

QUIPU AS50

Owner identification: #1 (owner Ana María Soldi, Lima, Peru)

Main cord: color unrecorded

- \$ 5.5 cm: group of 19 pendant cords (1-19), then space of 4.0 cm.
- 12.5 cm: group of 20 pendant cords (20-39), then space of 0.5 cm.
- 16.0 cm: group of 20 pendant cords (40-59), then space of 10.0 cm.
- 30.0 cm: group of 18 pendant cords (60-77), then space of 0.5 cm.
- 33.5 cm: group of 18 pendant cords (78-95), then space of 0.5 cm.
- 37.5 cm: group of 18 pendant cords (96-113), then space of 0.5 cm.
- 41.0 cm: group of 18 pendant cords (114-131), then space of 0.5 cm.
- 45.0 cm: group of 18 pendant cords (132-149), then space of 0.5 cm.
- 48.5 cm: group of 19 pendant cords (150-168), then space of 0.5 cm.
- 52.0 cm: group of 18 pendant cords (169-186), then space of 5.5 cm.
- 61.0 cm: group of 18 pendant cords (187-204), then space of 1.0 cm.
- 65.0 cm: group of 18 pendant cords (205-222), then space of 1.0 cm.
- 69.0 cm: group of 18 pendant cords (223-240), then space of 1.0 cm.
- 73.0 cm: group of 18 pendant cords (241-258), then space of 0.5 cm.
- 77.0 cm: group of 18 pendant cords (259-276), then space of 0.5 cm.
- 80.5 cm: group of 19 pendant cords (277-295), then space of 0.5 cm.
- 84.5 cm: group of 18 pendant cords (296-313), then space of 6.0 cm.
- 93.5 cm: b

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	--	9.0b	B-BD	?	
2	1s(2.5); 3s(8.5); 4s(13.5); 6L(19.5)	25.5b	B-W	1346	
3	1s(3.5); 8s(9.0); 5s(13.5); 1E(20.5)	24.5¢	B:W	1851	2:1.5, 6.0
3s1	6L(15.5)	27.5¢	B	6	
3s2	1s(3.0); 6s(7.0); 4L(10.0)	15.0¢	BD	164	
4	--	41.0¢	BY	0	
5	9s(14.0)	51.0b	B-GY	90	
6	2L(18.0)	42.0¢	B	2	
7	2s(13.5); 4L(18.0)	26.5b	B	24	
8	--	5.0b	BG	?	1:1.0
8s1	3s(11.5)	23.5¢	B	30	
9	8s(8.5); 7s(14.0); 9L(19.5)	23.5¢	GY	879	2:1.5
9s1	--	5.0b	B	?	
9s2	2L(16.0)	22.5¢	B	2	
10	9s(13.5); 7L(18.0)	29.0¢	B	97	1:1.0
10s1	--	3.5b	B	?	
11	--	0.5b	W	?	
12	--	0.5b	W	?	
13	6s(14.0); 2L(18.5)	33.5¢	BD	62	1:1.5
13s1	--	36.0¢	B	0	
14	--	40.0¢	BD	0	2:2.0
14s1	1s(6.5); 1E(18.0)	29.0b	B	101	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
14s2	1s(11.0)	30.0c	DB	10	
15	--	0.5b	W	?	
16	--	7.5b	BD-W	?	1:2.0
16s1	--	5.0b	B	?	
17	1s(8.5); 5s(13.5); 5L(18.0)	24.0b	B	155	1:2.5
17s1	1s(5.5); 4s(12.0); 2L(17.5)	25.5b	B	142	
18	4s(14.5); 5L(19.0)	30.0c	B	45	1:1.0
18s1	1s(13.0)	30.0b	BD	10	
19	3s(3.5); 6s(10.5); 5s(16.5); 4L(21.0)	24.5c	BD:W	3654	1:1.0
19s1	1s(2.0); 7s(8.0); 6s(14.0); 6L(22.0)	33.0c	B	1766	
20	--	0.5b	B-BD	?	
21	6s(8.5); 2s(13.5); 7L(18.0)	26.0b	B-W	627	
22	9s(9.0); 7s(14.0); 1E(18.0)	26.0c	B:W	971	
23	--	27.0b	BY	0	
24	--	25.0b	B-GY	0	
25	1E(16.0)	29.0b	B	1	
26	1s(12.0); 3L(18.0)	25.0b	B	13	
27	3s(12.5)	26.5b	BG	30	1:1.5
27s1	1s(10.5)	26.0b	B	10	
28	4s(8.0); 2s(13.5); 2L(20.0)	31.0b	GY	422	

