

# 5

## An Sơn Ceramic Vessel Forms and Surface Treatments

### Introduction

This chapter outlines the ceramic assemblage from the 2009 excavation at An Sơn. It describes the ceramic assemblage in all of the trenches excavated in 2009 (Trenches 1, 2 and 3 and the Test Square), as well as the basal layers of the 1997 excavation that presented the earlier part of the sequence, not apparent in 2009. In order to present the sequence of rim forms and surface treatments at An Sơn particular attention was given to squares A1, A2, B1, B2, C1 and C2 of Trench 1, and to the basal layers of the Test Square and of the 1997 excavation.

This chapter presents the quantities and weights of the ceramic assemblage sequentially and across the site. The subsequent analysis of the rim forms and surface treatments indicates trends over time for different forms and modes of decoration. A categorisation for rim forms and surface treatments is presented, and variants within the main rim form categories are also described. A comparison was undertaken between the Trench 1 squares A1, A2, B1, B2, C1 and C2 and Trench 2 to examine different uses of space in the site according to the distribution of certain ceramic rim forms. The categories and sequences established in this chapter, are important for examining the relationship between clay and temper selection and vessel form in the fabric analysis of Chapter 6.

### Quantification of the ceramic sherds

The weights and quantities of the ceramic assemblage are presented here, in terms of the basic temper divisions of fibre and sand. The assemblage is divided further into the categories of rim sherds, wavy rim sherds and body sherds, plain or cord-marked, comb incised and paddle linear impressed, *cà ràng* (earthenware stove vessel) sherds, foot rim sherds, and other decorated rim and body sherds. The 'decorated' sherds do not include cord-marked, comb incised or paddle linear impressed sherds. The total counts for all trenches are provided, in addition to a breakdown of the contents of each 2009 excavation trench.

#### *2009 An Sơn ceramic assemblage*

The 2009 excavation resulted in approximately equal quantities of fibre and sand tempered sherds, inclusive of rim sherds, although there were slightly more sand tempered sherds in general. The wavy rim sherds were a significant proportion of the sand tempered rim sherds. Generally, the plain sherds outnumbered the cord-marked, comb incised and paddle linear impressed sherds. Decorated sherds were a minor component of the entire assemblage, and most were sand tempered (Table 5.1a and Table 5.1b).

*Trench 1*

The greatest density of ceramic sherds in Trench 1 was in the mid-sequence layers 4 to 5, and the majority of the sherds were fibre tempered, inclusive of the rim sherds. The majority of the wavy rim and decorated sherds (not including cord-marked, comb incised and paddle linear impressed sherds) across the entire assemblage, were excavated from Trench 1. While the majority of the *cà ràng* sherds of the entire assemblage were found in Trench 1, they compiled a smaller proportion of the Trench 1 assemblage than they did in Trench 2. The quantities of sand and fibre tempered sherds were equal in the lower layers, rather than reflecting a dominance of fibre tempered sherds, as observed in the middle and upper layers of Trench 1 (Table 5.2a and Table 5.2b).

*Trench 2*

The presence of smaller lenses and midden/cooking areas, and of a horizontal as opposed to a vertical stratigraphical sequence, requires that Trench 2 be considered over horizontal space. This was achieved by assessing each square separately in terms of its cultural layers and spit depths (see stratigraphy in Chapter 4). The frequencies of sherds for each spit, layer and square in Trench 2 are presented in Table 5.3a, Table 5.3b, Table 5.4a, Table 5.4b, Table 5.5a and Table 5.5b.

**Counts by depth**

The total number of sherds in Trench 2 was relatively low compared to Trench 1, resulting in a higher relative proportion of *cà ràng* sherds within the Trench 2 assemblage than in Trench 1. There were very few decorated sherds in Trench 2. Trench 2 contained a greater proportion of sand tempered sherds than Trench 1 (Table 5.3a and Table 5.3b).

**Counts by layer**

The distribution of ceramic sherds throughout the layers of Trench 2 is roughly equal, with a concentration of sherds at the interface of the sloping cultural layers and the basal layer 15 (Table 5.4a and Table 5.4b).

**Counts by square**

The ceramic content of Trench 2 was more concentrated in the southern and western areas. There were minimal numbers of sherds in the eastern area, particularly in the northeast corner (Table 5.5a and Table 5.5b).

*Trench 3*

Very few diagnostic sherds were collected from Trench 3 compared to Trenches 1 and 2, and the numbers of *cà ràng* and decorated sherds were minimal (Table 5.6a and Table 5.6b). Compared to Trench 1, the quantity of sherds in Trench 3 was quite low considering the excavation areas and depths were similar between the two trenches.

*Test Square*

The Test Square displayed a clearer picture of the lower layers of An Sơn than the main 2009 trenches, and showed that fibre tempered sherds were relatively rare in the lower deposits of the site. Plain sherds were also in higher quantities than cord-marked, comb incised or paddle linear impressed sherds in these lower deposits (Table 5.7a and Table 5.7b).

Table 5.1a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation.

Total		Fibre temper										
Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated	Cà ràng			
			Rim	Wavy	Cord- mark/ paddle linear	Plain			Rim	Body	Projection	Total
2622.73	231224	111815	17477	3	43684	49427	617	17	302	115	173	590

Source: Compiled by C. Sarjeant.

Table 5.1b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation.

Total		Sand temper						
Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
			Rim	Wavy	Cord- mark/ paddle linear	Plain		
2622.73	119409	18547	18547	3847	43295	52442	783	495

Source: Compiled by C. Sarjeant.

Table 5.2a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 1.

Layer	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord-mark	Plain		Rim	Body	Projection	
1	72.14	9872	6647	586	0	3091	2966	4	0	0	0	0
1/2	4.83	632	191	10	0	19	162	0	0	0	0	0
2	96.12	10727	7436	925	0	3505	2946	36	7	1	16	0
2/3	9.92	1177	925	114	0	540	257	8	4	1	0	1
3	136.41	11633	5929	667	0	1186	3984	63	20	6	3	0
3/4	66.35	4743	3440	673	0	1357	1374	28	3	1	4	0
4	287.23	24073	15329	2356	0	7177	5661	79	31	7	18	0
4/5	21.85	2195	1242	292	0	512	422	8	5	3	0	0
5	577.70	42312	29587	5967	0	14352	8888	183	115	27	51	4
5/6	18.56	1700	1076	87	0	470	476	35	0	0	0	8
6	156.37	12118	8757	1827	0	4246	2623	26	28	0	4	3
6/7	4.44	239	165	30	0	69	66	0	0	0	0	0
7	91.31	5956	2952	442	0	1331	1160	13	3	0	3	0
8	102.51	7211	3622	644	0	1844	1097	24	3	6	3	1
Total	1645.74	134588	87298	14620	0	39699	32082	507	219	52	102	17

Source: Compiled by C. Sarjeant.

Table 5.2b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 1.

Layer	Total		Sand temper						
	Weight(kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord-mark	Plain		
1	72.14	9872	3225	359	15	1103	1728	2	18
1/2	4.83	632	441	79	0	37	317	2	6
2	96.12	10727	3291	498	2	1170	1590	18	13
2/3	9.92	1177	252	46	0	130	65	2	9
3	136.41	11633	5704	984	184	1794	2623	72	47
3/4	66.35	4743	1303	190	109	595	378	19	12
4	287.23	24073	8744	1292	568	3800	2933	101	50
4/5	21.85	2195	953	121	52	436	300	5	39
5	577.70	42312	12725	1980	673	5785	4045	128	114
5/6	18.56	1700	624	39	7	289	217	2	70
6	156.37	12118	3361	583	214	1474	1074	11	5
6/7	4.44	239	74	8	0	38	23	5	0
7	91.31	5956	3004	304	229	1594	824	25	28
8	102.51	7211	3589	461	278	1691	1061	35	63
Total	1645.74	134588	47290	6944	2331	19936	17178	427	474

Source: Compiled by C. Sarjeant.

Table 5.3a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by depth.

Depth (cm)	Total		Fibre temper									
	Weight  (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord- mark	Plain		Rim	Body	Projection	
0–10	47.96	6187	1213	165	0	431	610	1	0	3	3	0
10–20	47.98	4181	824	170	0	208	429	9	1	0	7	0
20–30	77.37	4125	617	113	3	86	377	4	7	19	8	0
30–40	50.52	5706	1029	238	0	143	608	10	8	10	12	0
40–50	27.41	2446	297	58	0	34	175	1	11	12	6	0
50–60	56.51	4341	705	106	0	72	480	9	19	5	14	0
60–70	18.25	2474	263	32	0	144	82	1	1	0	3	0
70–80	39.37	5529	1259	160	0	631	459	5	4	0	0	0
80–90	26.25	3768	927	92	0	454	367	4	10	0	0	0
90–100	7.19	1352	234	21	0	93	118	1	1	0	0	0
Total	398.81	40109	7368	1155	3	2296	3705	45	62	49	53	0

Source: Compiled by C. Sarjeant.

Table 5.3b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by depth.

Depth (cm)	Total		Sand temper						
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord- mark	Plain		
0–10	47.96	6187	4974	420	120	2588	1839	2	5
10–20	47.98	4181	3357	334	42	1771	1202	7	1
20–30	77.37	4125	3508	266	91	1810	1339	1	1
30–40	50.52	5706	4677	435	133	2630	1466	10	3
40–50	27.41	2446	2149	185	46	1091	825	2	0
50–60	56.51	4341	3636	385	116	1795	1337	2	1
60–70	18.25	2474	2211	153	57	1189	809	2	1
70–80	39.37	5529	4270	324	52	2410	1476	8	0
80–90	26.25	3768	2841	185	74	1718	846	18	0
90–100	7.19	1352	1118	45	38	605	421	9	0
Total	398.81	40109	32741	2732	769	17607	11560	61	12

Source: Compiled by C. Sarjeant.

Table 5.4a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by layer.

Depth (cm)	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord- mark	Plain		Rim	Body	Projection	
1	26.73	3474	979	121	0	299	555	1	0	0	3	0
1/2	7.49	354	123	13	0	25	82	1	1	0	1	0
2	10.46	1510	322	20	0	165	135	1	0	0	1	0
2/3	30.12	3313	597	94	0	183	290	3	17	5	5	0
3	36.98	4779	986	143	0	258	546	1	7	19	12	0
3/4	23.41	2323	542	102	0	191	240	5	0	0	4	0
4	6.25	472	126	10	0	12	104	0	0	0	0	0
4/5	24.00	2887	454	74	0	176	198	2	1	0	3	0
5	8.37	1007	106	34	0	15	55	0	0	0	2	0
5/6	29.75	3706	667	70	0	280	298	6	8	0	5	0
6	8.55	679	179	74	0	10	86	4	0	3	2	0
6/7	3.73	649	129	18	0	68	41	1	1	0	0	0
7	17.83	2111	280	38	0	105	128	1	4	2	2	0
7/8	8.12	995	151	31	0	69	51	0	0	0	0	0
8	48.22	1198	175	23	3	60	89	0	0	0	0	0
8/9	32.28	2862	403	81	0	85	226	9	0	0	2	0
9	11.73	1026	83	27	0	14	40	0	0	1	1	0
9/10	1.98	510	97	6	0	45	45	1	0	0	0	0
10	3.74	382	23	9	0	8	5	1	0	0	0	0

Depth (cm)	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord- mark	Plain		Rim	Body	Projection	
11	0.00	0	0	0	0	0	0	0	0	0	0	0
11/12	0.22	30	0	0	0	0	0	0	0	0	0	0
12	0.36	90	64	0	0	64	0	0	0	0	0	0
13	0.00	0	0	0	0	0	0	0	0	0	0	0
14	0.00	0	0	0	0	0	0	0	0	0	0	0
15	58.49	5752	882	167	0	164	491	8	23	19	10	0
Total	398.81	40109	7368	1155	3	2296	3705	45	62	49	53	0

Source: Compiled by C. Sarjeant.

Table 5.4b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by layer.

Depth (cm)	Total		Sand temper						
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord- mark	Plain		
1	26.73	3474	2495	230	49	1288	927	1	0
1/2	7.49	354	231	7	27	133	60	4	0
2	10.46	1510	1188	55	22	634	469	7	1
2/3	30.12	3313	2716	222	71	1403	1019	1	0
3	36.98	4779	3793	320	119	2047	1298	5	4
3/4	23.41	2323	1781	156	80	874	664	7	0
4	6.25	472	346	54	5	150	136	0	1
4/5	24.00	2887	2433	159	61	1367	836	10	0
5	8.37	1007	901	67	37	417	377	0	3
5/6	29.75	3706	3039	235	29	1763	1001	11	0
6	8.55	679	500	63	31	256	148	1	1
6/7	3.73	649	520	33	3	328	155	0	1
7	17.83	2111	1831	130	22	972	707	0	0
7/8	8.12	995	844	97	17	417	313	0	0
8	48.22	1198	1023	85	18	560	359	1	0
8/9	32.28	2862	2459	246	46	1438	721	8	0
9	11.73	1026	943	120	13	511	298	0	1
9/10	1.98	510	413	15	18	255	123	2	0
10	3.74	382	359	14	5	186	154	0	0
11	0.00	0	0	0	0	0	0	0	0
11/12	0.22	30	30	0	0	20	10	0	0
12	0.36	90	26	2	0	0	24	0	0
13	0.00	0	0	0	0	0	0	0	0

14	0.00	0	0	0	0	0	0	0	0
15	58.49	5752	4870	422	96	2588	1761	3	0
Total	398.81	40109	32741	2732	769	17607	11560	61	12

Source: Compiled by C. Sarjeant.

Table 5.5a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by square.

Square	Total		Fibre temper									
	Weight  (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord- mark	Plain		Rim	Body	Projection	
A1	0.65	76	8	1	0	5	2	0	0	0	0	0
A2	3.45	470	149	14	0	104	29	2	0	0	0	0
A3	6.53	674	79	21	0	14	42	0	0	1	1	0
A4	3.18	435	59	9	3	28	18	1	0	0	0	0
A5	11.43	974	144	25	0	62	55	0	1	0	1	0
B1	1.74	165	11	0	0	0	11	0	0	0	0	0
B2	38.34	79	0	0	0	0	0	0	0	0	0	0
B3	10.15	1094	73	10	0	16	47	0	0	0	0	0
B4	13.77	1063	102	24	0	21	54	0	0	2	1	0
B5	14.04	1539	240	40	0	76	123	1	0	0	0	0
C1	10.09	999	115	11	0	41	57	1	4	0	1	0
C2	13.65	1462	361	44	0	80	228	8	0	0	1	0
C3	14.2	2206	250	46	0	51	148	1	0	0	4	0
C4	14.53	1430	259	34	0	79	140	4	0	0	2	0
C5	16.38	1791	340	44	0	159	121	2	5	7	2	0
D1	11.85	1115	203	43	0	95	65	0	0	0	0	0
D2	19.88	2710	434	82	0	113	232	4	1	0	2	0
D3	41.21	5239	795	145	0	185	430	0	7	19	9	0
D4	25.94	2585	628	118	0	164	328	4	10	0	4	0
D5	19.48	2167	415	63	0	162	173	1	7	5	4	0
E1	17.75	1487	372	98	0	95	167	5	0	3	4	0
E2	17.23	2050	480	94	0	141	236	2	4	0	3	0
E3	32.92	3472	711	103	0	180	377	6	22	12	11	0
E4	18.87	1763	363	20	0	98	243	1	0	0	1	0
E5	21.55	3064	777	66	0	327	379	2	1	0	2	0
Total	398.81	40109	7368	1155	3	2296	3705	45	62	49	53	0

Source: Compiled by C. Sarjeant.

