QUIPU AS149

Museum identification: No. VA44866C (Museum für Völkerkunde, Berlin)

Main cord: color B

$ 4.5 cm: group of 5 pendant cords (1-5), then space of 1.0 cm.

6.5 cm: group of 5 pendant cords (6-10), then space of 2.5 cm.

10.0 cm: group of 5 pendant cords (11-15), then space of 1.0 cm.

12.0 cm: group of 4 pendant cords (16-19), then space of 1.0 cm.

14.0 cm: group of 4 pendant cords (20-23), then space of 1.0 cm.

16.0 cm: group of 4 pendant cords (24-27), then space of 1.0 cm.

18.0 cm: group of 4 pendant cords (28-31), then space of 1.0 cm.

20.0 cm: group of 4 pendant cords (32-35), then space of 1.0 cm.

22.0 cm: group of 4 pendant cords (36-39), then space of 5.0 cm.

28.0 cm: group of 5 pendant cords (40-44), then space of 1.0 cm.

30.0 cm: group of 4 pendant cords (45-48), then space of 1.0 cm.

32.0 cm: group of 4 pendant cords (49-52), then space of 1.0 cm.

34.0 cm: group of 4 pendant cords (53-56), then space of 1.0 cm.

36.0 cm: group of 4 pendant cords (57-60), then space of 1.0 cm.

38.0 cm: group of 4 pendant cords (61-64), then space of 1.0 cm.

40.0 cm: group of 4 pendant cords (65-68), then space of 3.5 cm.

44.5 cm: group of 5 pendant cords (69-73), then space of 1.0 cm.

46.5 cm: group of 5 pendant cords (74-78), then space of 1.0 cm.

48.5 cm: group of 5 pendant cords (79-83), then space of 1.0 cm.

50.5 cm: group of 5 pendant cords (84-88), then space of 1.0 cm.

52.5 cm: group of 4 pendant cords (89-92), then space of 1.0 cm.

54.5 cm: group of 5 pendant cords (93-97), then space of 1.0 cm.

56.5 cm: group of 5 pendant cords (98-102), then space of 1.0 cm.

58.5 cm: group of 5 pendant cords (103-107), then space of 1.0 cm.

60.5 cm: group of 5 pendant cords (108-112), then space of 16.0 cm.

