecks.
630	1/2	PH, SD 0.10, strong brown (M) sandy loam, white clay and MF. Cuts 233.
631	2?	PH, SD 0.30m; brown (M) sandy loam, MF. two large pieces of limestone. Cuts 432.
632	2?	PH, SD 0.13m; light brown sandy loam, MF, CF, cuts 179.
633	1/2	Pit/PH, SD 0.44; strong brown (M) loam IF, MF and a number of large LF in topmost fill. Perhaps the latest part of Phase 1 (cuts 638) or possibly associated with Phase 2, but unlikely to be later.
(634)		= 165
(635)		= 179
(636)		= +
637	1	= (712, 714, 779). Foundation trench, SD 0.51m; .1 (637.6-.7) dark yellowish brown (M) sandy loam, IF (may be overlying 'metalling' subsided into 637); .3 (637.1, .3) brown (M) sandy loam, occasional flint pebbles; .2 (637.2, .4) dark brown (M) sandy loam, flint pebbles; lenses not separated in other sections (637.5, 712, 714, 779) dark brown (M) orange flecked sandy loam (contaminated by later pit); strong brown (M) sandy silt loam, CF, IF, very occasional flint pebbles; strong brown (M) loamy sand, IF, CF. Finds: Fe77.
638	1	= (656, 676). Foundation trench SD 0.6m;

		strong brown (M) sand with varying quantities of IF. Pockets and lenses of yellowish brown (M) sand and greater or lesser quantities of IF but no PHs could be isolated, although towards the E end the slot in section appeared to be divided into two longitudinally. Probably part of structure represented by 683, 690, 697 and 704, 713. 638 seemed to cut 690 and there were faint indications in section that it cut 655.
639	2	PH, SD 0.07m; strong brown (M) sand, some white clay on surface. Overlaid by 161, cuts 179.
640	2	PH, SD 0.16m; strong brown (M) sand, MF. Overlaid by 161, cuts 179.
641	1	Layer, mixed patch of charcoal and light grey (M) clay surrounded by burnt sand. Below 187 and on top of 233. Probably equivalent of 439, 440, 689, 766.1, 1101.
(642)		= 233
(643)		= 187
(644)		= 179
(645)		= 187
(646)		= 233
647	1/2	PH, SD 0.32m; strong brown (M) light sandy loam, CF, MF, IF and one large piece of burnt ironstone.
648	1	PH, SD 0.25m; yellowish brown (M) sandy loam, occasional flint pebbles.
(649)		= 187
650	1	= (662). Bully, SD 0.54m; yellowish brown (M) sandy loam, IF, occasional flint pebbles.
		Finds: Fe78.
(651)		= 187
(652)		= 187
653	1	PH, SD 0.08m; strong brown (M) loamy sand, IF.
(654)		= 233
655	1	Foundation trench, SD 0.40m; strong brown (M) - yellowish red (M) loamy sand, CF, IF, LF. Probably cut by 656; cuts 665, 684, 716.
(656)		= 638
(657)		= 187
658	1	Foundation trench, SD 0.33m; yellowish brown sandy loam, IF, CF, some large ironstone and limestone pieces. Probably continued S as 684 and 716.
659	1/2	PH, SD 0.48m; yellowish brown (M) sandy loam, limestone packing, occasional flint pebbles.
660	1	PH, SD 0.40m; yellowish brown (M) sandy loam, CF.

- 661 1 PH? SD 0.38m; yellowish brown (M) loamy sand, CF. Cuts 716, uncertain relationship to 665.2 and 655.  
= 650
- (662) 1 PH, SD 0.44m; .1 dark yellowish brown (M) loam, CF, IF; .2 strong brown (M) sandy loam, IF, CF, MF.  
663 1 = (669, 675). Foundation trench SD 1.00m; strong brown (M) sand - sandy loam, IF and 1 gravel, CF, MF. PHs: .1 SD 1.06m; void; .2 SD 1.02m, partially void, remaining fill strong brown (M) very loose sandy loam, IF and 1 gravel, CF, MF; .3 SD c. 0.97m; void but occasional small IF at base; .4 SD c. 0.97m; strong brown (M) loam, IF; .5 SD c. 1.00m; as .3; .6, SD not recorded; partially void, remaining fill strong brown (M) very loose loamy sand, IF, CF.
- 664 1 Foundation trench, SD 0.50m; strong brown (M) sandy loam, CF, IF. Faint dark yellowish brown (M) - yellowish brown (M) vertical bands c. 0.20m wide and alternating with similar bands of the main fill were seen in the longitudinal section. They perhaps indicated the position of vertical timbers but nothing could be seen in plan. Similarly at the W end of the slot a cross section suggested that the slot was divided into two longitudinally (cf 638). Probably part of the same structure as 672 and 677.
- 665 1 PH, SD 0.50m; strong brown (M) loam, CF. Cuts 716; uncertain relationship to 661, 665.  
= 187  
(666) = 233  
(667) = 233  
(668) = 233  
(669) = 664  
(670) = 233
- 671 1 End of gully? SD 0.43m; yellowish brown (M) sandy loam, IF, CF, LF and occasional flint pebbles.
- 672 1 Foundation trench, SD 0.45m; .1 yellowish brown (M) sandy loam, IF; .2 strong brown (M) - yellowish brown (M) sandy loam, IF; .3 strong brown (M) sandy loam, IF; .4 yellowish brown (M) sandy loam (IF); .5 as .4. In the longitudinal section vertical bands c. 0.30m - 0.45m wide suggest posts within the trench probably set at c. 0.60m centres, cf. main timber buildings; 787 probably S end of this slot which continues northwards as 677.  
= (725). PH, SD 0.28m; dark yellowish brown (M) loamy sand, IF, CF.
- 673 1

(674)		= 233
(675)		= 465; 664
(676)		= 638
677	1	Foundation trench, SD 0.40m; strong brown (M) sand, frequent IF. Cut by 690. Probably part of the same structure as 665 and 672.
678	1	PH, SD 0.32m; strong brown (M) sandy loam, IF. Cuts 711.
679	1/2	PH, SD 0.26m; brown (M) sandy loam, MF (mainly in top 0.02m), CF, IF.
680	1	PH, SD 0.26m; strong brown (M) loamy sand, MF, IF.
681	1	PH, SD 0.30m; strong brown (M) sandy loam, IF, MF. Possible contamination from 156.
682	1?	Pit, SD c. 0.30m, reddish yellow loamy sand, occasional pebbles, IF, CF; a number of ironstone and limestone fragments on the bottom.
683	1	Foundation trench, SD 0.40m, (locally 0.55m, where 7posts located); yellowish brown (M) - strong brown (M) sandy loam, IF, occasional CF. Probably part of structure represented by 638, 690, 697, 704, 713.
684	1	Slot, SD 0.32m; strong brown sandy loam, occasional CF, IF. Probably continuation of 658 and 716. Cut by 655, 656 and 665.
685	2	PH; yellowish brown (M) sand, IF, CF.
686	1	Foundation trench, SD 0.14m; dark yellowish brown (M) sandy loam, IF.
687	1/2	PH, SD 0.21m; brown (M) sandy loam, IF, LF, MF, CF.
688	1	Foundation trench, SD 0.40m; .1 strong brown (M) loamy sand, IF, CF; .2 PH? SD 0.31m, brown (M) sandy silt loam, CF (and ash in top 0.13m) MF; .3 PH? strong brown (M) loamy sand, CF, MF.
689	1	Layer; dusky red (M) - black (M) burnt sand. Overlies 688 and by implication 233 but below 187. Probably equivalent to 439, 440, 641, 766.1, 1101.
690	1	= (691, 692, 727, 788). Foundation trench, SD 0.4m; strong brown (M) - brown (M) loamy sand, IF. On initial cleaning, possible posts c. 0.30m across identified in E half of slot but evidence tenuous and not conclusive. Cuts 677; shallower than 676 by which it was apparently cut; no relationship established with 665 but presumably later than it as 667 probably contemporary with 665. Probably part of structure represented by 638, 683, 697, 704, 713.
(691)		= 690
(692)		= 690
(693)		= 465



694	1	Foundation trench/PH, SD 0.24m; strong brown (M) sandy loam, CF, IF. Possibly PH (cf 715) or possibly part of a slot associated with 661.
695	1	PH? SD 0.28m; strong brown (M) sandy loam, CF. Cuts 696.
696	1/2	?= (703). PH, SD 0.33m; strong brown (M) sandy loam, CF, one burnt LF on surface. Cut by 695.
697	1	= (699, 700, 705-7, 709-10). Brown (M) - strong brown (M) loamy sand, CF IF. This area which lay between slots 655 and 698 had no clear boundaries with either. Careful examination failed to clarify the nature of the deposits although a possible PH was noted at its N edge where cut by pit 20. This PH? would be in the correct position to continue the line of those within slot 683 and it is suggested that slot 683 continued through this area to form a corner with 638 although this is obviously tentative. 665 quite possibly had also continued across this area. Probably part of structure represented by 638, 683, 690, 704, 713.
698	1	?Foundation trench, SD 0.23m; strong brown (M) loamy sand, IF, CF.
(699)		= 697.
(700)		= 697.
701	1	PH, SD 0.53m; strong brown (M) sandy loam, IF. Cut by 695?
(702)		= +
(703)		= 696
704	1	= (708, 717-18). Foundation trench, SD 0.40m (locally 0.65m where ?posts located); dark yellowish brown (M), brown (M), strong brown (M) sandy loam, IF, CF. Possible PHs visible in cross-section as vertical bands. Probably part of structure represented by 638, 683, 690, 697, 713.
(705)		= 697
(706)		= 697
(707)		= 697
(708)		= 704
(709)		= 697
(710)		= 697
711	1	Pit? SD 0.23m; strong brown (M), IF, CF, occasional flint pebbles.
(712)		= 637
713	prob 1	PH, SD 0.16m; strong brown (M) sandy loam, CF, IF. Probably part of structure represented by 638, 683, 690, 697, 704.
(714)		= 637
715	prob 1	PH, SD 0.14m; brown (M) sandy loam, CF, IF.
716	1	Foundation trench, SD 0.32m; strong brown

		(M) sandy loam, occasional CF, IF. Probably continuation of 658 and 684. Cut by 661, 665, 655, 665.2.
(717)		= 704
(718)		= 704
(719)		= +
720	1	Pit, SD c. 0.13m; brown (M) - dark brown (M) silt loam, CF, IF.
(721)		= +
(722)		= +
(723)		= +
724	1	PH, SD 0.34m; strong brown (M) sandy silt loam, IF, CF.
(725)		= 673
726	1	Pit/PH, SD 0.38m; brown (M) sandy loam, IF, CF.
(727)		= 690.
728	1	?PH, SD 0.06m; brown (M) loamy sand, CF.
(729)		= Natural
730	1	Pit, SD 0.53, brown (M) sandy silt loam, IF, CF, MF.
731	1	?PH, SD 0.14m; strong brown (M) loamy sand, IF, CF.
732	1	PH, SD 0.21m; strong brown (M) loamy sand, IF, occasional flint pebbles. Cuts 711.
(733)		= 187
(734)		= 233
735	1	PH, SD 0.17m; brown (M) loamy sand, IF, MF, CF.
736	1	PH, SD 0.47m; mottled strong brown (M) sandy silt loam, IF, occasional flint pebbles.
737	1	PH, SD 0.14m; strong brown (M) sandy silt loam, CF, MF, IF.
738	1	PH, SD 0.24m; strong brown (M) loamy sand, MF, CF, IF.
739	1	PH, SD 0.22m; strong brown (M) loamy sand, IF, MF.
740	1	PH, SD 0.16m; yellowish brown (M) sandy silt loam, CF, MF.
741	1	?PH, SD 0.07m; brown (M) sandy silt loam, CF.
742	1	?= (747). PH, SD 0.40m; 742 strong brown (M) loamy sand, IF, CF; 747 as 742 without CF. 747 post pit for 742?
743	1	PH, SD 0.37m; strong brown (M) clay loam, CF, MF, IF.
744	1	PH, SD 0.24m; brown (M) - strong brown (M) loamy sand, CF, IF.
745	1	PH, SD 0.37m; strong brown (M) sandy loam, IF and occasional flint pebbles, CF, MF.
746	1/2	PH, SD 0.11m; brown (M) loam, MF, CF.
(747)		?= 742.
(748)		= 233
(749)		= 187

(750)		= 233
751	1	PH, SD 0.10m; strong brown (M) loamy sand, CF.
752	1	PH, SD 0.19m; strong brown (M) loamy sand, IF, CF.
753	1	PH, SD 0.09m; strong brown (M) loamy sand, IF, CF.
754	1	PH, SD 0.16m; strong brown (M) loamy sand, IF.
755	1	PH, SD 0.10m; strong brown (M) sand, IF.
756	3	PH? SD 0.07m; light brown (M) - reddish brown (M) sandy loam, CF, with ash and ashy loam.
757	1?	?PH, SD 0.19m; fill removed (dark yellowish brown (M) very loose loam) probably back-fill from excavation of pit 15; no original fill surviving.
758	1?	?PH, SD 0.09m; strong brown (M) loamy sand, IF and gravel.
(759)		= Natural
760	1?	PH? SD 0.22m; strong brown (M) - reddish yellow (M) sand.
(761)		= 233
(762)		= 233
(763)		= 233
(764)		= 233
(765)		= 233
766.1	1	= (790). Layer, yellowish red (M) burnt sand, IF, some ash and CF. Probably equivalent of 439, 440, 641, 689, 1101. Subsidence into 766.2.
		Find: HAR-5556.
766.2	1	Foundation trench, SD c. 0.25m; .2 fine yellowish brown (M) silt loam, CF; .3 as .2 but with lenses of fine pinkish white (M) material (ash/lime/clay?). Probably continuation of 767, 496 and 497. Not traced further W.
767	1	Foundation trench, SD 0.10m; .1 yellowish brown (M) loam some orange staining, very occasional CF; .2 very pale brown (M) material (ash, lime, clay?). Probably continuation of 766, 496 and 497.
		Find: Fe23.
768	1?	?Depression, SD 0.14m; strong brown (M) fine sand.
769	1	Pit, SD 0.17m; strong brown (M) sand, CF, MF.
(770)		= 233
771	1?	?PH, SD 0.07m; brown (M) sand.
772	1?	?PH, SD 0.11m; strong brown (M) sand, IF.
773	1	PH, SD 0.15m; yellowish brown (M) loamy sand, IF, CF.

774	1	PH, SD 0.16m; brown (M) loamy sand, IF, MF, CF and occasional burnt sand flecks.
775	1	PH, SD 0.16, strong brown (M) loamy sand, IF and broken flint pebbles, CF.
776	1?	?PH, SD 0.09m; strong brown (M) sand, IF.
777	1?	?Gully, SD 0.07m; strong brown (M) loamy sand, pebbles along base of feature.
(778)		= Natural.
(779)		= 637
(780)		= +
(781)		= +
782	1	PH/SH, SD 0.20m; strong brown (M) sandy loam, CF.
783	1	PH, SD 0.16m; strong brown (M) sand, IF.
784	1	PH, SD 0.08m; strong brown (M) loamy sand.
785	1	PH, SD 0.10m; strong brown (M) loamy sand, IF.
786	1	PH, SD 0.25m; strong brown (M) loamy sand.
787	1	?Gully, SD not recorded; strong brown (M) sandy loam. Possibly butt end of 672.
(788)		= 690
789	1	?PH, SD 0.07m; strong brown (M) loamy sand, IF, CF.
(790)		= 766.1
(900)		= 313
(901)		= 127.5-.8
902	3/4A1	?PH, SD c. 0.33m; recognised only after excavation - fill removed as part of 545.
903	2/3	PH, SD 0.36m; dark yellowish brown (M) sand, CF, IF.
904	2	=(911, 923, 948-9, 1019). Layer; strong brown (M) sand with patches of dark greenish grey clay loam, IF, CF and numerous bones (latter 904 only). (See Fig (M)5).
905	prob 1	PH, SD 0.60m; .1 brownish yellow (M) sand and greenish grey clay loam, MF, CF, IF, LF; .2 light olive brown (M) clay loam with patches of reddish yellow (M) - strong brown (M) sand, CF, MF; .3 yellowish brown (M) sand and greenish grey clay loam, IF, CF, MF.
906	3?	PH, SD 0.11m; mixed orange sand and light olive brown (M) clay loam, CF, MF, IF.
(907)		= 235
908	2/3	PH, SD 0.09m; mixed yellowish brown (M) sand and light olive brown (M) clay loam, CF, MF, IF.
909	2/3	PH, SD 0.12m; very mixed orange brown sand and olive brown (M) clay loam, MF, CF, IF.
910	2/3	PH, SD 0.22m; .1 yellowish brown (M) sand and light olive brown (M) clay loam, CF, MF, IF, LF; .2 yellowish brown (M) sand, IF, LF, CF, MF.
(911)		= 904.

- 912 1 Layer? .1 strong brown (M) sand, IF, with patches of olive brown (M) clay loam, CF; .2 reddish yellow (M) sand, loam patches as .1, IF/gravel, MF, CF. Overlaid by 904. .1 may be PH, SD 0.24m. NOP.  
= 479
- (913) 914 3? PH, SD 0.24m; mixed yellowish brown (M) sand and light olive brown (M) clay loam, CF, MF, IF.  
= 11
- (915) 916 3? PH, SD 0.16m; olive brown (M) clay loam, CF, MF, IF and one large limestone block.
- 917 1 Pit, SD 0.38m; strong brown (M) sand, IF. The clean nature of the fill suggests a natural feature but both plans and sections show that it cut the slot but predated general level 904.
- 918 2/3 PH, SD 0.06m; light olive brown (M) sandy silt loam, IF, CF, MF.
- 919 2/3 PH, SD 0.15m; .1 mixed light olive brown (M) clay loam and orange brown sand, MF, CF, IF; .2 strong brown sand (M) and loam as .1, no inclusions; .3 as .1, no MF.
- 920 1 PH, SD 0.13m; .1 mixed red (M) - dark red (M) burnt sand and strong brown (M) sand, CF, IF; .2 dark yellowish brown (M) sand with olive brown silty clay loam patches, CF, MF, IF.
- 921 3? PH, SD 0.38m; reddish (M) yellow - strong brown (M) sand, MF, CF, IF (some burnt).  
= 598
- (922) = 904
- (923) 924 1? ?Gully, SD 0.43m; strong brown (M) sand, IF, CF, MF. This feature on the surface initially appeared to extend across 926 but there can be no certainty of this. It certainly predated Phase 2 and it is possible, in spite of the presence of mortar and charcoal flecks, that this was a natural feature.
- 925 1 PH, SD 0.15m; .1 post pipe? c. 0.20m across, yellowish brown (M) sand, IF, MF; .2 as .1 and more IF.
- 926 1 = (934, B64). Foundation trench, SD 0.80m; fills, reddish yellow (M) - strong brown (M) sand, IF, CF, MF; strong brown (M) loamy sand, IF; strong brown (M) sand IF, CF, MF. Some evidence of horizontal banding. PHs in foundation trench: .1 SD 0.71m; strong brown (M) - reddish yellow (M) loamy sand, IF, CF, MF; .2 SD 0.60m; as .1; .3 SD 0.50m; as .1; .4 SD 0.55m; as .1; .5 SD c. 0.57m; fill not described; .6 SD 0.50m; yellowish brown (M) loose loamy sand, IF, MF, CF; .7 SD 0.37m; as .1; .8 SD 0.39m; reddish yellow (M) loamy sand, IF,

CF, MF; .9 SD 0.32m; as .1; .10 SD 0.44m; strong brown (M) loamy sand, IF, CF, MF; .11 SD c. 0.31m; as .1; .12 SD 0.52m; as .10; .13 SD 0.47m; partially void, remaining fill strong brown (M) - reddish yellow (M) loamy sand, IF; .14 SD 0.44m; as .1; .15 SD 0.41m; as .10; .16 SD 0.45m; as .10; .17 SD 0.50m; as .1; .18 SD 0.72m; as .10.

Finds: HAR-5551, 5552.

- |       |     |  |
|-------|-----|--|
| 927   | 1   | PH, SD 0.31m; .1 yellowish brown (M) sand, MF, CF, IF; .2 as .1 but fewer MF.  |
| 928   | 3?  | PH, SD 0.34m; strong brown (M) sand, MF (concentrated in bottom 0.10m of fill), IF, CF, LF.  |
| 929   | 3?  | PH, SD 0.29m; strong brown (M) sandy silt loam, IF, CF, MF and one LF on surface.  |
| 930   | 3?  | PH, SD 0.14m; .1 post pipe? c. 0.15m across; brown (M) - dark yellowish brown (M) sandy silt loam, CF; .2 strong brown (M) sandy loam, MF, CF, IF.   |
| (931) |     | = 233  |
| 932   | 3?  | PH, SD 0.10m; mixed yellowish brown (M) sand and olive brown (M) silty clay loam, CF, MF, IF.  |
| 933   | 3/4 | PH/Pit, SD 0.18m; dark greyish brown (M) sandy clay loam, many mortar lumps, IF, LF, sandstone fragments at bottom (some burnt), CF.   |
| 934   | 3?  | PH, SD 0.11m; .1 mixed strong brown (M) sand and olive brown (M) clay loam, IF (some burnt) CF, MF and lumps; .2 as above without inclusions.  |
| (935) |     | = 233  |
| 936   | 3?  | PH, SD 0.14m; mixed strong brown (M) sand and light olive brown (M) - dark greyish brown (M) clay loam, CF, MF, IF.  |
| 937   | 3?  | PH, SD 0.10m; mixed strong brown (M) sand and light olive brown (M) clay loam, MF and lumps, CF, IF.   |
| 938   | 3?  | PH, SD 0.22m; .1 mixed brownish yellow (M) sand and olive brown silty clay loam, CF and IF; .2 yellowish brown (M) sand, with silt loam patches as .1. .1 is possibly animal disturbance.  |
| 939   | 3?  | PH, SD 0.11m; .1 mixed yellowish brown (M) sand and olive brown - dark greyish brown clay loam, MF, CF, IF; .2 yellowish brown (M) sand, IF, CF, MF.   |
| 940   | 1   | PH, SD 0.41m; .1 post pipe? c. 0.07m across, yellowish brown (M) sand, MF, IF, CF; .2 mixed yellowish brown (M) sand and strong brown (M) sand, IF, MF, CF; .3 strong brown (M) sand IF, CF, MF and large mass of mortar in bottom 0.6m of fill. |

941	1	PH, SD 0.36m; .1 post pipe c. 0.14m across, strong brown (M) sand, IF, MF, CF; .2, as .1 with more IF; .3 as .2 (.2 and .3 packing around .1).
942	1	PH, SD 0.11m; dark olive brown (M) sandy clay loam, CF, IF, MF. Cuts 978.
943	17	?PH, SD 0.02m; mixed yellowish brown (M) sand and light olive brown (M) clay loam, MF, IF, CF.
944	37	PH, SD 0.10m; light olive brown (M) sandy silt loam, MF, CF, IF.
945	37	PH, SD 0.31m; strong brown (M) sand with patches of light olive brown (M) silty clay loam, IF, MF.
946	37	PH? SD 0.06m; strong brown (M) sand with olive brown - dark grayish brown silty clay loam patches, off-white ashy silt loam, MF, CF, IF.
(947)		= 233?
(948)		= 904
(949)		= 904
950	1	PH, SD 0.22m; .1 post pipe c. 0.17m across, strong brown (M) sand, IF, CF; .2 as .1 with MF; .3 as .2. .2 and .3 packing around .1.
951	3/4Ai	Pit? SD 0.32m; yellowish brown (M) sand, CF, MF, IF.
952	37	?Pit/PH, SD 0.10m; .1 olive brown (M) clay loam, orange sand and off-white - grey ashy clay patches, CF, MF, IF; .2 yellowish brown (M) sand, CF, MF, IF.
(953)		= 410
(954)		= 479, 926
955	1	PH, SD 0.19m; .1 post pipe c. 0.18m across, strong brown (M) silty sand, CF, IF; .2 strong brown (M) compact sand, IF, CF, MF; .3 as .2. .2 and .3 packing around .1.
956	17	PH, SD 0.09m; .1 post pipe c. 0.13m across, strong brown (M) - reddish yellow (M) loamy sand (with much olive brown (M) clay loam), MF, IF, CF; .2 as .1, more compact; .3 as .2. .2 and .3 possibly packing around .1.
957	1	PH, SD 0.20m; strong brown (M) loamy sand with patches of bright orange sand, IF, MF, CF.
958	1	PH, SD 0.14; strong brown (M) loamy sand with patches of bright orange sand, IF, MF.
959	17	?Gully, SD 0.23m; reddish yellow (M) - strong brown (M) loamy sand (much affected by root action etc), IF, MF, CF. Very probably natural feature or possibly prehistoric.
960	1	PH, SD 0.18m; mixed strong brown (M) sand and light olive brown (M) clay loam, CF, MF and lumps, IF. Overlaid by 904.
961	1	PH, SD 0.30m; .1 strong brown (M) silty

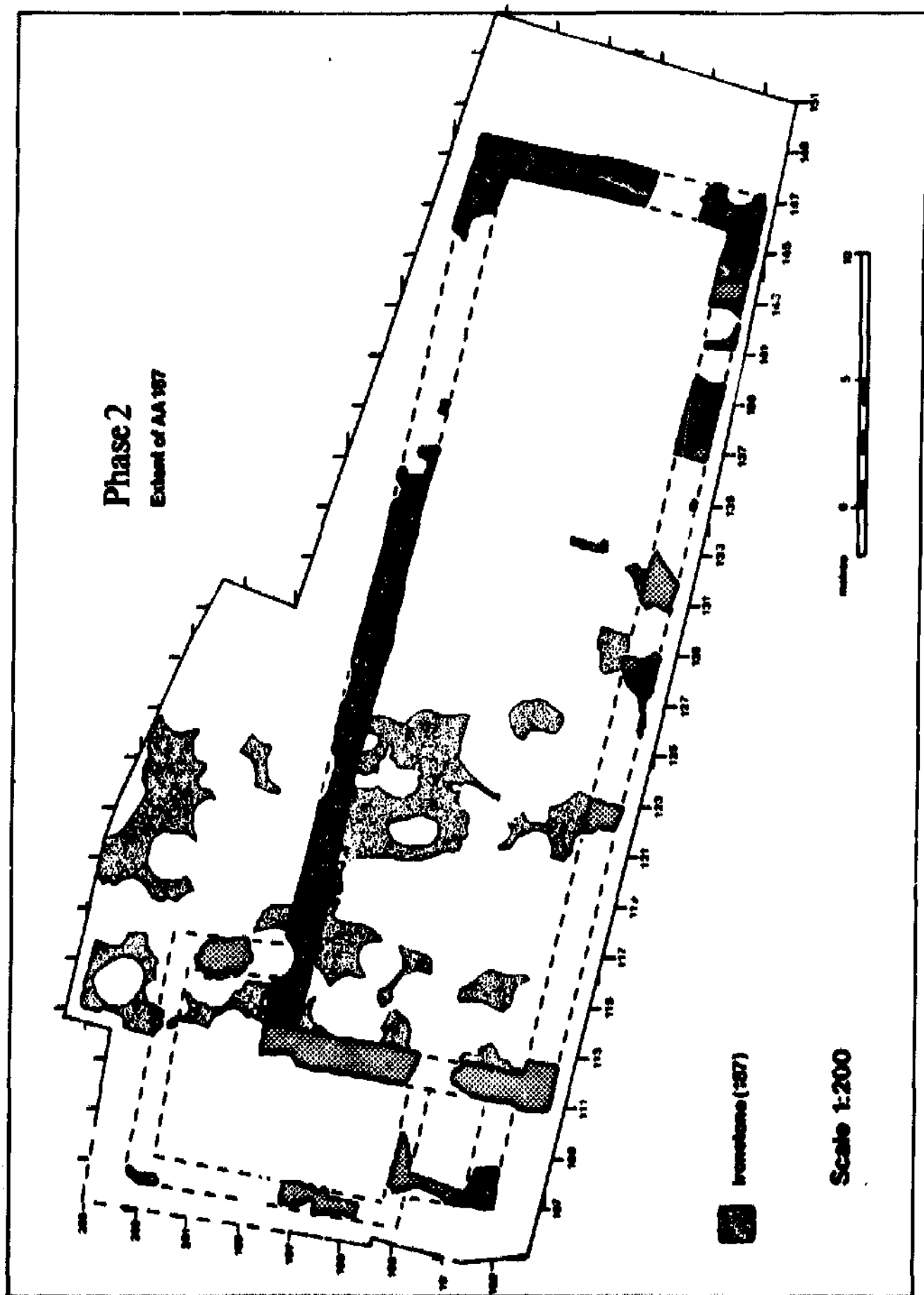
		sand, MF, CF, IF; .2 as .1, more IF, fewer MF.
962	1	PH, SD 0.10m; strong brown (M) silty sand, IF, CF, MF.
963	1	PH, SD 0.36m; .1 post pipe, 0.21m across, strong brown (M) sand, IF, CF, MF; .2 as .1, more IF; .3 as .2. .2 and .3 packing for .1.
(964)		= 926
965	1?	?Gully, SD 0.07m; reddish yellow (M) - strong brown (M) loamy sand (much affected by root action etc), IF and gravel, CF. Very probably natural feature or possibly prehistoric.
966	1?	?Gully, SD c. 0.08m; mixed strong brown (M) loamy sand and olive brown (M) clay loam, CF, MF, IF. Possibly natural feature or animal disturbance.
(967)	= +	
(968)	= +	
969	1	Depression? SD 0.20m; strong brown (M) loamy sand (much affected by root action etc), IF, CF, MF. An area of mortar and olive brown (M) clay loam, c. 0.03m deep, occurred in the surface of 969.
970	1?	?PH, SD 0.07m; strong brown (M) silty sand containing patches of reddish yellow (M) sand, IF;
(971)		= +
972	1	PH, SD 0.46m; .1, post pipe c. 0.18m across, strong brown (M) - brown (M) loamy sand, IF (more in lower half of fill), CF, MF; .2, as .1 with more IF; .3, as .2. .2 and .3 packing for .1
973	1	PH, SD 0.25m; .1 possible post pipe c. 0.16m across, strong brown (M) loamy sand, IF, CF, MF; .2 and .3, strong brown (M) sand, more IF, CF, MF. .2 and .3 packing for .1.
974	1	PH, SD 0.11m; mixed olive brown (M) silty clay loam and strong brown (M) sand, MF, CF, IF.
975	1	PH, SD 0.14m; .1 post pipe c. 0.13m across, mixed brownish yellow (M) - strong brown (M) very compact loamy sand; .2 strong brown (M) sand, IF, CF, MF; .3, as .1 with IF, MF, CF; .2 and .3 packing for .1.
976	1	?PH, SD 0.26m; mixed strong brown (M) - reddish yellow (M) loamy sand, IF, MF, CF.
977	1	PH, SD 0.17m; .1 post pipe? 0.17m across; compact mixed olive brown (M) clay loam and strong brown (M) - reddish yellow (M) loamy sand, CF, IF, MF; .2 yellowish brown (M) loamy sand, IF, CF, MF; .3 as .2.
978	1	?PH, SD 0.17m; mixed strong brown (M) - reddish yellow (M) loamy sand, IF, CF, MF.



- 979 prob 1 PH, SD 0.14m; .1 strong brown (M) silty sand, IF, MF, CF; .2 mixed strong brown (M) - reddish yellow (M) sand, much IF, CF and MF.
- 980 1 PH? SD 0.24m; .1 brown (M) silty sand, IF, MF, CF; .2 yellowish brown (M) loamy sand, IF, MF, CF.
- 981 3/4 PH/Pit, SD 0.05m; .1 strong brown (M) sand and dark grayish brown (M) clay loam, IF, CF, MF; .2 as .1 but with clay loam predominant.  
= 233
- (982) 983 17 Disturbed area, SD 0.13m; strong brown (M) loamy sand with patches of reddish yellow (M) sand and gray ashy silt loam, MF, CF, IF, LF. The irregular bottom and mixed contents of this feature suggest that it was perhaps an animal disturbance.  
= +
- (984) 985 1 PH, SD 0.13m; brown (M) loamy sand, IF, MF, CF.
- 986 3/4 Pit? SD c. 0.45m; .1 olive brown (M) clay loam, MF and lumps, CF, IF and sand patches; .2 silt loam as .1, LF; .3 silt loam as .1 with more sand, fewer MF; .4 as .2; .5 as .3; .6 light olive brown - olive brown (M) silty clay loam, as .1; .7 as .3; .8 silt loam as .6; .9 mixed orange sand and light olive brown (M) - olive brown (M) silt loam, MF, CF, IF.
- 987 prob 1 7PH, SD 0.19m; mixed strong brown (M) - yellowish brown (M) loamy sand and light olive brown (M) silt loam, CF, MF, IF.
- 988 prob 1 PH, SD 0.23m; .1 post pipe? c. 0.17m across; strong brown (M) - reddish yellow (M) - yellow (M) loamy sand, MF; .2, as .1 IF; .3 as .2. .2 and .3 packing for .1.
- 989 prob 1 PH, SD 0.19m; .1 post pipe c. 0.12m across, strong brown (M) - reddish yellow (M) loamy sand, IF, CF, MF; .2 as .1 with more IF, MF; .3 as .2; .2 and .3 packing for .1.
- 990 prob 1 Pit, SD 0.45m; strong brown (M) loamy sand, IF, CF, MF.
- 991 3? PH, SD 0.17m; mixed dark grayish brown (M) silty clay loam, and orange sand, CF, IF, MF.
- 992 1 ?= (993). 7PH or 7PHs identified in plan but removed during subsequent clearing before full excavation; could not have survived more than a few centimetres.  
?= 992
- (993) 994 prob 1 PH, SD c. 0.24m .1 strong brown (M) - reddish yellow (M) loamy sand, IF, CF; .2 yellow-brownish yellow (M) loamy sand, IF.
- 995 3? PH, SD 0.10m; strong brown (M) loamy sand with many patches of light olive brown (M)

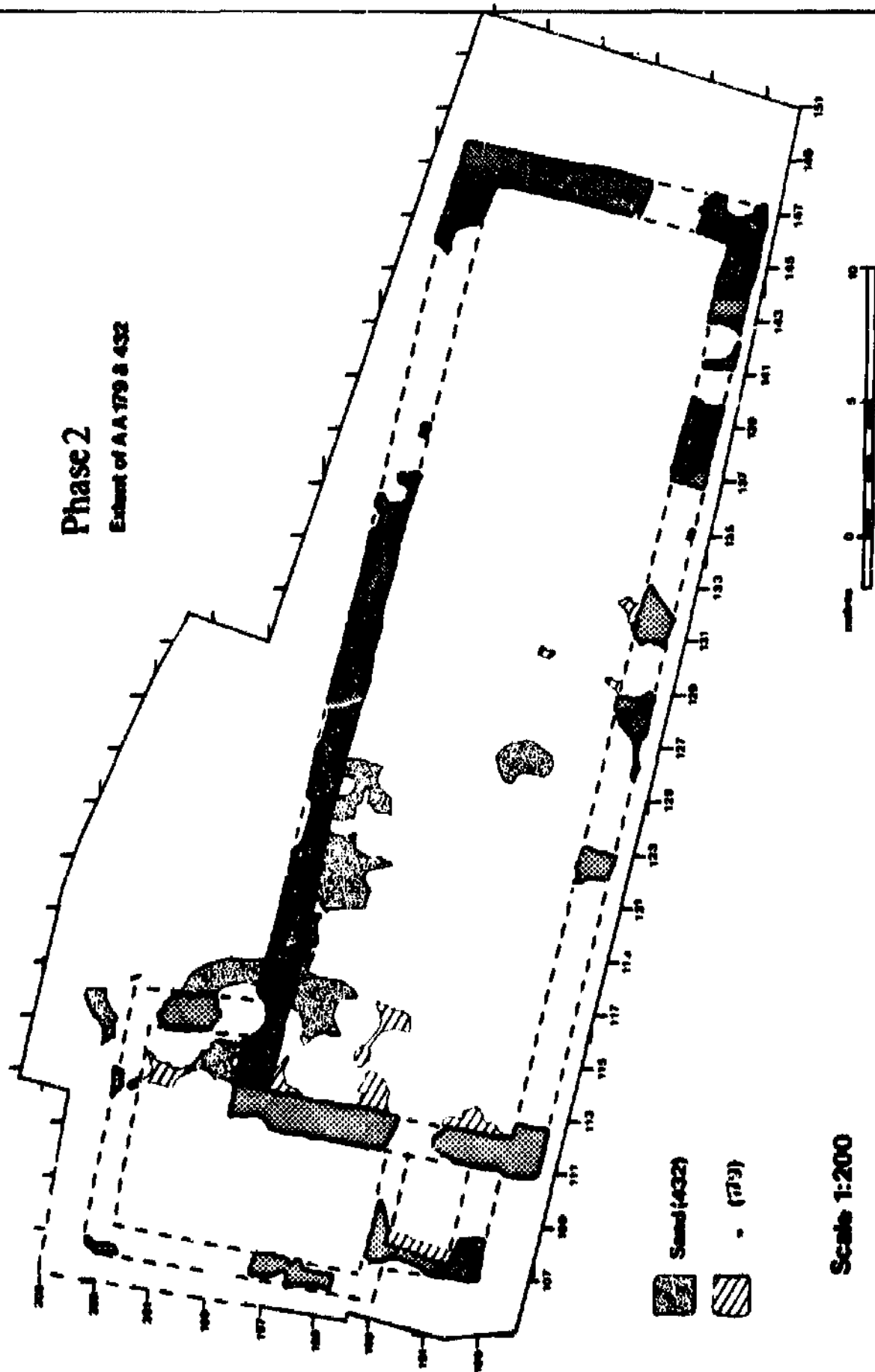
		clay loam, IF, CF, MF.
996	3?	PH, SD 0.15m; mixed reddish yellow (M) sand and light olive brown (M) silt loam, CF, MF, IF.
997	3?	PH, SD 0.13m; light olive brown (M) silt loam and reddish yellow (M) sand, CF, MF, IF.
998	1?	7PH, SD 0.09m; strong brown (M) loamy sand, IF, CF, MF.
999	3?	PH, SD 0.25m; mixed light olive brown (M) silt loam and strong brown (M) sand, CF, MF, IF.
1000	3?	Pit, SD 0.44m; mixed light olive brown (M) - olive brown (M) clay loam and strong brown (M) sand, CF, mortar lumps and IF.
1001	3?	Pit, SD 0.38m; mixed olive brown (M) clay loam, and strong brown (M) sand, IF, CF, MF.
(1002)		= 233
1003	3?	PH, SD 0.21m; light olive brown (M) silt loam containing some orange sand, IF, CF, MF.
1004	3?	PH, SD 0.03m; light olive brown (M) silt loam with patches of reddish yellow (M) sand, IF, CF, MF.
1005	3?	PH, SD 0.08m; light olive brown (M) silt loam with some orange sand, CF, MF, IF.
1006	3?	PH, SD c. 0.28m; yellowish brown (M) loamy sand, MF, CF, IF.
1007	3?	PH, SD 0.19m; light olive brown (M) silt loam, MF, CF, IF.
1008	3?	PH, SD 0.12m; light olive brown (M) silt loam with some orange sand, MF, CF, IF.
1009	3?	PH, SD 0.08m; light olive brown (M) silt loam with some orange sand, IF, CF, MF.
1010	3?	PH, SD 0.25m; olive brown (M) silt loam with reddish yellow (M) sand at edge, large amount of CF, IF (some burnt), MF.
1011	3?	PH? SD 0.07m; mixed olive brown (M) silty loam and reddish yellow (M) sand, IF, CF, MF.
(1012)		= +
1013	1	7PH, SD 0.07m; strong brown (M) loamy sand with patches of reddish yellow (M) sand, IF, CF, MF.
1014		Cremation remains? Depression, SD 0.14m; strong brown (M) loamy sand, IF, CF. Some small amount of bone but the small collared urn within the depression (Pottery no 1) was probably an accessory vessel.
1015	1?	7PH, SD 0.11m; strong brown (M) loamy sand, CF, IF, MF.
1016	1?	7PH, SD 0.09m; strong brown (M) loamy sand with patches of reddish yellow (M) sand (much affected by root action etc), IF (occasionally burnt), CF, MF.

1017	17	7PH, SD 0.11m; brown (M) loamy sand, CF, IF (some burnt), MF.
1018	17	7PH, SD 0.06m; mixed reddish yellow (M) and strong brown (M) loamy sand, CF, MF, IF. Probably natural feature or animal disturbance.
(1019)		= 904
(1020)		= 233
(1021)		= 233
1100	1	7PH, SD 0.16m; brown (M) loamy sand, IF, CF, MF.
1101	1	Layer, yellowish brown (M) fine sandy loam, numerous CF. Probably equivalent of 439, 440, 441, 489, 766.1.
1102	17	7PH, SD 0.07m; strong brown (M) loamy sand, IF.
1103	17	7PH, SD 0.07m; strong brown (M) loamy sand, IF.
(1104)		= 233
1105	1	PH, SD 0.15m; brown (M) loamy sand, CF, IF.
1106	1	PH, SD 0.20m; strong brown (M) silty sand, IF and gravel.
(1107)		= 233
1108	1	PH, SD 0.19m; brown (M) sandy loam, MF, CF, IF.
(1109)		= 428
(1110)		= +
1111	1	PH, SD 0.17m; yellowish brown (M) loamy sand, IF, CF.
1112	3/4	PH/BH, SD 0.27m; dark yellowish brown (M) sand surrounded by dark brown (M) loam, CF, MF.
(1113)		= 127.4
1114	17	7Pit, SD 0.46m; strong brown (M), IF, CF, occasional flint pebbles and gravel.



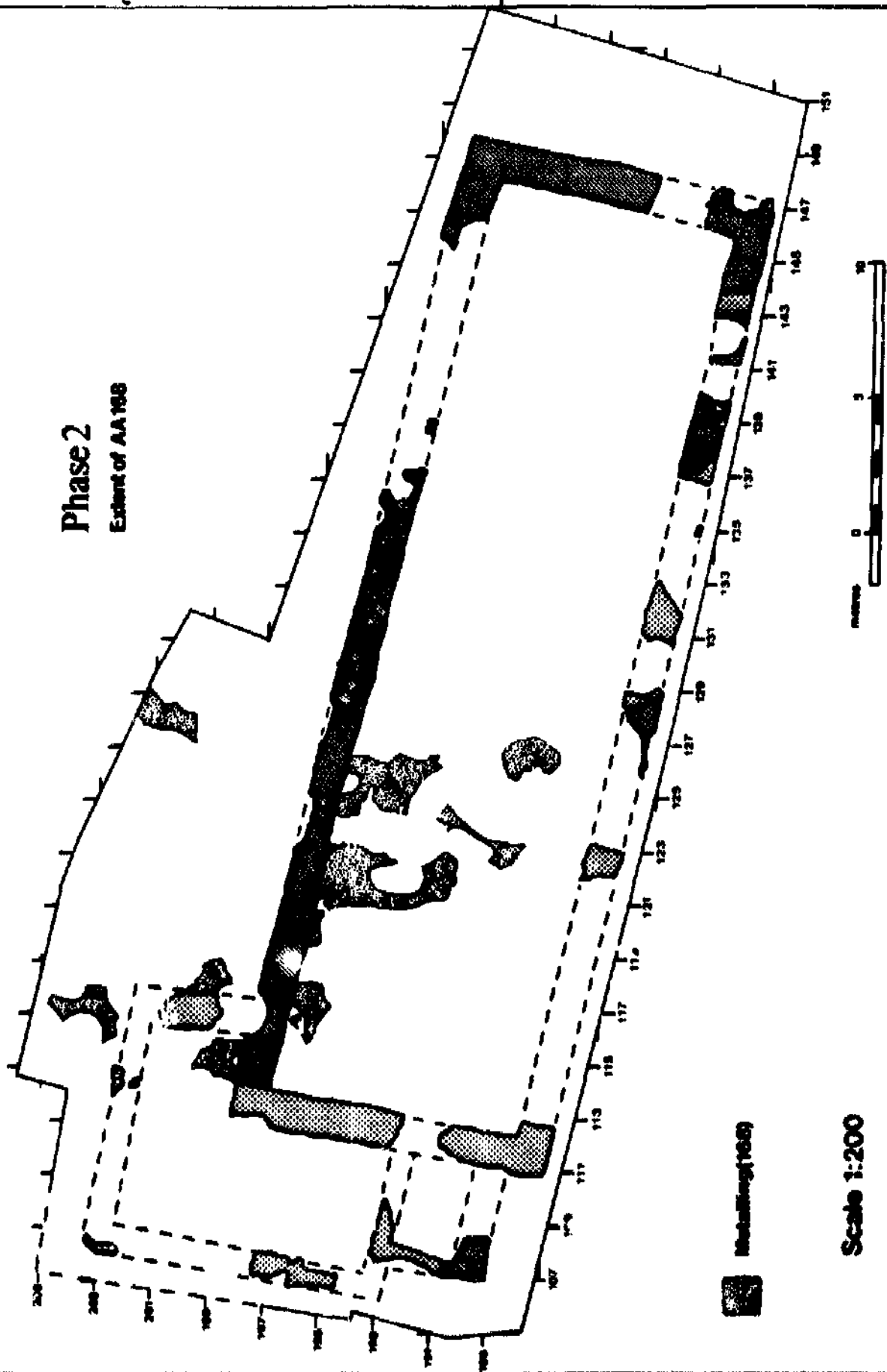
# Phase 2

Extent of AA 179 & 432



Scale 1:200

**Phase 2**  
Extent of AA 198

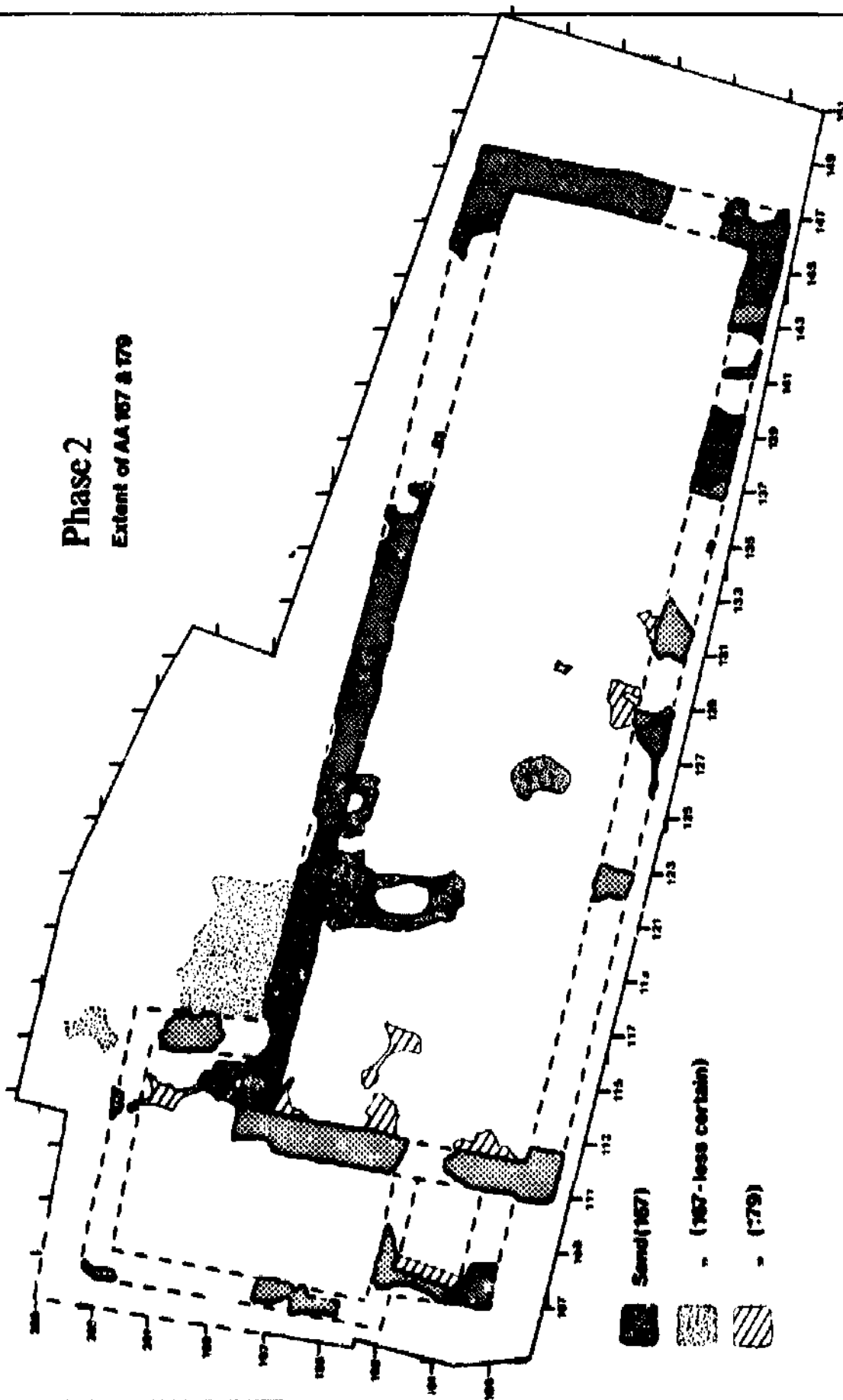


Masonry (100%)

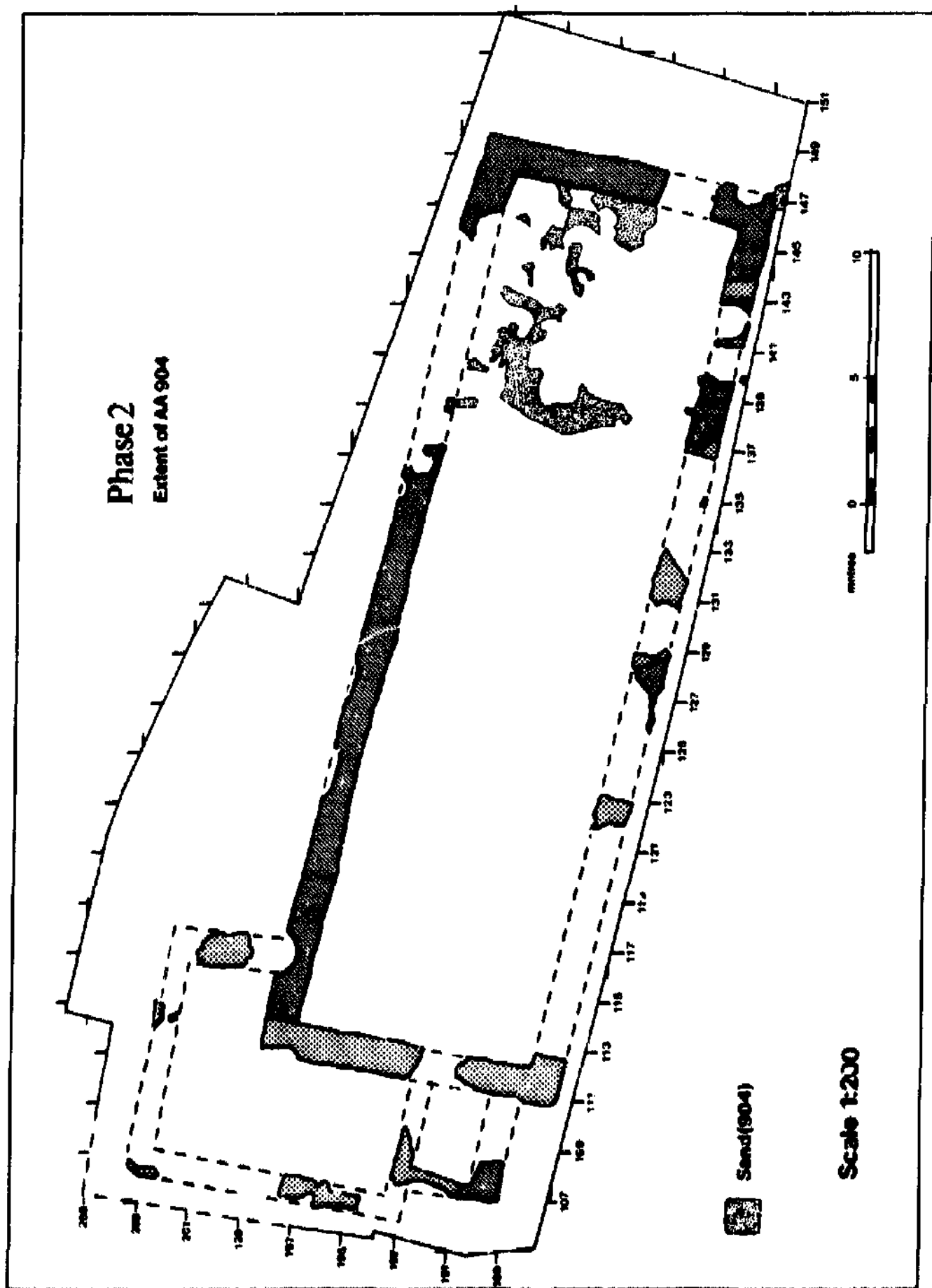
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# Phase 2

Extent of AA 167 & 179



Scale 1:200





# THE PREHISTORIC POTTERY by J L Humble

A Bronze Age collared urn was recovered during investigation of a small sub-circular earth cul. depression (AA1014; diameter c. 0.48m; surviving depth 0.14m) situated within the eastern annexe of the middle Saxon timber hall. The vessel was lying upon its side and the uppermost portions of the neck and collar were missing, presumably as a result of later ground disturbance which may also have dislodged the urn from an originally upright or inverted position. The depression was cut by a Saxon posthole (AA922) and two medieval pits (AA564, AA581); the fill of the posthole contained a small shard deriving from the collar of the urn.

The tripartite vessel is coil built, the base having been prepared as a single piece. A section through the wall displays a succession of diagonal coil junctions and an extra coil used to form the distinctive collar is apparent. The urn is self-slipped and the exterior surface is strong brown (7.5YR 5/6) in colour. The interior face of the collar is a similar colour, but an abrupt transition in colour of the surface below the collar and neck to a dark grey (10YR 4/1), suggests that the urn was probably fired in an inverted position with at least a partial obstruction of air flow to the interior.

With the aid of a X20 binocular microscope inclusions present in the clay matrix of the fabric were identified. As common poorly sorted angular and rounded ironstone (minute - 2mm); infrequent poorly sorted angular and rounded quartz and iron ore (minute - 0.1mm); rare grog (?) and rare organic impressions, probably chaff. The clay and all of the inclusions would have been locally available. Fragmented sections of the vessel exhibit a hackly, uneven fracture.

Dimensions of the collared urn are: diameter of mouth: 135mm; diameter of shoulder: 147mm; diameter of base: 71mm; height: 161mm. The vessel is slightly warped in profile, but it is difficult to assess if this occurred during firing or is the result of post-depositional compaction.

The rim is simple and flattened and the collar (41mm in depth) is straight in external profile and decorated with an incised triple herringbone motif, flanked at the base of the collar by a single split herringbone bordering element. The neck (45mm in depth) is also of straight external profile, angled from collar to shoulder, and incised with a filled triangle motif. It would appear that the same pointed instrument was used to form the linear incisions on both collar and neck. Quality and accuracy of this decoration is variable and in places it could best be described as crudely executed. The shoulder displays a circumferential row of fingertip impressions. Small, crescentic grooves formed by a fingernail are visible either in or above most of the impressions. The body is undecorated and the junction of the body and the relatively thick base constitutes a simple angle.

The morphological characteristics of the rim, collar and decoration permit a typological definition of the vessel as a Form II tripartite collared urn of the primary series (Longworth

1984, 21, 27).

Detailed examination of the soil content of the urn revealed that worm tracks had introduced minute fragments of charcoal and calcined bone (pers. comm. H Bamford). These were presumably transported from nearby cremation remains, with the urn serving as an accessory vessel. In addition to the urn, the soil fill of the depression contained a small amount of charcoal, and a fragment of cattle rib which may be intrusive. None of the adjacent, later deposits contained any residual cremated bone, obvious pyre debris or artefacts which might potentially have functioned as associated grave furniture, although it is acknowledged that any such material may have been entirely removed.

Radiocarbon assay has demonstrated that the collared urn tradition was in existence between c. 1800-1100 bc (Longworth 1984, 79), dates which can approximately be equated with the early and middle phases of the Bronze Age. The primary series was undoubtedly the first to emerge and become established, but a chronological overlap of uncertain duration between the primary and secondary series has been confirmed by radiocarbon determinations (*ibid*). Longworth suggests that in Northamptonshire, where collared urns are relatively well represented the high proportion of primary series vessels may reflect a greater population density in the early Bronze Age than later, or alternatively the protracted survival of the primary series for a comparatively longer period (Longworth 1984, 27). Consequently, the forwarding of a more precise date for the St Peter's Gardens urn is rendered impossible.

No other prehistoric pottery was recovered from the site, but some of the flint implements may be ascribed to the later neolithic/early Bronze Age and much of the chronologically indeterminate worked flint is almost certainly contemporary (Humble, (M)3/98). Although no other features or deposits at St Peter's Gardens can be reliably dated as prehistoric, the adjacent excavations at St Peter's Street recorded a c. 20m length of a substantial curving ditch of prehistoric origin. The antiquity of the few minute sherds of pottery contained by the ditch fills could not be determined, but the concentration of worked flints both within and on the flanks of the ditch implies an early date (Williams 1979, 13). The remainder of the ditch lies beyond the western bank of the previous excavations but it is reasonable to postulate a total circular plan of approximately 30-35m in diameter, thus placing the structure in the category of ring ditch.

Between Northampton and Oundle in the north-east of the county there are 25 known examples of ring ditches, 12 barrows, a neolithic mortuary enclosure at Aldwinckle, a flat urnfield at Oundle and least nine other possible barrow mounds or ring ditches, all situated less than 1.5km distant from the River Nene (RCHM 1975; RCHM 1979). It should be noted that ring ditches are not necessarily either denuded barrows or Bronze Age in date; a synthesis of recent research has demonstrated their development within the middle neolithic (Kinnes 1976) and circular hut plans of any period may leave similar crop markings.

The known concentration of these sites in the immediate Nene

hinterland is in part a reflection of the comparatively detailed archaeological attention which the river valley has received and also a genuine preference of prehistoric occupation for lighter sandy and gravel soils, particularly with a riverside location. Nevertheless, to a large extent this is offset by the undoubted loss of similar sites through gravel quarrying and modern development as well as the strong likelihood that many sites are yet to be discovered. Recent discoveries include the St Peter's finds and a Beaker burial at Ashton, Oundle (pers. comm. B Dix), both only brought to light through the excavation of much later settlement.

The vast majority of ring ditch and barrow sites in Northamptonshire are unexcavated, but collared urns have been recovered at Aldwincle (Jackson 1976) and Oundle (Brown 1969), and many other collared urns which lack contextual details (Longworth 1984, 230-234) may derive from these types of site. St Peter's Gardens would have afforded a prominent location, situated on a well drained knoll overlooking the confluence of the Nene and Northern Water. The evidence is slight and speculation is necessarily tentative, but it would appear that the collared urn is an accessory vessel to a deliberate funerary interment, perhaps associated with a barrow or other circular ditched monument of the second millenium BC.

# THE ROMAN POTTERY

by Varian Denham

A small quantity of residual Roman pottery was present (total 34 sherds), the majority of which was found in Phases 1-3. This is in keeping with the evidence from St Peter's Street (McCarthy 1979, 151-229) where only 16 sherds were recovered, mainly in contexts of Saxon date.

Greywares account for the majority of the material, although sherds of shelly ware, Samian ware, Nene Valley colour-coated ware and mortaria were also present. All the material was heavily abraded, and no pieces diagnostic of form were recovered.

Fabric Code	Common Name	Origin	Date Range
RG	Greywares	?Local	1st-4th century
RM	Mortaria	?Local	1st-4th century
RNVCC	Nene Valley colour coat	Nene Valley	2nd-4th century
RS	Samian	Imported	1st-2nd century
RBH	Shelly ware	?Local	1st-4th century
RU	Indeterminate	?Local	1st-4th century

Phase	Context	Code	Number of Sherds
1	V87	RG	4
		RS	1
	AA233	RG	2
		RNVCC	1
	AA465.1	RG	1
	AA638.3	RU	1
	AA690	RG	1
1/2		RBH	1
	W116	RG	1
	Y179	RU	1
	Y184	RG	1
2	Y237	RG	1
	W32	RG	2
	A1187	RU	1
3	AA123.1	RNVCC	1
	AA206	RU	1
3?	AA311	RG	1
3/4A1	Z67	RU	1
4A1	Y62	RG	1
	Z27	RU	1
	AA66	RG	1
	AA374	RU	1
	Y31	RM	1
4A1/4B11	AA519	RU	1
U/B	+	RG	2
		RBH	1
		RU	2

THE SAXON POTTERY  
by Varian Denham

**PHASES 1-3**

**(1) CODIFIED SUMMARY OF POTTERY**

**Examples:**

AA909	47	T1	A2 B4 AB36	12
		T1(1)	ABC2	
		N1	AEB3	

Layer AA909: 47 sherds

Fabric T1: 2 cooking pot, 4 bowl, 36 body sherds; see ill. no 12

Fabric T1(1): 2 body sherds

Fabric N1: 3 sherds from a cooking pot or storage jar

Code of vessel forms in Phases 1-3:

A cooking pots  
A4 decorated urns  
B bowls  
B2 upturned bowls  
C jugs  
C4 pitchers  
D lamps  
E6 storage jars  
U unknown

Combinations indicate uncertainty as to vessel type. eg AB = cooking pot or bowl.