Table 5.5b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 2 by square.

Square	Total		Sand temper						
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord-mark	Plain		
A1	0.65	76	68	1	1	43	23	0	0
A2	3.45	470	321	20	15	162	124	0	0
A3	6.53	674	595	37	10	337	209	2	0
A4	3.18	435	376	29	8	212	127	0	0
A5	11.43	974	830	110	4	419	296	0	1
B1	1.74	165	154	0	0	78	76	0	0
B2	38.34	79	79	0	0	70	9	0	0
B3	10.15	1094	1021	130	11	583	296	0	1
B4	13.77	1063	961	132	17	470	335	7	0
B5	14.04	1539	1299	142	36	605	514	2	0
C1	10.09	999	884	66	9	529	280	0	0
C2	13.65	1462	1101	52	27	647	375	0	0
C3	14.2	2206	1956	149	39	1064	703	1	0
C4	14.53	1430	1171	72	31	548	519	1	0
C5	16.38	1791	1451	132	43	819	452	5	0
D1	11.85	1115	912	130	14	402	364	2	0
D2	19.88	2710	2276	175	29	1284	788	0	0
D3	41.21	5239	4444	318	128	2423	1562	9	4
D4	25.94	2585	1957	242	56	984	673	2	0
D5	19.48	2167	1752	138	56	802	755	1	0
E1	17.75	1487	1115	134	48	600	331	2	0
E2	17.23	2050	1570	139	21	763	642	1	4
E3	32.92	3472	2761	191	89	1668	801	11	1
E4	18.87	1763	1400	52	19	837	488	4	0
E5	21.55	3064	2287	141	58	1258	818	11	1
Total	398.81	40109	32741	2732	769	17607	11560	61	12

Source: Compiled by C. Sarjeant.

Table 5.6a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 3.

Layer	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord-mark	Plain		Rim	Body	Projection	
1	87.48	8587	2429	234	0	387	1795	8	2	0	3	0
1/2	61.65	6163	1451	114	0	116	1214	6	0	0	1	0
2	115.66	11574	2781	233	0	148	2373	24	0	0	3	0
2/3	18.84	1981	857	73	0	39	742	2	0	0	1	0
3	34.32	4446	2449	152	0	171	2124	2	0	0	0	0
3/4	16.01	1303	502	80	0	65	355	1	1	0	0	0



Layer	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord-mark	Plain		Rim	Body	Projection	
4	3.84	417	150	12	0	12	125	0	1	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	43.49	4941	1769	148	0	80	1531	5	4	0	1	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	123.81	10351	3894	487	0	411	2980	11	0	0	5	0
Total	505.1	49763	16282	1533	0	1429	13239	59	8	0	14	0

Source: Compiled by C. Sarjeant.

Table 5.6b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Trench 3.

Layer	Total		Sand temper						
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord-mark	Plain		
1	87.48	8587	6158	1153	174	817	4006	7	1
1/2	61.65	6163	4712	1391	52	294	2974	1	0
2	115.66	11574	8793	2131	0	657	5992	13	0
2/3	18.84	1981	1124	205	0	219	700	0	0
3	34.32	4446	1997	311	0	567	1112	7	0
3/4	16.01	1303	801	126	0	167	506	2	0
4	3.84	417	267	32	55	113	65	0	2
5	0	0	0	0	0	0	0	0	0
6	43.49	4941	3172	564	1	599	1997	6	5
7	0	0	0	0	0	0	0	0	0
8	123.81	10351	6457	1284	216	1085	3860	12	0
Total	505.1	49763	33481	7197	498	4518	21212	48	8

Source: Compiled by C. Sarjeant.

Table 5.7a. Weight and quantity of all Fibre temper and total of all An Sơn ceramic sherds, 2009 excavation, Test Square.

Depth (cm)	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord-mark	Plain		Rim	Body	Projection	
0–60 cm	2.09	133	54	0	0	16	38	0	0	0	0	0
60–140 cm	2.35	135	26	8	0	3	14	1	0	0	0	0
140–180 cm	7.74	643	112	14	0	38	60	0	0	0	0	0
150–160 cm	6.86	570	7	6	0	1	0	0	0	0	0	0
160–170 cm	3.75	280	35	5	0	0	30	0	0	0	0	0
170–180 cm	2.28	140	15	9	0	6	0	0	0	0	0	0
180–190 cm	2.56	277	26	1	0	4	18	0	3	0	0	0
190–200 cm	1.96	243	18	3	0	0	15	0	0	0	0	0
200–210 cm	8.26	725	136	25	0	34	75	0	1	0	1	0
210–220 cm	5.4	372	48	4	0	17	5	0	5	14	3	0

Depth (cm)	Total		Fibre temper									
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Cà ràng			Decorated
				Rim	Wavy	Cord-mark	Plain		Rim	Body	Projection	
220–230 cm	9.2	962	117	30	0	40	42	2	3	0	0	0
230–240 cm	4.97	485	69	29	0	29	10	0	1	0	0	0
240–250 cm	4.41	782	50	18	0	19	13	0	0	0	0	0
250–260 cm	1.2	244	56	8	0	23	25	0	0	0	0	0
unknown	10.05	773	98	9	0	30	56	3	0	0	0	0
Total	73.08	6764	867	169	0	260	401	6	13	14	4	0

Source: Compiled by C. Sarjeant.

Table 5.7b. Weight and quantity of all Sand temper and total of all An Sơn ceramic sherds, 2009 excavation, Test Square.

Depth (cm)	Total		Sand temper						
	Weight (kg)	Quantity	Quantity	Rim		Body		Foot rim	Decorated
				Rim	Wavy	Cord-mark	Plain		
0–60 cm	2.09	133	79	25	0	4	50	0	0
60–140 cm	2.35	135	109	34	0	4	71	0	0
140–180 cm	7.74	643	531	168	0	164	198	0	1
150–160 cm	6.86	570	563	164	3	80	316	0	0
160–170 cm	3.75	280	245	69	2	36	138	0	0
170–180 cm	2.28	140	125	33	5	12	75	0	0
180–190 cm	2.56	277	251	59	4	56	132	0	0
190–200 cm	1.96	243	225	37	0	72	116	0	0
200–210 cm	8.26	725	589	159	22	156	252	0	0
210–220 cm	5.4	372	324	83	5	61	175	0	0
220–230 cm	9.2	962	845	161	112	279	292	1	0
230–240 cm	4.97	485	416	113	12	112	179	0	0
240–250 cm	4.41	782	732	311	64	0	112	245	0
250–260 cm	1.2	244	188	15	18	97	58	0	0
unknown	10.05	773	675	243	2	101	328	1	0
Total	73.08	6764	5897	1674	249	1234	2492	247	1

Source: Compiled by C. Sarjeant.

## Characterisation of the ceramic sequence

The total counts of the ceramic assemblage indicate different contents in each excavation trench. Trench 1 displayed the clearest stratigraphic sequence of all the 2009 excavation trenches, and its ceramic contents can be used to characterise the ceramic sequence at An Sơn. Trench 1 did not appear to contain layers contemporary with the earliest known layers identified in the 1997 excavation, and thus the overall sequence was expanded beyond Trench 1 with information about the ceramic assemblages from the lower layers of the Test Square and the 1997 excavation. Trench 2 displayed an assemblage that was more comprehensible when considered over horizontal rather than vertical space. The thin lenses and layers of Trench 2 suggest rapid deposition associated with burning, midden deposition and cooking. While the stratigraphy of Trench 3 was relatively

simple, the effects of clay deposition due to runoff from the main mound rendered most of its depth unable to be analysed. Survival of bone and shell was non-existent in Trench 3, and erosion of the ceramic sherds meant that little diagnostic material was recovered.

This section describes the rim form categories and sequences for each trench, the complete vessel forms, and the sequence of decorative modes at An Sơn.

### *Rim forms*

The categorisation of the rim forms is based on the principles and terminology presented by Anna Shepard (1965). Five rim form classes, A, B, C, D and E, were identified in the An Sơn ceramic assemblage. Class A were everted rim forms from independent restricted and unrestricted vessels. Class A was divided into A1, straight everted rims, and A2, concave everted rims. Class B were simple restricted vessels, or bowls. Class C were simple unrestricted, sometimes restricted, vessels, or dishes. Class D were wavy and serrated rimmed unrestricted vessels. Class E, known as *cà ràng* in Vietnamese, were stove vessels with three projections to support another vessel during cooking (Figure 5.1).

The categorisation focuses on the rim form rather than the entire vessel, as few complete vessels were recovered from the 2009 excavation except from burials (shown in Figure 5.14). Thus, the A1 rim forms, in particular, were observed as both restricted and unrestricted when the complete vessel was recovered, but this vessel shape was not identifiable from small rim sherds. Additionally, the scope of variation within the C1 rim forms resulted in some appearing as simple restricted vessels with an inverted rim and others as simple unrestricted vessels with a direct rim (Figure 5.1). Additional features of vessels included pedestals on many of the forms when complete vessels were recovered (Figure 5.14).

The variations within each rim form are displayed in Figure 5.2, although these variant rim forms were not present in large numbers in the 2009 excavation. This variation in specific rim forms is discussed further in the study of standardisation in Chapter 7. The variations were not included in the categorisation presented in Figure 5.1, because of their infrequency in the 2009 assemblage. Foot rims were also not included in this categorisation because they were not diagnostic of specific vessel forms.

The proportion of each rim form in the basic classes A to E is presented for each 2009 excavation trench, and a detailed examination of the rim forms is shown for Trench 1 squares A1, A2, B1, B2, C1 and C2 in the remainder of this section.

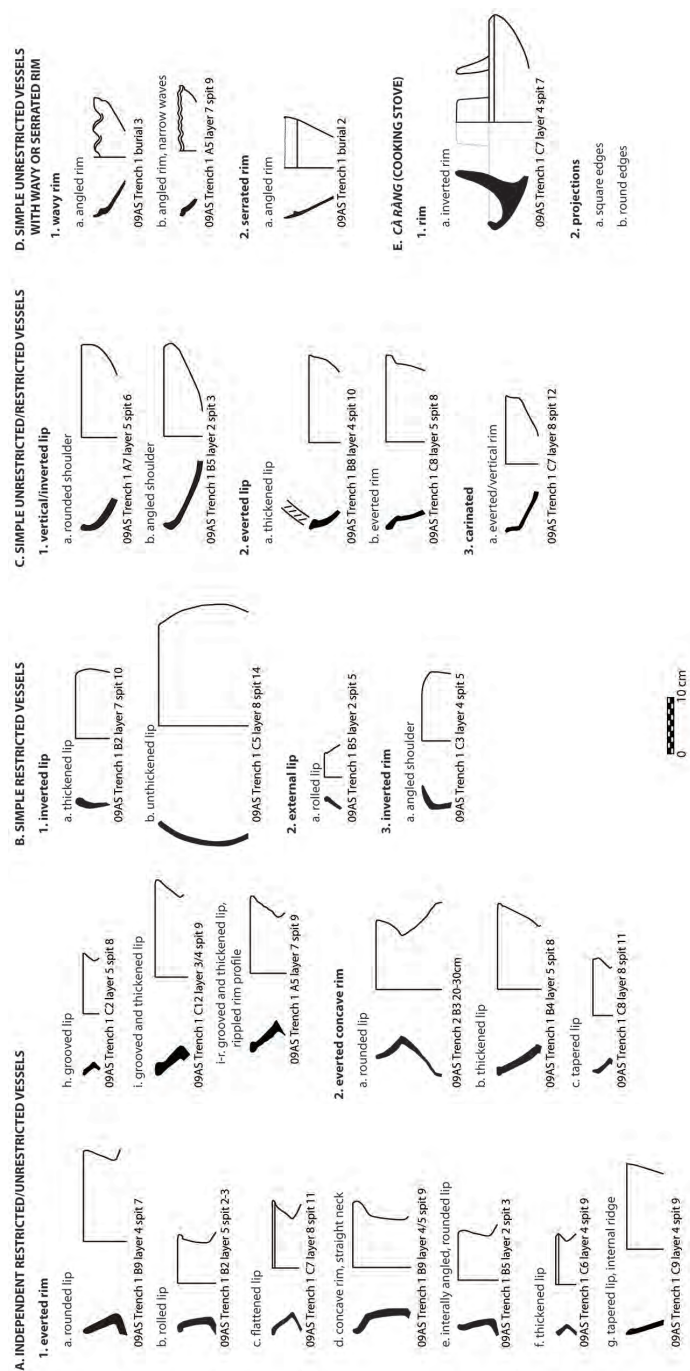


Figure 5.1. Categorisation of An Sơn ceramic rim forms.

Source: C. Sarjeant.

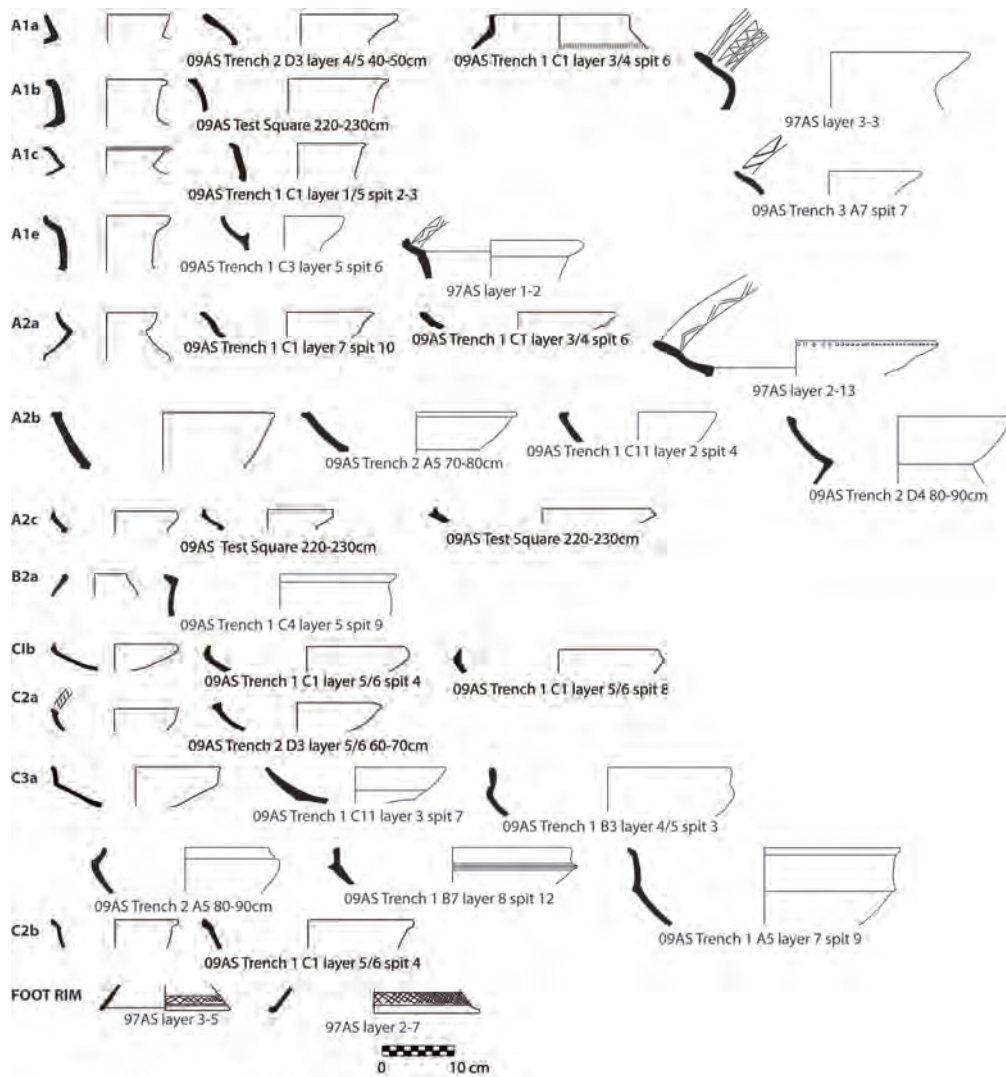


Figure 5.2. Variations within the An Son ceramic rim forms categorised in Figure 5.1.