77.5 cm: end ¢

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	8s(7.5);6s(12.5);5s(18.5);3L(23.5)	32.0¢	B	8653	
2	4s(7.0);4s(18.0);9L(23.5)	32.5¢	GG	4049	
3	2s(2.0);6s(12.5);4s(19.0)	33.5¢	B	20640	
4	6s(12.5);6s(18.5)	25.0¢	LB:B	660	
5	4s(7.0);7s(12.0);4s(17.5);1E(23.5)	32.5¢	GØ	4741	
6	8s(8.0);7s(13.0);8s(19.0);3L(24.5)	34.0¢	B:GG	8783	
7	4s(7.5);1s(12.5);7s(18.5);1E(24.0)	30.0¢	LB:B:GG	4171	
8	2s(2.5);1s(7.5);2s(12.5);4s(17.5); 3L(23.0)	39.0	B	21243	
9	6s(13.0);9s(19.5)	30.0¢	B	690	
10	4s(7.5);7s(12.5);8s(18.5);7L(23.0)	32.5¢	GG	4787	
11	1s(3.0);5s(8.5);1s(13.5)	38.5	B:GG	1510	
12	7s(8.5);2s(13.0)	39.0¢	LB:B:GG	720	
13	3s(3.0);8s(14.0)	37.0¢	B	3080	
14	--	5.0b	B	?	
15	8s(8.5);4s(13.0)	25.5¢	GG	840	
16	1s(2.5);4s(8.0);3s(14.0)	37.5¢	B:GG	1430	
17	6s(8.5);7s(14.0) {	26.5	LB:B:GG	670	
18	3s(3.0);4s(9.0);1s(12.5)	43.0¢	B	3410	
19	8s(9.5);2s(14.0)	25.5¢	GG	820	
20	1s(3.0);4s(8.5);3s(13.0)	40.0¢	B:GG	1430	
21	6s(8.5);7s(14.5)	38.5¢	LB:B:GG	670	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
22	3s(3.0);4s(8.5);1s(14.5)	33.0¢	B	3410	
23	8s(8.5);2s(13.5)	31.0¢	GG	820	
24	1s(3.0);4s(9.0);3s(14.5)	41.0¢	B:GG	1430	
25	6s(9.0);7s(15.0)	29.5¢	LB:B:GG	670	
26	3s(3.5);4s(9.0);1s(14.0)	31.0¢	B	3410	
27	8s(9.0);2s(14.0)	28.5¢	GG	820	
28	1s(3.0);4s(8.5);3s(15.0)	37.5¢	B:GG	1430	
29	6s(9.0);7s(15.5)	27.0¢	LB:B:GG	670	
30	3s(3.0);4s(9.0);1s(14.0)	28.0¢	B	3410	
31	8s(10.0);2s(14.5)	31.0¢	GG	820	
32	1s(3.0);3s(9.0);2s(16.0)	43.5¢	B:GG	1320	
33	5s(9.5);5s(15.0)	32.5¢	LB:B:GG	550	
34	2s(3.0);9s(9.5);8s(16.0)	31.5¢	B	2980	
35	6s(9.5);2s(15.5);1E(22.0)	26.5¢	GG	621	
36	1s(9.0);3L(22.5)	38.5¢	B:GG	103	
37	9s(16.0);9L(22.0)	28.5¢	LB:B:GG	99	
38	9s(10.0);4s(15.0)	30.0¢	B	940	
39	--	40.5¢	GG	0	
40	1s(7.5);8s(13.5);3s(19.5)	29.0¢	B:GG	1830	
41	7s(14.0);7s(20.0);3L(25.5)	32.0¢	LB:B:GG	773	
42	2s(8.0); 6s(14.0);8s(20.5)	27.5¢	B	2680	
43	6s(14.5);9s(21.0)	25.5¢	B	690	
44	8s(14.5)	28.0¢	GG	800	
45	1s(7.0);4s(13.5);3s(19.5)	30.0¢	B:GG	1430	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
46	6s(13.5);8s(18.5);4L(24.5)	28.5¢	L:B:GG	684	
47	3s(7.0);3s(12.0);3L(23.0)	39.5¢	B	3303	
48	8s(14.0)	29.0¢	GG	800	
49	1s(7.0);4s(13.0);3s(19.0)	33.5¢	B:GG	1430	
50	6s(14.0);8s(19.0);4L(23.5)	32.0¢	L:B:GG	684	
51	3s(7.5);4s(6.0);4s(12.0)	22.5¢	B	3440	
52	8s(15.0)	29.5¢	GG	800	
53	1s(8.0);4s(14.0);3s(20.0)	35.5¢	B:GG	1430	
54	6s(14.5);7s(19.5);4L(25.5)	33.0¢	LB:B:GG	674	
55	3s(7.5);6s(13.5);4s(19.5)	34.0¢	B	3640	
56	7s(14.0)	30.5¢	GG	700	
57	1s(7.5);4s(13.5);3s(19.0)	29.0	B:GG	1430	
58	6s(13.0);7s(18.5);4L(24.0)	31.0¢	LB:B:GG	674	
59	3s(7.0);3s(12.5);5s(19.0)	39.0¢	B	3350	
60	7s(13.5)	28.0¢	GG	700	
61	1s(6.0);2s(11.5);3s(17.5);5L(22.5)	27.0¢	B:GG	1235	
62	6s(13.0);8s(17.0);2L(23.5)	30.0¢	LB:B:GG	682	
63	3s(7.0);3s(12.5);5s(19.0)	34.0¢	B	3350	
64	7s(13.0)	28.5¢	GG	700	
65	--	47.5¢	B:GG	0	
66	--	41.0¢	LB:B:GG	0	
67	1s(6.5);4s(12.5);8s(19.0)	33.0¢	B	1480	
68	2s(12.0);8s(19.0);7L(26.0)	30.5¢	GG	287	
69	2s(6.5);1s(12.5);1E(19.0)	32.5¢	B	211	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
70	3s(13.0)	13.0b	GG	(3+)?	
71	3s(6.5);1s(12.5)	30.0¢	B	310	
72	2s(7.0);2s(13.0)	38.0¢	LB:B	220	
73	1s(6.5);1s(13.0)	34.5¢	GØ	110	
74	2s(6.5);1s(13.0);1E(19.5)	39.0¢	B	211	
75	1s(13.5)	13.5b	GG	(1+)?	
76	5s(7.5);1s(13.5)	29.0¢	B	510	
77	1s(7.0);1s(13.5)	40.0¢	LB:B	110	
78	1s(6.5);3s(13.5)	25.5¢	GØ	130	
79	2s(6.5);1s(13.0);1E(20.0)	35.0¢	B	211	
80	9s(14.0)	36.0¢	GG	90	
81	5s(7.5);1s(14.0)	29.5¢	B	510	
82	1s(6.0);1s(12.0)	39.0¢	LB:B	110	
83	1s(7.0);3s(13.5)	33.0¢	GØ	130	
84	1s(6.5);3L(20.0)	34.5¢	B	103	
85	7s(14.5)	36.0¢	GG	70	
86	1s(6.5);1s(8.0);3L(14.0)	20.5¢	B	113	
87	1s(7.0);1s(13.5)	42.5¢	LB:B	110	
88	6s(13.5)	30.5¢	GØ	60	
89	1s(6.0);5s(13.0);1E(18.5)	29.0¢	B	151	
90	8s(13.5)	30.5¢	GG	80	
91	3s(6.0);1s(12.0)	33.0¢	B	310	
92	8s(10.5);5L(16.5)	19.5¢	GØ	85	
93	1s(6.0);4s(12.5);1E(19.5)	29.5¢	B	141	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
94	8s(13.0)	40.0¢	GG	80	
95	3s(6.0);1s(12.0)	32.0b	B	310	
96	1s(12.0)	37.5¢	LB:B	10	
97	7s(13.0);5L(20.5)	26.5¢	GØ	75	
98	2s(6.0);1s(12.5);1E(20.5)	38.0¢	B	211	
99	9s(14.0)	33.5¢	GG	90	
100	2s(6.5);6s(14.0)	32.0¢	B	260	
101	1s(6.5)	36.5¢	LB:B	100	
102	8s(13.5)	31.0¢	GØ	80	
103	2s(6.0);1s(12.5);1E(20.5)	35.5¢	B	211	
104	6s(13.0)	13.0b	GG	(6+)?	
105	3s(6.0);5s(12.5)	14.5b	B	35?	
106	--	38.5¢	LB:B	0	
107	9s(13.5)	28.0	GØ	90	
108*	6s(13.0)	30.5	B	60	
109	4s(13.0)	39.0¢	GG	40	
110	3s(6.5);7L(19.5)	29.0¢	B	307	
111	--	37.0¢	LB:B	0	
112	8s(13.5)	19.0b	GØ	8?	

