

QUIPU AS38

Museum identification: No. 3884-147 (Museo Nacional, Lima, Peru)

Main cord: color B:BD

- § 6.0 cm: group of 18 pendant cords (1-18), then space of 1.0 cm.
 11.0 cm: group of 18 pendant cords (19-36), then space of 1.5 cm.
 16.0 cm: group of 18 pendant cords (37-54), then space of 1.0 cm.
 21.0 cm: group of 18 pendant cords (55-72), then space of 1.0 cm.
 25.5 cm: group of 18 pendant cords (73-90), then space of 1.0 cm.
 29.5 cm: group of 18 pendant cords (91-108), then space of 5.5 cm.
 38.5 cm: end ç

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	2s(4.0); 7s(9.5); 4s(16.0); 7s(24.5) 5L(31.5)	43.5ç	W	27475	
2	3s(9.0); 4s(15.5); 1s(23.5); 7L(31.5)	58.5ç	W	3417	
3	--	0.5b	B:BD	?*	
4	--	5.0b	B:BD	?*	
5	4s(9.0); 7s(16.0); 5s(25.0); 8L(32.5)	48.5ç	W	4758	
6	6s(9.0); 2s(16.0); 2L(33.0)	58.0ç	W	6202	
7	6s(8.5); 3s(15.5); 6s(24.0); 6L(31.0)	46.0ç	W	6366	
8	4s(8.0); 8s(15.5); 1s(23.5); 1E(31.0)	52.0ç	W	4811	
9	3s(9.0); 5s(17.5); 1s(24.5); 6L(32.0)	51.0ç	W	3516	
10	1s(3.0); 6s(10.0); 6s(17.0); 7s(24.5); 7L(31.0)	38.0ç	B	16677	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
11	4s(9.0);3s(16.0);1s(23.0);7L(30.0)	51.0¢	B	4317	
12		3.5b	B	??	
13	3s(10.0);7s(24.0);6L(31.0)	47.0¢	B	3076	
14	3s(10.0);7s(17.0);9s(24.5);9L(30.5)	36.5¢	B	3799	
15	4s(10.0);4s(16.5);2s(23.0);1E(30.5)	53.5¢	B	4421	
16	4s(10.0);5s(16.5)	56.5¢	B	4500	
17	4s(10.0);2s(17.5);6s(25.0);1E(32.5)	48.5¢	B	4261	
18	3s(10.0);5s(17.0);2s(23.5);4L(30.0)	50.0¢	B	3524	
19	1s(4.0);5s(11.0);6s(17.0);5s(26.0); 2L(32.5)	44.5¢	W	15652	8:13.0-14.0
19s1	1s(2.5);5s(11.0)	28.0¢	B	150	
19s2	3s(2.5);2s(10.5);1E(17.0)	24.0¢	W	321	
19s3	7s(2.5);9s(12.0)	28.0¢	B	790	
19s4	1s(11.0);1E(18.0)	26.0¢	W	11	
19s5	5L(18.0)	27.0¢	GG	5	
19s6	1s(10.5);8L(18.0)	23.0¢	RL	18	
19s7	—	0.5	BD	??	
19s8	5s(3.0);8s(11.0);6L(17.0)	25.0¢	BS	586	
20	2s(10.0);2s(17.0);8s(25.5);3L(32.5)	50.5¢	W	2283	3:13.0-13.5
20s1	1E(18.0)	25.0¢	B	1	
20s2	1s(10.5);9L(15.5)	19.5¢	B	19	
20s3	1s(11.0);8L(16.5)	21.5¢	BS	18	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
21	--	3.0b	BD:W	?*	
22	--	1.0b	BD:W	?*	
23	2s(10.0); 8s(16.5); 8s(25.5); 1E(31.5)	37.5ç	W	2881	4:12.5-13.5
23s1	2L(17.5)	24.5ç	B	2	
23s2	3L(17.5)	23.5ç	W	3	
23s3	1s(11.0); 3L(17.0)	28.0ç	B	13	
23s4	1s(9.5); 9L(16.5)	22.0ç	BS	19	
24	3s(9.5); 6s(16.5); 2s(25.0); 5L(31.5)	46.5ç	W	3625	5:12.5-13.5
24s1	2L(17.0)	30.0ç	B	2	
24s2	3L(16.5)	25.5ç	W	3	
24s3	4s(10.0); 1E(17.0)	26.0ç	B	41	
24s4	1E(17.0)	24.0ç	GG	1	
24s5	1s(10.0); 5L(15.5)	16.5	BS	15	
25	3s(9.0); 8s(17.5); 1s(25.5); 8L(31.5)	40.5ç	W	3818	4:13.0-14.0
25s1	4L(16.0)	28.0ç	B	4	
25s2	6L(16.0)	28.0ç	W	6	
25s3	2s(10.0); 4L(16.0)	22.0ç	B	24	
25s4	1s(10.0); 4L(16.0)	21.0ç	BS	14	
26	2s(10.0); 6s(17.0); 6s(23.5); 7L(31.0)	35.5ç	W	2667	4:13.5-14.5