Source: C. Sarjeant.

### *All squares*

In Trench 1, rim form A1a was dominant throughout all of the layers. Form A1b was present in small numbers throughout the layers, occurring mainly in layers 3 to 6. Forms A1c and A1h were present in small numbers throughout all layers. A1d and A1e were present in higher quantities than the other A1 varieties, except for A1a, particularly in layers 3 to 6 for A1d. A1f was present in higher quantities in layer 3. Form A1g was present in higher quantities in layers 1 to 4, and A1i was present in small quantities in layers 3, 7 and 8. The rippled profile variant of A1i (A1i-r) appeared infrequently from layer 6 into the upper layers.

Form A2a was present in all layers. A2b was not present in Trench 1, while A2c was present in small quantities in layers 7 and 8 only. B1a was present in greatest quantities in layer 8. B1b was not present in Trench 1. With the exception of the upper layers, B2a was present throughout, and most commonly in layer 8. B3a was minimal in Trench 1. C1a was present throughout the layers in noticeable quantities. The other class C forms were minimal in numbers, except for C3a, which was present throughout with highest quantities in layers 7 and 8. D1a was also in greatest numbers in layers 7 and 8, but occurred throughout the sequence with a marked decline in layers

1 and 2. D1b was only present in layers 7 and 8, while D2a was minimal in Trench 1. Class E *cà ràng* sherds were identified in each layer, with the largest quantities present mid-sequence (Figure 5.3, Figure 5.4).

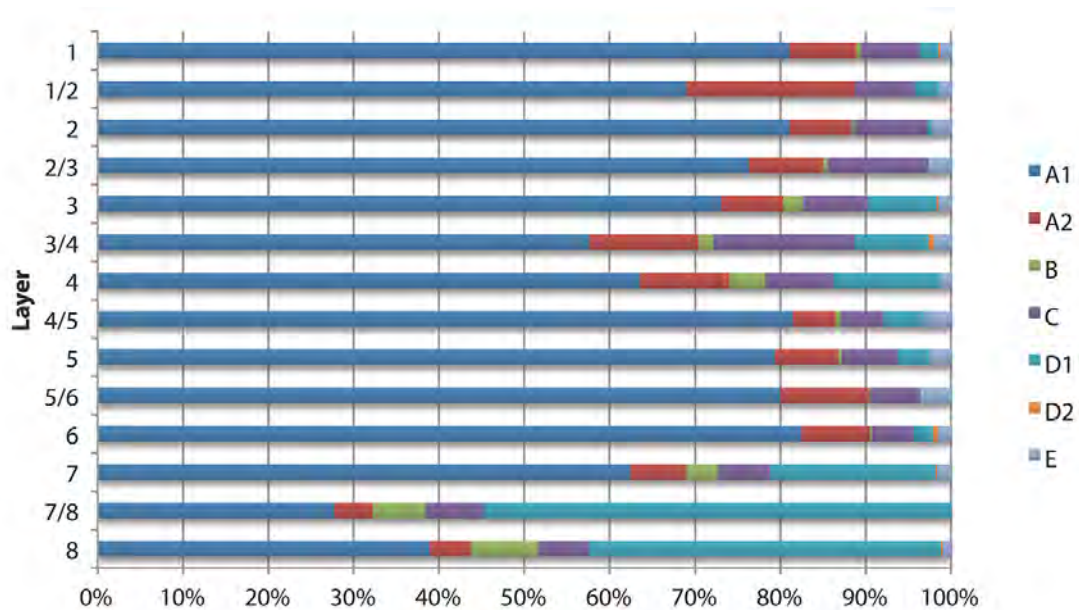


Figure 5.3. Proportion of rim form classes A1, A2, B, C, D1, D2 and E by layers, Trench 1, all squares.

Source: C. Sarjeant.



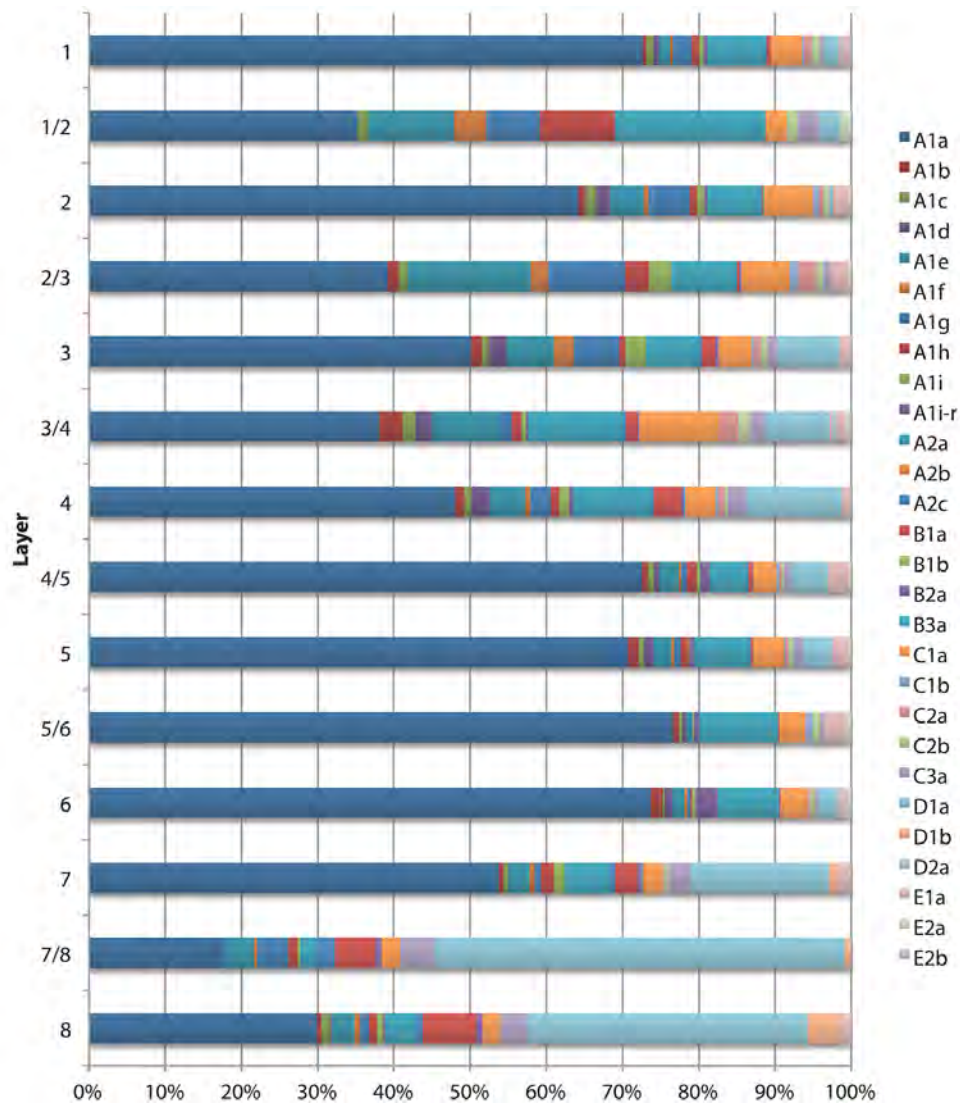


Figure 5.4. Proportion of rim forms by layer, Trench 1, all squares.

Source: C. Sarjeant.

*Trench 1: Squares A1, A2, B1, B2, C1 and C2*

After observing only the rims in the six squares some patterns became clear in Trench 1 located closest to the main mound, (A1, A2, B1, B2, C1 and C2). Some rim forms were not present in these squares, and the number of A1i-r, B1b, B3a, D1b and D2a forms were minimal. A decline in the occurrence of A1a was marked in layers 7 and 8 compared to the upper layers, where A2a, B1a, and most notably D1a rim sherds were in greater proportions. C1a and C1b rim sherds declined in proportion from the top to the lowest layers. C2b was present in highest numbers mid-sequence. C3a was only present from layers 5 to 7. D1a was present in greatest numbers in layers 7 and 8, but was still present as high as layer 5. D1b and D2a were rare in these six squares of Trench 1. Class E was also rare but occurred in highest quantities mid-sequence (Figure 5.5, Figure 5.6).

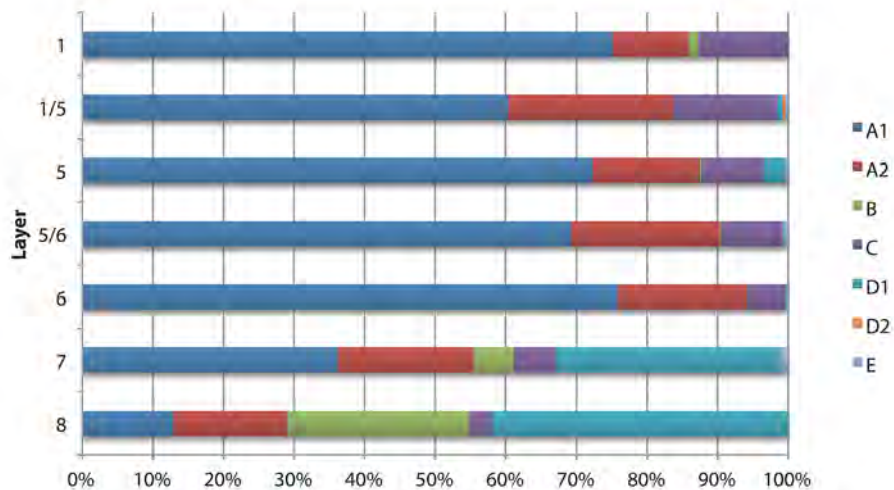


Figure 5.5. Proportion of rim form classes A1, A2, B, C, D1, D2 and E by layer, Trench 1, squares A1, A2, B1, B2, C1, C2.

Source: C. Sarjeant.

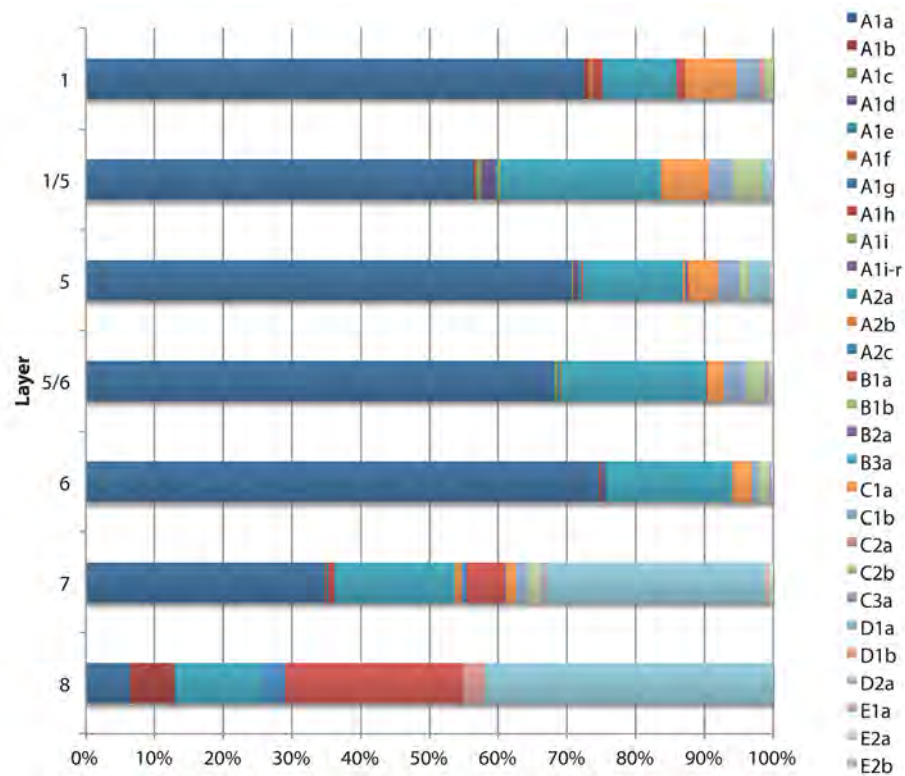


Figure 5.6. Proportion of rim forms by layer, Trench 1, squares A1, A2, B1, B2, C1, C2.

Source: C. Sarjeant.

### *Trench 2*

Trench 2 had a different internal stratigraphy to Trench 1, as it was quite separate from the stratigraphy of the main mound itself (see Chapter 4). The contents of the smaller lenses with concreted ashy midden material and charcoal stained soil suggested that the area of Trench 2



was used as an activity rather than as a dumping area located away from the side of the mound. During excavation it was thought the lenses were deposited horizontally in quick succession, therefore the majority were roughly contemporaneous.

The deposits from Trench 2 20–60 cm contained a similar composition of rim forms to Trench 1. Rim forms A1 and A2 dominated the assemblage of Trench 2, with a greater presence of A1 throughout the spits. Class B rim forms were minimal mid-sequence, from 10–70 cm, with much higher proportions in the 80–100 cm deposits. Class C was present throughout the layers. The wavy rimmed D1 form was present throughout the spits, but in highest proportions in the 40–100 cm spits. The serrated rim form D2a was present in largest quantities at 0–60 cm, with few to none in the lower spits. Class E was a more significant component of each spit in Trench 2 than in the other trenches. Class E *cà ràng* sherds were most common in 20–60 cm deposits, diminishing in the 60–90 cm spits, with none in the basal 90–100 cm spit (Figure 5.7, Figure 5.8).

Very few D2 sherds were identified in Trench 1, and the majority were recovered from Trench 2 in the 2009 excavation. The Trench 2 deposits were contemporaneous with use of the serrated D2 rim. This form is unique to An Sơn and can be used as a temporal marker, when establishing a chronology of the ceramic forms in relation to the well-dated burials (as discussed in Chapter 10).