Cord	Knots (no., type, position)	Length	Color	Value (no., position)	Subsidiaries
29	--	32.0b	B	0	
30	5s(13.5); 5L(19.5); 1E(27.5)	30.0c	B	55+1	
31	--	6.0b	W	?	
32	--	5.0b	W	?	
33	2s(13.0); 7L(18.5)	29.5b	BD	27	1:1.0
33s1	4L(17.0)	25.0b	B	4	
34	--	32.5b	BD	0	1:1.5
34s1	3s(11.5); 9L(17.5)	20.5c	B	39	
35	--	9.0b	W	?	
36	1s(13.0)	29.0b	BD-W	10	1:2.0
36s1	3s(11.5); 2L(17.5)	25.5b	B	32	
37	9s(14.5); 2L(22.0)	32.0b	B	92	1:1.0
37s1	--	11.0b	B	?	
38	3s(13.5)	13.5b	B	?	1:1.5
38s1	--	14.0b	BD	?	
39	1s(3.0); 8s(15.0); 7L(22.5)	28.0c	BD:W	1087	1:1.5
39s1	1s(1.5); 5s(7.5)	11.5b	B	15??	
40	--	13.0b	B-BD	?	
41	7s(8.5)	10.5b	B-W	7??	
42	8s(7.0); 5s(13.0)	13.0b	B:W	8??	1:2.0
42s1	--	10.0b	B	?	

Cord	Knots (no., type, position)	Length	Color	Value (no., position)	Subsidiaries
43	--	12.0b	BY	?	
44	--	23.0b	B-GY	0	
45	1E(21.0)	26.0b	B	1	
46	1s(13.0)	14.0b	B	1?	
47	4s(12.0)	12.5b	BG	4?	1:1.0
47s1	2s(11.0)	26.0b	B	20	
48	4s(7.0)	13.0b	GY	4??	1:1.5
48s1	--	10.0b	B	?	
49	--	25.0b	B	0	
50	4s(12.5)	13.0b	B	4?	
51	--	11.0b	W	?	
52	--	9.0b	W	?	
53	3s(12.0)	12.0b	BD	?	1:1.0
53s1	--	12.0b	B	?	
54	--	27.0b	BD	0	1:1.0
54s1	5s(11.0)	11.0b	B	?	
55	--	13.0b	BD-W	?	
56	--	10.0b	W	?	
57	--	11.5b	B:W	?	1:1.5
57s1	7s(11.0)	11.5b	B	7?	
58	1s(12.0)	12.5b	B	1?	1:1.5
58s1	5L(20.0)	26.0c	BD	5	
59	2s(2.5); 6s(8.5); 6s(13.5); 7L(21.0)	32.0b	BD:W	2667	1:1.5