26s1	1E(14.0)	30.0ç	B	1	
26s2	1s(8.0); 3L(13.0)	21.5ç	W	13	
26s3	1E(13.5)	18.0ç	B	1	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
26s4	2s(8.0);2L(13.5)	19.5¢	BS	22	
27	2s(10.0);2s(17.0);7s(24.5);4L(29.0)	37.0¢	W	2274	2:15.0-15.5
27s1	2L(13.0)	21.0¢	W	2	
27s2	3L(11.0)	13.0¢	B	3	
28	1s(4.5);5s(18.5);3s(26.5);4L(31.5)	59.5¢	B	10534	8:13.5-15.5
28s1	1s(4.0)	31.0¢	B	10	
28s2	2s(4.0);8s(12.0);2L(17.0)	39.0¢	W	282	
28s3	5s(4.0);3s(12.0);4L(17.5)	44.5¢	B	534	
28s4	1s(12.0);2L(19.0)	27.0¢	W	12	
28s5	6L(16.0)	26.0¢	GG	6	
28s6	1s(10.5);8L(16.0)	25.0¢	RL	18	
28s7	--	0.5b	BD	?	
28s8	3s(3.0);7s(11.0);4L(15.0)	20.0¢	BS	374	
29	3s(9.5);4s(17.5);3s(24.0);2L(30.0)	43.0¢	B	3432	4:14.0-15.0
29s1	2L(15.0)	21.5¢	W	2	
29s2	3L(16.0)	30.5¢	B	3	
29s3	1s(9.0);4L(15.0)	20.0¢	B	14	
29s4	1s(9.0);1E(15.0)	20.0¢	B	11	
30	4s(10.0);7s(17.5);1s(25.5);4L(32.0)	44.5¢	BD:W	4714	5:13.5-14.5
30s1	2L(16.0)	30.5¢	B	2	
30s2	3L(16.0)	26.0¢	W	3	
30s3	2s(9.5);8L(16.0)	28.0¢	B	28	
30s4	1E(10.0)	18.0¢	GG	1	
30s5	2s(9.5)	29.5¢	BS	20	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
31	1s(10.0);5s(17.0);3s(25.5);5L(32.0)	45.0¢	BD:W	1535	
31s1	1E(18.0)	30.0¢	B	1	
31s2	3L(15.5)	19.5¢	B	3	
31s3	6L(16.0)	26.0¢	BS	6	
32	2L(10.0);2s(17.0);6s(25.0);3L(31.0)	51.0¢	B	2263	4:13.5-14.5
32s1	2L(16.0)	32.0¢	B	2	
32s2	4L(15.0)	23.0¢	W	4	
32s3	1s(10.0);2L(15.0)	20.0¢	B	12	
32s4	9L(15.0)	19.0¢	BS	9	
33	2s(10.0);7s(18.0);1s(25.5);1E(32.5)	59.5¢	B	2711	4:13.0-14.0
33s1	2L(17.0)	29.5¢	B	2	
33s2	6L(14.5)	18.5¢	W	6	
33s3	1s(10.5);3L(15.5)	25.5¢	B	13	
33s4	1s(11.0);2L(16.5)	27.5¢	BS	12	
34	2s(10.0);6s(18.0);7s(26.0)	52.0¢	B	2670	5:13.0-14.0
34s1	3L(17.0)	26.0¢	B	3	
34s2	6L(17.5)	27.5¢	W	6	
34s3	2s(11.0);8L(18.0)	46.0¢	B	28	
34s4	1E(13.0)	27.0¢	GG	1	
34s5	1s(11.5);5L(16.5)	22.5¢	BS	15	
35	2s(10.0);3s(17.5);9s(25.5);6L(31.5)	45.5¢	B	2396	4:13.5-14.5
35s1	5L(13.0)	21.0¢	W	5	
35s2	2L(15.0)	22.0¢	GG	2	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
35s3	2s(9.0)	15.0¢	B	20	
35s4	6L(15.5)	23.5¢	BS	6	
36	2s(10.0);1s(16.5);6s(24.0) 6L(30.0)	52.0¢	B	2166	3:14.0-14.5
37	1s(4.0);1s(10.0);8s(16.5);2s(25.0) 6L(31.0)	42.5¢	W	11826	9:12.0-14.00
37s1	7s(11.0);7L(16.5)	23.5¢	B:W	77	
37s2	1s(4.0);6s(11.0);2L(16.5)	23.5¢	W	162	
37s3	4s(10.0);3L(16.0)	25.0¢	B	43	
37s4	3s(4.0);2s(10.5);8L(15.5)	20.0¢	B	328	
37s5	1s(11.0);1E(16.5)	27.5¢	W	11	
37s6	2L(15,0)	32.0¢	GG	2	
37s7	4L(15.5)	33.5¢	RL	4	
37s8	--	0.5b	BD	?	
37s9	2s(3.5);8s(10.5);1E(14.5)	16.5¢	BS	281	
38	1s(9.0);1s(16.0);3s(24.0);4L(31.0)	50.0¢	W	1134	2:14.0-14.5
38s1	9L(13.5)	18.5¢	B	9	
38s2	1E(16.0)	28.0¢	BS	1	
39	2s(10.0);2s(17.0);5s(25.5);4L(33.5)	43.5¢	BD:W	2254	3:14.0-14.5
39s1	2L(15.0)	25.0¢	W	2	
39s2	2s(9.5);1E(15.0)	24.5¢	B	21	
39s3	1E(14.0)	27.0¢	BS	1	
40	1s(11.0);4s(18.5);8s(28.5);5L(35.5)	49.5¢	BD:W	1485	1:16.0

