## QUIPU AS49

Museum identification:  No. R2699 (Museo Amano, Lima, Peru)

Main cord:  color DB-B-W

b: 0.0 cm:  group of 37 pendant cords (1 -37), then space of 2.0 cm.

9.5 cm:  group of 12 pendant cords (38-49), then space of 0.5 cm.

12.5 cm:  group of 12 pendant cords (50-61), then space of 0.5 cm.

15.0 cm:  end ¢

| Cord | Knots (no., type, position) | Length | Color | Value | Subsidiaries (no., position) |
|------|------------------------------|--------|-------|-------|------------------------------|
| 1 | -- | 30.0¢ | W | 0 | |
| 2 | -- | 32.0¢ | B | 0 | |
| 3 | -- | 30.0¢ | B | 0 | |
| 4 | -- | 28.0¢ | B | 0 | |
| 5 | 2L(12.0) | 26.0¢ | B | 2 | |
| 6 | 1E(12.0) | 28.0¢ | B | 1 | |
| 7 | -- | 30.0¢ | B | 0 | |
| 8 | 1E(12.5) | 26.5¢ | W | 1 | |
| 9 | 1E(12.0) | 27.0¢ | W | 1 | 2:4.0 |
| 9s1 | 1E(9.5) | 12.5b | FB:B | 1 | |
| 9s2 | 1E(9.0) | 24.0¢ | *W/(FB:B-W) | 1 | |
| 10 | -- | 28.0¢ | W | 0 | |
| 11 | -- | 27.0¢ | W | 0 | 1:3.0 |
| 11s1 | 1E(10.0) | 34.0¢ | FB:B | 1 | |
| 12 | 2L(14.0) | 28.0¢ | W | 2 | 1:4.0 |

| Cord | Knots (no., type, position) | Length | Color | Value | Subsidiaries (no., position) |
|------|------------------------------|--------|-------|-------|------------------------------|
| 12s1 | 1E(9.0) | 22.0¢ | B | 1 | |
| 13 | 1E(13.0) | 26.0¢ | W | 1 | |
| 14 | — | 33.0¢ | B | 0 | 1:5.0 |
| 14s1 | 1E(11.0) | 24.0¢ | FB:B | 1 | |
| 15 | 1E(12.0) | 32.0¢ | B | 1 | |
| 16 | — | 32.0¢ | B | 0 | |
| 17 | 1E(12.0) | 29.0¢ | B | 1 | |
| 18 | 1E(12.0) | 29.0¢ | B | 1 | |
| 19 | — | 30.0¢ | B | 0 | |
| 20 | — | 26.0¢ | W | 0 | |
| 21 | — | 28.0¢ | W | 0 | |
| 22 | 1E | 22.5¢ | W | 1 | |
| 23 | — | 27.0¢ | W | 0 | |
| 24 | 1E(12.0) | 24.0¢ | W | 1 | |
| 25 | 1E(11.0) | 27.0¢ | W | 1 | |
| 26 | 2L(12.0) | 25.0¢ | B | 2 | |
| 27 | 1E(11.0) | 30.0¢ | B | 1 | |
| 28 | 3L(11.5) | 25.5¢ | B | 3 | |
| 29 | 2L(11.5) | 28.5¢ | B | 2 | |
| 30 | 2L(12.0) | 26.0¢ | B | 2 | |
| 31 | 1E(12.0) | 27.0¢ | B | 1 | |
| 32 | 2L(12.5) | 25.5¢ | W | 2 | |

| Cord | Knots (no., type, position) | Length | Color | Value | Subsidiaries (no., position) |
|------|------|------|------|------|------|
| 33 | 1E(11.5) | 26.5¢ | W | 1 | 1:3.5 |
| 33s1 | 1E | 27.0¢ | *W/(FB:W-W) | 1 | |
| 34 | 2L(13.0) | 28.0¢ | W | 2 | 1:4.0 |
| 34s1 | 2L(8.5) | 22.5¢ | B | 2 | |
| 35 | 2L(13.0) | 25.0¢ | W | 2 | |
| 36 | — | 31.0¢ | W | 0 | 1:4.0 |
| 36s1 | 1E(11.0) | 25.0¢ | FB:B | 1 | |
| 37 | — | 30.0¢ | W | 0 | 2:4.0 |
| 37s1 | — | 7.0b | FB:B | ? | |
| 37s2 | 1E(9.0) | 20.0¢ | B | 1 | |
| 38 | — | 4.5b | DB | ? | |
| 39 | 9L(11.0) | 24.0¢ | W | 9 | |
| 40 | — | 0.5b | DB | ? | |
| 41 | 2L(11.0) | 29.0¢ | W | 2 | |
| 42 | — | 0.5b | DB | ? | |
| 43 | 9L(11.0) | 24.0¢ | W | 9 | |
| 44 | — | 0.5b | DB | ? | |
| 45 | 6L(11.5) | 23.5¢ | W | 6 | 1:3.5 |
| 45s1 | 1E(8.0) | 23.0 | B | 1 | |
| 46 | 5L(12.0) | 28.0¢ | DB | 5 | |
| 47 | — | 33.5¢ | W | 0 | 1:3.5 |
| 47s1 | 3L(7.5) | 23.5¢ | B | 3 | |
| 48 | 2L(11.5) | 29.0¢ | DB | 2 | |