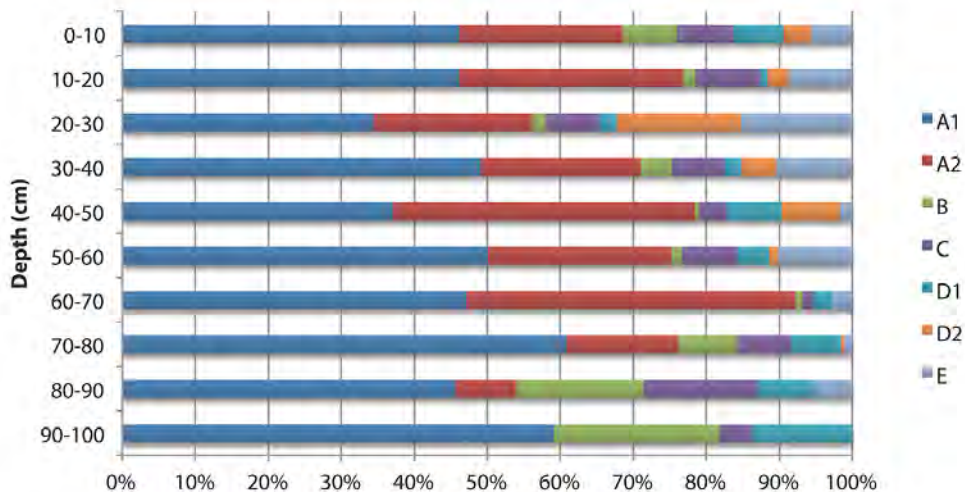


Figure 5.7. Proportion of rim form classes A1, A2, B, C, D1, D2 and E by depth, Trench 2.

Source: C. Sarjeant.

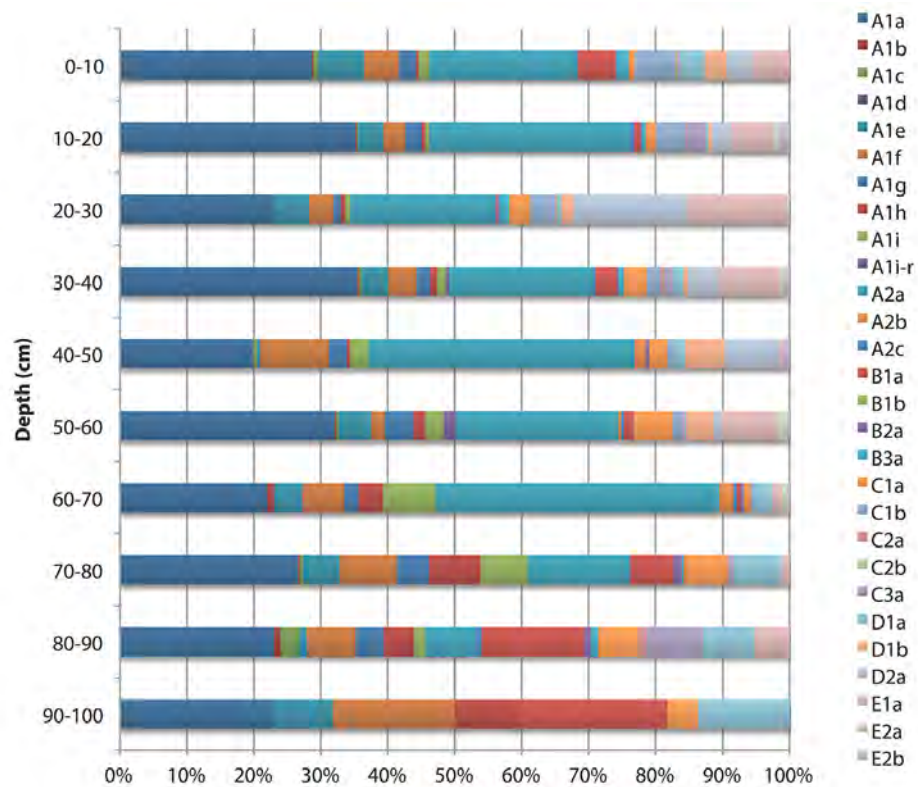


Figure 5.8. Proportion of rim forms by depth, Trench 2.

Source: C. Sarjeant.

### *Trench 3*

The stratigraphy was not as clear in Trench 3 as it was in Trench 1, and this trench offered little information for understanding the ceramic sequence at An Sôn. The plots (Figure 5.9, Figure 5.10) show there was an overwhelming dominance of A1 rim forms throughout the Trench 3 sequence.

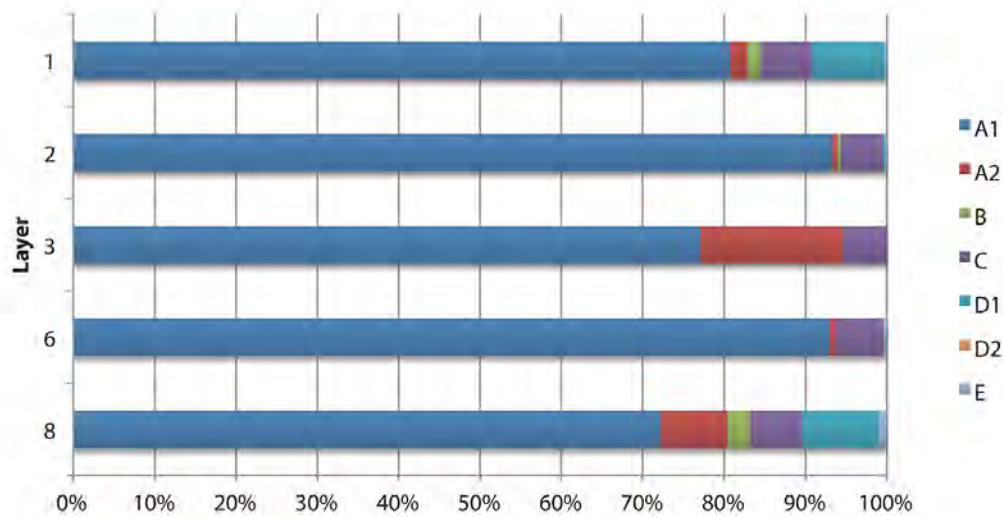


Figure 5.9. Proportion of rim form classes A1, A2, B, C, D1, D2 and E by layer, Trench 3.

Source: C. Sarjeant.

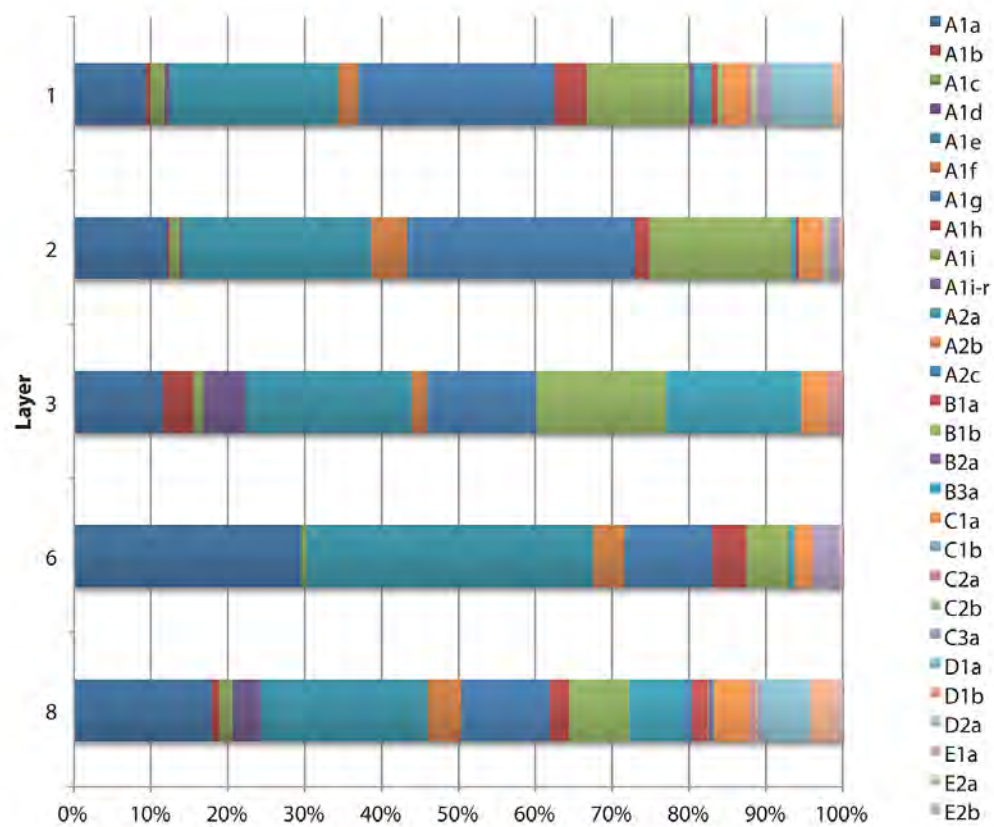


Figure 5.10. Proportion of rim forms by layer, Trench 3.

Source: C. Sarjeant.

### Test Square

The Test Square represented the earlier part of the sequence and only the lower spits are reported here (200–260 cm). Due to the small size of the excavation, only dominant rim forms (Figure 5.1) were excavated from this trench. A clear transition in rim forms was observed in the Test Square, with A2 concave rims, present in higher quantities than the A1 everted rims. This trend was also observed in the lower layers of Trench 1 (Figure 5.5). Generally, the A2 rim forms comprised the same proportion of the assemblage in each 10 cm spit. Class B was also important in the earlier sequence in both Trench 1 and the Test Square, especially below 220 cm in the latter. Class C only occurred from 200 to 230 cm in the Test Square. The wavy rimmed D1 forms were present in all of the Test Square layers in notable quantities, except in the basal layer 250–260 cm, while the D2 serrated rims were absent in the Test Square. There were few *cà ràng* class E sherds present in the Test Square, only from 200 to 220 cm (Figure 5.11, Figure 5.12).

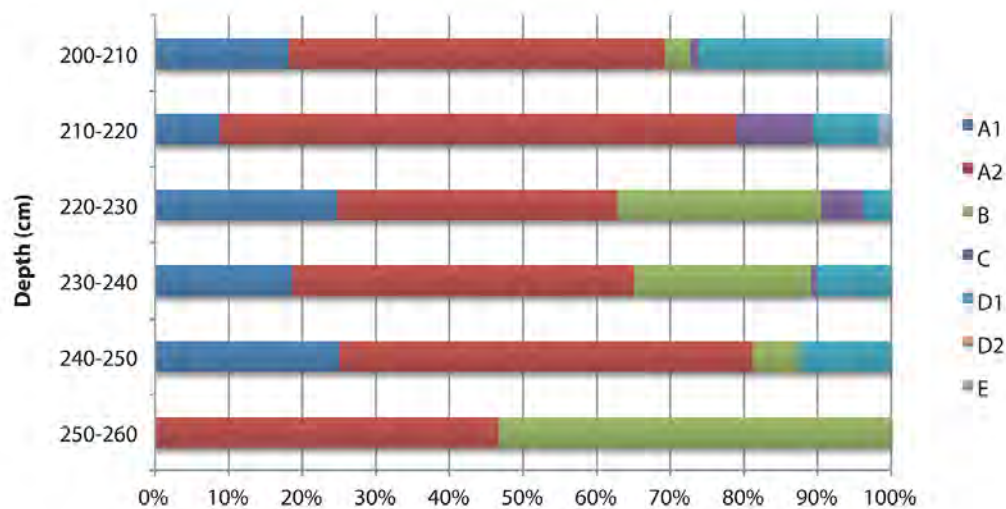


Figure 5.11. Proportion of rim form classes A1, A2, B, C, D1, D2 and E by depth, Test Square.

Source: C. Sarjeant.

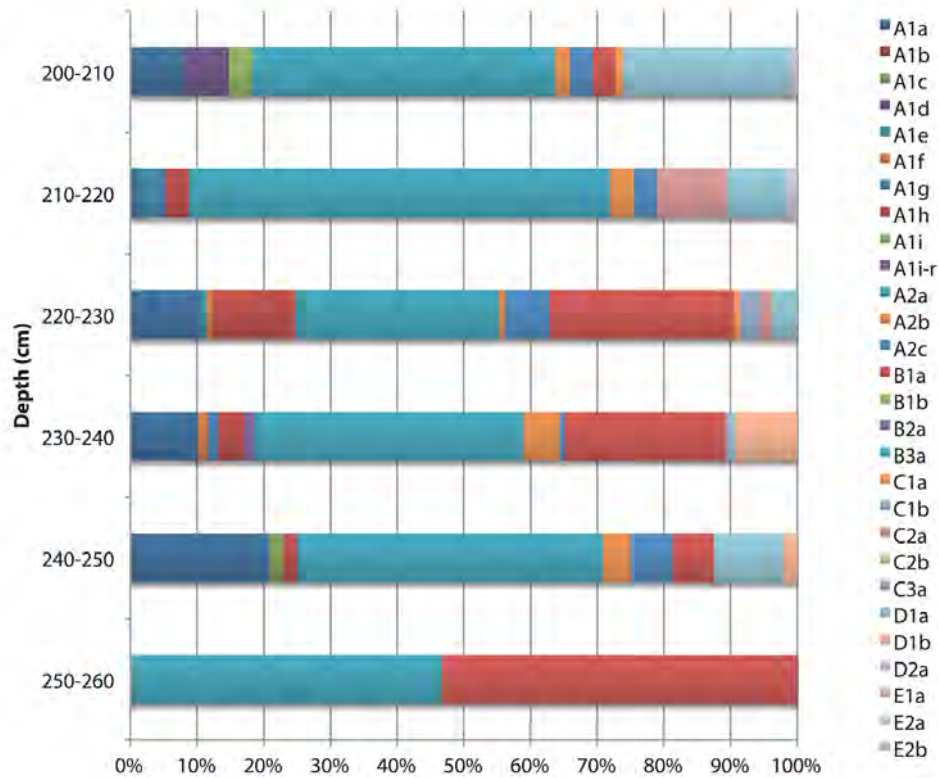


Figure 5.12. Proportion of rim forms by depth, Test Square.

Source: C. Sarjeant.

#### 1997 excavation basal layers

The 1997 excavation layers 3–4 and 3–5 clarify the sequence of rim forms (Figure 5.1) at the inception of occupation at An Sơn. The restricted bowls with unthickened rims (B1b) dominated these lowest layers, along with some A1a and A2a rims. Greater variety appeared in the 1997 layer 3–4, which revealed a dominance of the wavy rim vessels (D1), especially the narrow wave variety (D1b). The other rim forms observed in this layer, in order of frequency, were A2a, A1a, B1a, A2b, C3a, A2c, A1f, B2a and C1b. B1b rim sherds were not present in layer 3–4, so perhaps they were replaced by the thickened rim variety, B1a (Figure 5.13).



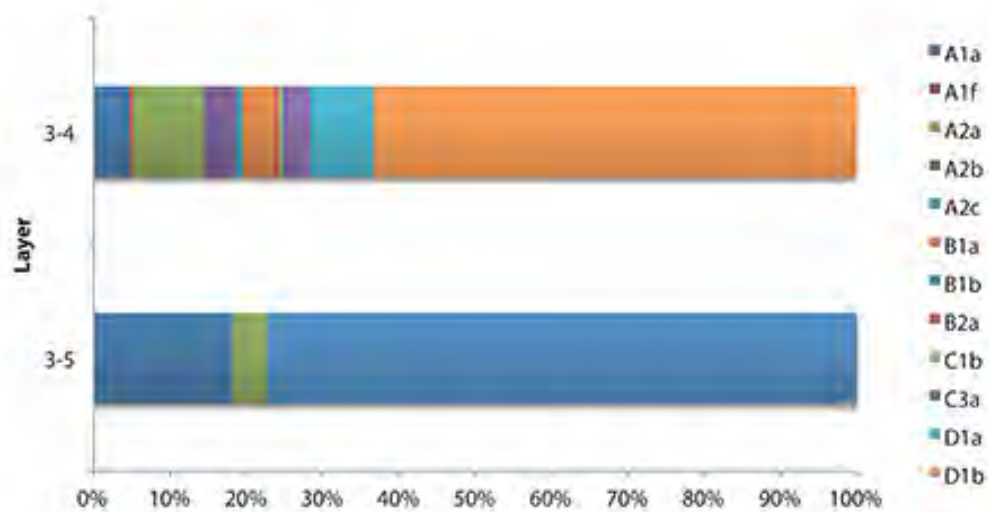


Figure 5.13. Proportion of rim forms by layer, 1997 excavation, base layers. Only rim forms present in layers 3–4 and 3–5 are shown.