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
59s1	3s(7.5); 3s(12.0)	12.0b	B	3??	
60	--	7.0b	B-BD	?	
61	--	17.0b	B-W	?	
62	--	21.0b	B:W	?	
63	--	20.0b	BY	?	
64	--	17.5b	B	?	
65	--	20.0b	B	?	
66	4s(13.5)	19.5b	GY	4?	
67	--	6.0b	GY	?	
68	--	7.0b	B	?	
69	--	11.0b	B	?	
70	--	4.5b	W	?	
71	--	5.0b	W	?	
72	--	11.0b	BD	?	
73	--	9.0b	BD	?	
74	--	8.0b	BD-W	?	
75	--	6.0b	BD:W	?	
76	--	19.0b	BD	?	
77	1s(3.5)	20.5b	BD:W	100?	
78	--	19.0b	B-BD	?	
79	1s(6.0)	17.0b	B-W	10?	
80	2s(7.0); 3s(13.0); 2L(20.5)	20.5b	B:W	23?	
81	--	18.0b	BY	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
82	--	19.0b	B	?	
83	1s(11.5); 2L(19.5)	41.5c	B	12	
84	--	18.0b	GY	?	
85	5s(13.0)	19.5b	GY	5?	
86	--	20.0b	B	?	
87	--	19.0b	B	?	
88	--	13.0b	W	?	
89	--	13.0b	W	?	
90	1E(21.0)	25.0b	BD	1	
91	--	25.0b	BD	0	1:0.5
91s1	6L(21.0)	24.0b	BD	6	
92	--	44.0c	BD-W	0	1:05
92s1	(6L(20.0)	28.0b	B	6	
93	2s(13.0); 4L(20.0)	33.0b	B	24	1:0.5
93s1	2s(11.5)	21.0b	B:GY	2?	
94	--	26.0b	BD	0	
95	1s(7.0); 1s(13.0); 3L(20.0)	29.0b	BD:W	113	
96	--	25.0b	B-BD	0	
97	1s(7.0)	23.0b	B-W	100	
98	2s(7.5); 4s(14.0)	48.0c	B:W	240	
99	--	25.0b	BY	0	
100	--	29.0b	B	0	
101	--	25.0b	B	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
102	--	24.5b	BG	0	
103	2s(13.0)	26.0b	GY	20	
104	--	48.0c	B	0	
105	5L(19.5)	29.5b	B	5	
106	--	11.5b	W	?	
107	6L(19.5)	23.5b	W	6	
108	--	29.0b	BD	0	
109	2L(21.0)	28.0b	BD	2	1:1.0
109s1	1s(12.5)	41.5c	BD	10	
110	--	44.0c	BD-W	0	1:0.5
110s1	5L(19.5)	28.5b	B	5	
111	2s(13.0); 5L(19.5)	30.5b	B	25	
112	--	48.0c	BD	0	
113	1s(8.0); 1s(13.5); 3L(20.0)	52.0c	BD:W	113	
114	--	42.0c	B-BD	0	
115	8s(14.0)	17.0b	B-W	8?	
116	2s(8.0); 3s(13.5); 1E(19.5)	58.5c	B:W	231	
117	--	8.5b	BY	?	
118	--	8.5b	B	?	
119	--	9.0b	B	?	
120	--	8.0b	BG	?	
121	--	10.0b	GY	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
122	--	9.0b	B	?	
123	--	7.0b	B	?	
124	--	8.0b	W	?	
125	--	8.0b	W	?	
126	--	11.5b	BD	?	
127	--	11.0b	BD	?	1:0.5
127s1	--	11.0b	BD	?	
128	--	9.0b	BD-W	?	1:0.5
128s1	--	10.0b	B	?	
129	--	8.0b	B	?	
130	--	8.0b	BD	?	
131	1s(7.0)	9.0b	BD:W	1??	
132	--	0.5b	B-BD	?	
133	7s(13.0)	13.5b	B-W	7?	
134	1s(8.0); 5s(13.5); 2L(19.5)	21.5b	B:W	152	
135	--	7.0b	BY	?	
136	--	15.0b	B	?	
137	--	7.0b	B	?	
138	--	7.5b	BG	?	
139	1s(8.0); 9L(19.0)	22.0b	GY	109	
140	--	3.0b	B	?	
141	2L(20.0)	20.5b	B	2	
142	--	13.0b	W	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
143	--	14.0b	W	?	
144	--	0.0b	?	?	
145	5L(21.0)	27.0b	BD	5	1:10.0
145s1	2L(10.0)	12.0b	BD	2	
146	--	21.0b	BD-W	?	1:0.5
146s1	5L(19.0)	24.0b	B	5	
147	4L(19.0)	21.0b	B	4	
147s1	2s(14.0); 3L(19.5)	23.5b	B:GY	23	
148	--	23.0b	BD	0	
149	--	0.5b	BD:W	?	
150	--	26.0b	B-BD	0	
151	1s(7.0); 4s(15.0); 1E(20.0)	22.0b	B-W	141	
152	--	23.0b	B:W	0	
153	--	21.0b	BY	?	
154	--	22.0b	B	0	
155	--	23.0b	B	0	
156	6s(13.5)	15.5b	W	6?	
157	--	19.0b	BG	?	
158	1s(6.0); 5s(14.0); 4L(20.5)	23.5b	GY	154	
159	--	23.0b	B	0	
160	2s(13.0); 9L(19.5)	23.5b	B	29	
161	3s(13.0)	13.5b	W	3?	
162	1s(12.5); 7L(19.5)	23.5b	W	17	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
163	1s(13.0); 2L(20.0)	30.0b	BD	12	
164	--	32.0c	BD	0	
165	1s(13.0)	25.0b	BD-W	10	1:0.5
165s1	2L(20.0)	29.0b	B	2	
166	1s(13.0); 3L(20.0)	25.5	B	13	
167	--	47.0b	BD	0	
168	6s(7.5); 1s(13.5); 8L(20.0)	32.0b	BD:W	618	
169	--	45.0c	B-BD	0	
170	2s(13.0); 2L(20.0)	37.0c	B-W	22	
171	1s(7.0); 1s(13.5)	18.5b	B:W	11?	
172	--	43.0c	BY	0	
173	--	27.0b	B	0	
174	--	30.0b	B	0	
175	--	25.0b	BG	0	
176	5s(13.0); 7L(19.5)	27.5c	GY	57	
177	--	45.0b	B	0	
178	1s(13.0); 4L(19.5)	37.5c	B	14	
179	--	13.0b	W	?	
180	--	15.0b	W	?	
181	--	52.0c	BD	0	
182	2L(20.0)	28.0c	BD	2	
183	--	30.0b	BD-W	0	1:0.5
183s1	3L(20.0)	27.5b	B	3	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
184	5L(21.0)	28.5b	B	5	
185	--	17.5b	BD	?	
186	3s(14.5)	55.5c	BD:W	30	
