

QUIPU AS128

Museum identification: No. VA63042B (Museum Für Völkerkunde, Berlin)

Main cord: color DB-W

- \$ 3.0 cm: group of 22 pendant cords (1-22),* then space of 2.5 cm.
- 10.5 cm: group of 9 pendant cords (23-31),
- 12.0 cm: group of 10 pendant cords (32-41),
- 14.0 cm: group of 10 pendant cords (42-51),
- 16.0 cm: group of 10 pendant cords (52-61),
- 18.0 cm: group of 8 pendant cords (62-69),**
- 20.5 cm: group of 40 pendant cords (70-109), then space of 2.0 cm.
- 31.5 cm: group of 10 pendant cords (110-119),
- 33.5 cm: group of 10 pendant cords (120-129),
- 35.5 cm: group of 10 pendant cords (130-139),
- 37.0 cm: group of 10 pendant cords (140-149),
- 39.0 cm: group of 10 pendant cords (150-159), then space of 2.0 cm.
- 43.0 cm: group of 11 pendant cords (160-170),
- 45.5 cm: group of 10 pendant cords (171-180),
- 47.5 cm: group of 10 pendant cords (181-190),
- 49.5 cm: group of 11 pendant cords (191-201),
- 51.0 cm: group of 10 pendant cords (202-211),
- 52.5 cm: group of 10 pendant cords (212-221),
- 54.5 cm: group of 9 pendant cords (222-230),
- 56.5 cm: group of 9 pendant cords (231-239), then space of 0.5 cm.
- 59.0 cm: group of 10 pendant cords (240-249),
- 61.5 cm: group of 10 pendant cords (250-259), then space of 2.5 cm.
- 66.0 cm: group of 10 pendant cords (260-269), then space of 18.0 cm.
- 84.0 cm: end ϕ