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
40s1	6L(16.0)	24.5¢	B	6	
41	1s(9.0);4s(17.0);7s(24.0);7L(26.5)	31.5¢	W	1477	2:13.0-13.5
41s1	1E(14.0)	28.0¢	W	1	
41s2	7L(15.5)	21.5¢	B	7	
42	2s(9.5);5s(17.5);7s(26.5);7L(30.0)	33.5¢	W	2577	4:13.0-14.0
42s1	1E(17.0)	24.0¢	B	1	
42s2	3L(17.0)	24.0¢	W	3	
42s3	2s(12.0);5L(17.5)	26.5¢	B	25	
42s4	1E(17.0)	21.0¢	W	1	
43	2s(9.0);5s(16.5);4s(22.5); 8L(26.5)	34.5¢	W	2548	4:12.0-13.0
43s1	2L(14.0)	27.0¢	B	2	
43s2	3L(14.0)	26.0¢	W	3	
43s3	1s(9.0);4L(13.0)	18.0¢	B	14	
43s4	1E(13.0)	28.0¢	BS	1	
44	2s(9.0);1s(15.0);4s(22.0) 4L(27.0)	48.0¢	W	2144	2:11.0-11.5
44s1	9L(14.5)	18.5¢	W	9	
44s2	5L(14.0)	21.5¢	B	5	
45	1s(10.0);2s(17.0);4s(23.5);3L(28.5)	47.5¢	W	1243	
46	6s(10.5);3s(24.5);6L(30.5)	41.5¢	B	6036	8:12.0-14.0
46s1	--	35.0¢	B:W	0	
46s2	2s(12.0);9L(17.0)	22.0¢	B	29	
46s3	1s(5.0);3s(11.5)	33.5¢	W	130	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
46s4	1s(5.0);5s(12.0);8L(16.0)	19.0¢	B	158	
46s5	2L(18.0)	33.0¢	GG	2	
46s6	4L(18.0)	35.0¢	RL	4	
46s7	2s(12.0)	12.0b	BD	2?	
46s8	1s(5.0);3s(11.5);9L(14.5)	17.0¢	BS	139	
47	8s(17.5);8s(24.5);5L(29.0)	32.5¢	B	885	2:13.0-13.5
47s1	1E(16.0)	36.0¢	W	1	
47s2	4L(15.0)	26.0¢	B	4	
48	1s(11.0);5s(16.5)	51.5¢	BD:W	1500	2:14.0-14.5
48s1	1E(13.5)	23.5¢	W	1	
48s2	6L(14.0)	21.0¢	B	6	
49	1s(11.0);5s(15.5);4s(23.0);1E(29.0)	47.0¢	BD:W	1541	1:11.0
50	1s(10.0);5s(19.5);3s(25.5);6L(31.0)	43.0¢	B	1536	4:14.0-15.0
50s1	1E(15.0)	27.0¢	B	1	
50s2	4L(16.0)	24.0¢	W	4	
50s3	7L(15.0)	25.0¢	B	7	
50s4	4L(15.0)	25.0¢	BS	4	
51	1s(10.0);7s(18.5);1s(24.5)	47.5¢	B	1710	3:14.0-14.5
51s1	1E(13.5)	33.5¢	B	1	
51s2	5L(14.5)	24.5¢	W	5	
51s3	2L(14.0)	26.0¢	B	2	
52	1s(10.0);8s(20.0);3s(26.0)	44.0¢	B	1830	4:14.0-15.0
52s1	1E(12.5)	40.0¢	B	1	
52s2	3L(13.5)	24.5¢	W	3	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
52s3	1s(8.5);4L(12.5)	21.0¢	B	14	
52s4	1E(13.0)	27.0¢	BS	1	
53	1s(10.0);8s(19.0);6s(26.0);5L(29.5)	33.5¢	B	1865	
53s1	3L(15.0)	25.0¢	W	3	
53s2	1s(11.0);2L(15.5)	22.0¢	B	12	
53s3	2L(15.5)	25.5¢	GG	2	
54	1s(10.0);3s(18.0);5s(25.0);8L(30.0)	41.0¢	B	1358	1:14.0
54s1	2L(16.5)	36.5¢	B	2	
55	2s(4.0);9s(13.5);6s(20.0);7L(26.0)	37.5¢	W	2967	6:8.5; 16.0-17.0
55s1	1s(5.0);1s(12.0);7L(18.5)	37.5¢	B	117	
55s2	3s(3.5)	16.5¢	B	30	
55s3	5s(3.5)	21.5¢	W	50	
55s4	1E(8.0)	17.0¢	GG	1	
55s5	2L(8.5)	21.0¢	RL	2	
55s6	4s(3.5);4L(8.5)	19.5¢	BS	44	
56	4s(12.5);5s(20.0);7L(26.0)	38.0¢	W	457	
57	4s(12.5);8s(20.5);7L(26.5)	28.5¢	BD:W	487	3:17.5-18.0
57s1	1E(9.0)	16.5¢	B	1	
57s2	1E(9.0)	19.0¢	W	1	
57s3	1E(9.0)	18.0¢	B	1	
58	2s(12.0);8s(21.0);1E(29.0)	31.0¢	BD:W	281	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
59	6s(12.5);6s(20.0);1E(26.0)	48.0¢	W	661	
60	7s(12.5);3s(20.0);4L(25.5)	41.5¢	W	734	
61	6s(12.5);8s(20.0);6L(26.5)	41.5¢	W	686	
62	5s(12.5);1s(20.0);6L(26.5)	44.5¢	W	516	
63	4s(12.5);4s(19.5);7L(26.0)	40.0¢	W	447	
64	2s(4.0);1s(13.0);8s(24.0);3L(29.5)	37.5¢	B	2183	6:19.0
64s1	2s(5.0);3L(10.0)	17.0¢	B	23	
64s2	3s(4.5)	17.5¢	W	30	
64s3	4s(4.5);5L(9.0)	19.0¢	B	45	
64s4	1E(9.0)	18.0¢	GG	1	
64s5	2L(9.5)	28.5¢	RL	2	
64s6	4s(4.5);3L(8.0)	19.5¢	BS	43	
65	6s(13.5);4s(21.0);4L(28.0)	41.0¢	B	644	
66	9s(14.5);4s(22.0);8L(25.0)	30.0¢	BD:W	948	2:18.5-19.0
66s1	1E(6.5)	13.5¢	B	1	
66s2	1E(6.5)	17.5¢	W	1	
67	4s(15.5);5s(24.5);9L(30.0)	37.0¢	BD:W	459	
68	5s(14.0);7s(23.0);5L(27.5)	39.5¢	B	575	
69	4s(13.5);4s(22.0);1E(27.0)	39.0¢	B	441	
70	4s(14.0);6s(22.5);8L(26.5)	31.5¢	B	468	
71	3s(13.5);6s(23.5)	39.5¢	B	360	
72	--	53.0¢	B	0	
73	6s(4.5);1s(10.5);9s(16.5);7L(22.5)	36.5¢	W	6197	7:6.5-8.0