187	--	24.0b	B-BD	0	
188	--	58.0b	B-W	0	
189	--	26.0b	B:W	0	
190	--	26.0b	BY	0	
191	--	25.0b	B	0	
192	--	26.0b	B	0	
193	6s(14.0)	23.0b	BG	6?	
194	--	22.0b	GY	0	
195	--	22.0b	B	0	
196	--	22.0b	B	0	
197	--	15.0b	W	?	
198	--	16.0b	W	?	
199	--	42.0b	BD	0	
200	1s(14.5)	28.5b	BD	10	
201	5L(21.0)	23.0b	BD-W	5	
202	3s(14.0)	23.0b	B	30	
203	--	22.0b	BD	0	
204	1s(3.0)	27.0b	BD:W	1000	
205	5L(22.5)	27.5b	B-BD	5	
206	1s(9.0); 4L(21.0)	40.0c	B-W	104	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
207	2s(9.0); 3L(22.5)	29.0b	B:W	203	
208	--	41.0c	BY	0	
209	1E(22.5)	41.5c	B	1	
210	1s(15.0); 1E(22.0)	45.0c	B	11	
211	--	73.0c	BG	0	
212	1s(14.0); 5L(21.0)	28.5	GY	15	1:0.5
212s1	1s(14.5)	14.5b	B:GY	?	
213	--	37.0c	B	0	
214	--	47.0c	B	0	
215	--	10.5b	W	?	
216	--	10.5b	W	?	
217	--	43.0c	BD	0	
218	1s(15.0)	28.5c	BD	10	1:0.5
218s1	2L(22.0)	45.0c	BD	2	
219	--	11.0b	BD-W	?	1:1.0
219s1	--	11.0b	B	?	
220	2s(14.0)	17.5b	B	2?	
221	--	14.0b	BD	?	
222	3s(10.5); 1s(17.0)	67.0c	BD:W	310	
223	--	12.0b	B-BD	?	
224	1s(11.5)	11.5b	B-W	1?	
225	2s(10.0)	12.0b	B:W	2?	
226	--	12.0b	BY	?	
227	-	11.5b	B	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
228	--	12.5b	B	?	
229	--	13.0b	BG	?	
230	1s(11.0)	12.0b	GY	1?	
231	--	13.0b	B	?	
232	--	13.0b	B	?	
233	--	11.0b	W	?	
234	--	12.0b	W	?	
235	--	50.0¢	BD	0	
236	--	21.0b	BD	?	1:0.5
236s1	1s(17.0)	20.0b	BD	1?	
237	--	12.0b	BD-W	?	1:2.0
237s1	--	14.0b	B	?	
238	--	14.0b	B	?	
239	--	15.0b	BD	?	
240	1s(11.0)	11.0b	BD:W	?	
241	--	17.0b	B-BD	?	
242	1s(10.0)	18.0b	B-W	10?	
243	2s(10.5)	14.5b	B:W	2??	
244	--	23.0b	BY	?	
245	--	18.5b	B	?	
246	--	21.5b	B	?	
247	--	13.0b	BG	?	
248	1s(16.5)	20.5b	GY	1?	1:0.5
248s1	1s(16.0)	21.0b	GY	1?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
249	--	21.0b	B	?	
250	--	16.0b	B	?	
251	--	14.0b	W	?	
252	--	17.0b	W	?	
253	--	45.0c	BD	0	
254	1s(18.0); 1E(24.0)	46.0c	BD	11	1:0.5
254s1	1s(17.0)	25.0b	BD	10	
255	--	17.5b	B-W	?	1:1.5
255s1	--	19.0b	B	?	
256	1s(18.5)	19.5b	B	1?	1:0.5
256s1	5L(23.0)	25.0b	B:GY	5	
257	--	26.0b	BD	0	
258	7s(12.0)	27.0b	BD:W	700	
259	--	27.0b	B-BD	0	
260	8s(18.0)	24.0b	B-W	8?	
261	2s(11.0); 1s(18.0)	24.0b	B:W	21?	
262	--	23.0b	BY	?	
263	--	24.0b	B	?	
264	--	25.0b	B	0	
265	--	23.0b	BG	?	
266	1s(11.0)	17.0b	GY	?	
267	--	22.5b	B	?	
268	3L(24.0)	26.0b	B	3	
269	--	14.0b	W	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
270	--	14.0b	W	?	
271	--	47.0c	BD	0	
272	6L(24.5)	28.5b	BD	6	1:0.5
272s1	6L(22.0)	35.0c	BD	6	
273	--	30.0b	BD-W	0	1:0.5
273s1	6L(22.0)	27.0b	B	6	
274	1s(16.0)	22.0b	B	1?	1:0.5
274s1	4L(22.0)	31.0b	B:GY	4	
275	--	42.0c	BD	0	
276	1s(10.0); 4s(17.0); 2L(24.0)	38.0b	BD:W	142	
277	--	43.0c	B-BD	0	
278	1s(10.0)	14.0b	B-W	1??	
279	1s(17.0)	23.0b	B:W	1?	
280	--	19.0b	BY	?	
281	--	15.0b	B	?	
282	--	16.0b	B	?	
283	--	13.0b	W	?	
284	--	15.0b	BG	?	
285	1s(10.0)	14.0b	GY	1??	
286	--	48.0c	B	0	
287	2s(16.0); 7L(23.5)	31.5b	B	27	
288	--	13.0b	W	?	
289	--	13.5b	W	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
290	--	44.0c	BD	0	
291	1s(16.0); 4L(23.0)	24.5b	BD	14	
292	--	14.0b	BD-W	?	1:0.5
292s1	--	17.0b	B	?	
293	--	23.0b	B	?	1:0.5
293s1	1s(15.5); 4L(24.0)	25.5b	B:GY	14	
294	--	23.0b	BD	?	
295	1s(5.5); 5s(17.5)	27.5b	BD:W	1050	
296	--	26.0b	B-BD	0	
297	1s(11.0); 9s(18.0)	20.0b	B-W	19?	
298	3s(16.5); 2L(24.5)	25.5b	B:W	32	
299	--	42.0c	BY	0	
300	--	23.0b	B	?	
301	--	23.0b	B	?	
302	--	20.0b	BG	?	
303	6s(16.5)	19.5b	GY	6?	
304	--	24.5b	B	?	
305	4L(24.0)	25.0b	B	4	
306	--	18.0b	W	?	
307	--	17.0b	W	?	
308	--	46.0c	BD	0	
309	--	52.0c	BD	0	1:0.5
309s1	1s(15.5)	24.5b	BD	1?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
310	--	23.0b	BD-W	?	1:0.5
310s1	7L(23.5)	24.0b	B	7	
311	--	23.0b	BD	?	1:0.5
311s1	1s(15.0); 7L(23.0)	23.5b	B:GY	17	
312	--	27.0b	BD	0	
313	7s(17.0); 5L(23.0)	26.0b	BD:W	75	