Cords	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	--	46.5	DB	0	
2	--	49.5φ	BS	0	
3	--	49.0φ	LD	0	
4	--	44.5φ	B	0	
5	--	47.0φ	W	0	
6	--	45.0φ	BS	0	
7*	--	36.5φ	∅D	0	
8	--	36.0φ	KB-W	0	
9	--	45.0φ	DB-W	0	
10	--	37.5φ	DB	0	
11	--	39.5φ	DB	0	
12	--	0.5b	KB	?	
13*	--	45.5φ	W	0	
14	--	47.5φ	KB:B	0	
15	--	29.0b	B	0	
16	--	27.0b	KB:B	0	
17	--	45.5φ	BS	0	
18	--	48.0φ	B	0	
19	--	41.0φ	BS	0	
20	--	38.5φ	DB:W	0	
21	--	48.0φ	KB:LC	0	
22	--	34.5φ	W	0	
23	--	36.5φ	BS	0	
24	--	38.5φ	BS	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
25	--	37.5 ϕ	BS	0	
26	--	36.0 ϕ	BS	0	
27	--	36.5 ϕ	BS	0	
28	--	36.5 ϕ	BS	0	
29	--	37.0 ϕ	BS	0	
30	--	37.5 ϕ	BS	0	
31	--	35.5 ϕ	BS	0	
32	5L(20.0)	29.5 ϕ	LD	5	
33	5L(20.5)	28.5 ϕ	LD	5	
34	4L(20.5)	30.0 ϕ	LD	4	
35	4L(20.5)	27.5b	LD	4	
36	2L(20.5)	21.5b	LD	2	
37	2L(20.5)	22.5b	LD	2	
38	2L(21.5)	22.5b	LD	2	
39	2L(20.5)	32.0 ϕ	LD	2	
40	2s(9.0); 3L(20.0)	29.0 ϕ	LD	23	
41	1s(9.0); 3L(20.0)	30.0 ϕ	LD	13	
42	--	33.0 ϕ	\emptyset D:LD	0	
43	--	21.5b	\emptyset D:LD	0	
44	--	21.0b	\emptyset D:LD	0	
45	--	30.0 ϕ	\emptyset D:LD	0	
46	--	23.0b	\emptyset D:LD	0	
47	--	28.5 ϕ	\emptyset D:LD	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
48	--	22.0b	ØD:LD	0	
49	--	22.0b	ØD:LD	0	
50	--	35.0φ	ØD:LD	0	
51	--	29.5b	ØD:LD	0	
52	--	32.0φ	B	0	
53	1E(19.0)	31.5φ	B	1	
54	--	34.5φ	B	0	
55	1E(18.5)	31.5φ	B	1	
56	--	23.0φ	B	0	
57	1E(18.5)	30.5φ	B	1	
58	--	32.0φ	B	0	
59	1E(18.5)	30.0φ	B	1	
60	--	32.0φ	B	0	
61	1E(21.0)	33.0φ	B	1	
62**	1s(11.0); 1E(18.5)	32.0φ	KB-W	11	1:0.5
62s1	1s(12.0)	32.0φ	W	10	
63	1s(10.0); 2L(18.0)	24.5φ	KB-W	12	1:0.5
63s1	4L(20.0)	32.5φ	KB:W	4	
64	1s(10.0); 2L(18.0)	32.0φ	KB-W	12	1:0.5
64s1	1E(18.0)	24.5φ	W	1	
65	2s(10.0)	30.0φ	KB-W	20	1:0.5
65s1	1E(20.0)	23.0b	KB:W	1	
66	2s(10.0)	24.5φ	KB-W	20	
67	2s(10.0)	32.5φ	KB-W	20	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
68	2s(10.0)	32.5φ	KB-W	20	1:0.5
68s1	1s(10.0)	22.5φ	DB:W	10	
69**	1s(10.0); 2L(18.5)	33.0φ	KB-W	12	
70	1s(12.5); 6L(19.5)	25.0b	W	16	
71	2L(17.0)	28.5φ	BS	2	
72	1E(18.5)	32.0φ	∅D	1	
73	--	9.0b	DB:KB	?	
74	1s(12.0)	32.0φ	W	10	
75	6L(17.5)	24.5b	BS	6	