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
73s1	1s(8.0)	8.0b	B	1?	
73s2	1s(8.0); 7L(14.0)	17.0¢	B	17	
73s3	4s(8.0); 7L(14.0)	32.0¢	W	47	
73s4	1s(4.0); 4s(8.0); 9L(13.0)	26.5¢	BS	149	
73s5	1s(4.0); 7s(9.5); 7L(15.5)	27.5¢	B	177	
73s6	4L(14.0)	25.0¢	RL	4	
73s7	1E(14.0)	27.0¢	GG	1	
74	9s(12.5); 5s(17.5); 1E(25.0)	51.0¢	W	951	1:9.0
74s1	5L(16.0)	26.0¢	B	5	
75	1s(5.5); 5s(12.0); 1s(19.0)	54.0¢	BD:W	1510	5:11.0-12.0
75s1	1E(14.0)	19.0¢	B	1	
75s2	1s(4.0); 5L(13.0)	21.5¢	B	15	
75s3	--	20.0	W	0	
75s4	--	24.0¢	GG	0	
75s5	4L(12.0)	18.0¢	BS	4	
76	1s(6.0); 3s(17.5); 6L(25.5)	49.5¢	BD:W	1036	2:10.0, 18.0
76s1	6L(13.5)	21.0¢	B	6	
76s2	1E(6.5)	12.5¢	B	1	
77	1s(5.0); 1s(10.0); 4s(15.5); 6L(23.0)	42.0¢	W	1146	2:9.0-9.5
77s1	1E(13.0)	18.0¢	B	1	
77s2	2L(13.0)	27.0¢	B	2	

