

## QUIPU AS96

Museum identification: No. G3300 (Museum für Völkerkunde, Munich, W. Germany)

Main cord: color MB:VG:W

The main cord consisted of 4 fragments.

Fragment 1: 3 groups of 6 pendant cords each. Each group united by a top cord.

Fragment 2: 5 groups of 6 pendant cords each. Each group united by a top cord.

Fragment 3: 1 group of 6 pendant cords united by a top cord.

Fragment 4: 7 groups of 6 pendant cords each. Each group united by a top cord.

Although relative positions and directions of fragments are unknown, they will be labeled as follows:

Fragment 1: groups 1-3 containing pendants (1-6, T1); (7-12, T2); (13-18, T3)

Fragment 2: groups 4-8 containing pendants (19-24, T4); (25-30, T5); (31-36, T6); (37-42, T7); (43-48, T8)

Fragment 3: unrecordable

Fragment 4: groups unrecordable; groups 9-10 containing pendants (49-54, T9); (55-60, T10); 2 groups unrecordable; group 11 containing pendants (61-66, T11).

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
1	--	0.5b	VB:W	?	
2	1E(12.5)	32.5ç	VB:W	1	
3	--	0.5b	VB:W	?	
4	--	10.5b	VB:W	?	
5	--	0.5b	VB:W	?	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
6	--	0.5b	VB:W	?	
T1	1s(5.5); 4L(13.5)	29.5¢	VB:W	14	
7	2L(11.5)	32.0¢	MB:W	2	
8	2L(11.5)	34.0¢	MB:W	2	
9	1s(5.0); 2L(12.0)	32.5¢	MB:W	12	
10	--	32.0¢	MB:W	0	1:12.0
10s1	2L(5.0)	19.5¢	MB:W	2	
11	1E(11.0)	30.0b	MB:W	1	
12	1E(12.0)	32.5	MB:W	1	
T2	1s(4.5); 9L(13.0)	24.0¢	MB:W	19	
13	8L(11.0)	30.5¢	MB:W	8	
14	4L(10.5)	32.5¢	MB:W	4	1:11.0
14s1	1E(7.0)	21.5¢	MB:W	1	
15	4s(6.5)	29.5¢	MB:W	40	2:7.0-7.5
15s1	--	2.5b	MB	?	
15s2	2L(7.0)	14.5¢	MB:VG	2	
16	2L(11.0)	33.5¢	MB:W	2	1:11.5
16s1	4L(7.0)	20.0¢	MB-W	4	
17	3L(10.5)	33.5¢	MB:W	3	
18	3L(10.5)	34.5¢	MB:W	3	
T3	6s(9.0)	30.0¢	MB:W	60	
19	2L(11.0)	35.0¢	MB:W	2	
20	--	35.0¢	MB:W	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
21	1s(6.0)	33.5¢	MB:W	10	
22	2L(12.0)	34.0¢	MB:W	2	
23	--	36.0¢	MB:W	0	
24	1E(11.5)	34.5¢	MB:W	1	
T4	1s(6.0); 5L(14.0)	29.0¢	MB:W	15	
25	1E(11.5)	35.5¢	VB:W	1	
26	--	34.0¢	VB:W	0	
27	9L(12.0)	26.0	VB:W	9	1:12.5
27s1	1E(5.0)	17.5¢	MB:W	1	
28	1E(12.0)	24.5b	VB:W	1	
29	--	36.0¢	VB:W	0	
30	1E(12.0)	35.0¢	VB:W	1	
T5	1s(6.5); 2L(14.0)	29.0¢	VB:W	12	
31	2L(12.0)	32.0¢	MB:W	2	
32	3L(12.5)	19.5b	MB:W	3	
33	1s(5.5)	25.0b	MB:W	10	
34	1E(12.0)	33.0¢	MB	1	
35	1E(12.0)	31.5¢	MB	1	
36	--	32.0¢	MB	0	
T6	1s(6.0); 7L(13.5)	25.5¢	MB	17	
37	5L(14.0)	47.0¢	W	5	
38	3L(13.5)	35.5¢	W	3	
39	2s(5.5); 9L(12.5)	30.0¢	W	29	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
40	4L(12.0)	36.0¢	W	4	
41	--	33.0¢	W	0	
42	4L(12.5)	32.5¢	W	4	
T7	4s(6.5); 5L(15.0)	36.5¢	W	45	
43	3L(13.5)	32.5b	GG:W	3	
44	4L(14.0)	34.0¢	GG:W	4	
45	1s(4.0); 5L(13.5)	30.5¢	GG:W	15	
46	1E(14.5)	36.5¢	GG:W	1	2:15.5-16.0
46s1	1E(4.0)	17.5¢	MB:W	1	
46s2	1E(4.5)	16.0b	MB:W	1	
47	2L(14.0)	29.0¢	GG:W	2	
48	1E(14.5)	39.5¢	GG:W	1	
T8	2s(5.0); 6L(13.0)	21.0¢	GG:W	26	
49	1E(10.0)	29.5b	MB:W	1	
50	2L(18.0)	30.0¢	MB:W	2	
51	1s(4.5); 1E(11.0)	15.5b	MB:W	11	1:11.5
51s1	--	8.5b	MB:W	0	
52	1E(10.0)	27.0	MB:W	1	
53	--	23.0	MB:W	0	
54	1E(10.5)	29.5¢	MB:W	1	
T9	--	29.5b	MB:W	0	
55	--	27.5b	MB	0	
56	--	28.5b	MB	0	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
57	--	28.5b	MB	0	
58	--	18.0b	MB	0	
59	--	27.0b	MB	0	
60	--	15.0b	MB	0	
T10	--	46.0c	MB	0	
61	3L(11.0)	17.5b	MB:W	3	
62	3L(11.0)	32.0c	MB:W	3	
63	--	11.0b	MB:W	?	
64	--	29.5b	MB:W	0	
65	1E(11.0)	32.5c	MB:W	1	
66	1E(11.5)	34.5	MB:W	1	
T11	--	33.5c	MB:W	0	

#### Observations

1. AS95 and AS96 are associated in that they are both designated by the Museum as donated by Gaffron. The provenance is Pachacamac. They are quite dissimilar in construction.
2. In each group, with the exception of group 6, the pendants and top cord are the same color. In group 6, the first 3 pendants are one color and the last 3 pendants and top cord are all of another color. The subsidiaries do not necessarily match the pendants in color.
3. Assuming the direction of the pendants are listed correctly, the value on pendant 3 is the maximum in all complete groups. Moreover, in groups 2, 3, and 4, the

value on pendant 3 is exactly double the sum of the values on the other pendants in the group.

$$P_{i3} \geq P_{i1} + P_{i2} + P_{i4} + P_{i5} + P_{i6} \quad \text{for } i=2,3,\dots,10$$

$$P_{i3} = 2 \left[ P_{i1} + P_{i2} + P_{i4} + P_{i5} + P_{i6} \right] \quad \text{for } i=2,3,4.$$

4. With the exception of a difference of 1 in group 2, the values on the top cords in groups 2-8 are the sums of the values on the pendants in their respective groups. In group 1, there is too much breakage to make a comparison. In groups 9-11, the top cord values are all 0 (or blank) but the pendant sums are not necessarily 0.
5. The values on the first 4 pendants of group 7 are the sums of the values in the corresponding positions in groups 4-6. That is,

$$P_{7i} = \sum_{j=4}^6 P_{ji} \quad \text{for } i=1,2,3,4.$$