76	2L(18.5)	35.0φ	∅D	2	
77	1E(19.0)	32.0φ	DB:KB	1	
78	1s(11.0); 1E(17.0)	27.5φ	W	11	
79	1s(11.5)	31.5φ	BS	10	
80	1E(17.0)	34.5φ	∅D	1	
81	1E(18.0)	32.0φ	DB:KB	1	
82	1s(11.5); 2L(17.5)	28.0φ	W	12	
83	1s(11.5)	31.5φ	BS	10	
84	3L(17.5)	34.5φ	∅D	3	
85	1E(19.0)	33.0φ	DB:KB	1	
86	1s(12.0); 5L(18.0)	29.0φ	W	15	
87	8L(17.5)	26.0φ	BS	8	
88	2L(18.0)	37.0φ	∅D	2	
89	1E(20.0)	34.0b	DB:KB	1	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
90	1s(12.5)	23.0b	W	10	
91	7L(17.0)	25.0φ	BS	7	1:1.0
91s1	1s(9.0)	27.5φ	DB:W	10	
92	4L(17.5)	34.0φ	∅D	4	
93	1E(18.0)	32.0φ	DB:KB	1	
94	1s(11.5)	29.0φ	W	10	
95	7L(16.5)	27.0b	BS	7	1:1.5
95s1	1s(9.0)	26.5φ	DB:W	10	
96	3L(18.0)	38.0φ	∅D	3	
97	1E(19.5)	30.5φ	DB:KB	1	
98	1s(12.0)	31.5φ	W	10	
99	6L(16.0)	27.5φ	BS	6	1:1.0
99s1	1s(9.5)	27.0φ	DB:W	10	
100	3L(18.5)	36.0φ	∅D	3	
101	1E(20.5)	30.0φ	DB:KB	1	
102	1s(11.0)	31.0φ	W	10	
103	6L(15.5)	26.0φ	BS	6	1:1.5
103s1	1s(7.5)	23.5φ	DB:W	10	
104	4L(17.5)	34.5φ	∅D	4	
105	--	24.0b	DB:KB	0	
106	6L(16.5)	24.5b	W	6	
107	5L(15.0)	29.0φ	BS	5	
108	2L(18.0)	27.5b	∅D	2	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
109	1E(19.5)	32.5 ϕ	DB:KB	1	
110	--	31.0b	KB-W	0	
111	--	34.0 ϕ	KB-W	0	
112	--	24.5b	KB-W	0	
113	--	31.5 ϕ	KB-W	0	
114	--	29.5b	KB-W	0	
115	--	30.0 ϕ	KB-W	0	
116	--	29.0b	KB-W	0	
117	--	33.5 ϕ	KB-W	0	
118	--	32.5 ϕ	KB-W	0	
119	--	33.0 ϕ	KB-W	0	
120	--	32.5 ϕ	W	0	
121	--	35.5 ϕ	W	0	
122	--	35.5 ϕ	W	0	
123	--	35.0 ϕ	W	0	
124	--	33.5 ϕ	W	0	
125	--	30.0b	W	0	
126	--	35.0 ϕ	W	0	
127	--	35.5 ϕ	W	0	
128	--	36.5 ϕ	W	0	
129	--	33.5b	W	0	
130	--	30.5 ϕ	KB	0	
131	--	30.5 ϕ	KB	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
132	--	27.0b	KB	0	
133	--	27.0b	KB	0	
134	--	29.0φ	KB	0	
135	--	29.5φ	KB	0	
136	--	25.0b	KB	0	
137	--	28.0φ	KB	0	
138	--	27.5φ	KB	0	
139	--	31.5φ	KB	0	
140	--	35.5φ	DB-W	0	
141	--	33.5φ	DB-W	0	
142	--	34.0φ	DB-W	0	
143	--	35.0φ	DB-W	0	
144	--	38.5φ	DB-W	0	
145	--	37.5φ	DB-W	0	
146	--	36.0φ	DB-W	0	
147	--	32.5φ	DB-W	0	
148	--	31.5φ	DB-W	0	
149	--	34.0φ	DB-W	0	
150	--	38.5φ	DB	0	1:0.0
150s1	--	29.5b	W	0	
151	--	40.5φ	DB	0	1:0.0
151s1	--	35.5φ	W	0	
152	--	37.5φ	DB	0	1:0.0