Source: C. Sarjeant.

*Summary: Sequence of rim forms at An Sơn*

Each class of rim form showed transitions throughout the An Sơn sequence. The lowest layers were characterised by a higher proportion of A2 versus A1 forms. This is apparent in the assemblage from 200–260 cm in the Test Square, and layer 8 in Trench 1. The transition to a higher proportion of A1 forms, specifically A1a, occurred between layers 7 and 8 in Trench 1. Conversely, the assemblage of Trench 2 exhibited a higher proportion of A1 in its basal layer 15, while A2 was only in higher proportions in layers 6 and 12. This further supports the observation that the area of Trench 2 was not in use during the earliest occupation at An Sơn.

Class B forms were important in the earlier layers at An Sơn, and reveal a transition from B1b to B1a forms in the 1997 layers 3–5 to 3–4. The thickened rim of B1a was introduced during layer 3–4 and was common in the lower layers of Trenches 1 and 2 and the Test Square, where B1b ceased to be present. The class C ceramic forms diversified mid-sequence, but they were rare in the base layers and more common in Trench 1 layers 1 to 5.

Class D rim forms underwent some of the clearest morphological transitions through the An Sơn sequence. The early to middle layers were characterised by the D1 form with a wavy rim and round base, and the later sequence was characterised by a lack of D1, which was replaced by the D2 form with a serrated rim and conical-shaped base. The initial settlement at An Sơn is unlikely to have included class D, as they were absent in the lowest spit of the 2009 Test Square, at 250–260 cm, and the 1997 layer 3–5. Form D1 first appeared in layer 3–4 of the 1997 excavation. D2 were rare in 2009 Trench 1 and only occurred in layers 1 to 5, but were dominant in Trench 2 layer 3. The transition between the characteristic D1 and D2 forms was rapid with a period of experimentation when waves were transformed into serrations at the rim. This transition in rim form is shown in Figure 10.1 and is further discussed in terms of chronology and ceramic markers, and innovative behaviours amongst potters in Chapter 10.

Class E forms were rare in the earliest layers, with no *cà ràng* sherds from 200–260 cm in the Test Square. However, there was a change in the shapes of *cà ràng* projections in Trench 1, where square-shaped projections (E2a) were in higher proportions in the lower to mid layers, and

rounded projections (E2b) in greater proportions in the middle to upper layers. In Trench 2, class E sherds were most commonly identified in layers 3, 7, 8 and 15, i.e. mid-sequence, with both square and round projections present. Very few *cà ràng* sherds were identified in layers 1 and 2 of Trench 2.

Table 5.8 presents the sequence of rim forms from the An Sơn 2009 excavation season, based on the above observations, and in particular the stratigraphic sequence of rim forms in Trench 1.

Table 5.8. part A Sequence of rim forms, Trench 1. Forms A1g, A1i-r, B1b, B3a, and D1b were not present in Trench 1. Key: rim form image = first appearance of form in Trench 1, – rim form present in layer, - - diminishing proportion of rim form, blacked out areas = none of the rim form in layer.

Layer	A1a	A1b	A1c	A1d	A1e	A1f	A1g	A1h	A1i	A1i-r	A2a	A2b	A2c	B1a
1	↑													
2														
3														
4														
5														
6														
7														
8														
Not present														

Source: Compiled by C. Sarjeant.

Table 5.8. part B Sequence of rim forms, Trench 1. Forms A1g, A1i-r, B1b, B3a, and D1b were not present in Trench 1. Key: rim form image = first appearance of form in Trench 1, – rim form present in layer, - - diminishing proportion of rim form, blacked out areas = none of the rim form in layer.

Layer	B1b	B2a	B3a	C1a	C1b	C2a	C2b	C3a	D1a	D1b	D2a	E1a	E2a	E2b
1														
2														
3														
4														
5														
6														
7														
8														
Not present														

Source: Compiled by C. Sarjeant.

### *Complete vessels*

The complete or reconstructed vessels predominantly originated from burial contexts in the 2009 excavation. Given the small number of burials exposed in 2009, the number of complete



vessels is accordingly small. While the complete vessels correspond to the rim forms shown in the categorisation in Figure 5.1, these vessels give further information about the body and base forms (Figure 5.14).

#### *Mortuary vessels*

A total of sixteen mortuary vessels were excavated in 2009, with one burial containing nine vessels. The burials at An Sơn most consistently included at least one class D vessel, which varied between the wavy and serrated forms (Figure 5.15). The burials that did not include a class D vessel were interred either with an A1a rim form vessel with a small, globular body, or with no vessels at all. Infant burials rarely included ceramic vessels (see Chapter 4). While there was some consistency in the selection of a class D vessel for burial, no other forms were obviously manufactured to be mortuary vessels. The one burial with many vessels included a variety of rim form classes: A1, A2, C and D, with the A2a vessel highly decorated with incised and impressed designs (09AS Trench 1 burial 2 (vessel #1) in Figure 5.14, Figure 5.16). Another burial included a unique vessel form in addition to D1a vessels (09AS Trench 2 burial 3 (vessel #1) in Figure 5.14).

#### *Occupational vessels*

The few complete vessels from occupational contexts were derived predominantly from the refuse disposal of damaged pots in Trench 1. These dense deposition layers consisted mostly of small sherds, but there were also a few reconstructable vessels. These included some large, decorated, probably ritualistic vessels (e.g. 09AS Trench 1 A6 layer 5 spit 6–7 in Figure 5.14, Figure 5.16), as well as more common utilitarian vessels that match the rim forms in Figure 5.1.

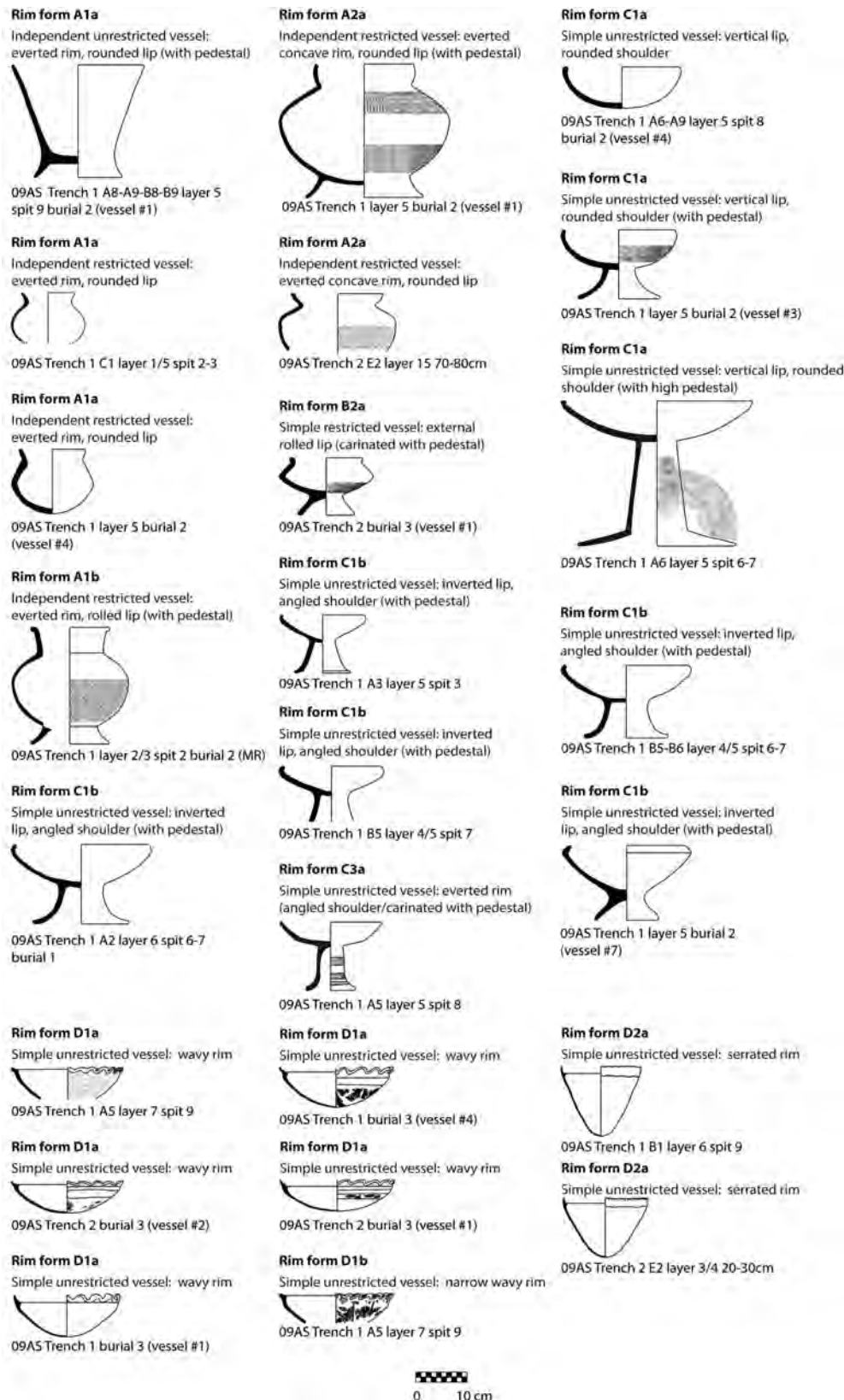


Figure 5.14. Complete ceramic vessel forms at An Son.

Source: C. Sarjeant.

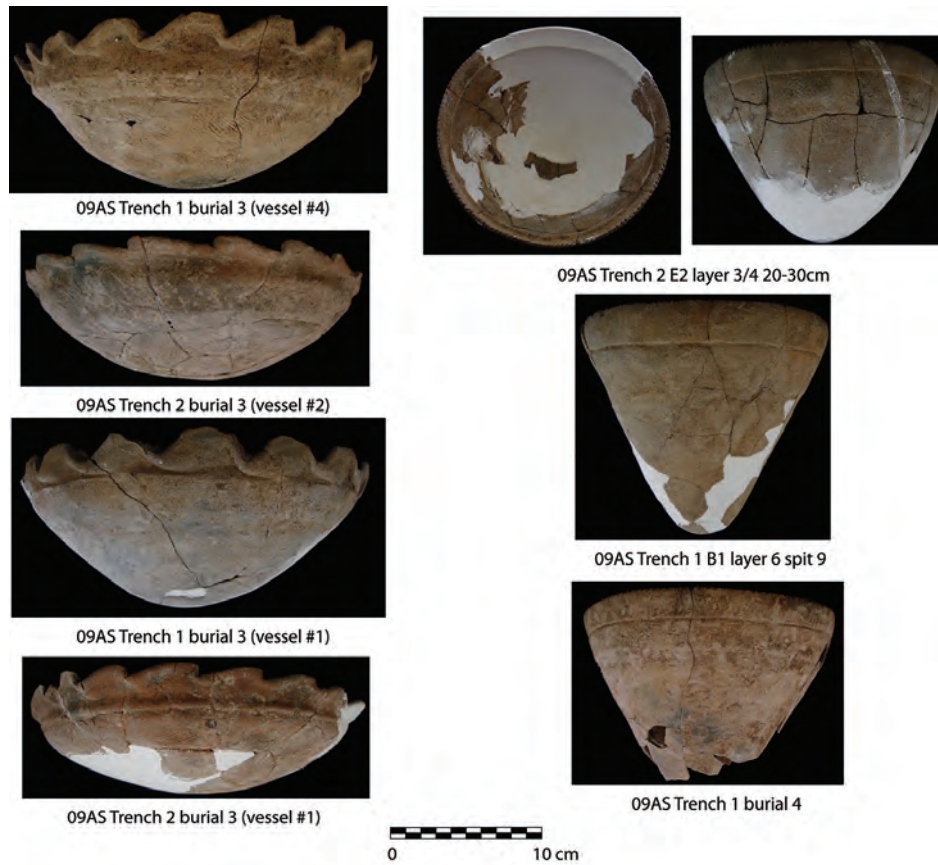


Figure 5.15. Complete class D vessels, wavy and serrated rims.

Source: C. Sarjeant.



Figure 5.16. Complete decorated vessels with detail images of incised and impressed motifs (not to scale).

Source: C. Sarjeant.

### *Surface treatment and decoration*

While modes of decoration varied considerably, decorated sherds were generally uncommon across the entire assemblage. The greatest quantity of decorated sherds came from Trench 1. Recorded decorative methods and/or surface treatments included coarse cordmarking, comb incision/paddle impression, burnishing, incision, red painting, punctate stamping, roulette stamping, appliqué, and white lime infill (examples shown in Figure 5.17). The term ‘roulette

stamping' is applied here to describe impressions that have been rolled onto the ceramic surface with a stamp tool. Nishimura and Nguyễn (2002) have stated these impressions were created by a 'rocker stamp', but with closer examination this seems unlikely due to the lack of overlap and gaps in the panels of impressions and the presence of continuously rolled motifs. 'Punctate stamping' describes repeated impression using the end of a toothed tool.

Roulette stamping was far more common than punctate stamping at An Sơn, and there was great variety in the motifs. Southeast Asian researchers are most familiar with the Indian rouletted wares and their importance for trade across the region later in prehistory. The An Sơn ceramic motifs share similarities with the Arikamedu ceramics from southern India that date to much later, from the second to first century BC (see Begley 1986: Figure 4; Wheeler, Ghosh and Deva 1946: plate XXVA). These motifs are not isolated to India and roulette impressions using knotted cord are also present in Africa (Soper 1985). Recent research at Nabta Playa in the Nubian Desert of Egypt has indicated that early ceramics were impressed with a wheel-stamp, dated to *c.* 9000 BP. Ceramic roulette disks were identified at Nabta Playa that had chipping on the outer edge and it has been proposed that the outer edge of these disks was rolled on the ceramic surface to create the impressions (Jórdeczka *et al.* 2011).

For the analysis of decoration and surface treatments, the categories of cordmarking, comb incision/paddle linear impression and burnishing were only recorded when in combination with another decorative mode, since at least one of these features appeared on most of the sherds in the assemblage. Very few decorated sherds were identified outside of Trench 1 in the 2009 excavation, therefore only this excavation trench and the basal layers of the 1997 excavation are included in this section.





Figure 5.17. Modes of decoration at An Sơn.

Source: C. Sarjeant.

*Trench 1*

There were 491 decorated sherds from the 2009 Trench 1 included in this analysis. A high proportion of sherds had a single mode of surface treatment/decoration on rim sherds in the earliest layers, whereas combination motifs on body sherds dominated the later layers (Figure

5.18, Figure 5.19). The majority of the decorated sherds were tempered with fine or mixed-grade sands. In the earliest layers, a higher proportion of the decorated sherds were tempered with coarse sand (Figure 5.20).