Cord	Knot (no., type, position)	Length,	Color	Value	Subsidiaries (no., position)
78	1s(5.0);5s(11.0);9s(18.0)	38.0¢	W	1590	3:9.0-9.5
78s1	1E(14.5)	16.5¢	B	1	
78s2	5L(15.0)	28.5¢	B	5	
78s3	1E(15.0)	35.0¢	BS	1	
79	1s(5.5);6s(11.0);1s(16.5);5L(24.5)	32.0¢	W	1615	3:8.5-9.0
79s1	1E(14.0)	18.0¢	B	1	
79s2	1E(13.0)	23.0¢	W	1	
79s3	5L(14.0)	25.0¢	B	5	
80	9s(11.5);6s(18.0)	44.0¢	W	960	2:9.0-9.5
80s1	2L(13.0)	24.0¢	W	2	
80s2	8L(12.5)	19.5¢	B	8	
81	8s(11.0);5s(18.0);5L(24.0)	36.0¢	W	855	2:8.0-8.5
81s1	2L(13.5)	20.5¢	W	2	
81s2	2L(13.5)	16.5¢	B	2	
82	3s(4.0);8s(11.0);4s(16.0);8L(22.5)	36.5¢	B	3848	6:7.0-8.0
82s1	1s(9.0);8L(16.5)	25.5¢	B	18	
82s2	4s(8.5);4L(16.0)	28.0¢	W	44	
82s3	1s(3.0);3s(8.5);7L(15.5)	20.5¢	B	137	
82s4	5L(15.0)	23.0¢	RL	5	
82s5	2L(15.0)	26.0¢	GG	2	
82s6	9s(9.0)	31.0¢	BS	90	
83	1s(5.5);8s(11.5);5s(14.5);6L(20.0)	32.0¢	B	1856	4:16.0-17.0

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
83s1	1E(8.5)	20.5¢	B:W	1	
83s2	2s(3.0);7L(8.0)	24.0¢	GG	27	
83s3	7L(7.5)	11.5¢	B	7	
83s4	2L(7.0)	20.0¢	B	2	
84	2s(5.5);5s(12.0);7s(18.5);8L(28.0)	34.5¢	BD:W	2578	2:13.0, 15.0
84s1	1s(5.5);3L(11.0)	19.0¢	B	13	
84s2	1E(8.5)	18.5¢	GG	1	
85	8s(19.5);9L(26.0)	47.0¢	BD:W	89	
86	9s(11.5);7s(18.5);4L(24.0)	33.0¢	B	974	2:14.5-15.0
86s1	1E(8.5)	24.5¢	BD:W	1	
86s2	1E(8.5)	17.5	B	1	
87	1s(6.0);1s(12.5);4s(21.5);6L(25.5)	49.5¢	B	1146	2:16.5-17.0
87s1	6L(8.0)	17.0¢	B	6	
87s2	3L(7.5)	19.5¢	BD:W	3	
88	1s(6.0);9s(22.0);5L(29.0)	41.5¢	B	1095	4:18.0-19.0
88s1	1E(7.0)	19.0¢	B	1	
88s2	1E(7.0)	24.0¢	W	1	
88s3	9L(9.0)	15.5¢	B	9	
88s4	1E(7.0)	17.0¢	GG	1	
89	8s(13.0);4s(19.5);9L(28.0)	39.0¢	B	849	1:17.5
89s1	2L(9.5)	13.5¢	B	2	
90	7s(13.0);9s(20.0)	42.0¢	B	790	2:16.5-17.0