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
152s1	--	34.0φ	W	0	
153	--	36.5φ	DB	0	1:0.0
153s1	--	37.5φ	W	0	
154	--	35.5φ	DB	0	1:0.0
154s1	--	38.5φ	W	0	
155	--	39.0φ	DB	0	1:0.0
155s1	--	35.5φ	W	0	
156	--	25.0b	DB	0	1:0.0
156s1	--	37.5φ	W	0	
157	--	36.5φ	DB	0	1:0.0
157s1	--	38.0φ	W	0	
158	--	34.5φ	DB	0	1:0.0
158s1	--	25.5b	W	0	
159	--	34.5φ	DB	0	1:0.0
159s1	--	27.5b	W	0	
160	1s(6.5); 5s(14.5)	44.0φ	W	150	
161	5s(15.5); 5L(23.0)	32.0b	W	55	
162	6s(15.0); 5L(22.0)	34.0b	W	65	
163	9s(15.5); 8L(23.0)	29.5φ	W	98	
164	2s(7.0); 2s(14.5); 6L(22.0)	38.0φ	W	226	
165	1s(7.0); 1s(14.5); 5L(22.0)	39.5φ	W	115	
166	1s(7.0); 2s(14.0); 4L(21.5)	38.0φ	W	124	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
167	2s(7.0)	43.5φ	W	200	
168	1s(7.0); 6s(14.0); 1E(21.0)	37.5φ	W	161	
169	8s(15.0)	35.0b	W	80	
170	7s(14.5)	40.0φ	DB	70	1:11.5
170s1	5L(10.0)	18.0b	BS:KB	5	
171	--	26.0b	KB:B	0	
172	--	37.0φ	KB:B	0	
173	--	37.5φ	KB:B	0	
174	--	40.5φ	KB:B	0	
175	--	36.5φ	KB:B	0	
176	--	37.5φ	KB:B	0	
177	--	35.0b	KB:B	0	
178	--	29.5b	KB:B	0	
179	--	35.0φ	KB:B	0	
180	--	38.0φ	KB:B	0	
181	4L(17.5)	19.5b	W/KB***	4	
182	4L(17.5)	20.0b	W/KB	4	
183	4L(17.5)	19.0b	W/KB	4	
184	3L(16.5)	18.5b	W/KB	3	
185	5L(16.5)	19.0b	W/KB	5	
186	5L(17.0)	20.0b	W/KB	5	
187	5L(16.5)	22.5b	W/KB	5	
188	2L(16.0)	22.0b	W/KB	2	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
189	1s(10.5)	24.5b	W/KB	10	
190	--	25.0b	W/KB	0	
191	2L(20.5)	36.0φ	KB:B	2	
192	3L(21.0)	34.0φ	KB:B	3	
193	3L(22.0)	33.5φ	KB:B	3	
194	4L(21.5)	33.5φ	KB:B	4	
195	3L(21.5)	36.5φ	KB:B	3	
196	4L(21.0)	33.5φ	KB:B	4	
197	4L(21.5)	35.0φ	KB:B	4	
198	7L(22.0)	31.5φ	KB:B	7	
199*****	7s(12.0); 8L(19.0)	24.0φ	KB:B	78	
200	6L(21.5)	31.5φ	KB:B	6	
201	--	37.5φ	KB:B	0	
202	3L(19.0)	32.5φ	BS	3	
203	3L(19.5)	35.0φ	BS	3	
204	3L(19.5)	31.0φ	BS	3	
205	4L(20.0)	28.0φ	BS	4	
206	4L(20.0)	33.0φ	BS	4	
207	4L(20.5)	29.0φ	BS	4	
208	4L(21.0)	28.5φ	BS	4	
209	7L(20.5)	29.0φ	BS	7	
210	3L(20.5)	32.0φ	BS	3	
211	--	31.5φ	BS	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
212	3L(18.0)	34.0φ	B	3	
213	3L(18.0)	33.5φ	B	3	
214	4L(18.5)	32.0φ	B	4	
215	3L(18.0)	32.5φ	B	3	
216	3L(17.5)	33.5φ	B	3	
217	4L(18.0)	31.5φ	B	4	
218	3L(18.0)	32.0φ	B	3	
219	3L(19.0)	33.0φ	B	3	
220	3L(19.0)	34.5φ	B	3	
221	3L(19.5)	32.5φ	B	3	
222	--	33.5φ	BS	0	
223	--	31.5φ	BS	0	
224	--	31.0φ	BS	0	
225	--	32.0φ	BS	0	
226	--	26.0b	BS	0	
227	--	34.5φ	BS	0	
228	--	23.0b	BS	0	
229	--	33.5φ	BS	0	
230	--	31.5φ	BS	0	
231	--	31.0φ	DB:W	0	
232	--	31.5φ	DB:W	0	
233	--	32.0φ	DB:W	0	
234	--	48.5φ	DB:W	0	
235	--	37.5φ	DB:W	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
236	--	34.5φ	DB:W	0	
237	--	33.0φ	DB:W	0	
238	--	23.0b	DB:W	0	
239	--	35.5φ	DB:W	0	
240	--	35.0φ	KB:LC	0	
241	--	33.5φ	KB:LC	0	
242	--	36.0φ	KB:LC	0	
243	--	37.0φ	KB:LC	0	
244	--	37.5φ	KB:LC	0	
245	--	37.0φ	KB:LC	0	
246	--	35.0φ	KB:LC	0	
247	--	33.5φ	KB:LC	0	
248	--	34.0φ	KB:LC	0	
249	--	35.5φ	KB:LC	0	
250	3L(20.0)	31.0b	W	3	
251	3L(20.0)	30.0b	W	3	
252	2L(20.0)	36.5φ	W	2	
253	3L(19.0)	34.5φ	W	3	
254	3L(19.5)	33.0φ	W	3	
255	3L(18.5)	27.5b	W	3	
256	3L(18.5)	34.5φ	W	3	
257	3L(18.0)	34.5φ	W	3	
258	3L(18.0)	36.0φ	W	3	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
259	3L(17.5)	35.0φ	W	3	
260	6s(8.0); 1s(15.5); 3L(23.5)	36.0φ	DB	613	
261	6s(7.0); 2s(15.5)	32.5φ	DB	620	
262	5s(7.0); 4s(16.5); 4L(24.5)	30.5φ	DB	544	
263	6s(8.0)	39.5φ	DB	600	
264	7s(8.0); 4s(16.5); 3L(24.5)	30.0φ	DB	743	
265	1s(2.0); 5s(16.0); 4L(23.0)	34.5φ	DB	1054	
266	2s(2.0); 9s(8.5); 6s(18.0); 8L(25.0)	29.5φ	DB	2968	
267	2s(2.0); 1s(8.5); 7s(16.0); 1E(23.0)	34.5φ	DB	2171	
268	3s(7.0); 1s(16.0) 8L(22.5)	35.5φ	DB	318	
269	1s(8.0); 5s(17.5); 7L(24.0)	34.5φ	DB	157	