Phase 1

**Sunken-Featured Buildings**

Z60	39	S1A	AB2	16
		S1B1	AB6	
		S1B(2)	A1 AB8	
		S1B(3)	AB14	
		S1B(4)	AB2	
		S1C(1)	AB1	
		S1C(2)	AE3	
		BU	AB2	
Z63	9	S1B(2)	AB3	22
		S1B(3)	A1 AB3	
		S1C(2)	AB2	

AA438	3	S1A S1C(1)	AB1 AB2	27
AA441	13	S1A S1B(1) S1B(2) S1B(3) S1B(4) S1BU S1C(1) ?S1C(1)	AB1 AB2 AB1 AB2 AB1 A1 AB1 B1 AB2 AB1	26

## Main Timber Hall

AA410	17	S1A S1B(1) S1B(2) S1B(3) S1C(1) S1C(2) SU U	AB2 AB2 A1 AB1 A2 AB2 AB2 AB1 AB3 U1	15 18
AA423	9	S1A S1B(1) S1B(2) S1B(3) S1BU SU	AB1 A1 AB1 AB1 AB1 U1 AB1, U2	3 11
AA431	2	S1B(1)	A2	8
AA465.1	4	RG S1A S1B(1) S1B(2)	U1 AB1 A1 AB1	7
AA479	2	S1B(1) S1B(3)	A1 AB1	5
AA726	4	S1B(1) S1BU S1C(1)	AB1 U1 AB2	

## General Soil Layer

VB7	44	RG RS S1B(1) S1B(2) S1B(3) S1B(4) S1C(1) S1C(2) S2	U4 U1 A4B1 ABEB1 AB4 4,13 AB4 AB14 AB5 AB2 AB1 AB1
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		S3	AB2	
		S3/T1	AB2	
		S5	AB1	
		SU	U1	
AA233	46	RB	U2	
		RNVCC	U1	
		S1A	A1 AB1	2
		S1B(1)	AB10	
		S1B(2)	AB5	
		S1B(2)/S2	AB1	
		S1B(3)	AB8	
		S1B(3)/S2	AB1	
		?S1B(3)	A4B1	25
		S1B(4)	AB2	
		S1C(1)	AB5	
		?S1C(1)	AB1	
		S1C(2)	AB1	
		S2	A1 AB2	28
		S3/T1	AB2	
		?S5	AB1	32
Other Deposits				
W169	1	S1B(3)	AB1	
Y220	1	S1B(2)	AB1	
Y223	1	S1B(1)	AB1	
Y225	2	S1B(2)	AB1	
		S1B(3)	AB1	
Y233	1	S1B(1)	A1	6
Y263	1	S1B(3)	AB1	
Y270	1	S3/T1	A1	
AA181	1	S3/T1	AB1	
AA409	1	S1B(3)	AB1	
AA483	1	S1C(1)	AB1	
AP 4.3	1	S1B(1)	AB1	
AA637	2	S1B(2)	A4B1	14
		S1C(1)	AB1	
AA638.3	5	RU	U1	
		S1B(3)	AB2	
		S1BU	AB1	
		SU	AB1	
AA661	1	S1B(1)	AB1	

AA663	2	S1B(3) S1C(1)	AB1 AB1	24
AA664	8	S1A S1B(1) S1B(2) S1B(3) SU	AS1 A2 AB1 A1 AB1 AB2	9, 12
AA665	3	S1B(3) S1C(1) SU	A1 AB1 U1	17
AA677	1	S1B(3)	AB1	
AA689.2	1	S1B(3)	AB1	
AA690	3	PR/S3/T1 RG S1B(1)	U1 U1 AB1	
AA698	1	S1BU	AB1	
AA726	1	S1B(2)	AB1	
AA730	3	S1B(2) S1BU	AB2 AB1	
AA740	1	S1BU	AB1	
AA744	1	S1B(2)	AB1	
AA745	2	S1B(3) SU	AB1 AB1	
AA753	1	S1B(2)	AB1	
AA767	1	S1BU	U1	
AA755	2	S1B(2) S1B(3)/S2	AB1 AB1	
AA98	1	S1B(1)	AB1	

Probably Phase 1

AA455	3	S1B(2) S1B(3)	AB1 AB2
AA6E2	1	U	ABC1
AA777	1	S1B(1)	AB1



Probably Phase 1, Possibly Phase 2

X39	1	U	U1
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Phase 1/2

AA633	1	PS5	A1	34
W147	2	S1B(3) S1B(4)	AB1 AB1	
W163	3	RG S1C(1) S1C(2)	U1 AB1 AB1	
W187	2	S1CJ W18	AB1 U1	
Y178	1	S1B(3)/S2	AB1	
Y179	1	RU	1	
Y184	2	RG S1B(3)	U1 U1	20
Y209	1	S1B(3)	AB1	
Y237	1	RG	U1	

Phase 2

## Stone Hall

AA127	1	S1B(3)	AB1
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## Stone Hall Extension

AA151.2	1	W1	A1
V68	1	T11	AB1

## Make Up Levels For Phase 2

AA167	6	S1B(1) S1B(3) S1C(1) S1C(2) SS PS5	AB1 AB1 AB1 AB1 AB1 AB1
AA168	1	S1B(1)	AB1
AA432	8	S1B(1) S1B(3)	AB1 AB1

		S1C(1)	AB1	
		T1(1)	AB1	
AA187	4	RU	U1	
		S1B(1)	A1	
		S1B(2)	AB1	
		?S5	AB1	33

## Other Deposits

W32	8	RB	U2	
		S1B(1)	AB1	
		S1B(2)	AB1	
		S1B(3)	AB1	
W50	1	S1B(3)	B1	21
W89	5	S1A	AB2	
		S1B(3)	AB2	
		T1	AB2	
W127	1	S1B(3)	AB1	
AA904	3	S1B(2)	AB2	
		S1BU	U1	

Phase 22

AA109	1	S1B(3)	AB1
AA105	1	W1	AB1

Phase 3

## Robber of Stone Hall

W14	61	T1(1)	AB1	
		T1	A2 AB11 ABC2	
		W1(2)	AB1	
		W1	A5 AB33	
		?W1/X1(1)/Y	AB1 ABCE1 U2	60
		W3(2)	AB1	
		?W32	AB1	
AA123.1	109	RNVCC	U1	
		S1A	AB1	
		S1B(2)	AB1	
		S1B(3)	AB2	
		S1B	AB1	
		S3	AB3	
		S3/T1	B1 AB24	
		SU	U3	
		T1(1)	A1 AB23	
		T1(3)	B2 AB1	

		T1 (4)	AB2	
		T1	A2 AB22 ABC1	
		W1 (2)	AB1	
		W1	AB6	56
		?W1	AB1	
		?W1/X (1) /Y	ABC1	
		X1 (1)	ABC5	
		U	U4	
AA123.2	24	SU	AB1	
		T1 (1)	A1 AB4	
		T1 (3)	AB2	
		T1	B2 AB4	
		T1/2	ABC4	
		W1	AB3	
		W3 (2)	A1	
		X1 (1)	ABC2	
AA123.3	28	T1 (1)	A1 AB4	
		T1 (2)	AB1	
		T1 (3)	AB6	
		T1	AB2	
		W1	A1 AB6	
		W3 (2)	AB1	
		W5	AB1	
		W34	AB3	
		X1 (1)	ABC1	
		?W1/X1 (1) /Y	A1	
AA123.4	19	T1 (1)	AB5	
		T1 (3)	A1 AB4	
		T1	AB6	
		T1/2	ABC1	
		?W5	AB1	
		X1 (1)	ABC1	
AA123.5	5	W1	AB3 ABC81	
		?W5	ABC1	
AA123.6	10	S3	?B2E81	
		T1 (3)	AB1	
		W1	AB4	
		W3 (3)	A1	
		?W1/X1 (1) /Y	ABC1	
		U	2	
AA123.7	1	S1A	AB1	
AA206	55	RU	U1	
		S3	AB2	
		S3/T1	AB4	
		T1 (1)	AB2	
		T1 (3)	AB1	
		T1	AB1	
		W1 (2)	A1 AB2	49

W1	A6 AB21
?W1/W3	A1
?W1/X1/Y	A1
W3(3)	AB1
W32	A1 AB4
W34	AB4
?W1/X1(1)/Y	ABC1
U	U1

Phase 3

## Other Deposits

V40	2	T1 ?W1/X1(1)/Y	AB1 ABC1	
W12	23	T1 W1 W3(2)	A4 B1 AB16 AB1 AB1	
W13	41	S3/T1 T1 W1 W3(2) W47	AB5 A1 AB10 AB21 AB2 AB2	
W24	2	T1	AB2	
W28	12	T1 T1/2 W1 ?W1	A1 AB4 AB1 A2 AB3 AB1	44 47 53, 54
W29	5	T1 T1/2	AB2 ABC3	
W36	19	S3/T1 T1 W1	A1 AB4 AB10 AB4	29
W41	12	T1 W1	A6 AB5 AB1	45
W42	9	T1 T1/2 W4	AB6 ABC2 D1	71
W43	9	S3 T1 W1 W32	AB1 AB6 AB1 AB1	
X16	2	T1/2	ABC2	
Y27	5	S1B(3) T1(1)	AB1 AB4	

Y39	113	S1B(2)	AB1	
		S1B(3)	AB2	
		T1(1)	AB6	
		T1(2)	AB1	
		T1(3)	AB5	
		T1(1/3)	A4 B2 AB33	37, 38
		T1	B1 AB9	
		T1/2	A1 B1 ABC11	
		T2	ABC1	
		V5	ABC1	
		W1	A3 AB15	52
		?W1/X1(1)/Y	A1	61
		W3(2)	AB7	
		W3(3)	AB1	
		W15	C1	
		W34	AB1	
		X1(1)	C2	
		U	U1	
Y43	1	X1(1)	U1	
Y44	2	T1(2/4)	AB1	
		T1	AB1	
Y55	77	S1B(3)	A4B1	17
		S3/T1	A2 AB5	30, 31
		T1(1)	AB3	
		T1(2)	B1 AB3	
		T1(4)	A2 B1	
		T1	A2 AB1B ABC5	
		T1/2	AB1 ABC3	
		V5	AB4 ABC3	
		W1	AB4 ABC2	
		?W1/X1(1)/Y	AB1	59
		W3(1)	ABC1	
		W3(2)	AB5	
		W32	AB1	
		X1(1)	C4 AC2 ABC2	
		U	1	
Y58	23	SU	AB1	
		T1(1)	A6	
		T1(2)	AB1	
		T1	AB9	
		T1/2	AB1 ABC3	
		W3(3)	AB1	
		W11(1)/X1(1)	ABC1	
Y83	8	SU	AB1	
		T1(1)	A1	35
		T1(3)	B3	40
		T1	AB3	
Y102	2	T1(1)	AB1	
		W32	AB1	

Y116	7	S1B(3) SU T1(3) T1 ?W1/X1(1)/Y X1(1)	AB1 AB1 AB1 AB2 ABC1 C1	
Y130	50	S1B(1) S1B(2) S1B(4) S3/T1 T1(1) T1(2) T1 W1 W3(1) W11(1)/X1(1)	AB1 AB2 AB1 AB3 A5 B1 AB20 A1 AB3 AB4 A1 EQ1 AB2 AB3 ABC2	57
Y135	35	S1B(2) ?W1/X1(1)/Y W3(2) W54	AB1 A5 AB-1 ABC24 AB2 A1 AB1	59, 62-66 72
Y158	12	T1(1) T1(2) T1(3) T1/2 W34	A3 AB1 AB1 A1 AB4 ABC1 AB1	39 48
Y162	1	W3(3)	AB1	
Z25	12	T1	AB12	
Z30	11	S1B(3)/S2 S3/T1 T1(1) T1(2) T1(3) W1	AB1 A2 A1 AB1 AB1 AB4 A1	36
Z32	2	S2 W1	AB1 AB1	
Z34	2	T1(1)	AB2	
Z40	7	SU T1(1) T1(1/3) T1 W1 W54 X1(1)	AB1 AB1 B1 AB1 AB1 AB1 AB1	
AA7	55	T1(1)	A2 B1 AB9	

		T1 (3/4)	AB1	
		T1 (4)	AB6	
		T1	A1 B1 AB22	46
		W1	A1 AB8	
		W3 (2)	AB1 AE81	
		W32	AB1	
AA9	49	T1 (1/3)	A3 AB32	
		T1 (2)	A1 AB1	
		T1 (4)	B2	41
		T1	AB2	
		W1	AB7	
		W32	AB1	
AA16	5	T1 (1)	AB1	
		T1 (3)	A2	
		T1	A1	
		W1	AB1	
AA28	6	T1 (1)	AB1	
		T1 (3)	A1	
		T1	AB1	
		T1/2	ABC2	
		W1	A1	
AA29	3	T1/2	ADEB1	
		W1	A1 AB1	
AA30	4	T1 (1)	A1	
		T1	AB2	
		W1	AB1	
AA56	4	T1	AB2	
		T1/2	B1 ABC1	
AA58	11	T1 (3)	AB1	
		W1	A1 AB4	
		W1/2 (1) / Y	ABC3	
		W3 (3)	A1	69
		W34	AB1	
AA64	4	T1 (1)	AB5	
		U	1	
AA70	31	T1 (1)	A1 AB11	
		T1 (4)	B4 ABC3	
		T1	ABC	
		T1/2	ABC3	
		W1	A1 AB5	
AA74	2	T1 (3)	AB2	
AA77	21	T1 (1)	AB2	
		T1 (2)	AB1	
		T1 (3)	AB1	
		T1	A1 AB0	
		T1/2	AB1	

AA78	33	T1(1)	A1 <u>S1</u> AB9	
		T1(2)	A1 <u>B1</u> AB1	
		T1(3)	AB1	
		T1(4)	B2	
		T1	A1 <u>B1</u> AB4	
		W1	AB5	
		W47	AB1	
		X1(1)	B21 ABC3	73
AA79.2	13	T1(2)	A1 AB1	
		T1	AB5	
		W1	A1 AB3	
		X1(1)	ABC2	
AA103	18	T1(1)	A1 AB2	
		T1(3)	AB1	
		W1	AB9	
		W32	AB4	
		W34	AB1	
AA114	7	SU	AB1	
		T1(1)	AB2	
		T1(3)	A1 AB1	
		W1	A1 AB1	
AA136	12	S1B(3)	AB1	
		T1(1)	A2	
		T1	AB1	
		W1(3)	A1	50
		W1	AB6	
		2W1/X1(1)/Y	A1	67
AA140	3	W1(3)	ABC1	
		W1	AB1	
		U	1	
AA145	1	W1/W3	AB1	
AA150	1	S3/T1	AB1	
AA152	12	SU	AB1	
		T1(1)	A1 AB5	
		T1	AB2	
		T1/2	U1	
		W1	A1 AB1	
AA155	14	S1B(4)	AB1	
		T1	AB8	
		W1	AB5	
AA403	10	S1B(3)	A1	23
		S3	AB1	
		T1(1)	AB2	
		T1(3)	AB1	
		T1	A1 AB3	
		W1	AB1	



		U	<u>1</u>	
AA523	29	T1 (4)	A <u>1</u> AB <u>19</u>	42
		T1	A <u>1</u>	
		W1	A <u>5</u>	55
		W2	A <u>1</u>	68
		W3 (3)	A <u>1</u> B <u>1</u>	70
AA545	19	T1 (1)	AB <u>2</u>	
		T1 (2)	AB <u>1</u>	
		T1	A <u>1</u> AB <u>1</u>	
		W1	A <u>1</u> AB <u>1</u> ABC <u>11</u>	
		W32	AB <u>1</u>	
AA566	4	T1 (1)	B <u>4</u>	

Probably Phase 3

W145	1	S1B (3)	AB <u>1</u>	
AA25	41	T1	A <u>1</u> AB <u>12</u>	
		T1 (1)	A <u>1</u> AB <u>8</u>	
		T1 (2)	AB <u>1</u>	
		T1 (3/4)	B <u>1</u> AB <u>1</u>	
		T1 (4)	B <u>1</u>	
		T1/2	AB <u>1</u>	
		T2	A <u>1</u> AB <u>1</u>	
		W1	AB <u>7</u>	51
		W3 (3)	AB <u>1</u>	
		X1 (1)	ABC <u>4</u>	
AA555	4	T1	A <u>1</u> AB <u>2</u>	
		T1/2	ABC <u>1</u>	
AA556	6	T1/2	ABC <u>4</u>	
		VB	U <u>1</u>	
		X1 (1)	ABC <u>1</u>	

Phase 32

AA139	2	W1	AB <u>1</u>	
		S1B (1)	A <u>1</u>	10
AA149	1	U	<u>1</u>	
AA162.2	2	S1B (4)	AB <u>1</u>	
		T1/2	AB <u>1</u>	
AA217	2	T (1)	ACB <u>1</u> AB <u>1</u>	43
AA311	2	FG	U <u>1</u>	
		S1B (3) / S2	AB <u>1</u>	
AA351	1	T1 (1)	AD <u>1</u>	

AA550	2	T1(1) U	AB <u>1</u> U <u>1</u>
AA598	1	S1C(1)	AB <u>1</u>
AA599	2	T1 W3(3)	B <u>1</u> AB <u>1</u>
AA938	1	X1(1)	U <u>1</u>
AA952	1	S1BU	AB <u>1</u>
AA1000	1	W1	AB <u>1</u>
AA1006	1	S1B(2)	AB <u>1</u>

## (11) GAZETTEER OF SAXON POTTERY (400-11/1200)

- Report code: M100: Greyfriars report (Gryspeerdts 1978)
- M113: St Peter's Street report (McCarthy 1979)
- M115X: St Peter's Gardens report (Denham, this report)
- M139: Chalk Lane report (Gryspeerdts 1981)
- M178: Marefair report (Gryspeerdts 1979)
- M285: College Street report (Gryspeerdts 1982)
- M351: Derrigate report (Shaw and Denham 1984)
- M403: The Riding report (Denham 1984b)
- M407: St James' Square report (Denham 1983)
- M443: Black Lion Hill report (Denham forthcoming a)
- F76: Briar Hill report (Denham 1984d)

## FABRIC 81A

Occurrence

St Peter's Street, Marefair, Chalk Lane, Black Lion Hill, Gregory Street, St Peter's Gardens.

Abundance

Minor wares: 0-15% of early/middle Saxon assemblages.

Macroscopic CharacteristicsHand-made.

Hard, fairly smooth to very harsh (especially internally, granitic inclusions protruding from surfaces, 3-9mm thick.

Wet-hand finish, wiping and burnishing all evident. Occasional chaff and seed marks on surfaces.

?Funerary wares with stamped and linear decoration. Cooking pots with simple curved rims and slightly sagging bases. Rare upright and pouched lugs. Conical bowls.

Core and surfaces generally black N2/O, but also grey N5/O and reddish brown 5YR 4/4.

#### Petrological Description

Moderate to abundant, angular, ill-sorted granite, chiefly 0.8-2mm up to 6mm.<sup>1</sup>

Sparse to moderate, angular, ill-sorted feldspar (mainly plagioclase), chiefly 0.5-2.5mm.

Sparse, ill-sorted mica flakes, chiefly 0.1-2.5mm up to 3mm.

Moderate to abundant, sub-angular to well-rounded, ill-sorted quartz, chiefly 0.3-0.5mm up to 2.5mm.<sup>2</sup>

Sparse to moderate, sub-angular, ill-sorted metaquartzite, chiefly 0.5-0.8mm up to 2.5mm. Rare to sparse sub-rounded sandstone, up to 3mm.

Rare sub-rounded ironstone and iron ore, up to 3mm.

Very rare limestone, up to 3mm.

Rare carbonised chaff and seeds.

#### General Comments

c. 400-900

Probably non-local.

Similar pottery found in Leics and Hunts (Walker 1978, 224-9).

Wide distribution in Northants (Gryspeerdts 1981, 31).

Uncertain whether source of granite is in Leics or in local Boulder Clay, but the former possibility is favoured.

Igneous erratics noted at Great Oxendon (Poole et al 1968, 60).

Mountsorrel granite also noted in stone fabric of Brixworth Church (Sutherland 1977).

See also: Williams 1977, 84-91.

#### Previously Published Discussion

M115: 155

M139: (M)48

P76: (M) The Saxon Pottery

#### Illustrations

M139: 7, 17, 20-24

M115X: 2, 3

<sup>1</sup> Granite as seen through a X20 binocular microscope: crystals of grey-white quartz, pink to grey feldspar and black biotite. Petrological descriptions: intergrowth of quartz, feldspar (predominantly zoned plagioclase, but also potassium feldspar and perthite) and biotite 'fresh', but sometimes decayed to green chlorite. Also present in small quantities: hornblende, apatite and iron ore. On account of the 'fresh' biotite and quantity of quartz and plagioclase feldspar, a Mountsorrel source is considered most likely (pers. comm. M Le Bas).

<sup>2</sup> Size, rounding and sorting of quartz varies considerably between samples.

#### FABRIC S1B(1)

#### Occurrence

Chalk Lane, Black Lion Hill, Briar Hill, St Peter's Gardens.

#### Abundance

Major/minor ware: 10-30% of early/middle Saxon assemblages.

Macroscopic Characteristics

Hand-made.

Hard, smooth to rough, 3-9mm thick.

Frequently wiped or burnished on one or both surfaces. Bases are heavily fingered.

?Funerary wares, including a biconical urn and a bossed rim.

Stamped and linear incised sherds. Cooking pots. Upright lug,

?small pierced lug. Small bowls. ?Brazier sherd (see Jones 1975, 411-3).

Core and surfaces black N2/O, rare reddish brown patches 5YR 5/4.

Petrological Description

Abundant sub-angular to rounded ill-sorted quartz, chiefly 0.1-0.3mm up to 2mm.

Sparse to moderate sub-angular metaquartzite, up to 2mm.

Rare sub-angular microcline feldspar, up to 1.5mm.

Rare flint.

Rare sub-rounded hematite, up to 2mm.

Rare examples with abundant chaff and seed inclusions.

General Comments

c. 400-900

Probably local.

Common fabric within S1B.

Previously Published Discussion

M139: (M)48

Illustrations

M139: 1, 2, 3, 5, 8, 10, 15, 19, 25-32

P76: 1-3

M15X: 4-13

**FABRIC S1B(2)**

Occurrence

Chalk Lane, Briar Hill, Black Lion Hill, St Peter's Gardens.

Abundance

Minor wares: 5-20% of early/middle Saxon assemblages.

Macroscopic Characteristics

Hand-made.

Hard, rough to harsh, 5-15mm thick. (Hardest fabric within S1B).

Infrequent smoothing and burnishing.

Rare fingernail impressed decoration.

?Lug/handle. Cooking pots.

Core and surfaces very dark grey 5YR 3/1 to dark reddish brown 5YR 3/3.

Petrological Description

Abundant sub-rounded to rounded fairly well sorted quartz, chiefly 0.2-0.4mm up to 1mm.

Rare to sparse sub-angular ill-sorted metaquartzite, up to 2mm.

Sparse sub angular ill-sorted sandstone, up to 2mm.

Rare flint.

Rare sub-rounded hematite.

Rare examples with abundant chaff and seed inclusions.

General Comments

c. 400-900

Probably local.

Fairly common S1B fabric.

Previously Published Discussion

M139: (M)48

Illustrations

M139: 1B

P76: 4, 5

M443: 1

M115X: 14-16

## FABRIC S1B(3)

Occurrence

Chalk Lane, Briar Hill, Black Lion Hill, St Peter's Gardens.

Abundance

Major/minor wares: 10-30% of early/middle Saxon assemblages.

Macroscopic Characteristics

Hand-made.

Hard, rough to very smooth, 3-9mm thick.

Frequently wiped or burnished on one or both surfaces.

?Funerary wares with stamped and linear decoration. Cooking pots. Pouched lug. Small bowls.

Core and surfaces black N2/O, rare reddish brown patches 5YR 4/4.

Petrological Description

Abundant angular to sub-rounded well-sorted quartz, chiefly 0.1-0.3mm up to 0.6mm.

Sparse sub-angular ill-sorted quartz-cemented sandstone (often ferruginous), chiefly 0.8-1.5, up to 2mm.

Rare flint.

Rare examples with abundant chaff and seed inclusions.

General Comments

c. 400-900

Probably local.

This fabric can be very fine.

Common S1B fabric.

Previously Published Discussion

M139: (M)49

Illustrations

M139: 4, 6, 33-36

M443: 3

P76: 6-11

M115X: 17-25

## FABRIC S1B(4)

Occurrence

Chalk Lane, Briar Hill, St Peter's Gardens.

Abundance

Minor wares: 15% of early/middle Saxon assemblages.

Macroscopic Characteristics

Hand-made.

Hard, fairly smooth, 3-9mm thick.

Frequently wiped, less often burnished.

?Funerary ware. Single sherd with linear incised decoration.

Cooking pots with simple rims.

Core and surfaces black N2/0 to brown 7.5YR 4/2.

Petrological Description

Rare to moderate sub-angular to rounded ill-sorted quartz, chiefly 0.1-0.5mm up to 2mm.

Sparse sub-angular to rounded ill-sorted sandstone, up to 2.5mm.

Sparse to moderate sub-angular to rounded limestone (sometimes fossiliferous), chiefly 1-2mm up to 3mm.

Sparse to moderate sub-rounded hematite. Rare microcline feldspar.

Rare flint.

General Comments

c. 400-900

Probably local.

Rare S1B fabric.

Previously Published Discussion

M139: (M)49

Illustrations

M139: (b), 37

FABRIC S1B(5)Occurrence

Briar Hill.

Abundance

Minor ware: 32% of early/middle Saxon assemblage on the one site.

Macroscopic Characteristics

Hand-made.

Hard, rough to smooth, 4-10mm thick.

Commonly wiped or smoothed on one or both surfaces.

One simple curved cooking pot rim. No other form diagnostic sherds.

Core and surfaces black N2/0, occasionally light reddish brown 5YR 6/3 - 5YR 6/4.

Petrological Description

Moderate to abundant angular poorly-sorted quartz, minute to 0.1mm up to 0.8mm.

Infrequent rounded polycrystalline quartz, 0.5-2mm.

Rare microcline feldspar, 0.5mm.

Rare minute muscovite.

Rare gngg pellets, 1.5-2mm.

Very rare hornblende and olivine, 0.1-0.2mm.

General Comments

c. 400-900

Probably made in locality of Briar Hill, Northampton.

Previously Published Discussion

F76: (M) The Saxon Pottery

Illustrations

P76: 12

## FABRIC S1B(6)

### Occurrence

Briar Hill

### Abundance

>8% of early/middle Saxon assemblage on the one site.

### Macroscopic Characteristics

Hand-made.

Hard, rough to smooth, 4-10mm thick.

Rarely wiped or burnished, commonly unfinished.

Looking pot sherds.

Core and surfaces black N2/0, occasionally light reddish brown  
5YR 6/3 - 5YR 6/4.

### Petrological Description

Abundant well-sorted angular quartz, minute to 0.1mm.

Frequent grass temper, 0.5-3mm.

Frequent grog pellets, 0.1-1mm.

Rare to moderate sub-rounded quartz, 0.5-1mm.

Rare angular metaquartzite, 1mm.

Rare granite, 1-2mm, comprising intergrowth of quartz, feldspar  
(heavily altered plagioclase and microcline) and 'fresh'  
biotite.

Rare 'detached' granitic minerals (heavily altered microcline,  
plagioclase, hornblende and angular hematite, 0.1-0.3mm).

### General Comments

c. 400-900

Uncertain whether source of granite is in Leics or in local  
Boulder Clay, but the latter is more probable; grog and grass  
have clearly been added as temper whilst the comparatively small  
size of the granitic inclusions would suggest that these may  
have been natural constituents of the clay.

### Previously Published Discussion

P76: (M) The Saxon Pottery

### Illustrations

## FABRIC S1C(1)

### Occurrence

Chalk Lane, Briar Hill, St Peter's Gardens.

### Abundance

Minor ware: 2-10% of early/middle Saxon assemblages.

### Macroscopic Characteristics

Hand-made.

Hard, fairly smooth to very rough surfaces, 5-10mm thick.

Sometimes wiped internally, but only rarely burnished.

No decorated sherds. Cooking pots with simple upright or  
flattened everted rims and thick flat bases.



Core and surfaces black N2/O, sometimes reddish brown margins 5YR 4/4.

Occasional carbonised seeds (chiefly barley) evident in fracture.

#### Petrological Description

Rare to moderate, sub-rounded to rounded, well-sorted quartz, chiefly 0.2-0.5mm up to 3mm.

Moderate to abundant angular to sub-rounded poorly-sorted ironstone, chiefly 0.5-1.5mm up to 3mm.

Rare metaquartzite, up to 2mm.

Rare muscovite.

#### General Comments

c. 400-900

Probably local.

#### Previously Published Discussion

M139: (M)53

#### Illustrations

M139: 38, 39

M115X: 26, 27

### FABRIC S1C(2)

#### Occurrence

Chalk Lane, Briar Hill, Black Lion Hill, St Peter's Gardens.

#### Abundance

Minor ware: <2% of early/middle Saxon assemblages.

#### Macroscopic Characteristics

Hand-made.

Hard, rough, 4-10mm thick.

Infrequently wiped and smoothed, rarely with burnished external slip.

?Cooking pots.

Core and surfaces black N2/O or reddish brown 5YR 4/4.

#### Petrological Description

Abundant, angular to rounded, well-sorted quartz, chiefly 0.05-0.2mm up to 1mm.

Sparse to moderate sub-rounded ironstone or iron ore, chiefly minute to 0.2mm up to 0.4mm.

Rare metaquartzite.

Very rare flint.

#### General Comments

c. 400-900

?Local

#### Previously Published Discussion

M139: (M)53

#### Illustrations

### FABRIC S2

#### Occurrence

Chalk Lane, St Peter's Street, Marefair, St Peter's Gardens, Black Lion Hill.

Abundance

Minor ware: >5% of early/middle Saxon assemblages.

Macroscopic Characteristics

Hand-made.

Fairly hard, smooth, 5-12mm thick.

Surfaces marked with numerous grass, chaff and seed impressions, also evident in fracture. Frequently well smoothed on interior and exterior, more rarely burnished on exterior.

No decorated wares, apart from one stamped sherd in S1A which also contains some chaff. Cooking pots with simple upright or slightly inturned rims. Few recognisable forms.

Core and surfaces black N2/0 or reddish yellow 5YR 4/6-7/6.

Petrological Description

Abundant elongated chaff and seed impressions, chiefly 3-6mm, up to 10mm.

Majority of seeds are cereal grains, chiefly of *Hordeum* sp.

(barley) and *Avena* sp. (oat). A few ?couch grass seeds have also been identified (pers. comm. R Carter).

Rare to sparse sub-rounded quartz chiefly 0.2-0.4mm.

General Comments

'Grass/chaff-tempered.'

c. 400-900 (possibly a later starting date).

?Non-local.

See: Brown 1976, 191-3.

Previously Published Discussion

M115: 52

M139: (M)55

Illustrations

M178: 1

M139: 9

M115X: 28

**FABRIC 53**Occurrence

Chalk Lane, St Peter's Street, Marefair, Black Lion Hill, St Peter's Gardens.

Abundance

Minor ware: <2% of early/middle Saxon pottery assemblages.

Macroscopic Characteristics

Hand-made.

Fairly hard, smooth to rough, 5-10mm.

?Slipped or wet-hand finished external surfaces.

Cooking pots with flattened rims and upright lugs. Bowls.

Core dark grey N4/0, surfaces light brown 7.5YR 6/4.

Petrological Description

Inclusions similar to 11, but less well sorted, with more variable quartz content.

General Comments

Tc. 650-650

Probably local.

Similarity to Naffey Group III wares (Addyman 1975, 47-50, Fig 14).

Previously Published Discussion

M115: 155  
 M139: (M)55  
Illustrations  
 M115: 1, 3, 426, 522  
 M139: 41-44

## FABRIC S5

### Occurrence

Chalk Lane, St Peter's Street, 2St Peter's Gardens.

### Abundance

<1% of early/middle Saxon assemblages.

### Macroscopic Characteristics

Hand-made, finished on turntable?

Hard, smooth, 8-12mm thick.

Smoothed exterior, knife-trimmed exterior of base.

Cooking pots with simple everted rims. One sagging base.

Core light grey N7/0, surfaces light brown to pinkish grey 7.5YR 6/4-7/2.

### Petrological Description

Abundant sub-rounded to rounded well-sorted quartz, chiefly 0.1-0.4mm up to 0.8mm.

Sparse rounded ferruginous sandstone, up to 4mm.

Rare rounded calcareous grains, up to 3.5mm.

Sparse sub-rounded hematite, chiefly 0.5mm.

### General Comments

?Ipswich type ware.

c. 650-850

See: West 1964, 233-329

### Previously Published Discussion

M115: 156

M139: (M)56

### Illustrations

M115: 140

M139: 40

M115X: 765: 32-34

## FABRIC S3/T1

### Occurrence

Chalk Lane, St Peter's Street, St James' Square, Black Lion Hill, St Peter's Gardens.

### Abundance

Minor ware: <5% of Saxon assemblages.

### Macroscopic Characteristics

Hand-made/rarely wheel-thrown.

Fairly hard, smooth to rough, 4-10mm thick.

?Slipped or wet-hard finished external and internal surfaces.

Cooking pots with everted or flattened rims and upright lugs or bar lips. Storage jars with lug handles, rarely with thumbled decoration. Bowls.

Core grey N4/0, surfaces light brown 7.5YR 6/4.

Petrological Description

Inclusions similar to T1 but coarser, less well sorted, with more variable quartz content.

General Comments

c. 850-1100

Probably of local manufacture, representing a transitional stage between S3 and T1. Similarity to Maxey Group III wares (Addyman 1965, 47-58, Fig 14) and coarser products of St Neots-type ware.

Previously Published Discussion

M407: 13

Illustrations

M407: 1-3

M115X: 29-31, (M) 74-77.

**FABRIC T1**Occurrence

Chalk Lane, St Peter's Street, Dergnate, St James' Square, The Riding, St Peter's Gardens, Marefair, Greyfriars, Black Lion Hill.

Abundance

Major ware: 40-95% of late Saxon assemblages.

Macroscopic Characteristics

Chiefly wheel-thrown.

Fairly soft, smooth, 4-7mm thick.

Distinctive speckled white surfaces sometimes bear a wet-hand finish or thin slip.

Cooking pots, with rare diamond or square-notched rouletting.

Small bowls, frequently with inturned or hammer-head rims.

Spouted bowls. Deep bowls. Shallow dishes. Lamps. Hand-made storage jars with thumb-applied strips.

Core black to grey N2/0-N6/0, surfaces vary from black N2/0, reddish brown 5YR 5/3, light brown 7.5YR 6/4, to weak red 10Y 4/3.

Petrological Description

Abundant, well- to ill-sorted platelike shells and angular to sub-rounded fossiliferous limestone, including bryozoa, chiefly 0.5-1mm up to 3mm.

Rare sub-rounded quartz, chiefly 0.3-0.5mm.

Rare sub-rounded hematite, chiefly 0.5-1mm.

Diversity within the fabric is chiefly due to variation in the sorting of the calcareous inclusions.

General Comments

St Neots-type ware.

c. 850-1100

Locally produced, probably from numerous sources.

T1 is the principal late Saxon fabric and makes up 40-95% of the pottery in the 850-1100 period, commonly >60%.

As petrological analysis and neutron activation analysis has not proved helpful in identifying different wares within the St Neots-type ware tradition a subdivision based upon variation within methods of manufacture, forms, and surface treatment has been proposed. Insufficient vertically stratified contexts within Phase 3 at St Peter's Gardens has prohibited the

establishment of a chronological framework for the sub-groups, but tentative suggestions have been put forward and it is hoped that these can be tested by work on assemblages from Black Lion Hill and Gregory Street, Northampton (Denham, forthcoming). It is probable that the sub-groups represent different kilns operating in the locality at various times during the late Saxon period. It is likely that all the kilns had broadly similar traditions, but variety is apparent in manufacturing processes and forms produced.

Previously Published Discussion

M115: 156, 226-8, 230-240

M139: 115, (M) 59

M178: (M) 86

M407: 13-16

Illustrations

Numerous examples in the following reports: M115, M178, M139, M443, and M407, M115X.

For a representative sample see M115X 35-46 and (M) 78-98.

Subdivisions of St Neots-type Ware

FABRIC T1(1)

Macroscopic Characteristics

Chiefly wheel-made.

Fairly soft, smooth, notably thin walled, 3-6mm thick.

Distinctive speckled white appearance, soapy textured with a wet-hand finish; infrequently burnished.

Small cooking pots with everted rims and sagging bases.

Core black to grey N2/0-N6/0, surfaces black N2/0.

Petrological Description

As T1.

General Comments

May be confined to the 10th and 11th centuries. Most notable characteristics: purplish black colour, fine walls.

FABRIC T1(2)

Macroscopic Characteristics

Wheel-made and hand-made.

Soft to harsh, 5-6mm thick. Only rarely smoothed or wiped.

Small bowls, cooking pots. Rare rouletted decoration.

Distinctive reddish brown oxidised surfaces 5YR 5/3, core grey N6/0.

Petrological Description

As T1

General Comments

May be confined to the 11th century, continuing in production during the 12th century.

Most notable characteristics: reddish exterior and interior surfaces.

## FABRIC T1(3)

Macroscopic Characteristics

Chiefly wheel-thrown.

Fairly soft, smooth 4-7mm thick.

Soapy texture from wet-hand finish/self-slip.

Abundant small bowls with sharply inturned rims. Rare large straight-sided bowls. ?Cooking pots.

Core black to grey N2/0-N6/0.

Distinctive weak red 10R 5/4 surfaces.

Petrological Description

As T1.

General Comments

Probably confined to later part of T1 date range: c. 10th/11th centuries.

Most notable characteristics: well slipped pink surfaces, small bowls.

## FABRIC T1(4)

Macroscopic Characteristics

Chiefly hand-made.

Very soft smooth, laminar, friable, 4-8mm thick.

Soapy texture from heavily slipped exterior.

Small bowls. Cooking pots. Storage jars with pulled handles.

Distinctive white, grey and light brown surfaces 7.5YR 6/4, core dark grey N4/0.

Petrological Description

As T1

General Comments

May be confined to earlier part of T1 date range, possibly 9/10th century. Most notable characteristics: light colour, thick walls, heavy slip.

## FABRIC T1/2

Occurrence

St Peter's Street, Chalk Lane, Derrigate, The Riding, St James' Square, Marefair, Black Lion Hill, St Peter's Gardens.

Abundance

Minor ware: c. 10% during the late Saxon/medieval transitional period.

Macroscopic Characteristics

Hand-made/wheel-made.

Hard to fairly soft, smooth to fairly rough, 4-7mm thick.

Distinctive speckled white surfaces infrequently with a wet-hand finish.

Cooking pots, with simple everted rims and sagging bases. Small bowls with hammer-headed or inturned rims, or wide open-mouthed bowls with simple rims. Jugs with strap handles.

Surfaces vary from light brown 7.5YR 6/4 to reddish brown 5YR 5/3.

Petrological Description

Similar to T1 and T2.

General Comments

T1/2 represents the late Saxon-early medieval pottery transition.

c. 1000-1200.

Previously Published Discussion

M178: (M)86

M407: 14-16

Illustrations

Numerous examples in the following reports:

M115, M115X.

For a representative sample see: M115X (M)99-111.

**FABRIC T2**Occurrence

Chalk Lane, St Peter's Street, Derngate, Marefair, Greyfriars, St James' Square, The Riding, Black Lion Hill, St Peter's Gardens.

Abundance

Major ware: up to 90% of early medieval assemblages, and commonly >60%.

Macroscopic Characteristics

Hand-made/wheel-made.

Hard to fairly soft, fairly rough, 4-7mm thick.

Distinctive speckled white surfaces, rarely smoothed.

Large baggy cooking pots with developed rims, with rouletted decoration. Large straight-sided bowls. Jugs with bands of rouletted decoration, sagging bases and developed rims, with strap or rod handles, frequently stabbed, thumbled or slashed. Lamps. Dishes.

Core black to grey N2/0-N6/0 to light brown 7.5YR 6/4. Surfaces vary from reddish brown 5YR 5/4 to light brown 7.5YR 6/4 to light red 2.5YR 6/6.

Petrological Description

As T1 but shell and fossiliferous limestone is poorly sorted, chiefly 1-4mm, and quartz content is more variable.

General Comments

Ubiquitous early medieval pottery fabric, with mineral suite derived from the locally outcropping Jurassic geology, probably manufactured in many kilns throughout the area (Yardley Hastings, Olney-Hyde, Harrold, Lyveden, Stanion).

c. 1100-1400. Principally a medieval ware but can occur at the end of the late Saxon period.

Previously Published Discussion

M115: 156-157

Illustrations

Numerous illustrations in the following reports:

M115, M443, M351, M403, M115X.

For a representative sample see M351: 3-31, 36-42, 60-62.

## FABRIC T11

Occurrence

Chalk Lane, Marefair, St Peter's Street, Black Lion Hill, St Peter's Gardens.

Abundance

Minor ware: <2% of late Saxon assemblage.

Macroscopic Characteristics

Chiefly hand-made, some vessels finished on a wheel or turntable.

Fairly hard, smooth, 4-7mm thick.

Wet-hand finish or thinly slipped surfaces.

Cooking pots with 'club' or slightly everted rims.

Core black to grey N2/0-N6/0, surfaces black N2/0, margins and interior of 1 vessel 7.5YR 5/2.

Petrological Description

Abundant, well-sorted limestone oolites, chiefly 0.3-0.4mm up to 0.6mm.

Rare to moderate shelly limestone, up to 3mm.

Sparse sub-rounded to rounded quartz, chiefly 0.5, up to 1mm.

Sparse sub-rounded hematite chiefly 0.5mm.

Rare flint.

General Comments

c. 900-1300, but could be later, (pers. comm. M Mellor), ?1000-1300

Probably from a Cotswolds source.

Very similar to Oxford fabric AC (pers. comm. M Mellor).

See: Jope and Threlfall 1959, 240-56; Vince 1979, 171-81.

Previously Published Discussion

M115: 157

M139: (M)59

Illustrations

M115: 672

M139: 106-109.

## FABRIC V5

Occurrence

Chalk Lane, St Peter's Gardens, Black Lion Hill, St James' Square.

Abundance

Minor ware: <2% of late Saxon assemblages.

Macroscopic Characteristics

Chiefly hand-made, some rims possibly finished on a turntable.

Hard, rough 4-7mm.

?Wet-hand finish. Uneven surfaces.

Cooking pots with club rims and sagging bases.

Core and surfaces black N2/0, occasionally reddish brown 5YR 5/4.

Petrological Description

Abundant, ill-sorted limestone oolites, chiefly 0.3-0.4mm up to 1.5mm.

Moderate platelike shells, sub-rounded limestone and sub-angular



calcite, up to 3mm.

Moderate to abundant sub-rounded to rounded, ill-sorted quartz, chiefly 0.3-0.8mm up to 1mm.

Rare sub-angular quartzite, up to 1.5mm.

Moderate sub-rounded hematite, up to 1mm.

Rare flint.

General Comments

c. 900-1300

Probably from a Cotswold source.

Previously Published Discussion

M139: (M)60

Illustrations

M407: 51, 52

M139: 110-112

**FABRIC V8**

Occurrence

Chalk Lane, St Peter's Gardens.

Abundance

Minor ware (2% of late Saxon assemblages).

Macroscopic Characteristics

Hand-made and wheel-thrown.

Hard, very rough and pimply, 5-7mm thick.

Cooking pots with sharply everted rims, thumbled around lip.

?Vessel with horizontal lug and linear incised decoration.

Common square-notched rouletting.

Core grey N4/0-N7/0, surfaces pinkish grey to pink 7.5YR 6/2 - 7.5YR 7/4.

Petrological Description

Moderate to abundant, ill-sorted, sub-rounded to well-rounded quartz, chiefly 0.5-2.5mm up to 2mm.

Sparse to moderate sub-angular quartzite, up to 2mm.

Moderate ill-sorted limestone oolites, up to 1mm, and shelly and sub-rounded limestone, up to 3mm.

Rare to moderate sub-rounded hematite, up to 2.5mm.

Sparse flint.

General Comments

c. 900-1300.

Unknown source, possibly in the Cotswolds, or N. E. Northamptonshire.

Previously Published Discussion

M139: (M)60.

Illustrations

M139: 113-117

**FABRIC W1**

Occurrence

St Peter's Street, Chalk Lane, Derngate, St James's Square, Marefair, Black Lion Hill, St Peter's Gardens.

Abundance

Major ware 0-20% of late Saxon assemblage as a whole but commonly up to 40% during 10th century.

#### Macroscopic Characteristics

Chiefly wheel-thrown.

Hard, smooth to rough, 3-7mm thick.

Cooking pots, some initially coil-built with upper portion wheel-finished. Simple everted finely turned rims, heavily sooted to depth of c. 12mm probably a result of clamp kiln firing with charcoal fuel. Rough flat crudely trimmed bases, often showing wire marks caused by removal from wheel. Rare rouletting on rim or body. Small bowls, rare spouted bowls. Lamps with pedestal bases. Crucibles. ?Castrol.

Core and surface colours vary: dark grey N4/0, white NB/0, reddish yellow 5YR 6/6 to 7.5YR 6/6.

#### Petrological Description

Size and sorting of quartz grains and frequency of ironstone inclusions is variable.

Variation in fabric is demonstrated by two categories, although it is unlikely that discrete types existed.

(a) Abundant, sub-angular, well-sorted quartz, minute - 0.2mm. Rare sub-rounded quartz, up to 0.5mm.

Sparse sub-rounded hematite, chiefly 0.3-0.5mm.

(b) Moderate to abundant, sub-angular, well-sorted minute quartz, up to 0.1mm.

Moderate to abundant, sub-rounded to rounded, well-sorted quartz, chiefly 0.4-0.6mm.

Sparse to moderate, sub-rounded, ill-sorted hematite and ironstone, up to 3mm.

Rare to sparse sub-rounded limestone and shell, up to 4mm.

#### General Comments

Northampton ware

c. 850-1100, but major production probably confined to the 10th century. (Table 12).

Kiln Group in Horsemarket, Northampton. (Williams 1974, 46-56)

See McCarthy 1979, 158, 226-7.

#### Previously Published Discussion

M115: 158

M139: (M)61

M407: (M)11

#### Illustrations

Numerous examples in the following reports: M115, M139, M115X.

For a representative sample see: M139 : 118-152.

#### FABRIC W1(2)

##### Occurrence

Chalk Lane, St Peter's Gardens.

##### Abundance

Minor ware: <1% of late Saxon assemblage.

##### Macroscopic Characteristics

Wheel-thrown.

Hard, smooth to rough, 3-7mm thick with characteristic speckled white surface.

?Cooking pots. ?Bowls.

Core and surface grey N4/0.

Petrological Description

As W1(b) but containing moderate to abundant well to ill-sorted platelike shells and angular to sub-rounded fossiliferous limestone, chiefly 0.5-1mm, up to 3mm.

General Comments

?Shell-tempered Northampton ware.

c. 850-1100.

Not identified in kiln group in Horsemarket, Northampton.

Previously Published DiscussionIllustrations

## FABRIC W1(3)

Occurrence

St Peter's Street, Chalk Lane, St Peter's Gardens, ?Northampton Castle, Black Lion Hill.

Abundance

Minor ware: <1% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth to rough, 3-7mm thick.

?Cooking pots, bowls.

Core and surface colours vary, as W1.

Green and yellow external hackly glaze, containing clay chippings and specks of iron, 2.5YR 5/6.

Petrological Description

As W1(a)

General Comments

?Glazed Northampton ware.

c. 850-1000.

Not identified in kiln group in Horsemarket, Northampton.

Previously Published Discussion

See sherd from Chalk Lane Phase 3A/C, Layer B4, (M139: (M)67), classified as fabric X3, which falls within the W1(3) range.

Illustrations

## FABRIC W2

Occurrence

St Peter's Street, Marefair, St Peter's Gardens.

Abundance

Minor ware: <1% of late Saxon pottery assemblages in Northampton.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 5-10mm thick.

?Wet-hand finished or slipped, giving distinctive black surfaces (often abraded).

Pitcher with D-shaped spout, flat base and thumbled, applied strip decoration.

Core reddish brown 5YR 5/3, surfaces black N2/0.

Petrological Description

Abundant, sub-angular, well-sorted, minute quartz, up to 0.1mm.

Rare, rounded quartz, chiefly 0.2-1.2mm.

Moderate fine mica.

Rare rounded hematite, up to 1.5mm.

General Comments

?Thetford type ware.

c. 850-1200.

This fabric has been identified in E Anglia but is of uncertain origin (pers. comm. S Jennings).

Previously Published Discussion

M115: 158

M139: (M)62

Illustrations

M115: 632

M139: 156, 157

M15X: 68

**FABRIC W3**

Occurrence

St James' Square, Marefair, St Peter's Street, St Peter's Gardens, Black Lion Hill.

Abundance

Minor ware: <5% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Very hard, smooth to rough, 4-9mm thick.

?Wet-hand finish.

Cooking pots with curved rims. Storage jars with strap handles and thumb applied strip decoration. One rim with applied strip and stamped decoration from Black Lion Hill (Denham forthcoming a). Rare painted and incised curvilinear decoration.

Core and surfaces grey N4/0.

Petrological Description

Great variation in size and sorting of quartz. Sub-divided into W3(1): coarse; W3(2) moderately coarse; W3(3) fine.

Main fabric type is described:

Abundant, sub-angular, ill-sorted quartz, chiefly 0.1-0.3mm.

Moderate sub-rounded to rounded, ill-sorted quartz, chiefly 0.5-0.8mm up to 1mm.

Rare sub-rounded magnetite, up to 0.5mm.

General Comments

Thetford type ware (pers. comm. K Wade).

c. 850-1200.

See: Hurst 1957, 29-60.

Previously Published Discussion

M115: 158

M139: (M)62

Illustrations

M115: 33, 353

M178: 9

M139: 158-161  
 M443: 12-14  
 M115X: 69, 70 (M) 209, 210

#### FABRIC W4

##### Occurrence

St James' Square, The Riding, Black Lion Hill, St Peter's Gardens.

##### Abundance

Minor ware: <1% of late Saxon assemblages.

##### Macroscopic Characteristics

?Wheel-thrown.

Very hard, pipely, 5mm thick.

?Cooking pot body sherd. ?Small bowls, crucibles or lamps with rare rouletted decoration.

Core black N3/0, surfaces grey N5/0.

##### Petrological Description

Abundant, sub-rounded to rounded, well-sorted quartz, chiefly 0.3-0.4mm up to 0.5mm.

##### General Comments

Late Saxon ?c. 1050-1250

?S. Lincs source (pers. comm. L Adams), or possibly Leicestershire.

##### Previously Published Discussion

M115: 158-159

M139: (M)62

##### Illustration

M115: 471

#### FABRIC W5

##### Occurrence

St Peter's Street, St Peter's Gardens.

##### Abundance

Minor ware <1% of ?late Saxon/medieval assemblage.

##### Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 6-10mm thick.

Form: indeterminate.

Core and surfaces reddish yellow 7.5YR 7/6 with a thin clear glaze, or external burnished slip.

##### Petrological Description

Abundant poorly-sorted angular quartz, minute to 0.2mm.

Moderate well-sorted rounded quartz, 0.2-0.6mm.

Moderate sub-angular feldspar, 0.2-0.4mm.

Rare poorly-sorted rounded ironstone, 0.1-1mm.

Rare rounded polycrystalline quartz, 0.3mm.

##### General Comments

Uncertain origin and date, but possibly of local manufacture in the 850-1300 range.

##### Previously Published Discussion

M115: 159

Illustrations

FABRIC W32

Occurrence

St Peter's Gardens, Chalk Lane, St Peter's Street.

Abundance

Minor ware <5% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, rough, 3-5mm thick.

Cooking pots with curved rims.

Core and surfaces reddish yellow 5YR 5/6-6/3. Soot blackened exterior of rim and body sherds.

Petrological Description

Abundant, sub-angular to sub-rounded, ill-sorted red or black iron ore/hematite, up to 3mm.

Abundant minute mica flakes.

Rare, sub-rounded, ill-sorted quartz.

General Comments

c. 850-1100

?Local.

Form, fabric and occurrence are similar to W1 and a 10th century date may also be expected.

Previously Published Discussion

M115: 163

M139: (M)63

Illustrations

M115: 228

M139: 153, 154

M115X: (M)252, 253

FABRIC W34

Occurrence

Briar Hill, Chalk Lane, St Peter's Gardens, Black Lion Hill.

Abundance

Minor ware <5% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 4-5mm thick.

?Cooking pot body sherds. Spouted bowl.

Core and internal surface black to red N2/0-2.5YR 5/6, external surface black, and well smoothed.

Petrological Description

Abundant, sub-angular, well-sorted quartz, minute - 0.2mm.

Moderate, sub-rounded, ill-sorted quartz, up to 0.5mm.

Sparse, sub-rounded hematite, up to 0.8mm.

Sparse to moderate minute mica flakes.

General Comments

c. 850-1100

Probably local and a variant of W1.

A 10th century date may also be expected.

Previously Published Discussion

M115: 163

M139: (M)63

Illustrations

P76: 13

M100: 78

**FABRIC W36**

Occurrence

Chalk Lane.

Abundance

Minor fabric: <1% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, pimply, 4-5mm thick.

Cooking pots with curved rims.

Core grey N4/0, surfaces dark grey 5YR 4/1.

Petrological Description

Abundant, sub-rounded, well-sorted quartz, chiefly 0.3-0.6mm.

Moderate sub-angular ill-sorted quartzite, up to 1.5mm.

Rare rounded calcareous grains, up to 1.2mm.

General Comments

c. 850-1100

?Leicester type ware.

See: Hadditch 1967-B, 4-9.

Previously Published Discussion

M139: (M)63

Illustrations

M139: 164

**FABRIC W47**

Occurrence

Derngate, St Peter's Gardens, Black Lion Hill.

Abundance

Minor ware: <1% of late Saxon assemblages.

Macroscopic Characteristics

?Wheel-thrown/hand-made.

Hard, pimply, 4-7mm thick.

?Cooking pots/bowls.

Core black N2/0 - more rarely light brown 7.5YR 6/4.

Surfaces black N2/0 to grey N5/0.

Petrological Description

Moderate well-sorted rounded quartz, 0.3-0.6mm.

Rare angular hematite, 0.1-0.5mm.

Rare chert, 0.3-0.5mm.

Rare grog pellets, 0.3-0.5mm.

Very rare ?feldspar, 0.4mm.

General Comments

Rare fabric of uncertain date and origin. Probably of local or regional manufacture, in the 700-1300 date range. Similarity with Torksey-type wares, but unlikely to originate in Lincolnshire.

Previously Published Discussion

M115: 164

Illustrations

## FABRIC W48

Occurrence

Chalk Lane.

Abundance

Minor ware: <1% of late Saxon assemblages.

Macroscopic Characteristics

?Hand-made/wheel-thrown.

Hard, rough, 5-7mm thick.

?Cooking pot body sherds.

Core grey N6/0, external surface dark reddish grey 5YR 4/2, internal surface reddish brown 5YR 5/4.

Petrological Description

Abundant, sub-rounded to rounded ill-sorted quartz, chiefly 0.4mm up to 1mm.

Moderate sub-rounded, ill-sorted hematite, up to 1.5mm.

Rare flint, up to 2.5mm.

Rare white grog, containing abundant sub-rounded fine quartz grains.

Rare carbonised grass/chaff.

General Comments

?Late Saxon/early medieval.

?700-1300.

Unknown source.

Previously Published Discussion

M139: (M)64

Illustrations

## FABRIC W54

Occurrence

Chalk Lane, St Peter's Gardens.

Abundance

Minor ware: <1% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, pimply 3-4mm thick.

Cooking pots with curved or hollowed rims.

Core and surfaces black N2/0.

Petrological Description

Abundant, sub-rounded, well-sorted quartz, chiefly 0.3mm.



Rare, rounded, ill-sorted quartz, up to 1.5mm.

General Comments

c. 850-1200

Probably of E Anglian origin (pers. comm. L. Adams).

Previously Published Discussion

M139: (M)64

Illustrations

M139: 162, 163

**FABRIC W55**

Occurrence

Chalk Lane.

Abundance

Minor ware: <1% of late Saxon assemblages.

Macroscopic Characteristics

Hand-made and wheel-thrown.

Fairly soft, smooth, 4-6mm thick.

?Wet-hand finish (surfaces abraded).

?Storage jar rim (hand-made). Cooking pot rim (wheel-thrown).

Core and surfaces 7.5YR 5/2-7/6.

Petrological Description

Abundant, sub-rounded, ill-sorted quartz, up to 0.6mm.

Rare, sub-rounded brown lumps of ?hematite, chiefly 0.5-0.8mm up to 3mm.

Rare sub-rounded limestone, up to 3mm.

General Comments

c. 850-1200

Probably of eastern English origin.

Previously Published Discussion

M139: (M)64

Illustrations

M139: 165, 166

**FABRIC X1(1)**

Occurrence

Derngate, St Peter's Street, St James' Square, St Peter's Gardens, Chalk Lane, Black Lion Hill.

Abundance

Major/minor ware: 1-15% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 3-6mm thick.

Cooking pots with finely turned rims and slightly sagging, knife-trimmed bases. Bowls, occasionally externally glazed, (176) olive 5Y 5/4. Pitchers with olive and yellow external glaze 5Y 6/3-10Y 7/8. 'Collared' vessel. Small vessels, including filled cups.

Core and surfaces vary from white N8/0 to light brown 7.5YR 6/4 and reddish yellow 7.5YR 7/6.

Petrological Description

**Fabric A:**

Abundant, sub-angular, well-sorted quartz, chiefly minute - 0.1mm.

Sparse sub-angular to sub-rounded quartz, up to 4mm.

**Fabrics E and F:**

Abundant angular to sub-angular, well-sorted, minute quartz.

Sparse grains up to 0.3mm.

Rare grains up to 0.6mm.

**Fabric G:**

Moderate sub-angular, well-sorted quartz, minute - 0.1mm.

Rare sub-rounded grains, up to 0.4mm.

All fabrics contain rare sub-rounded, ill-sorted, hard red and black iron-ore containing fine quartz grains.

Fabric groups after Kilmurry 1980, 8-9.

**General Comments**

Stamford type ware.

c. 850-1250

?800-1100

(Fabric X1(2): Developed Stamford ware: medieval date c. 1150-1250).

**Previously Published Discussion**

M115: 64

M139: (M) 65-66

M407: (M) 10

**Illustrations**

M115: 73, 139, 444-446, 473, 474

M139: 167-180

M178: 10-13

M115X: (M) 257-263

**FABRIC X3****Occurrence**

Chalk Lane.

**Abundance**

Minor ware: <1% of late Saxon assemblage, only found at Chalk Lane.

**Macroscopic Characteristics**

?Wheel-thrown.

Hard, smooth, 3-5mm thick.

Two small bowls with embossed decoration and overall mottled yellowish brown glaze.

Core white N8/0 and pink 5YR 8/4.

Glaze 10YR 5/8-2/2.

**Petrological Description**

Abundant, sub-angular, well-sorted quartz, minute - 0.2mm.

Rare, sub-rounded quartz, up to 0.5mm.

Rare sub-rounded iron ore chiefly 0.5, up to 2mm.

**General Comments**

?Late Saxon.

c. 900-1200

Probably same type as the lost Croyland Abbey bowl (Hurst 1958, 54, Pl V) and a small ?late Saxon bowl from London (BM; pers. comm. J Cherry).

Previously Published Discussion

M139: (M)67, 68

Illustrations

M139: 181, 182

## FABRIC Y1

Occurrence

Chalk Lane.

Abundance

Minor ware &lt;1% of late Saxon assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, pimply, 4mm thick.

Cooking pot with square-notched rouletting on shoulder.

Core and surfaces light brown 7.5YR 6/4.

Soot-blackened external rim and shoulder.

Petrological Description

Abundant, rounded well-sorted quartz, chiefly 0.3-0.4mm up to 0.8mm.

Rare rounded hematite, up to 0.5mm.

General Comments by R. Hodges

Probably Saxon-Norman Beauvais ware - almost certainly from the Seine Valley.

Hamwih Class 25 (Hodges 1977, 245).

Previously Published Discussion

M139: (M)68

Illustrations

M139: 189

## FABRIC Y2

Occurrence

Chalk Lane

Abundance

Minor ware: &lt;1% of late Saxon/early medieval, assemblages.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 3mm thick.