Coarse cordmarking was only present in the earliest layers. Horizontal line incision was identified throughout the sequence, but vertical line incision was less frequent and occurred in higher proportions in the earlier layers. Triangular-shaped incision was more numerous mid-sequence. Criss-cross incision was in higher proportions in the earlier layers, but was generally rare. Other geometric (curvilinear and diamond-shaped) incision was identified mid-sequence and in layer 8. Wavy incision was present throughout the sequence, except in layer 1, but zigzag incision was only present in the middle and lower layers. Concentric circle incision was infrequent throughout the sequence.

Red paint was rarely identified, but was present in low quantities throughout the sequence, although absent in layer 8. Coarse punctate stamping was in higher proportions in layer 8. Other kinds of punctate stamping were generally rare, and most stamping was created by rouletting, which was present throughout the layers. The different kinds of roulette stamps are discussed further in Chapter 7. Other modes of decoration were rare at An Sơn, and comb incision/paddle linear impression, cordmarking and burnishing were present throughout the sequence in association with other decorative modes (Figure 5.21). Examples of these modes of decoration are shown in Figure 5.17.

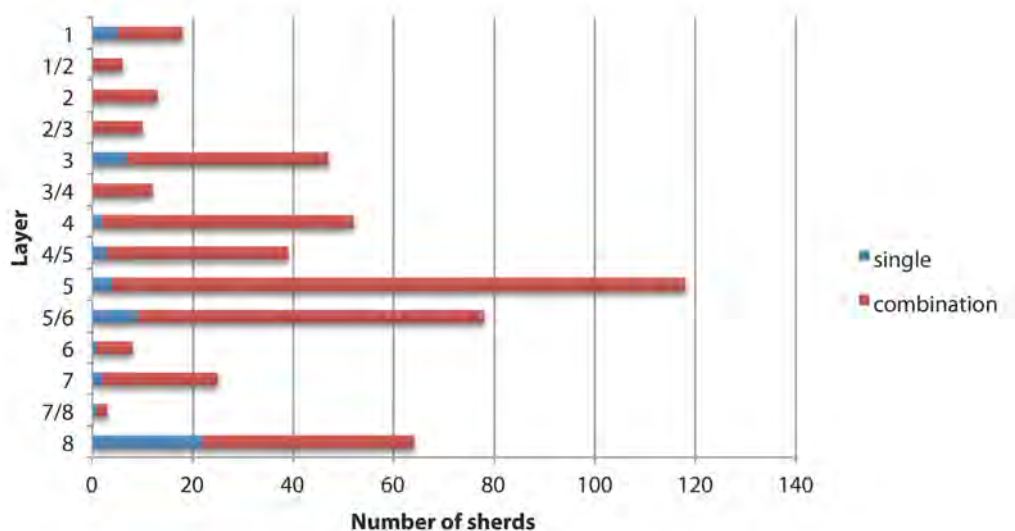


Figure 5.18. Quantity of sherds with a single decorative mode or a combination of multiple decorative modes by layer, Trench 1.

Source: C. Sarjeant.

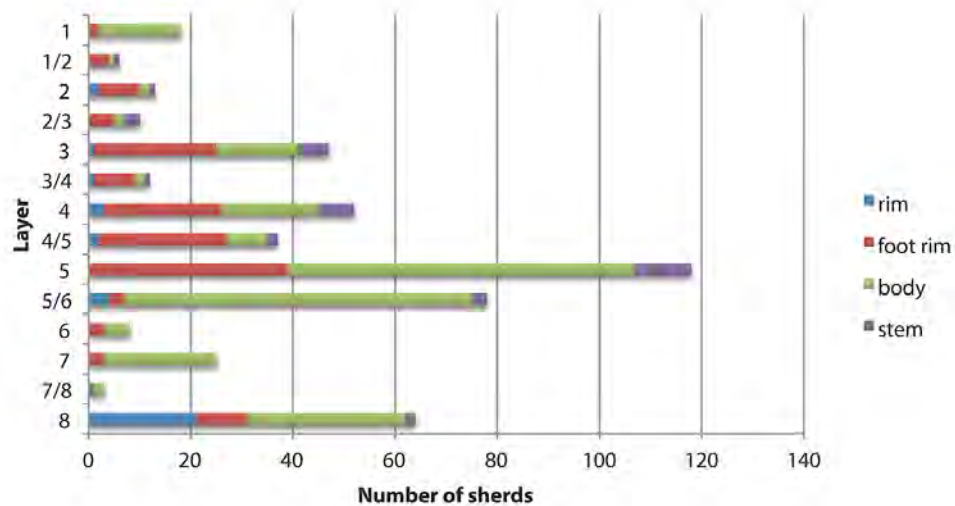


Figure 5.19. Quantity of sherds with surface treatments on each portion of the vessel by layer, Trench 1.

Source: C. Sarjeant.

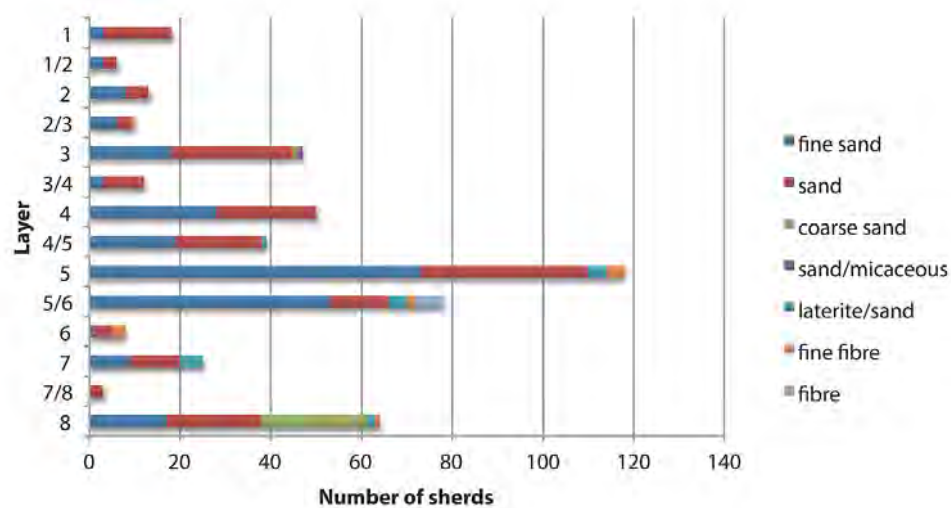


Figure 5.20. Quantity of sherds with each macroscopically observed temper group by layer, Trench 1.

Source: C. Sarjeant.



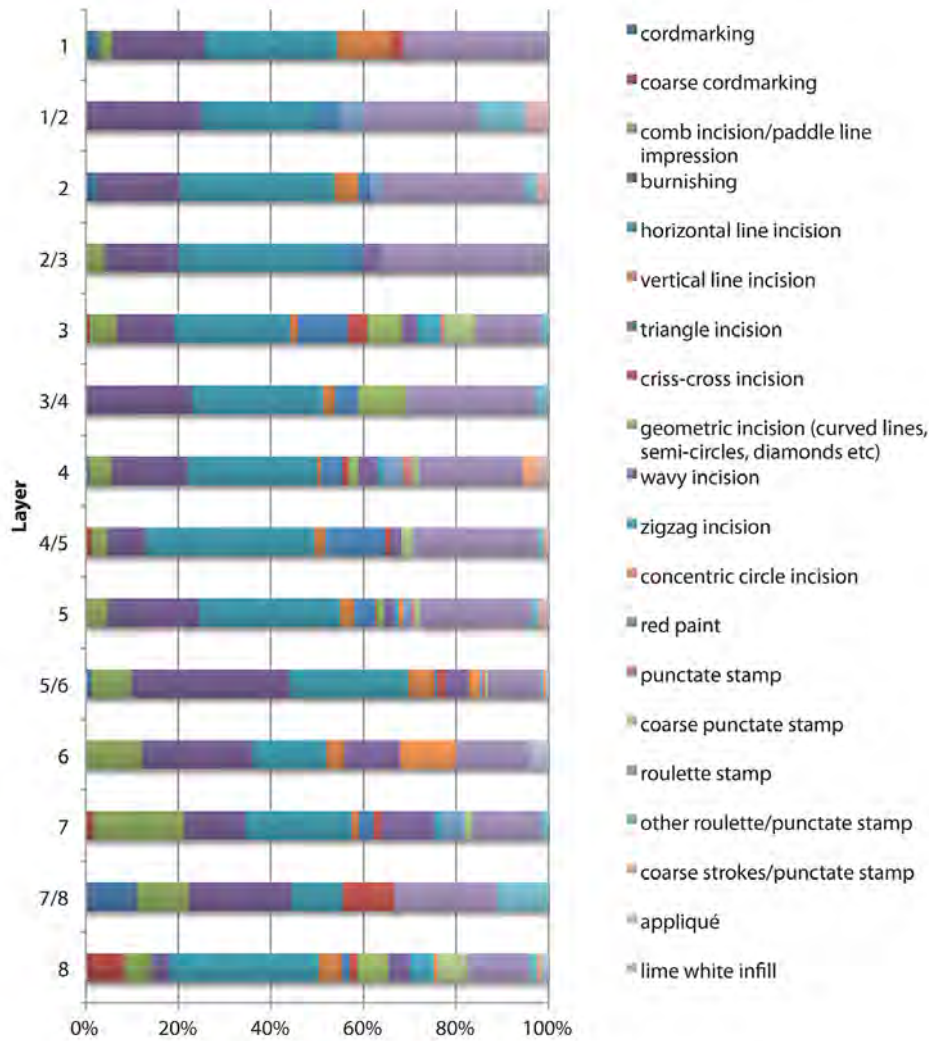


Figure 5.21. Proportion of each surface treatment/decoration by layer, Trench 1.

Source: C. Sarjeant.

#### *1997 excavation basal layers*

Once again, the lowest layers of the 1997 excavation were included to expand the sequence identified in 2009 Trench 1 to include the earliest known layers at An Sơn. The total number of decorated sherds examined from the basal layers of the 1997 excavation was 95: 43 from layer 3–4 and 52 from layer 3–5.

In layers 3–4 and 3–5, a higher proportion of the decorated sherds had a single mode of decoration in layers 3–4 and 3–5 than was observed in the 2009 Trench 1 (Figure 5.22). The majority of the decorated sherds from layer 3–5 were foot rim, while mostly pedestals, and body portions occurred in layer 3–4 (Figure 5.23). None of the decorated sherds were tempered with fibre in layers 3–4 or 3–5. Almost all of the decorated sherds from layer 3–5 were tempered with fine sand, while the sherds of layer 3–4 were tempered with mixed-sized sand grains (Figure 5.24).

The majority of the decorated sherds from layer 3–5 had horizontal incision, while a number were decorated with wavy incision, roulette stamping, vertical/diagonal incision, and punctate stamping. A number of sherds were cord-marked and burnished in association with other modes

of decoration. However, a different mode of decoration was observed on some rim sherds: cordmarking in horizontal rows on the external surface. This mode of decoration was unique to layer 3–5. Modes of decoration became more varied by layer 3–4, with many of the decorated sherds painted or having horizontal incision. The other represented modes of decoration were coarse cordmarking, vertical/diagonal incision, wavy incision, roulette stamping, and appliqué. Burnishing and comb incision/paddle linear impression were also identified in association with some other modes of decoration (Figure 5.25). Examples of these modes of decorations are shown in Figure 5.17.

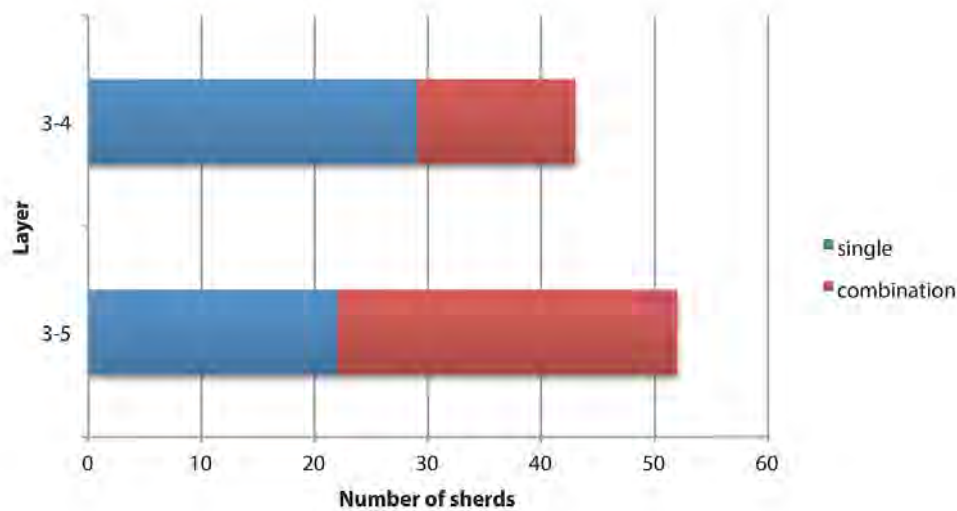


Figure 5.22. Quantity of sherds with a single decorative mode or a combination of multiple decorative modes by layer, 1997 excavation, layers 3–4 and 3–5.

Source: C. Sarjeant.

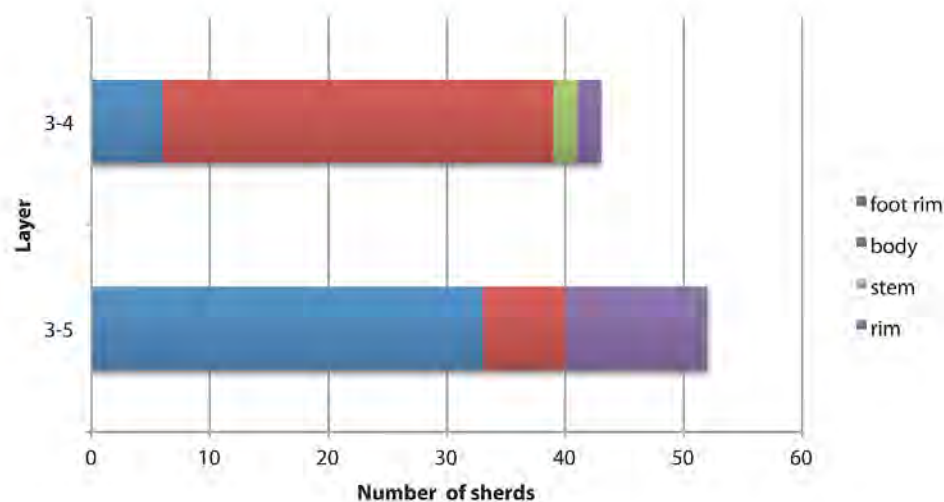


Figure 5.23. Quantity of sherds with surface treatments on each portion of the vessel by layer, 1997 excavation, layers 3–4 and 3–5.

Source: C. Sarjeant.