Observations

- 1.* Pendants 7-13 are irregularly attached to the main cord. They have the appearance of being retied onto it.
- 2.** Pendants 62-69 have been repaired where they are attached to the main cord. Two detached pendants stored with the quipu may be associated with this group of pendants. One of the fragments is KB-W with value 12, and the other is KB-W with value 40 and with a DB:W subsidiary with value 10.

- 3.*** The pendants in this group are KB joined to W. However, all are broken just where the colors are joined.
- 4.**** Pendant 199 is the same color as the pendants with which it is grouped but it differs from them in texture. It also differs from them in order of magnitude.
5. AS127, AS128, and AS176 were acquired by the Museum in 1933 with provenance Nazca. AS127 and AS128 are loosely tied together.
6. By spacing, the quipu is separated into 6 parts.
- a) The first part is 1 group of 22 pendants all of value 0 (or blank).
 - b) Part 2 is 5 groups of 8-10 pendants each. Each group is unified by having all pendants the same color. The first group has all values of 0; the values of the 4th group alternate 1, 0, 1, 0, etc. The last group in this part has only 8 pendants but may have had 10 (see #2 above).
 - c) The 40 pendants in part 3 repeat the color pattern W, BS, ØD, DB:KB 10 times. The only subsidiaries are on the BS colored pendant and all are DB:W. For each of the 10 sets of 4 pendants, the values have the same relative magnitude: W>BS>ØD>DB:KB.
 - d) Part 4 is 5 groups of 10 pendants each. Each group is unified by having all pendants the same color. All pendant values are 0 (or blank).
 - e) Part 5 is 10 groups of 9-11 pendants each. With the exception of the 11th pendant in the first group, each group is unified by having all pendants the same color.
 - (i) In the 2 groups that have 11 pendants, one of the pendants is exceptional by color or texture. The values of these exceptional pendants (P170 and P199) are related in the same way to the sum of the values of the pendants that follow them. The value of pendant 170 and its

subsidiary equals 5 more than the sum of pendants 177-198. Then pendant 199 equals 5 more than the sum of pendants 200-221. [These pendants together span groups 2-6 of part 5. Since all the pendants in groups 7-9 are zero-valued, the sums could be extended to include them.]

- (ii) Pendants 1-3 of groups 3-5 have the same relationships to each other as do pendants 5-7 of these same groups. In each case, the 9 pendants form the pattern

	P_i	P_{i+1}	P_{i+2}
Group 3	a+1	a+1	a+1
Group 4	a-1	a	a
Group 5	a	a	a

where $a=3$ when $P_i=P_1$ and

$a=4$ when $P_i=P_5$.

f) Part 6 is 1 group of 10 pendants all of color DB.

7. Finally, returning to part 1, the pendant color order is related to the color order of the other groups on the quipu. (In #1 above, it is noted that some of the pendants in this group appear to be retied. Some pendants could, therefore, be missing or rearranged.)

P2-4 are in the color order of groups 1-4 of part 2 with 1 omission.

P5-7 are in the color order of the first 3 colors of the 4 color pattern of part 3.

P8-12, with one exception, are the colors of the groups in part 4 but not in order.

P13-22, with one exception, are in the color order of groups 1-10 of part 5.

P1 is the color of the group in part 6.