Pitcher body sherds, including double thumb-print from base of handle.

Exterior clear lead glaze, reddish yellow 5YR 6/8.

Core and interior surface light red 2.5YR 6/8.

Petrological Description

Abundant, sub-rounded, well sorted quartz, minute - 0.25mm.

Rare rounded quartz, up to 0.8mm.

Rare rounded hematite, up to 0.5mm.

General Comments

Almost certainly an eastern Belgian ware from the Meuse Valley (Ardenne or Huy) and probably 12-13th century in date.

Previously Published Discussion

M139: (M)68

Illustrations

## FABRIC Y3

Occurrence

Chalk Lane.

Abundance

Minor ware: &lt;1% of late Saxon/early medieval assemblage.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 4mm thick.

Cooking pot/jar rim with external angular cordon.

Core reddish brown 5YR 6/4, surfaces grey brown 10YR 5/2.

Petrological Description

Abundant, sub-rounded to rounded well-sorted quartz, chiefly 0.3, up to 0.5mm.

General Comments

Probably 11th/12th century Flemish ware.

Previously Published Discussion

M139: (M)68

Illustrations

M139: 190

## FABRIC ?W1/X1(1)/Y

Occurrence

Pottery of unknown origin which has close affinities with local (W1), Stamford (X1(1)) and ?Beauvais (Y1) wares has been found at St Peter's Street, Chalk Lane, and, in greater abundance, at St Peter's Gardens, where it makes up 4% of the late Saxon assemblage.

A description of the material from each excavation is provided together with a synthesis: ((M)2/46-47)

St Peter's Street

Three categories of X1-Y ware identified and regarded as potentially either Stamford or Continental wares. (McCarthy 1977, 165). A Northampton origin must now also be considered in view of, firstly, the recent identification of glazed sherds of probable Northampton manufacture, which suggests that the material from the Horsemarket kiln does not define the full range of W1 products; and, secondly, the recovery of crucibles at St Peter's Gardens in a distinctly Northampton (as opposed to Stamford) form, in the same fabric, and in close association with several red-painted cooking pots of X1-Y type.

The original division was as follows:

- a) red-painted wares (M115 ill. 32, 209, 210, 425).
- b) sherds in similar fabric, but without paint (M115 ill. 208).

c) Grey wares. (unillustrated).

The fabric, form and decoration of all three categories fall within the range of the more abundant ?W1/X1(1)/Y material excavated at St Peter's Gardens.

Chalk Lane

Less than 1% of the late Saxon sherds were potentially Continental imports, and these were classified ?Y. Specific examples were examined by thin section. Those detailed below can be seen to fall within the range of fabric and decoration of the ?W1/X1(1)/Y wares from St Peter's Gardens.

a) SF726, Phase 3, Layer D93, ill. 187

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, c. 5mm thick.

Storage jar with square rim and strap handle with thumbled applied strip.

Core light reddish brown to grey 5h: 6/4-N5/0, surfaces reddish brown 5YR 6/4.

Petrological Description

Abundant, sub-rounded, well-sorted quartz, up to 0.25mm.

Rare rounded quartz, up to 0.5mm.

Moderate sub-rounded, ill-sorted, iron ore up to 1.5mm.

General Comments by R. Hodges

Coarse Beauvais ware or English imitation.

b) SF7 U/S Layer B+. Unillustrated.

Macroscopic Characteristics

Wheel-thrown.

Hard, smooth, 4-5mm thick.

Body sherd with stripe of red paint.

Core white N8/0, interior surface pinkish white 7.5YR 8/2, exterior surface pinkish grey 7.5YR 7/2, paint 2.5YR 4/6.

Petrological Description

Abundant, sub-angular, well-sorted quartz, minute - 0.1mm.

Moderate sub-rounded magnetite, up to 0.5mm.

General Comments by R. Hodges

Probably red-painted Beauvais.

Possibly Stamford type ware.

c) SF1222, 1815, and sherds from Phase 3A, E75; Phase 3C, E3; Phase 4A, A1; U/S, B+; and U/S, C+. ill. 183-186.

Macroscopic Characteristics

Wheel thrown.

Hard, smooth, 3-5mm thick.

Cooling pots with squarish or hooped rims.

Core white N8/0, interior surface pinkish white 7.5YR 8/2, exterior spot blackened.

Petrological Description

Two fabric types:

(i) Abundant sub-angular, well sorted quartz, minute - 0.1mm.

Rare, rounded magnetite, up to 0.5mm.

(ii) Abundant, sub-rounded, well-sorted quartz, chiefly 0.2, up to 0.6mm.

Rare, rounded iron ore, up to 1mm.

General Comments

Possibly Normandy cooking pots, Hamwih Class II, or Seine Valley variants of this type (Hodges 1977, 243, 249). There is a strong possibility that these are all English products.

St Peter's Gardens

Sherds in contexts from Phases 3, 4 and in unstratified material. Ills. 58-67, crucible ill. 1-8, and (N)204-208. 4% of material in late Saxon contexts. (47 sherds).

Macroscopic Characteristics

Wheel-thrown.

Fairly hard, smooth, 3-5mm thick.

Cooking pots with squarish or hooked rims, and red brush and finger painted curvilinear and cross-hatch decoration.

Crucible(s) with pedestal foot.

Core white NB/O, interior and exterior surfaces pinkish white 7.5YR 8/2, paint 2.5YR 4/6.

Petrological Description

Abundant well-sorted angular quartz, minute - 0.1mm.

Moderate to abundant well-sorted sub-angular to sub-rounded quartz, 0.2-0.4mm.

Rare poorly-sorted hematite, minute to 0.3mm.

Rare rounded to angular ironstone, 0.1-1mm.

General Comments

Similar in form to Beauvais and N French wares but there is a strong possibility that these are Stamford ware or more probably the finest products of Northampton potters.

SYNTHESIS OF 2W1/X1(1)/Y

It is recommended that sherds described in the gazetteer from St Peter's Street (fabric X1-Y), from Chalk Lane (fabric 2Y) and from St Peter's Gardens (fabric 2W1/X1(1)/Y) should now be placed within the same broad type. In view of the uncertainty of origin (Northampton/Stamford/France) the 2W1/X1(1)/Y fabric code will be adopted for all categories.

Three vessel forms are represented:

- i) small cooking pots with square or hooked rims, some with red painted decoration (rim diam: 120-160mm; base diam: 85mm).
- ii) crucibles with a single pedestal foot (rim diam: 40-60mm, height: 60mm).
- iii) Storage jars with thumbled, applied strip and red painted decoration (rim diam: 160mm; base?).

A minimum of c. 20 examples of both cooking pots and crucibles have been recovered, but finds from Storage jars are restricted to one thumbled handle with rim, and one body sherd decorated with a thumbled applied strip.

The fabric lies at the finest extreme of Northampton ware, and is also within the Stamford range, but lacks the larger more

prominent quartz inclusions characteristic of N. French wares. It is a low-fired, fairly soft, thick-walled fabric, more in keeping with Northampton than Stamford or Beauvais-type products, but unlike fabric W1 was consistently well produced, and fired under oxidising conditions.

Although there are similarities with red-painted wares from Stamford the Northampton group has only two storage vessels, whilst these are the predominant Stamford form, and no parallels exist for the brush-painted cross-hatched decoration on the sherd from St Peter's Gardens. The decoration on Beauvais vessels was better executed with finer brush-applied designs in an ochrous paint of darker hue. The Northampton pedestal crucible is of unique form, and lacks the globular profile and rounded base of Stamford examples. In conclusion it is suggested that vessels in fabric 2W1/X1(1)/Y were probably produced in Northampton, although the similarity with pottery from the north of France would argue for strong influence, and possibly the presence of craftsmen, from that area.

The relationship between 2W1/X1(1)/Y and W1 is at present uncertain, but it is probable that the impetus for the development of Northampton ware came from the local production of the higher quality ware. Northampton ware could be regarded as a coarseware version of 2W1/X1(1)/Y but it cannot be said whether it was produced by the same potters, of possible foreign origin, or whether it represents a local imitation. It would appear to have been the longer-lived more abundant product. Given the comparatively small quantity of 2W1/X1(1)/Y and its uniformity in fabric, form and decoration a short date range of two to three decades is proposed, and by association with Northampton ware, and the numismatic evidence, the first quarter of the 10th century is considered the likeliest period of *floruit*, although a broader 850-1100 category has been retained due to the lack of firm stratigraphic evidence and the problem of residual occurrence.

#### (iii) RESIDUE ANALYSIS

An Interim Report by J Evans and M D Card

Nine samples of pottery were submitted for analysis to determine the nature of the burnt residue on the surface of the sherds. Approximately five grams of the inner surface of the pottery and the burnt residue were subjected to Soxhlet extraction using a series of solvents of varying polarities. The various extracts were examined with a range of chromatographic and spectrographic techniques.

All the hexane extracts gave triglyceride patterns that were provisionally identified by thin layer chromatography (T.L.C.). Further data was obtained by hydrolysing part of the hexane extracts and methylating the resulting fatty acids. The methyl esters were then examined by gas liquid chromatography (G.L.C.). The results of both T.L.C. and G.L.C. suggested that the extracts were of animal fats origin.

A further five grams of the fabric was extracted with water

and acid. The aqueous and acid extracts were then examined quantitatively for sodium by flame photometry. The aqueous extracts all showed low levels of sodium ions (less than 2 p.p.m.) which reflects the general soil background. Acid extracts showed high levels of sodium ions in AM 84057 and AM 84059 which suggested the presence of salt (sodium chloride), possibly from a salt preserved product.

The hexane extracts appeared to fall into two groups. Group 1 consisted of all but AM 84054 and AM 84059 and produced data that suggested a degenerate animal fat. Group 2 samples AM 84054 and AM 84059, were peculiar in both being 'rich' in stearates, stearic acid accounts for approximately 45% of the total but little palmitic acid was detected. This system is not reflective of any natural animal (or vegetable) fat and could suggest that the fat had been prepared in some way, possibly by rendering.

The samples submitted were as follows:

AML nos: 840454, 840455, 840456, 840458  
Context 260, Phase 1: Sunken-featured building  
Four sherds from different cooking pots, fabric S1B

AML nos: 840457  
Context A410, Phase 1: Main timber hall  
1 sherd from a cooking pot, fabric S1B

AML no: 840459  
Context AA233, Phase 1: Other deposits  
1 sherd from a cooking pot, fabric S1B

AML no: 840462  
Context 230, Phase 3: Pit/post hole  
1 sherd from a cooking pot, fabric T1

AML no: 840461  
Context AA346, Phase 4A1: Pit  
1 sherd from a cooking pot, fabric T1

AML no: 840460  
Context AA400, Phase 4A1: Pit  
1 sherd from a lamp, fabric W54



THE MEDIEVAL AND POST-MEDIEVAL POTTERY  
by Varian Denham

The pottery recovered from medieval and post-medieval contexts at St Peter's Gardens comprises 12,111 sherds, of which 8,328 came from stratified contexts. The group provides a useful addition to the ceramic evidence from other sites in the town, in particular from St Peter's Street (McCarthy 1979) and has furthered understanding of the range of forms and fabric types, methods of manufacture, vessel use, trade and distribution of pottery in the 1100-1850 period.

(1) KEY TO FABRICS (Table (M)1)

Main Fabric Groups

- R Roman
- S Saxon (AD 400-900)
- T Late Saxon/medieval: calcareous
- V Late Saxon/medieval: calcareous-sandy
- W Late Saxon/medieval: sandy
- X Late Saxon/medieval: very fine sandy
- Y Imported
- Z Post-medieval

References to previously published fabric definitions and discussion are cited in the third column. The prefix (M) to a page number indicates microfiche.

- Report code: M100: The Greyfriars report (Gryspeerdts 1978)  
 M115: The St Peter's Street report (McCarthy 1979)  
 M139: The Chalk Lane report (Gryspeerdts 1981)  
 M178: The Marefair report (Gryspeerdts 1979)  
 M285: The College Street report (Gryspeerdts 1982)  
 M351: The Derrogate report (Shaw and Denham 1984)  
 M403: The Riding report (Denham 1984b)  
 M115X: Gazetteer of Saxon Pottery (This report  
 Phase 3: (M)27/19-47)

Code	Familiar Name	Reference	Origin	Date
S(1-2)	Saxon (All types)	M115X: (M)2/19-27	Local and regional	450-900
S3/T1		M115X: (M)2/27-28	?Local and regional	650-900
T1(1-4)	St Neots-type ware	M115X: (M)2/28-30	Local and regional	850-1100
T1/2	Transitional late Saxon/early medieval shelly ware	M115X: (M)2/30-31	?Local	1000-1200
T2	Medieval shelly ware	M115X: (M)2/31	Local	1100-1400
T2(2)	Lyveden/Stanion-type ware	M351: (M)32-33	Lyveden, Stanion, Northants	1200-1400
T6		M115:157	Local ?NE Northants	1200-1400
T11		M115X: (M)2/32		900-1300
V1(1-2)		M115:157 M178: (M)87	?Midlands	1100-1400
V2		M110:135	Potters Marston, Bucks	1200-1400
V3		M115:157	?Beds	1200-1400
V4	Olney Hyde-type ware. (Fabric B)	M178: (M)87	Olney Hyde, Bucks	1200-1400
V5		M115X: (M)2/32	?Bloucs/Oxon	900-1300
V6		M351: (M)34	S Northants/ Oxon	1100-1400
V7(1-2)		M115:158	?Local	1100-1400
V8		M115X: (M)2/33	?Bloucs/Oxon	900-1300

V9		M285:68	?Nottingham	1200-1400
W1(1-3)	Northampton ware	M115X:(M)2/33-35	Northampton	850-1100 710th century
W2	?Thetford-type ware	M115X:(M)2/35-36	East Anglia	850-1200
W3(1-3)	Thetford type ware	M115X:(M)2/36-37	East Anglia	850-1200
W4		M115X:(M)2/37	?Leics/Lincs	1050-1250
W7(1-4)		M115:159-160	Oxfordshire & Bedfordshire	1100-1400
W8		M115:160	SE England	1200-1500
W11(1-7)		M115:160	Midlands	1200-1500
W13		M115:161	?N Midlands	1200-1500
W14	Brill-type ware	M115:161	Oxon	1200-1500
W15	East Anglian Red ware	M115:161	East Anglia	1200-1500
W16	Midland Purple wares	M115:161	Midlands	1350-1500
W17	Midland Yellow wares	M115:162	Midlands	1525-1700
W18	Potterspury ware	M115:162	Potterspury/ Yardly Gobion, Bucks	1250-1600
W20(1-2)	East Midlands Late Medieval Reduced ware	M115:162	?Bucks/Beds	1350-1600
W21	Surrey White wares (Tudor Green)	M115:163	Surrey Hants	1400-1600
W22		M285:68	East Midlands	1100-1400
W29	East Midlands Late	M115:163	?Local	1350-1600

Medieval Oxidised  
ware

W32		M115X: (M) 2/38	?Local	850-1100 ?10th century
W34		M115X: (M) 2/38 -39	?Local	850-1100 ?10th century
W47		M115X: (M) 2/39 -40		?Local 900-1300
W49		M178: (M) 88	?	1100-1400
W54		M115X: (M) 2/40 -41	?East Anglia	850-1200
X1(1)	Stamford ware	M115X: (M) 2/41 -42	Stamford, Lincs	850-1250
X1(2)	Developed Stamford ware	M115: 164 M139: 118 (M) 65-66	Stamford, Lincs	1150-1250
X2a	Cistercian ware	M115: 164	?Local	1470-1550
X2b	Midland Black wares	M115: 164-165	?Potterspury, Bucks and ?East Anglia	1550-1700
?W1/ X1(1)/Y		M115X: (M) 2/44 -47	?Local ?Regional ?N France	850-1100
Y5		M115: 165	?Germany	15th-16th century
Y6	Blue-Grey ware	M178: (M) 88	Rhineland, Germany	Late 11th- 12th century
Y8	Raeren Stoneware	M403: (M) 34	Raeren, Germany	Late 15th- Early 17th century
Y9	Frechen Stoneware	M403: (M) 34	Frechen, Germany	16th-mid 17th century
Z1(1-2)	Staffordshire Slip and Manganese ware	M403: (M) 40	Staffs	1680-1750

Z3	Local slipped and marbled coarse-ware	M403: (M) 41	?Potterspury, Bucks and ?Oxon	17th-early 18th century
Z5	Iron-glazed coarse-ware	M403: (M) 42	?Local, ?Potterspury, Bucks	17th and 18th century
Z7	Miscellaneous glazed coarse-ware	M403: (M) 42	?Local ?Potterspury, Bucks	17th and 18th century
Z9	English tin-glazed ware (London Delft)	M178: (M) 90 M403: (M) 43	?Lambeth ?London	Late 16th-18th century
Z11	Iron-glazed fine-ware	M403: (M) 43	Local	17th-18th century
Z13	Salt-glazed Stoneware (white)	M403: (M) 44	Staffs	18th century
Z15	Nottingham Salt-glazed Stoneware	M403: (M) 44	Nottingham	18th century
Z17	Creamware	M403: (M) 45	Staffs	18th-19th century
Z19	Hand-painted Pearlware	M403: (M) 45	Staffs	Late 18th-19th century
Z21	Black Basalt ware	M403: (M) 45-46	Staffs	Mid 18th-19th century
Z23	Transfer-printed Pearlware	M403: (M) 46	Staffs	Late 18th-19th century
Z25	Mocha ware	M403: (M) 46	Staffs	19th century
Z50	Modern wares	M403: (M) 47		Post 1850

## (11) FABRIC QUANTITIES BY PHASE

Table (M)2

Fabric Code	3/4A1	4A1	4A1/11	4A11	4A11/B1	4B1	4B11	U*	1-S	Total
9	3	7		5				9	20	44
S3/11	4	3	1				7	-	3	18
T1	50	727	68	48	5		126	50	349	1423
M1	5	119	7	9	1	6	35	12	83	277
M32	1	8					1	-	4	14
S M34	2	1					6	2	4	15
A 7M1/X1(1)/Y	2	13					10	-	5	31
X X1(1)	2	40	1	4				6	24	79
O M2	1						1	-		2
N M3	1	9	1				4	8	5	29
M34	1	2	1					-		4
T11		8		1			1		1	11
V5		7							5	12
V8		5						1	1	7
M47	4	25	1		1		2	-	1	34
-----T1/2	52	624	75	65	7	4	160	13	326	1326
M4	7	2					1	-		10
Y6									1	1
T2	18	2003	289	167	23	8	275	39	1342	4164
V1		117	25	21	5	2	22	5	63	260
V6	1	11	1	1				-	7	21
M7		98	10	20	5		13	2	27	175
M22		8	2	1					8	19
M49		22	7	8			3	1	3	44
M V7		51	21	10		2	20	7	50	161
D X1(2)		16	1	3			1		5	26
I T2(2)		145	27	41	1	2	34	5	119	375
E T6		52	1	8					36	97
V V2		14	1	7					3	20
A V3		72	8	9	6		12		18	125
L V4		2						2	13	17
V9			3						2	5
M8		2	4		20				11	37
M11		11	12	9			1	1	33	67
M13		3	1	1	46				3	61
M14		88	28	42	1		14		74	268
M15		1	4	1	1		2		16	29
-----M18		51	50	670	216	14	63	39	434	1547

L	N16			1	16	8	11		3	25	64
A M	N29			1	21	7	23	1	6	59	98
T E	N21				51	10		1	2	41	105
E D	Y8									1	1
	X2a				3	3	3	1	3	36	46
-----	Y8									5	3
	N17				2	5		4		2	13
	X2b					2		1		5	8
	Y9									4	4
	Z3					1				1	2
	Z5							5		19	24
	Z7			1		2		6		9	18
P M	Z9					3				10	13
D E	111									26	26
S D	11									5	5
T I	112							1			1
E	213							1		20	21
V	215							21		44	65
A	217							5		82	87
L	221									1	1
	219			1						15	16
	223							7		9	16
	225									7	7
	250							70		17	87
Q/1xx		1	82	15	11	7		18	1	30	165
Unknown			9	3	3	3		5	5	107	136
Total		155	4461	701	1346	394	75	964	224	3777	12097

\* Context unassignable to secure phase eg 3A1/4B11, 24A1 etc.

\*\* Intermediate or uncertain fabric type eg ?W2: W29/W18 etc.

For details see codified summary (M) 2/88-98, (M) 2/1-22.

## (iii) PHASE SUMMARIES

Phase 3/4A1 (155 sherds)

Material in this category could not be accurately assigned to one or other phase either on stratigraphic or ceramic grounds, and some of the pottery is likely to be residual (ie in fabrics S, S3/T1, T1(4), W1, W32, W34 and TW1/X1(1)/Y). The high percentage of fabric T1/2 together with a lesser amount of T2 suggests a date in the 11th, or first half of the 12th century. Forms are comparable with those in Phase 3, although straight-sided bowls were more common. No jugs were conclusively identified. A difference in the relative abundance of material in the four sub-categories of St Neots-type ware between Phase 3 and Phase 3/4A1 supports the proposed chronological framework for the refined classification (Table 11 and (M)2/28-30)

St Neots-type ware	T1(4) 800-950	T1(1) 900-1100	T1(3) 900-1150	T1(2) 1000-1200
Phase 3 284 sherds	7%	26%	7%	4%
Phase 3/4A1 50 sherds	2%	30%	20%	22%

Unclassifiable T1 comprised 55% of Phase 3 and 26% of Phase 3/4A1 St Neots-type ware.

Fabric	Illustration nos.	
W1	195	(Residual)
W32	253	(Residual)
T1/2	104	

Phase 4A1 (4,465 sherds)  
1100-1400

## Residual material

A large amount of late Saxon residual material is present in this phase (c.1,000 sherds). St Neots-type ware accounts for the greater part, Northampton ware and Stamford ware providing the only other sizeable groups. Both the relative proportions of the different fabric types and the range of forms present in each ware directly reflect the ceramic evidence from Phase 3.

Fabric	Illustration nos.	
S3/T1	75	
T1	78, 82, 83, 87, 93-95	
W1	191	
W32	252	
TW1/X1(1)/Y	206, 208	Note: painted decoration
X1(1)	259	
W3	210	Note: painted decoration



### Calcareous wares

More than 95% of the contemporary calcareous tempered sherds are of late Saxon/early medieval transitional ware (T1/2) or early medieval shelly ware (T2).

Cooking pots with simple curved or flattened everted rims and sagging bases, and deep straight-sided bowls with simple rims were predominant in T1/2, but a small flat-based bowl with an inturred rim, and a fine-walled pedestal lamp, reminiscent of late Saxon forms, were also present. A short pulled handle, possibly from a storage jar, was recovered, and one thumbed incised strap handle demonstrates the appearance of jugs or pitchers in shell-tempered fabrics during the transitional period.

The range of forms and the quantity of material in fabric T2 are larger. Globular cooking pots with sagging bases occur most frequently and jugs with either straight or globular profiles and narrow, occasionally rilled, necks are common. Rims can be curved, square, everted, or of more complex moulded profile. Straight-sided bowls and pedestal lamps with thick walls and moulded stems are also found. Diamond-notched rouletting around the vessel girth is the most common form of decoration, but rare examples of combed, applied strip, and stamped decoration were recorded.

Decorated jugs from the Lyveden/Stanion area (T2(2)) accounted for more than 50% of the contemporary glazed wares. These almost invariably have complex moulded rims, rod handles, straight sides, and flat or slightly sagging bases. A lead and copper glaze, and decoration of applied vertical strips of a white-firing clay with rosette stamped pads, is generally confined to the upper two-thirds of the body. The surface of the ware is characteristically speckled by the white oolitic inclusions.

A few featureless body sherds of T11 (probably of Cotswold origin) and fragments of cooking pots with simple curved rims in fabric T6, complete the range of shell-tempered wares present in Phase 4Ai.

Fabric	Illustration nos.
T1/2	100, 101, 107-9, 111
T2	116, 118, 126, 133, 135, 137, 138, 141, 146, 148, 151, 153, 154, 157
T2(2)	159, 161

### Calcareous-sandy wares

Between 5 and 10% of the pottery falls within this category, and all fabrics are likely to be of local or regional origin. Fabric VI is the most abundant, and within this type the majority of the sherds are unglazed VI(1), less than 15% bearing a patchy lead glaze (VI(2)), and these probably derive from jug forms for which no body profiles are reconstructable but which are evidenced by stabbed rod handles and narrow rilled necks with simple curved everted rims and thumb-pulled lips. Unglazed forms include large bowls and small cooking pots. Similar cooking pots and jugs were also present in the closely related, but higher fired fabric V7, which may have had a longer life

span. Cooking pots with more complex moulded rims, and a jug in fabric V6 of possible S. Northants/Oxon origin and comparable forms in fabric V3 which probably came from the Bedfordshire area, indicate the limited range of vessels produced throughout the region during this period. Decoration is infrequent and is usually confined to rouletting around the necks of jugs, although one sherd in fabric V2, from Potters Marston, bore a thumb applied strip and combing. A few featureless body sherds in fabrics V5 and V8, probably of Cotswold origin, were also recovered, but may have been redeposited as they generally occur in 10th or 11th century contexts.

Fabric	Illustrated nos.
V1	167, 168, 172, 174
V2	177
V3	178, 180, 181
V6	183, 184
V7	190, 191

#### Sandy wares

Less than 10% of the pottery is in sandy fabrics, and the majority of the sherds are from glazed jugs, most of which are regionally imported from Midland areas. Material from the Oxfordshire area (W7(1), W7(2), W7(3) and W14) is the most abundant and includes sherds from large baluster jugs with complex moulded rims, and stabbed strap or rod handles. Although tripod pitcher ware (W7(1)) was present no form diagnostic sherds were recorded. Wares from Brill were decorated with vertical bands of square-notched rouletting over iron slip-painted lines, stabbing, and applied pads, and two sherds with plastic ornamentation of anthropomorphic derivation (a ram's horn and a human face) may also have originated in this area.

Body sherds, probably from cooking pots or jugs, are present in small numbers in fabrics from S. E. England (W8), East Anglia (W7(4), W15) and the North Midlands (W11, W13, W49). The advent of late medieval fabric types during the 14th century is evidenced by a single sherd of East Midlands Reduced ware (W20) and 51 sherds of Potterspury ware (W18) which make up less than 2% of the contemporary pottery in this phase as opposed to 70% in Phase 4Aii.

Fabric	Illustration nos.
W7	211-213
W14	221, 223, 225

#### Very fine sandy wares

Developed Stamford ware (X1(2)) is represented by 16 sherds, all in fabrics B and C with Glaze Type 3 (Kilmurry 1980, 8-9, 11-12). Most sherds are from jugs or pitchers and one particularly fine example is decorated with short combed strokes on vertical thumb applied strips (decoration N75, Kilmurry 1980, 143) and probably dates to the early 13th century.

Fabric	Illustration nos.
X1(2)	264, 265

#### Manufacture and Use

Changes in methods of manufacture are notoriously difficult

to discern during this period. The late Saxon tradition of competently wheel-thrown wares of St Neots- and Thetford-type is still in evidence on many T1/2 transitional wares, and smaller cooking pots in fabric T2. However, by the beginning of the 13th century many large vessels in calcareous-tempered fabrics would appear to be coil built. These can be either extremely finer-walled and well produced or uneven mis-shapen and badly finished. There is no reason to suggest that the use of the fast wheel disappeared completely during this period as some regionally imported vessels (particularly in fabrics V7, W14 and W11) evidence its continuation, but it was not until the end of the 14th century and the rise to pre-eminence of Potterspury ware that the majority of pottery was once again wheel produced. However in conjunction with this retrogression in methods of vessel construction can be found a diversification and flamboyance in decoration, a more widespread use and greater competence in the application of glazes, and the development of better fired, oxidized wares.

During the 12th century the majority of cooking pots are heavily sooted and suggest use over an open fire. Later forms, particularly large globular cooking pots in T2, probably of 13th and 14th century date, are more rarely sooted, a phenomenon recognised at other sites in Northampton (Shaw and Denham 1984) which may suggest a change in cooking methods and the more widespread use of metal cauldrons, or reflect a functional development in favour of storage. The limescale deposit, presumably a result of water storage or boiling, characteristic of late Saxon shell-tempered wares is only rarely apparent on cooking pots between 1200 and 1400, but has been noted on large jugs and pitchers in sandy fabrics, of 13th-14th century date. A possible secondary function of some of the better quality glazed jugs as urinals is suggested by a thick phosphate-rich off-white scale on the vessel interior.

### Trade

No kilns have been identified in the town after 1100 and it is likely that the majority of the calcareous pottery in the 12th-14th centuries was produced in villages in the region. Medieval shelly ware (T2) kilns have been identified at Harrold, (Bedfordshire), Yardley Hastings, and Olney Hyde, (Buckinghamshire), and Lyveden and Stanion (N. E. Northamptonshire), but it is probable that many more existed, all producing a fairly standard range of cooking pots, bowls and jugs in fabrics reflecting the underlying Jurassic geology. Attempts to subdivide St Neots-type ware by fabric, using neutron activation analysis (Hunter 1979) and thin section analysis (Gryspeerdts 1981) were unsuccessful and given the similarity of both clay and temper and the uniformity of form and finish of T2 wares, it would appear that any meaningful sub-division of early medieval shelly wares within the town will not be possible until pottery from known kiln sites and other excavations has been accurately defined for the rest of the county, if not the region.

Whilst the origin of unglazed coarsewares thus remains poorly researched the trade to Northampton of better quality glazed wares, in particular of jugs and pitchers, is better understood.

During the 11th century Stamford ware is the only major fineware import and continues to dominate the market until the beginning of the 13th century when a considerable change took place with the arrival of glazed jugs from the Lyveden and Stanion kilns from N. E. Northamptonshire, nearly 25 miles from the town. Although the kilns were producing a wide range of glazed wares (Webster 1975, 60-95; Bellamy 1983, 156-159) only jugs of a standard type have been recognised in Northampton, but these continue to account for more than 50% of glazed wares in the town for nearly a century and a half, and do not decline in quantity until the middle of the 14th century. Oxfordshire pottery, from several sources, in particular tripod pitchers and highly decorated baluster jugs, accounts for the majority of the other better quality wares, the former occurring during the later 12th and 13th centuries, the latter from the 13th to the middle of the 14th century. By c. 1350 the production of plainer, squat globular jugs was more widespread, and these, together with a greater range of glazed forms, from a local kiln at Potterspury, begin to feature more prominently in the archaeological record. By the beginning of the 15th century Potterspury ware, W18, ultimately achieves ascendancy over all other fabrics, presumably because it was less expensive.

At present a firm date cannot be determined for the emergence of Potterspury ware as the predominant fabric in Northampton. The evidence from House 4, St Peter's Street, clearly demonstrates that W18 was of extremely rare occurrence at 1250, but of abundance by about 1400, a date substantiated by two well stratified coins (Williams 1979, 48; McCarthy 1979, 189; Archibald 1979, 245). Potterspury ware was, however, absent from a pit group from College Street which has been dated on typological grounds between the mid-13th and mid-14th centuries (pers. comm. M. Mellor in Gryspeerdt 1982, 70). It would consequently appear that whilst W18 was not a notable feature of assemblages earlier than c. 1350 it had certainly risen to pre-eminence by 1400. It is significant that the trade in jugs from the Lyveden/Stanon area to Northampton had ceased by the middle of the 14th century. Although the impact of coil-built vessels was common from the 13th to the early 14th century wheel-thrown vessels with full external glaze which occur during the first half of the 14th century at Raunds, Northamptonshire (pers. comm. T. Pearson) are very rarely found in Northampton. It is reasonable to relate the increasing occurrence of more locally produced jugs from Potterspury to this decline in Lyveden/Stanon type wares imported from the north east of the county.

Owing to the lack of securely dated contexts between 1350 and 1400 in Northampton a date of 1400 has, however, been retained for the Phase 4Ai/4Aii interface, which is characterised by the transition from shelly to sandy fabrics. Nevertheless it is possible that Potterspury ware, together with other later medieval sandy fabrics W20 and W29, came into greater prominence some time during the latter part of the 14th century.

Phase 4Ai/4Aii (701 sherds)

Material in this category could not be accurately assigned to one or other phase, either on stratigraphic or ceramic grounds, but a large proportion probably dates to the 14th and early 15th century, although much of the shelly ware is clearly residual. The majority of both fabric types and forms are broadly similar to those within Phase 4Ai but the increased proportion of fabrics W18, W20 and W29 should be noted together with the development of late medieval forms, in particular of small flat-based dishes and bowls in fabrics V1 and W20.

Fabric	Illustration nos.
T2	123, 136, 150, 152, 155, 156
T2(2)	162
V1	165, 173
W14	224
W20	241-243, 245

Phase 4Aii (1,344 sherds)  
1400-1500

**Residual material**

Approximately 400 sherds in this phase are likely to have been redeposited and the majority of these are in calcareous-tempered fabrics of the late Saxon and early medieval periods, in commonly occurring forms.

Fabric	Illustration nos.
T2	158
V1	164, 170

**Calcareous and calcareous-sandy wares**

Very few fabrics with calcareous temper continued to be produced during the 15th century. Cooking pots and jugs in fabrics V3 and V7 are present in small quantities but in 12th-14th century forms, and, if not redeposited, suggest a degree of conservatism in rural potteries which has also been demonstrated by the discovery of globular cooking pots with simple curved rims and other archaic forms from a recent excavation of a late/post-medieval kiln at Glapthorn, Northamptonshire (pers. comm. B Johnson).

**Sandy and very fine sandy fabrics**

Sandy fabrics predominate in the late medieval period, 75% of the material being produced at Potterspury in Buckinghamshire. The range of forms is considerably wider than in the preceding century. Cooking pots are commonly rilled with globular profiles, and internal lid seatings, or bifid rims. Flat-based, wide-mouthed pancheons with flanged rims, large bunghole pitchers and cisterns, and skillets with straight handles with rounded or turned over terminals, occur for the first time. Jugs are commonly of globular profile with sagging bases and stabbed or incised strap handles, but can be conical with clubbed flat bases and heavy throwing ridges resulting in corrugated profiles. Potterspury ware was glazed either internally or externally, or more rarely on both surfaces, irrespective of form. The glaze generally covers less than two thirds of the

vessel and is commonly restricted to a band around the neck of jugs, rarely extending to the vessel bases. Decoration is rare, although narrow, thumbbed, vertically-applied strips and incised curvilinear decoration have been noted.

East Midland reduced and oxidised gritty wares comprise more than 10% of the contemporary pottery. Pancheons, small flat-based dishes and bowls, and large rounded jugs with simple everted rims are the most common forms. Decoration is rare and glaze is restricted to the oxidised ware. A chamber pot in Midland Purple ware was recovered and round squat jugs with strap handles and a globular pot with a horizontal faceted handle were also present in the same fabric. Many fragmentary sherds of Surrey White ware (W21, Tudor Green) of indeterminate form, but probably deriving from small cups or jugs, were also recovered.

The base of a Cistercian cup (X2a) probably of Midland production, two sherds of Midland Yellow ware and one sherd of 17th-century coarseware are the latest fabrics present and suggest that this phase may extend into the early decades of the 17th century.

Fabric	Illustration nos.
W11	216
W16	226, 227, 229
W18	231-234, 238, 239
W20	244, 246, 247
X2a	264

#### Manufacture and Use

No hand-made wares are present in post-1400 contexts. On the whole vessels are thin-walled and competently thrown. Some of the larger vessels may have been produced on a cartwheel (McCarthy 1979, 228). The quality of finishing can vary considerably and knife-trimming and wire marks are common on W18 vessels. On all fabrics applied decoration is rare, and rouletted and painted decoration infrequent, although the use of glaze is more widespread.

During this period the major innovation in ceramic production was in the development of new forms. Skillets, bunghole pitchers and pancheons extended the range of kitchen wares, whilst finer wares for use at table included cups, drinking mugs, bgs, small dishes and platters, some in forms reminiscent of metal vessels. Bowls with bifid rims in Potterspury-type ware (ill. 232) may have served as cucurbits in the distillation process.

Pottery was better fired and a greater control of temperature and atmosphere is indicated by the uniformity of many wares. Heavily gritted clays were commonly fired in a reducing atmosphere (W20) but Potterspury ware, which was probably made from an untempered natural clay, was fired under oxidising conditions in a single-flued kiln (Jope 1950, and Mynard 1972). The manufacturers of oxidised wares frequently extended their repertoire to include tiles and this is apparent at Lyveden (Steane and Bryant 1975, 3-59) and also at Glapthorn where both pots and crested ridge tiles were being produced in the same kiln (pers. comm. P Foster).

#### Trade

The Potterspury and Yardley Gobion kilns were the principle suppliers of the Northampton market from the late 14th century to the early 17th century. The North Midlands continued to produce better quality wares for import (W11, from the Coventry/Nuneaton area) and East Anglian red wares still occurred. Vessels from Oxfordshire were only a minor feature of the Northampton assemblage during this period and glazed calcareous jugs were no longer imported from N. E. Northamptonshire although the utilitarian coarseware, W29 (East Midlands Late Medieval Oxidised ware), may have been produced in the Lyveden/Stanton area. The other major coarsewares of the period, W20 and W16, are of uncertain origin but the former may have been produced at Brickhill, whilst a more northern, or possibly Staffordshire, source is likely for the Midland Purple wares. Fine table wares were imported from Surrey at the beginning of the century (W21) but by mid-century a wider range of better quality wares were being produced by local potters, often in imitation of the southern wares (W2a, W16, W11).

#### Phase 4Aii/4Bi (394 sherds)

Material in this category could not be accurately assigned to one or other phase in the 1400-1700 period, either on stratigraphic or ceramic grounds, but a large proportion probably dates to the later 16th and the 17th century, although residual pottery accounts for 10-15% of the material.

Fabric	Illustration nos.	
T2	149	(Residual)
W13	219, 220	
W16	235	
W21	248	

#### Phase 4Bi (75 sherds) 1500-1700

Very little pottery was recovered from 16th and 17th century contexts. Nearly one third of the material has been redeposited from earlier contexts and no demonstrably 17th century forms were identified. This is probably a result of the use of the area as gardens and waste ground during the period (Hunter 1979, 134), but is also in keeping with a decrease in the quantity of pottery recovered from post-1400 contexts noted throughout the town, which may reflect different practices of rubbish disposal (Shaw 1984). In the 16th century the town assembly enacted that domestic rubbish was to be disposed of in one of five dunghills situated outside the town (Cox 1878, 264) and this would inevitably have resulted in a fall in the number of pits and hence pottery recovered from 17th century contexts.

Fabrics W1B, W16, W29 and X2a are the only contemporary pottery types recognised, and the forms, where identifiable, are broadly similar to those in the preceding phase. The high incidence of gritty oxidised ware (W29) and absence of the gritty reduced ware (W20) which featured more strongly in Phase 4Aii, may be significant, and suggest a chronological variation, although the limited sample size prohibits any firm conclusions.

Fabric	Illustration nos.	
T2(2)	160	(Residual)
W29	251	

Insufficient material was recovered to enable firm conclusions to be drawn with regard to methods of manufacture, use, and trade although an improvement in vessel production and an increased variety of forms are suggested by the evidence. Pottery would still appear to have been produced at local and regional kilns. Press-moulded slip decorated flat-wares from Staffordshire were not present although fabric W16 and X2a may have been produced in that area.

#### Phase 4Bii (964 sherds) 1700-1900

##### Residual pottery

More than 85% of the pottery recovered in this phase predates 1700. Material from the Saxon period is well represented and this suggests that considerable disturbance of the area took place in the late post-medieval period. Both in range of form and fabric the residual pottery is in keeping with material in earlier phases and examples have been included in the catalogue which emphasise the typical, or draw attention to the more unusual (indicated below), ceramic types.

Fabric	Illustration nos.	
S3/T1	74, 77	
T1	81, 84, 89, 91, 92	
T1/2	99, 102, 110	
T2	122, 127, 128, *139	*(Note rare incised decoration)
V3	179	
V7	187, 188	
W1	192, 194, 196, 197	
?W1/X1(1)/Y	203, 204	
W3	209	(Note rare incised decoration)
W14	222	
W17	230	
W18	236, 237	
W49	255	
X1(1)	258	

##### Contemporary wares



Few sherds dating to the 1700-1900 period were recovered, and these were neither of particular ceramic interest, nor sufficiently form diagnostic to merit illustration.

Local glazed coarsewares of 18th century date were present in small quantities and may have been made at post-medieval kilns in the Potterspury area. 'Nottingham' salt-glazed stoneware sherds were recovered, and although the forms are not clearly identifiable it is likely that plant pots and inkwells are represented. A late 18th to early 19th century date is suggested as the brown glaze is duller and less lustrous, and the rouletted decoration simpler and more poorly executed, than on 18th century examples. Given the late date it is probable that these were produced in Derbyshire or Staffordshire.

Other Staffordshire wares are represented by a sherd of white salt-glazed stoneware (Z13), probably from a plate, and several sherds of creamware (Z17) and transfer-printed pearlware (Z23), all of which are likely to have been tablewares. Modern (post-1850) wares are also probably of Staffordshire origin. Blue 'willow pattern' white 'china' tablewares, are predominant.

Fragments of an 18th century polychrome figured cup in Chinese porcelain were recovered (Y12).

#### Manufacture and Use

During this period press-moulded flat wares are as common as wheel-thrown wares, and reflect the increased use of ceramic utensils at table. The development of transfer printing resulted in more highly-decorated wares, and the use of more reliable methods of glazing (salt, pearl and modern commercial raw lead and alkaline techniques) allowed production of a uniform, reproducible, and hence cheaper commodity.

#### Trade

Small local potteries were unable to withstand the competition of larger commercial enterprises and it has been noted on the Ridings, Northampton, that between 1650 and 1850 the percentage of locally produced wares fell from 53 to 6% whilst Staffordshire wares rose from approximately 30 to 80% (Denham 1904b). A similar picture is reflected at St Peter's Gardens. By the beginning of the 19th century products of the Black Country had eclipsed wares from all other areas and this resulted in the ceramic industry as we know it today.

#### Unstratified pottery, including pottery unassignable to secure context

(4,008 sherds)

Pottery was found both in contexts which could not be securely assigned to phase (see codified summary for details: (M)2/84-3/22, and in the initial clearing of the site prior to excavation. Material from all periods was present and typical and unusual forms have been included in the catalogue to supplement the ceramic information from contexts of known date.

Fabric	Illustration nos. (Typical forms)	Illustration nos. (Unusual examples)
T1	80, 86, 88, 90, 97	96: Thumbled handle 97: Rouletted decoration

T1/2	105-106	
T2	112, 114, 115, 117, 119, 120, 124, 125, 130-132, 134, 140, 142-145	
T6	163	
V1	167, 171	
V2		176: Thumbled applied strip and combed decoration
V4	182	
V6	185	
V7	186	
W1	193, 198, 199, 202	201: Handle
?W1/X1(1)/Y	205, 207	
W7	215	
W11	217, 218	
W16		228: Inscription
W18	240	
W20	241-243, 245	
W29	249, 250	
W34	254	
W32	253, 254	
X1(1)	260, 261	257: Rilled cup
Y5	267	
Y6	268	
Z3	269	

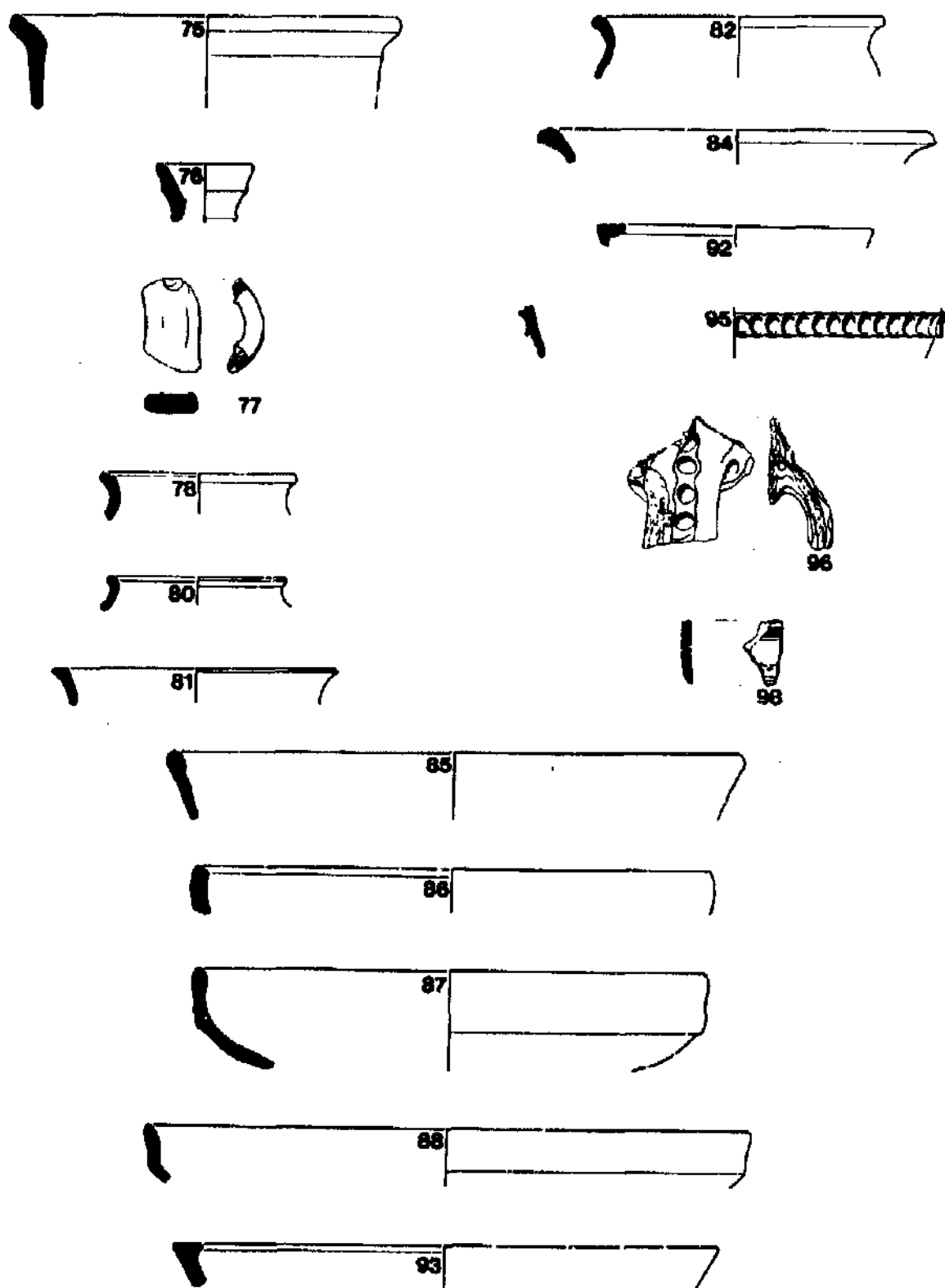


Fig (H)1: Phase 4, Pottery I

Fabric 83/T1: 74-77; T1: 78-90

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

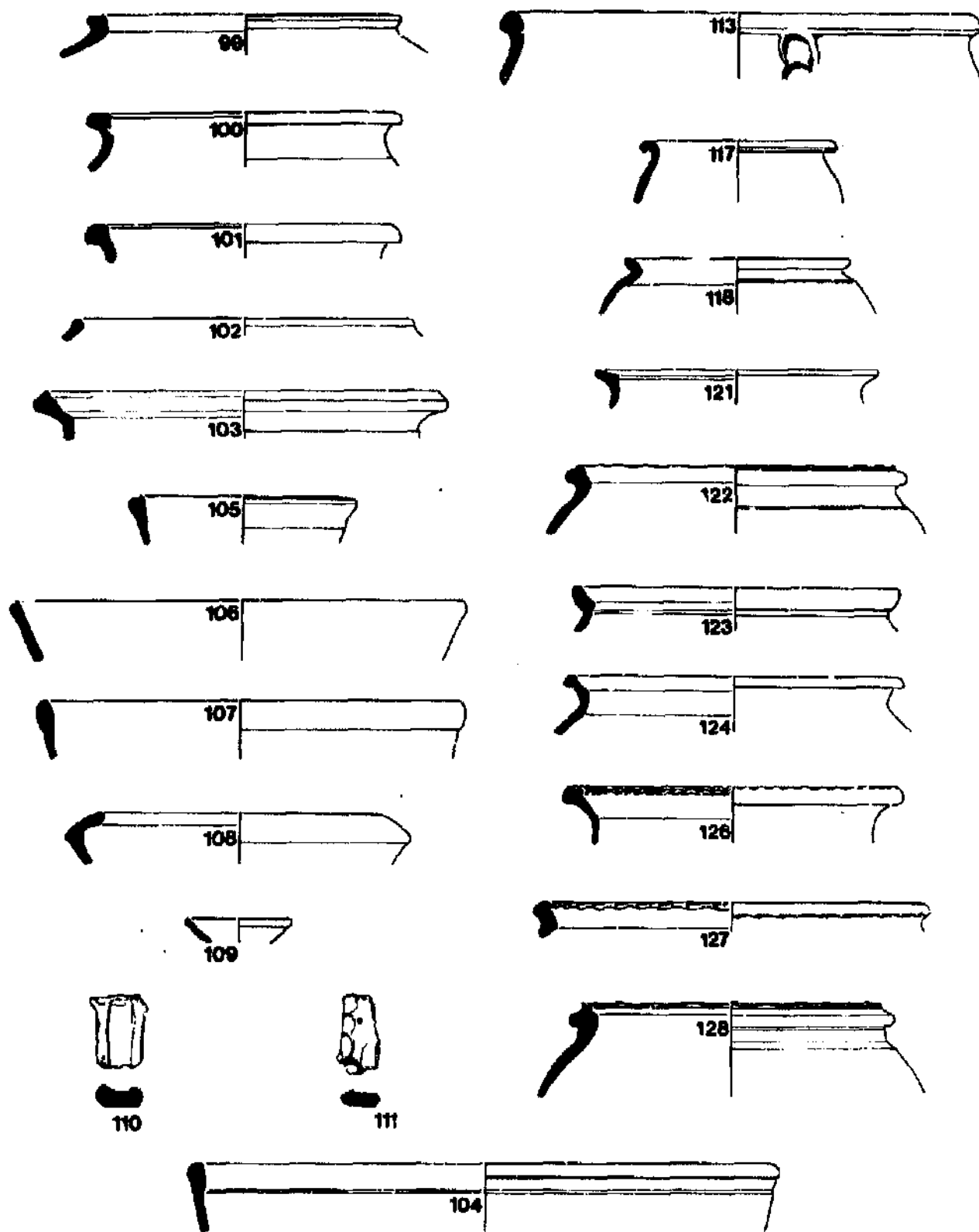


Fig (M2): Phase 4, Pottery II

Fabric T1/2: 99-111; T2: 112-128

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

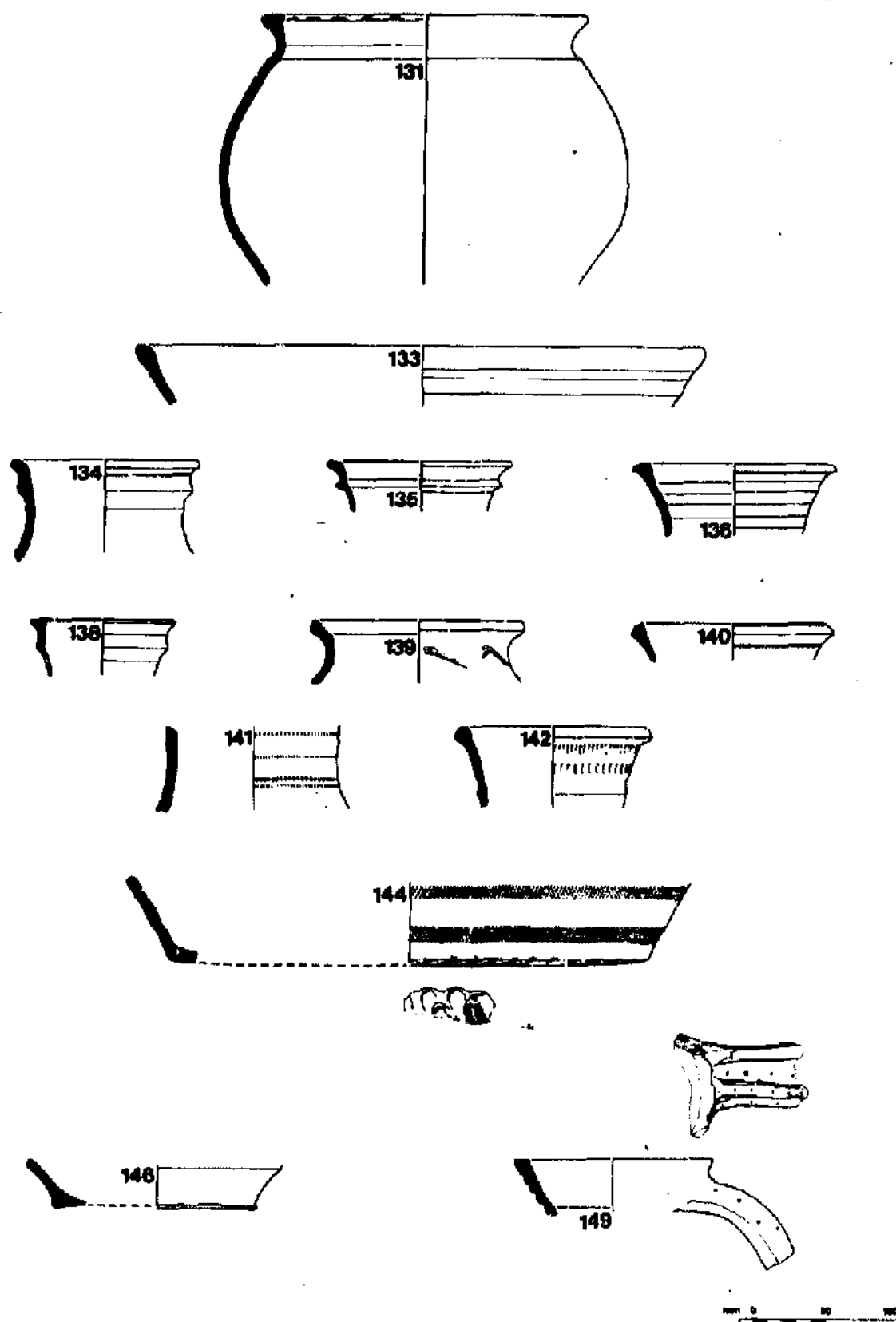


Fig (K18): Phase 4, Pottery III

Fabric T2: 129-149

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

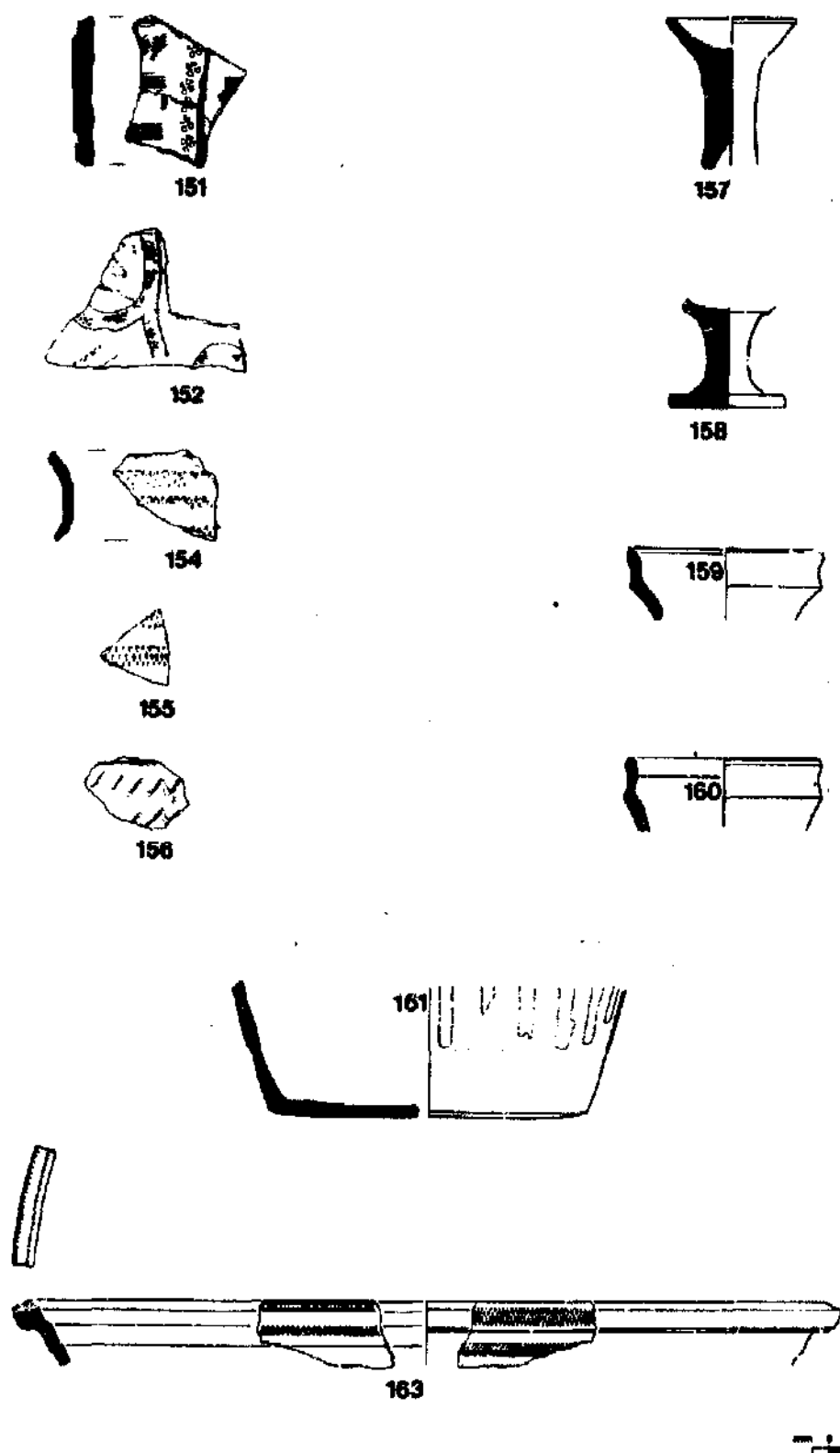


Fig. (M)9: Phase 4, Pottery IV

Fabric T2: 150-158; T2(2): 159-162; T6: 163

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

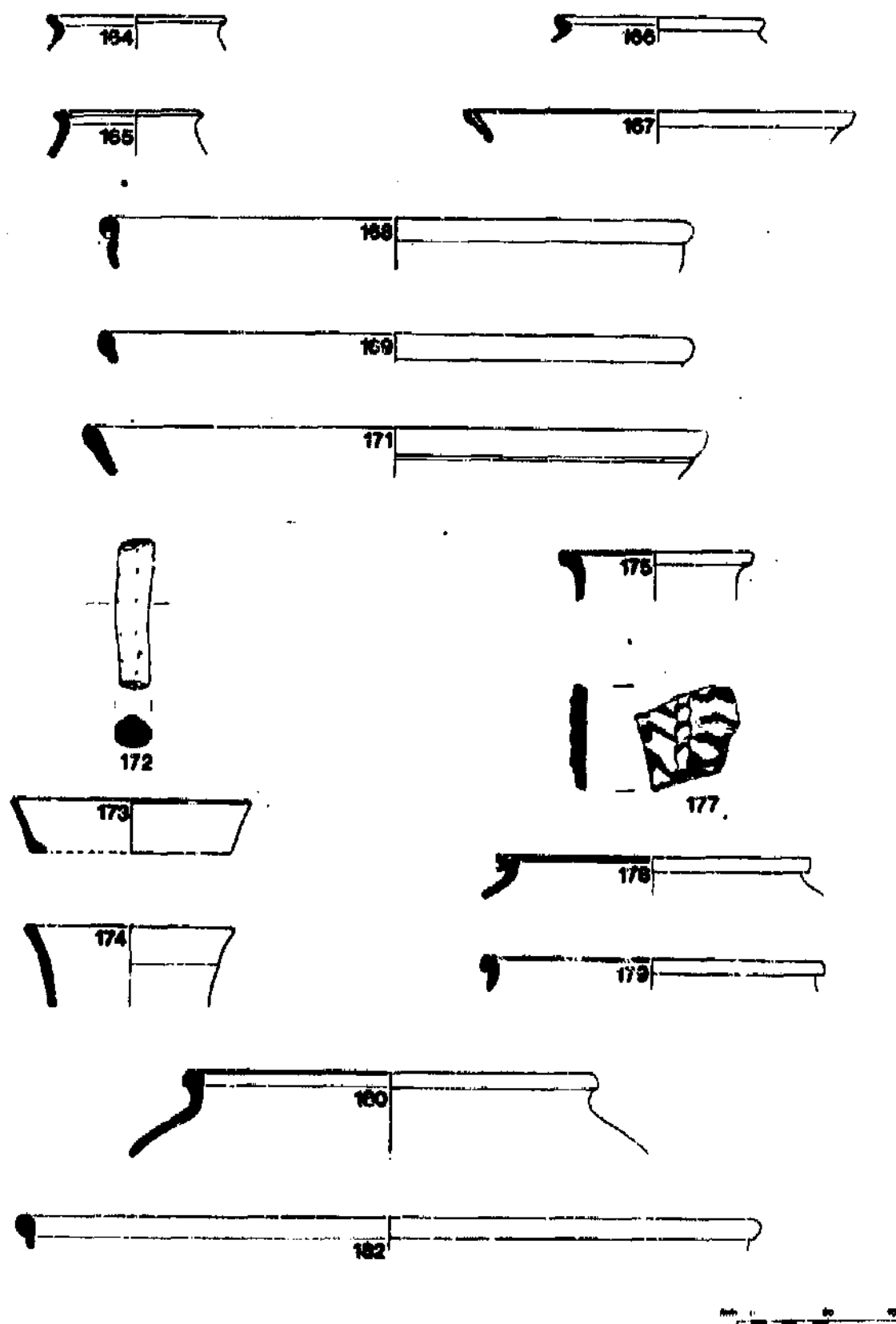


Fig. (M110) Phase 4, Pottery V

Fabric: V1(1): 164-172; V1(2): 173-175; V2: 176-177; V3: 178-181; V4: 182

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

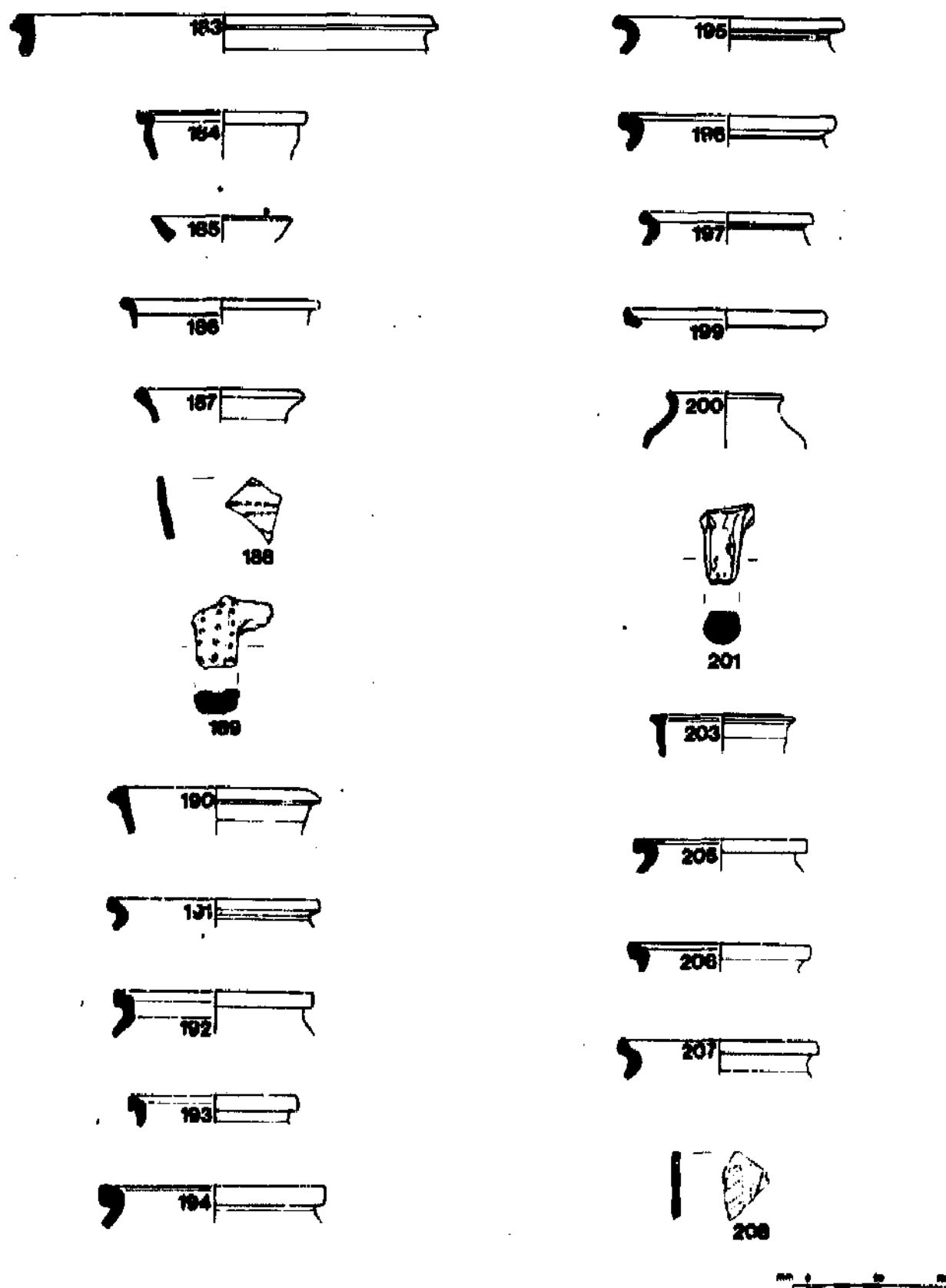


Fig. (R111) Phase 4, Pottery VI  
 Fabric V6: 183-185; V7(1): 186-189; V7(2): 190; M1: 191-202; M1/X1(1): 203; 7M1/X1(1)/Y: 204-208  
 For references to examples not illustrated in this report see Catalogue of Illustrated Pottery