Observations

1. By spacing and color patterning, the quipu is separated into 3 parts: part 1 is 3 groups, and parts 2 and 3 are 7 groups each.
 - a) Part 1: Assuming that position 10 in group 1 is non-existent, this part consists of 3 groups of 20 pendants each. The color pattern is the same for all 3 groups (with the exception of position 17 in group 3). In all 3 groups, subsidiaries appear only in positions 3,8,9,11,14,15,16,18,19,20.
 - b) Parts 2 and 3:
 - (i) Each part is basically 7 groups of 18 pendants. The exceptions of 2 groups with 19 pendants are systematic. The 6th group in each part has an additional W pendant between positions 7 and 8.
 - (ii) Each group in parts 2 and 3 has the same color pattern (with the exception of position 8 in groups 4 and 5 and position 18 in group 4). The color pattern is the same as in part 1 with the systematic difference that positions 5 and 8 of the part 1 pattern do not exist. Thus, there are 18 pendants in each group in parts 2 and 3 as compared to 20 pendants in each

group in part 1. Also, while the color in position 19 of the groups in part 1 are B, in parts 2 and 3, the comparable position is BD.

(iii) Subsidiaries on pendants in parts 2 and 3 are on a subset of the positions they are on in part 1. Namely, subsidiaries are only on positions comparable to positions 9,15,16,18,20 of part 1.

2. Many values are uncertain due to breakage. However, we hypothesize that, position by position, values in group 1 of part 1 are related to the sums of values in groups 2 and 3 while values in groups 2 and 3 are related to sums of values in parts 2 and 3 respectively.