Twitter Thread by Fall of Civilizations Podcast



Fall of Civilizations Podcast
@Fall_of_Civ_Pod

It's often said that the indigenous people of South America never developed a system of writing.

But this isn't entirely true. In fact, they created a unique and complex system of notation based on the tying of knots, known as quipu, which remain undeciphered to this day.



The quipu were usually made from string, spun from cotton fibers, or the fleece of camelid animals like the alpaca and llama.

The cords stored information with knots tied in vast assemblages of string, sometimes containing thousands of threads.



In some analysed quipu, the combinations of thread length, colour, knot type and knot position allow for up to 95 possible combinations, which could represent numbers, symbols or even sounds.

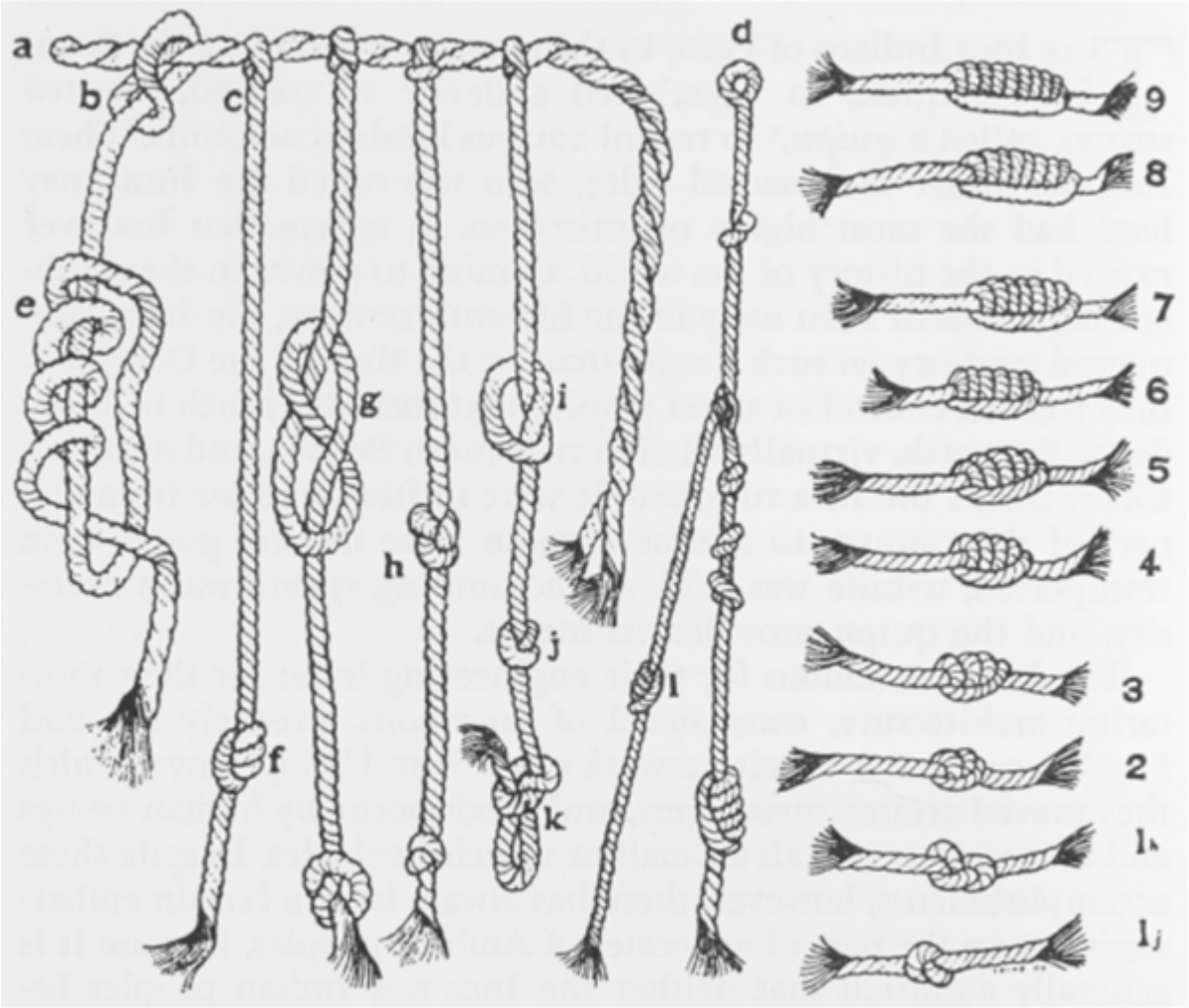


Fig. 1. The knots of the quipu.
Locke, *The Ancient Quipu or Peruvian Knot Record*, Fig. 1.
The Princeton University Library.

The Inca people used them for collecting data and keeping records, monitoring taxes, conducting censuses, keeping track of dates, and for military organization, all with immense success.

One early European eyewitness Hernando Pizarro records one early sighting of these quipu.

They count by certain knots on cords, and so record what each chief has brought. When they had to bring us loads of fuel, maize, chicha, or meat, they took off knots or made knots on some other part; so that those who have charge of the stores keep an exact account.

In fact, these quipu were the only system of notation used to administrate the Incas' society, a vast stretch of land the same size as the Western Roman empire in Europe, containing more than 10 million people – all of which operated without a single word being written down.



One European writer Cieza de León, writes about seeing these quipu being used.