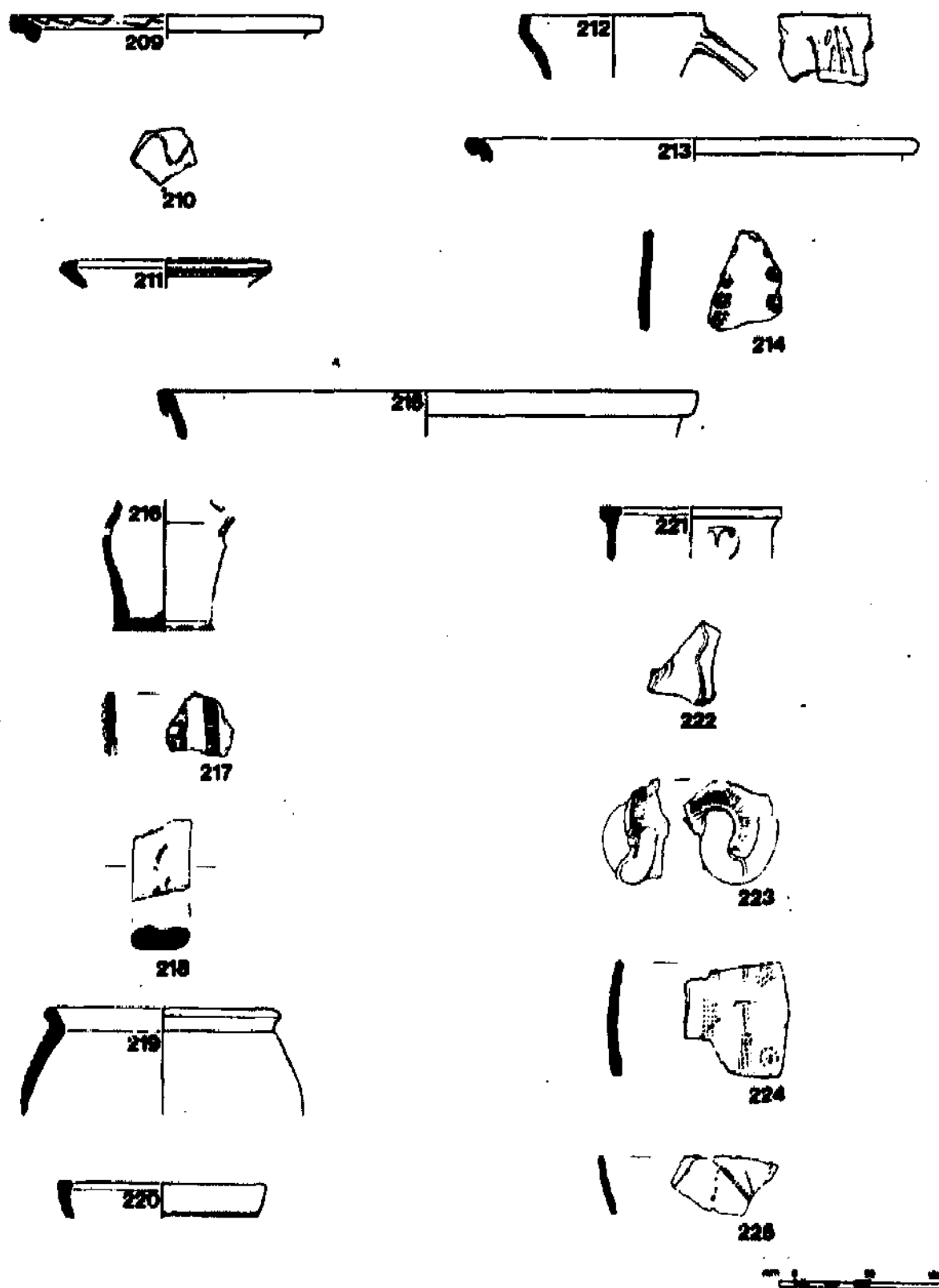


Fig. (R)12: Phase 4, Pottery VII

Fabric M3(2): 209-210; M7(1): 211-212; M7(4): 213-214; M11(3): 215-216; M11(7): 217-218; M13: 219-220; M14: 221-225  
 For references to examples not illustrated in this report: see Catalogue of Illustrated Pottery

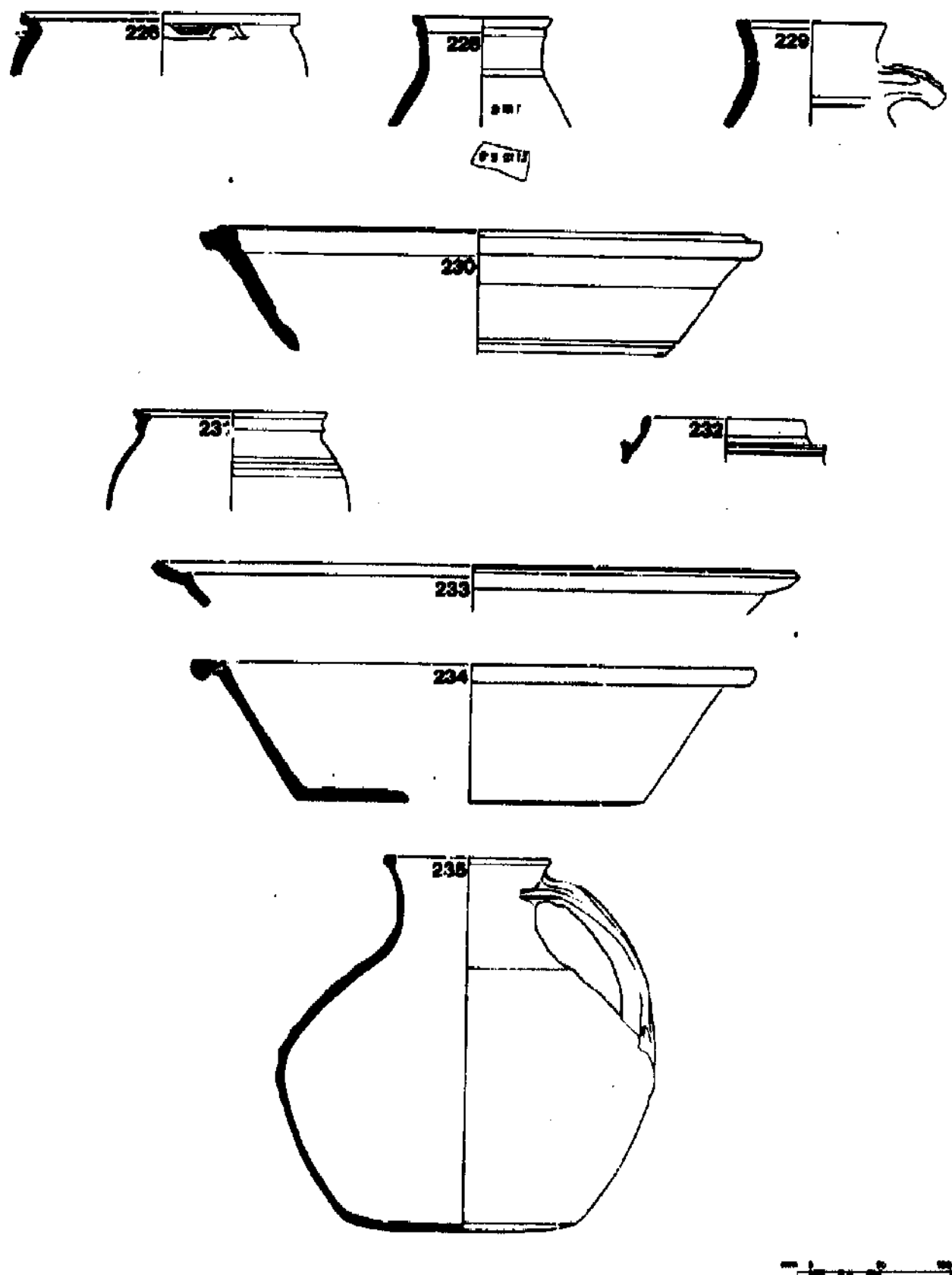


Fig (M)13: Phase 4, Pottery VIII  
 Fabric W16: 226-229; W17: 230; W18: 231-235  
 For references to examples not illustrated in this report: see Catalogue of Illustrated Pottery

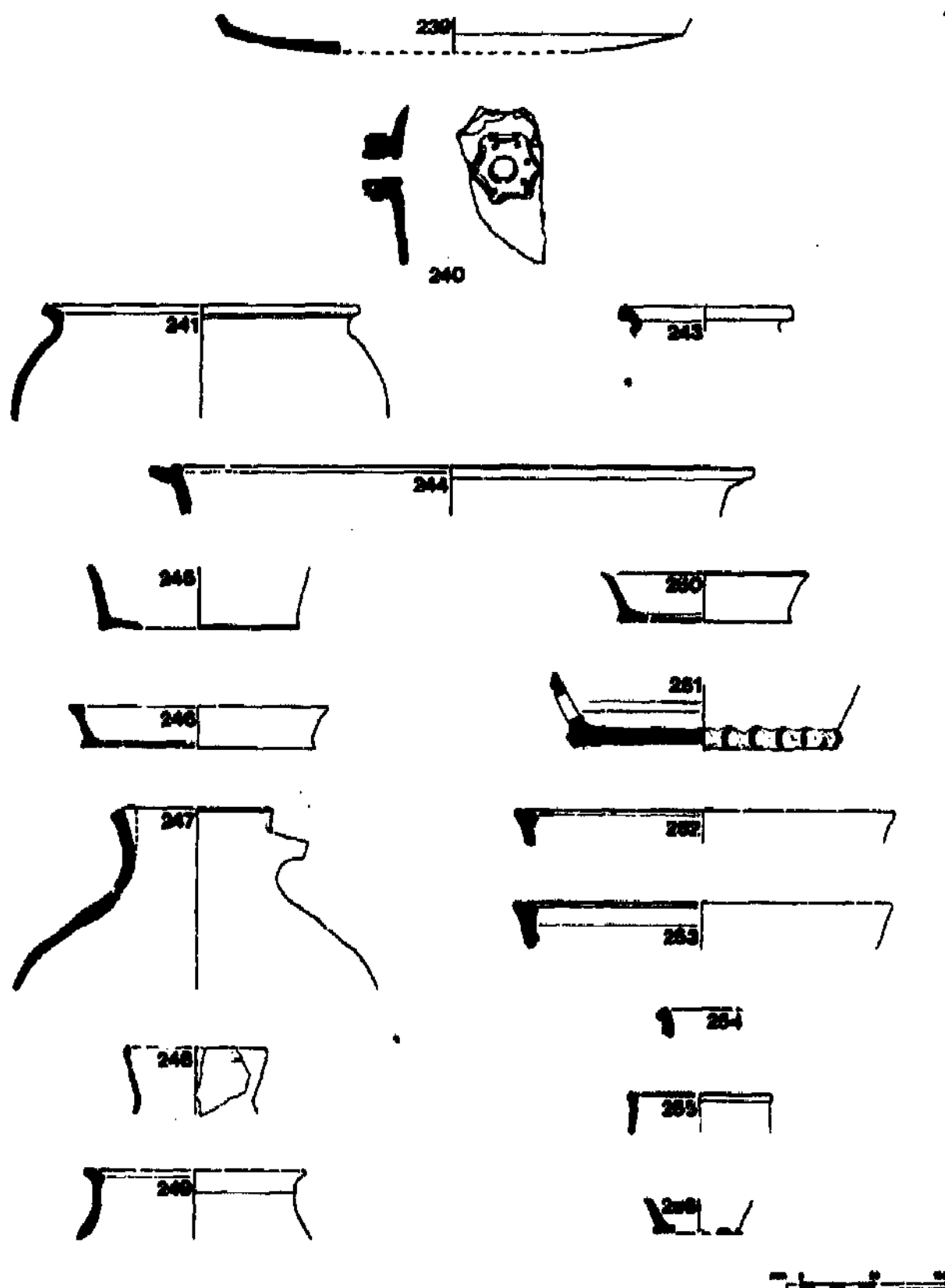


FIG. 17(14): Phase 4, Pottery II

Fabric W18: 236-240; W20(1): 241-248; W20(2): 246-247; W21: 249; W29: 245-251; W32: 252-253; W34: 254; W49: 255; W50: 256

For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

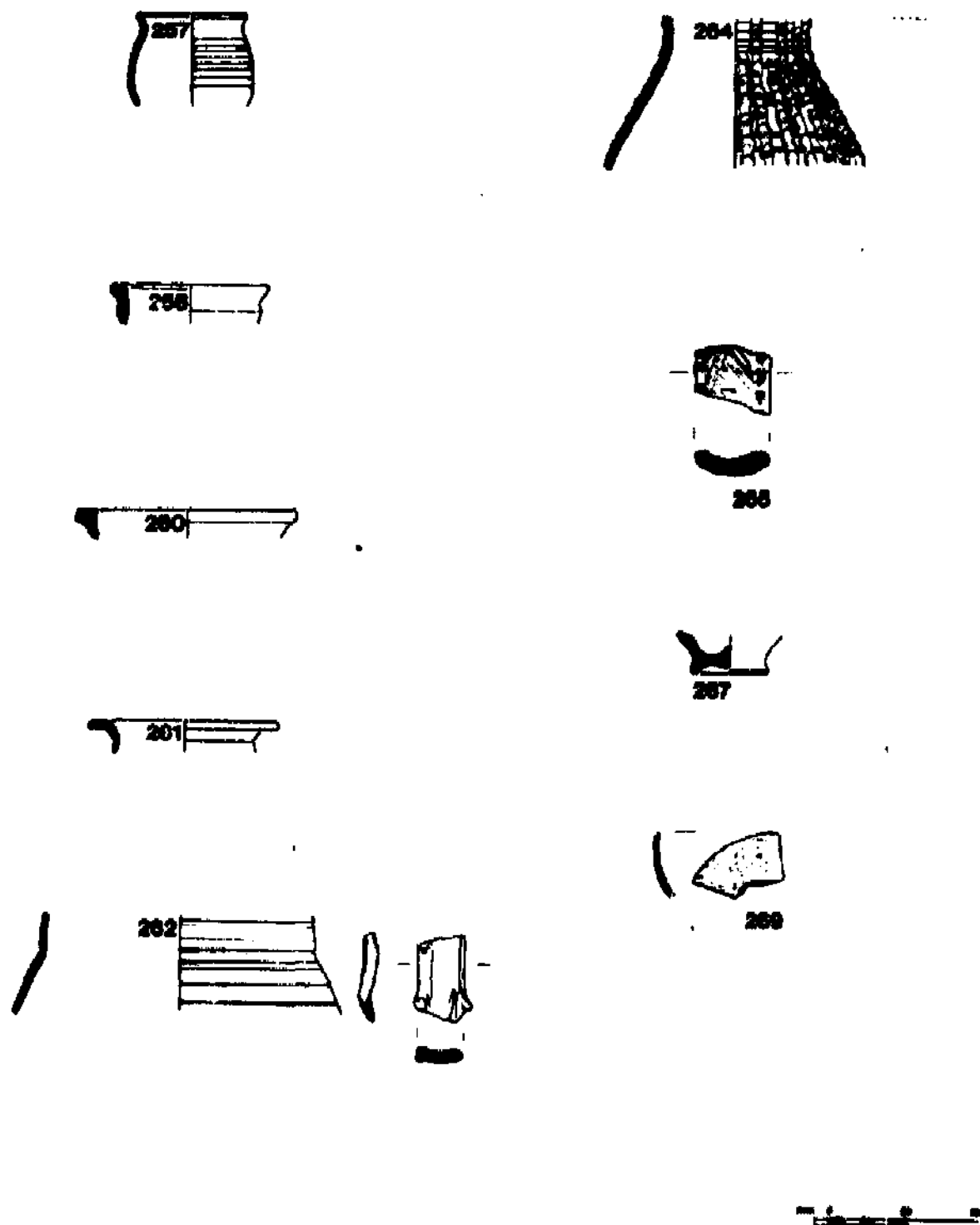


Fig 17:18: Phase 4, Pottery I  
 Fragments: K1(1): 257-263; K1(2): 264-265; K2a: 266; Y5: 267; Y6: 268; Z3: 269  
 For references to examples not illustrated in this report see Catalogue of Illustrated Pottery

## IV) CATALOGUE OF ILLUSTRATED POTTERY

Table (N)3

Column 2 provides a site code and illustration reference number for drawings which duplicate previously published examples, and which are not illustrated again in this report. For site and fabric codes see Key to Fabrics (N)2/49-53. For form codes see Codified Dictionary of Pottery (N)2/84.

Ill. No.	Ref.	Fabric	Form	Sherd	Diam. (mm) Rim Base	Ext.	Colour (Munsell)		Context	Phase	Comment
							Core	Int.			
74	N115 141	83/T1	A	Rim	140	5YR 8/4	7.5YR 5/0	5YR 4/1	V1	4B11	
75		83/T1	ABD	Rim	260	5YR 3/1	7.5YR 4/0	7.5YR 6/4	WS2	4A	
76		83/T1	B	Rim	65	7.5YR 3/2	7.5YR 4/0	7.5YR 3/0	WS	4A1	
77		83/T1	DEB	Handle /Lug		5YR 6/3	7.5YR 4/0		V1	4B11	Self-slip
78		T1(4)	A	Rim	130	5YR 4/1	5YR 5/1	5YR 5/3	AA117	4A1	
79	N115 450	T1	A	Rim	150	10R 4/1	2.5YR 3/0	2.5YR 3/0	WS2	4A	
80		T1(1)	A	Rim	120	5YR 3/1	2.5YR 2.5/0	5YR 7/2	+	U/S	
81		T1	A	Rim	190	7.5YR 3/0	7.5YR 5/0	7.5YR 4/0	V1	4B11	Burnished
82		T1(1)	A	Rim	190	5YR 5/2	2.5YR 4/0	5YR 5/2	AA210	4A1	Scorched
83	N139 97	T1	ABD	Rim	240	2.5YR 3/0	2.5YR 4/0	5YR 6/4	AA377	4A1	
84		T1(2)	AB	Rim	260	5YR 5/4	5YR 4/2	5YR 5/4	V1	4B11	
85		T1	B	Rim	380	2.5YR 5/4	2.5YR 3/0	2.5YR 4/2	WS2	4A	
86		T1	B	Rim	340	2.5YR 6/0	2.5YR 4/0	2.5YR 5/0	+	U/S	
87		T1(1)	B	Rim	340	10R 4/1	2.5YR 4/0	2.5YR 4/2	AA346.1	4A1	
88		T1(1)	B	Rim	400	5YR 3/1	5YR 4/1	5YR 3/1	+	U/S	
89	N115 202	T1(4)	B	Rim	280	5YR 6/4	2.5YR 4/0	2.5YR 5/4	V1	4B11	Out-hand finish
90	N119 560	T1(1)	B	Rim	320	5YR 5/2	7.5YR 4/0	5YR 4/2	+	U/S	
91	N115 642	T1(1)	B	Rim	340	2.5YR 4/2	2.5YR 4/0	10R 3/1	V1	4B11	
92		T1(2)	B	Rim	180	2.5YR 3/0	2.5YR 4/0	10R 4/1	V1	4B11	
93		T1(3)	B	Rim	360	2.5YR 4/0	2.5YR 4/0	2.5YR 6/2	Y99	4A1	Self-slip
94	N115 945	T1(1)	A	Base	110	7.5YR 6/4	7.5YR 4/0	7.5YR 3/0	AA373	4A1	Out-hand finish
95		T1(1)	DEB	Body		7.5YR 6/4	7.5YR 4/0	5YR 5/2	221.3	4A1	Thumbbed
96		T1(4)	ED	Handle		5YR 7/4	2.5YR 4/0	+	+	U/S	Thumbbed
97	N407 23	T1(1)	ABED	Body		5YR 5/2	2.5YR 4/0	5YR 5/2	+	U/S	Thumbbed
98		T1	AB	Body		2.5YR 4/0	2.5YR 4/0	5YR 4/1	+	U/S	7Wooltates
99		T1/2	A	Rim	220	5YR 6/4	7.5YR 4/0	5YR 6/4	V1	4B11	Thumbbed
100		T1/2	A	Rim	220	5YR 5/4	2.5YR 4/0	5YR 5/4	AA117	4A1	

101		T1/2	A	Rim	220	5YR 6/4	2.5YR 4/0	7.5YR 6/4	V45	4A1	
102		T1/2	A	Rim	240	2.5YR 4/0	2.5YR 4/0	2.5YR 4/0	V3	4B11	
103		T1/2	AES	Rim	290	10R 4/1	10R 3/4	2.5YR 4/0	V1	4B11	
104		T1/2	B	Rim	420	5YR 2.5/2	5YR 4/1	5YR 5/2	V112	3/4A1	
105		T1/2	AC	Rim	160	5YR 7/4	5YR 5/1	5YR 4/1	+	U/S	
106		T1/2	B	Rim	320	5YR 3/1	5YR 4/1	5YR 5/3	+	U/S	
107		T1/2	B	Rim	300	2.5YR 4/2	2.5YR 5/0	2.5YR 5/6	V71	4A1	
108		T1/2	B	Rim	260	5YR 4/1	2.5YR 5/0	5YR 6/4	AA46.4	4A1	
109		T1/2	D	Rim	75	2.5YR 5/6	2.5YR 5/0	2.5YR 2.5/0	V115	4A1	
110		T1/2	C	Handle		5YR 3/1	2.5YR 4/0	5YR 4/2	V1	4B11	
111		T1/2	C	Handle		5YR 5/1	2.5YR 4/0	-	AA117	4A1	Thumbed
112	M178 37	T2	AC	Rim	180	5YR 6/4	2.5YR 5/0	5YR 7/4	+	U/S	
113		T2	AES	Rim	340	5YR 6/6	5YR 5/1	7.5YR 6/4	AA346.1	4A1	Thumbed
114	M178 39	T2	A	Rim	220	2.5YR 6/6	2.5YR 4/0	2.5YR 5/6	+	U/S	
115	M115 155	T2	A	Rim	240	2.5YR 5/4	2.5YR 4/0	2.5YR 5/2	+	U/S	
116	M178 39	T2	AB	Rim	250	7.5YR 6/4	7.5YR 6/0	7.5YR 6/4	346.1	4A1	
117		T2	A	Rim	140	5YR 7/6	2.5YR 5/0	5YR 6/4	+	U/S	
118		T2	A	Rim	180	2.5YR 5/6	2.5YR 5/4	2.5YR 6/6	M18	4A1	
119	M115 91	T2	A	Rim	340	5YR 7/6	2.5YR 5/0	2.5YR 6/6	+	U/S	
120	M115 86	T2	A	Rim	295	7.5YR 6/4	7.5YR 4/0	7.5YR 6/4	+	U/S	
121		T2	A	Rim	200	5YR 6/4	2.5YR 4/0	2.5YR 5/4	+	U/S	
122		T2	A	Rim	240	2.5Y 5/4	2.5Y 5/4	2.5Y 5/4	K10.2	4B11	Thumbed
123		T2	A	Rim	230	5YR 5/4	5YR 3/1	5YR 6/6	M26	4A	
124		T2	A	Rim	240	5YR 6/4	7.5YR 6/0	5YR 6/2	+	U/S	
125	M115 150	T2	A	Rim	160	2.5YR 5/2	2.5YR 5/0	2.5YR 6/6	+	U/S	
126		T2	A	Rim	280	2.5YR 6/8	2.5YR 6/0	5YR 6/6	AA509	4A1	Thumbed
127		T2	A	Rim	250	2.5YR 6/6	2.5YR 5/0	2.5YR 6/6	V1	4B11	Thumbed
128		T2	A	Rim	230	5YR 6/6	2.5YR 5/0	2.5YR 5/6	V7	4B11	Thumbed
129	M178 54	T2	A	Rim	210	2.5YR 5/1	2.5YR 5/0	2.5YR 5/6	M10.2	4B11	
130	M115 372	T2	A	Rim	280	5YR 8/4	7.5YR 6/0	7.5YR 7/4	+	U/S	
131		T2	A	Rim	230	2.5YR 6/6	2.5YR 5/0	2.5YR 6/6	+	U/S	
132		T2	B	Rim	400	2.5YR 6/6	5YR 5/1	2.5YR 6/6	+	U/S	
133	M178 72	T2	B	Rim	130	5YR 6/6	2.5YR 6/0	2.5YR 6/6	M54	4A1	
134		T2	C	Rim	130	5YR 4/2	2.5YR 5/0	5YR 4/1	+	U/S	
135		T2	C	Rim	130	10YR 5/2	7.5YR 7/0	7.5YR 5/2	V45	4A1	
136		T2	C	Rim	140	5YR 6/6	5YR 6/1	7.5YR 6/4	M52	4A	
137	M115 130	T2	C	Rim	100	2.5YR 7/2	2.5YR 4/0	7.5YR 5/2	V62	4A1	

130		T2	C	Rim		5YR 5/8	5YR 6/1	5YR 6/4	Y62	4A1	Thumb applied strip
139		T2	C	Rim	150	7.5YR 7/4	2.5YR 4/0	2.5YR 6/8	V1	4B11	
140		T2	C	Rim	140	2.5YR 6/8	2.5YR 5/0	2.5YR 5/8	+	U/S	Rouletted
141		T2	C	Body		5YR 7/6	5YR 6/0	7.5YR 6/4	Y115	4A1	Rouletted
142		T2	C	Rim	140	2.5YR 5/6	5YR 5/1	2.5YR 6/6	+	U/S	Rouletted
143	M178 63	T2	ABC	Base	200	5YR 6/2	7.5YR 5/0	5YR 7/1	+	U/S	
144		T2	B	Base	340	2.5YR 6/6	2.5YR 4/0	2.5YR 4/2	+	U/S	
145	M115 236	T2	ABC	Base	360	5YR 4/1	2.5YR 5/0	5YR 7/4	+	U/S	Self-slip
146		T2	ABC	Base	140	7.5YR 6/4	2.5YR 4/0	5YR 6/4	AA392.2	4A1	Self-slip
147	M178 87	T2	C	Handle	140	5YR 7/6	2.5YR 5/0	5YR 7/6	AA117	4A1	Thumb
148	M178 87	T2	C	Handle		5YR 7/6	2.5YR 4/0	-	AA373	4A1	Thumb
149		T2	C	Rim & handle	140	2.5YR 5/6	5YR 6/1	2.5YR 5/6	Y32	4A11-B1	Stabbed
150	M115x 149	T2	C	Handle		5YR 6/6	2.5YR 4/0	5YR 7/6	M52	4A	Stabbed
151		T2	AC	Body		5YR 6/6	2.5YR 4/0	5YR 6/6	AA71	4A1	Stamped and combed
152		T2	AC	Body		5YR 6/6	2.5YR 5/0	7.5YR 7/4	AA52	4A	Rouletted applied strips
153	M115 592	T2	ABC	Body		5YR 6/4	2.5YR 5/0	5YR 7/6	M54	4A1	Rouletted
154		T2	C	Body		2.5YR 6/6	7.5YR 7/4	2.5YR 6/6	AA117	4A1	Rouletted
155		T2	ABC	Body		5YR 6/4	5YR 5/3	5YR 6/4	M52	4A	
156		T2	ABC	Body		7.5YR 6/6	7.5YR 6/0	5YR 7/2	M26	4A	Incised
157		T2	D	Rim	80	2.5YR 6/6	2.5YR 5/0	2.5YR 5/4	AA97	4A1	
158		T2	D	Base	70	5YR 6/4	2.5YR 6/0	5YR 4/2	Y31	4A11	
159		T2(2)	C	Rim	120	5YR 5/6	5YR 5/1	5YR 4/4	M18	4A1	*Partial glaze
160		T2(2)	C	Rim	120	7.5YR 5/6	7.5YR 5/0	7.5YR 5/0	AA5	4B1	*Partial slip and glaze
161		T2(2)	C	Base	100	5YR 5/2	2.5YR 5/0	5YR 5/4	AA393	4A1	*Partial glaze, (vertical) slip
162	M115 133	T2(2)	C	Handle		5YR 5/2	2.5YR 5/0	-	M26	4A	*Glaze
163		T6	B	Rim	70	5YR 5/4	5YR 4/1	5YR 4/1	+	U/S	Rouletted
164	V1111		AC	Rim	120	2.5YR 4/4	2.5YR 6/6	5YR 6/6	Y3	4A11	
165	V1111		AC	Rim	110	2.5YR 4/6	2.5YR 6/0	2.5YR 5/0	M52	4A	
166	V1111		A	Rim	140	2.5YR 4/2	2.5YR 6/0	2.5YR 5/6	V1	4B11	
167	V1111		B	Rim	280	2.5YR 6/6	2.5YR 5/2	2.5YR 5/4	Y79	4A1	
168	V1111		B	Rim	400	5YR 5/3	7.5YR 5/0	5YR 7/3	M5	4A1	
169	V1111		B	Rim	400	2.5YR 5/4	5YR 5/1	2.5YR 6/6	+	U/S	
170	M119x 171	V1111	B	Rim	340	2.5YR 6/6	5YR 6/1	2.5YR 6/6	Y8	4A11	

171	V1(1)	B	Rim	420	2.5YR 4/2	5YR 5/1	2.5YR 6/6	+	U/S		
172	V1(1)	7A2	Handle		5YR 6/6	5YR 5/1	-	W3	4A1	*Stabbed	
173	V1(2)	B	Complete vessel	160	10R 4/1	2.5YR 4/0	7.5YR 6/4	AA536	4A1/11	*Partial glaze	
					5Y 6/8*						
174	V1(2)	C	Rim	140	10YR 3/4	2.5YR 5/8	2.5YR 6/0	Y73	4A1		
175	V1(2)	C	Rim	130	2.5YR 5/4	5YR 8/1	2.5YR 5/4	AA346.1	4A1	*Glaze	
					5YR 6/8*		5YR 6/8*				
176	M15X 177	V2	BC	Body	2.5YR 6/6	2.5YR 5/0	5YR 7/4	+	U/S	Thumbed applied strip and combing	
177		V2	AEB	Body	5YR 6/6	2.5YR 4/0	5YR 6/4	AA346.1	4A1		
178		V3	A	Rim	210	5YR 5/1	7.5YR 6/0	5YR 4/1	Y62	4A1	
179		V3	A	Rim	230	7.5YR 3/0	7.5YR 4/0	7.5YR 3/0	V1	4B11	
180		V3	A	Rim	280	2.5YR 4/0	2.5YR 4/0	2.5YR 4/0	W5	4A1	
181	M15X 179	V3	A	Rim	180	7.5YR 4/0	7.5YR 4/0	10YR 8/2	W5	4A1	
182		V4	B	Rim	250	2.5YR 6/6	2.5YR 4/0	2.5YR 6/6	+	U/S	
183		V4	A	Rim	300	5YR 7/4	2.5YR 4/0	7.5YR 7/4	AA309	4A1	
184		V4	C	Rim	120	7.5YR 7/4	7.5YR 8/0	5YR 8/4	W1B	4A1	
185		V4	D	Rim	100	2.5YR 6/4	5YR 6/1	2.5YR 2.5/0	+	U/S	
186		V7(1)	C	Rim	140	5YR 6/6	2.5YR 5/0	2.5YR 6/8	W26	4A	
187		V7(1)	C	Rim	120	2.5YR 6/8	2.5YR 6/0	2.5YR 5/8	V1	4B11	
188		V7(1)	ABC	Body	2.5YR 6/8	2.5YR 6/0	2.5YR 6/6	V1	4B11	*Noletted	
189		V7(1)	C	Handle	5YR 6/3	5YR 8/1	5YR 7/4	AA538	4A1	*Glaze *Stabbed	
					5Y 5/6*						
190		V7(2)	C	Rim	150	2.5YR 6/6	5YR 6/1	5YR 7/6	W55	4A1	
191		W1	A	Rim	150	2.5YR 4/0	5YR 8/1	5YR 6/1	AA345	4A1	
192		W1	A	Rim	140	5YR 5/1	7.5YR 5/0	5YR 6/1	V1	4B11	
193		W1	A	Rim	120	2.5YR 3/0	2.5YR 3/0	5YR 8/3	+	U/S	
194		W1	A	Rim	160	2.5YR 3/0	2.5YR 4/0	5YR 7/3	V7	4B11	
195		W1	A	Rim	150	7.5YR 5/0	7.5YR 6/0	7.5YR 6/0	V7	3/4A1	
196		W1	A	Rim	150	7.5YR 3/0	7.5YR 4/0	5YR 7/3	V1	4B11	
197		W1	A	Rim	120	10R 5/1	7.5YR 6/0	5YR 5/1	W3	4B11	
198	M15 513	W1	A	Rim	150	2.5YR 3/0	2.5YR 3/0	2.5YR 3/0	+	U/S	
199		W1	A	Rim	140	5YR 3/1	5YR 8/2	5YR 6/2	W26	4A	
200		W1	A	Rim	80	2.5YR 4/0	5YR 6/1	2.5YR 4/0	AA374	4A1	
201		W1	EB	Handle	2.5YR 4/0	2.5YR 4/0	-	+	U/S		
202	M15 230	W1	B2	Spout	5YR 6/1	7.5YR 7/0	5YR 7/2	+	U/S		
203		W1/X1(1)	C	Rim	100	10YR 6/3	10YR 8/2	10YR 8/5	V1	4B11	
204	M15 513	W1/X1(1)	A	Rim	130	5YR 8/4	5YR 8/1	7.5YR 8/4	V1	4B11	
205		W1/X1(1)	A	Rim	120	5YR 8/1	2.5YR 4/0	5YR 7/6	AA324.2	U/S	
206		W1/X1(1)	A	Rim	125	7.5YR 7/6	5YR 8/1	5YR 8/1	AA13	4A1	
207		W1/X1(1)	A	Rim	140	5YR 8/2	5YR 8/1	5YR 8/2	+	U/S	*Paint
					5YR 7/6*						
208		W1/X1(1)	AEB	Body	5Y 8/1	5YR 8/1	5YR 8/1	AA13	4A1	*Paint	
					5YR 6/6*						



209	M3(2)	A	Rim	210	7.5YR 4/0	7.5YR 5/0	7.5YR 3/0	V1	4B11	Incised
210	M3(2)	AB	Body		2.5YR 4/0	2.5YR 4/0	2.5YR 4/0	V24	4A1	Incised
211	M7(1)	ABC	Rim	140	2.5YR 6/8*	7.5YR 7/4	2.5Y 5/8*	AA117	4A1	*Full glaze
212	M7(1)	C	Rim and handle	120	5Y 7/8*	5YR 7/6	5Y 7/4*	AA49	4A1	*Full glaze Slashed
213	M7(4)	AB	Rim	360	2.5YR 3/0	5YR 5/1	2.5YR 3/0	Y62	4A1	
214	M7(4)	ABC	Body		2.5YR 5/8	2.5YR 3/0	7.5YR 6/2	*	U/S	
215	M11(3)	B	Rim	360	7.5YR 8/4	7.5YR 5/0	5YR 8/2	*	U/S	
216	M11(3)	CF4	Base	68	7.5YR 8/4 5Y 6/6*	7.5YR 5/0	5YR 8/2	255.3	4A11	*Partial glaze
217	M11(7)	C	Body		5Y 7/8*	7.5YR 6/0	10YR 8/3	M52	4A	*Full glaze Rouletted applied strip
218	M11(7)	C	Handle		5Y 5/6*	7.5YR 7/0	7.5YR 8/4	*	U/S	*Glaze Stabbed
219	M13	A	Rim	160	2.5YR 6/8	2.5YR 6/6	2.5YR 5/8	Y32	4A11-B1	
220	M13	B	Rim	140	5YR 6/6	5YR 8/3	5YR 6/8	Y32	4A11-B1	
221	M14	C	Rim	120	5Y 4/4*	5YR 7/6	5YR 7/6	V24	4A1	*Glaze Applied pad
222	M14	C	Body		5Y 6/8*	5YR 7/6	10YR 8/4	V1	4B11	*Glaze Incised
223	M14	C	Handle		5Y 5/6*	7.5YR 8/4	7.5YR 8/4	AA97	4A1	*Full glaze /*Glazed applied strip Plastic ornamentation
224	M14	AC	Body		5Y 5/4*	2.5YR 6/0	5YR 7/6	AA97 AA98	4A1 4A11	*Glaze /*Slip Stamped and rouletted
225	M14	ABC	Body		5Y 6/8*	5YR 8/4	5YR 8/4	Y99	4A1	*Glaze /*Slip Stabbed and rouletted
226	M16	AEB	Rim and lug	200	10R 4/4 5Y 6/6*	2.5YR 5/4	10R 4/3	Y8	4A11	*Partial glaze
227	M115 377	M16	Rim and handle	150	10R 4/2	10R 4/2	10R 4/2	AA306	4A11	
228	M16	C	Rim and body	100	2.5YR 4/2 5YR 2.5/2*	2.5YR 5/6	5YR 8/3	*	U/S	*Partial glaze and inscription
229	M18	C	Rim and handle	106	10R 5/4 +10R 3/4	2.5YR 1/0	10R 5/6	Y8	4A11	
230	M17	E9	Rim	400	10YR 8/4	10YR 8/3	2.5YR 8/6*	M19.2	4B11	*Glaze
231	M18	A	Rim	140	10YR 7/4	10YR 3/1	5YR 8/3 5Y 3/6*	Y31	4A11	*Partial glaze
232	M18	A1	Rim	110	5YR 7/6 5Y 5/6	2.5YR 4/0	5YR 8/2	Y11	4A11	
233	M18	B	Rim	460	5YR 3/1	5YR 2.5/1	10R 6/3	Y31	4A11	
234	M18	E9	Complete vessel	400 250	5YR 5/3	7.5YR 6/2	5YR 7/6 5Y 5/4*	Y9	4A11	*Partial glaze

235		M18	C	Complete vessel	120	165	7.5YR 8/2 5Y 5/6*	2.5YR 4/0	7.5YR 8/2	Y14	4A11-B1	*Partial glaze
236		M18	B	Base		320	5YR 8/4	7.5YR 4/0	5YR 8/2	V1	4B11	
237	M115x 236	M18	B	Base		300	5YR 7/1	7.5YR 4/0	5YR 8/1	V1	4B11	*Partial glaze
238	M115 393	M18	C	Base		120	5YR 7/6 5Y 5/6*	2.5YR 4/0	5YR 8/2	AA308	4A11	
239	M115 381	M18	ABC	Handle			5YR 7/4 5Y 5/4*	2.5YR 4/0	5Y 4/4	AA62	4A11	*Partial glaze Slashed
240		M18	C3	Bung-hole			5YR 7/4 5Y 6/8*	2.5YR 4/0	5YR 6/4	+	U/S	*Partial glaze
241		M20(1)	A	Rim	220	-	2.5Y 3/0	2.5Y 4/0	2.5Y 3/2	W52	4A	
242	M178 126	M20(1)	A	Rim	220		2.5Y 3/0	2.5Y 4/0	2.5Y 3/0	W52	4A	
243		M20(1)	AC	Rim	120		2.5Y 2/0	2.5Y 6/1	2.5Y 3/0	W60	4A	
244		M20(1)	AEB	Rim	440		7.5YR 7/2	5YR 8/3 2.5YR 3/0*	2.5YR 4/0	AA73	4A11	*Sandwich core
245		M20(1)	C	Base		140	5YR 5/6	2.5YR 3/0	5YR 6/6	W52	4A	
246		M20(2)	B	Complete profile	180	160	5YR 5/1	2.5YR 6/0	7.5YR 7/2	AA62	4A11	
247		M20(2)	C	Rim	105		2.5YR 3/0	2.5YR 4/0	2.5YR 4/0	AA62	4A11	
248		M21	CF	Rim	100		5Y 4/4*	5YR 8/1	5Y 4/4*	Y32	4A11-B1	*Full glaze
249		M29	AC	Rim	155		2.5YR 6/8 5YF 5/8*	2.5YR 6/8	2.5YR 6/8	+	U/S	*Partial glaze
250		M29	B	Rim and base	140	120	5YR 7/4	7.5YR 7/0	5YR 7/4	+	U/S	
251		M29	C3	Base		180	2.5YR 6/6	2.5YR 6/0	2.5YR 6/6	AA5	4B1	Thumbed
252		M32	B	Rim	260		10R 4/1	2.5YR 6/8	2.5YR 5/4	221.3	4A1	
253		M32	B	Rim	260		10R 4/1	2.5YR 6/8	2.5YR 6/6	Y90	3/4A1	
254		M34	A	Rim			2.5YR 2.5/0	2.5YR 4/0	5YR 5/6	Y118	3-4A	
255		M49	CF	Rim	100		5YR 4/1	7.5YR 6/0	5YR 4/1	W	4B11	
256		M50	AC	Base		50	10R 5/4 2.5YR 3/6*	10R 5/6	10R 5/4 2.5YR 3/6*	W504	4A1/11	*Partial glaze
257		X1(1)	F	Rim	70		5Y 6/6*	2.5YR 4/0	5Y 6/6*	+	U/S	*Full glaze Rilled
258		X1(1)	C	Rim	100		7.5YR 8/4 5Y 6/6*	7.5YR 8/4	7.5YR 8/4	Y1.2	4B11	*Partial glaze
259	M115 474	X1(1)	ABC	Rim	120		7.5YR 8/2 7.5YR 8/6	5YR 8/1	7.5YR 8/2	AA203	4A1	
260		X1(1)	C	Rim	140		10YR 7/2 5Y 7/3*	10YR 7/4	10YR 7/3	+	U/S	*Partial glaze
261		X1(1)	AC	Rim	120		5Y 5/4*	2.5Y 5/2	5Y 6/4*	+	U/S	*Full glaze
262		X1(1)	C	Body and handle			5YF 9/3 5Y 8/6*	5YR 8/1	5YR 8/1	Y124	4A1	*Partial glaze Incised
263	M178 10	X1(1)	C	Handle			5Y 7/8*	5YR 8/1	-	A4509	4A1	*Full glaze

264		X1(2)	C	Body		5Y 4/4*	5YR 8/1	5YR 8/1	AA559	4A1	*Full gloss Combed thumbed applied stripes and rilling
265		X1(2)	C	Handle		5YR 8/4 5Y 4/4	7.5YR 8/0	-	AA49	4A1	"
266	M115 177	X2a	F1a	Base	S3	2.5YR 3/4	10R 4/4 5YR 3/2*	5YR 3/2(*)	Y8	4A11	*Partial gloss (*)Full gloss
267		Y5	C2F5	Base	S0	7.5YR 6/2	5YR 3/1	7.5YR 6/4	+	U/S	
268	M178 139	Y6	C2F5	Base	B0	7.5YR 7/0	5YR 8/1	7.5YR 7/0	+	U/S	
269		Z3	E2	Body		5YR 3/3* 2.5Y 8/6(*)	2.5YR 5/4	2.5YR 2.5/2* 2.5YR 4/4(*)	+	U/S	*Gloss *Slip

## (v1) CODIFIED SUMMARY OF POTTERY

**Example:**

J37      43      T1      A2 B4 AB36      92  
W1(2)      AB1

Layer J37, 43 sherds

Fabric 11: 2 cooking pot, 4 bowl, 36 body sherds: see ill  
pg 92

Fabric Wt(2): 1 body sherd

## Code of vessel forms in Phase 4

A	cooking pots
A1	bifids
A2	pipkins
B	bowls
B1	skillets
B2	spouted bowls
C	jugs
C1	tripod pitchers
C2	bottles
C3	bungholes
C4	pitchers
C5	Bellarmines
D	lamps
D1	candlesticks
E	miscellaneous
E1	lids
E2	plates
E3	storage jars
E4	pancheons
E10	albarellos
F	cups
F2	Cistercian cups
F3	drinking vessels of indeterminate form
F4	tankards
F5	stoneware drinking vessels
G	chamber pots
M	miscellaneous
	Post-Medieval (for undiagnostic sherds which could derive from a wide variety of forms).
U	unknown

Combinations indicate uncertainty as to vessel type:

Example ABC : cooking pot, bowl or jug

AEB : cooking pot or storage jar

Probably Phase 3, Possibly Phase 4Ai

YB5	1	W47	AB1
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Phase 3/4Ai

V7	1	W1	A1	195
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V63	3	T1	AB1
		T1/2	ABC2

Y17.1	8	S1B(2)	AB2
		T1(1)	AB2
		T1(3)	A1 AB1
		T2	ABC1
		W3(2)	AB1

Y90	63	S3/T1	D2
		T1(1)	B1 AB7
		T1(2)	B2
		T1(3)	AB7
		T1	B2
		T1/2	A1 AB8 ABC11
		T2	ABC11
		V6	ABC1
		W1	AB3
		W1/X1(1)Y	A1
		W2	AB1
		W3(1)	AB2
		W32	AB1
		W34	AB1
		X1(1)	BC1

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Y93	8	T1(1)	B1
		T1(2)	AB5
		W4	ABCD2

Y95	6	T1(2)	AB2
		T1	AB1
		W4	ABCD1
		W47	AB2

Y97	6	T1(2)	AB2
		W4	ABCD4

Y103	1	S3/T1	AB1
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Y112	23	T1	AB3
		T1/2	B2 ABC10
		T2	ABC6
		W54	A1
		X1(1)	C1

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Y144	2	T1(1)	AB1
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		2W1/X1(1)/Y	A1
Y146	1	W34	AB1
Y150	1	T1(1)	AB1
Z64	7	S3/T1 T1 2W18	AB1 AB5 ABC1
Z67	10	R0 T1/2	U1 ABC9
AAB7	1	T1/2	ABC1
AA96	13	T1(1) T1(3) T1 T1/2 W1	A2 AB1 A1 A1 AC2 ABC5 AB1
AA565	2	T1(4) W47	EB1 AB1
AA594	1	S1C(1)	AB1

Phase 4Ai

V21	19	T1/2 T2(2) T2 V3 W1 W7(1) W7(4) 2W18 X1(2)	AB1 C3 ABC8 ABC1 AB2 ABC1 ABC1 ABC1 ABC1
V23	4	T2(2) T2 W1	C1 ABC2 AB1
V24	53	S3/T1 T1 T1/2 T2(2) T2 V7(1) W1 W3(2) W14 W18	AB1 B1 AB13 ABC2 C1 A1 C2 ABC17 ABC1 AB7 AB2 C1 ABC1 B2 ABC1
V30	69	T1 T1/2 T2	AB2 A1 B1 ABC4 ABC35

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		V1(1)	ABC3	
		V3	AB4	
		W1	AB1	
		W14	C12 ABC4	
		W18	ABC2	
V34	14	T2(2)	C1	
		T2	C1 ABC8	
		T6	ABC1	
		V7(1)	ABC1	
		W47	AB1	
		W49	ABC1	
V45	7	T1/2	A1 ABC2	101
		T2	ABC5	
		W1	AB1	
V54	17	T1	AB5	
		T1/2	A1	
		T2	A2 C1 ABC6	
		V1(1)	ABC1	
		V3	AB1	
		W18	ABC1	
		X1(1/2)	ABC1	
W5	149	S3/T1	AB1	76
		T1(1)	AB1	
		T1	A2 AB11	
		T1/2	A4 D1 ABC24	78
		T2(2)	C3	
		T2	A3 C3 ABC56	
		V1(1)	A21 B1 ABC2 U1	168, 172
		V1(2)	C1 ABC3	
		V3	A2 AB4 ABC1	180, 181
		V7(1)	ABC1	
		V7(2)	ABC1	
		W1	AB5	
		W1	A1	
		W7(4)	ABC1	
		W8	ABC1	
		W14	C2	
		W14	ABC1	
		W18	B4 ABC1	
		W20(2)	ABC1	
		W49	ABC1	
		X1(1)	C1	
		X1(2)	ABC2	
		U	A1	
W10.1	3	T2	ABC2	
W11	24	T1	AB2	
		T1/2	ABC3	
		T2	A1 ABC7	
		T2(2)	C1	
		V1(1)	ABC1	

		V3	AB2	
		W1	AB3	
		W11 (3)	ABC1	
		W14	C2 ABC1	
W18	57	T1	AB1	
		T1/2	ABC4	
		T2	A5 D2 ABC2B	118
		T2 (2)	C6	159
		V3	AB3	
		V6	ABC1	184
		V7 (1)	AC1 ABC1	
		W1	A1 AB1	
		W4	ABC1	
		W7 (4)	AB1	
		W11 (7)	ABC1	
W23	1	T2	ABC1	
W39	7	T1/2	ABC1	
		T2	ABC4	
		T2 (2)	ABC2	
W54	40	T1	AB1	
		T1/2	AB2 ABC5	
		T2	C1 AC7 ABC24	133, 153
W55	10	T1	AB2	
		T2	AB2 ABC10	
		T2 (2)	C1	
		V7 (2)	C2	190
		W1	AB1	
W61	1	T2	ABC1	
W111	8	T1	AB3	
		T2	ABC1	
		V3	ABC1	
		V7 (2)	AC1	
		X1 (1)	ABC1	
		U	1	
X1	3	T2 (2)	C1	
		V4	ABC1	
X2	8	T1	AB2	
		T1/2	ABC2	
		T2	ABC4	
X15	4	T1/2	ABC2	
		T2	APC1	
		U	1	
Y1	17	T1 (1)	AB3	
		T1 (2)	AB1	
		T1	A1 AB1	



		T1/2	ABC9	
		W1	A1	
		7W1/X1(1)/Y	AB1	
Y35	12	T1/2	ABC1	
		T2	A1 ABC1	
		T2(2)	C1	
		V1(1)	ABC1	
		V3	ABC2	
		W7(1)	ABC4	
		7W18	C1	
Y45	226	T1(1)	AB3	
		T1	D1	
		T1/2	A1 B5 D3 ABC25	
		T2(2)	C11 ABC5	
		T2	AB B3 CB	135
			AC4 ABC56	
		V1(1)	ABC15	
		V1(2)	ABC10	
		V2	ABC4	
		V3	A6 B4 AB6	
		W1	A1	
		W7(1)	A2 B1 1 ABC14	
		W7/W22	ABC27	
		W13	C2	
		W22	ABC2	
		U	U1	
Y47	12	T2	ABC12	
Y48	10	T2	ABC6	
		T2(2)	C1	
		W7(4)	C1	
Y49	3	T2	ABC3	
Y50	13	T2	A1 ABC9	
		T2(2)	C1	
		V3	A1	
		W7(4)	ABC1	
Y51	2	T2	ABC2	
Y52	28	T1	C1	
		T1/2	A1 AB1 ABC6	
		T2	ABC5	
		T2(2)	C1	
		T6	AB6	
		V1(1)	ABC1	
		V5	AB1	
		V7(1)	A1	
		VU	AB2	
		W3(3)	AB1	
		W14	C2	
		W49	ABC1	



		V1(2)	C1	174
Y78	14	T2 T2(2) W7(1) W14 W18	A1 AC1 ABC6 C1 C1 ABC1 ABC3	
Y79	3	T2 V1(1) V5	ABC1 AB1 A1	167
Y82	26	T1/2 T2 V1(1) V8 W7(1) W47 W54	ABC1 ABC1 ABC5 AB1 ABC1 ABC16 AB1	
Y86	3	T1/2 T2(2) V1(1)	ABC1 C1 ABC1	
Y91	4	T2 V1(1)	ABC3 ABC1	
Y92	1	T2	ABC1	
Y97	18	T1(3) T1/2 T2(2) T2 W7(2) W14	B1 AB1 ABC3 AC1 AC2 ABC7 C1 ABC2	73     225
Y100	31	T1(1) T1(2) T1 T1/2 T2 V5 V7(1) W1	A1 A1 AB4 AB3 ABC5 C1 AC1 ABC11 AB1 ABC1 AB1	
Y105	27	T1(2) T1 T1/2 T2 W3(1) W7(1) X1(1)	AB5 B1 AB4 ABC4 ABC1 ABC2 ABC2 ABC7	
Y106	21	V3/T1 T1(2) T1/2	AB1 AB2 B2 ABC7	

		T2	ABC <u>3</u>	
		T2(2)	C1	
		T6	ABC <u>2</u>	
		V1(1)	ABC <u>1</u>	
		W14	C1	
		W47	AB <u>1</u>	
Y109	3	T2	A1	
		W47	ABC <u>2</u>	
Y111	4	T1(1)	AB1	
		T1/2	ABC <u>1</u>	
		W7(1)	ABC <u>2</u>	
Y113	1	T1/2	ABC <u>1</u>	
Y115	33	T1(3)	B1 AB4	
		T1	AB4	
		T1/2	D1 AB1 ABC <u>5</u>	109
		T2	C1 AC <u>5</u>	141
		T2(2)	C1	
		V1(1)	ABC <u>7</u>	
		W14	ABC <u>1</u>	
		X1(1)	C1	
Y124	30	T1(3)	AB <u>2</u>	
		T1	A1 AB1 <u>8</u>	
		T2	C1 U1	
		W3(2)	ABC <u>1</u>	
		X1(1)	C5	262
		U	1	
Y129	31	T1(1)	AB6	
		T1(3)	AB1	
		T1	AB <u>2</u>	
		T1/2	AB2 ABC4	
		T2	ABC <u>7</u>	
		T6	AB <u>8</u>	
		V7(1)	AB <u>1</u>	
Y132	15	T1(1)	AB1	
		T1/2	ABC <u>10</u>	
		T2	A2 ABC <u>2</u>	
Y133	34	T1	ABC <u>5</u>	
		T1/2	ABC <u>7</u>	
		T2	AC3 ABC <u>18</u>	
		T6	ABC <u>1</u>	
Y170	1	T1/2	ABC <u>1</u>	
Z21.3	44	S3	AB1	
		T1(1)	A2 D1 AB1 <u>3</u>	95
		T1	A1 B2 AB <u>5</u>	
		T1/2	ABC <u>5</u>	
		T2	AC2 ABC <u>6</u>	

		W1 W32 W47 X1(1) U	AB1 AB1 U1 AB1 ABC1 U1	252
Z27	7	RU T1(2) W18	U1 AB2 B4	
Z39	1	T2	U1	
AA10	87	S1B(2) T1 T1/2 T2  T6 V1(1) VB W1 W7(1) W7(2)	AB1 AB3 B1 ABC6 A3 AB1 AC2 ABC51 A3 AB4 ABC1 A1 ABC1 ABC3 A1 ABC2 ABC3	
AA11	11	T1(3) T1 T2 W1	AB3 AB1 AC2 A1 AB4	
AA12	46	T1(1) T1(3/4) T1/2 T2 V7(1) TW1/X1(1)/Y X1(1)	AB4 B1 U7 AC1 ABC26 ABC1 A1 AB3 ABC1 ABC1	
AA13	26	T1(2) T1(3) T1 T1/2 T2 W1 TW1/X1(1)/Y	AB3 A1 B1 AB2 AB1 ABC6 ABC0 A1 AB1 AB2	206, 208
AA14	39	S1B(1) T1(1) T1(2) T1/2 T2(2) T2 X1(1)	AB1 A1 AB1 ABC1 AB1 A2 B51 ABC3 C4 A4 AC3 ABC16 ABC1	
AA17	55	S1B(2) T1(1) T1(3)	AB1 AB0 AB1	