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
90s1	1E(11.5)	24.5¢	W	1	
90s2	1E(9.0)	11.0¢	B	1	
91	6s(2.5); 4s(9.5); 8s(15.5); 5L(21.5)	36.5	W	6485	7:7.5
91s1	9s(9.0); 4L(17.0)	32.0¢	RL:GG	94	
91s2	7s(9.5); 1E(17.5)	21.5¢	B	71	
91s3	6s(9.5); 2L(13.5)	21.5¢	W	62	
91s4	1s(3.0); 6s(10.0); 8L(15.0)	16.0¢	B	168	
91s5	8L(17.0)	24.0¢	B	8	
91s6	1E(15.0)	19.0¢	GG	1	
91s7	2s(3.0); 1s(8.0); 2L(14.5)	22.5	BS	212	
92	8s(11.5); 7s(16.0); 5L(23.5)	34.5¢	W	875	4:13.5-14.5
92s1	2L(12.0)	30.0¢	B:W	2	
92s2	1E(11.0)	17.0	B	1	
92s3	5L(11.5)	24.5	B	5	
92s4	1s(3.5); 8L(11.5)	17.5	BS	18	
93	1s(3.5); 3s(14.0); 4s(22.5); 8L(31.5)	42.5¢	BD:W	1348	6:17.0-18.5
93s1	1E(9.0)	17.0¢	B:W	1	
93s2	6L(9.5)	13.0¢	B	6	
93s3	2L(9.5)	20.5¢	W	2	
93s4	4L(10.0)	24.0¢	B	4	
93s5	1E(9.5)	14.5¢	GG	1	
93s6	5L(10.0)	22.0¢	BS	5	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
94	7s(11.5); 5s(19.5); 4L(27.5)	40.5¢	BD:W	754	1:15.5
95	1s(3.0); 7s(19.5); 4L(26.5)	41.5¢	W	1074	4:14.0-15.0
95s1	1E(10.0)	14.0¢	B	1	
95s2	1E(11.0)	19.0¢	W	1	
95s3	4L(10.5)	13.5¢	B	4	
95s4	1s(4.0); 7L(10.0)	22.0¢	BS	17	
96	1s(2.5); 3s(12.5); 1E(25.0)	49.0¢	W	1301	3:14.0-14.5
96s1	1s(4.0); 1E(10.0)	18.5b	B	11*	
96s2	1E(10.0)	13.0¢	GG	1	
96s3	1s(4.0); 4L(11.0)	28.0¢	BS	14	
97	1s(3.0); 5s(12.5); 7L(26.0)	46.0¢	W	1507	4:14.0-15.0
97s1	1E(10.0)	19.0¢	B	1	
97s2	5L(10.0)	17.0¢	W	5	
97s3	2L(11.0)	18.5¢	B	2	
97s4	1s(4.0); 3L(11.0)	24.0¢	B	13	
98	1s(2.5); 1s(11.5); 9s(19.0); 1E(25.5)	46.5¢	W	1191	4:13.0-14.0
98s1	1E(10.0)	19.0¢	B	1	
98s2	2L(12.0)	23.0¢	W	2	
98s3	1s(5.0)	25.0¢	B	10	
98s4	1E(11.0)	22.0¢	BS	1	
99	9s(12.5); 7s(20.5); 2L(26.5)	38.5¢	W	972	1:15.0
99s1	1E(11.0)	25.0¢	B	1	
100	4s(4.5); 1s(11.0); 3s(19.0)	57.0¢	B	4130	3:4.5-5.0; 5:13.5-14.0 1:15.5