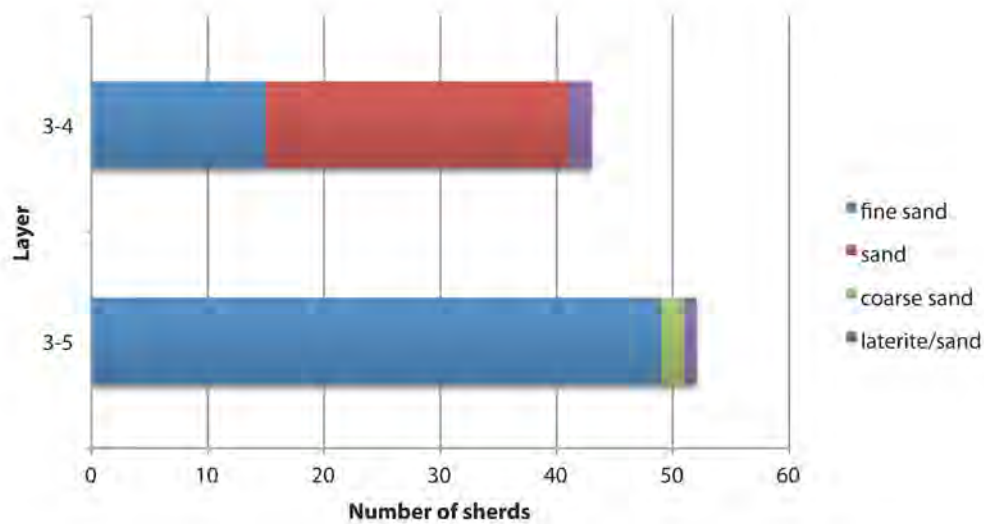


Figure 5.24. Quantity of sherds with each macroscopically observed temper group by layer, 1997 excavation, layers 3–4 and 3–5.

Source: C. Sarjeant.

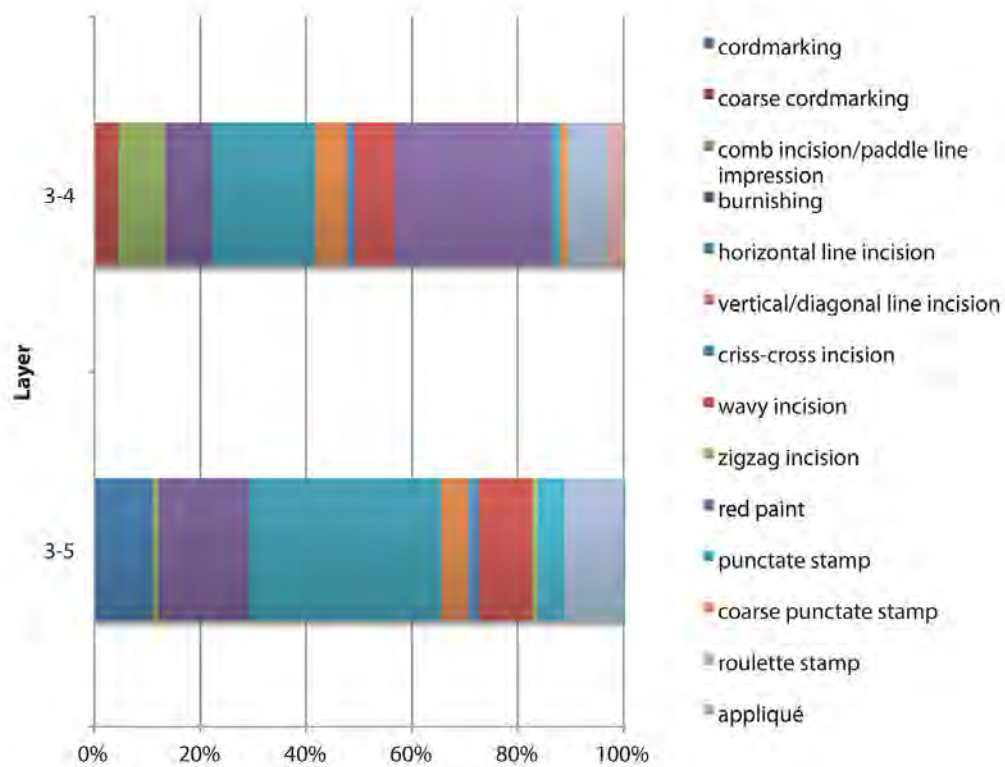


Figure 5.25. Proportion of each surface treatment/decoration by layer, 1997 excavation, layers 3–4 and 3–5.

Source: C. Sarjeant.

*Summary: Sequence of surface treatment and decoration*

Table 5.9 presents the sequence of surface treatment and decoration from the An Sơn 2009 excavation season. It is based particularly on the stratigraphic sequence of Trench 1. The highest

number of decorated sherds appeared mid-sequence in Trench 1, layers 5 and 5/6, where most of these sherds were sand tempered. The basic sequence over time shows that the earliest decorative modes were punctate stamped, particularly coarse punctate, and coarse cord-marked. Horizontal incision, vertical/diagonal incision, criss-cross incision, wavy incision, and roulette stamping were also present in the lowest layers, layer 8 in 2009 Trench 1 and layers 3–5 and 3–4 in the 1997 excavation. These modes of decoration were closely followed by red paint and appliqué in layer 3–4 of the 1997 excavation. Red paint was present in higher quantities in layers 4 to 7 in Trench 1, wavy and zigzag incision in layers 3 to 8, concentric circle incision in layers 5 to 6, lime infill in layers 4 to 6, and triangle incisions in layers 1 to 5. Punctate stamping was present in Trench 1 from layers 3 to 5/6, while roulette stamping was present throughout the sequence.

Table 5.9. Sequence of surface treatment and decoration at An Sơn, all 2009 excavation trenches. See examples of decorative modes in Figure 5.17. Key: – decorative mode present in layer, + highest proportion of decorative mode, -- diminishing proportion of decorative mode, blacked out areas = none of the decorative mode in layer.

Layer	Coarse cordmarking	Comb incision/paddle line impression	Burnishing	Horizontal line incision	Vertical line incision	Triangle incision	Criss-cross incision	Geometric incision (vertical, horizontal, diamonds, etc.)	Wavy incision
1									
2									
3									
4									
5									
6									
7									
8									

Layer	Zigzag incision	Concentric circle incision	Red paint	Punctate stamp	Coarse punctate stamp	Roulette stamp	Applique/ridge	Lime white infill
1								
2								
3								
4								
5								
6								
7								
8								

Source: Compiled by C. Sarjeant.

### Spatial distribution of rim forms

The spatial distributions of the rim forms in Trench 1, squares A1, A2, B1, B2, C1 and C2, are compared here with those in Trench 2. Trenches 1 and 2 were located close together, but presented rather different evidence for usage. While Trench 1 contained a straightforward sequence of dumping layers off the main mound, Trench 2 consisted of many small lenses and layers with a decidedly horizontal distribution, with dense midden deposits in some layers. The two trenches are described, and a comparison and discussion of spatial distribution follows.

#### *Trench 1: Squares A1, A2, B1, B2, C1 and C2*

The layers represented in squares A1, A2, B1, B2, C1 and C2 were recorded in the northern wall of Trench 1. They are labelled 1 to 8 from the surface downwards (Figure 5.26), and are characterised in Table 5.10 according to soil matrices, the presence of ceramic rim forms (Figure 5.1 and Figure 5.6), and other items of material culture.

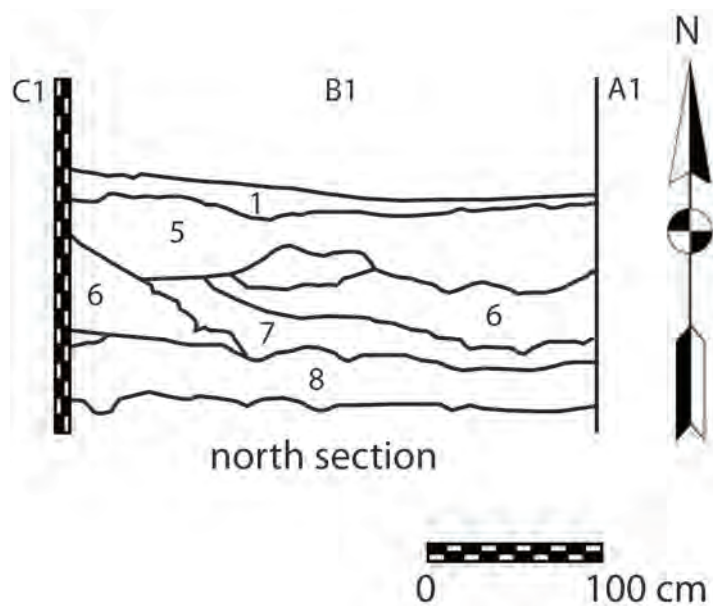


Figure 5.26. Stratigraphy of the north wall, Trench 1, squares A1, B1, C1.

Source: C. Sarjeant.

Table 5.10. Characterisation of soil matrices, ceramic rim forms (in Figure 5.1) and material culture in each layer, Trench 1, squares A1, A2, B1, B2, C1, C2.

Layer	Soil matrix description	Ceramic rim forms present (see Figure 5.1)	Material culture present
1	mid-brown with very little cultural material	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1d, A1e, A1f, A1h, A1i</li> <li>concave rims: A2</li> <li>restricted vessels: B1a</li> <li>unrestricted vessels: C1a, C1b, C2a, C2b</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D2a</li> <li>cà ràng projections: E2b</li> </ul>	<ul style="list-style-type: none"> <li>unpolished and polished stone flakes</li> <li>stone adze fragments</li> <li>well-worn unshouldered stone adzes</li> </ul>
2	dark brown with two lenses of a dark brown to black colour and cultural material	Layer not present in A1, A2, B1, B2, C1 and C2 squares	Layer not present in A1, A2, B1, B2, C1 and C2 squares
3	light brown with dense pottery	Layer not present in A1, A2, B1, B2, C1 and C2 squares	Layer not present in A1, A2, B1, B2, C1 and C2 squares
4	orange to brown with cultural material	Layer not present in A1, A2, B1, B2, C1 and C2 squares	Layer not present in A1, A2, B1, B2, C1 and C2 squares
5	red to brown with a lot of cultural material	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1d, A1e, A1f, A1h, A1i</li> <li>concave rims: A2a, A2b, A2c</li> <li>restricted vessels: B1a</li> <li>unrestricted vessels: C1b, C2b, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D2a</li> <li>cà ràng rims and projections: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>ceramic roundels</li> <li>clay pellets</li> <li>baked clay lumps</li> <li>whetstones</li> <li>unpolished and polished stone flakes</li> <li>stone adze fragments</li> <li>shouldered stone adzes</li> <li>unshouldered stone adzes</li> <li>reflaked shouldered stone adzes and axes</li> <li>broken unshouldered and shouldered stone adzes</li> </ul>
6	light brown with cultural material	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1d, A1e, A1f, A1h, A1i</li> <li>concave rims: A2a and A2b</li> <li>restricted vessels: B1a</li> <li>unrestricted vessels: C1a, C1b, C2b, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D2a</li> <li>cà ràng rims and projections: E1a, E, E2b</li> </ul>	<ul style="list-style-type: none"> <li>ceramic roundels</li> <li>baked clay lumps</li> <li>sandstones</li> <li>whetstones</li> <li>polished stone flakes</li> <li>shouldered stone axes</li> <li>broken shouldered stone adzes</li> </ul>
7	light brown with cultural material	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1h, A1i</li> <li>concave rims: A2a, A2b, A2c</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a, C1b, C2b, C3a</li> <li>a large number of wavy rimmed unrestricted vessels (D1a), as well as some serrated rimmed vessels (D2a)</li> <li>cà ràng rims and projections: E1a, E2a</li> </ul>	<ul style="list-style-type: none"> <li>sandstone</li> <li>polished stone flakes</li> <li>broken shouldered stone adzes</li> </ul>

Layer	Soil matrix description	Ceramic rim forms present (see Figure 5.1)	Material culture present
8	grey to brown with very little cultural material	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b</li> <li>concave rims: A2a, A2c</li> <li>restricted vessels: B1a</li> <li>unrestricted vessels: C2a</li> <li>wavy rimmed unrestricted vessels: D1a</li> </ul>	None

Source: Compiled by C. Sarjeant.

## Trench 2

Previously, sherd quantities have been plotted according to 10 cm spits for Trench 2 (Figure 5.7 and Figure 5.8). In this section, the cultural layers within Trench 2, labelled from 1 to 15 from the surface downwards (Figure 4.4), are characterised in Table 5.11, according to soil matrices, ceramic rim forms (Figures 5.1 and 5.27), and other items of material culture. Layers 11, 13 and 14 contained very little cultural material and are not included.

Table 5.11. Characterisation of soil matrices, ceramic rim forms (in Figure 5.1) and material culture in each layer, Trench 2.

Layer	Soil matrix description	Ceramic rim forms present (see Figure 5.1)	Material culture present
1	dark grey	<ul style="list-style-type: none"> <li>everted rims: A1a, A1e, A1f, A1g, A1i</li> <li>concave rims: A2a</li> <li>restricted vessels: B3a</li> <li>unrestricted vessels: C1a, C1b, C2a</li> <li>wavy and serrated rimmed unrestricted vessels: D1b, D2a</li> <li>cà ràng rims: E1a</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
2	yellow to brown	<ul style="list-style-type: none"> <li>everted rims: A1a, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a</li> <li>restricted vessels: B3a</li> <li>unrestricted vessels: C1a, C1b, C3a</li> <li>serrated rimmed unrestricted vessels: D2a</li> <li>cà ràng rims and projections: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>shell beads</li> <li>stone flakes</li> <li>stone adze fragments, broken shouldered stone adzes</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
3	light brown	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1f, A1g, A1h, A1ic</li> <li>concave rims: A2a, A2c</li> <li>restricted vessels: B1a, B2a, B3a</li> <li>unrestricted vessels: C1a, C1b, C2a, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, but more D2a</li> <li>cà ràng rims and projections: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>ceramic roundels</li> <li>clay pellets</li> <li>shell beads</li> <li>unpolished and polished stone flakes</li> <li>stone implement with a ground hole in the centre (Figure 4.67)</li> <li>baked clay lumpsgastropod shells</li> </ul>



Layer	Soil matrix description	Ceramic rim forms present (see Figure 5.1)	Material culture present
4	dark red to brown	<ul style="list-style-type: none"> <li>everted rims: A1a (but notably not in squares E3, E4 and E5), A1b, A1c, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a (but notably not in squares E3, E4 and E5), A2c</li> <li>restricted vessels: B1a, B2a, B3a</li> <li>unrestricted vessels: C1a, C1b, C2a, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, but more D2a</li> <li>cà ràng rims and projections: E1a, E2a</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>shell beads</li> <li>unpolished stone flakes</li> <li>whetstones</li> <li>a large polished stone arrowhead</li> <li>shouldered stone adzes</li> <li>unshouldered stone adzes</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
5	light brown to red	<ul style="list-style-type: none"> <li>everted rims: A1a, A1c, A1e, A1f, A1g, A1h, A1i, A1i-r</li> <li>concave rims: A2a (but notably not in squares E3, E4 and E5), A2c</li> <li>restricted vessels: B3a</li> <li>unrestricted vessels: C1a, C1b, C3a wavy and serrated rimmed unrestricted vessels: D1a, D1b, D2a</li> <li>cà ràng rims and projections: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>shell beads</li> <li>unpolished and polished stone flakes</li> <li>unshouldered stone adzes</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
6	light brown to dark beige	<ul style="list-style-type: none"> <li>everted rims: A1a, A1c, A1e, A1f, A1i, A1i-r</li> <li>concave rims: A2a, A2b</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a, C1b, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, D2a</li> <li>cà ràng rims and projection sherds: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>unpolished and polished stone flakes</li> <li>broken shouldered stone adzes</li> <li>concretions</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
7	red to light brown	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a, A2c</li> <li>restricted vessels: B2a, B3a</li> <li>unrestricted vessels: C1a, C1b, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, D2a</li> <li>cà ràng rim and projection sherds: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>a ceramic bead</li> <li>concretions</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
8	light brown	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a, A2c</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a, C1b, C2a, C2b, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, D2a</li> <li>cà ràng rims and projections: E1a, E2a</li> </ul>	<ul style="list-style-type: none"> <li>unpolished and polished stone flakes</li> <li>broken shouldered stone adzes</li> <li>concretions</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>
9	beige	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a, A2c</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a, C3a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D1b, D2a</li> <li>cà ràng rims and projections: E1a, E2a, E2b</li> </ul>	<ul style="list-style-type: none"> <li>clay pellets</li> <li>polished stone flakes</li> <li>baked clay lumps</li> <li>gastropod shells</li> </ul>