		T1(4)	AB7	
		T1	A1 AB3	
		T1/2	ABC5	
		T2	ABC13	
		W1	A1 AB2	
		X1(1)	ABC1	
AA20	72	7S1A	AB1	
		T1(1)	A3 AB1 ABC3	
		T1(3)	A1 AB4	
		T1(4)	B1	
		T1	AB1	
		T1/2	D1 ABC14	
		T2	A2 AC2 ABC25	
		T11	ABC1	
		V1(1)	ABC3	
		W1	A2 AB5	
		W4	ABC1	
		W7(1)	ABC1	
AA26	2	V1(2)	ABC1	
		V4/W1B	ABC1	
AA47	9	T1(3)	AB1	
		T1	AB2	
		T1/2	ABC1	
		T6	ABC2	
		V7(1)	ABC1	
		W1	AB2	
AA49	82	T1(2)	B4	
		T1	AB1	
		T1/2	A1 ABCB	
		T1/T6	ABC9	
		T2	A3 B1 D1	
			AC2 ABC20	
		T2(2)	C1 U4	
		T6	ABC2	
		V1(1)	ABC2	
		V1(2)	ABC1	
		W1	AB4	
		W2(1)	C1	212
		W7(4)	ABC3	
		W47	ABC1	
		X1(2)	C1	265
AA51	10	T1	ABED1	
		T1/2	ABC4	
		T2	ABC2	
		V1(1)	ABC1	
		V1(2)	C1	
		W7(3)/V6	ABC1	
		W14	C1 ABC1	
		W1B	C1 ABC5	
AA61	23	T1(1)	7E61	

		T1	ABC1	
		T1/2	B1 ABC4	
		T2	AC1 ABC7	
		T2/W7 (3)	ABC2	
		V5	D1	
		W7 (4)	ABC1	
		W11 (1)	ABC1	
		W14	ABC2	
		W18	ABC1	
AA66	51	RS	U1	
		T1 (2)	AB1	
		T1	B1 AB2	
		T1/2	AB4	108
		T2	A3 C5 AB1 ABC70	
		T2 (2)	C2	
		T11	AB2	
		V1 (1)	ABC2	
		V3	ABC1	
		V7 (1)	ABC1	
		V7 (2)	ABC1	
		W1	AB1	
		W11 (1)	ABC1	
		W14	ABC1	
AA66.4	85	T1 (1)	AB3	
		T1 (2)	AB1	
		T1	AB2	
		T1/2	A2 B1 AC1	
			ABC6	
		T2	A4 C3 AC5	
			ABC38	
		T6	ABC1	
		V7 (1)	ABC1	
		W1	A1	
		W7 (2)	U6	
		W7 (3)	A1	
		W7 (4)	C1 ABC2	
		W34	AB1	
		X1 (1)	ABC1	
		X1 (2)	C1	
AA71	142	T1 (2)	AB1	
		T1 (3)	AB1	
		T1 (4)	B1	
		T1	AB6	
		T1/2	A1 B2 AC2	
			ABC17	
		T2	A6 B2 D1	151
			AC14 ABC77	
		V7 (2)	A2 ABC1	
		W1	A1 AB3	
		W7 (4)	AB2	
		W14	ABC1	
		W49	ABC1	

AA72	59	T1(1)	A1 AB9
		T1(3)	AB1
		T1(4)	E1
		T1	B1 AB1
		T1/2	B1 AB2 ABC6
		T2	A2 C2 D2
			AC1 ABC22
		T11	ABC1
		V7(1)	ABC2
		W18	ABC2
		W22	ABC1
		X1(1)	ABC1
AA79	110	T1(1)	B21 AB17
		T1(3)	AB4
		T1	A4
		T1/2	AC1 ABC10
		T2	B1 C416 C3
			ABC20
		V1(1)	A1 AB5 ABC2
		V3	AB1
		V6	ABC1
		V7(2)	ABC1
		W1	AB4
		W7(4)	ABC1
		W11(2)	ABC1
		W14	C5 ABC7
		W18	B1 ABC1
		W32	AB1
		W53	ABC1
AA79	110	T1(1)	B21 AB17
		T1(3)	AB4
		T1	A4
		T1/2	AC1 ABC10
		T2	B1 C416 C3
			ABC20
		V1(1)	A1 AB5 ABC2
		V3	AB1
		V6	ABC1
		V7(2)	ABC1
		W1	AB1
		W7(4)	ABC1
		W11(2)	ABC1
		W14	C5 ABC7
		W18	B1 ABC1
		W32	AB1
		W53	ABC1
AA83	7	SU	AB1
		T1(1)	AB5
		T2	ABC1
AA84	29	T1(1)	ABC



		T1 (3/4)	AB1	
		T1	AB1	
		T1/2	ABC2	
		T2	D1 AC1 ABC13	
		T11	ABC1	
		V1 (2)	U1	
		V3	ABC1	
		V7 (1)	ABC1	
		W14	C1 ABC2	
AA89	26	T1 (1)	A1 AB2	
		T1/2	AB1	
		T2	A5 AC5 AE3 1	
			ABC10	
		W15	ABC1	
AA93	14	T1/2	A1 ABC1	
		T2	AC1 ABC3	
		T2 (2)	ABC3	
		V7 (2)	C1 ABC2	
		W14	C1	223
		U	U1	
AA94	9	T1	AB1	
		T1/2	ABC1	
		T2	ABC4	
		V3	ABC1	
		W7 (2)	ABC1	
		W7/W14	ABC1	
AA97	165	S1B (3)	AD1	
		T1 (1)	A3 AB8	
		T1 (2)	D4 AB3 AC1	
			ABC27	
		T1 (3)	A2	
		T1 (4)	B1 AB3	
		T1	A1 B1 AB4 U1	
		T2	B1 C6 D1	157
			AC1 ABC78	
		T6	ABC1	
		T11	ABC1	
		V1 (1)	ABC4	
		V3	ABC1	
		V6	ABC1	
		V7 (1)	ABC1	
		W1	AB1	
		W7 (2)	ABC1	
		W14	ABC2	224
		W18	C1	
		W22	ABC1	
		X1 (1)	ABC1	
AA99	56	T1 (1)	A4 D1 AD2	
		T1 (2)	B2 AB1	
		T1 (3)	AB1	
		T1	A1 AD4 ABC1	

		T1/2	A1 <u>ABC16</u>	
		T2	<u>ABC6</u>	
		T2(2)	C1	
		V3	<u>AB2 ABC3</u>	
		V7(1)	<u>ABC2</u>	
		W1	<u>ABC3</u>	
AA100	38	T1(1)	<u>AB3</u>	
		T1/2	<u>ABC2</u>	
		T2	A2 <u>ABC21</u>	
		T2(2)	<u>C2</u>	
		V2	<u>ABC1</u>	
		V3	<u>ABC4</u>	
		W7(1)	<u>ABC1</u>	
		W14	C1	
		W49	<u>ABC1</u>	
AA101	29	T1(2)	A1 <u>AB1</u>	
		T1(3)	A1	
		T1/2	<u>ABC4</u>	
		T2	<u>ABC22</u>	
AA107	17	T1(4)	<u>AB1</u>	
		T2	<u>ABC15</u>	
		V3	<u>AB1</u>	
AA108	14	T1/2	<u>ABC1</u>	
		T2	C3 <u>ABC8</u>	
		T6	A1 <u>ABC1</u>	
AA117		T1(1)	A1 <u>AB3</u>	
		T1(4)	A1 <u>AC1</u>	
		T1	A1 <u>AB5</u>	
		T1/2	A5 C1 <u>AB4</u>	100, 111
			<u>ABC26</u>	
		T2	A3 B3 C7	147, 154
			<u>AC16 ABC170</u>	
		T2(2)	C4 <u>ABC1</u>	
		T6	A2 <u>AB2 ABC4</u>	
		V1(1)	<u>ABC4</u>	
		V6	A01 <u>ABC3</u>	
		V8	<u>ABC1</u>	
		W1	<u>AB1</u>	
		W7(1)	<u>ABC2</u>	211
		W7(4)	<u>ABC2</u>	
AA134	22	T1(1)	A1 <u>AB2</u>	
		T1/2	<u>AC1</u>	
		T2	C2 <u>ABC15</u>	
		V3	<u>ABC1</u>	
		W1	<u>AB1</u>	
		V2(2)	<u>ABC1</u>	
AA203	166	S1B(2)	<u>AB1</u>	
		T1(1)	A4 <u>AB12</u>	
		T1(2)	B3 A1 <u>AB2</u>	

		T1 (3)	B2 AB14	
		T1 (4)	B2 AB1	
		T1	A7 B5 AB47	
		T1/2	A2 B2 AB1	
			ABC27	
		T2	ABC1	
		?T2	A1 ABC2	
		T11	ABC2	
		V4	ABC1	
		V5	ABC3	
		W1	A1 AB5	
		W1/X1 (1)	ABC1	
		W3 (2)	ABC1	
		X1 (1)	C1 ABC4 U1	259
AA204		T1 (1)	A1 AB8	
		T1 (2)	AB1	
		T1 (3)	B1 AB1	
		T1	A1 AB19	
		T1/2	AB1 ABC26	
		V5	A1	
		W1	A1 AB1 ABC6	
		W1/X1 (1)	ABC3	
		?W1 (3)	AB1	
		X1 (1)	ABC2	
AA210	1B	T1 (1)	A2 AB2	82
		T1	B1 ABC	
		T2	A1 ABC1	
		T1/2	ABC3	
		V1 (2)	ABC1	
		V6	ABC1	
		W1	AB1 ABC1	
		W3 (2)	AB1	
		WB	ABC1	
AA213	4	T2	ABC4	
AA307	2	T2	ABC1	
		W1B	C1	
AA309	11	T1 (1)	AB4	
		T1/2	ABC2	
		T2	ABC1	
		V1 (2) / W29	ABC1	
		V6	C1	183
		V7 (1)	AC1	
		W49	ABC1	
AA321.1	10	T1/2	AB4	
		T2 (2)	C1	
		T2	AC1 ABC4	
AA327	1	W11 (1)	C1	
AA332	14	T1 (1)	AB1	

		T1/2	ABC3	
		T2	C1 ABC9	
AA341	19	T1(1)	B1	
		T1/2	ABC1	
		T2	A1 ABC8	
		V3	ABC1	
		W1(2)	AB1	
		W1	7BE81	
		W7(1)	ABC2	
		W18	AC1 ABC2	
AA343	11	T1/2	ABC3	
		T2	A2 C1 AC1 ABC3	
		W7(4)	ABC1	
AA344	41	T1(1)	A1 AB3	
		T1	AB1	
		T1/2	AB1 ABC1	
		T2	A1 C2 AC2 ABC7	
		T2(2)	C3	
		T6	A1	
		V1(1)	ABC1	
		V1(2)	C1 ABC2	
		V7(1)	A1 AC1 ABC1	
		W7(1)	C1	
		W14	ABC3	
		W18	ABC2	
		W49	AB2	
		X1(1)	ABC1	
AA345.1	35	T1(1)	AB4	
		T1(4)	AB5	
		T1/2	AB2	
		T2	ABC10	
		W1	A1 AB11	191
		W32	AB1	
		U	U1	
AA345.3	15	T1(1)	AB1	
		T1/2	AC1 ABC2	
		T2	ABC2	
		V1(1)	ABC2	
		W1	AB2	
		W13	C1	
		W14	C4	
AA346.1	319	T1(1)	A7 BB D1 AB13	87
		T1(2)	A1 B1 AB2	
		T1(3)	B1 AB1	
		T1	A2 B1 AB5	
		T1/2	A14 B3 D2 AB6	
			AC3 AE85 ABC15	
			ABCE827	
		T2	A15 B4 C11 D1	
			AC25 DE1 AEB1	113

		T2(2)	ABC121	116
		V1(1)	C2	
		V1(2)	ABC3	
		V2	A1 ABC3	175
		W1	A1 AEB7 ABC2	177
		X1(1)	AB2	
			C41	
AA353	1	T2	AC1	
AA370.1	4	T1(3)	AB1	
		T2	ABC1	
		T2(2)	C1	
		W1	A1	
AA370.2	1	T1/2	ABC1	
AA371	19	T1(1)	A1 AB4	
		T1/2	AB4	
		T2	AC1 ABC5	
		W7(1)	C1	
		W7(4)	A1	
		W14	C1	
		W18	ABC1	
AA373	98	T1(1)	A4 AB11	94
		T1(2)	B1	
		T1	AB8	
		T1/2	A2 AB1 ABC17	
		T2	A5 C1 AC9	148
			ABC34	
		V1(2)	C2	
		V6	ABC2	
		W7(4)	ABC1	
AA375	19	RU	U1	
		T1	AB1	
		T1/2	ABC1	
		T2	ABC2	
		V7(1)	A2 ABC6	
		W14	C5	
		W18	C1	
AA376	7	T1/2	ABC2	
		T2	A1 ABC1	
		W1	A2	200
		X1(2)	ABC1	
AA377	31	T1(1)	AB4	
		T1	A1 B2 AEB1	83
			AB7	
		T1/2	A1 AC1 ABC4	
		T2	A3 ABC3	
		V7(1)	ABC1	
		W1	A1	
		W32	AB1	

		X1(1)	AC <u>1</u>	
AA378	7	T1(1) T1 T2 W1	AB <u>1</u> A <u>1</u> A <u>2</u> ABC <u>2</u> A <u>1</u>	
AA388	1	T2	AC <u>1</u>	
AA390	1	T1/2	A <u>1</u>	
AA391	3	T2 W47	ABC <u>2</u> AB <u>1</u>	
AA392.2	1	T2	ABC <u>1</u>	146
AA395	4	T1/2 T2	A <u>1</u> AC <u>1</u> ABC <u>2</u>	
AA397	12	T1 T1/2 T2 T2(2) V1(1) W1 W14	AB <u>1</u> ABC <u>1</u> ABC <u>5</u> C <u>1</u> ABC <u>1</u> ABC <u>1</u> A <u>1</u> ABC <u>1</u>	161
AA400	5	T1(4) T1 T1/2 W54	B <u>1</u> A <u>1</u> AB <u>1</u> AC <u>1</u> D <u>1</u>	
AA509	45	T1(1) T1(2) T1 T1/2 T2 T2(2) V1(1) V3 V7(1) V8 W11(7) X1(1)	A <u>2</u> B <u>3</u> AB <u>3</u> AB <u>1</u> AB <u>4</u> ABC <u>2</u> A <u>1</u> AC <u>3</u> ABC <u>15</u> C <u>2</u> AB <u>2</u> ABC <u>2</u> ABC <u>1</u> ABC <u>1</u> ABC <u>1</u> C <u>1</u> C <u>1</u>	126    263
AA512	17	T1(1) T1 T1/2 T2 T6 X1(2)	AB <u>1</u> AB <u>2</u> ABC <u>1</u> C <u>3</u> AC <u>1</u> ABC <u>7</u> ABC <u>1</u> ABC <u>1</u>	
AA522	14	T2 T2(2) W1 W3	ABC <u>2</u> C <u>1</u> A <u>2</u> ABC <u>1</u>	

		W7(4) W14 W18 X1(2)	ABC1 ABC3 B1 ABC2 ABC1
AA524	2	T2(2) W22	C1 A1
AA525	10	T2 V1(2) W1 W7(2) W11(1) W49	A1 ABC4 ABC1 AB1 ABC1 C1 ABC1
AA527	5	W14 W49 X1(1)	ABC1 ABC1 C3
AA529	28	T1 T1/2 T2 W7(1) W47/W49 W56	A1 D1 ABC8 ABC3 ABC12 ABC1 ABC1 ABC1
AA530	38	T1 T1/2 T2 V7(2) W1 W7(1) W14	AB3 AB2 ABC8 A4 AC3 ABC14 AC1 A1 ABC1 AC1
AA531	1	T2	AC1
AA533	2	T2	ABC2
AA538	84	T1(2) T1/2 T2 T2(2) T4 V7(1) V9 W7(1) W7(2) W7(4) W18 W49 X1(1) X1(2)	AB4 ABC4 A2 C1 ABC19 C24 AC6 A1 AB2 ABC3 C1 AB2 C1 AC1 ABC3 A1 ABC3 ABC1 ABC3 ABC1 ABC1
AA544	6	T2 W1 W22	ABC2 AB2 ABC1

		X1 (2)	ABC <u>1</u>	
AA558	5	W1B	A <u>1</u> AE8 <u>4</u>	
AA559	14	T2 V1 (1) W14 X1 (2)	ABC <u>5</u> ABC <u>1</u> ABC <u>1</u> C <u>7</u>	264
AA562	6	T1/2 T2 V3 W11	AB <u>2</u> ABC <u>2</u> ABC <u>1</u> C <u>1</u>	
AA564	40	T1/2 T1/2/T6 T2 T6 W7 (4)	ABC <u>3</u> A <u>1</u> A <u>1</u> C <u>2</u> AC <u>5</u> ABC <u>26</u> AC <u>1</u> ABC <u>1</u>	
AA571	2	W11 W1B	C <u>1</u> ABC <u>1</u>	
AA572	11	T1/2 T2	A <u>1</u> ABC <u>5</u> A <u>1</u> C <u>2</u> AC <u>1</u> ABC <u>1</u>	
AA576	11	T1 (1) T1/2 T2 T2 (2) W7 (1)	A <u>1</u> AB <u>2</u> ABC <u>3</u> AC <u>1</u> ABC <u>1</u> C <u>2</u> ABC <u>1</u>	
AA582	46	T1 (1) T1 (3) T1 (4) T1 T1/2 T2 T6 W1 W1B W22	B <u>1</u> AB <u>1</u> AB <u>2</u> B <u>1</u> AB <u>2</u> AB <u>2</u> ABC <u>5</u> A4 AC <u>2</u> ABC <u>21</u> ABC <u>1</u> A <u>1</u> ABC <u>1</u> ABC <u>2</u>	
AA584.2	5	T1 (4) T2 (2) W1B W50	AB <u>1</u> C <u>2</u> ABC <u>1</u> A <u>1</u>	
AA586	9	T1/2 T2 W45	AB <u>2</u> A <u>1</u> ABC <u>5</u> ABC <u>1</u>	

Probably Phase 4Ai

AA85	2	W7 (4)	ABC <u>2</u>
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AA526	7	T1 (2)	AE01
		T1	A1
		T2 (2)	C2
		W1	A1
		W18	A2
AA574	2	T1/2	ABC1
		W18	ABC1
AA583.2	2	T1/2	ABC1
		T2	C1

Phase 4A17

AA548	1	W18	ABC1
AA592	2	T2	A1
		V1 (1)	ABC1

Phase 3/74A11

W46	1	T1	AB1
Y89	3	T1/2	ABC2
		W3 (1)	ABC1
Y118	5	S1B (1)	AB1
		T1 (1)	AB1
		T1 (3)	AB1
		W34	A1 AB1

Probably Phase 4A1, Possibly Phase 4A11

AA506	41	T1 (3)	AB1
		T1/2	ABC3
		T2	AC1 ABC25
		T2 (2)	C2
		T6	AB1
		V1 (2)	ABC1
		V7 (1)	ABC1
		W8	ABC2
		W14	C1
		W15	ABC1
		W16	ABC1
		X1 (1)	ABC1

Phase 4A1/11

V35	7	T1	AB1	
		T2(2)	ABC2	
		T2	ABC2	
		V3	AB1	
		?W20(2)	ABC1	
W26	167	T1(1)	AB1 ABC2	
		T1(2)	A1 B2 AB2	
		T1(3)	B1	
		T1	A1 AB9 ABC4	
		T1/2	B1 AB9 ABC19	
		T2	A2 C1 AC2 ABC46	123, 156
		T2(2)	C3	162
		?T2(2)	C3	
		V1(1)	ABC3	
		V1(2)	ABC6	
		V3	AB3 ABC2	
		V7(1)	A2 C1 ABC5	186
		V7(2)	ABC1	
		V9	AC1 ABC2	
		W1	A1	199
		W7(1)	ABC1	
		W8	ABC1	
		W11(7)	ABC3	
		W13	ABC2	
		W14	ABC3	
		?W14	ADC1	
		W15	ABC1	
		?W18	ABC1	
		W20(2)	ABC2	
		W47	AB1	
		W49	AC1 ABC5	
		W54	AB1	
		Z19	U1	
		U	U2	
W52	165	S3/T1	A1	75
		T1	A2 B2 AB5	79, 85
		T1/2	A2 B1 AB9 ABC8	
		T2	A2 C9 AC11	136, 150
			ABC77	
		T2(2)	C5	
		V1(1)	A1 AC1	165
		V7(1)	ABC3	
		V7(2)	ABC2	
		W1	AB1	
		W11(1)	ABC1	
		W11(7)	C3 ABC4	217
		W20(1)	A2 AB1 AC1	241, 242, 245
			ABC5	
		?W20(1)	ABC3	
		W22	ABC1	
		W50	ABC1	
		U	U1	

W60	1	W20(1)	A1	243
AA54	7	T2 W7(4) W14 TW18	ABC1 ABC1 C1 ABC2 ABC2	
AA57	214	T1(1) T1 T1/2 T2  T2(2) V1(1) V3 V6 V7(1) V7(2) W1 W7(2) W7(3) W7(4)ABC1 W8 W11(1/5) W14 W18  W22 W49 X1(2)	AB19 A1 B2 AB1 A4 ABC14 A4 C2 D11 D1 AC15 ABC55 C10 ABC5 B4 AB1 ABC3 ABC2 ABC1 ABC3 ABC3 AB2 ABC2 ABC1  ABC1 ABC1 C7 ABC4 B2 C2 AB1 AC2 ABC34 ABC1 ABC1 ABC1	152, 155
AA320	34	T1(4) T1 T1/2 T2 V1(1) V11 W3(2) W7(1) W14 W29 W50	AB2 B1 AB7 B1 AB1 ABC7 ABC3 A2 ABC1 ABC1 ABC5 ABC1 ABC1	
AA326	19	T1/2 T2 W1 W7(2) W14 W18	ABC3 A1 ABC3 A1 AB2 ABC2 ABC1 ABC6	
AA335	4	T1 T2 V1(1)	AB1 ABC2 ABC1	
AA517	10	T2	ABC2	

		V2	ABC1	
		W14	ABC1	
		W18	A1 ABC4	
		W20(1)	ABC1	
AA520	9	W14	ABC2	
		W18	ABC7	
AA536	13	T2	ABC2	
		V1(2)	B1	173
		W7(2)	ABC1	
		W15	ABC2	
		W18	ABC1	
		W20(2)	ABC6	
<u>Phase 4A11</u>				
W4B.1	1	T2	ABC1	
Y3	65	T1(1)	AB2	
		T1(3)	B1	
		T1	AB1	
		T1/2	ABC3	
		T2	C1 ABC9	
		T2(2)	C5	
		T6	ABC6	
		V1(1)	A1	164
		V2	ABC1	
		V3	AB2	
		W7(2)	C2	
		W11(7)	ABC1	
		W14	ABC2	
		W18	A2 C2 ABC21	
		W49	ABC2	
		U	U1	
Y8	96	T1	A2 AB2	
		T1/2	ABC12	
		T2	A1 C2 ABC3	
		T2(2)	C2	
		V1(1)	B2 C1 ABC2	170
		V7(2)	ABC1	
		W1	AB1	
		W7(3)	ABC1	
		W13	C3 ABC2	
		W14	C1 ABC2	
		W16	A1 C1 ABC5	226, 227
		W18	B20 ABC12	234
		W20(1)	ABC2	
		W20(2)	AB1 ABC4	
		W21	U1	
		W29/27	U2	
		W49	A1 C3	
		X2a	F1a2 ABCF1	266



		W18	B1 AC5 ABC25	
		W20(1)	ABC1	
		X1(2)	ABC1	
AA60	29	T1	C3 AC1 ABC7	
		T1/2	ABC4	
		T2	AC1 ABC8	
		T6	ABC1	
		V2	ABC1	
		W7(1)	ABC3	
AA62	70	S1A	AB1	
		SU	AB1	
		T1/2	ABC1	
		T2	C1 AC2 ABC3	
		V1(1)	ABC1	
		W7(1)	C1	
		W14	ABC1	
		W18	C4 A2B11 ABC25	239
		W20(1)	ABC6	
		W20(2)	B1 C1	246, 247
		W21	E17	
		W29	A1 ABC2	
AA73	87	T1(1)	A1	
		T1/2	AC1	
		T2	AC1 ABC5	
		V1(2)	AC1	
		W13	B5	
		W14	ABC1	
		W18	B4 C2 AC1	
			ABC45	
		W20(1)	AB1 AEB1 ABC2	244
		W20(2)	ABC1	
		W21	BF4 BFC1 BFE9	
		W29	ABC1	
AA95	38	T2	ABC5	
		V1(1)	ABC2	
		V1(2)	ABC1	
		V3	ABC2	
		W1	AB1	
		W18	C3B C2 ABC17	
AA98	83	T1(1)	AB2	
		T1/2	AC2	
		T2	AC1 ABC5	
		T11	ABC1	
		V1(2)	AC1	
		V7(2)	ABC2	
		W7(3)	AC1 ABC1	
		W11(1)	ABC1	
		W14	ABC2	224
		W18	C344 ABC14	
			ABEB1	
		W18/W29	ABEB1	

		W21	ABC2	
		W29	ABC1	
		X1(1)	ABC1	
AA306	56	T1(1)	AB1	
		T2	A1 ABC4	
		V1(1)	ABC1	
		V1(2)	ABC2	
		V7(2)	ABC1	
		W1(3)	AB1	
		W7(2)	ABC1	
		W16	C2 U1	227
		7W17	F1	
		W18	C1 ABC27 L1	
		W20(2)	ABC3	
		W21	B1 U2	
		W29	C1 ABC4	
AA308	59	T1	AB1	
		T2	AC1 ABC13	
		T2(2)	C2	
		V1(1)	ABC1	
		W1	AB4	
		W11(7)	AB1	
		W14	ABC2	
		W18	B2 C1 ABC24	230
		W20(1)	B1 AB1	
		7W21	FC1	
		W22	ABC1	
		X1(1)	ABC1	
		SU	1	
		MU	1	
AA328.1	13	T1(1)	AB1	
		T2	ABC3	
		V1(2)	ABC3	
		V6	ABC1	
		W14	ABC1	
		W29	ABC4	
AA357	1	S1B(3)	AB1	
AA358	4	T1/2	A1	
		T2	A1 ABC1	
		W21	F1a1	
AA504	40	T1	AB1	
		T1/2	AB1 ABC3	
		T2	AC1 ABC10	
		T2(2)	C2	
		V7(1)	ABC2	
		V7(2)	ABC1	
		W1	AB1	
		W7(2)	ABC1	
		W7(4)	ABC1	
		W14	ABC5	

		W18 W50 X1(2)	ABC7 AC1 CE2	256
AA510	1	W16	ABC1	
AA541	27	T2 W15 W18 ?W18 W21	A1 ABC4 ABC1 C2 ABC14 ABC3 U2	
AA543	103	S1BU T1(1) T1(3) T1 T1/2 T2 V3 W7(2) W14 W18 W29 X1(1)	AB1 B1 AB1 AB2 AB6 ABC12 A1 AEB1 ABC9 ABC1 ABC3 AC7 ABC1 C6 AC48 ABC2 C1	
AA568	103	T1(1) T1(2) T1 T1/2 T2  T2(2) T6 V1(2) V3 V7(2) W1 W7(2) W11 W14  W16 W18 W20(1) W20(2) W21 W29 U	AB3 ABC3 A3 B1 D1 AC1 ABC5 A3 C2 AC2 ABC30 C7 ABC3 ABC1 ABC1 ABC3 ABC1 A1 ABC1 ABC2 C1 E1 AC1 ABC4 ABCE3 ABC3 C4 AC1 ABC62 AB4 ABC11 A1 EF1 B1 CF1 BEF6 C1 ABC2 U1	
AA580	4	T2 W11(2) W18	ABC1 ABC1 C1 ABC1	

Probably Phase 4Aii

AA61	17	T1	AB3
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		W1	AB1
		W16	BCE1 BCEF2
		W18	BE2 ABC4
		W21	BFE1
		W29	ABC3
AA138	3	U	ABC3
AA319	23	T1(1)	AB1
		T2	ABC3
		T2(2)	C1
		V1(1)	A1 ABC2
		V4	ABC2
		W1	A1
		W18	B2 ABC7
		W29	A1 ABC2

Phase 4A11?

AA577	4	W18	AC2 ABC2
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Phase 4A11/4B1

W48.2	10	W18	ABC3
		W18/W20(2)	C21
		W29	AC1 ABC4
		X2a	C1
Y10	51	T1(1)	AB2
		T1(2)	AB1
		T1(4)	AB1
		T1/2	ABC3
		T2	A2 C1 ABC8
		V3	ABC1
		N7(2)	ABC1
		W14	C1
		W16	ABC2
		W17	AB9 U4
		W18	ABC5
		W20(1)/W29	ABC2
		W20(2)	ABC4
		W21	U3
		X2a	F1a2
		X2b	F41 U1
		Z3	U1
		Z9	CEP3
		NU	U1
Y14	220	T1/2	B1 G13
		T2	C1 ABC6
		T2(2)	C1
		T2(2)	C1 U2
		V1(1)	ABC5
		V3	AB1 AC1 ABC3

		W7(3)	ABC3	
		W15	ABC1	
		W18	B3 C145 ABC36	235
		W20(2)	ABC1	
		W29	ABC2	
		W47	ABC1	
		Z7	U2	
		MU	U1	
Y32	108	T1(3)	AB1	
		T2	C1 ABC3	149
		W7(3)	AC1	
		W8	ABC20	
		W13	A1 B3 C3 AB1	219, 220
			AC2 ABC36	
		W16	C1 AC3 ABC2	
		W18	ABC25	
		W21	FC3	248
		Z77	U1	
		U	U1	
AA8	8	T2	ABC1	
		W1	AB1	
		W18	ABC2	
		W21	F34	

Phase 4B1

AA5	75	T1/2	A2 ABC2	
		T2	C1 ABC7	
		T2(2)	C2	160
		V1(1)	ABC2	
		V7(1)	ABC2	
		W1	A2 AD1 ADD3	
		W16	AED7 ABC1 U1	
		W18	AB1 AEB1 ABC12	
		W29	C38 E82 C3E71	251
			CG1 ABC5 ABCG6	
		X2a	BF2 U1	

Probably Phase 4B1

AA211	26	T1	ABC3	
		T2	A1 B1 ABC11	
		W11(7)	ABC1	
		W18	ABC2	
		W21	U1	
		W50	C1	
		X1(1)	ABC2	
		X2a	F23	

Phase 3//4B11

Z56	4	T1(1) T1 T1/2 W1	AB1 AB1 A1 AB1
AA323.1	2	W1	AB2
AA552	1	T1/2	ABC1

Probably Phase 3, Possibly Phase 4A1//B11

W97	1	S1C(1)	AB1
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Phase 4A1//B11

W4	3	T2	ABC3
YB1	1	W49	AB1
AA215	3	S1B(3) T1 V7(2)	AB1 AB1 ABC1
AA394	3	T1/2 T2	ABC2 ABC1
AA511	5	T1 T1/2 V1(2)	AB1 ABC3 ABC1
AA519	33	RU T1/2 T2 V7(1) V7(2) W18 W47	U1 ABC2 A1 ABC8 ABC2 ABC4 C14 ABC1

Phase 4D11

V1	668	S3/T1 T1(1) T1(2) T1(3) T1(4) T1 T1/2 T2	A1 AB5 BC1 A2 B2 AB9 A1 D1 AB5 A4 AB4 B2 A10 B1 AB65 ABC3 A7 B2 C1 ABC2 AB81 ABC137 AB CB AB3 AC4 ABC200	74, 77 91, 92  84, 87 91 99, 100 103 127, 139
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		T2(2)	C15	
		T11	ABC1	
		V1(1)	AC1 ABC3	166
		V3	A1 AB7 ABC3	179
		V7(1)	AC1 ABC3	187, 188
		V7(2)	ABC2	
		W1	A3 AB29	192, 196
		W1/X1(1)	C1 AB2 ABC1	203
		W1/X1(1)/Y	A1 U1	204
		W2(2)	ABE81	
		W273	U2	
		W3(1)	AB2 ABC1	
		W3(2)	E1	209
		W4	ABD1	
		W7(1)	ABC1	
		W7(2)	C1 ABC4	
		W7(3)	ABC1	
		W7(4)	ABC2	
		W7	FC1	
		W11(1)	C1 ABC1	
		W14	C7 ABC1	222
		W15	ABC2	
		W18	B29 ABC22	236, 237
		?W18	ABC1	
		W20(2)	ABC1	
		W21	U1	
		W29	ABC1	
		W32	AB1	
		W47	AB1 ABC1	
		W49	ABC3	255
		W56	ABC4	
		X1(1)	A1 C21 ABC7	
		X1(2)	C1	
		Z7	E91	
		?Z13	E21	
		Z17	U1	
		U	U2	
V3	16	T1/2	A1 ABC2	102
		T2	ABC7	
		W1	AB1	
		W7	ABC1	
		W14	C2	
		W18	ABC1	
		Z50	U1	
W3	2	T2(2)	C1	
		W1	A1	77
W10.2	108	T2	A3 C1 AB7 ABC21	122, 129
		T2(2)	C15	
		V1(1)	ABC2	
		V1(2)	C12	
		V3	AB1	
		V7(2)	ABC13	

		W7(1)	ABC1	
		?W7(1)	ABC7	
		W7(4)	ABC1	
		W17	B1 E72 F21	230
		W18	AC1 ABC1	
		Z5	U5	
		Z7	F21 U1	
		Z13	F21	
		Z15(3)	U1	
		Z17	G2	
		Z23	U1	
		Z50	U6	
Y2	3	T1/2	ABC1	
		Z50	U2	
Y7	9	T1	A1	
		T2	A1 ABC4	128
		W1	A1	194
		W14	C1	
		Z50	U1	
Y9	109	T2	ABC2	
		T2(2)	C3	
		V1(1)	ABC2	
		V1(2)	E91 ABC1	
		V7(2)	ABC1	
		W14	C1	
		W18	C2 ABC4	
		?W18	B1	
		Y12	F1	
		Z7	U1	
		Z15(3)	C2C320	
		Z17	U1	
		Z23	B5	
		Z50	M50	
		ZU	U3	
Y17.2	3	T1(1/2)	A1	
		T1	AB1	
		X1(1)	C1	258
Z1	13	T1(1)	B1 AB2	
		T1(3)	AB2	
		T1/2	A1 ABC5	
		T2	AB2	
Z12	29	T1(1)	AB5	
		T1	AB5	
		T1/2	ABC5	
		T2	C1 ABC7	
		W14	ABC2	
		W18	ABC3	
		W56	U1	
		X2a	U1	
		X2b	ABC1	

		Z7	U2
		Z17	U1
		Z23	F1
Z29	2	T1	A1
		Z19/Z23	U1

Phase Unstratified

U/S	3773	RS	U2	
		RU	U4	
		R/S3/T1	U1	
		S1A	AB1	
		S1B(1)	A1 AB2	
		S1B(2)	AB3	
		S1B(3)	AB4	
		S1B(4)	AB1	
		S1BU	AB1	
		S2	AB2	
		S2S2	B2C22	
		S3	A2 AB1	
		S3S3	AB1	
		S3/T1	AB2	
		T1(1)	A32 B9 D1 AB62	80, 88, 90
			ABCEB1	97
		T1(1/3)	A4 B2 AB1	
		T1(2)	A1 B3 AB6 ABC3	
		T1(3)	B1 AB7	
		T1(4)	B2 E91 AB6	96
		T1	A24 B9 D2 AB166	86, 98
			AEB2 ABC4	
		T1/2	A47 B22 C1 D11	106
			D2 AB18 AC13	105
			ABC222	
		T2	A176 B18 CB4 D5	112, 114,
115,			AB18 AC17B AEB1	117, 119,
120,			ABC862	121, 124,
125,				130-132,
134,				140, 142 145
		T2(2)	C82 ACB ABC29	
		T2T2	TA1 ABC1 U1	
		T6	A7 AB6 ABC23	
			AEBB3	163
		T11	ABC1	
		T11/V3	A2	
		V1(1)	AB D5 AB1	169, 171
			ABC26	
		V1(2)	C4 AC3 ABC16	

V2	BC1 ABC2	176
V3	A4 B1 C2 AB5 ABC6	182
V4	A1 B1 C2 AB1 AC1 ABC7	
V5	A2 AB1 ABC2	
V6	A1 D1 AC1 ABC4	185
V7(1)	A1 CB AB1 AC1 ABC18	
V7(1)	A1	
V7(2)	A2 C2 AC5 ABC12	
V7(2)/W18	ABC2	
V8	ABC1	
V9	C1 ABC1	
V10	ABC1	
V11(1)	AC1 ABC1	
W1	A26 E21 B1 D1	193, 198,
	AB45 AC1 ABC7	202
W1(2)	AB1	
W1/X1(1)	ABC1	
W1/X1(1)/Y	A3 ABC1	205, 207
W3(2)	AB2 ABC3	
?W3(2)	AB1	
W7(1)	C3 AC1 ABC1	
W7(2)	C1 ABC3	
W7(4)	D1 C5 AB1 ABC10	214
W7	C1	
W8	A1 C2 ABC8	
W11(1)	C9 BC2 ABC5	
W11(3)	B1	215
W11(7)	C4 BC4 ABC8	218
W12	C8 F2	
W13	C2 ABC1	
W14	A1 C41 AC2 AE91 ABC49	
W15	B2 C4 ABC12	
W16	A1 C14 AB2 BC1 ABC7 U3	228
W17	C1 U1	
W18	A23 A13 B26 C31 C25 D1 E93 AB5 ABC347	240
?W18	ABC2	
W20(1)	A7 C2 AB3 ABC11 U2	
W20(2)	A4 C4 AC2 ABC31	
W21	F1a2 F7 CF2 ABC1 BCF1 ABCF1 U27	
W22	AE85 ABC3	
W29	A1 B4 C9 E91 AC3 AE1 ABC20	249, 250
W32	A1 AB1 ABC2	
W34	A1 AB3	
W47	ABC1	
W49	C2 ABC1	

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W50	ABC1 U1	
X1(1)	A4 B21 C1 B2C21	257, 260,
	ABC15 U2	
X1(2)	C1 AC1 ABC3	
7X1(2)	B1 ABC1	
7X1	C41	
X2a	B1 F34 ABC1	
X2b	CF3 ABCF2	
Y5	C2F51	267
Y6	U1	268
Y8	F53	
7Y8	CF51	
Y9	F54	
Z1(2)	M2	
Z1	M10	
Z2	M3	
Z3	E21	269
Z5	M19	
Z7	M9	
Z9	M10	
Z11	M26	
Z13	B4 C1 E25 M10	
Z15(2)	M5	
Z15(3)	EB1 M4	
Z15	M34	
Z17(3)	M47	
Z17	M35	
Z19	M11	
Z19(2)	M4	
Z21	M1	
Z23	M9	
Z25	GM7	
Z50	M17	
ZU	C24 E21 M74	
U	UB	



THE COINS AND COUNTERS  
by M M Archibald (Nu1, 3-13)  
and D M Metcalf (Nu2)

Nu1

Roman  
Tetricus I, 270-273  
'Antoninianus'  
Obv: IMP C TETRICVS PF AVG  
Diadomed bust to right  
Rev: (SPES P)VBL(ICA)  
Spes walking to left holding flower in right  
hand and her skirt with left  
Wt: 2.08g  
Ref: RIC 136  
Probably deposited shortly after issue  
260, Phase 1, SFNu7

Nu2

Sceatta  
Wt: 1.20g  
This is the second sceatta to be found in the  
Northampton excavations and is of the same general  
type as the first, namely Rigold Series G (= BMC  
type 3a).  
The localization of this type is not certain but it  
belongs apparently to Sussex, and it is very curious  
that two specimens should occur separately in  
Northampton - and that both should be irregular in  
style. The new find, unlike the earlier one, is of  
strongly debased metal and crude style. Its yellow  
colour suggests the presence of zinc in its alloy.  
Its weight (uncleaned, with some clay incrustation)  
is 1.20g; and it is in fresh, unworn condition to  
judge by the edges of the flan. Its date is  
presumably late in the sequence of secondary  
sceattas. On the basis of current ideas about the  
chronology of the series, one would say close to  
750. It is impossible to say where it was minted,  
but there is no reason or encouragement to imagine  
that it was carried to Northampton from Sussex.  
On the obverse, the letters T and N have been added  
in the field in front of the face. These letters do  
not belong to the design of Series G. No parallel  
can be adduced, and no explanation offered for them.  
The style of the head, however, is by no means as  
debased as on the other copper specimens of the  
type. It is still of neat workmanship, and the ear  
in particular is a small lunate shape, not the  
grossly distorted triangle seen on other late coins.  
On the reverse, one of the Xs has been replaced by a  
sign which seems to be meant as a letter T, although  
it is so lop-sided as to be more like a Greek gamma.  
This may be a deliberate reference, but we have no  
way of knowing what T might stand for.  
If we allow ourselves to speculate on the possible  
connexion between Sussex and Northampton, the only

common factor, which might conceivably account for the imitation of Series G so far away from its region of origin, would seem to be iron working. Could skilled workers have migrated from the Weald? This is highly speculative, but ought perhaps to be mentioned in case there are other clues in the archaeological record.  
AA227, Phase 2, SFNu9

Nu3

Henry I, 1100-1135  
Cut farthing, BMC type XV, c. 1134-5  
Uncertain mint and monner  
Wt: 0.09g (chipped)  
All that is visible of the reverse legend is the initial cross with an A as the last letter of the mint signature. The previous letter is partially visible and what remains appears to be the right-hand limb of an A or possibly, but less likely, an h. The coin having been found in Northampton, one might suggest that it is a coin of the local mint but certainly Canterbury and other mints with A in their name remain a possibility. Type XV remained in circulation until the end of type I of Stephen in the early 1140s, so this coin was lost c. 1145 at the latest.  
AA579, Phase 4Aii, SFNu13

Nu4

Penny, Fox class IXa (?without star on breast), c. 1300  
Canterbury mint  
Wt: 1.06g (chipped)  
This coin was virtually unworn when deposited so is likely to have been lost shortly after issue and certainly before 1350.  
AA562, Phase 4Ai, SFNu12

Nu5

English jetton, period of Edward II, 1307-27  
Obv: Alternate saltires and rosettes in place of legend  
Two crowns one above the other within inner circle  
Rev: Pellets in place of legend  
Cross moline with a pellet in each angle  
Usual hole in centre  
Wt: 1.14g (corroded)  
Diam: 20mm  
Ref: Berry 1974, type Edward II 13A, pl.5, 2  
Jettons of this type had probably mostly disappeared by c. 1350, but deposition is more likely during the period of their issue in the first quarter of the 13th century.  
(AA1) = +.

Nu6

French jetton, mid-14th century  
Obv: +AVE (M)ARIA GR(A)C(I)A PLEN Double cross stops

- Moor's head to right  
 Rev: +A- / VE / M / AR  
 Lozenge fleur-de-lisee with fleur-de-lis in each angle  
 Wt: 0.76 (corroded into holes)  
 Diam: 20mm  
 Ref: Barnard 1916, pl.IV, 12  
 Y+, SFNu3
- Nu7 Copy of official French jetton, mid 15th century  
 Obv: Nonsense legend: PLE#ARDVRARAMDVREVIIOV  
 Shield of France modern with two pellets above and at each side  
 Rev: Cross fleur-de-lisee with A in each angle, all within a quatrefoil; A in each outer angle.  
 Wt: 5.59g  
 Diam: 19mm  
 Ref: This variety does not feature in Barnard 1916, but the type is basically as pl.VI, 44  
 Y+, SFNu4
- Nu8 Small fragments of corroded bronze; ?French-type jetton, mid-15th century.  
 All that is visible is - e - which looks like the marks sometimes found at the sides of the shield on French jettons. Otherwise the piece is very corroded and there is no further trace of the design.  
 Wt: not weighed because so fragile  
 (AA303) = -, SFNu14
- Nu9 Charles I, 1625-49  
 Richmond farthing, 1625-34, Peck type 1c  
 The initial mark is illegible on both sides  
 Wt: 0.34g  
 Lost before c. 1660 but probably earlier  
 AA504, Phase 4Aii, SFNu10
- Nu10 Contemporary forgery of halfpenny of George III, 1st issue 'Medley' halfpenny, date illegible  
 Wt: 6.44g (corroded)  
 The light weight of this piece, even allowing for the corrosion, mark it out as a counterfeit although it is too corroded for this to be confirmed by an unofficial style. These coins were very common in circulation in the late 18th century.  
 (AA505) = +, SFNu11
- Nu11 Victoria, 1837-1901  
 Farthing, 1884  
 Wt: 2.29g (chipped and corroded)  
 This coin was unworn when lost and so was probably deposited shortly after it was issued.  
 W+, SFNu5
- Nu12 Victoria, 1837-1901  
 Halfpenny, 1888

Wt: 5.14g (corroded)

This coin was very worn when lost and so was probably deposited well into the 20th century.  
W10, Phase 4, SFNu6

Nu13

Defaced bronze disc, ?halfpenny of Victoria.  
1837-1901, bronze coinage, 1860-1901.

Wt: 4.85g (chipped and corroded)

The size and weight suggests that this is a defaced halfpenny. The corrosion and the irregular scores across the surface have left no trace of the original designs.

Y+, SFNu1

# OBJECTS OF COPPER ALLOY AND SILVER

by Alison R Goodall

Figs 33, (H) 16-17

- Cu1** Composite annular brooch of gilded debased silver. There is a plain D-sectioned base and an upper element consisting of filigree scrolls and four cup-like settings for stones: the inner and outer edges of the brooch have filigree borders. The brooch was originally held together by four rivets positioned under the gem settings. There is a slot in which the pin would have rotated. The brooch should probably be dated to the 13th or 14th century. (AA300) = +, SFAg1.
- Cu2** Penannular ?ear-ring with tapering ends. W5, Phase 4A1, SFCu42.
- Cu3-7** Buckle frames. Cu3 is part of a D-shaped buckle with decoration of incised diagonal lines. Cu4 is a very simple buckle and plate: the frame has been made from a thick strip and the plate has been cut from sheet metal and has the upper edges turned down so as to enclose the leather strap. Cu5 is a double-looped buckle, approximately rectangular in form with the corners cut off. The sides are decorated with a traced wavy line and zig-zag infill. The D-shaped buckle frame, Cu6, also has traced decoration. Cu7 is part of a double-looped buckle, of post-medieval date, which would have had a separate pin bar passing through holes in the top and bottom of the frame. Cu3: AA204, Phase 4A1, SFCu75; Cu4: AA536, Phase 4A, SFCu104; Cu5: AA73, Phase 4A11, SFCu58; Cu6: (V19) = 1, Phase 4B11, SFCu53; Cu7: Y+, SFCu17.
- Cu8-9** Brooch or buckle pins. Cu8 has a slight moulding below the broken hook and probably came from a plain annular brooch or buckle; Cu9, which has a perforated eye at the hinge end and a collar below it, certainly came from a brooch. Cu8: AA562, Phase 4A1, SFCu93; Cu9: (AA501) = +, SFCu86.
- Cu10** Belt loop with internal lugs and a boss on its longest side. (W9) = V1, Phase 4B11, SFCu41.
- Cu11-14** Strap ends and plates. Cu11 is a Saxon strap end and is split and riveted at its upper end to take the strap. It is flat backed and has mouldings on the front. The terminal is crudely zoomorphic. This strap end is narrower than the more common type of split-end strap end, but a similar 9th to early 10th century date is suggested for an example in the Ashmolean Museum, Oxford (Hinton 1974, 22-3, no 16). A more slender example, lacking the zoomorphic

terminal, was associated with middle Saxon pottery and finds at Maxey, Northants (Addyman 1964, 62, fig 17.1). Cu12 is a single plate with three ?iron rivets: it has a blackened surface and its outer face is decorated with traced zig-zag lines. Cu13 is a strap end of thin sheet metal decorated on the outer face with repoussé cabled borders surrounding a panel of traced decorations: the type may be dated to the late medieval period. Part of a leather strap remains between the two halves of the plate. Cu14 is part of the spacer, probably originally with a forked extension, from a strap end: it has a terminal knob which would have projected below the plates. Cu11: (Y74) = 17, Phase 3/4B, SFCu26; Cu12: YB, Phase 4Aii, SFCu21; Cu13: AA73, Phase 4Aii, SFCu57; Cu14: (AA503) = +, SFCu84.

- Cu15-16** Fragments of strips with perforations, possibly from strap end plates. Cu15: Y+, SFCu14; Cu16: (AA501) = +, SFCu85.
- Cu17** Hooked fastener with pierced ornamental plate and an angular hook at the head. Fragments of textile adhere to it. W+, SFCu37.
- Cu18-22** Buttons. Cu18 and Cu19 are of the same type with four stitching holes and wording round the edge: Cu18 is inscribed 'EXCELSIOR' and Cu19 '[...]PLUS' Cu20 may be a seal? composite button consisting of a disc with its edge turned under and two stitch holes in the centre: the slightly smaller U-sectioned ring may be part of the same object. Cu21 is inscribed 'G. Simpson.\*York.\*', indicating either the manufacturer or the clothing company using the button. Cu22 is undecorated. Cu18: 21, Phase 4Bii, SFCu48; Cu19: Y+, SFCu6; Cu20: Y+, SFCu16; Cu21: (AA303) = +, SFCu14; Cu22: AA306 Phase 4Aii, SFCu73.
- Cu23-42** Lace ends of rolled sheet metal. Some, like Cu23, have a securing rivet. All except Cu42 come from medieval contexts; Cu42 appears to come from Saxon levels. Cu23: AA536, Phase 4A, SFCu108. Cu24-25: Y+, SFCu5, 11; Cu26: Y32, Phase 4Aii/BI, SFCu22; Cu27: (Y98) = 62, Phase 4Ai, SFCu28; Cu28-32: AA95, Phase 4Aii, SFCu59(x2), 60, 61, 63; Cu33: AA97, Phase 4Ai, SFCu66; Cu34: AA98, Phase 4Aii, SFCu67; Cu35: AA504, Phase 4Aii, SFCu32; Cu36-39: AA541, Phase 4Aii, SFCu88, 90(x2), 91; Cu40-41: AA568, Phase 4Aii, SFCu95, 102; Cu42 (?lace end) (AA137) = 136, Phase 3, SFCu76.
- Cu43** Purse frame with two hoops swivelling on a short bar. The hoops and bar are perforated for suspension of the fabric pouches. There is a quatrafoil-shaped loop so that the purse could be suspended from a

belt. Purses of this type were in use in the 15th and 16th centuries. (AA505) = +, 8FCu87.

- Cu44** Scabbard chape made from rolled sheet metal with the edges overlapping at the back. At the front, the upper edge has been cut to an ornamental shape. AA568, Phase 4Aii, 8FCu100.
- Cu45** Part of the pommel of a sword of Petersen's type O (Petersen 1919, No 1); it would originally have had five lobes. The pommel has Borre style decoration similar to that on a 10th century strap end from York (Viking Catalogue, 108 No YD39 and 121 pl). This type is rare in Britain and may have a Frankish origin. An example from near Norwich, which is very similar to the Northampton pommel, has been dated to the 9th century (Davidson 1962, 55, pl VII, 40). (Y59) = 55, Phase 3, 8FCu31. (I am grateful to Dominic Tweddle of the York Archaeological Trust for helping with the identification of this object and for providing parallels for it and also to Dr Sue Margeson of the Castle Museum, Norwich, for providing information about the Norwich pommel).
- Cu46-7** Binding strips. Cu46 is D-shaped in section; it has riveted ornamental terminals and is bent in the middle to form a loop possibly to support a handle or to secure a hasp. There is no evidence of gilding but the object is probably of a common 12th and 13th century type of binding, possibly from caskets of wood and bone or ivory (Goodall forthcoming). Cu47 is the perforated terminal of a simpler binding strip. Cu46: Y+, 8FCu9; Cu47: Y+, 8FCu15.
- Cu48** Simple drop handle with an ornamental thickening in the centre. W+, 8FCu113.
- Cu49** Pendant bell with broken suspension loop. It is hexagonal in section and has small points projecting downwards from the angles. A similar bell was found at Goltso, Lincs (Goodall forthcoming, no 65). AA530, Phase 4Ai, 8FCu92.
- Cu50** Possible body fragment from a cast metal vessel. (AA587) = 123, Phase 3, 8FCu112.
- Cu51-55** Bosses and studs. Cu51 is a boss of sheet metal, domed in the centre and with a broad, flat flange; it was found in the lowest levels of the site but is of indeterminate age. Cu52 is a group of four dome-headed rivets, passing through leather and with their shanks hammered over small round washers at the back. Cu53 is a corroded disc-shaped mount, probably riveted. Cu54 is a stud with an ornamental head while Cu55 appears to have a gilded head. Cu51: (AA935) = 233, Phase 1, 8FCu107; Cu52: AA568, Phase

- 4Aii, SFCu99; Cu53: AA506, Phase prob 4, SFCu77; Cu54: Y+, SFCu4; Cu55: W+, SFCu39.
- Cu56** Patch for sheet metal made from a folded piece of sheet. AA504, Phase 4Aii, SFCu78.
- Cu57** Needle with a triangular sectioned tip; the eye is set in a groove. (AA501) = +, SFCu83.
- Cu58** Pin or tack cut from sheet metal in the shape of an elongated triangle. Y135, Phase 3, SFCu34.
- Cu59** Spiral-headed pin or loose coil of fine wire. Y+, SFCu10.
- Cu60-64** Pins. Cu60 has a pear-shaped head and comes from the earliest levels on the site although it is probably of Saxon date: it has whit<sup>2</sup> metal plating on the shank. Cu61-63 have heads of coiled wire that have not been distorted by stamping. The heads of Cu61 and Cu62 consist of a single, almost flat coil; that of Cu63 consists of three turns of fine wire. Cu64 has a flattened head and white metal plating. Cu60: W169, Phase 1, SFCu46; Cu61: AA568, Phase 4Aii, SFCu102; Cu62: AA568, Phase 4Aii, SFCu97; Cu63: AA541, Phase 4Aii, SFCu91; Cu64: (W202) = 159, Phase 1/2, SFCu45.
- Cu65-88** There are a further 24 pins, mostly from late medieval contexts. Where the heads are present, all are of coiled wire but only four of them have been stamped. Cu65-66: W+, SFCu38, 40; Cu67: W15, Phase 4, SFCu47; Cu68-71: Y+, SFCu1, 2, 3, 18; Cu72: Y32, Phase 4Aii/Bi, SFCu23; Cu73-77: AA95, Phase 4Aii, SFCu62(x2), 63(x2), 65; Cu78: AA306, Phase 4Aii, SFCu70; Cu79: (AA318) = 308, Phase 4Aii, SFCu74; Cu80-82: AA504, Phase 4Aii, SFCu79, 80, 82; Cu83-87: AA568, Phase 4Aii, SFCu94, 96, 98, 101, 103; Cu88: AA579, Phase 4Aii, SFCu106.
- Cu89** Piece of fine wire. Z12, Phase 4Bii, SFCu50.
- Cu90** Small elongated cap. (V4) = V1, Phase 4Bii, SFCu51.
- Cu91** Cylinder or pipe, 26mm long. Y+, SFCu13.
- Cu92** Approximately U-shaped plate, of thin sheet, with two perforations, one containing a rivet. AA579, Phase 4Aii, SFCu105.
- Cu93** Rectangular plate with a large perforation. (Y61) = +, SFCu25.
- Cu94-9** Pieces of strip. Cu 95, 96 and 98 are perforated and Cu96 contains a pin cut from sheet metal. Cu94: Y55, Phase 3, SFCu27; Cu95: Y45, Phase 4Ai, SFCu29; Cu96:



(W53) = 52, Phase 4A1, SFCu44; Cu97: AA57, Phase 4A, SFCu55; Cu98: (AA302) = +, SFCu71.

Cu99-100      Fragments of sheet metal. Cu99: AA79.2, Phase 3, SFCu64; Cu100: AA25, Phase prob 3, SFCu56.

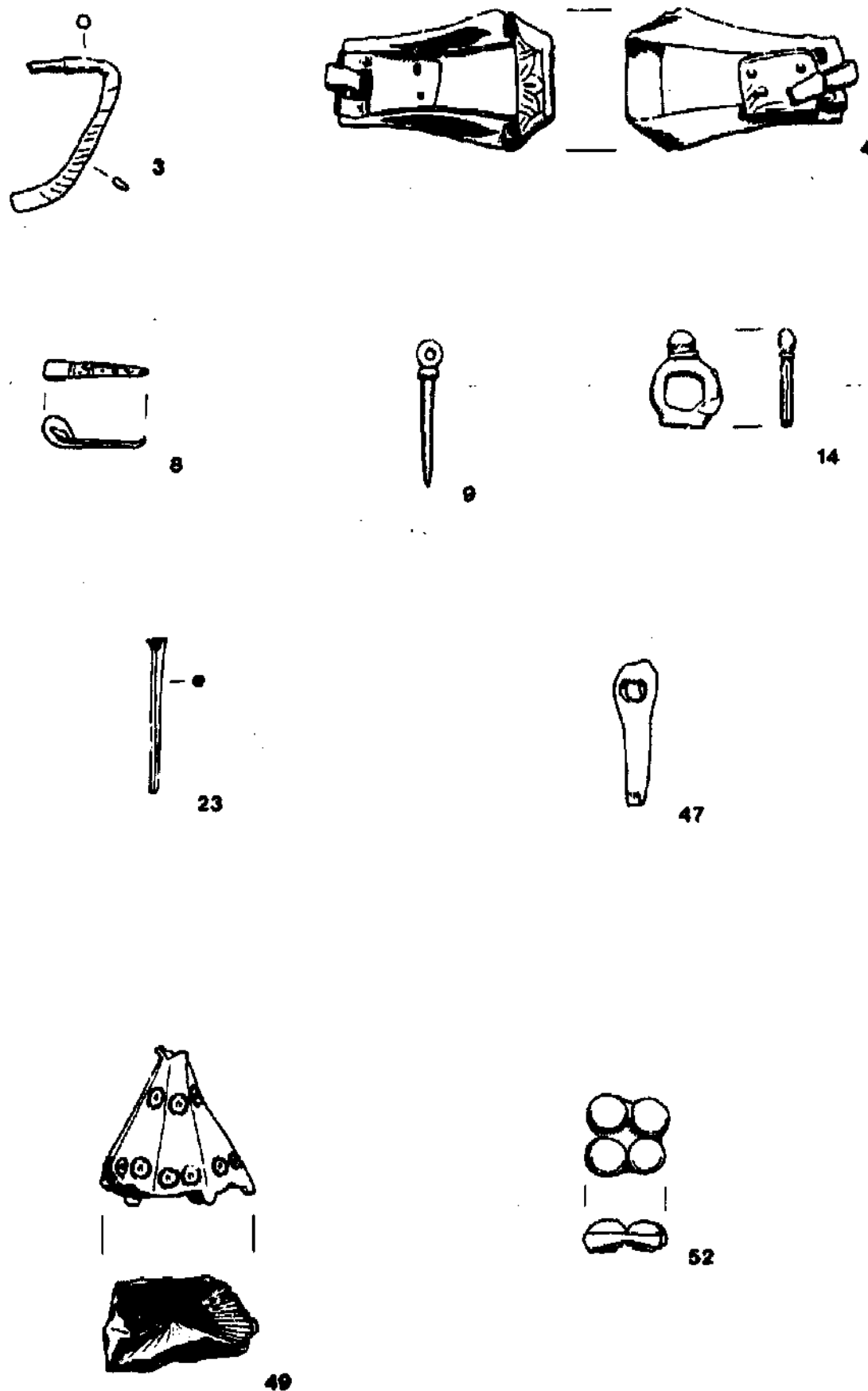


Fig 1N/1a: The Copper Alloy Objects I

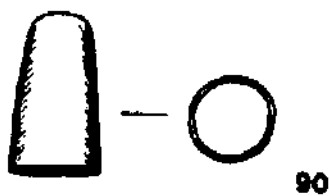
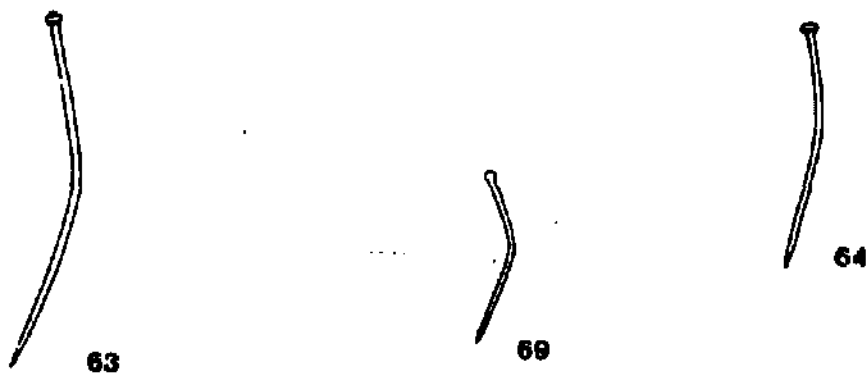
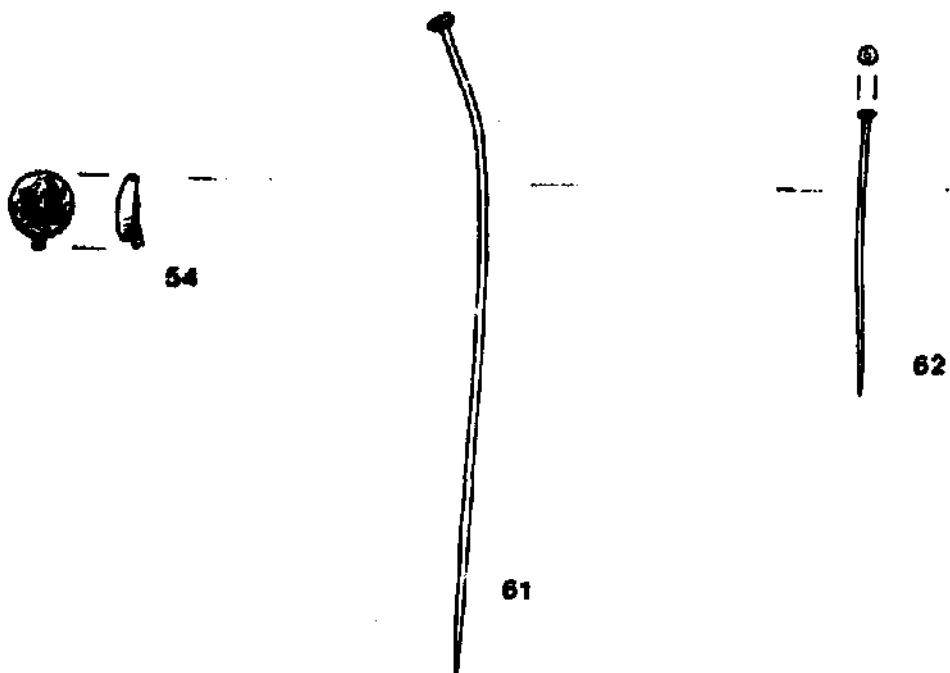


Fig (H)17: The Cooner Alloy Objects II

OBJECTS OF PEWTER AND LEAD  
by Alison R Goodall

Fig 33

- Pb1 Two pieces of thin pewter or tin sheet, possibly from the rim of a plate or dish. +, SFPb11.
- Pb2 Perforated bun-shaped weight. (Y141) = 55, Phase 3, SFPb9.
- Pb3 Droplet or possibly a simple weight. +, SFPb2.
- Pb4 Piece of lead piping. +, SFPb1.
- Pb3-6 Fragments of window cane. Pb5: (W40) = 12, Phase 3, SFPb5; Pb6: W49, Phase 4Aii/Bi, SFPb13.
- Pb7-8 Lead caulking. Pb7: Y45, Phase 4Ai, SFPb4; Pb8: +, SFPb5.
- Pb9 Perforated strip, 62 mm long. W52, Phase 4A, SFPb14.
- Pb10-14 Fused lead. Pb10: Y135, Phase 3, SFPb10; Pb11: Y55, Phase 3, SFPb6; Pb12: (Y122) = 58, Phase prob 3, SFPb7; Pb13: Y133, Phase 4Ai, SFPb8; Pb14: Y32, Phase 4Aii/Bi, SFPb3.