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
100s1	—	2.0b	B	?	
100s2	1s(3.5)	3.5b	B	1?	
100s3	1s(3.5);3L(19.5)	24.5¢	BS	13	
100s4	1s(6.0);5L(11.0)	17.5¢	RL:GG	15	
100s5	3s(4.5)	15.5¢	B	30	
100s6	8s(4.5);8L(11.5)	28.5¢	W	88	
100s7	1E(11.0)	14.0¢	GG	1	
100s8	7L(11.5)	26.5¢	B	7	
100s9	1E(12.0)	23.0¢	W	1	
101	9s(11.5);3s(19.0);2L(26.0)	48.0¢	B	932	5:14.5-15.5
101s1	1E(11.0)	18.0¢	B:W	1	
101s2	3L(10.0)	15.0¢	B	3	
101s3	1E(10.5)	20.0¢	W	1	
101s4	3L(9.5)	22.5¢	B	3	
101s5	9L(10.0)	18.0¢	B	9	
102	1s(6.0);1s(13.0);8s(21.0);7L(29.5)	44.5¢	BD:W	1187	4:16.5-17.5
102s1	2L(11.5)	16.5¢	B	2	
102s2	1E(10.5)	18.5¢	W	1	
102s3	8L(11.0)	19.5¢	B	8	
102s4	2s(4.0)	24.0¢	BS	20	
103	1s(6.0);4s(12.5);4s(20.5);6L(28.5)	48.0¢	BD:W	1446	2:16.5-17.0
103s1	2L(11.0)	19.0¢	B	2	
103s2	6L(10.5)	22.5¢	BS	6	

Cord	Knot (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
104	8s(11.5);4s(19.5)	54.5¢	B	840	2:15.5-16.0
104s1	5L(11.0)	23.0¢	B	5	
104s2	5L(11.5)	22.5¢	BS	5	
105	9s(11.0);9s(15.5)	39.5¢	B	990	
105s1	1E(11.0)	19.0¢	B	1	
105s2	5L(12.0)	22.0¢	B	5	
105s3	1s(6.0);2L(12.0)	24.0¢	BS	12	
106	1s(4.5);4s(19.5);4L(26.5)	63.5¢	B	1044	
106s1	1E(9.5)	18.0¢	B	1	
106s2	2L(11.5)	20.5¢	W	2	
106s3	5L(10.0)	17.0¢	B	5	
106s4	4L(10.5)	20.5¢	BS	4	
107	1s(4.0);7s(19.0);9L(25.0)	29.0¢	B	1079	3:15.0-15.5
107s1	2L(11.0)	27.0¢	W	2	
107s2	6L(10.5)	24.0¢	B	6	
107s3	6L(10.5)	14.0¢	BS	6	
108	1s(4.0);1s(18.5);6L(26.0)	42.5¢	B	1016	

Observations

- *1. The quipu was repaired and sewn to a cloth backing in 1974 by Company Estela. Since the pendant fragments that were added to broken pendants on the main cord are not part of the original construction, we have considered the fragments as broken and then listed the fragments separately. Several other fragments associated with the quipu are also listed. Our subsequent analysis lead to conclusions about the probable placement of these fragments.

Fragments

Fragment	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	8s(.5); 1E(6.5) current position: attached to pendant 12; probable position: unknown	20.0b	B	?81	
2	2s(7.0); 7s(24.0); 1E(31.0)	50.0ç	BD:W	2071	2:11.0-11.5
2s1	1s(10.5); 3L(19.0)	28.0ç	B	13	
2s2	1s(10.5); 3L(18.5) current position: between pendants 18 and 19; probable position: pendant 22	21.0ç	BS	13	
3	3s(7.0); 3s(15.5); 4s(27.5); 5L(36.5)	50.5ç	BD:W	3345	5:12.0-13.0
3s1	8L(18.0)	22.5ç	B	8	
3s2	5L(17.5)	22.0ç	W	5	
3s3	4s(11.0); 1E(17.5)	23.5ç	B	41	
3s4	2L(18.0)	27.0ç	GG	2	
3s5	1s(12.0) current position: between pendants 49 and 50; probable position: pendant 21	25.0ç	BS	10	
4	9s(7.5); 3L(13.5) current position: attached to pendant 96 subsidiary 1; probable position: unknown	20.0ç	B	?93	

Fragment	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
5	2L(8.5)	20.5c	B:W	?2	
	current position: unattached;	probable position: unknown			
6	3s(3.5); 5s(10.5); 5s(21.5)	40.5b	B:BD	355?	
	current position: unattached;	probable position: pendant 4			
7	2s(5.0); 1s(13.0); 3L(21.0)	41.0b	B	?213	
	current position: unattached;	probable position: pendant 12			
8	4s(7.0); 9s(17.0); 9L(25.0)	25.5b	B:BD	?499	
	current position: unattached;	probable position: pendant 3			
9	6L(6.0)	8.0c	B:BD	?6	
	current position: unattached;	probable position: end of fragment 6 (pendant 4)			