| Cord | Knots (no., type, position) | Length | Color | Value | Subsidiaries (no., position) |
|------|------------------------------|--------|-------|-------|------------------------------|
| 49 | — | 32.5¢ | W | 0 | 1:3.5 |
| 49s1 | 2L(7.0) | 29.0¢ | B | 2 | |
| 50 | 5L(11.5) | 31.0¢ | B | 5 | 1:3.0 |
| 50s1 | 1E(10.0) | 32.0¢ | FB:B | 1 | |
| 51 | 4L(11.5) | 27.0¢ | W | 4 | 1:3.0 |
| 51s1 | 1E(9.5) | 32.5¢ | FB:B | 1 | |
| 52 | 6L(12.0) | 34.0¢ | B | 6 | |
| 53 | 8L(11.5) | 25.5¢ | W | 8 | 2:3.0 |
| 53s1 | 1E(12.0) | 35.0¢ | FB:B | 1 | |
| 53s2 | 2L(8.0) | 20.0¢ | *W/(FB:B-W) | 2 | |
| 54 | 1s(6.0) | 40.0¢ | B | 10 | |
| 55 | 4L(11.5) | 29.0 | W | 4 | 1:2.5 |
| 55s1 | 2L(9.0) | 29.0¢ | B | 2 | |
| 56 | 8L(11.5) | 29.5¢ | B | 8 | 1:2.5 |
| 56s1 | 1E(11.0) | 33.0¢ | FB:B | 1 | |
| 57 | 9L(12.0) | 23.5¢ | W | 9 | 1:4.0 |
| 57s1 | 1E(10.0) | 19.0¢ | FB:B | 1 | |
| 58 | 8L(10.5) | 32.5¢ | B | 8 | 1:2.0 |
| 58s1 | 1E(8.5) | 20.5¢ | *W/(FB:B-W) | 1 | |
| 59 | 7L(11.5) | 24.5¢ | W | 7 | 2:2.5 |
| 59s1 | 1E(9.5) | 32.5¢ | FB:B | 1 | |
| 59s2 | 2L(8.0) | 30.0¢ | B | 2 | |

| Cord | Knots (no., type, position) | Length | Color | Value | Subsidiaries (no., position) |
|------|-----------------------------|--------|-------|-------|------------------------------|
| 60   | 2L(9.5) | 38.5¢ | B    | 2 |         |
| 61   | 3L(9.0) | 28.0¢ | W    | 3 | 2:1.5   |
| 61s1 | 2L(8.0) | 33.0¢ | FB:B | 2 |         |
| 61s2 | 1E(7.0) | 28.0¢ | B    | 1 |         |

## Observations

*1.  Construction note:  The joined and twisted color on 9s2 was constructed as follows:
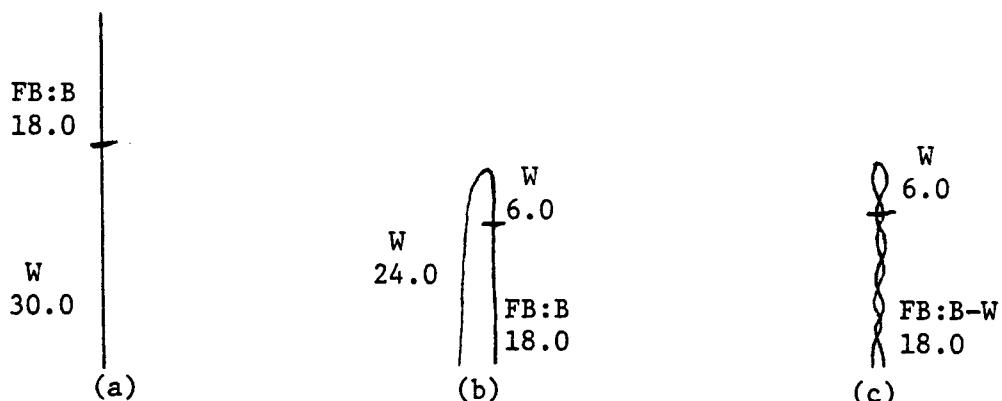


(a) FB:B and W were joined, (b) bent, and (c) then twisted.  Subsidiaries 53s2 and 58s1 were similarly constructed with the resulting color changes appearing at 6.0 cm. and 8.0 cm. respectively.

2.  AS49 and AS48 were excavated by the University of Tokyo expedition at La Centinela, Tambo de Mora.  The work is described in *Andes*, The University of Tokyo Expedition 1958, Report 1, pp. 225-226.  The Museum has retained several associated fragments of pottery.

3. Pendants 2-37 form 6 groups of 6 pendants each, set off by alternation of color
   (6B, 6W, 6B, 6W, etc.). [This is preceded by 1 W pendant and a broken end on the
   main cord. Hence, there was probably at least one more group.] Then, by spacing,
   there are 2 groups of 12 pendants each. Both groups alternate colors internally.
   The first is DB, W, DB, W, etc., and the next is B, W, B, W, etc.

4. The only pendant values in the first 6 groups are 0-3. In the last 2 groups
   the values are 0-10. All subsidiaries have values of 1 or 2.

5. The first 6 pendants in the last group appear to be the sum of the pendants in the
   corresponding positions in the first 6 groups. (Four of the 6 are exact and 2
   are greater than the sums by 1 and 3 which would be in keeping with a missing
   first group of values 0-3.) Also, in the last group, the sum of the first 6
   pendants equals the sum of the last 6 pendants.