THE IRON OBJECTS  
by Ian H. Goodall

Fig 34

- Fe1** Burred head and broken stem of punch or chisel. (Z26) = Z25, Phase 3, SFFe34.
- Fe2** Axe with broad butt and integral socket. Y9, Phase 4Bii, SFFe2.
- Fe3-7** Knives with whittle tangs. Fe3: AA58, Phase 3, SFFe57; Fe4: (AA129) = 123.10, Phase 3, SFFe123; Fe5: (AA137) = 136, Phase 3, SFFe129; Fe6: AA97, Phase 4Ai, SFFe105; Fe7: Z55.3, Phase 4Aii, SFFe42.
- Fe8-12** Knives with scale tangs. Fe8 has wood scales, copper alloy rivets and the solder from lost shoulder plates, Fe9 bone scales, iron rivets and riveted shoulder plates, Fe10 wood scales and riveted shoulder plates. Fe11 is a handle with wood scales and copper alloy rivets and decorative pins, Fe12 has riveted shoulder plates. Fe8: AA95, Phase 4Aii, SFFe91 and SFFe92; Fe9: AA95, Phase 4Aii, SFFe84; Fe10: AA568, Phase 4Aii, SFFe154; Fe11: AA568, Phase 4Aii, SFFe155; Fe12: Y32, Phase 4Aii-Bi, SFFe5.
- Fe13-15** Knife blades. Fe14 is 37mm long, Fe15 is 43mm long. Fe13: (AA137) = 136, Phase 3, SFFe132; Fe14: AA345.1, Phase 4Ai, SFFe130; Fe15: AA568, Phase 4Aii, SFFe153.
- Fe16,17** Staples of similar form. Fe17 is 21mm wide, 16mm long but broken. Fe16: AA123.7, Phase 3, SFFe120; Fe17: AA99, Phase 4Ai, SFFe106.
- Fe18-20** Hinge pivots, Fe19 with clenched tip. Fe18: AA66.4, Phase 4Ai, SFFe93; Fe19: AA98, Phase 4Aii, SFFe98; Fe20: Y32, Phase 4Aii-Bi, SFFe6.
- Fe21,22** Strap hinges with nailed U-shaped eyes. Fe21: (AA15) = 14, Phase 4Ai, SFFe52; Fe22: AA73, Phase 4Aii, SFFe56.
- Fe23-26** Strap fragments, all broken. Fe23 is 127 x 15mm, Fe25 is 57 x 10mm, Fe26 is 55 x 12mm. Fe23: (AA767), Phase 1, SFFe187; Fe24: (AA82) = 49, Phase 4Ai, SFFe98; Fe25: AA62, Phase 4Aii, SFFe66; Fe26: AA55, Phase 4Aii, SFFe58.
- Fe27,28** Fittings with pinned hinges, probably from chests of caskets on which they supported stapled rasps. Fe27: AA62, Phase 4Aii, SFFe74; Fe28: AA54, Phase 4A, SFFe61.

- Fe29,30** Strip fragments, both broken. Fe29 is 47 x 15mm, Fe30 is 51 x 7 mm. Fe29: AA54, Phase 4A, SFFe60; Fe30: AA56B, Phase 4Aii, SFFe157.
- Fe31** Shaped mount. AA57, Phase 4A, SFFe59.
- Fe32** Figure-eight hasp, nearly flat in side view, centre closed. 145mm long, 26mm wide. AA39, +, SFFe76.
- Fe33** Barrel padlock with fin and tapering tube. Narrow longitudinal and transverse straps decorate and strengthen the case which has a keyhole in the end and retains a pair of spines each with a double leaf spring. None of the rest of the U-shaped padlock bolt survives. The padlock is in a late context; typologically it is of 11th, 12th or 13th-century date. 50mm long, case 22mm in diameter, total height 44mm. (V13) = 1, Phase 4Bii, SFFe38.
- Fe34** Padlock bolt with double leaf spring and broken spine. Rest of bolt lost. (AA130) = 123.1, Phase 3, SFFe122.
- Fe35** Padlock key with swollen stem and looped terminal, the stem with spirally inlaid non-ferrous wire. The key is typologically of 11th to 13th-century date. AA38, +, SFFe73.
- Fe36** Bolt from fixed lock. (AA137) = 136, Phase 3, SFFe139.
- Fe37** Key with thistle-shaped bow and solid stem. AA92, Phase 4Aii, SFFe99.
- Fe38-116** Timber nails of three types (Fe38, 70, 74). Fe38 has a flat rectangular head, sometimes with rounded corners (32 examples found), Fe70 has a flat round head (4 examples), Fe74 an elongated flat rectangular head (3 examples).

Nail 38 70 74

Phase 3	1	1	1
3/4A	1	-	-
3/4Ai	3	-	-
4Ai	13	3	2
4Aii	10	-	-
4Ai/ii	-	-	-
4A	2	-	-
4Aii/4Bi	2	-	-
Total	32	4	3

Fe38 type

Phase 3: Fe38: AA9, SFFe182.

Phase 3/4A: Fe39: AA565, SFFe174.  
 Phase 3/4A1: Fe40: (V43) = 27, SFFe43; Fe41: (V43) = 27, SFFe44; Fe42: AA340, SFFe150.  
 Phase 4A1: Fe43: Y62, SFFe8; Fe44: Y62, SFFe9; Fe45: W5, SFFe29; Fe46: AA10, SFFe50; Fe47: AA10, SFFe51; Fe48: AA94, SFFe81; Fe49: AA79, SFFe83; Fe50: AA47, SFFe95; Fe51: AA83, SFFe101; Fe52: AA117, SFFe112; Fe53: AA309, SFFe117; Fe54: (AA368) = 344, SFFe170; Fe55: AA572, SFFe160.  
 Phase 4A11: Fe56: Y31, SFFe7; Fe57: AA62, SFFe67; Fe58: AA62, SFFe68; Fe59: AA62, SFFe72; Fe60: AA95, SFFe89; Fe61: AA95, SFFe90; Fe62: AA504, SFFe146; Fe63: AA569, SFFe151; Fe64: AA579, SFFe169; Fe65: AA579, SFFe170.  
 Phase 4A: Fe66: AA54, SFFe54; Fe67: AA54, SFFe63.  
 Phase 4A11/B1: Fe68: Y10, SFFe3; Fe69: (Y15) = 14, SFFe4.

#### Fe70 type

Phase 3: Fe70: W29, SFFe180.  
 Phase 4A1: Fe71: Y105, SFFe18; Fe69: +, SFFe27;  
 Fe73: W5, SFFe28.

#### Fe74 type

Phase 3: Fe74: Y55, SFFe13.  
 Phase 4A1: Fe75: Y105, SFFe16; Fe76: AA204, SFFe118.

Forty one shanks of indeterminate timber nails were found.

Phase	Examples
1	2
3	10
3-4A1	2
4A1	12
4A11	6
4A1-11	2
4A	1
4B11	8
+	1
Total	41

Phase 1: Fe77: AA637, SFFe144; Fe78: AA680, SFFe1.  
 Phase 3: Fe79: W13, SFFe24; Fe80: W14, SFFe26; Fe81: AA25, SFFe62; Fe82: AA77, SFFe82; Fe83: AA70, SFFe113; Fe84: AA123.1, SFFe19; Fe85: (AA137) = 136, SFFe128; Fe86: (AA131) = 123.1, SFFe131; Fe87: AA136, SFFe136; Fe88: (AA132) = 123.1, SFFe134.  
 Phase 3-4A1: Fe89: (V43) = 27, SFFe45; Fe90: (V56) = 27, SFFe47.  
 Phase 4A1: Fe91: (Y80) = 62, SFFe12; Fe92: (Y80) = 62, SFFe15; Fe93: AA99, SFFe96; Fe94: AA97, SFFe97; Fe95: AA117, SFFe116; Fe96: AA203, SFFe121; Fe97: AA203, SFFe125; Fe98: (AA352) = 309, SFFe133; Fe99: (AA347.1) = 344, SFFe134; Fe100: AA203, SFFe135;

Fe101: AA538, SFFe141; Fe102: V21, SFFe41.  
 Phase 4Aii: Fe103: AA62, SFFe65; Fe104: AA62, SFFe71; Fe105: AA95, SFFe86; Fe106: AA98, SFFe100; Fe107: AA541, SFFe147; Fe108: AA579, SFFe172.  
 Phase 4A: Fe109: AA520; SFFe159; Fe110: AA57, SFFe55.  
 Phase 4Bii: Fe111: Z12, SFFe31; Fe112: Z12, SFFe32; Fe113: (V4) = 1, SFFe36; Fe114: (V22) = 1, SFFe39; Fe115: (V33) = 1, SFFe46.  
 Unstratified: Fe116: AA133, SFFe115.

- Fe117      Steel. (AA113) = +, SFFe14.
- Fe118,119      Rings. Fe119 is 35mm in diameter. Fe118: AA89, Phase 4Ai, SFFe103; Fe119: AA62, Phase 4Aii, SFFe69.
- Fe120-125      Horseshoes. Fe120-122 are the most complete, and all have countersunk nailholes. Fe123-125 are arm fragments, their nailholes not easily discernible. Fe120: AA77, Phase 3, SFFe75; Fe121: AA97, Phase 4Ai, SFFe105; Fe122: AA79, Phase 4Ai, SFFe94; Fe123: Y62, Phase 4Ai, SFFe10; Fe124: AA576, Phase 4Ai, SFFe164; Fe125: AA576, Phase 4Ai, SFFe166.
- Fe126-128      Horseshoe nails with fiddle key heads. Fe126: AA97, Phase 4Ai, SFFe104; Fe127: (V9) = 1, Phase 4Bii, SFFe37; Fe128: AA320, Phase 4A, SFFe173.
- Fe129      S-shaped object, 97mm long. W14, Phase 3, SFFe25.
- Fe130      Object with flattened terminal. AA62, Phase 4Aii, SFFe64.



THE SAXON CRUCIBLES AND RELATED INDUSTRIAL SAMPLES  
by Justine Bayley

Fig 35

The sherds were all examined and the deposits on them analysed quantitatively by energy-dispersive x-ray fluorescence (XRF). The analytical results and the dimensions of the sherds are given in Table (M)4.

The analyses suggest a number of distinct uses for the vessels represented by the sherds. Two (AM B40273, B40276) had no traces of non-ferrous metal detectable so had probably not been used as crucibles, although in form they are typical of other examples. A burnt sherd of similar form (possibly from a small bowl) was found to contain traces of hematite (iron ore) which could have been used as a red pigment or as a fine abrasive for polishing the metal objects being made. AM B40288 is a fragment of vitrified hearth lining.

The metals detected on the rest of the sherds are shown in the table in order of XRF signal strength. This is not the same order as the relative abundance of the metals as some elements fluoresce less strongly than others and so tend to be under-represented; this is particularly true of silver. The almost universal presence of zinc should not be given too much weight as this is due mainly to its chemical nature. While probably present in many of the metals being melted, it would not have been a major constituent of most of them.

One sherd was from a vessel used to melt lead (AML B40277), three were from vessels used to melt copper or one of its alloys (AML B40274, B40279, B40284) and five were from vessels used to melt impure silver (AML B40286). One final sherd from the base of a red painted cooking pot in pottery fabric ?W1/X1(1)/Y ((M)2/44-7) had been re-used as a heating tray. Similar examples were noted at Chalk Lane (Bayley 1981, (M)116-130). The vitreous deposit in it contained much copper and lead as well as a minor amount of silver suggesting its use was connected with precious metal working, possibly metal refining.

Table (M)4: Analyses of the Crucibles

AML no.	SF no.	Context	Phase	Ill. no.	Sherd type	Thickness (mm)	Elements detected by XRF	Comments
040273	Pt 586	AA206	3	7	Rim	5	-	Unused.
040274	Pt 593	Y135	3	1	Base & rim	5	Cu Pb ?Zn	Copper or copper alloy.
040275	Pt 34	Y95	3		Body	4	Cu Ag	Impure silver.
040276	Pt 36	Y135	3	6	Fla	4	-	Unused.
040277	Pt 598	AA25	Prob 3	8	Rim	5	Pt	Lead.
040278	Pt 599	AA204	4A1		Body	6	Zn Ag Cu	Impure silver.
040279	Pt 341 + 388	AA206	3	2	Rim	4	Cu Zn	Copper or copper alloy.
040280	Pt 596	Y135	3		Body	5	-	Hematite recorded; Burnt pottery sherd.
040282	Pt 37	Y135	3		Body	5-6	Zn Cu Pb Ag	Impure silver.
040284	Pt 595	AA+	U/S	3	Rim	3-4	Pb Zn Cu	Copper or copper alloy.
040285	Pt 600	Y135	3	5	Rim	4-5	Cu Ag Pb Zn	Impure silver.
040286	Pt 601	Y135	3	4	Rim	4-5	Cu Pb Ag Zn	Impure silver.
040287	Pt 594	Y135	3		Body	6	Pb Cu Zn Ag	Pot. reused as a heating tray.
040288	B1 139	Y135	3		Ind	-	-	Vitrified hearth lining.

THE TILE AND BRICK  
by J L Humble

Fig (M)18

(i) Introduction

A total of 561 pieces of tile and brick was found during excavation of which 429 pieces were recovered from stratified contexts. From each context the fragments were sorted into fabric groups with the aid of a X20 binocular microscope, and further quantified according to form. Joining fragments were treated as one.

I would like to extend my thanks to V Denham for her general advice; to I Betts for useful suggestions; and to D Mynard for his comments on the decorated floor tile.

(ii) Roman Tile and Brick

In comparison to only 34 sherds of pottery, 88 pieces of tile and brick of Romano-British manufacture were recovered, occurring mainly in association with the Saxon stone hall. From Phase 2, 26 of 28 fragments were located within the foundations and walls and from Phase 3, 18 of 27 fragments were from robber trenches of the hall. Table (M)5 lists the incidence of form by phase. Roman finds from the St Peter's Street excavations included 111 fragments of brick and tile (Williams and Williams 1979, 322), but only 16 sherds of pottery. No Roman levels were excavated on either site and it is likely that tile and brick was deliberately sought and introduced as a convenient building material. Reused Roman tile is also a notable element in the Saxon walls of Brixworth Church (Everson and Parsons 1979) and the same practice has been recorded at many other sites of Saxon or later date (eg Rahtz 1979, 166, 247-7; Rodwell 1977, 90-97; RCHM 1952, 8). It is not known whether there were any Romano-British buildings and structures close to St Peter's Gardens (Williams 1979, 139), but Duston (c. 2km to the W) may be cited as one possible local source.

The assemblage was divided (Table (M)6) into seven previously defined fabric groups (Williams and Williams 1979, 322). No new fabric types were identified. With regard to form, 'tiles' and 'bricks' are not differentiated and it should be recognised that smaller fragments may represent flat tiles or bricks or could derive from other forms with flat components, such as *tegulae* or *tubuli*. *Tegulae* were conclusively identified only when diagnostic flanges were present. No fragments of *labrices* were apparent; and three small pieces with cross hatched combing may derive from *tubuli*. The general relationship between form and fabric is in keeping with the evidence from St Peter's Street (Williams and Williams 1979, 322). Conclusive Roman forms have been identified in all tile and brick fabrics present in Phases 1 to 3, with the exception of R1 and R6, although it is likely that R6 represents a coarser sub-type of R4. R4 is the same as Woodfield's fabric 35b (pers comm P Aird) and has been recorded

at many Romano-British sites in Northamptonshire, Buckinghamshire, Bedfordshire and Hertfordshire (Woodfield 1983, 78). Two pieces in R1 are probably fragments of *tubuli* and several bear traces of *opus signinum*. Consequently, there is no reason to suppose that any of the brick or tile is of Saxon manufacture.

Table (M)5: Occurrence of Different Roman Forms by Phase

Phase/ Form	Brick/Flat Tile	Tegulae	Ind.	Total
1	1		2	3
1/2	2		1	3
2	20	7	1	28
2/3			1	1
3	19	1	7	27
3/4	5	1	2	8
4	7[1]	1	1	9[1]
Unstratified	7[2]	2		9[2]
Total	61[3]	12	15	88

[1] = possible *tubuli*

Table (M)6: Occurrence of Different Roman Forms by Fabric

Fabric/ Form	Brick/Flat Tile	Tegulae	Ind.	Total
R1	7[2]		4	11[2]
R2	8[1]		4	12[1]
R3			1	1
R4	14			14
R5	6	2	2	10
R6	11			11
R7	15	10		25
Indeterminate			4	4
Total	61[3]	12	15	88

[1] = possible *tubuli*

#### (111) The Medieval and Post-Medieval Tiles and Bricks

##### Method

Phase 4A1 marks the appearance of medieval building ceramics, and all subsequent phases produced tile and brick. A total of 473 pieces was recovered (Tables (M)8-10).

Following sorting into fabric groups, tallies were made for each fabric in each context against nine form headings: nib, peg, ridge, pantile, curved indeterminate, flat roof indeterminate, roof/floor tile, floor tile and brick.

Peg and nib tiles were conclusively identified only when the nominative attributes of peg holes and nib were present. Ridge tiles were defined on criteria of form (distinct curve, thickening at the edges, presence of crest). Pantiles were isolated upon the basis of their characteristic profile. Fragments assigned to form 'curved indeterminate' are probably mainly from ridge tiles. Floor tiles were identified by fabric difference, slanting edges and dimension. Brick was immediately recognisable by fabric difference.

#### Key to Fabrics: Table (M)7

Continued excavation in Northampton has substantially furthered understanding of the tile and brick component of the town's ceramic history and the references in the third column cite previously published fabric definitions and discussion. The bracketed prefix (M) to a page number denotes microfiche.

The table is restricted to fabrics and forms found at St Peter's Gardens and it should be noted that four fabrics M7, M0, MB(1) and MB(2) recovered from other sites were not in evidence. The Riding report includes a gazetteer of all tile and brick fabrics found in Northampton, now supplemented by newly defined fabrics M4(3) and M5(4).

Report code M100:	Greyfriars (Eames 1978)
M115:	St Peter's Street (Williams and Williams 1979)
M351:	Derngate (Denham 1984a)
M403:	The Riding (Denham 1984b)
M115X:	This report

Table (M)7: Key to fabrics

Code	Type	References	Origin	Date
M1(1)	Roof tile	M115:322 M351: (M)49 M403: (M)71	?Potterspury, Bucks	Medieval
M1(2)	Roof tile	M351: (M)49 M403: (M)72	?Potterspury, Bucks	Medieval
M2	Roof and floor tile	M115:324 M351: (M)49 M403: (M)72	?Lyveden, NE Northants	Medieval

M3	Roof tile	M115:324 M403: (M)72	?Local	Medieval
M4(1)	Roof tile	M115:324 M351: (M)49 M403: (M)72	?Lyveden, NE Northants	Late medieval
M4(2)	Roof tile	M351: (M)49 M403: (M)73	?Lyveden, NE Northants	Late/post- medieval
M4(3)*	Roof tile	M115X: (M)	?Lyveden, NE Northants	Post-medieval
M5(1)	Roof and floor tile	M351: (M)49 M403: (M)73	?Local	Medieval
M5(2)	Roof and floor tile	M351:324 M403: (M)73	?Local	Medieval
M5(3)	Roof and floor tile	M351: (M)49 M403: (M)73	?Local	Late/post- medieval
M5(4)*	Floor tile	M100:125 M115X: (M)	?Local ?Penn, Bucks	Medieval
M6	Floor tile	M403: (M)73	?NE Northants	Medieval
M8	Roof tile	M351: (M)49 M403: (M)74	?Local	Medieval
M8(3)	Brick	M351: (M)50 M403: (M)75		19th/20thC
M8(4)	Brick	M403: (M)75	?Local	Late/post- medieval

\* = Newly identified fabric. Fabric definitions : (M)3/81

#### Roof Tile

More than 90% of the post 1100 assemblage comprises roofing tile. Past analysis has demonstrated that rectangular tiles were standard in Northampton (Denham 1984c) and in the present study all edge pieces were invariably straight with c. 90° corners. Nearly all the tiles were highly fragmented and thickness provides the only dimension for comparison between fabrics, but the extreme disparity in the relative occurrence of fabric types precludes the meaningful use of rigid statistics. Empirically derived average ranges of thickness for flat tile are as follows:

M1(1) : 10-12mm  
 M1(2) : 10-12mm  
 M2 : 12-14mm  
 M3 : 12-14mm  
 M4(2) : 13-15mm  
 M4(3) : 13-14mm  
 M5(2) : 10-12mm

Ridge tiles in these fabrics are typically at the upper limit of the range in thickness, or exceed it by up to 4mm.

The restriction of relatively thin tiles in M1 fabrics to the earlier medieval phases may reflect a later preference or indeed requirement for more substantial and long lasting roofing.

The dimensions of an almost complete double pegged tile (Fig (M)18, 1) of 13th/14th century date are: length 241mm (>9 1/2"), breadth 172mm (6 3/4"), thickness 16mm (5/8") which is probably typical of late medieval tiles in Northampton. It would appear that at least some local tileries were producing good quality products a century before a Royal Statute of 1477 (Stat 17 Edw IV) which decreed that roof tile was henceforth to be 10 1/2" x 6 1/4" x 5/8"; this was intended to increase roof life by standardisation and stem the prevalent flow of inferior wares. The tile is in fabric M3; the peg-holes have a diameter of 14mm and are 56mm apart. The lower portion of the tile has been coated with a lead and copper glaze. A shallow incised line which runs diagonally below the right hand peg-hole is identical to examples from The Riding (Denham 1984c, (M)78). All known examples of tiles from excavations in Northampton in which the area below the right hand peg-hole is present bear this mark (M2, M3, M4, M4(2)). Suggestions regarding the significance of this feature remain purely speculative, but it is possible that it was used to indicate that the tiles were intended for the Northampton market as they were probably produced outside the town. Alternatively, the line may have been for tally marking, quality control or as a locational aid for perforation and glazing.

At St Peter's Gardens peg tiles were recovered in fabrics M1, M2, M3 and M4(2) with an average peg-hole diameter of 14mm and separation between holes of 50-56mm. There is no evidence to suggest that tiles were other than double pegged. The majority of tiles classified as flat roof indeterminate are likely to represent the undiagnostic portions of peg tiles.

The ratio of flat roof tile to ridge and probable ridge tile (curved indeterminate) is 11.3:1. Ridge tiles occur in most fabrics and two examples with pyramidal crests, one hand-moulded and one knife-cut, are illustrated (Fig (M)18, 2-3). A highly abraded crested ridge terminal (M1(1)) with thumb-applied strip was recovered from a Phase 4A1/4A11 context. A similar piece was found at Derngate (Denham 1984a, (M)49). All ridge tiles are U-shaped in profile and give no indication of roof pitch. Ridge and peg tiles were commonly coated with lead and copper glazes, but because the glazes were partial and most excavated pieces are small, it is impossible to establish if any tiles were totally unglazed.

Only one piece of nib tile (M4(3)) was found and this occurred in Phase 4B11, supporting the suggestion that nib tiles

post-date peg tiles and are not found in contexts dating to before 1700. (Denham 1984a, 35). The pantiles, also in M4(3), are the first to be recovered from excavations in the town and are of type B1 (after Davey 1961, 154).

A piece of flat roof tile bearing an animal print is of intrinsic interest (Fig (M)18, 4). The print was made by the paw of a medium sized dog. Such impressions upon Roman tiles are well documented (eg Cram and Fulford 1979), but are less well known from medieval assemblages. It has been suggested (pers comm I Betts) that because of their weight, Roman tiles were laid out to dry on the ground, whilst relatively lighter medieval tiles were able to be stacked on end or dried on racks, which generally would have afforded better protection.

Various fabric types have been tentatively linked to kiln sites (Table (M)7). No sources have been located in the immediate vicinity of Northampton, but the presence of a single waster of flat indeterminate roof tile in M2 may suggest that this fabric (the most abundant) was more locally produced.

### Floor Tile

Floor tiles are poorly represented and only ten fragments were recovered, one with relief and slip decoration. The limited size of the sample is in keeping with the comparatively modest status of dwellings on St Peter's Street, although the properties fronting Marefair to the north might be expected to have been of a higher quality. The plain tiles were generally glazed and show signs of considerable wear.

Fabric M5(4) is confined to floor tile and is of uncertain origin, but is close to fabric M5(3) with a notably high iron ore content. The decorated example is similar in design to the products of the Penn tiler in Buckinghamshire (pers comm D Mynard) and may either have been imported, or in view of the mineralogy, represent the work of an itinerant tiler from that area. The tile was poorly stamped with a wooden die: the depth of decoration is uneven and the vertical line indicated by stippling on the illustration (Fig (M)18, 5) is almost certainly a crack in the stamp. The sunken areas of the tile have been filled with a white-firing clay, probably a direct application to the die, and the surface has been coated with a clear lead glaze. The design is previously unrecognised, but it appears to contain elements similar to Penn design 38 (Hohler 1942, 31) in addition to the wing of a dragon. The tile was recovered from a Phase 4A11/B1 context but a 14th century date for its manufacture can be proposed on stylistic grounds and as attested by documentary records (*ibid*, 21-24).

The upper glazed surface of a plain floor tile in M5(4) has been sliced across the diagonal through approximately half the total depth of the tile (tile thickness: 25mm (1"); depth of cut c. 12mm), but it is impossible to ascertain whether the tile had been laid as a full square or had been snapped to allow use as a half-piece. Similar examples were found at Greyfriars (Eames 1978) and one worn tile bearing traces of mortar had evidently been laid intact, despite having been scored into eighths. This would suggest that scoring at the tiler's allowed the purchaser



to divide the tile to his requirements or incorporate unsnapped tiles for decorative effect.

## Brick

A heavily oxidised fragment of brick from Phase 4Ai had probably been used in a hearth. A similar use of brick was recorded in House 4 at St Peter's Street (Williams and Williams 1979, 326). Given the small size of individual pieces and the sample as a whole, little can be said about the rest of the brick pieces (Tables (M)8-10).

### (iv) Newly Identified Fabric Types

M4(3)    Date: Post-Medieval    Sources: ?Local/N E Northants

Similar to M4(1) and M4(2) but with abundant variable angular and rounded black and red iron ore fragments, 2-8mm. Rare to common muscovite flakes, and rare poorly sorted angular quartz and calcareous inclusions. The fabric may be extremely laminated or more evenly textured depending upon the size and sorting of the iron ore fragments. Better produced examples have a sanding of extremely fine angular quartz: a coarser sanding of poorly sorted ferruginous and opaque quartz typifies the more laminated tile. Surfaces are unglazed and light red (2.5YR 6/8) to reddish yellow (5YR 6/8) in colour. Only nib and pantiles have been recognised and a post-1700 date is probable.

M5(4)    Date: Medieval    Sources: ?Local/?Penn, Bucks

Similar fabric to M5(3) but with less frequent well sorted coarse opaque and ferruginous quartz (<1mm); rare to common muscovite flakes and rare to common poorly sorted angular red and black iron ore (< 2mm).

A higher fired fabric than M5(3), frequently oxidised throughout with red surfaces (2.5YR 5/6) and margins, and occasional grey core (N 5/0). Commonly iron-slipped on upper surface with variable lead and copper glaze (10R 3/3, 5Y 3/2, 7YR 4/4. Decorated and plain floor tiles have been identified in this fabric and they are of Greyfriars type 2 (Eames 1979, 125).

Table (M)8: Occurrence of Different Fabrics by Phase

Phase	Fabric																Total
	M1 <sub>1</sub>	M1 <sub>2</sub>	M2	M3	M4 <sub>1</sub>	M4 <sub>2</sub>	M4 <sub>3</sub>	M5 <sub>1</sub>	M5 <sub>2</sub>	M5 <sub>3</sub>	M5 <sub>4</sub>	M6	M8	M8 <sub>2</sub>	M8 <sub>4</sub>	Ind.	
M1	33(5)	2(1)	46(2)	23(5)		4		1(1)				1	1(1)	1*	1*	5	118(15)
M1/4A11	2(2)		46(2)	22(3)	1	4										1	76(15)
4A11	6(3)	7(5)	56(14)	23(10)	2				1		1(1)		1			4	101(33)
4A11/4B1		3(3)						1(1)			2(2)					1	7(6)
4B1	1	1(1)	4(2)													1	7(3)
4B11				5		1	13						3				22
Unassigned	2		2(1)	3(2)		1	3								4	4(1)	19(4)
Unstratified	12(1)	1	53(12)	27(10)	1	5(1)	1	1	10(7)	1(1)	1(1)				1	9(2)	123(35)
Total	12(1)	14(10)	208(41)	103(30)	4	15(1)	17	2(1)	12(8)	1(1)	4(4)	1	5(1)	1	6	25(3)	473(111)

( ) = glazed pieces      \* = intrusive

Table (M)9 : Occurrence of Different Fabrics by Form

Form	Fabric																Total
	M1 <sub>1</sub>	M1 <sub>2</sub>	M2	M3	M4 <sub>1</sub>	M4 <sub>2</sub>	M4 <sub>3</sub>	M5 <sub>1</sub>	M5 <sub>2</sub>	M5 <sub>3</sub>	M5 <sub>4</sub>	M6	M8	M8 <sub>2</sub>	M8 <sub>4</sub>	Ind.	
Nib							1										1
Pyg	3		12	12(1)		1										1	29(1)
Ridge	3(3)	1(1)	2(2)	3(2)													9(8)
Pantile						7											7
Curved Ind.	4(3)	8(7)	4(1)	4(3)		1	2	1	1(1)							1	26(13)
Flat Roof Ind.	46(7)	5(2)	100(37)	84(24)	4	13(1)	7		9(6)				5(1)			5	366(78)
Roof/Floor Ind.																17(3)	17(3)
Floor Brick			1(1)					1(1)	2(1)	1(1)	4(4)	1					10(8)
													1	6		1	8
Total	56(11)	14(10)	207(41)	103(30)	4	15(1)	17	2(1)	12(8)	1(1)	4(4)	1	5(1)	1	6	25(3)	473(11)

( ) = glazed pieces

Table (M)10: Occurrence of Different Forms by Phase

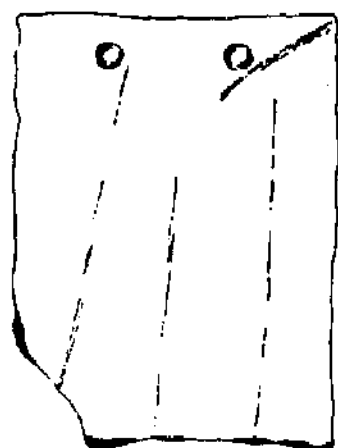
Form	Peg	Ridge	Pantile	Curved Ind.	Flat Roof Ind.	Roof/Floor	Floor	Brick	Total
Phase									
AAI	8(1)				104(13)	1	2(1)	3*	118(15)
AAI/AAII	6	3(2)			66(13)	1			76(15)
AAII	2	6(6)		11(8)	76(17)	4	2(2)		101(33)
AAII/ABII				3(3)	1		3(3)		7(6)
ABII				1	6(3)				7(3)
ABII	1		6	2	13				22
Unassigned			1	3	8(3)	3(1)		4	19(4)
Unstratified	13			6	92(29)	8(2)	3(2)	1	123(35)
Total	1	29(1)	9(8)	7	26(13)	366(78)	17(3)	10(8)	473(111)

(1) = glazed pieces

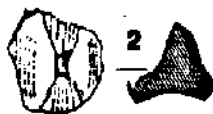
\* 2 are likely to be intrusive

(vi) Illustration Catalogue

No	Form	Fabric	Thickness (mm)	Ext	Colour Fabric Core	Int	Colour glaze	Colour glaze	Context	Phase	Comments
1	Peg	M3	16	SYR 6/8	10YR 5/1	SYR 6/8	SY 5/4		AA66.3	AAI	Maker's mark
2	Crested ridge	M3	12	SYR 6/8	10YR 5/1	SYR 6/8	SY 5/6	2.5YR 5/4	AA73	AAII	Hand moulded crest
3	Crested ridge	M1(2)	9	SYR 6/6	M5/0	SYR 6/6	SY 6/4		Z55.7	AAII	Knife cut crest
4	Flat roof	M3	14	SYR 6/6	10YR 5/1	SYR 6/8		2.5YR 5/4	AA305	*	Canine paw print
5	Floor	M5(4)	21	2.5YR 5/6	M5/0	2.5YR 5/6	SYR 5/6	10YR 7/6	Y32.3	AAII/BI	Crack in stone stippled



1



2



4



3



5

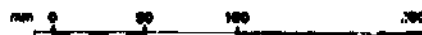


Fig (N)10: The Ceramic Tiles

# THE ARCHITECTURAL FRAGMENTS

by Hugh Richmond (architectural description)  
and D S Sutherland (petrological identification)

Fig (M)19

- AF1      *Tessera*, traces of *opus signinum*. Fine grained cream limestone, ?Blisworth Limestone. L: 22mm; W: 22mm; Th: 16mm. AA162, Phase 3?, SFSt288.
- AF2      Section of undecorated circular shaft. Limestone of shell fragments, not really oolitic, possibly Blisworth Limestone. L: 300mm; Diam: 110mm. AA307, Phase 4Ai, SFSt87.
- AF3      Stone fragment worked into two hollows on opposite faces. Brown ferruginous sandstone, Northampton Sand source. Y8, Phase 4Aii, SFSt44.
- AF4      (i11). Chamfered and moulded block; ?cornice. Ferruginous sandstone, Northampton/Duston type. Y8, Phase 4Aii, SFSt49.
- AF5      (i11). Unidentified fragment. Shelly oolitic cemented limestone, Barnack type. Y31, Phase 4Aii, SFSt57.
- AF6      Pyramidal stop. Yellowish-brown ferruginous sandstone, Northampton Sand source. Date: 12th century onwards, probably 13th-14th century. Y31, Phase 4Aii, SFSt56.
- AF7      Unidentified fragment. Yellowish-brown ferruginous sandstone, Northampton/Duston type. Y10, Phase 4Aii/Bi, SFSt47.
- AF8      Unidentified fragment. Ferruginous sandstone, Northampton/Duston type. Y10, Phase 4Aii/Bi. SFSt51.
- AF9      Fragment of a half round shaft. Yellowish brown ferruginous sandstone, Northampton Sand source. L: 95mm; Diam: 72mm. AA5, Phase 4Bi, SFSt76.
- AF10     Small chamfered stone; worked on chamfer and front face. Orange brown ferruginous sandstone. Northampton Sand source. L: 300mm; W: 140mm; Th: 100mm. AA5, Phase 4Bi, SFSt77.
- AF11     (i11). Unidentified fragment. Brown ferruginous sandstone, Northampton Sand source. AA519.1, Phase 4, SFSt281.
- AF12     (i11). Fragment of grave footstone. Inscription JB1693 AS1700. Brown ferruginous sandstone, Northampton/Duston type. W+, SFSt1.

- AF13            Fragment of a rectangular slab with a convex upper surface ?grave cover. Ferruginous sandstone. Northampton/Duston type. W: 520mm; Th: 40mm at edges, rising to 100mm at centre. W+, SFSt41A.
- AF14            Three-quarter-round shaft with drilled central hole for vertical dowel. Shelly oolitic limestone, ?Barnack type. L: 110mm; Diam: 105mm. W+, SFSt67.
- AF15            (i11). Fragment of a moulded joint from a rectangular opening; two rolls separated by a quirk. Brown ferruginous sandstone, Northampton Sand source. X+, SFSt43.
- AF16            (i11). Fragment of an attached octagonal shaft with carved capital; abacus with indented triangle decoration; leaf carving on bell; roll between two quirks on the astragal; chevron carving on the shaft. Brown ferruginous sandstone, Northampton Sand source. Date: mid-12th century. (AA570) = +, SFSt286.
- AF17            Unidentified fragment. Shelly ferruginous sandstone with Trigonina (cf Brixworth type NB). +, SFSt302.
- AF18            Part of a moulded opening with a housing for a metal bar; possibly re-used and roughly re-cut; mortar on one surface. Ferruginous sandstone, Northampton/Duston type. +, SFSt318.

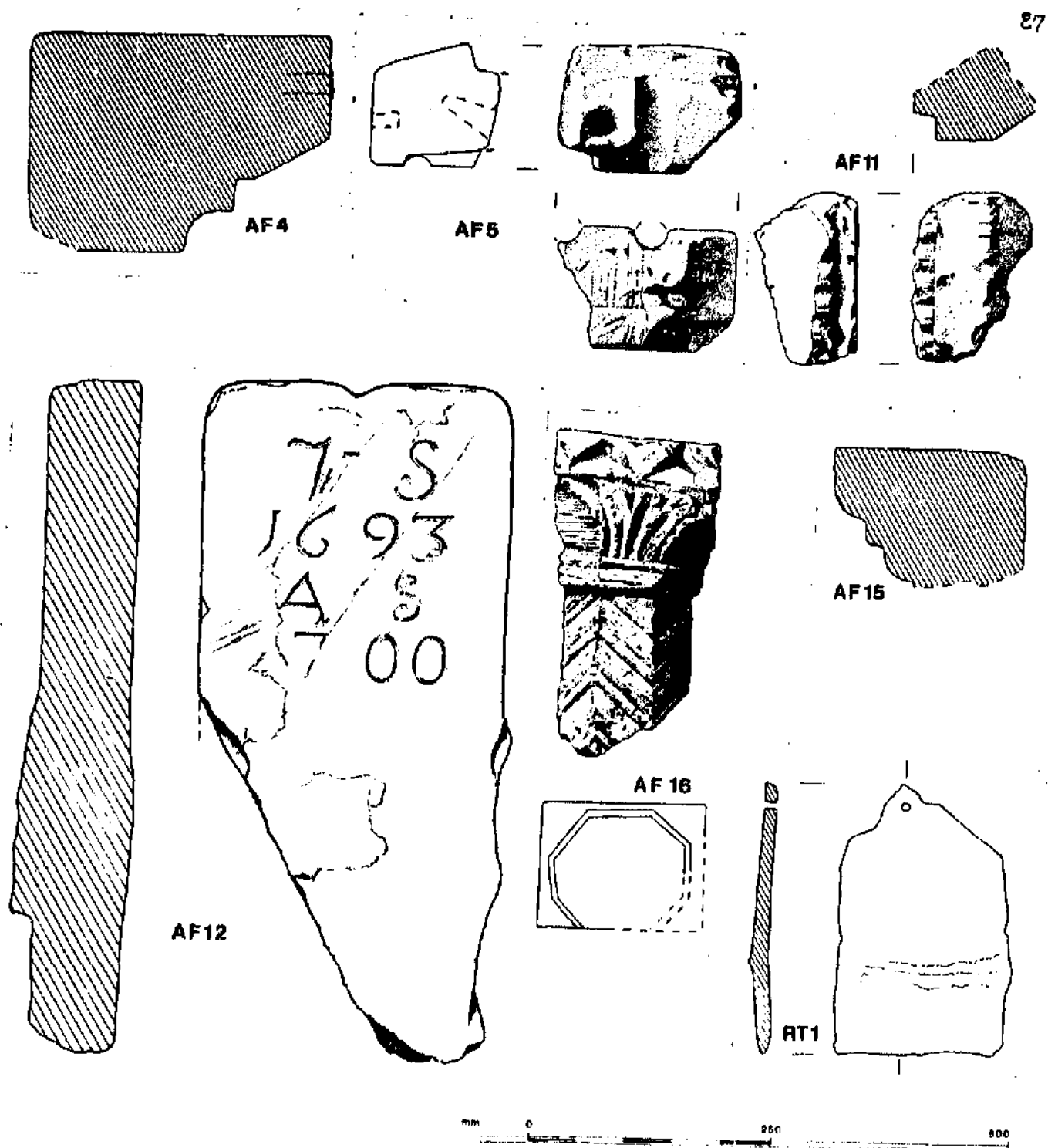


Fig IM19: The Architectural Fragments and Stone Roof Tile

# THE STONE ROOF TILES

by Michael Shaw (description)

and L S Sutherland (petrological identification)

Fig (M)19

- RT1 (i11). Complete tile, pierced central hole, pointed at top. Fine grained fissile limestone; Upper Estuarine Limestone. L: 290mm; W: 180mm; Th: 8mm. AA66.1, Phase 4Ai, SFSt301.
- RT2 Tile fragment, pierced hole 14mm diameter. Fine grained sandy limestone/calcareous sandstone; Upper Estuarine Limestone. W: 165mm; Th: 16mm. W11, Phase 4Ai, SFSt332.
- RT3 ?Tile fragment. Fine grained fissile limestone; Upper Estuarine Limestone. W: 210mm; Th: 12mm. AA66.1, Phase 4Ai, SFSt300.
- RT4 ?Tile fragment. Very shelly, fissile limestone, abundant spines, oyster rich, some *Placunopsis*; Upper Estuarine Limestone. W: 350mm; Th: 10mm. AA66.1, Phase 4Ai, SFSt299.
- RT5 Tile fragment, pierced hole 10mm diameter. Fissile shelly limestone; Upper Estuarine Limestone. Th: 8mm. AA375, Phase 4Ai, SFSt323.
- RT6 Tile fragment, pierced hole 9mm diameter. Coarsely shelly limestone; Upper Estuarine Limestone. W: 75mm; Th: 10mm. AA544, Phase 4Ai, SFSt319.
- RT7 Tile fragment, pierced hole 8mm diameter. Partially ferruginous calcareous sandstone; possibly Northampton Sand. Th: 5-15mm. Y31, Phase 4Aii, SFSt321.
- RT8 Tile fragment, mortar adhering to one surface, pierced hole 10mm diameter. Finely colitic sandy limestone; possibly Northants Sand/Duston type. Th: 10-25mm. Y8, Phase 4Aii, SFSt327.
- RT9 Tile fragment, mortar adhering to one surface, pierced hole 10mm diameter. Shelly limestone; Upper Estuarine Limestone. Th: 8-20mm. Y8, Phase 4Aii, SFSt328.
- RT10 Tile fragment, pierced hole 9mm diameter. Sandy limestone; Upper Estuarine Limestone. Th: 9-12mm. AA543, Phase 4Aii, SFSt324.
- RT11 Tile fragment, pierced hole 11mm diameter. Coarsely shelly limestone; Upper Estuarine Limestone. Th: 6-8mm. AA543, Phase 4Aii, SFSt325.



- RT12      Tile fragment, mortar adhering to upper edge, pierced hole 10mm diameter; very heavy for tile. Northampton Sand. Th: 10mm. W3, Phase 4Bii, SFSt316.
- RT13      Tile fragment, pierced hole 9mm diameter. Oolitic limestone; possibly Upper Estuarine Limestone. Th: 9mm. W+, SFSt315.
- RT14      Tile fragment, pierced hole 8mm diameter. Fine grained brownish-grey micaceous sandstone; possibly Upper Estuarine Limestone. Th: 6mm. W+, SFSt320.
- RT15      Tile fragment, roughly pierced hole 11mm diameter. Fine grained sandy limestone; possibly Northampton Sand. Th: 8mm. (AA505) = +, SFSt322.

# THE HONES

by Michael Shaw (description)  
and D T Moore (petrological identification)

Fig (M) 20

- H1           Hone, rectangular section; worn on all four faces; wide faces convex; narrow faces flat; shallow point-sharpening grooves on one edge; both ends rough, one chipped. Norwegian Ragstone. L: 112mm; W: 30mm; Th: 6-15mm. AA49, Phase 4Ai, SFSt79.
  
- H2           Fragment of a hone, rectangular section; all sides worn, both ends broken. Norwegian Ragstone. L: 61mm; W: 18mm; Th: 12mm. AA66.4, Phase 4Ai, SFSt84.
  
- H3           Fragment of a hone, rectangular section; all surfaces worn; both ends broken. Norwegian Ragstone. L: 47-59mm; W: 25mm; Th: 3-8mm. AA204, Phase 4Ai, SFSt85.
  
- H4           Fragment of hone of rectangular section; all faces worn smooth and flat; tapers towards one end, both ends broken. Norwegian Ragstone. L: 53mm; W: 10-15mm; Th: 11-12mm. (W27) = 26, Phase 4A, SFSt19.
  
- H5           Fragment of a hone, rounded rectangular section; all faces worn flat; one end roughly finished; other end broken. Norwegian Ragstone. L: 100-115mm; W: 20-25mm; Th: 17-20mm. (W53) = 52, Phase 4A, SFSt20.
  
- H6           Fragment of a mullion; one narrow side worn smooth, other sides rough; both ends broken, one end blackened by fire. Norwegian Ragstone. L: 147mm; W: 31mm; Th: 8-21mm. AA73, Phase 4Aii, SFSt81.
  
- H7           Fragment of a small hone, rectangular section; worn smooth on three faces; tapers towards one broken end. Norwegian Ragstone. L: 33mm; W: 4-6mm; Th: 3mm. AA+, SFSt73.
  
- H8           Fragment of a hone, rounded rectangular section; broken at one end; wide faces flat with score marks (?point-sharpening grooves) along length of surface; narrow faces flat. Norwegian Ragstone. L: 114mm; W: 25mm; Th: 14mm. (AA1) = +, SFSt75.
  
- H9           Fragment of a hone, triangular section; worn on all faces, wide faces flat, narrow faces convex; broken at both ends. Norwegian Ragstone. L: 60mm; W: 10-22mm; Th: 1-4mm. (AA69) = +, SFSt80.
  
- H10          Hone, worn to oval section; all surfaces heavily worn; wide faces flat, narrow faces convex; one end worn to a point. Mica schist. L: 83mm; W: 22mm; Th: 3-12mm. (AA170) = 167, Phase 2, SFSt250.

- H11            Fragment of a hone or polishing stone; one wide face worn smooth; point-sharpening grooves on edges. Muscovite-bearing calcarenite. L: 75mm; W: 62mm; Th: 5-9mm. AA73, Phase 4Aii, SFSt82.
- H12            (i11). Well fashioned pierced hone, rectangular section; worn to a point at end away from hole; all surfaces worn flat. Quartz-muscovite wacke with ferruginous matrix. L: 76mm; W: 8-10mm; Th: 7-8mm. (Y15) = 14, Phase 4Aii-Bi, SFSt45.
- H13            (i11). Fragment of a well-fashioned pierced hone, rectangular section; all surfaces flat, edges bevelled; one end broken, other end finely finished with a bevelled edge. Muscovite-bearing calcarenite. L: 68mm; W: 13mm; Th: 9-10mm. (AA1) = +, SFSt74.
- H14            Small hone, rounded rectangular section, chipped at one end; all surfaces worn flat, both ends rounded. Muscovite-bearing quartzarenite. L: 45mm; W: 14-16mm; Th: 7-8mm. (AA39) = +, SFSt83.
- H15            Small hone, rectangular section; wider faces heavily worn to concave section; narrower faces also worn; one end thicker where normally held; point-sharpening grooves at this end. Micaceous grit of Coal Measures Sandstone. L: 73mm; W: 22-42mm; Th: 18-24mm. (AA337) = +, SFSt86.

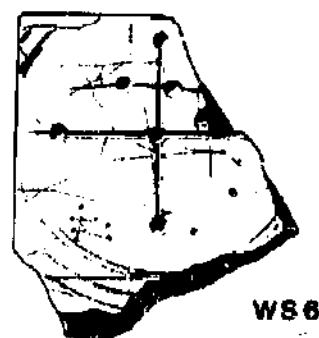
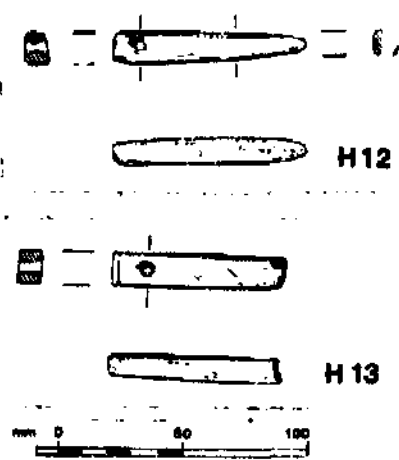


Fig (M)20: The Bones and Other Worked Stone

THE QUERN AND MILLSTONE FRAGMENTS  
by Michael Shaw (description) and  
Diana S Sutherland (petrological identification)

- Q1            ?Quern. Fine grained pinkish-red sandstone, not local, possibly New Red Sandstone. Diam: 650mm; Th: 460mm. Z60, Phase 1, BFSt72.
- Q2            ?Quern fragment; ?grinding surface slightly convex, smooth; outer surface convex. Quartz/quartzite conglomerate; Cambrian source. L: 280mm; W: 110mm; Th: 70mm. AA127.1, Phase 2, BFSt230.
- Q3            Quern/millstone fragment; flat grinding surface; outer surface convex. Reddish quartzite conglomerate; Cambrian or New Red Sandstone source. L: 190mm; W: 130mm; Th: 75mm. (AA142) = 127.2, Phase 2, BFSt96.
- Q4            ?Quern. Very fine grained brown siltstone, not local. Diam: 740mm; Th: 320mm. Y102, Phase 3, BFSt63.
- Q5            Two joining quern/millstone fragments; flat grinding surface pecked in lines to a depth of 2mm at 50-60mm intervals; outer surface convex. Fairly coarse white arkose Millstone Grit. L: 455mm; W: 130mm; Th: 92mm; Diam: not ascertainable. Y31, Phase 4Aii, BFSt52, 53.
- Q6            Quern/millstone fragment; flat grinding surface pecked in lines to a depth of 2mm at 35-55mm intervals; outer surface convex. Coarse white sandstone; Millstone Grit (or white variety of New Red Sandstone). L: 350mm; W: 194mm; Th: 130mm. Y31, Phase 4Aii, BFSt59.
- Q7            Quern/millstone fragment; flat grinding surface pecked in lines to a depth of 2mm at 20-40mm intervals; outer surface coarse white sandstone; ?Millstone Grit (or white variety of New Red Sandstone). L: 284mm; W: 150mm; Th: 90mm; Diam: not ascertainable. (Y4) = 2, Phase 4Bii, BFSt51.

## THE WORKED FLINTS

by J L Humble

### Introduction

In addition to the collared urn, prehistoric activity on the site of St Peter's Gardens is attested by 158 worked flints. The material complements and extends the group of 176 examples recorded at St Peter's Street (Bamford 1979a).

Most if not all the worked flints appear to be residual and none derive from contexts which could be securely dated as prehistoric. Incidence by phase is as follows:-

Phase 1	43	27%
" 2	12	8%
" 3	21	13%
" 4A1	12	8%
" 4A1i	5	3%
" 4B1	-	-
" 4B1i	12	8%
Unassigned	30	19%
Unstratified	23	15%

In accordance with the distribution of worked flint at St Peter's Street (*idem*, 290), over 65% of the assemblage was recovered from the westernmost trenches V, W, Y and Z. The average density across the site, including trenches X and AA, is only 1 flint per 6.5m<sup>2</sup>.

Small find numbers used throughout the report are those used on site. The terms RHS and LHS are conventionally used and refer to the appropriate side of the dorsal surface with the bulbar end nearest to the viewer.

I am grateful to Helen Bamford for her comments and advice.

### Raw Material

The flint is of variable quality, grey or grey-brown in colour, and cortex retained by 67 pieces frequently appears rolled, abraded, weathered and sometimes iron-stained. The gravel terraces of the River Nene and the Northern branch of the Nene (c. 180m to the S.W.) would have provided a suitable local source for such material, which is also standard on other Northampton sites. All the worked flint is comparatively small in size (<55mm) and is compatible with these sources.

A quarter of the flints have grey or mottled grey-blue discoloured surfaces resulting from the process of cortication (ie 'patination'). This varies in degree, but presence and extent does not appear to correlate with any recognisable morphological trait.

### Parent Material

The cores are classified according to the system used by Clark in the Hurst Fen report (1960, 216).

Table (M)11: Cores

Class	Description	Length	Diameter	SF No
A2	Single faceted platform, flaked part of the way around. Flake scars only.	25mm	26mm	15
B1	Two parallel platforms (one faceted), flaked part of the way around. Flake and blade scars.	41mm	22mm	81
B2	Two platforms (one faceted), one at an oblique angle, flaked part of the way around. Flake and blade scars.	26mm	26mm	92
Core fragment	Flake and blade scars.	31mm	-	5
		Length	Breadth	SF No
Core rejuvenation flakes	Flake and blade scars.	36mm	24mm	12
	Flake scars only.	34mm	29mm	187

The three cores, core fragment and one rejuvenation flake (SF187) appear to have been utilised as scrapers, and the other rejuvenation flake was possibly used for cutting (SF12).

#### Flakes and Blades

The flake and blade component of the assemblage was categorized as follows:-

Non-utilised flakes and waste material	60	44%
Utilised flakes	39	28%
Blades (15 utilised)	26	18%
Blade segments (7 utilised)	13	9%

Each piece was examined at X20 magnification, for microscars, abrasion and polish consistent with use. Inevitably some examples have suffered damage through natural agencies and trampling, but 39 flakes exhibit regular edge-wear which may be regarded as the consequence of utilisation, probably in a wide range of domestic tasks. These include one flake without retouch, but possessing an extremely abraded edge at the distal end of the RHS, oblique to the long axis of the flake (SF131). This type of wear is likely to be the result of working a malleable yet resilient material such as hide (Hayden 1979, 207-229).

One flake has been crudely retouched and possibly represents an abortive attempt to fashion a tanged projectile point (SF141). Four other examples exhibit miscellaneous trimming and retouch (SF64, 115, 172, 173).

Tabulation of the breadth : length ratios for intact flakes illustrates the small size of the flints (Table (M)12): most are between 10-35mm in length and between 10-30mm in breadth. 19 intact flakes do not appear to have been utilised.





Some of the blades are very small and could be described as of microlithic proportions.

In addition to 26 intact blades, the assemblage includes 13 blade fragments or segments, eight resulting from removal of the bulbar end and three the removal of the distal end; two have both tips removed. Signs of use are present on the unsnapped edges of seven pieces, which might suggest that breakage occurred during use, although blade segments are commonly identified as potential elements of composite tools (Clarke 1976).

The non-utilised flakes and waste material are of widely variable morphology. Most are small and all are less than 52mm in maximum dimension. In this category, cortex is present on 18 flakes. Very little could be described as workshop debris and the assemblage contains only eight primary flakes.

Table (M)14: Implement Typology

Scrapers	Description	Length	Breadth	SF No
End scraper	Retouch on distal end, dorsal surface.	29mm	19mm	106
End scraper	Steep retouch on distal dorsal surface.	48mm	34mm	177
End scraper	Trimming and light retouch on ventral surface of a broad flake.	25mm	36mm	195
Side/end scraper	Steep retouch on distal end and LHS, dorsal surface.	26mm	24mm	108
Side/end scraper	Retouched on distal end and RHS, dorsal surface.	25mm	21mm	170
Side/end scraper	Retouched on LHS, dorsal surface.	37mm	21mm	180
Miscellaneous				
Knife	Straight edged flake knife, retouched on dorsal surface, medial-lower RHS.	51mm	18mm	177
Borer	Careful retouch on the ventral surface has accentuated a scar on the LHS originally formed by an awkward hinge fracture.	30mm	19mm	199
Serrated flake	29 worn denticulations along 21mm of upper RHS of an intact pear-shaped blade.	52mm	21mm	143
Waisted tool	Two laterally opposed notches displaced towards distal end of flake. Both notches have been formed by step flaking on the ventral surface and are worn through use. The LHS notch and the distal end are also retouched on the dorsal surface.	49mm	23mm	128
Microlith	Obliquely blunted point, RHS. Steeply backed on LHS.	35mm	10mm	54

Only three of the classifiable implements may be regarded as characteristic of a particular industry. The single microlith constitutes a mesolithic element and some of the scrapers may also be of similar antiquity. The straight-edged flake knife and waisted tool are forms which have only been found in contexts dated by associated pottery to the later neolithic and early Bronze Age (Healy 1980, 228, 259). Waisted tools are a rare form and in comparison to other published examples (listed, *ibid*), which are typically axe-like in proportions, the specimen from St Peter's Gardens is unusually small.

### Discussion and Conclusions

This limited assemblage lacks both stratified prehistoric contexts and contemporary associations which might enable more precise dating, and is typical in content of other residual flint groups recovered in Northampton during the excavation of later sites. Notable exceptions in the immediate vicinity of Northampton are Briar Hill (Bamford 1984), Ecton (Moore et al 1975) and Chalk Lane (Williams and Shaw 1981). The consistently small size of the flints is almost certainly a reflection of the limitations imposed by the available raw material, rather than the designed product of a specific flint working industry. Despite the small size of the sample, analysis of breadth : length ratios demonstrates the wide combination of dimensions represented by struck pieces of regular morphology. Some of the smaller blades, blade fragments and scrapers are probably of mesolithic origin although only the obliquely blunted point is diagnostic of this period. Two of the cores may also be mesolithic.

The remainder and bulk of the collection appears to be neolithic and domestic in character. Two implements are types which have only been found in later neolithic and early Bronze Age contexts, and these, in conjunction with much of the chronologically indeterminate flint which is likely to be of similar date, might indicate activity contemporary with the interment of the collared urn ((M)2/1).

The group form a useful supplement to the assemblage recovered at St Peter's Street (Bamford 1979, 290-295) and many characteristics and affinities appear to be shared.

THE OTHER WORKED STONE

by Michael Shaw (description)

and D S Sutherland (petrological identification)

Fig (M)19

- WS1      Oval ?counter, flat bottom, concave top. Limestone, possibly Blisworth or other local limestone. L: 22mm; W: 20mm. (Y70) = V87, Phase 1, SFSt329.
- WS2      ?Jet ring. Y27, Phase 3, SFSt50.
- WS3      Fragment of a spindle whorl. Chalk. Diam: 35mm. (AA132) = AA123.1, Phase 3, SFSt295.
- WS4      Fragment of ?jet/lignite. Y146, Phase 3/4A1, SFSt60.
- WS5      ?Jet bracelet. (W20) = V1, Phase 4Bii, SFSt18.
- WS6      (iii). Fragment of polished stone with mason's graffiti. ?Alabaster or clunch. (AA2) = +, SFSt78.

THE MORTAR  
by Simon Hardy

The mortar report comprises:

Main Text

- (i) A synopsis of the thin section analysis of the mixer residues and the mortar.
- (ii) Fabric type analysis.
- (iii) Summary

Fiche

- (i) Thin section analysis of the mixer residues and the mortar.
- (ii) List of thin sections.
- (iii) Descriptions of fabric types.
- (iv) Incidence of fabric types.
- (v) Conclusions from the fabric type analysis.
- (vi) Comparison of fabric types to mix residues in thin section.
- (vii) Contents of the Archive.

