QUIPU AS90/N2

Museum identification: No. G3319 (Museum Für Völkerkunde, Munich, W. Germany)

Main cord: color KB:W

$ 2.0 cm: group of 12 pendant cords (1-12), then space of 0.5 cm.

    5.0 cm: group of 5 pendant cords (13-17), then space of 0.5 cm.

    6.5 cm: group of 11 pendant cords (18-28), then space of 1.0 cm.

   10.0 cm: group of 7 pendant cords (29-35), then space of 1.5 cm.

   13.0 cm: group of 8 pendant cords (36-43), then space of 2.5 cm.

   17.0 cm: group of 3 pendant cords (44-46), then space of 0.5 cm.

   18.0 cm: group of 5 pendant cords (47-51), then space of 1.0 cm.

   20.0 cm: group of 5 pendant cords (52-56), then space of 3.0 cm.

   23.5 cm: end b

Cord	Knots (no., type, position)	Length	Color	Value*	Subsidiaries (no., position)
1	2L(7.0)	18.0b	W	20?	
2	1E(5.0); 1E(12.5)	30.0	W	110	
3	1E(5.0); 1E(12.0); 2L(18.5)	25.5	W	112	
4	1E(12.0); 2L(18.0)	30.5¢	W	12	
5	1E(5.0); 3L(14.0); 2L(21.5); 1E(22.0)	27.5¢	W	132+1	2:0.0-0.5
5s1	1E(5.0)	11.5b	W	1??	
5s2	2L(12.0)	13.0b	W	2?	
6	2L(5.5); 2L(13.0); 2L(19.0); 1E(19.5)	36.5¢	W	222+1	
7	3L(5.0); 2L(12.5); 2L(17.0)	39.5¢	W	322	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
8	2L(5.0); 1E(12.5); 1E(17.5)	43.5¢	W	211	
9	3L(5.5); 1E(13.5); 5L(18.0)	37.0¢	W	315	
10	2L(4.0); 3L(12.0); 6L(16.0)	38.0¢	W	236	
11	1E(5.0); 3L(12.5); 1E(17.5)	36.5¢	W	131	
12	2L(4.5); 4L(12.5); 3L(19.0)	33.5¢	W	243	
13	3L(5.0); 4L(12.5); 5L(18.0)	32.0¢	W	345	
14	6L(5.5); 5L(13.0); 4L(18.0)	28.5¢	W	654	
15	3L(5.0); 4L(12.0); 5L(16.5)	31.0¢	W	345	
16	1E(4.5); 5L(12.0); 2L(16.5)	36.0¢	W	152	
17	1E(5.0); 2L(12.5); 2L(17.5)	39.5¢	W	122	
18	4L(4.0); 2L(10.5); 2L(15.0)	36.5¢	W	422	
19	1E(3.5); 4L(11.5); 2L(16.0)	34.0¢	W	142	
20	2L(5.0); 1E(12.0); 1E(17.5)	42.0¢	W	211	
21	5L(4.0); 5L(11.0); 4L(16.5)	39.0¢	W	554	
22	2L(4.0); 3L(11.0)	40.0¢	W	230	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
23	1E(4.0); 1E(10.5) 3L(16.5)	40.5¢	W	113	
24	5L(4.0); 5L(11.0); 5L(16.0)	28.5¢	W	555	
25	2L(4.0); 3L(10.5); 5L(16.0)	35.5¢	W	235	
26	1E(3.5); 5L(11.0); 5L(16.0)	31.5¢	W	155	
27	2L(3.5); 1E(10.0); 2L(15.5)	39.5¢	W	212	
28	2L(4.0); 2L(10.5); 4L(16.5)	34.5¢	W	224	
29	3L(4.0); 3L(10.5); 4L(16.0)	32.5¢	W	334	
30	6L(4.5); 3L(11.0); 6L(16.0)	31.0¢	W	636	
31	4L(4.5); 3L(10.0)	37.0¢	W	430	
32	3L(4.5); 6L(11.0); 6L(16.5)	31.5¢	W	366	
33	5L(4.5); 5L(10.5); 1E(11.0); 5L(14.5)	23.5¢	W	5(5+1)5	
34	4L(4.5); 4L(10.5); 4L(15.0)	31.5¢	W	444	
35	3L(4.5); 3L(10.5); 5L(15.5)	35.0¢	W	335	
36	5L(4.5); 2L(11.5) 2L(14.0)	34.0¢	W	522	
37	1E(4.0); 1E(10.5); 1E(15.0)	35.5¢	W	111	
38	2L(4.0); 1E(10.0); 5L(14.0)	36.0¢	W	215	

Cord	Knots (no., type, position)	Length	Color	Value	Subsidiaries (no., position)
39	4L(4.5); 8L(10.0); 1E(14.0)	25.0¢	W	481	
40	6L(5.0); 5L(10.5); 5L(15.5)	27.5¢	W	655	
41	1E(4.0); 2L(9.0); 3L(13.5)	35.5¢	W	123	
42	2L(4.0); 1E(9.0); 3L(13.0)	34.5¢	W	213	
43	2L(4.0); 6L(9.5); 3L(13.5)	29.5¢	W	263	
44	3L(10.5)	31.0¢	W	30	
45	4L(10.0)	34.0¢	W	40	
46	4L(9.0)	33.0¢	W	40	
47	4L(9.5)	32.5¢	W	40	
48	3L(9.0)	30.5¢	W	30	
49	5L(8.0)	25.0¢	W	50	
50	5L(9.0)	29.0¢	W	50	
51	2L(8.5)	33.0¢	W	20	
52	4L(8.0)	17.0b	W	40	
53	4L(8.5)	30.0¢	W	40	
54	4L(8.0)	29.5¢	W	40	
55	2L(8.0)	36.5¢	W	20	
56	3L(8.5)	25.5b	W	30	

Observations

1. AS87, 89, 90, 92, 94 are associated in that the Museum designates them all as donated by Gaffron, and gives Peru as the provenance. For a comparison of them, see AS87.

2. AS90 is also discussed by Nordenskiöld(see Introduction, Table 3).

*3. Long knots and figure eight knots appear in all 3 knot positions. No single knots appear. The positions of the knot clusters on the pendants are unusually regular. The numerical interpretation in the table is based on the positions of the knot clusters rather than on the type of knots used and their positions. An interpretation of the knot clusters as individual digits is also possible.

4. When the knot clusters are interpreted as individual digits, each group of pendants can be viewed as 3 parallel rows of digits.

(i) The parallel rows show some similar patterns. For example, read the 5 pendants of the second group as:

$$
\begin{array}{llllll}
\text{Row 1 --} & 3 & 6 & 3 & 1 & 1 \\
\text{Row 2 --} & 4 & 5 & 4 & 5 & 2 \\
\text{Row 3 --} & 5 & 4 & 5 & 2 & 2
\end{array}
$$

Rows 1 and 3 both have the pattern ABACC for different values of A, B, and C. Also, for the first 3 values in each row, all rows have the pattern ABA. Finally, the consecutive digits 5452 are repeated in rows 2 and 3.

(ii) Reading the rows simply as strings of consecutive digits, the same permutations of different values are seen in different groups. For example, the following 5 arrangements of 3 symbols are found in groups 1 and 3: ABC, CBA, ACB, ABCB, CBAB. In group 1, A=1, B=2, C=3, while in group 3, A=1, B=2, C=5. Further, the first 3 of these arrangements (ABC, CBA, ACB) are found in groups 3 and 5 for the same values of A=5, B=1, C=2.