Layer	Soil matrix description	Ceramic rim forms present (see Figure 5.1)	Material culture present
10	orange to brown	<ul style="list-style-type: none"> <li>everted rims: A1a, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a, A2b</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a</li> <li>wavy and serrated rimmed unrestricted vessels: D1a, D2a</li> <li>cà ràng rims: E1a</li> </ul>	<ul style="list-style-type: none"> <li>unpolished and polished stone flakes</li> <li>stone adze fragments</li> <li>notably less baked clay lumps</li> <li>gastropod shells</li> </ul>
11	black with very little contents	everted rims: A1f	minor baked clay and shell contents
12	mid brown to red	everted rims: A1a, A1f	minor baked clay and shell contents
13	beige shallow and short lens with little to cultural material	No cultural material	No cultural material
14	black shallow and short lens with little to no cultural material	No cultural material	No cultural material
15	light grey to beige	<ul style="list-style-type: none"> <li>everted rims: A1a, A1b, A1c, A1e, A1f, A1g, A1h, A1i</li> <li>concave rims: A2a</li> <li>restricted vessels: B1a, B2a</li> <li>unrestricted vessels: C1a, C1b, C2a, C3a</li> <li>wavy rimmed unrestricted vessels: D1a</li> <li>cà ràng rims and projection sherds: E1a, E2b</li> </ul>	None

Source: Compiled by C. Sarjeant.

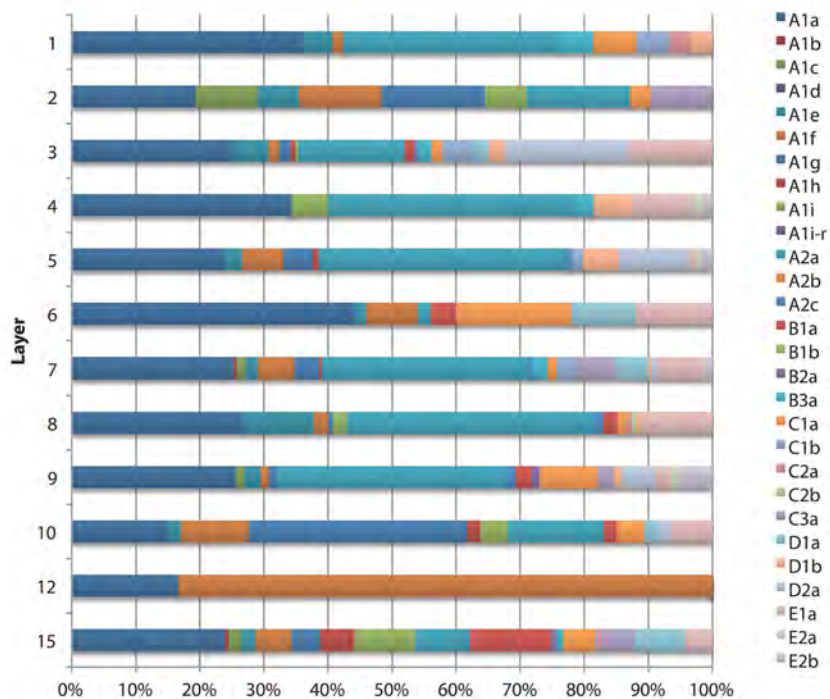


Figure 5.27. Proportion of rim forms by layer, Trench 2. No rim sherds were recovered from layers 11, 13 and 14.

Source: C. Sarjeant.

### *Discussion of the spatial distribution of ceramic forms*

The aim of the comparison between Trenches 1 and 2 was to determine the usage of different spaces on site and the chronology of Trench 2 compared to the more extensive sequence of Trench 1. Comparative pie charts of the proportions of each rim form for Trenches 1 and 2 are presented in Figure 5.28.

Trench 1 displayed a distinct chronological sequence of changing ceramic forms for An Sôn. The forms from Trench 1, squares A1, A2, B1, B2, C1 and C2, showed a progression similar to that presented for Trench 1 in general. All of the everted rim forms were present in the upper and middle layers, except for A1g and A1i-r. The concave rim forms were present throughout the sequence, except for the basal layer 8. A2b was only present in layers 5, 6 and 7, and A2c was absent from layers 1, 6 and 8. The everted rim classes A1 and A2 comprised the majority of the assemblage of these six Trench 1 squares. With the exception of B2a in layer 7, forms B2 and B3 were absent from these six squares. C1a was present throughout the sequence, except in layers 5 and 8, while C1b was also present throughout the sequence, except in the basal layer 8. C2a was absent in layers 1 and 8, C2b was present throughout the sequence except in layer 8, and C3 forms were present mid-sequence in layers 5, 6 and 7. In terms of the *cà ràng* projections, the square-shaped projections (E2a) were absent in the upper layer 1 and the rounded projections (E2b) were absent from layer 7. D2 forms were generally rare in Trench 1 in comparison to D1 forms. The *cà ràng* forms, class E, were rare in Trench 1.

Trench 2 contained a wide spread of ceramic rim forms. There was a much higher proportion of *cà ràng* class E sherds, C3a inverted rimmed restricted vessels, and D2a serrated rim sherds in Trench 2 compared to Trench 1. The everted rippled A1i-r rims were present in layers 5, 6 and 7. A1d was absent from Trench 2. B1 forms were present in layers 3, 4, 6, 8, 9, 10 and 15. B2 forms were rare in Trench 2, while B3 forms were only present in layers 1, 2, 3, 5 and 7. Form C1a was present in all layers, except those with few remains, and C1b was present in all layers except 9 and 10. C2 forms were rare in Trench 2 and were only present in layer 8. The rounded-shaped projections of *cà ràng* class E vessels were absent from layer 15, and the square projections were absent from layer 4.

Other material culture at An Sôn Trench 1 indicated a use of shouldered stone adzes earlier in the sequence that were later replaced by unshouldered adzes. The transition evidently occurred in Trench 1 layer 5, in which both shouldered and unshouldered adzes were recovered (see Figure 4.53 and Figure 4.54). Ceramic roundels, clay pellets, baked clay lumps, and sandstones and whetstones for maintaining stone tools were only observed mid-sequence in Trench 1, layers 5 and 6. The intensity of occupation at An Sôn was evident in layers 5 and 6 with an increase in the variety of material culture in these layers of Trench 1.

The higher proportion of *cà ràng* sherds and black, ashy deposited lenses in Trench 2 compared to Trench 1 was suggestive of cooking activities. Additionally a greater quantity of fired clay lumps in Trench 2 (see Chapter 4) suggests that they were related to cooking, perhaps for heat retention in earth ovens. The higher proportion of class B restricted bowls in Trench 2 compared to Trench 1 may also suggest a relationship between these vessels and cooking. Ceramic vessels tempered with plant materials are more resilient to thermal shock in cooking practices. The silica in rice husks, which is frequently used as a temper in the ceramic vessels from An Sôn, survives in environments of high firing and increases the ability of a ceramic vessel to survive repeated heating in cooking processes (Tomber, Cartwright and Gupta 2011). Many of the frequently occurring vessels in Trench 2 were fibre tempered, namely the *cà ràng* class E, B1a, B3a, C1a

and C1b forms. As already shown, a larger number of sand-tempered rather than fibre-tempered sherds were recovered from Trench 2. However, these were largely restricted to the A1a and A2a forms, which were very common forms at the site in general.

A stone item with a ground circle in the centre may have been used to light a fire in Trench 2 (found in square C5, layer 3). Clay pellets, shell beads, gastropod shells and stone flakes were found throughout the layers of Trench 2, while concretions were only present in layers 6, 7 and 8, indicating that burning of shell and/or animal remains took place within these layers. Ceramic roundels were present in higher quantities in Trench 1 compared to Trench 2, indicating a possible spatial separation in their use and discard. In Trench 2 there was a higher proportion of shouldered adzes than unshouldered adzes. The presence of some unshouldered adzes indicates that Trench 2 relates chronologically to layer 5 in Trench 1.

Since rice husk was present in the fabrics of ceramic sherds, it may be presumed that rice was cooked at An Sơn. In particular the subspecies identified to *Oryza sativa japonica* by Katsunori Tanaka from the Research Institute of Humanity and Nature, Japan. The faunal remains indicate that fish (snakehead, swamp eel and climbing perch), pig and dog were cooked in Trench 2, as well as pond, box and water turtles. However, in general, only small numbers of wild mammals and reptiles were recovered from An Sơn, and were probably a small component of the diet in comparison to domestic dog and pig (Piper *et al.* 2012).

The remains from Trench 1 indicate the successive dumping of cultural remains down the side of the mound. Most of these deposits overlaid the burials or the burials were cut through the layers in Trench 1. Conversely, there was a definite restricted area with cooking remains in Trench 2 and this area did not necessarily overlay the one extended burial (burial 3) in this trench. It is possible the cooking activities occurred contemporaneously with the burial or before the burial was interred, and the burial was later cut through the midden.

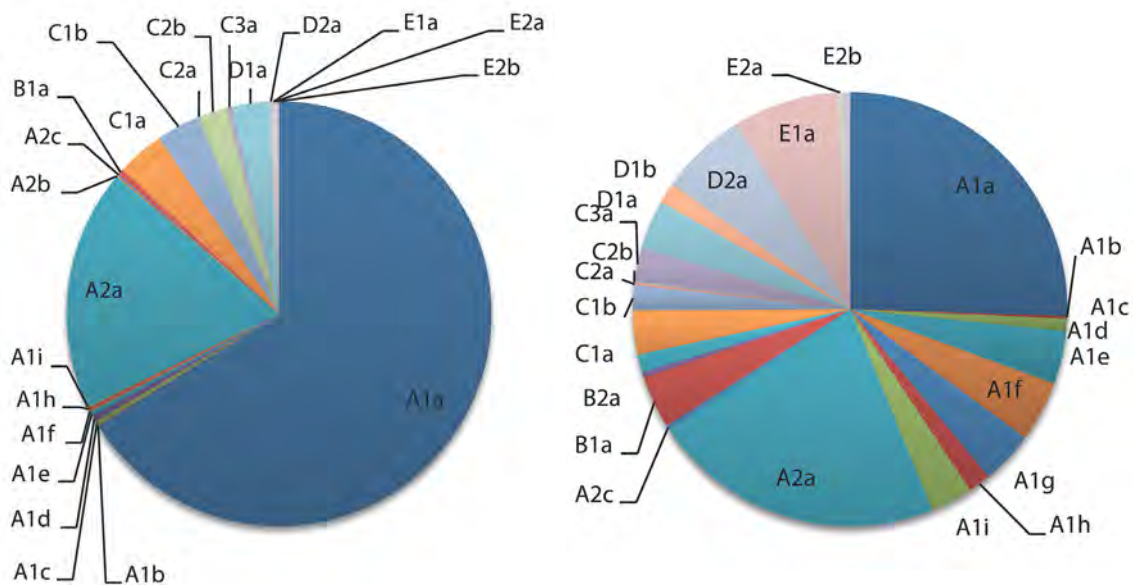


Figure 5.28. Comparison of proportions of each rim form between Trench 1 (squares A1, A2, B1, B2, C1 and C2) (left) and Trench 2 (right).

Source: Compiled by C. Sarjeant.

### Summary: The sequence and distribution of ceramics at An Sơn

In this chapter the rim forms and decorations have been categorised and sequences established for the ceramic assemblage at An Sơn (Figure 5.1, Figure 5.17, Table 5.8, Table 5.9). The sequence of rim forms (Table 5.1) in the 2009 and 1997 basal layers excavated at An Sơn showed that there was a dominance of class A2 and B forms at initial occupation. The decorated varieties of A2 forms are likely to have been introduced soon after this initial settlement, with the appearance of roulette stamped shoulder decoration. After this initial phase, the proportion of A2 vessels diminished and the assemblage was composed of A1 forms in the subsequent sequence. Form B1b was initially the most common class B vessel form at An Sơn, and was replaced by form B1a early in the sequence. Class C forms were few in the earliest occupation of the site but increased in variety and numbers mid-sequence, and were present through to the later part of the sequence. Class D forms were absent during the initial occupation, but form D1a appeared soon after and transitioned to form D2a in the mid to late part of the sequence. Class E (the *cà ràng* stove) was absent during initial occupation, but appeared in greater numbers mid-sequence. The square-shaped *cà ràng* projections (form E2a) were representative of the early- to mid-sequence, and the rounded projections (form E2b) were representative of the mid- to late-sequence. The greatest quantity of decorated sherds was observed mid sequence, at which time the variety of decoration increased, much like the number of rim form variants. The earliest decorative modes were coarse cordmarking and coarse punctate stamping. These were followed closely by the introductions of red painting, roulette stamping and various incised motifs (Table 5.9).

Complete vessels were most frequently associated with burial contexts, and thus included some ritualistic decorated vessels, although some reconstructable complete utilitarian and decorated vessels were also recovered from the dumping layers in Trench 1. The distribution of rim forms reinforce the claim that Trench 1 was representative of the entire neolithic sequence at An Sơn, except for the earliest occupation of the site, as represented by the base of the 1997 excavation and the 2009 Test Square. The dumping layers were also associated with adze flakes, and whetstones and polishing stones for the manufacture of stone adzes. Since the majority of the flakes had polished surfaces, it is interpreted that Trench 1 was a location for reworking and retouching stone adzes. A less likely scenario is that Trench 1 was used as a place to discard the debitage created from reworking activities in another area of the site. There is no evidence for manufacturing new adzes from raw materials in the site. Trench 1 was also utilised for the burial of individuals with mortuary offerings, but these interments were not necessarily in direct association with the refuse layers, and appear to have been cut through them.

While Trench 2 also included human burials, the majority of the cultural materials were related to cooking activities. These included a high proportion of sherds from class E *cà ràng* stove vessels in association with many baked clay lumps, concreted faunal remains and ceramic sherds. There were also areas of charcoal in Trench 2 which indicate cooking. Most of the material appeared to be late in the An Sơn sequence, with a high number of D2a sherds compared to earlier localities in the site, such as Trench 1.

This study of rim forms and surface treatment/decoration has been informative for understanding the ceramic sequence at An Sơn. The study of spatial distribution has aided in determining the functions of certain forms, in either utilitarian or ritualistic contexts. Combined with the fabric analysis that follows in Chapter 6, this chapter provides a characterisation of the ceramic assemblage for comparison between An Sơn and other sites in the region (as presented in Chapters 8 and 9).

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