(i) THIN SECTION ANALYSIS OF THE MIXER RESIDUES AND THE MORTAR

Initially 102 thin sections were examined (Table (M)15), including 34 which had been prepared for the St Peter's Street report (Williams J H 1979, 131-3).

Table (M)15

		Number of thin sections
<hr/>		
St Peter's Street:		
mortar mixers	mix residues	6
	mix constituents	10
type series		14
others		4
St Peter's Gardens:		
mortar mixers	mix residues	21
	mix constituents	6
main hall	mortar spread	6
	foundations	4
	robber trench	-
large extension	foundations	14
	robber trench	-
small extension	foundations	2
	robber trench	1
others		14
<hr/>		
Total:		102

The criteria for the analysis of the thin sections were:

- (i) the mineralogy, grain-size and grain-rounding of the sand fraction.
- (ii) the frequency of occurrence of other inclusions, commonly above sand grade, such as ceramics, limestone and ironstone.
- (iii) the ratio of aggregate/cement/voids.
- (iv) the evenness of texture and composition.
- (v) where uneven the presence of matrix banding or aggregate lineation.
- (vi) the opacity and body colour of the section.

(i) was accomplished by ribbon counting against a 1mm graticule, at x100 magnification, until the size (by Wentworth Scale class (Wentworth C K 1922)) and the roundness (by Powers' six class scale (Powers M C 1953)) of at least 100 quartz grains, had been recorded; (ii) and (iii) by estimations of the percentage area of the whole section occupied by each component, at x30 magnification; (iv), (v) and (vi) by a subjective non-scalar estimation over the whole section, at x30 magnification, the last (vi) under plane-polarised light.

The samples were of two classes:

- (i) the multiple samples from single mix residues which may be treated as groups
- (ii) the samples from contexts related to the middle Saxon stone buildings which should be considered singly.

The data fall into two categories and these were therefore treated separately:

(i) the grain size of the quartz-sand fraction was recorded over four classes of the Wentworth Scale and the roundness over the six classes of the Powers Scale. For each thin section a percentage frequency could therefore be calculated for each class in both grain size and roundness, giving ten values in all, totalling 200%.

(ii) the remainder of the data, including the mineralogy of the non quartz-sand grains, which were so few as to make any percentage frequency meaningless, was compiled into composite petrological descriptions.

The quartz grain size and roundness data for each mixer residue group and each individual non-mixer sample were depicted graphically and visual comparisons made between groups, and between each single sample and each group. This yielded few positive results. A mean and standard deviation for each class of size and roundness within each single group was calculated. Using these data each of the ten mean values for each group could be compared to those of the same class from any other group or single sample by Student's T-test. Thus a score out of ten for the number of classes in which the difference between the values of any two groups or of any group and single sample was significant, or highly significant, could be given, a low score suggesting a close affinity between the two groups. Scores for comparisons of material which might be expected to show an affinity were in some cases as high as for material clearly not related. In addition when thin sections were selected at random and the analyses repeated some showed greatest apparent affinity to groups other than those to which

4

they belong archaeologically, The low repeatability of the analyses and the high intra-group variability of the mix residues established the need for groupings of mortar to be compared to the mix residue groups rather than single samples. An attempt was made to produce contextual groups despite the probable presence of more than one mortar type in each contextual group. As might be expected the results for comparison between these contextual groups and the mixer residue groups were no more successful.

Several areas of difficulty can be identified. These problems arise in both the post-analysis treatment of the size and roundness data of the quartz-sand fraction, and of the remainder of the petrological information. In the former case the low repeatability of the data is a major problem but this is not independent from a second: the large intra-group variability, particularly of the mixer residues. It would appear that the groups are inadequately defined by the samples which constitute them; thus their means and standard deviations have not been sufficiently established. Furthermore, as might be expected, the range present within the groups comprising samples associated with one structural unit, such as those from the foundation trench of the large extension, suggest that mortar from more than one mix might be present. This hypothesis is confirmed by the subsequent fabric type analysis. The third substantial problem with the quartz-sand data is the difficulty in employing any powerful statistical test to the validity of the groups and their compatibility.

The difficulties which beset the analysis of the non-quartz mineralogy and the quartz types are the large intra-group variability and the very low frequencies involved. Indeed, so low are the frequencies that even the presence or absence of a mineral, such as chert or feldspar, from any one thin section analysis cannot be taken as meaningful. The variation of frequency of a mineral in any one group is at least as great as that between its mean frequencies in any two groups. A similar degree of variability is exhibited by the textural characteristics.

The factors contributing to the intractability of the thin section analyses fall into three categories:

- (i) the nature of the material studied
- (ii) sampling
- (iii) inadequacies in the methods employed for the analyses.

It is not within the scope of this report to weigh the relative importance of each category, let alone of the individual underlying factors, but these may be outlined.

(i) In attempting to correlate a mortar with a mix residue it is necessary to make three assumptions: firstly that an attribute exists which is common to each; secondly that sampling is possible in such a way that the sample will share the attribute; thirdly that the attribute can be accurately measured. If the portion of a mix which remains in the mixer is not, in the attribute measured, representative of that which is removed, then a correlation will not be possible. Such a state might be produced in two ways: by the incomplete mixing of the contents of a mixer in which the original constituents are heterogeneous in the attribute to be examined, or by a process producing heterogeneity after mixing. Examples of the latter would include gravitational sorting of the mix, before or during removal or by

use; or the addition of material, differing in the attribute, after removal of the mix. Gravitational sorting may be discounted for the attributes of size and roundness considering the low range of settling velocity, in a liquid of such viscosity, between sand-size grains of different roundness, and the shortness of the time likely to have passed between mixing and setting. Whilst the possibility of the addition of sand of different characteristics, after the initial mixing in the mortar mixers, cannot be excluded, there is no reason to think it likely.

The former case, of the incomplete mixing of heterogeneous constituents, is the more probable cause of difficulties. The sand grains present in any one mix come from at least two sources which will almost certainly have different characteristics: the arenaceous fraction of the limestone used in the manufacture of the lime, and the aggregate itself. If mixing is incomplete and the sand to lime ratio at the base of the mixer, is different from that at the top, then the residue and the mortar removed will show different frequency distributions of grain size and roundness. The same may be true if batches of lime and aggregate from several sources are incompletely mixed. Considering the geology of the possible sand sources it is quite possible for different loads, even from the same quarry, to show differences in grain size and roundness, and the possibility of more than one sand source being exploited contemporaneously cannot be excluded.

It can be seen that considerable difficulties exist even in comparing a single mortar to a single mix residue and these problems are compounded if various mix residues and various mortars are grouped before comparing one to the other. (ii) Sampling presents difficulties at every level. For example, evidence is discussed later in the fabric type analyses to show that no mix residues were discovered during the excavation for two of the mortar fabric types identified as being used in the construction of the main hall and its extensions. Similarly it is of course possible that further stone buildings lay beyond the limits of the excavation and that some of the mix residues recorded may relate to their construction. The intra-group variability, which may in part be due to an inadequate number of grains counted in each section, means that the number of thin section analyses for each group is too small for the groups to be regarded as well established. These factors also dictate that mortar groups are desirable rather than single samples. The grain count was again too small to allow the importance of the non-quartz mineralogy to be objectively assessed.

With the benefit of hindsight the methods and techniques of the thin section analysis may be criticised on a number of points. The advantage of fabric type analysis as a preliminary to thin sectioning can be seen. The number of samples sectioned, and of grains counted in each slide, in this case defined by restrictions of time and cost, was inadequate given the variability of the material involved. When considering grain size the sample assessed should be of the order of 300 grains and a wider range than that of the Wentworth sand grade is desirable. The Wentworth Scale, being logarithmic, is not suitable for the recording of size over a narrow range (Pettijohn E J 1975, 34-52). Grain size should be recorded not in a few broad classes but over as many, narrow classes as

practicable. It is questionable whether grain size analysis is best carried out in thin section, but this does allow the mineralogy of a grain to be determined and in some cases the presence of grains of a certain size and mineralogy may be diagnostic. Grain roundness can be easily examined in thin section and the differential rounding of grains of different mineralogy can be recorded. It is, however, notoriously difficult to assess roundness accurately. Blatt, Middleton and Murray assert that: 'it has been shown that the accuracy of visual comparison methods is so low that, for the same sample of grains, different operators may estimate mean roundness values that differ by a whole roundness class. Even precision (reproducibility by the same operator) is often poor' (Blatt H, Middleton G and Murray R 1972, 65). Assessments of grain roundness may, however, be desirable where a wide range of mean roundness is present between definable groups.

The mineralogy of the sand portion of a mortar is readily examinable in thin section and may well be diagnostic. A high grain count is needed, however, for it to be recorded objectively because of the low frequency of non-quartz sand in most samples. This process need not be too slow if an automated mechanical slide carriage and point counter is used.



(11) LIST OF TRIN SECTIONS

Table (M):6

Site No	TSMF	Context No	Feature Type	Fabric Type	Group	Notes
M115: St Peter's Street	1	F362.2	Mixer 1: unmixed lime	-	(vi):17	
	2*	F362.4	"	-	(vi):18	
	3	F362.5	"	-	(vi):19	
	4	F362.5	"	-	(vi):20	
	5*	F362.6	"	-	(vi):21	
	6	F363.1	Unmixed sand	-	(ix)	
	7	F363.1	"	-	(ix)	
	8	F363.2	"	-	(ix)	
	9	F363.2	"	-	(ix)	
	10	F363.3	unknown	-	-	Excluded
	11	F361	Mixer 2: Mix residue	-	-	Single member group
	12	F361	" Aggregate	-	-	Excluded
	13	G264	Mixer 3: Secondary mix	-	(i)	
	14	G264	"	-	(i)	
	15	G264	"	-	(i)	
	16	G265	Primary mix	-	(ii)	
	17	G265	"	-	(ii)	
	18	F1456	Mortar spread	-	-	Insufficient sand
	19	F1456	"	-	-	
M119: St Peter's Street: Type Series	20*	-	-	1	-	Single member group
	21*	-	-	2	-	"
	22	-	-	3	-	"
	23	-	-	4	-	"
	24	-	-	5	-	"
	25	-	-	6	-	"
	26	N178B	Minster Church: Wall plaster	7	(xii)	
	27	N178B	"	7	(xii)	
	28	N178B	"	7	(xii)	
	29	N18B	Floor spread?	8	-	Insufficient sand
	30*	-	-	9	-	"
	31	-	-	10	-	"
	32	-	-	11	-	Single member group
	33	N178A	Minster Church: Wall bonding	12	-	"
M115K: St Peter's Gardens	34	W50.2	Mixer W50: Secondary mix	-	(iii)(iv)	
	35	W50.2	"	-	(iii)(iv)	
	36	W50.6	"	-	(iii)(iv)	
	37	W50.6	"	-	(iii)(iv)	
	38	W50.6	"	-	(iii)(iv)	
	39*	W50.7	"	-	(iii)(iv)	
	40*	W50.7	"	-	(iii)(iv)	
	41	W50.8	"	-	(iii)(iv)	
	42	W50.8	"	-	(iii)(iv)	
	43	W50.9	Primary mix	-	(v)	
	44	W50.9	"	-	-	Insufficient sand
	45	W50.9	"	-	(v)	
	46	W50.11	Secondary mix	-	(iv)	

47	W50.11	"	"	-	(iv)	
48	W50.11	"	"	-	(iv)	
49	W50.12	"	Primary mix	-	(v)	
50	W129.1	Mixer W129:	Secondary mix	-	(vi)	
51	W129.1	"	"	-	(vi)	
52	W129.2	"	Primary mix	-	(vii)	
53	W129.2	"	"	-	(vii)	
54	W129.2	"	"	-	(vii)	
55	W129.4	"	Unmixed lime	-	-	Insufficient sand
56	W129.4	"	"	-	(x)	
57	W129.4	"	"	-	-	Insufficient sand
58	W129.4	"	"	-	(x)	
59	W129.4	"	"	-	(x)	
60	W129.5	"	Unmixed sand	-	(xi)	
61	W129.5	"	"	-	(xi)	
62	W129.13	"	Secondary mix	-	(vi)	
63	W90	Post-hole		P	(xvii)	
64	(W119)=V68	Large extension:	Foundations	C?	(xv)(xviii)	
65	(W119)=V68	"	"	K11	-	Insufficient sand
66	(V69.1)=68	"	"	H	(xviii)	
67	(V69.1)=68	"	"	-	-	Limestone
68	(70/71)=68	"	"	L	(xviii)	Single member group
69	(AA127.1)=127.12	Main hall:	Foundations	I	-	
70	(AA127.2)=127.12	"	"	C?	(xv)	
71	(AA143.9)=127.1	"	"	C?	(xv)	
72	(AA151)=151.1	Large extension:	Foundations	-	(xviii)	
73	(AA151)=151.1	"	"	C?	(xvi)(xviii)	
74	(AA151)=151.1	"	"	-	(xviii)	
75	(AA159.0)=151.2	"	"	-	-	Limestone
76	(AA159.0)=151.2	"	"	-	(xviii)	
77	(AA159.1)=151.2	"	"	C?	(xviii)	
78	(AA159.1)=151.2	"	"	-	(xviii)	
79	(AA159.1)=151.2	"	"	-	(xviii)	
80	(AA159.1)=151.2	"	"	-	(xviii)	
81	(AA159.1)=151.2	"	"	C?	(xv)(xviii)	
82	(AA159.1)=151.2	"	"	-	(xviii)	
83	(AA159.1)=151.2	"	"	-	(xviii)	
84	AA161	Mortar spread		C?	(xv)(xix)	
85	AA161	"	"	-	(xix)	
86	(AA163)=161	"	"	-	(xix)	
87	(AA177)=161	"	"	-	(xix)	
88	(AA177)=161	"	"	-	(xix)	
89	(AA177)=161	"	"	-	(xix)	
90	AA208	Small extension:	Foundations	C?	(xvi)	
91	AA208	"	"	C?	(xvi)	
92	(AA219)=206	"	Robber trench	P?	(xviii)	
93	(AA405)=127.10	Main hall:	Foundations	-	-	Single member group
MI15: St Peter & Street	94	F363.1	Mixer One: Unmixed lime	-	(ix)	
	95	-	-	-	-	Excluded
	96	-	Mixer One: Aggregate	-	-	"
	97	-	"	-	-	"
	98	-	"	-	-	"
	99	-	"	-	-	"
	100	-	"	-	-	"
	101	-	"	-	-	"

	102					
M115x: St Peter's Gardens.	103	AA543	Pit	A	(xiii)	
	104	AA540	Post-hole	A	(xiii)	
	105 O	(AA1) = *	-	A	(xiii)	
	105 U	(AA1) = *	-	A	(xiii)	
	106	(AA123.16)=123.1	Main hall: Robber trench	B	(xiv)	
	107	AA543	Pit	B	(xiv)	
	108 O	(AA137.5)=136	Sunken-featured building	A	(xiii)	
	108 U	(AA137.5)=136	"	B	(xiv)	
	109 O	(AA137.5)=136	"	A	(xiii)	
	109 U	(AA137.5)=136	"	B	(xiv)	

Explanation: TSMF - the individual sample number allocated to each thin section.

2\* - indicates that this was one of the analyses repeated.

Insufficient sand - analysis was not possible because of the paucity of sand-size grains, that is less than 100 in the whole section.

108O - overlying coat.

108U - underlying coat.

## (iii) DESCRIPTION OF FABRIC TYPES

Type A: (TSMF 103, 104, 105 O/U, 108 O, 109 O)

Body colour: Pink to light reddish brown  
(5YR, 8/3, 7/3, 7/4, 6/4 (M))

Sand/lime: Sandy

Hardness: Hard

Inclusions:-  
 Unmixed lime: 2 - 7% 0.5 - 13mm Sub-angular - Rounded  
 limestone, some  
 burnt red: <2% 2 - 7mm Angular - Sub-angular  
 ironstone: <1% 0.5 - 2mm Angular  
 Voids: 2 - 5% <6mm

Surface treatment:  
 Ai - level surface with white limewash <1mm  
 thick  
 Aii - level surface  
 Aiii - no surface treatment

Fragment size (approx)  
 Ai: two thickness classes; 20 - 30  
 and 40 - 65mm  
 Aii: maximum width 160mm

Other features:  
 Type Ai occurs overlying Types Ai (thickness  
 6mm and 20mm respectively); Aii (4mm and 20mm);  
 Bi (3mm and 18mm) and Bii (7mm and 19mm).  
 In one fragment Types A and B abut with a  
 single limewash applied over the joint.  
 The undersurface of all fragments not heavily  
 abraded is flat.

Type B: (TSMF 106, 101, 108U, 109U)

Body colour: White to pinkish white  
(2.5YR 8/2, 5YR 8/1, 8/2, 10YR 8/2 (M))

Sand/lime: Sandy

Hardness: Hard

Inclusions:-  
 Unmixed lime: 1 - 3% 0.5 - 6mm Sub-angular - Rounded  
 Limestone: <2% 2 - 7mm Angular - Sub-angular  
 Ironstone: <2% 0.5 - 2mm Angular  
 Voids: 1 - 3% <2mm

Surface treatment:  
 Bi - level surface with white limewash <2mm  
 thick

Bii - level surface  
 Biii - no surface treatment

Fragment size (approx): Bii thickness 15 - 30mm  
 Bii maximum width 80mm  
 Bii in some samples Biii occurs with a maximum dimension of 70mm, this is recorded as Biiim

Other features: Type Bi occurs underlying Type Ai (thickness 18mm and 3mm respectively) and overlying Type Bii (6mm and 17mm).  
 Type Bii occurs underlying Type Ai (19mm and 7mm) and overlying Type Cii (12mm and 6mm).  
 Type Biii occurs overlying Type Cii (7mm and 12mm).  
 In one fragment Types A and B abut with a single limewash applied over the joint.  
 The undersurface of all fragments not heavily abraded is flat.

#### Type G:

The mortar/plaster originally assigned to Type G was found to be insufficiently distinct from that assigned to Type B and was therefore assigned to type B.

#### Type F:

Type F could be regarded as Type Ai overlying Type Bii but the underlying mortar/plaster is sufficiently distinct from Type B to justify a separate designation. As this underlying mortar/plaster only occurs beneath a mortar/plaster similar to Type Ai the two together have been designated Type F.

Surface mortar/plaster (cf Type Ai)

Body colour: Pink  
 (5YR 7/4 (M))

Sand/lime: Sandy

Hardness: Hard

#### Inclusions:-

Unmixed lime: <1% 1 - 2mm Sub-angular - Rounded

Limestone: <1% 1 - 3mm Sub-angular

#### Ironstone, some

burnt: <1% 1 - 2mm Sub-angular - Sub-rounded

Voids: <1% <0.5mm

Surface treatment: Level surface with white limewash <0.5mm thick.

## Underlying mortar/plaster (cf Type Bii)

Body colour: White  
(10YR 8/2 (M))

Sand/lime: Sandy

Hardness: Hard

Inclusions:-  
 Unmixed lime: 2 - 5% 0.5 - 12mm Sub-angular - Rounded  
 Limestone: <1% 0.5 - 3mm Angular - Sub-rounded  
 Voids: 1 - 2% 0.5 - 2mm

Surface treatment: Level surface, surface mortar/plaster applied whilst underlying mortar/plaster still wet so interface slightly diffuse.

Fragment size (approx): Surface mortar/plaster, thickness 2 - 3mm.  
 Underlying mortar/plaster, thickness 8 - 16mm  
 F: maximum width 45mm.

Other features: The undersurface of all fragments not heavily abraded is flat.

## Type I:

The mortar/plaster originally assigned to Type I was found to be insufficiently distinct from that assigned to Type F: it was therefore reassigned to Type F.

## Type K: (TSMF 65)

Body colour: White  
(closest to 2.5Y 8/2 (M) but white)

Sand/lime: Very lime rich

Hardness: Soft

Inclusions:-  
 Unmixed lime: <1% 0.5 - 1mm Sub-rounded - Rounded  
 Limestone: <1% 0.5 - 5mm Angular - Sub-angular  
 Flk. Brick, Daub: <1% 1 - 2mm Angular - Sub-rounded  
 Charcoal: <1% 1 - 8mm  
 Voids: <1% <2mm

Surface treatment: K - level surface with white limewash  
 <2mm thick, this only visible in damp samples  
 Kii - level surface, no discernible limewash  
 Kiii - no surface treatment

Fragment size (approx):  
 Kii: thickness 14 - 17mm  
 Kiii: thickness 14 - 30mm  
 Ki&iii: maximum width 80mm  
 Kiiim: in one sample Kiii occurs with a maximum dimension of 100mm; this is recorded as Kiiim

Other features: Type Kii occurs overlying Type Rii (thickness 5mm and 20mm respectively)  
 The undersurface of all fragments not heavily abraded is flat.

#### Type E:

The mortar/plaster originally assigned to Type E was found to be insufficiently distinct from that assigned to Type K and was therefore reassigned to Type K.

#### Type C: (TSMP 64, 70, 71, 77, 84)?

Body colour: Very pale brown to pale yellow  
 (10YR 8/4 to 2.5Y 7/4 (M))

Sand/lime: Very sandy

Hardness: Soft

#### Inclusions:-

Unmixed lime:	<1%	0.5 - 6mm	Subangular - Rounded
Limestone:	0 - 3%	0.5 - 4mm	Angular - Sub-angular
Ironstone:	<1%	0.5 - 1mm	Angular - Subangular
Charcoal:	0 - <1%	0.5 - 1mm	Angular - Sub-angular

Voids: <1% - 3% 0.5 - 2mm

Surface treatment: C - no surface treatment  
 Cii - level surface; only occurs underlying Type R

Fragment size (approx): Maximum dimension 120mm

Other features: Type Cii occurs underlying Type Bii thicknesses 6mm and 12mm respectively and Type Biii (12mm and 7mm)  
 Type C is found as sub-rounded fragments and adhering to fragments of limestone up to 150mm across and enveloping fragments of ironstone and limestone up to 90mm across.

#### Type D:

The mortar/plaster originally assigned to Type D was found to be insufficiently distinct from that assigned to Type C and was therefore reassigned to Type C.

Type H: (TSMP 89, 66)?

Body colour: Very pale brown (10YR 7/3 (M))

Sand/lime: Very sandy

Hardness: Hard

Inclusions:-

Unmixed lime:	1 - 2%	0.5 - 2mm	Sub-angular - Rounded
Limestone:	<1%	0.5 - 3mm	Angular - Sub-angular
Ironstone:	<1%	0.5 - 1mm	Angular - Sub-angular

Voids: 1 - 3% 0.5 - 2mm

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 100mm

Other features: Type H is found as angular to sub-angular fragments. Several of the larger fragments retain angular impressions up to 60mm across and a few are of a distinctive concave-faceted, polyhedral form.

Type S:

Body colour: White  
(5YR 8/1 (M))

Sand/lime: Lime-rich

Hardness: Moderately soft

Inclusions:-

Unmixed lime:	3%	0.5 - 2mm	Rounded
Limestone:	1%	0.5 - 4mm	Angular - Sub-angular

Voids: 5% 1 - 10mm

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 75mm

Other features: Type S is found as angular, vesicular fragments.



## Type L: (TSMF 6B)

Body colour: White  
(closest to 2.5Y 8/2 (M) but white)

Sand/lime: Very lime-rich

Hardness: Very soft

Inclusions:-

Limestone:	5%	5 - 15mm	Angular - Sub-angular
Ironstone:	5%	5 - 15mm	Angular - Sub-angular
Soil:	30%	2 - 10mm	
Voids:	30%	2 - 5mm	

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 10mm

Other features: Type L is extremely vesicular and fragmentary and the samples in which it occurs contain a considerable proportion of soil and ironstone fragments up to 100 mm across.

## Type Q:

Body colour: white  
(2.5Y 8/2 (M))

Sand/lime: Lime-rich

Hardness: Moderately soft

Inclusions:-

Unmixed lime:	1 - 2%	1 - 4mm	Sub-angular - Rounded
Limestone:	1 - 3%	0.5 - 5mm	Angular - Sub-rounded
Charcoal:	<1%	0.5 - 1mm	Angular - Sub-angular
Voids:	<1%	0.5 - 3mm	

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 80mm

Other features: Type Q is found as angular fragments bonding limestone fragments up to 30mm across and in distinctive concave-faceted, polyhedral form.

## Type R:

Body colour: Very pale brown  
(10YR 8/4 (M))

17

Sand/lime: Sandy

Hardness: Hard

Inclusions:-  
 Unmixed lime: 1 - 3% 0.5 - 4mm Sub-rounded - Rounded  
 Limestone: 2 - 3% 0.5 - 5mm Angular - Sub-angular  
 Voids: <1% 0.5 - 1mm

Surface treatment: R - no surface treatment  
 Rii - level surface; only occurs underlying Type Kii

Fragment size (approx): Maximum dimension 45mm

Other features: Type Rii occurs underlying Type Kii (thickness 20 and 5mm respectively). Type R is found as sub-angular fragments.

Type P: (TSMP 63. 92)?

Body colour: Pale yellow  
 (2.5YR 8/4 (M))

Sand/lime: Very lime-rich

Hardness: Soft

Inclusions:-  
 Limestone: 1% 0.5 - 3mm Angular - Sub-angular  
 Charcoal: 1% 0.5 - 1mm Angular - Sub-angular  
 Voids: 5 - 10% 0.5 - 5mm

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 120mm

Other features: Type P is found as angular fragments bonding limestone fragments up to 100mm across and in a distinctive concave-faceted, polyhedral form.

Type J:

Part of the mortar/plaster originally assigned to Type J was found to be insufficiently distinct from that assigned to Type C and was therefore reassigned to Type C. The balance remains as Type J.

Body colour: Pale yellow  
 (2.5Y 8/4, 5Y 8/3 (M))

Sand/lime: Moderately sandy

Hardness: Very hard

Inclusions:

Unmixed lime:	<1%	0.5 - 1mm	Sub-rounded
Limestone:	3%	0.5 - 3mm	Angular - Sub-angular
Organics:	2%	0.5 - 3mm	Rounded - Sub-rounded

Voids: 3% 1 - 4 mm

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 80mm

Other features: Type J is found as angular to sub-angular fragments.

#### Type M:

Body colour: Pale yellow  
(2.5Y 7/4 (M))

Sand/lime: Sandy

Hardness: Very hard

Inclusions:-

Unmixed lime:	10%	1 - 5mm	Sub-rounded
Limestone:	1%	0.5 - 2mm	Angular - Sub-angular
Ironstone:	3%	0.5 - 4mm	Angular - Sub-angular
Charcoal:	<1%	1 - 2mm	Angular - Sub-angular

Voids: 3% 0.5 - 7mm

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 60mm

Other features: Type M is found as tabular fragments with one near flat fresh surface and another convex and abraded.

#### Type N:

Body colour: White  
(5YR 8/1 (M))

Sand/lime: Moderately lime-rich

Hardness: Moderately hard

Inclusions:

Limestone:	3%	1 - 8mm	Angular - Sub-rounded
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Ceramics:	1%	1 - 3mm	Angular
Charcoal:	1%	1 - 5mm	Angular - Sub-angular
Voids:	3%	1 - 5mm	

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 230mm

Other features: Only one fragment was assigned to Type N; this bears a flat-faced rectangular impression >45mm by >130mm and 15mm deep. One face of this fragment has a partial coating of Type L.

#### TYPE O1 (TSMF 73, 81, 90, 91)?

Body colour: Pale yellow  
(2.5Y 8/4 (M))

Sand/lime: Sandy

Hardness: Moderately hard

#### Inclusions:-

Unmixed lime:	<1%	0.5 - 2mm	Sub-angular - Rounded
Limestone:	<1%	0.5 - 2mm	Angular - Sub-angular
Voids:	<1%	0.5mm	

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 250mm

Other features: Type O is found as angular fragments bonding limestone and tile/brick fragments up to 150mm across.

#### Type 1: (TSMF 69)

Body colour: Pink  
(5YR 7/4 (M))

Sand/lime: Moderately sandy

Hardness: Hard

#### Inclusions:-

Unmixed lime:	5%	0.5 - 10mm	Sub-angular - Rounded
Limestone:	2%	1 - 3mm	Angular - Sub-angular
Tile/brick:	10 - 30%	1 - 30mm	Angular
Voids:	1 - 3%	0.5 - 1mm	

Surface treatment: No surface treatment

Fragment size (approx): Maximum dimension 30mm

Other features: Type T is found as angular fragments.

## (iv) INCIDENCE OF FABRIC TYPES

Table (M)17

Type	Phase	Context		Total No. of Samples	No. of Samples in which Present			Special Types
					Ai	Aii	Aiii	
A	2	Main hall foundations	AA127.1	3	-	1	-	-
	3	Main hall robber	AA123.1	85	39	9	38	-
			.2	15	-	-	1	-
			.3	7	-	-	4	-
			.8	10	4	1	4	-
			.10	5	4	2	3	-
	2	Other	AA187	1	-	-	1	-
			605	1	1	1	-	-
	3	Sunken-featured building	AA136. 140	20	16	4	7	Ai over Ai Ai over Bi
	3	Pits and post-holes	AA58	1	1	-	-	-
			64	1	1	1	-	-
			545	2	-	-	2	-
	3?	Pit	AA162	2	-	-	2	-
	3/4A1	Post-holes	AA80	1	1	-	-	Ai over Ai
			540	2	2	-	1	-
	4A1	Pits	AA66.1	1	1	-	-	-
			79	3	3	-	-	-
			84	2	2	-	1	-
			99	1	1	-	1	Ai over Bii
			100	1	1	-	-	-
			101	1	1	-	-	-
			345.1	1	1	1	-	-
			370	3	3	2	-	-
			377	1	1	-	-	-
			509	1	-	-	1	-
	4A1	Buliv	AA93	2	-	-	2	-
	4A1	Wall	AA327	1	1	-	1	-
	4A1i	Pit	AA543	4	4	2	-	Ai, Bi butting
	4A	Pits	AA57	1	1	-	-	-
			320	1	1	1	-	-

B	1	?Post-hole	AA943	1	1	-	-	-	-
	1/2	Post-hole	N161	1	1	-	-	-	-
	3	Main hall robber	AA123.1	85	32	14	29	4	Bill over Cii Bii over Cii
		.2		15	4	3	3	2	-
		.3		7	1	-	2	-	-
		.4		7	-	2	2	1	-
		.6		2	1	1	-	-	-
		.7		1	1	1	1	-	-
		.8		10	6	2	3	2	-
		.9		1	-	-	-	-	Bill over Cii
		.10		5	2	1	4	-	Bill over Cii
	2	Large extension foundations V68 = (69)		4	-	-	12	-	-
	3	Small extension robber	AA206	51	1	2	-	-	-
	3	Sunken-featured buildings	V158	1	1	-	-	-	-
			AA136, 146	20	7	3	4	-	Ai over Bi A1 over B11
	3	Pits	AA58	1	-	1	-	-	-
			545	2	1	-	-	-	-
	3	Pit/post-hole	AA64	1	-	1	-	-	-
	3	Lever	V16	1	-	-	1	-	-
	3	Post-holes	AA157	1	1	-	-	-	-
			934	1	-	1	-	-	-
	3-4A1	Pit	V27	5	1	-	1	-	-
	3-4A1	Post-hole	AA540	2	-	-	2	-	-
	4A1	Pits	AA79	3	3	-	-	-	-
			84	2	1	-	-	-	-
			99	1	1	-	1	-	A1 over B11
			101	1	-	1	-	-	-
			345.1	1	1	1	-	-	-
			370	3	2	-	-	-	-
	4A1	Lever/foundation	V106	1	1	-	-	-	-
	4A1	Gully	AA93	2	-	-	2	-	-
	4A1	Wall	AA107	1	1	-	-	-	-
	4A11	Pit	AA541	4	1	-	-	-	Bi over Bii A1, Bi rottano
	4A	Pit	AA320	1	-	1	-	-	-

					F	
F	3	Main hall robber	AA123.1	85	7	-
	3	Sunken-featured building	AA136.140	20	1	-
	4A1	Pits	AA79	3	1	-
			84	2	1	-
			99	1	1	-

					Ki	Kii	Kiii	Kiia
A	1	?Post-hole	AA243	1	-	1	-	-
	1/2	Post-hole	W141	1	-	-	1	-
	3	Main hall robber	AA123.1	85	1	4	5	-
			.8	10	-	1	-	-
			.10	5	-	1	-	-
	2	Large extension foundations	V68=(69-71)	7	-	3	-	-
			V68=(W119)	3	-	1	-	-
			AA151.2=(151)	11	-	-	3	1
	3	Large extension robber	W14	3	-	2	-	-
	2	Small extension foundation	AA208	2	-	1	-	-
	1	Small extension robber	AA206	61	1	28	12	-
	2	Gully	AA227	2	-	2	-	-
	prob1	Laver	AA187	1	-	1	-	-
	2/4A1	Laver	V75	5	34	44	-	-
	prob2 boss2	French	U14	1	-	1	1	-
	3	Sunken-featured building	AA136. 140	20	1	11	-	-
	3	Laver	V16	1	1	-	1	-
	3?	Pit	AA142	2	-	2	-	-
	3+4A1	Laver	V7	1	-	1	1	-
	3/4A1	Pit	V17	5	34	2	2	-
	4A1	Pits	W5	2	1	1	-	-
			AA84	2	-	1	-	-
			202	1	-	1	-	-
			204	1	-	1	-	-
			210	1	-	1	-	-



4A1 Gully AA93 2 - 2\* - - -

\* denotes notable abundance of fragments.

					C	H	
C and H	1/2	Post-hole	W88	2	12	or 12	-
	2	Main hall foundations	AA127.1	3	2	-	-
			12	2	2	-	-
	2	Mortar spread	AA161=(161)	8	3	-	-
			=(177)	3	-	3	-
			=(186)	1	1	-	-
	3	Main hall robber	AA123.1	98	60	27	Bit over Cii
			.2	15	10	8	Bit over Cii
			.3	7	2	2	-
			.4	7	7	2	-
			.5	1	1	-	-
			.6	2	2	1	-
			.7	7	1	1	-
			.8	10	8	7	-
			.9	1	1	-	Bit over Cii
			.10	5	4	2	Bit over Cii
	7	Debris from hall collapse	AA139	7	-	2	-
	2	Large extension foundation	V49=H119	3	2	-	-
			AA151.2	11	3	8	-
	7	Large extension robber	W14	3	3	-	-
			AA150	2	2	-	-
	3	Small extension robber	AA206	61	3	2	-
3		Sunken-featured building	AA136, 140	20	12	7	-

5

S	2	Mortar spread	AA161=(161)	8	1	-
	3	Main hall robber	AA123.1	85	17	-
			.2	15	1	-
			.3	7	1	-

L

L	2	Large extension foundation	V68=(69-71)	7	5	-
			AA151.2	11	2	-
	2	Mortar spread		1	1	-

Q

Q	2	Small extension foundation	AA208	2	1	-
	3	Small extension robber	AA206	61	53	-

R

R	3	Small extension robber	AA206	61	20	Kil over Rii
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F

F	1 2	Post-holes	W88	2	1	-
			W90	3	3	-
	2	Small extension foundation	AA208	2	12	-
	3	Small extension robber	AA206	61	5	-

J

J	1/2	Post-hole	AA159	1	12	-
	2	Large extension foundation	V68=(N119) AA151.2=(159)	3 11	12 4	- -
	3	Large extension robber	AA150	2	1	-
	3	Main hall robber	AA123.4	7	1	-

M

M	2	Large extension foundation	V68=(69) AA151.2	4 11	1 1	- -
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N

N	2	Large extension foundation	V68=(70)	1	1	-
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O

O	1/2	Post-hole	W159	1	12	-
	2	Large extension foundation	AA151.2	11	2	-
	2	Small extension foundation	AA208	2	1	-

T

T	2	Main hall foundations	AA127.12	2	1	-
	3	Main hall robber	AA123.1	85	1	-

#### (v) CONCLUSIONS FROM THE FABRIC TYPE ANALYSIS

When considering the fabric types found in Phase 2 and 3 contexts and apparently associated with the Middle Saxon stone buildings the possibility of contamination must be borne in mind. This is most likely to have occurred with fragments of mortar brought on to the site with stone robbed from Roman buildings. With the foundation courses generally lacking any mortar bonding fabric types found exclusively or predominantly in the foundations may well have been redeposited. It is quite possible, however, that a few fragments of types used in the superstructure may have intruded into the foundation, particularly their upper levels, and that this took place during destruction and robbing.

Four fabric types (Types A, B, F and K) must be interpreted as wall plaster because of the treatment of their surfaces. They can all be assigned to Phase 2 though they are largely found as residual material in Phase 3 contexts. Type A is confined to the area within, or immediately adjacent to, the main Phase 2 hall; if the similar St Peter's Street Type 3 mortar (Williams J H 1979, 131) is included the distribution would be extended to the vicinity of the eastern end of the minster church and further to the south-west of the western end of the main hall (*ibid*). This distribution with its concentration on the north western corner of the main hall, particularly the robber trench at that point (AA 123.1), leads to the conclusion that Type A was a wall plaster for the main hall and suggests that it was internal rather than external. The distribution of Type B is similar to that of Type A. The apparent spread of its distribution to the area adjacent to the minster church is probably due to its similarity to and confusion with Type 7, the internal wall plaster of that building. The majority of the Type B mortar should be regarded as a wall plaster for the main hall and this conclusion is strengthened by the nature of its direct relationship with Type A. Types A and B occur both as single and multiple coats, preserved in a single fragment. In some cases the underlying coat is complete with a limewash. Type A is found overlying Type B and in one case they abut with a single limewash. Where there are two coats it is not possible to be sure of the time that elapsed between coats, but it seems likely that the underlying coat had not entirely set before application of the overlying coat. Certainly there is no evidence of deterioration of the underlying surface which might suggest repair or refurbishment. Types A and B are similar in all respects apart from the pink colouring of Type A. Though the body colour of Type A is helpful it should not be given undue weight since it is probably the result of the unintentional scorching of a batch or batches of limestone in the preparation of lime for the mix. The evenness of the colouring in any one fragment, but its variation between samples, together with the absence of discolouration of the limewash, make any other interpretation unlikely. Given this assumption it is clear that Type A cannot be associated with any of the mixer residues since none have this colouring.

Type F is confined to the robber trench of the western section of the north wall of the main hall (AA123.1) and later

contexts at the western end of the main hall. Whilst distinctive it should be regarded as a variety of Type A overlying Type B.

Type K was only found in the western half of Trench AA, the southern part of Trench W, Trench X and Trench V. The correlation of Type K with St Peter's Street Types 9 and 10 extends the distribution to the area immediately adjacent to the eastern end of the minster church. There is a marked concentration of Type K in the robber trench of the small extension and in later contexts adjacent to the small extension. It is interpreted as an internal wall plaster for the small extension. Its high lime content would make it unsuitable for an external use where it would be exposed to weathering. It is possible that it was also employed in the large extension. The occurrence of Type K in the foundations of the large extension is problematic. Given the nature of the foundations, of loose rubble with large interstices, the possibility that the fragments are intrusive cannot be discounted. If, however, the mortar is not intrusive or mis-identified it suggests at least the partial deterioration or destruction of the small extension before or during the construction of the large extension. The extremely low sand content, as against lime, of Type K makes it impossible to subject it to the method of thin section analysis employed in this study. It should be noted, however, that the three thin sections identifiable with Type K (TSMP 65), and St Peter's Street Types 1 and 10 (TSMP 30 and 31) with which it is correlated, all have inadequate sand content, whilst none of the mix residues have such a consistently low sand content. Type K cannot, therefore, be associated with any of the mix residues recovered. All four wall plasters (A, B, F and K) though of variable thickness, tend to have a flat undersurface where they have come away from the wall. This suggests either that the facing of the wall was of quite well dressed stone or that some levelling treatment had been given, such as the application of a mortar coat underneath.

Seven fabric types (C, H, L, P, Q, R and S) may be associated with the superstructure of the Phase 2 stone buildings. Types C and H are most frequent in the robber trenches of the main hall and are also found in adjacent contexts. Type C would appear to be most common at the western end but the distribution of Type H is more even. Types C and H were apparently used as bonding mortar; the form of Type H perhaps suggests the bonding of large stone blocks and that of Type C the bonding of a rubble core. This difference may, however, be the product of the relative hardness of the two. The presence of both types in the construction debris (AA161) of the main hall and of H in a collapsed portion of the wall of the main hall (AA149), as well as the occurrence of Type C underlying Type B wall plaster, reinforces this attribution. Whilst the presence of small quantities of Types C and H in the robber trenches of the extensions is not problematic their occurrence in the foundation trench of the large extension needs some explanation. Although they may be intrusive the presence of quite large quantities of Type H in the foundations closest to the north wall of the main hall (AA159.2) may indicate the partial demolition of that wall to allow the keving of the masonry, and the incorporation of the debris in the new foundation. Alternatively they could be

derived from the destruction of a wall associated with the possible construction trench (AA183), which underlies the foundations of the extension at this point and which may be contemporary with the main hall.

Type S is confined to the robber trench of the north wall of the main hall, and the mortar spread (AA161) associated with the construction of that wall. Although it is clearly to be attributed to the main hall wall at this point, the small number of fragments together with its distinctive nature allow the possibility of it being part of the re-used Roman assemblage.

Type L is only found in the foundations of the large extension and the adjacent mortar spread (AA161). It was apparently a lime slurry poured over the foundations of the large extension, though it is difficult to see it as a serious attempt either at bonding the foundations or at producing a level surface.

Types Q and R are both clearly bonding mortars. Their distribution, being restricted to the robber of the small extension, except for one fragment in its foundations, and the occurrence of Type R underlying Type K, suggests that they represent bonding for the superstructure of that building.

Type P is clearly a bonding mortar but, though its distribution suggests a relationship to the walls of the small extension, this interpretation is not secure.

The occurrence and nature of each of the remaining five fabric types (Types J, M, N, O and T) suggest that they are associated with re-used material, most probably from the robbing of Roman structures. Type J is rare and distinctive: this, and the fact that it is most common in the foundations of the large extension, suggest that it is part of the re-used assemblage.

The form of Type M perhaps indicates flaking from dressed stone after abrasion of the surface. This and its presence in the large extension foundations make its derivation from robbed masonry likely.

Only one fragment of Type N was recorded, this in the large extension foundations as a discrete block. Its partial coating with Type L reinforces the probability of its re-use.

The occurrence of Type O in the foundations of both the small and large extensions as discrete blocks bonding large fragments of stone and Roman brick and tile implies that it is Roman mortar.

Type T is not a rigidly defined fabric type but simply that to which typical *opus signinum*, almost certainly of Roman origin, was assigned.

The quality of the material available for study from the St Peter's Street and St Peter's Gardens excavations and the many techniques evaluated during the study allow observations to be made regarding future work in mortar analysis. A fabric type series should be produced by examination in hand sample since this allows groups to be established. Further groupings of samples from closed archaeological contexts such as mixer residues may be possible. These groups must be tested, and if found to be valid may be compared to each other, using the following criteria:

- (i) grain size
- (ii) grain roundness

- (iii) mineralogy of grains
- (iv) composition of inclusions
- (v) size of inclusions
- (vi) textural relationships

It is suggested that if significant results are to be achieved a combination of these characteristics should be studied, not merely grain size. Statistical methods should be applied to test the validity of individual groups and their compatibility to each other. These different characteristics may be best evaluated by different techniques: (i) by sieving of an adequately sized sample with the interval between the successive mesh sizes being as small as practicable; (ii) and (iii) by examination in thin section; (iv), (v) and (vi) by study of both hand samples and thin section. For (ii) to (vi) the data will remain qualitative unless a sufficient number of samples are investigated. Furthermore, the greater the accuracy of the on-site recording of the points at which samples are taken the more meaningful will be any analysis of the distribution of the fabric types of residual mortar.

It must be appreciated that work of the type outlined above is labour-intensive. It will be necessary, therefore, in deciding whether to undertake such a study, to consider carefully whether the anticipated results are likely to justify the expenditure.

#### (vi) COMPARISON OF FABRIC TYPES TO MIX RESIDUES IN THIN SECTION

Since the designation of fabric types had not been the original intention in the selection of samples for thin sectioning it was necessary to examine the samples from which thin sections were cut and where possible to assign them to a fabric type. This was made more difficult by the small size of some of the fragments used and the absence of an unimpregnated residue for some samples. A further seven sections were cut from samples selected of two of the major fabric types. Using the extra sections and by regrouping some of the original data it was possible to produce groups for one of the St Peter's Street type series and five of the St Peter's Gardens fabric types. The data from the type groups thus produced were compared to the mix residues. Though the results were more promising than with the contextual groups or single samples, the intra-group variability was still too large, and the number of samples within each group too small, to allow any firm affinity to be demonstrated between any two groups. When re-examining the type series compiled for St Peter's Street (Williams J H 1979, 131-3) it became apparent that several of the types were more broadly defined than those in the current study. There is the possibility therefore that the thin sections cut from samples of the St Peter's Street type series may not belong to the fabric type with which the bulk of the type is correlated in this report.

The only conclusion that may be drawn from the comparison of fabric types to mix residues in thin section is that Type K, for which there are three sections when those of Types 9 and 10 of the St Peter's Street type series are included, in all of which the sand content is too low to allow analysis, cannot be

associated with any of the mix residues none of which exhibit such a consistently low sand content. The attribute of sand content may, however, be subject to alteration between used mortar and residue, by, for example, settling out of the sand fraction.

In general, when viewing the analyses without treating the data statistically, it may be seen that the majority of samples from contexts associated with the middle Saxon stone buildings are comparable in their mineralogy to, and fall within the same range of sand-size and roundness distributions, as those from the mix residues.

#### (vii) CONTENTS OF THE ARCHIVE

- 1) Mortar samples
- 2) Remaining portions of samples selected for thin sectioning.
- 3) Thin sections
- 4) Fabric type series.
- 5) Catalogues for 1) to 4).
- 6) Thin section analyses.
- 7) Graphic plots of 6).
- 8) Statistical treatment of 7).
- 9) Fabric type incidence by context.
- 10) Correlation of the fabric type series with the St Peter's Street fabric type series.



THE GLASS

by G E Oakley and J R Hunter

(Fig 36: nos 1-9; not illu no 10)

1. Bead. John Hunter writes: Annular, decorated with opaque white marvered wave pattern round the edge. Devitrified opaque. Diam: c. 14mm; H: c. 6mm; Diam of perforation: c. 6mm. AA93, Phase 4Ai.
2. Pillar-moulded bowl: tiny unweathered blue-green fragment from end of rib, polished exterior. 1st century AD (Harden and Price 1971, 320-9). (Y59)=55, Phase 3, SFGL15.
3. Bowl? Blue-green, inclusions within glass, dull polished surfaces, slight iridescence on exterior. Probably Roman but lacks decoration. AA79, Phase 4Ai, SFGL28.
4. Saxon vessels: unweathered thin (1mm) and bubbly pale blue-green glass with marvered opaque yellow horizontal trails. Edges of tiny fragment possibly trimmed for re-use in window? John Hunter writes: 'It could belong to a number of forms but the fragment is too small to make proper identification possible. Yellow marvering, however, is very rare before about AD 700 and hence it is a reasonable guess that it belongs to the 8th to 10th centuries'. (Y136)=130, Phase 3, SFGL16.
5. Vessel with applied horizontal trails, weathered opaque and devitrified; form uncertain but stratified late Saxon. (AA387)=123.8, Phase 3, SFGL31.
6. Jug or flask neck with applied horizontal trails, now opaque and devitrified on surfaces but core is amber. AA57, Phase 4A, SFGL27.
7. Tubular neck of flask, perhaps once pale amber but now opaque and devitrified. Cf medieval ampulla (Harden 1975, 35). Diam: 18mm. AA98, Phase 4Ai, SFGL29.
8. Urinal: pale blue-green, rim and base more decayed than tiny fragments of thin-walled body (0.3 to 0.4mm thick), all most likely from same vessel though not conjoining. Tentative profile drawn based on limited reconstruction. Base has slight kick and vessel may have been capable of standing. Rim diam: c. 125mm. 255.3 - base, neck and body; 255.7 - rim; 255.8 - body. Phase 4Ai, SFGL22-26 inclusive.
9. Painted opaque window fragment. Medieval. 3.5mm thick. AA98, Phase 4Ai, SFGL39.
10. Opaque window fragment, no paint visible, grozed edge. Medieval. 1.6mm thick. Y31, Phase 4Ai, SFGL14.

Post-medieval glass was found in the following Phase 4Bii contexts:

- 17th or 18th century window - (W20)=V1, SFGL11.
- 18th century phial in blue-green glass - W10, SFGL6.
- 18th or 19th century window - Y2, ?(Y23)=9; SFGL19, 12.
- 19th century vessel sherds - W10, (Y21)=9, Z2, SFGL5, 12, 20.

Post medieval window glass contaminated the following contexts:  
(W19)=10, (W126)=V87, AA544.

Uncertain possible contamination (not identified): W32, SFGL9.

THE CLAY SPINDLEWHORL  
by Varian Denham

A fragment of a fired clay spindlewhorl was found during the initial cleaning of the site in Trench Y.

The spindlewhorl is circular, measuring c.60mm in diameter, and of bun-shaped profile. It is not possible to ascertain the perforation diameter, or the maximum depth of the whorl. The exterior surfaces range from dark grey (7.5YR 4/0) to brown (7.5YR 5/2) and the core is reddish brown (5YR 4/3). The presence of burnt and sooted areas suggests that it was fired by an open fire, or possibly in a clamp kiln with other vessels.

The clay matrix is iron-rich and contains abundant minute to fine angular ferruginous and opaque quartz, moderate angular ironstone, rare medium angular calcareous inclusions, rare rounded red and black iron ore, rare minute mica platelets, and rare burnt out organic inclusions. The mineral suite strongly reflects the Northamptonshire Ironstone and local production is probable.

The spindlewhorl is likely to be of Saxon date. Affinities with pottery fabric SIC ((M)2/24-5) suggest production in the early or middle Saxon period although a later date cannot be ruled out given the unchanging forms of spindlewhorls, the fragmentary nature of this piece, and its unstratified context.

THE CLAY PIPES  
by W R G Moore

A small number of clay pipe fragments were found in various contexts. In total there are 24 stem pieces and 3 bowls.

Undecorated Stem Fragments

The few stem fragments that were found can provide only a general indication of date. Those with a wide stem bore (8/64", 7/64") are probably of the seventeenth or earlier eighteenth century and those with narrow stem bores (5/64", 4/64") are probably of eighteenth or nineteenth century date. The number of examples, if exceeding one, is given below in brackets following each context reference.

Wide bores: Phase 4Bii: (W1) = V1; Y9; Z29(2).  
+ : W+(2)

Narrow bores: Phase 4Bii: Y2(6); Y9; (Z9) = V1(2); Z29, (Z46) = 12.  
+ : W+(3); Z+.

The Bowls

The three bowls are classified using Oswald's general typology (Oswald 1975, 37-41):

Approximate Date	Type	Quantity	Context
c. 1640-70	B17	1	W+
c. 1690-1710	B19	2	W+; Y+

THE TEXTILE  
by E Crowfoot

- T1      Fragment of textile, 32 x 40mm as folded; flax, spinning Z/Z, fairly even, weave tabby, close and even, count 19/21 thread per cm. Respectable quality linen, suitable for shirts, caps, or fine sheeting; no stitching.
- The Z spin is normal in European linen. This fragment is of better quality than those found in Marefair (Crowfoot 1979, 76), but very similar to recently found 14-15th century fragments from the City of London (Pritchard 1982, 207), AA568, Phase 4Aii, SFT1.

# THE WORKED BONE AND ANTLER

by Mary Harman and Michael Shaw

Figs 37, (M)21

Antler (WB1-74; see also WB75, 80, 81, 83, 85, 95)

Seventy-four fragments of antler waste were discovered during the excavation. Fifty-five of the fragments were sawn. The antler also showed evidence of having been cut, trimmed by whittling and broken off. All the identifiable antler was of red deer. One large crown, five beam fragments, five bases with beam and tines sawn off and 27 tine fragments were recovered. All the bases had been cast. Thirty-five of the fragments were from late Saxon contexts and 28 from early medieval deposits; the remainder were from later contexts but were obviously residual.

The evidence from St Peter's Gardens can be combined with that from St Peter's Street (Oakley 1979, 308) - where 31 antler waste fragments were found, 11 in late Saxon deposits and 20 in early medieval contexts - to suggest an antler working industry on the sites. The distribution of antler waste from both sites is plotted by phase on Fig (M)21. Two concentrations can be seen - one in trench Y and the other at the SW of trench AA and in the NW corner of the St Peter's Street excavations (House 1). The trench Y assemblage can be identified as belonging to the late Saxon period for nine of the 12 fragments are from deposits of this date; the others are from later contexts and are almost certainly residual. The date of the trench AA/House 1 assemblage is less obvious for although 22 of the antler fragments come from late Saxon contexts, 33 are from early medieval deposits. The area was, however, heavily pitted in the medieval period and it seems likely that all the antler in the medieval levels was in fact residual, and that the industry here was also late Saxon in date. Otherwise antler-working starting in the late Saxon period and continuing, even if intermittently, until at least the 13th century would be implied. Two billets, one of antler (WB95) and one of bone (WB96) - blanks for the production of comb tooth segments - were also recovered from the trench AA/House 1 complex. It is impossible to say, however, whether the antler-working industry was restricted to comb making or whether other articles were also being produced.

Antler objects from the present site comprised an incomplete comb (WB75), two broken tooth segments from combs (WB80, 81) a bodkin/needle (WB83) and a pin fragment (WB85). All the objects came from deposits of Saxon date but only the last was discovered in an area where antler waste was concentrated.

- WB1            Very large crown; sawn off beam but mostly broken off at sawn end; at least 6 tines. Max diam across sawn base: c. 80mm. AA523, Phase 3, SFWB81.
  
- WB2            Large antler: beam sawn off just above coronet; three tines. two broken off near beam, one c. 120mm from beam with a cut trimming part of side of tine off; the beam has a swelling just above the saw cut; the long tine may be the beam continuing and the

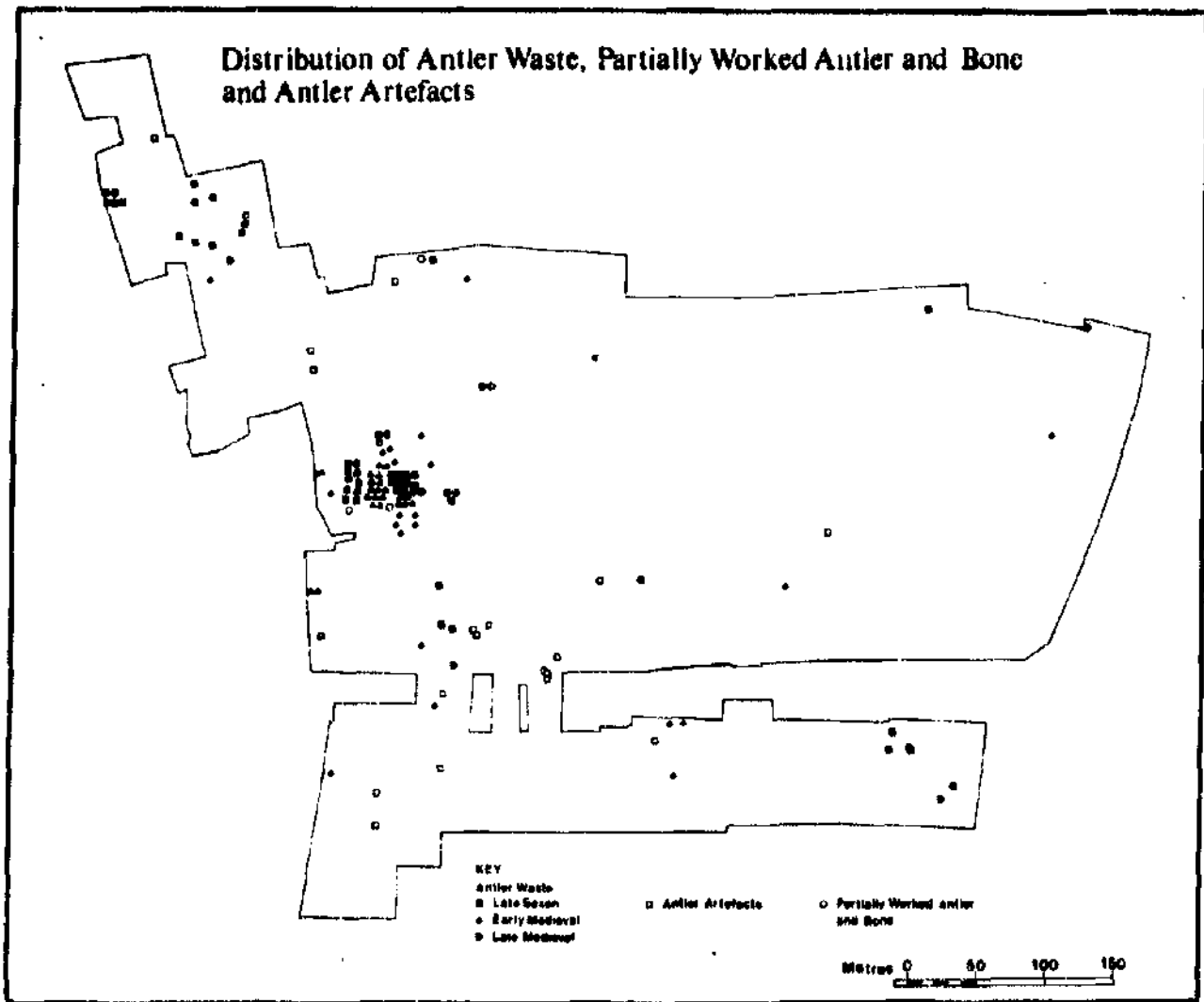


Fig (H)21

others are probably brow and bay tines. (AA68) = +, SFWB79.

- WB3 Large cast antler; base, coronet and brow tine with beam sawn off. Max diam cast area (within coronet): 55.7mm; brow tine L: 290mm. Y135, Phase 3, SFWB6.
- WB4 Part of beam; sawn off above and below a tine, tine also sawn off. L: 66mm; (Y141) = 55, Phase 3, SFWB5.
- WB5 Part of beam from large antler with three broken tines; main part sawn across. Diam of sawn beam: 52mm. AA29, Phase 3, SFWB73.
- WB6 Part of beam; sawn off just below a fork; both tines sawn and broken off. W: 90mm. AA70, Phase 3, SFWB54.
- WB7 Fragment from a fork of beam; sawn across below and above the fork. L: 74mm. AA71, Phase 4Ai, SFWB68.
- WB8 Base, cast; beam and brow tine sawn off by two cuts just above coronet, one slightly obliquely to plane of coronet. Max diam cast area (within coronet): 42mm. AA71, Phase 4Ai, WB56.
- WB9 Base, cast; beam and brow tine sawn off, beam sawn obliquely to coronet, some of which has been removed or broken off. Max diam cast area (within coronet): 58 mm. AA71, Phase 4A', SFWB75.
- WB10 Base, cast; beam, brow and bay tines sawn off. Max diam cast area (within coronet): 50.7mm. AA134, Phase 4Ai, SFWB18.
- WB11 Base, cast; whole antler sawn off just above coronet, slightly obliquely to plane of coronet; most of coronet trimmed off. Max diam cast area (within coronet): c. 71mm. AA134, Phase 4Ai, SFWB18.
- WB12 Base, cast; whole antler sawn off just above, but slightly obliquely to, coronet which has been entirely removed; much of the outside surface of the antler has been trimmed off around the edges; a poor wedge shape. AA134, Phase 4Ai, SFWB19.
- WB13 Tip of tine; sawn. L: 30mm. (Y52) = 39, Phase 3, SFWB48.
- WB14 Tine; sawn off. L: 103mm. (Y128) = 39, Phase 3, SFWB4.
- WB15 Tine; broken off. L: 87mm. Y55, Phase 3, SFWB46.
- WB16 Fragment from near end of tine; outer surface trimmed slightly so that it is faceted. (Y171) =



116, Phase 3, SFWB52.

