



COUNTING KNOTS

the Inca way

by Michelle Laliberte

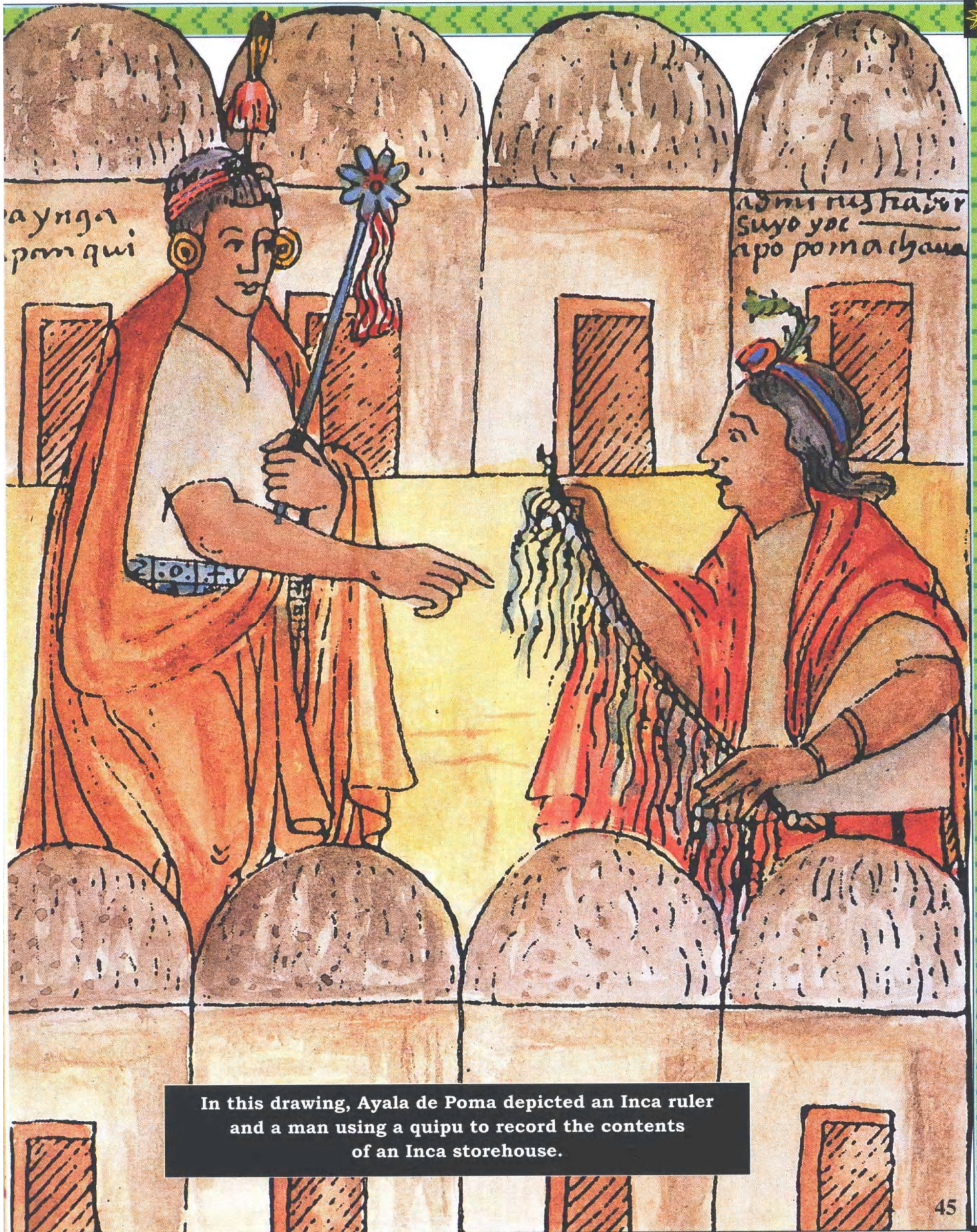


The Incas used knots to connect or hold objects in place, and to record history as well. *Quipu* (KEE poo), meaning “knot,” was the Inca system of using knots to keep track of everything from newborn babies to the number of men who went to war. Even battles, fights, laws, ordinances, ceremonies, royal speeches, and arguments were recorded using quipus.

A quipu consisted of a main cord with colored strings of various lengths hanging from it—much like a fringe. Each colored thread represented a subject, such as yellow for gold, white for silver, green for coca, and red for warriors. Objects that had no special colors were arranged in order, beginning with the most important and ending with the least important. Thus, records of weapons began with spears, followed by darts, bows, arrows, clubs, axes, and slings. The Incas classified the inhabitants of each village by groups: men age 60 and older, then men in their 50s, and so on in groups of 10 years, down to boy babies. Women were counted separately, but in the same manner.

Each string was tied with a combination of knots that together gave a picture of the Inca Empire at any given moment. These knots represented numbers in a decimal counting system and were arranged in order of units: tens, hundreds, thousands, and tens of thousands. Since each village kept its own records, and since each set of records referred only to a single year, the number never went beyond 100,000. The greatest number, say, tens of thousands, was knotted at the upper end of the threads, the thousands lower down, and so on.

Every quipu was different; each was also meaningless without someone to interpret it. The makers, keepers, and interpreters of the quipus were called *quipucamayos* (KEE poo kah MY ohs). Since quipus only represented numbers, the *quipucamayos* used signs or a few words to indicate the historical events or facts that the knots represented. Because they knew these signs or words from memory and did not write them down, today there is no way for anyone to tell what the knots on the ancient quipu record. 🏺



aynqa
pom qui

admi rus trator
suvo yoc
apo pomachaua

In this drawing, Ayala de Poma depicted an Inca ruler and a man using a quipu to record the contents of an Inca storehouse.

Make Your Own QUIPU

by Michelle Laliberte

Try making your own *quipu* to record:

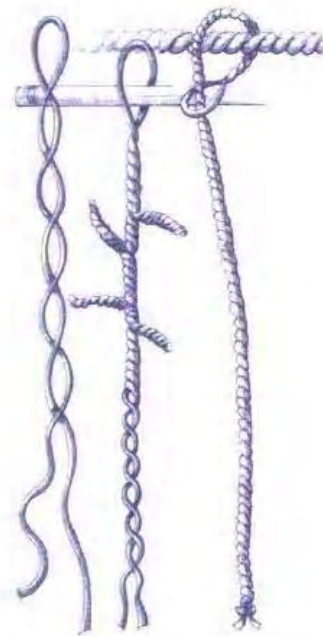
- the number of days in a month with and without rain
- the number of births, both male and female, in your hometown for one month (watch the birth announcements in your local newspaper)
- a topic of your own choosing

YOU NEED:

- thick colored yarn or thread (2 to 10 colors)
- ruler or wooden stick
- poster board
- colored markers
- piece of paper
- pencil

DIRECTIONS

- 1 Pick a topic and plan to keep a record for at least one month.
- 2 Determine the number of colored threads you will need to use. For example, if you choose to record days with and without rain, you will need two colors—one for those with rain, and one for those without.



3 Tie one end of each of the different colored threads to the ruler or wooden stick.

4 Each day, tie a knot or knots in the appropriate colored thread or threads. For example, for a rainy day, tie a knot only in the colored thread you chose for days with rain.

5 Instead of committing the key to memory as the Incas did, make a written key, using the poster board and colored markers, to explain what each color represents.

6 At the end of the month, count the number of knots tied in each thread and record the count for each thread on a separate piece of paper.

7 Exchange your quipu with friends and ask them to see if they can interpret it, using only the key. Check their answers with the number you recorded on paper.