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2. The Museum designates the quipu as part of the Collection Museo Historia 1928.
3. By spacing, there are 6 groups of 18 pendants each. Within each group, the same basic color pattern is repeated: 2W, 2 mixed, 5W, 2B, 2 mixed, 5B. For group 1, the mixed colors are B:BD for the first pair and B for the next pair. In groups 2-6, the mixed colors are BD:W for all pairs.
4. a) There are no subsidiaries on the pendants in group 1. Group 4 has subsidiaries only on pendants in positions 1,3,10 and 12. Groups 2-5 have 0-6 subsidiaries in positions 2-9 and 11-18 but 6-9 subsidiaries in positions 1 and 10.
- b) By color, there are 11 subsidiary categories. None of the pendants have all of them. In general, they appear in the same color order even though there are only some of the colors present. (The order is: RL:GG, B:W, B, BD:W, W, B, W, GG, RL, BD, BS.) BD:W appears only on positions 14 and 15 in group 5 and RL:GG, RL and BD appear only on positions 1 and 10.

5. Each group of 18 pendants can be considered as 2 subgroups of 9 consecutive pendants each since (i) the basic color pattern of the pendants and presence or absence of subsidiaries in positions 1-9 is repeated for positions 10-18, and (ii) the order of magnitude of the values of pendants 1 and 10 and their subsidiaries is larger than the others.

6. Groups 1 and 2 are sumgroups of groups 3-6.

(a) For the first 12 positions, values in group 2 are the sums of values in the corresponding positions in groups 4,5,6. Then for one position, one value is not included and so the next 5 sums involve values in 2 corresponding positions and one neighboring position. That is:

$$P_{2i} = P_{4i} + P_{5i} + P_{6i} \quad i=1,2,\dots,12$$

$$P_{2,13} = P_{5,13} + P_{6,13}$$

$$P_{2,i} = P_{4,i-1} + P_{5i} + P_{6i} \quad i=14,\dots,18$$

(b) Values in group 1 are the sums of values in corresponding positions in groups 2 and 3:

$$P_{1i} = P_{2i} + P_{3i} \quad i=1,\dots,18$$

Since group 2 sums groups 4,5,6, these could alternately be interpreted as the sums of values in groups 3,4,5,6.

(c) Subsidiaries on pendants in group 2 sum the subsidiaries, color by color, on the corresponding pendants in groups 3,4,5,6. Subsidiaries with color RL:GG, B:W, and BD:W are not summed. Thus,

$$P_{2,i \text{ sub } j} = P_{3,i \text{ sub } j} + P_{4,i \text{ sub } j} + P_{5,i \text{ sub } j} + P_{6,i \text{ sub } j}$$

$$i=1,\dots,18$$

$$j=B,W,B,W,GG,RL,BD,BS$$

(d) It is interesting to observe that the pendants in group 1 have the sums of

pendant values in groups 3-6, while it is in group 2 that the subsidiaries have the sums of the subsidiary values in groups 3-6. Also, when describing the pendant value sums, the values in group 4 were offset for positions 14-18. Since there are no subsidiaries on these pendants, we can reach no conclusion as to whether offsetting was necessary in the representation of the subsidiary sums also.

7. There are some discrepancies in the summations described in observation 6.
 - (a) Whether due to our difficulty in counting knots and assigning colors since the quipu was sewn to a cloth, or due to quipu maker inaccuracies, there are a number of sums off by 1 in 1 digit. The 36 pendant sums involved about 500 individual digits so 7 single digit discrepancies are not considered significant. Similarly, there are about 256 subsidiaries with 500 digits involved in the 70 or so subsidiary sums. Fourteen discrepancies of differences of 1 in single digits or misassociated colors is, again, more than usual but not significant.
 - (b) The discrepancies in the summations that are noteworthy occur in positions 1 and 10. They are important because they corroborate that these positions are analogous (i.e., the first pendant in each of the subgroups constituting a group) and anomalous (i.e., different in order of magnitude and number of subsidiaries). The sums on pendants 1 in groups 1 and 2 are off by 3 in 27,000 and 15,000 respectively, while the sums on pendants 10 in groups 1 and 2 are off by more, but are still less than 4% off. The sums on 6 of the 8 subsidiaries on pendant 1 in group 2 are exact but 2 are not and on pendant 10 in group 2, the same 2 colors (and 1 more) are inexact while 5 of the 8 are exact. Hence, these positions are still viewed as conforming to the general summation pattern although they represent something else as well.