- WB17 Piece of tine; sawn off just where it springs from beam, end broken. L: 114mm. AA70, Phase 3, SFWB54.
- WB18 Tine; sawn and broken off. L: 42mm. AA70, Phase 3, SFWB54.
- WB19 Tine; sawn off. L: 85mm. AA70, Phase 3, SFWB54.
- WB20 Tine; broken. L: 172mm. (AA135) = 123.1, Phase 3, SFWB91.
- WB21 Large tine; broken off beam, a few cuts at broken end; probably a brow tine. L: 263mm. AA11, Phase 4Ai, SFWB70.
- WB22 Tine with part of beam attached; sawn off across beam, tip broken. L: 179mm. AA134, Phase 4Ai, SFWB19.
- WB23 Tine; sawn and broken off. L: 81mm. AA94, Phase 4Ai, SFWB60.
- WB24 Tine; tip sawn off. L: 45mm. AA134, Phase 4Ai, SFWB19.
- WB25 Tine, sawn off, tip broken off. L: 92mm. AA134, Phase 4Ai, SFWB19.
- WB26 Tine; sawn off, tip broken off. L: 68mm. AA134, Phase 4Ai, SFWB19.
- WB27 Tine; sawn off, tip broken off. L: 135mm. AA134, Phase 4Ai, SFWB19.
- WB28 Tine; sawn off, tip broken off. L: 52mm. AA134, Phase 4Ai, SFWB19.
- WB29 Tine; sawn off. L: 122mm. AA134, Phase 4Ai, SFWB19.
- WB30 Tine; sawn off. L: 128mm. AA134, Phase 4Ai, SFWB19.
- WB31 Part of small stubby tine; one end broken. L: 100mm. AA134, Phase 4Ai, SFWB19.
- WB32 Part of tine; one end trimmed and blunted by wear. other end broken; probably a brow tine. L: 123mm. AA134, Phase 4Ai, SFWB19.
- WB33 Part of tine; both ends broken. L: 109mm. AA134, Phase 4Ai, SFWB19.
- WB34 Tine; with swelling on length, sawn off. L: 93mm. AA134, Phase 4Ai, SFWB80.

- WB35 Part of tine; both ends broken. L: 56mm. AA204, Phase 4Ai, SFWB71.
- WB36 Tine; sawn off. L: 90mm. AA57, Phase 4A, SFWB50.
- WB37 Tine; sawn off, tip broken. AA57, Phase 4A, SFWB77.
- WB38 Large tine; broken off beam, some whittling at broken end; probably a brow tine. L: 212mm. Y31, Phase 4Aii, SFWB45.
- WB39 Tine; sawn off. L: 57mm. Y7, Phase 4Bii, SFWB43.
- WB40 Tine; sawn and broken off, tip broken. L: 85mm. (AA68) = +, SFWB66.
- WB41 Length from beam or possibly large tine; broken, one end whittled. L: 101mm. AA70, Phase 3, SFWB54.
- WB42 Fragment from beam or large tine; one end sawn. L: 52mm. (Y175) = 55, Phase 3, SFWB51.
- WB43 Fragment from a beam or tine; sawn at both ends. L: 59mm. W18, Phase 4Ai, SFWB69.
- WB44 Fragment from beam or large tine; one end sawn. L: 115mm. (W6) = V1, Phase 4Bii, SFWB76.
- WB45 Fragment broken from length of beam or tine; both ends sawn. L: 57mm. (AA92) = +, SFWB72.
- WB46 Length of antler; both ends sawn. L: 42mm. (Y52) = 39, Phase 3, SFWB48.
- WB47 Fragment of inner, cancellous antler; ?one end sawn. L: 24mm. (Y52) = 39, Phase 3, SFWB48.
- WB48 Length of antler; ends sawn. L: 55mm. (Y52) = 39, Phase 3, SFWB48.
- WB49 Fragment; both ends sawn. L: 57mm. (Y59) = 55, Phase 3, SFWB53.
- WB50 Length of outer surface; cut at both ends. L: 58mm. Y158, Phase 3, SFWB49.
- WB51 Shaving; whittled off fragment. L: 35mm. AA70, Phase 3, SFWB54.
- WB52 Shaving; whittled off fragment. L: 35mm. AA70, Phase 3, SFWB54.
- WB53 Fragment; one end sawn across. L: 45mm. AA70, Phase 3, SFWB54.

- WB54 Fragment; one end sawn across. L: 30mm. AA70, Phase 3, SFWB54.
- WB55 Fragment, (AA219) = 206, Phase 3, SFWB82.
- WB56 Fragment, sawn across. L: 28mm. (AA219) = 206, Phase 3, SFWB83.
- WB57 Fragment, sawn across. L: 41mm. (AA219) = 206, Phase 3, SFWB84.
- WB58 Fragment, sawn across. L: 39mm (AA219) = 206, Phase 3, SFWB85.
- WB59 Fragment, sawn across. L: 42mm. (AA219) = 206, Phase 3, SFWB86.
- WB60 Fragment, sawn across. L: 27mm. (AA219) = 206, Phase 3, SFWB87.
- WB61 Fragment, sawn across. L: 48mm. (AA219) = 206, Phase 3, SFWB88.
- WB62 Fragment, flake from whittling antler. (AA219) = 206, Phase 3, SFWB89.
- WB63 Fragment; one end sawn across. L: 34mm. AA224, prob Phase 3, SFWB63.
- WB64 Fragment; one end sawn across. L: 35mm. AA224, prob Phase 3, SFWB63.
- WB65 Fragment, L: 48mm. (AA361) = 344, Phase 4A1, (AA364.1) = 123.2, Phase 3, SFWB90.
- WB66 Fragment; one end sawn across. L: 50mm. AAB4, Phase 4A1, SFWB65.
- WB67 Fragment, one end sawn across. L: 38mm, AA97, Phase 4A1, SFWB62.
- WB68 fragment; one end sawn across. L: 45mm. AA203, Phase 4A1, SFWB74.
- WB69 Fragment; one end sawn across. L: 33mm. AA203, Phase 4A1, SFWB74.
- WB70 Fragment; one end sawn across. L: 43mm. AA57, Phase 4A, SFWB50.
- WB71 Fragment from curve of beam and tine junction; one end sawn. L: 42mm. (AA92) = +, SFWB78.
- WB72 Small, broken fragment. L: 30mm. AA108, Phase 4A1, SFWB61.

WB73 Small, broken fragment. L: 21mm. (AA92) = +, SFWB78.

WB74 Small, broken fragment. L: 18mm. (AA92) = +, SFWB78.

#### Combs (WB75-81)

Two incomplete combs were found. One (WB75), a double-sided composite comb probably of antler, was of early Saxon date; similar combs are illustrated from Sutton Courtenay (Leeds 1923, Fig 1, D, E and I). The other (WB76) is a fragment of a finely worked double-sided simple comb of ivory; it was unstratified but such combs were made throughout the medieval period and later (Oakley 1979, 310; WB44, 45). Fragments of connecting plates (WB77-79) and teeth (WB80, 81) from composite combs were also recovered.

WB75 Incomplete double-sided composite comb, probably of antler; connecting plates of recto-oval section; double incised lines run lengthwise along top and bottom of both plates; cuts for teeth deeply incised (up to 4mm) into plate; six rivets at a distance of 20-30mm apart; four tooth segments survive, length varying 15-19mm; one vertical end segment shows teeth graduated towards edge; teeth fine (8 in 10mm) on one side, coarse on other (5 in 10mm). L: 142mm. Z60, Phase 1, SFWB13.

WB76 Fragment of a finely worked double-sided simple comb of ivory; one end of comb has vertical termination, the other end is broken; decorative incised lines on each side of solid zone run along length of comb; teeth medium (4 in 10mm) along one side, very coarse (3 in 10mm) along other; incised line at top of rows of teeth on both sides presumably marked out line to which teeth should be cut. L: 29mm. +, SFWB10.

WB77 Fragment of a bone plate, probably from a comb; convex section, made from a piece of long bone shaft of a large animal, cattle/horse size; decoration of lattice design and double ring and dot; one complete and one partial rivet hole set 35mm apart; one end cut slightly obliquely, other end broken. L: 49mm. AA+, SFWB21.

WB78 Fragment of a connecting plate from a double-sided composite comb, made from a piece of split ?cattle rib; convex section, one end neatly cut across at a slightly oblique angle, other end broken; cut marks on edges show teeth on one side fine (8 in 10mm), on other side coarse (2-2.5 in 10mm); one definite rivet hole and probably edge of another at broken end 54mm away. L: 78mm, Y55, Phase 3, SFWB3.

WB79 Three fragments, two joining, of plate made from a flat bone, possibly part of a cattle scapula blade;

of rectangular section; one wide face is polished and has crude incised lines; ?cut marks along one edge; probably fragments from a connecting plate of a single-sided composite bone comb. L (of two joining fragments): 51.3mm. Y55, Phase 3, SFWB2.

- WB80 Fragment of a tooth segment from a composite ?double-sided comb, probably antler; two teeth only. L: 31mm. W14, Phase 3, SFWB12.
- WB81 Tooth from a comb, probably antler. L: 21mm. W14, Phase 3, SFWB11.

#### Tools, Pins and Bobbins/Toggles (WB82-90)

The three tools, all pointed, comprised a double-ended tool (WB82), a probable bodkin or needle (WB83) and one of uncertain purpose (WB84). The double-ended tool is an example, of greater than normal length, of a type commonly found in Northampton (cf Oakley 1979, 312-4: WB67-79) and usually said to be associated with weaving.

The four pin fragments included one of antler (WB85) and two of pig fibulae (WB87, 88; cf Oakley 1979, 310: WB47-51).

Two bobbins or toggles (WB89, 90) made from pig metapodials are of a type frequently found on Northampton sites (cf Oakley 1979, 313-4, WB80-86).

- WB82 Polished double-ended tool made from long bone shaft of a large animal; one end spatulate, other end pointed. L: 160mm. (Y52) = 39, Phase 3, SFWB1, 33.
- WB83 Bodkin/needle made from long narrow tine; end artificially pointed and lower part trimmed to a square shape; the top is pierced by an hour-glass hole. L: 93.3mm. AA7, Phase 3, SFWB64.
- WB84 Incomplete large bone tool, made from piece of long bone shaft from a large animal (cattle/horse size); top is cut flat, pierced by an hour-glass hole and has two grooves 5mm and 10mm from end; decoration of roughly incised opposed oblique lines below lower groove for 33mm, remainder of shaft undecorated; shaft circular and tapering towards broken end. L: 141mm. AA +, SFWB16.
- WB85 Pin fragment, made of antler; one end cut and smoothed to make a point, other end broken. L: 96mm. Y55, Phase 3, SFWB59/(Y70) = V87, Phase 1. Three joining fragments were recovered. Two were from Y55 and one, possibly intrusive, was from (Y70) - the layer below.
- WB86 Roughly worked ?pin shaft, both ends broken; shaft faceted with whittle marks, highly polished; ?long bone shaft fragment from a large animal. (W40) = 12, Phase 3, SFWB35.

- WB87 Pin made from pig fibula; articular end not worked, shaft whittled so that it tapers and is slightly smoothed, tip broken off. L (surviving): 101mm. AA79, Phase 4A1, SFWB40.
- WB88 Shaft of ?pin made from pig fibula; broken at both ends; polished; ?slightly whittled. L: 39mm. AA94, Phase 4A1, SFWB39.
- WB89 Bone bobbin or toggle made from pig metapodial; perforated through shaft from front to back, hole 5mm in diameter; shaft and one end trimmed with a knife, shaft polished. L: 57mm. W13, Phase 3, SFWB25.
- WB90 Bone bobbin or toggle made from pig metapodial; perforated through shaft from front to back, hole 5mm in diameter; shaft and both ends possibly trimmed with a knife. L: 50mm. (Y12B) = 39, Phase 3, WB31.

#### Handles and Miscellaneous Objects (WB91-3)

WB91 is a decorated bone tube, probably a handle. WB92 is a gaming piece of a type usually regarded as a draughtsman. A similar though smaller example was found on St Peter's Street (Oakley 1979, 317-8; WB99). WB93 is a bone stylus with tip of copper alloy. A similar one, discovered at Northampton Castle, is on display at Northampton Museum and two others are published as belonging to the Saxon monastery at Whitby (Peers and Radford 1943, 71, nos 108-9) though they are not definitely Saxon (Wilson 1964, 63). A bronze stylus from St Peter's Street was suggested as being of middle Saxon, possibly 8th century, date (Oakley 1979, 260, Cul00).

- WB91 Bone tube, probably a handle, probably made from sheep R tibia shaft, distal half; neatly cut at distal end; other end is broken and appears to have had two grooves 4mm apart cut right round it after the tube had been decorated; decoration consists of two spiral lines c. 5-8mm apart, the gap between the two filled with horizontal lines 1-1.5mm apart. L: 83mm; Diam (of hole): 7mm. (AA75) = 74, Phase 3, SFWB15.
- WB92 Gaming piece/draughtsman, made from piece of cattle mandible - angle of ramus; flat, polished upper surface decorated with two circles of single ring and dot decoration, the inner ring pierced by a central hole 10mm in diameter; also two lightly incised circular lines; lower side polished but undecorated. Similar, though smaller, example discovered on St Peter's Street (Oakley 1979, 317-8, WB99). Diam: 48mm; Th: 4-9mm. AA97, Phase 4A1, SFWB17.

- WB93 Bone stylus, made from long bone shaft fragment from large animal (cattle/horse size); spherical head set into a collar of two ridges, shaft undecorated; tip of copper alloy 8mm in length, 4mm of which is inserted into bone; highly polished. L: 75mm. AA95, Phase 4Aii, WB47.

Unfinished and Roughly Worked Objects (WB94-104)

A partially worked horse left metacarpal (WB94) - probably a roughout for a bone skate - and two billets, one of antler (WB95) and one of bone (WB96) - blanks for the production of tooth segments of composite combs, are evidence of bone and antler-working on the site (see above). The remaining bones (WB97-104) are roughly worked, often with holes pierced through.

- WB94 Horse L metacarpal; the anterior surface is slightly worn so that the cancellous bone is just exposed at the proximal and distal ends and the worn surface is lightly polished but there is no other sign of working; probably roughout for a skate. AA29, Phase 3, SFWB58.
- WB95 Rectangular billet of cut antler; blank for tooth segment of a composite comb. L: 26mm; W: 50mm; Th: 2-3mm. (AA219) = AA206, Phase 3, SFWB29.
- WB96 Rectangular billet made from long bone shaft fragment from large animal; one surface is smoothed, ?planed; the edges are neatly cut though not square; blank for a tooth segment of a composite comb. L: 15mm; W: 56mm; Th: 2-3mm. AA134, Phase 4A, SFWB41.
- WB97 Sheep immature L metacarpal, distal epiphysis not fused and missing; a circular hole, 7mm in diameter, is cut into the medial side of the proximal articular surface. (AAS91) = 545, Phase 3, SFWB37.
- WB98 Sheep, distal half of metacarpal, distal epiphysis not fused and missing; the medial portion of both condyle diaphyses has been cut away making a hole. L: 68mm. AA204, Phase 4Ai, SFWB38.
- WB99 Cattle, part proximal end of metatarsal; the articular surface has been neatly cut away to make a circular hole, the margin of bone left is c. 7mm thick. L: 54mm. AA203, Phase 4Ai, SFWB42.
- WB100 Sheep L radius, proximal end and shaft; sub-circular hole c. 6mm diameter cut into proximal end on anterior aspect, just below articular surface; two other small holes (?broken) at proximal end. AA204, Phase 4Ai, SFWB67.
- WB101 Goose L radius shaft; proximal and distal ends cut

off fairly neatly; parallel lines on areas of shaft suggest light shaving of shaft in places. AA +, SFWB30.

- WB102      Fragment of ?bird bone shaft, from bird of goose size. The shaft is cut across to form a tube. A cut close to the cut end could be decoration. L: 27mm. (Y59) = 55, Phase 3, WB32.
- WB103      Sheep R metacarpal, proximal half, with circular hole, 8mm in diameter, cut through lengthwise; the shaft is broken at its mid-point. L: 69mm. (Y119) = 99, Phase 4Ai, SFWB34.
- WB104      Cattle femur, L part shaft; distal end cut off straight across, cancellous bone cut away to make an oval hole on long axis; the hole is slightly funnelled. L: 108mm. AA117, Phase 4Ai, SFWB36.



Table (M)18: Numbers of Bones from Different Parts of the Body Found in Disturbed Deposits, Listed according to Age Group

Bone	Adult over 20	Adolescent c. 10 - 20	Child under 10 years
Skull			4
Mandible	1		1
Vertebra	3	1	1
Scapula	1	1	
Clavicle	3		
Humerus	1	1	1
Radius	1		3
Ulna			3
Metacarpal	4		
Pelvis	6		5
Femur	2		17
Tibia	6	3	12
Fibula	2	2	12
Astragalus	2	3	
Calcaneum	2	1	2
Metatarsal	2	1	14

Table (M)19  
Phase 1

	Cattle		Sheep		Pig				
	L	R	L	R	L	R			
Skull	2	3	4	1	4	6	1		
Maxilla			1				1		
Mandible	4	2	6	1	9	3	3		
Tooth		5		36		10			
Vertebra		19		15		11			
Rib		134		136		2			
Scapula	7	5	1	4	4	5	1	7	
Humerus	2	5	3	12	11	3		5	
Radius + ulna		1	5	7	4	13	3	1	3
Metacarpal		2	1	2	2	2	1	5	1
Pelvis	2	2	2	6	1	6	4		7
Femur	5	13	1	3	28	2	1	5	1
Tibia	4	1	3	14	8	20	2		4
Astragalus	2		3	1					1
Calcaneum	2					1			
Scapho-cuboid									
Metatarsal		1		3			4		2
Phalanx 1			1	1	1	1			3
Phalanx 2	2		1						
Phalanx 3			3		1				
<hr/>									
Total		91		184		81			
(ex. T, V, R)		25%		52%		23%			
<hr/>									

1 Ram

Also: Horse: skull: L, tooth: 2, ulna: R, femur: L, patella: R,  
phalanx 1: 1.

Hare: radius: R.

?Hare: humerus: L.

Table (M)20  
Phase 1/2

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull				1		
Maxilla						
Mandible			2	2		
Tooth		1		3		
Vertebra		4		1		
Rib		16		35		
Scapula			1		1	
Humerus	1	1	1	1		1
Radius + ulna			2	2		1
Metacarpal						
Pelvis		1				
Femur		1		3	1	
Tibia	1		3	3		
Astragalus	1					
Calcaneum				1		
Scapho-cuboid						
Metatarsal				3		1
Phalanx 1		2				1
Phalanx 2	1	1				
Phalanx 3	1	1				
<hr/>						
Total		13		29		5
(ex. T, V, R)		28%		61%		11%
<hr/>						

Also: Horse: phalanx 1: 1.  
Horse: femur: 1.

Table (M)21  
Phase 2

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	1	3	1	3	1	3
Maxilla				2		3
Mandible		1	9	3	6	5
Tooth		6		20		4
Vertebra		19		31		5
Rib		160		280		3
Scapula	5	6	9	3	19	4
Humerus	4	3	4	12	3	11
Radius + ulna	3	2	4	13	2	12
Metacarpal		4	1	2	1	4
Pelvis	5	2	6	9	9	1
Femur	1	11	5	9	65	7
Tibia	3		6	31	9	32
Astragalus	1		2			2
Calcaneum	1	1			2	2
Scapho-cuboid						
Metatarsal		1	1	1	3	1
Phalanx 1	4		1	2		1
Phalanx 2			2	1		2
Phalanx 3	1		1			
Total		103		290		70
(ex. T, V, R)		22%		63%		15%

Also: Horse: tooth: 1, scapula: L, radius: shaft,  
femur: L, phalanx 2: 1.  
Goat: horn core: 1, radius: R.  
?Red deer: ulna: R.  
Hare: pelvis: R.

Table (M)22  
Phase 3

	Cattle		Sheep		Pig				
	L	R	L	R	L	R			
Skull	28	11	15	19	4	35	8	1	14
Maxilla	6		5	5		8	12		15
Mandible	22		25	32		21	22		14
Tooth		47			67			40	
Vertebra		111			143			15	
Rib		458			568				
Scapula	32	44	30	33	9	32	16	12	12
Humerus	21	3	25	41	2	27	26		18
Radius + ulna	18	1	34	44	8	40	7	3	7
Metacarpal	13	11	16	15	13	19	10		6
Pelvis	30		22	32		30	18		14
Femur	20	36	18	11	46	19	13	12	17
Tibia	24	2	38	62	15	50	11		12
Astragalus	13		13	5		7	3		1
Calcaneum	10		11	13		7	5		2
Scapho-cuboid	3		3	2		1			
Metatarsal	10	20	12	20	16	29	11	2	11
Phalanx 1	23		24	5		5	6		5
Phalanx 2	15		9	1		2			3
Phalanx 3	7		10						
<hr/>									
Total		733			785			345	
(ex. T. V. R)		39%			42%			19%	
<hr/>									

Also: Horse: skull: 1, maxilla: R, mandible: R, tooth: 3, vertebra: 1, scapula: R, 1, humerus: R, radius: R, metacarpal: L, R, pelvis: R, tibia: L, astragalus: 2R, metapodial: 1, phalanx 1: 1.  
 Dog: tooth: 1, vertebra: 2, humerus: L, metacarpal: L, R, ulna: L, 1, tibia L, 2R, calcaneum: L, metatarsal: 2  
 Cat: mandible: L, humerus: R, pelvis: L.  
 Red deer: metatarsal: R.  
 Roe deer: mandible: R, humerus: L.  
 Hare: scapula: L, pelvis: R, calcaneum: R.

Table (M)23  
Phase 3/4Ai

	Cattle		Sheep		Pig		
	L	R	L	R	L	R	
Skull	1	1	5	1	3	1	3
Maxilla				1		2	2
Mandible	4		2	5	6	1	5
Tooth		2		11			1
Vertebra		8		21			4
Rib		50		92			(14) piglet
Scapula	2	1	2	3	1	5	3
Humerus	5	1	6	9	2	4	4
Radius + ulna	5		2	4	1	6	1
Metacarpal	1	2	1	3	2	1	2
Pelvis	3		2	3		5	1
Femur	2	7	3	1	4	3	3
Tibia	3	3	5	12	2	8	2
Astragalus			2				
Calcaneum	2		1	3			1
Scapho-cuboid			1			1	
Metatarsal			1	1			1
Phalanx 1	2		1	1			2
Phalanx 2	1		2				3
Phalanx 3						1	
<hr/>							
Total		82		103		59	
(ex. T, V, R)		34%		42%		24%	
<hr/>							

Includes: Goat: radius Piglet: 11 bones

Also: Horse: vertebra: 1.  
Dog: pelvis: R, tibia: L.  
Rabbit: humerus: L.

Table (M)24  
Phase 3/A

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	1	1	2	1		
Maxilla						1
Mandible	1	3		1	1	1
Tooth		4		1		5
Vertebra		2		4		2
Rib		32		30		
Scapula	1	1		2		1
Humerus	2		4	2	2	1
Radius + ulna		1	4	1	2	
Metacarpal				1		2
Pelvis		3	2	5		
Femur	1	2		2	2	2
Tibia	2	2	1	1		1
Astragalus			1			
Calcaneum	1	1	1			
Scapho-cuboid						
Metatarsal		1		2	1	1
Phalanx 1	1	1			2	2
Phalanx 2	1					
Phalanx 3						
<hr/>						
Total		32		41		20
(ex. T. V. R)		34%		44%		22%
<hr/>						

Also: Horse: mandible: L, R, tooth: 1, tibia: L.  
Red deer: humerus: L.

Table (M)25  
Phase 4Ai

	Cattle		Sheep		Pig				
	L	R	L	R	L	R			
Skull	146	74+	142	53	6	58	16	19	
Maxilla	10		2	24		26	14	11	
Mandible	32		33	77		77	25	36	
Tooth		115			62		46		
Vertebra		284			384		35		
Rib		768			978				
Scapula	37	39	21	57	13	57	16	5	19
Humerus	37	7	40	79	7	60	26		30
Radius + ulna	29	4	38	94	7	80	15		12
Metacarpal	19	8	23	50	60	31	13		12
Pelvis	40	2	43	75		48	12		16
Femur	32	38	28	38	94	33	13	10	14
Tibia	41	4	45	122	27	146	15	1	24
Astragalus	22		15	10		18	4		2
Calcaneum	18		13	9		15	8		8
Scapho-cuboid	4		6	2		1	1		
Metatarsal	35	95	25	69		68	14	2	10
Phalanx 1	38		37	37		28	5		6
Phalanx 2	22		17	5		5	2		1
Phalanx 3	11		9	3		5	1		

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Total	1381	1774	438
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(1019 without  
skull frags.)

(ex. I, V, R)	31%	55%	14%
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Includes: 3 polled 1 polled  
2 Rams  
Goat: skull: 3L, 4R  
Goat?: radius: L,  
metacarpal: L, 3R.

Also: Horse: skull: R, mandible: 3L, 2R, tooth: 13,  
vertebra: 10, scapula: 3L, 3R, humerus: 3L,  
radius: L, R, metacarpal: L, 3R, 1, pelvis: L,  
3R, 1, femur: 3L, R, 2, tibia: 3L, 4R,  
astragalus: 3R, calcaneum: R, scaphoid: R,  
metatarsal: R, phalanx 1: 4.  
Dog: mandible: R, humerus: L+R, radius: L, ulna:  
L, femur: L+R, tibia: L+R (all one animal); also  
skull: R, vertebra: 1, humerus: R, radius: L, 1,  
metacarpal: 3R, metatarsal: R.  
Cat: vertebra: 4, rib: 9, humerus: L+R, radius:  
L+R, ulna: L+R, pelvis: 1, femur: R, tibia: L+R,  
fibula: 1, metapodial: 1 (all one animal); also  
vertebra: 2, rib: 5, humerus: L, radius: L+R,  
ulna: L+R, pelvis: L, femur: L, tibia: L+R,  
metatarsal: 2 (all one animal); also skull: 2L,  
R, mandible: L, vertebra: 4, humerus: 4L, 2R,



radius: 2L, R, ulna: 2R, pelvis: 2L, R, femur:  
 4L, 2R, 1, tibia: 1, 2R.  
 Rabbit: tibia: L, metatarsal: 4, phalanx: 4.  
 Hare: humerus: L, radius: L, pelvis: L, R, tibia:  
 L, R, calcaneum: L, metatarsal: L, 2R, phalanx  
 1: 2.  
 Red deer: tibia: L, R, metatarsal: R.  
 Fallow deer: metatarsal: L.  
 Red/Fallow  
 deer : metatarsal: L

Table (M)26  
Phase 4Aii (excluding AA543)

	Cattle		Sheep		Pig			
	L	R	L	R	L	R		
Skull	24	2	21	11	1	12	12	6
Maxilla	4		1	4		3	5	6
Mandible	14		9	19		19	5	7
Tooth		13			13		8	
Vertebra		41			59		4	
Rib		144			141			
Scapula	6	5	11	5		5	4	3
Humerus	6	1	6	7		8	1	5
Radius + ulna	13	2	10	11	1	16	2	4
Metacarpal	1	4	4	7	1	4	4	1
Pelvis	11		14	18		17	3	2
Femur	7	5	16	6	15	11	5	2
Tibia	16	1	18	15	2	25	3	2
Astragalus	3		4	1				2
Calcaneum	6		3	3		3	1	1
Scapho-cuboid			2			1		
Metatarsal	8	5	2	7	3	6	1	1
Phalanx 1	10		7	1				
Phalanx 2	3		2					
Phalanx 3	2		4			1		
<hr/>								
Total	293		269		92			
(ex. T, V, R)	45%		41%		14%			

Includes:

1 polled

?Goat: horn core

Also: Horse: tooth: 4, scapula: 2L, humerus: L, radius: R, femur: L, calcaneum: L, phalanx 1: 1, phalanx 2: 2.  
Dog: metacarpal: L, tibia: R.  
Cat: 2 virtually complete skeletons: also skull: 1, tooth: 1, vertebra: 1, scapula: 2L, R, humerus: L, ulna: L, pelvis: R, metatarsal: 3.  
Rabbit: humerus: R.  
Hare: metatarsal: R.  
Polecat/: skull: 2, mandible: 2L+2R, vertebra: 3,  
Ferret: humerus: L+R, ulna: L, femur: L+R, tibia: L.

Table (M)27  
Phase 4Aii (AA543 only)

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	152	109	129	2	3	4
Maxilla				1	2	1
Mandible		1		1	2	2
Tooth		3		4		14
Vertebra		8		7		61
Rib		39		24		
Scapula		3	2	1	5	4
Humerus		3	2		8	11
Radius + ulna			1	2	6	4
Metacarpal	1	2	1	1	1	1
Pelvis	2		2	3	5	4
Femur	3	3		2	11	13
Tibia	5		8	5	2	6
Astragalus	2		1		1	5
Calcaneum			3		3	5
Scapho-cuboid					1	3
Metatarsal		1	1	1	1	4
Phalanx 1						6
Phalanx 2			1			7
Phalanx 3						9
Total		434		38		143
		without skull				
		frags: 44				
(ex. T, V, R)		49%		42%		

Includes:

Goat:

horn core: L, 3R.

Also: Pig: mandible: R, tooth: 2, vertebra: 1, scapula: L,  
pelvis: L, R, femur: 2L, R, metatarsal: L (total 8:  
9%).

Dog: vertebra: 1, tibia: R.

Cat: metacarpal: 1, pelvis: L, tibia: L.

Table (M)28  
Phase 4A

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	13	2	11	6	4	4
Maxilla					1	1
Mandible	3		4	3	7	3
Tooth		14		19		9
Vertebra		14		22		6
Rib		77		73		
Scapula	4	5	3	5	9	6
Humerus	4	1	5	4	8	2
Radius + ulna	5		4	5	2	10
Metacarpal	4	4		7	9	6
Pelvis	2		5	5	7	1
Femur	2	9	6	4	10	7
Tibia	10	1	6	12	3	21
Astragalus	1		1	1		1
Calcaneum	4		2	2		
Scapho-cuboid			1			
Metatarsal	3	2	1	6	9	6
Phalanx 1	6		3	4		2
Phalanx 2			2			2
Phalanx 3	2		3			2
Total		144		194		46
(ex. T, V, R)		37%		51%		12%

Includes:

Goats:

horn core 2L, 1.

Goat?: numerus: R.

Also: Horse: tooth: 2, humerus: L, metacarpal: R, metatarsal: L, phalanx 1: 3, phalanx 2: 1, phalanx 3: 2.  
 Dog: skull: 2, mandible: L+R, vertebra: 3, scapula: R, ulna: R, femur: R, tibia: R.  
 Cat: mandible: L, femur: L.  
 Red deer: radius: L.  
 Roe deer: radius: R.  
 Hare: tibia: R.

Table (M)29  
Phase 4Aii/Bi

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	3	1	8	2		2
Maxilla			2			
Mandible	1	2	6	10		1
Tooth				2		2
Vertebra		6		20		
Rib		35		42		
Scapula	3		1	1	1	2
Humerus			5	4	1	1
Radius + ulna			1	3	2	2
Metacarpal	2	3	1	1		
Pelvis	3	1	3	2		
Femur		1	1	4	1	
Tibia	2	1	5	1		1
Astragalus			1			
Calcaneum						
Scapho-cuboid						
Metatarsal	1	1		1	1	
Phalanx 1	6		5		1	
Phalanx 2	7		2			
Phalanx 3	4		1			
<hr/>						
Total		58		66		13
(ex. T, V, R)		42%		48%		10%

Includes:

1 polled

Also: Horse: tooth: 1, astragalus: L, phalanx 1: 1.

Table (M) 30  
Phase 4Bii

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	8	7	5	2	2	3
Maxilla	1		1		1	
Mandible	3	1	5	6	2	
Tooth		18		17		6
Vertebra		22		10		5
Rib		54		62		
Scapula	6	5	1	8	2	3
Humerus	4		7	1	3	
Radius + ulna	3		7	7	5	4
Metacarpal	2		2	2		1
Pelvis	9		4	4	1	
Femur	4	13	4	6	2	4
Tibia	6		17		2	2
Astragalus	1		1			
Calcaneum	5		1		2	
Scapho-cuboid						
Metatarsal	3	4	7	9		1
Phalanx 1	4		4	2	1	
Phalanx 2	2					
Phalanx 3	1		2			
<hr/>						
Total		136		152		44
(ex. I, V, R)		41%		46%		13%
<hr/>						

Also: Horse: skull: 1, mandible: 1, tooth: 3, metacarpal: L, 1,  
phalanx 1: 1, tibia: R, astragalus: R,  
calcaneum: R, metatarsal: R.

Dog: tooth: 1, tibia: L.

Cat: skull: R, tibia: L.

Table (M) 31  
Phase 4

	Cattle		Sheep		Pig	
	L	R	L	R	L	R
Skull	3	1	2	1	1	1
Maxilla						
Mandible	3		3	2	2	3
Tooth		1		10		4
Vertebra		4		10		2
Rib		49		26		
Scapula	1	2	3	1	1	2
Humerus	4	2	3	5	1	1
Radius + ulna	1	1	3	1		2
Metacarpal	3	1		2		
Pelvis	2	2	7	1		
Femur	1	2	1	6		
Tibia	2	3	5	4	1	1
Astragalus						
Calcaneum	1					
Scapho-cuboid	1	1				
Metatarsal	1	1	4	1		1
Phalanx 1	1	1	1			1
Phalanx 2	1					
Phalanx 3		1				
<hr/>						
Total		48		60		18
(excl. T, V, R)		38%		48%		14%

Includes:

Goat: horn  
core: R.

?Wild pig:  
scapula.

Also: Horse: tooth: 1, femur: L, phalanx 1: 1.  
Cat: ulna: R, tibia: L.

Table (M) 32: Ages of Cattle at Death

Phase																										
1																							1			
1/2																									1	
3			1							2			1	1		2		1					1		9	
3/4																									1	
3/4Ai									1																	
4							1																		1	
4A																									2	
4Ai				1				1	1		1		2	3		1				1	1				14	
4Aii		1	1	2		1									1							1	1	2	5	
4Aii/Bi				1																						
4Bii								1												1					1	
Silver s	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
'Old' Ages	0						6	9										30 months		4	---		5 years			

Table (M) 33: Ages of Sheep at Death

Phase																										
1								1						1	2			1			1				2	1
1/2																								1	1	1
2																								1	1	3
3																								1	1	7
3/4																										3
3/4Ai																										22
4																										1
4A																										1
4Ai																										1
4Aii																										1
4Aii/Bi																										1
4Bii																										1
Silver s	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
'Old' Ages	0	1					6												18 months		3	----		4 years		z+



Table (M)34: Ages of Pigs at Death

Phase								
1			1			2	1	
2			1	2		1	1	
3		3	4	2	5	7	1	
3/4Ai	1							
4		1		1		1		
4A		1	2	1		1		
4Ai		8	4	10	5	4	2	
4Ai/ii					1			
4Aii		5		2		1		
4Aii/Bi			1					
4Bii				1			1	
Silver s		1		2		3 years		
Old Ages								

# THE ABNORMAL BONES

by J R Baker

- (V43) = 27. Phase 3/4Ai. Pig, right humerus. An irregular ill-defined mass of new bone is present on the anterior surface on the proximal half of the bone; this probably resulted from tearing of the insertion of muscles at this site. A ridge of new bone is present on the diaphysis just above the epiphyseal plate on the lateral side. The cause of this is unknown.
- (W2) = V1. Phase 4Bii. Cattle, two rib fragments. One has a healing fracture. The other shows a slight swelling but there is too much post-mortem damage to assess the cause.
- W5 Phase 4Ai. Cattle, left tibia. A small swelling 18 x 7 x 3mm is present on the lateral side of the anterior face 35mm above the distal end, probably the result of trauma. Slight irregularities are present on the posterior aspect just above the lower articular surface. The cause is unknown.
- W11 Phase 4Ai. Horse, 3 thoracic vertebrae. These show massive amounts of new bone on the dorsal surfaces with fusion of the zygapophysis; one also shows ventral spondylosis of Morgans Grade 4. These changes tend to occur at this site in elderly draft animals as a result of repeated spinal stress.
- W11 Phase 4Ai. Sheep, left radius. A small periarticular growth is present on the lateral aspect of the proximal end. A case of 'penning elbow.'
- W14 Phase 3. Pig, right radius. The distal part of the diaphysis is grossly distended with some periosteal new bone and these appear to be defects in the distal epiphyseal plate. These changes are probably due to osteomyelitis.
- (W20) = V1. Phase 4Bii. Cattle, right horn core. The distal half of this specimen is much narrower than the base, probably as a result of a prolonged period of malnutrition or illness.
- (W6B) = 26. Phase 4A. Sheep, right femur. The diaphysis of this bone is very irregularly swollen with porous new bone. This is probably a case of osteomyelitis with much periosteal involvement.
- (W69) = 52. Phase 4A. Horse. left metatarsal. Periarticular new bone around proximal end predominantly medially. This is a case of spavin.  
Pig, right mandible. There is alveolar enlargement

round M1 and M2 due to periodontal disease.

- WB9 Phase 2. Cattle, 3rd right phalanx. Some new bone has formed around the lower end of this bone on the lateral aspect. The cause is unknown.
- W120 Phase 3. Pig, metapodial. The proximal end of the diaphysis is swollen with a fairly smooth cross sectional surface. Probably a non-union fracture.
- (X6) = V1. Phase 4Bii. Sheep, left radius. Considerable periarticular new bone on the lateral and posterior surfaces. Some damage, probably traumatic, was done to the radius ulna articulation at this site when the animal was young.
- Y31 Phase 4Aii. Cattle, left patella. Considerable new bone has formed on the distal half of the anterior face probably as the result of severe trauma causing tearing of the patella ligaments.
- Y32 Phase 4Aii/Bii. Cattle, left 1st phalanx. Periarticular new bone has formed all round except posteriorly, probably as a result of a sprain type injury.  
Sheep, left mandible. The condylar articular surface is rough and the coronoid process is distorted and expanded. There was probably some soft tissue disease in this area.
- Y45 Phase 4A1. Cattle, right first phalanx. There is periarticular new bone around the proximal articular surface, resulting in some expansion of the surface. Some eburnation is also present. A case of osteoarthritis.  
Horse, right metatarsal. Considerable irregular new bone is present adjacent to the proximal articular surface, probably as a result of tearing of the lateral ligaments of the joints.
- (Y128) = 39. Phase 3. Cattle, rib fragment. This shows considerable expansion at one end with a very irregular cross sectional surface. This is probably a fracture which may have been infected.  
Pig, left metatarsal. There is irregular periarticular new bone at the proximal end, mainly anteriorly, probably the result of a sprain type injury.
- (Y136) = 130. Phase 3. Sheep, right metatarsal. A ridge is present on the anterior half of the bone on the lateral side. It is 60mm long. The cause of this fairly common abnormality is not known.
- (Y143) = 118. Phase 3//4Aii. Cattle, left metacarpal. A low ill-defined smooth swelling is present on the medial

surface just above the mid shaft, probably the result of a blow.  
 Sheep, rib. This shows angular deformities due to a healing fracture.

- Z21      Phase 4Ai. Cattle, right metatarsal. There is broadening of the outer lower articular condyles and new bone in the region of the epiphyseal plate on the lower anterior surface. These changes are seen in draft oxen.
- AA+      Cattle, horn core. The tip, for a distance of approximately 40mm is thinner than the remainder of the core. The tip has probably formed during a period malnutrition or of chronic disease.
- AA7      Phase 3. Cattle, left first phalanx. Irregular new bone has formed around the distal articular surface both dorsally and laterally. This probably results from an inflammatory lesion around the coronet of the hoof.  
           Cattle, right first phalanx. Fairly smooth new bone has formed around the proximal articular surface, probably as the result of a sprain type injury.  
           Cattle, rib fragment. One end shows evidence of a non-union fracture with early false joint formation.  
           Pig, left tibia. A swelling of new porous bone is present on the lateral aspect centred 30mm from the epiphyseal plate. It measures 250 x 120mm and is 6mm high. There appears to be a fragment of another bone in the surface. This is probably a reaction to a fracture of the fibula.
- AA13      Phase 4Ai. Cattle, fragment of left acetabulum. This shows an area of eburnation on the pubic surface.  
           Red deer, right metatarsal. A smooth swelling 50 x 10 x 4mm is present on the anterior aspect of the shaft 130mm from the proximal end. This is the result of a blow.
- AA25      Phase 3. Sheep, left mandible. Premolar 4 was lost antemortem, probably as the result of periodontal disease.  
           Cattle, left side of pelvis. The pubis shows an expanded irregular lesion only half of which is present on the specimen. This is a non-union fracture.
- AA49      Phase 4Ai. Cattle, right metacarpal. A small amount of periarticular new bone is present on the lateral aspect of the proximal end. The cause of this is not known.  
           Cattle, distal end of left tibia. Two hollows are present on the articular surface measuring 10 x 7mm and 4 x 2mm. These are congenital.

- AA62 Phase 4Aii. Sheep, right mandible. The 4th premolar is missing and its alveolus enlarged and the jaw is slightly swollen in this region. This is periodontal disease.
- (AA68) = 4. Cattle, left metacarpal. A swelling 18 x 17 x 3mm is present on the lateral aspect of the shaft, 95mm from the proximal end. This is the result of a blow.  
Pig, left metatarsal. There is periarticular new bone at the proximal end; this is probably the result of a sprain type injury.  
Red deer antler. A marked swelling is present going right round the beam and a mass of abnormal cancellous bone fills the space. This possibly represents a healed infection in the core of the beam. (WB79).
- AA70 Phase 3. Cattle, rib fragment. This shows a partially healed fracture.
- AA77 Phase 3. Cattle, metatarsal. There is a small amount of new bone on the anterior aspect just above the distal articular surface. This is the result of a sprain type injury.
- AA81 Phase 4Aii. Sheep, right metatarsal. The large cuneiform is fused to the metatarsal with new bone on its anteromedial surface. The cause of these sprain type injuries in sheep is not known.
- (AA82) = 49. Phase 4Ai. Pig, left metatarsal. Small amounts of irregular periarticular new bone are present on the upper anterior aspect of the bone. The cause is unknown.
- AA(91) = 72. Phase 4Ai. Cattle, thoracic vertebra, dorsal spine. A nodule of new bone, damaged after death, is present on the right side of the tip. This probably results from damage to the ligament at this site but the cause is not known.  
Sheep, left ulna. The proximal end shows irregular expansion, the result of a periostitis/ostitis, possibly originating in the elbow joint.  
Pig, rib fragment. There is considerable expansion of the head of the rib together with destruction of the articular surface. This is a suppurative arthritis, probably originating from osteomyelitis in the adjacent vertebral body.
- AA97 Phase 4Ai. Cattle, rib fragment. One end of this bone shows marked irregular expansion and pitting. This represents an infected fracture site.  
Cattle, right first phalanx. A small amount of new bone is present on the medial side of the proximal end just below the articular surface. This is a

sprain type injury.

Sheep, left metacarpal. A small spiky growth is present on the postero-lateral angle of the shaft 10mm from the proximal end. It is 8 x 2 x 2mm, of unknown cause.

- AA97 Phase 4Ai. Sheep or pig, rib fragment. One end shows irregular expansion probably representing a partially healed fracture.
- AA98 Phase 4Aii. Pig, left radius. Large amounts of porous new bone have formed adjacent to the proximal articular surface which shows some evidence of pitting. This pig had a septic arthritis.
- AA117 Phase 4Ai. Cattle, left calcaneum. Large amounts of new bone have formed on the medial aspect and around the groove of the deep flexor tendons. This is relatively common archaeologically but has not been found by the author in modern material. The cause is unknown.  
Cattle, right scapho-cuboid. Large amounts of new bone have formed on the anterior aspect and this is marked degeneration of the distal articular surface. Cause unknown.
- AA134 Phase 4Ai. Red deer, tine. There is a fusiform swelling around the circumference of the antler. Cause unknown. (WB80).
- AA152 Phase 3. Cattle? scapula? This fragment appears irregular but without a definite identification it is difficult to comment.
- AA183 Phase 2. Pig, spinous process of thoracic vertebra. The tip of this bone is irregularly expanded to form a swelling 12 x 15 x 11mm. There is post-mortem damage but it probably represents osteomyelitis.
- AA203 Phase 4Ai. Cattle, rib fragment. Irregular swelling and pitting close to the articular surface. This could represent either a healed fracture or healed osteomyelitis.  
Sheep, left mandible. The ventral border of the lower ramus is unusually broad, possibly congenital.  
Sheep, left femur proximal end. The shaft of this bone is very thin, the animal has osteoporosis, probably of nutritional origin.  
Sheep, right femur. Irregular nodules of new bone are present on the posterior aspect of the shaft measuring 45 x 8 x 4mm. Cause unknown.  
Pig, right ulna. A small amount of new bone has formed periarticularly at the proximal end on the anterior aspect. The cause of this is unknown.
- AA204 Phase 4Ai. Sheep, left humerus. There is

periarticular new bone around the distal articular facets which possibly shows early eburnation. Osteoarthritis.

- AA210 Phase 4Ai. Cattle, left metacarpal. A smooth swelling is present on the medial aspect above the distal end, 40 x 15 x 4mm. This is the result of a blow.
- (AA214) = +. Cattle, thoracic vertebra fragment. This shows large amounts of periosteal new bone at the base of the thoracic spine. This may be evidence of a healing fracture or osteomyelitis.
- AA217 Phase 3? Sheep, left radius. A small amount of periarticular new bone has formed at the distal end, mainly on the lateral aspect, probably as a result of a sprain type injury.
- (AA226) = 93. Phase 4Ai. Cattle, rib fragment. One end shows considerable expansion and is suggestive of a healing fracture, possibly infected.
- AA227 Phase 2. Sheep, thoracic vertebra. The tip of the dorsal spinous process is expanded to form a fat plate at right angles to the spine as a result of traumatic damage to the ligament at this site.
- AA344 Phase 4Ai. Horse, right radius. A long slightly irregular swelling is present on the medial aspect of the posterior side, starting at the mid shaft, 45 x 13 x 3mm. This type of lesion usually results from periosteal elevation following a blow but the degree of muscle protection at this site renders this explanation unlikely.
- AA346 Phase 4Ai. Pig, right tibia. Small plaques of new bone are present on the anterior and medial aspects just above the distal end. The cause of these is unknown.
- (AA352) = 309. Phase 4Ai. Horse, left scaphoid. Early degenerative changes of the anterior edge of the distal articular surface. Probably early osteoarthritis.
- 370 Phase 4Ai. Cattle, proximal end of right metacarpal. A large, somewhat irregular area of porous new bone has formed on the anteromedial aspect of the bone immediately below the articular surface. It measures 60 x 45 x 9mm. The cause is unknown.
- AA370 Phase 4Ai. Cattle, dorsal spinal process of thoracic vertebra. This shows an irregular expanded area probably representing a partially healed fracture.

- AA373 Phase 4Ai. Sheep, left humerus. A spur of new bone is present on the lateral aspect of the distal epiphysis. This is of traumatic origin and is probably a case of 'penning elbow.'
- AA392 Phase 4Ai. Pig, right tibia and fibula. The two bones are fused together by a plate of new bone 30mm from the distal end. It is identical to that from AA7 and is probably the result of a fracture of the fibula.
- AA400 Phase 4Ai. Sheep, left humerus. Very similar to that from AA373; a case of 'penning elbow.'
- (AA420) = 167. Phase 2. Cattle, rib. The bone is very irregular in shape over 80mm close to the head with small spurs present, one facing posteriorly and two anteriorly. There is a fracture which has healed out of line.
- (AA421) = 168. Phase 2. Cattle, lumbar vertebra. A large number of small pits are present at the base of the spinous process. The cause of these is not known.
- AA  
(501) = +. Cattle, rib fragment. There is an area of irregular expansion close to the proximal end. This is an area of osteomyelitis.
- AA509 Phase 4Ai. Cattle, left metatarsal. A small amount of new bone has formed periarticularly on the lateral aspect. This is probably the result of a sprain type injury.
- AA513 Phase 3/4Bii. Cattle, right metatarsal. A small (8 x 7 x 5mm) nodule is present on the lateral surface 20mm from the articular surface. The cause is possibly a sprain type injury.
- AA520 Phase 4A. Cat, metacarpal. The bone shows an irregular deformity at the proximal end, probably the result of a fracture.
- AA529 Phase 4Ai. Horse, lower cheek tooth. Nodules and linear areas are present at this root, probably the result of periodontal disease.
- AA540 Phase 3/4Ai. Cattle, rib fragment with healed fracture.
- AA543 Phase 4Aii. Cattle, horn core. The cranial end of this is expanded and very heavily pitted on the cross sectional surface. This is a case of osteomyelitis.  
Sheep, left humerus. A spur of bone is present on the lateral aspect, a case of 'penning elbow.'  
Sheep, right ulna. The proximal end is very



irregular and expanded. Cause unknown.

Horse, 3 thoracic and 1 lumbar vertebrae from same animal. A large amount of new bone is present on the dorsal arches and around the zygapophyses and spondylosis of Morgans Grade 3 on T17 and T16. These changes tend to occur in elderly draft animals as a result of repeated spinal stress.

Horse, 1 lumbar vertebra. Large amounts of periarticular new bone has formed around the zygapophyses - see above specimen.

Horse, right scapula. A very large mass of new bone has formed on the neck and periarticularly, and a new articular surface has formed on some of this with concurrent destruction of the glenoid cavity. This animal had a dislocated shoulder for a very long time before its death.

Horse, right calcaneum, astragalus scaphoid and large and small cuneiform, the latter three bones being fused with new bone on the anteromedial aspects; small amounts of new bone are present on the medial and lateral sides of the calcaneum and the medial side of the astragalus. These changes have resulted from a sprain type injury.

Horse, right lower tarsals and metatarsal fused together and the splints are also fused. The fusion has resulted from the formation of periarticular new bone most marked in the anteromedial aspect. This is a case of spavin.

- AA568 Phase 4Aii. Pig, metapodial. This has a deformed shaft close to the proximal end, the result of a healed fracture.
- AA579 Phase 4Aii. Sheep/goat, left metatarsal. There is antero-posterior thinning towards the distal end, probably congenital.
- AA580 Phase 4Aii. Sheep, right radius. A spiky growth of new bone adjacent to the proximal articular surface on the lateral aspect - this is 'penning elbow.'

THE FISH BONES  
by Alison Locker

INTRODUCTION

A total of 351 fish bones was recovered from deposits dating from before AD 700 to the post-medieval period onwards. The following species were identified: eel (Anguilla anguilla), herring (Clupea harengus), pike (Esox lucius), cod (Gadus morhua), haddock (Melanogrammus aeglefinus), ling (Molva molva), mackerel (Scomber scombrus), plaice (Pleuronectes platessa) and halibut (Hippoglossus hippoglossus). The non-specific groups are Salmonidae and Gadoid. Although two large vertebral centra seem likely to belong to salmon (Salmo salar), the possibility of trout (Salmo trutta) cannot be excluded; Gadoid refers to bones that belong to fish of cod/ling size but are too fragmented for positive identification and flatfish which similarly are too fragmented for specific identification. Tables M1-3 show the species and the type of bone identified in each context.

BIOLOGY AND FISHING METHODS

The fish identified are predominantly marine, with cod, ling and the gadoid group dominating the medieval contexts. Transportation of fresh marine fish to Northampton with its inland situation would have been impossible prior to the Industrial Revolution and the fish, therefore, were probably salted or dried. The nearest port would have been King's Lynn, although the biology of some of the fish suggests that they were caught from more northerly ports.

An offshore fishery based on lines is suggested by the cod, haddock and ling bones. Cod are found from the shoreline to depths of 600 metres. The few measurements that were possible (four) suggest that the cod from the medieval period onwards were 0.91-1.17m in total length which is up to the average size found today (Wheeler 1978, 150). Haddock live on the sea bed at depths of 40-300 metres. Both cod and haddock could have been caught by a fishery based at King's Lynn. Ling, however, has a more northerly distribution. It is a deep water fish, commonly found at depths of 300-400 metres, and is not normally encountered farther south than the northern part of the North Sea. It seems likely, therefore, that ling were brought overland from one of the Yorkshire ports or by sea to King's Lynn and then overland.

Halibut are large (up to 2.5m in length) boreal flatfish, caught on hooks. Today they are more common in the deep water of the northern part of the North Sea (Wheeler and Jones 1976, 220), although it is possible that they occurred farther south in the Saxon period. Plaice occur on all coastlines, commonly at depths of 10-50 metres, and can be caught by hook or in shoreline traps.

Fine surface nets are used for both herring and mackerel, both of which form large shoals and are seasonally plentiful off the East Anglian coast. Herring in particular gave rise to an

important fishing industry.

Fresh water fish are poorly represented. Eels are likely to have been caught in their freshwater stage by trapping in 'eel-bucks' (Wheeler 1979, 61), or by spearing; they could also have been stored live in ponds (Hickling 1971-2, 119). Pike are predatory fish typically found in lowland rivers and lakes, and would have been caught by rod and line.

#### THE SAXON PERIOD

As seen in Table M1 only 18 bones were found, and of these only nine were identifiable. The unidentifiable bone included fin rays which generally cannot be assigned to species. Eel fisheries were very important in the Saxon period. 'Eel-bucks' were wickerwork traps set in the millstream above the waterwheel. Water mills became widespread in lowland Britain after the 8th century (Wilson 1973, 29). The single herring skull fragment is scant evidence of the fishery that was an important factor in the economy of Britain by the time of the Norman Conquest (Wilson 1973, 27). Herrings would then have been salted; this did not, however, give such a long storage life as that of the later processes of smoking and pickling. The single cod vertebral centrum would have been from a dried or possibly salted fish. The presence in deposits of the 9th and 10th centuries of halibut, identified from a large caudal centrum, is unusual since, as previously discussed, it is a deep water fish of more northerly distribution. It is, however, a valued foodfish. The centrum was chopped right through in a medio-lateral direction, with a single knifecut also across the centrum. Perhaps only a portion of this fish was brought to Northampton. dried or salted.

#### THE MEDIEVAL PERIOD

Fish bones from medieval deposits make up 74% of the fish bone from the whole site. Cod, ling and the gadoid group form 82% of this assemblage (Table M2). When cod and ling were prepared at the port for drying and salting the fish were gutted and the heads removed. No ling skull bones were present, and cod was mainly represented by vertebral centra (85 out of 89 identified bones). Knifecuts were observed on both cod and ling vertebral centra, and one 15th century cod cleithrum was chopped through. The fish bone is thus clear evidence of the importance of preserved fish during this period; a large number of fish days were obligatory until the end of the 15th century (Wilson 1973, 31). Ling were only found in medieval deposits. Other marine fish remains included two fragments of herring, which, as in the Saxon period, provided poor evidence of the thriving industry prosecuted from the East Anglian coast, the nearest source, as well as from many other ports from which salted, and in later times, smoked and pickled, herring were marketed. Mackerel was identified from a single vertebral centrum. Being an oily fish it was also smoked and pickled. Plaice and other flatfish seem to have been of little importance at this particular site. Two salmonid (probably salmon) vertebral centra were identified. If they were not caught locally, they may have

come from Ireland or Scotland in pickled form (Wilson 1973, 37). Pike was identified from a single skull bone; it was not a large specimen. The preference for marine fish over those from fresh water during the medieval period (Wilson 1973, 41) is reflected in the low numbers of freshwater fish found in proportion to the marine fish; it seems to be true for all periods at this site.

#### POST MEDIEVAL AND LATER

Table M3 also includes some 15th century or later deposits which could not be dated closely. Two further pike skull fragments were found, the other remains being cod and/or gadoid fragments. The cod included three cleithra dated to the 15th century onwards which had all been chopped about the mid point in a dorso-ventral direction. One had also been chopped at the point nearest to the cranium. These chop marks were in a similar position to that on the bone from the medieval deposits, and similar marks were also found in post-medieval deposits from Pontefract Castle (Locker, unpublished). They may be associated with primary butchery in the removal of the head.

#### CONCLUSIONS

The amount of fish bone recovered from Saxon deposits is really too low to suggest any trends, but certainly from the medieval period onwards the transport of preserved fish to Northampton appears to have been important. Cod, headless, and salted or dried, seems to have been the most frequently used at this particular site.

#### ACKNOWLEDGEMENTS

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Table (M)35: Saxon

CONTEXT	EEL	HRG	COD	HLB	FFH	UND	TOTAL
<hr/>							
Pre 700							
(AA451)=423	-	-	-	-	-	1sk	1
<hr/>							
700-850							
(AA923)=904	-	-	1v	-	-	-	1
AA208	4v	-	-	-	-	1v	9
	-	-	-	-	-	4fr	1
<hr/>							
850-1100							
(Z52)-32	-	-	-	1v	-	-	1
Y55	-	-	-	-	1	-	1
(AA132)=123	1sk	1sk	-	-	-	3fr	5
<hr/>							
Total	5	1	1	1	1	9	18
<hr/>							

KEY

EEL = Eel	fr = fragment
HRG = Herring	sk = skull fragment
COD = Cod	v = vertebral centrum
HLB = Halibut	
FFH = Flatfish	
UND = Unidentifiable	

Table (M)36: Medieval

CONTEXT	HRG	SLM	PKE	COD	HDD	LNG	GAD	MCK	PLC	FFH	UND	TOTAL
<hr/>												
1100-1400												
(W16)=5	-	-	-	-	-	-	-	-	-	-	1fr	1
Y50	-	-	-	-	-	-	-	-	-	-	4fr	4
Y62	-	-	-	-	-	-	-	-	-	-	4fr	4
(Y87)=53	-	-	-	-	1sk	-	-	-	1sk	-	-	2
AA10	-	-	-	-	-	-	1sk	-	-	-	-	1
AA97	-	1v	-	1v	-	-	-	-	-	-	2fr	4
AA99	-	-	1sk	-	-	-	-	-	-	-	-	1
AA100	-	-	-	-	1sk	-	-	-	-	-	1sk	2
AA327	-	-	-	14v	-	4v	2v	-	-	-	-	41
							21fr					
(AA347)=344	-	-	-	64v	-	16v	32v	-	-	-	-	155
							1sk					
							42fr					
AA371	-	-	-	2v	-	2v	-	-	-	-	-	4
AA397	-	-	-	-	-	-	-	-	-	-	1fr	1
<hr/>												
1400-1500												
YB	-	-	-	1sk	-	-	-	-	-	-	-	1
Y31	2sk	-	-	1v	-	-	-	-	-	-	4fr	9
				2sk								
AA35	-	-	-	1sk	-	-	-	-	-	1v	-	2
AA62	-	-	-	3v	-	-	-	-	-	-	-	3
AA95	-	1v	-	-	-	-	-	-	-	-	16fr	17
AA543	-	-	-	-	-	-	3v	-	-	-	-	3
AA568	-	-	-	-	-	-	-	-	-	-	2fr	2
<hr/>												
1100-1500												
(AA521)=520	-	-	-	-	-	-	1fr	-	-	-	1fr	2
<hr/>												
Total	2	2	1	89	2	22	103	1	1	1	37	261
<hr/>												

## KEY

HRG = Herring

SLM = Salmon

PKE = Pike

COD = Cod

HDD = Haddock

LNG = Ling

GAD = Gadoid

MCK = Mackerel

PLC = Plaice

FFH = Flatfish

UND = Unidentifiable

fr = fragment

sk = skull fragment

v = vertebral centrum

Table (M)37: Post-medieval & Unstratified  
CONTEXT PKE COD GAD UND TOTAL

1500-1700					
AA211	-	-	-	1fr	1
1700 onwards					
(Z49)=12	-	-	1fr	-	1
Y2	-	-	-	1fr	1
1400-1700					
Y32	2sk	3v 9sk	5sk	9sk 40fr	6B
U/S	-	1v	-	-	1
Total	2	13	6	51	72

KEY

PKE = Pike	fr = fragment
COD = Cod	sk = skull fragment
GAD = Gadoid	v = vertebral centrum
UND = Unidentifiable	

THE SHELLFISH  
by G E Oakley

Oysters (*Ostrea sp.*) are the most numerous shellfish, represented by a few individuals from Phase 1 through to Phase 4A1. In Phase 4Aii (and 4Aii/Bi) the numbers rise dramatically, chiefly as a result of prolific finds from two contexts (Y31, Y32). This, however, agrees with the evidence from nearby excavations on St Peter's Street and also Marefair where oyster shells were most numerous in 15th century contexts. Shells from later phases of this excavation are few perhaps because relatively few contexts of later periods were investigated and a decline in the appetite for marine shellfish should not be read from this negative evidence.

Other marine shellfish are represented by a handful of shells; mussels (*Mytilus sp.*) from Phases 3, 4Aii and 4Aii/Bi; whelks from Phase 4Aii/Bi only. Only two pieces of shell of freshwater mussel were found, both from Phase 4A1, one identified by Mark Robinson as *Unio sp.* These shells tend to be less robust and therefore may be less likely to survive as archaeological evidence than oyster shells. Freshwater mussels are found in freely flowing fresh water (perhaps the River Nene) but are less palatable and individually less nutritious than oysters.

The number of shells from each phase are listed in Table (M)38 showing left and right in bivalves from which minimum numbers of individuals are deduced.



Table (M)38: Numbers of Shellfish

Phase	Oyster			Marine mussel		Minimum number of individuals			
	L	?	R	L	R	Oyster	Marine mussel	Whelk	Freshwater mussel
1	3		2			3			
1/2		1	1			1			
2	3		2			3			
2?	2					2			
3	3	2			1	3	1		
prob 3		1				1			
3?	2	1				1			
3/4	1					1			
4Ai	4	1	2			4			1
4Aii	37		36	3	2	37	3		
4A	1	1	1			2			
4Aii/Bi	50		69	4	6	69	6	10	
4Bi	1		2			2			
4Bii			1			1			
4			1			1			
+	1		1			1			
TOTALS						132	10	10	1