Observations

*1. Pendant 108 is broken at 7.5 cm. We assume that a pendant fragment stored with the quipu is the completion of this pendant.

2. AS147-AS149 are associated in that they were all designated by the same Museum number. They were acquired by the Museum in 1907 with provenance Ocucaje. For a comparison of them, see AS147.

3. By spacing, the quipu is separated into 3 parts. Part 1 is 2 groups of 5 pendants each. Part 2 is 14 groups separated into 2 subparts of 7 groups each. The first group in each subpart has 5 pendants and the remaining 6 groups have 4 pendants each. Part 3 is 9 groups of 5 pendants each (with the exception of the 5th group which has only 4 pendants).

4. Basically, each group has 5 positions with the same color order: B:GG; LB:B:GG; B (for part 1 and 2) or LB:B (for part 3); B; GG. In all groups with only 4 pendants, it is the fourth position (B) that is non-existant.

5. Position by position, the values in the first group in part 2 are the sums of the values in the 9 groups of part 3. That is,

$$P_{21j} = \sum_{i=1}^{9} P_{3ij} \qquad j=1,\ldots,5$$

(There is an error of 1 in 1 digit and a few broken cords.)

6. Position by position, the values in the first and second groups of part 1 are the sums of the values in the 7 groups of the first and second subparts of part 2, respectively. Namely,

$$\left.\begin{aligned} P_{11j} &= \sum_{i=1}^{7} P_{2ij} \\ P_{12j} &= \sum_{i=8}^{14} P_{2ij} \end{aligned}\right\} \qquad j=1,\ldots,5$$

(There is an error of 2 in 1 digit and 1 broken cord.)

7. Parts 2 and 3 contain many multiples of the value 110. In part 3, the value 110 appears 4 times and 220 once. In part 2, 24% of the values are such multiples (110x31 four times; 110x13 eight times; and one each of 110x12, 110x6, 110x5).

8. Groups 2-5 of part 2 have the same values in all corresponding positions.