. . . These were long ropes made of knotted cords, and those who were accountants and understood the arrangement of these knots, could, by their means, give an account of the expenditure, and of other things during a long course of years. On these knots they counted from one to ten, and from ten to a hundred, and from a hundred to a thousand. . . . Each ruler of a province was provided with accountants who were called *quipucamayos*, and by these knots they kept account of what tribute was to be paid in the district, with respect to silver, gold, cloth, flocks, down to fire-wood and other minute details.[8]

But since the collapse of Inca society, the knowledge of how exactly how to read the quipu has been lost.

They were once interpreted by a class of learned people known as quipucamayocs, who were trained in their art in Inca schools or yachay wasi (literally "house of teaching").



Quipucamayocs were usually drawn from the children of the ruling class.

The quipu were read with the hands, and according to Quechuan chronicler Guaman Poma, quipucamayocs could even read the quipus with their eyes closed.


DEPOCITODELINGA
COLLCA
topa ynga
yupanqui
apo pomachaua
Depositos del ynga

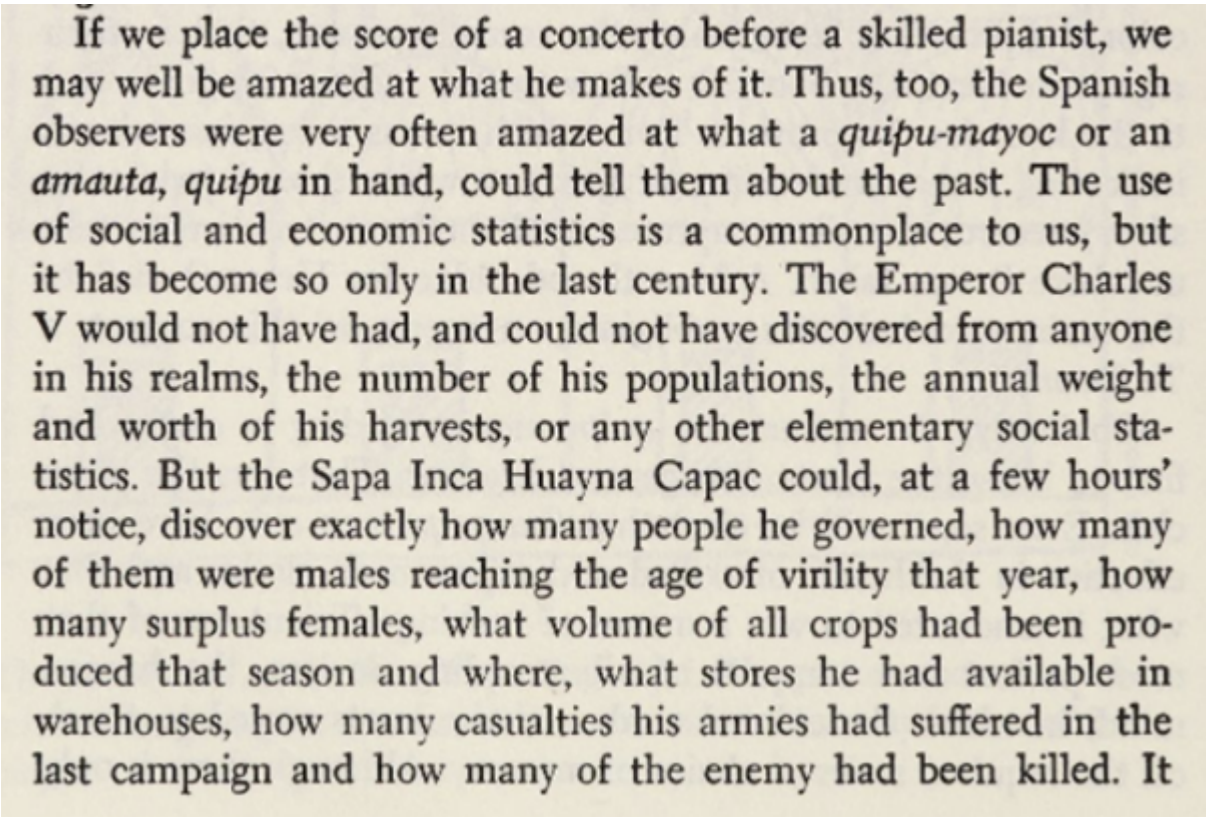
There is a great deal of debate about how much information these quipu actually encoded.

One thing we are fairly certain of: the quipu mainly contained numerical information.


ADMINISTRADOR DE PROVINCIAS
SVTIOC GVAMAN POMA
APO. 5ª.
secretario ~
suyo yoc

This information was crucial for running the Incas' highly controlled and centralised economy.

The quipu would have recorded the numbers of people in a certain province, the amount of food needed, the amount of cloth produced, the amount of recruits, etc. https://t.co/Ts0vbxtG1i



If we place the score of a concerto before a skilled pianist, we may well be amazed at what he makes of it. Thus, too, the Spanish observers were very often amazed at what a *quipu-mayoc* or an *amauta, quipu* in hand, could tell them about the past. The use of social and economic statistics is a commonplace to us, but it has become so only in the last century. The Emperor Charles V would not have had, and could not have discovered from anyone in his realms, the number of his populations, the annual weight and worth of his harvests, or any other elementary social statistics. But the Sapa Inca Huayna Capac could, at a few hours' notice, discover exactly how many people he governed, how many of them were males reaching the age of virility that year, how many surplus females, what volume of all crops had been produced that season and where, what stores he had available in warehouses, how many casualties his armies had suffered in the last campaign and how many of the enemy had been killed. It

We can identify this numerical information because researchers have been able to point to elements on the knots that conduct arithmetic in a systematic way.



For instance, one cord may contain the sum of the next certain amount of cords, with this relationship being repeated throughout the quipu. And in many quipu, there is a clear system of decimals at work.

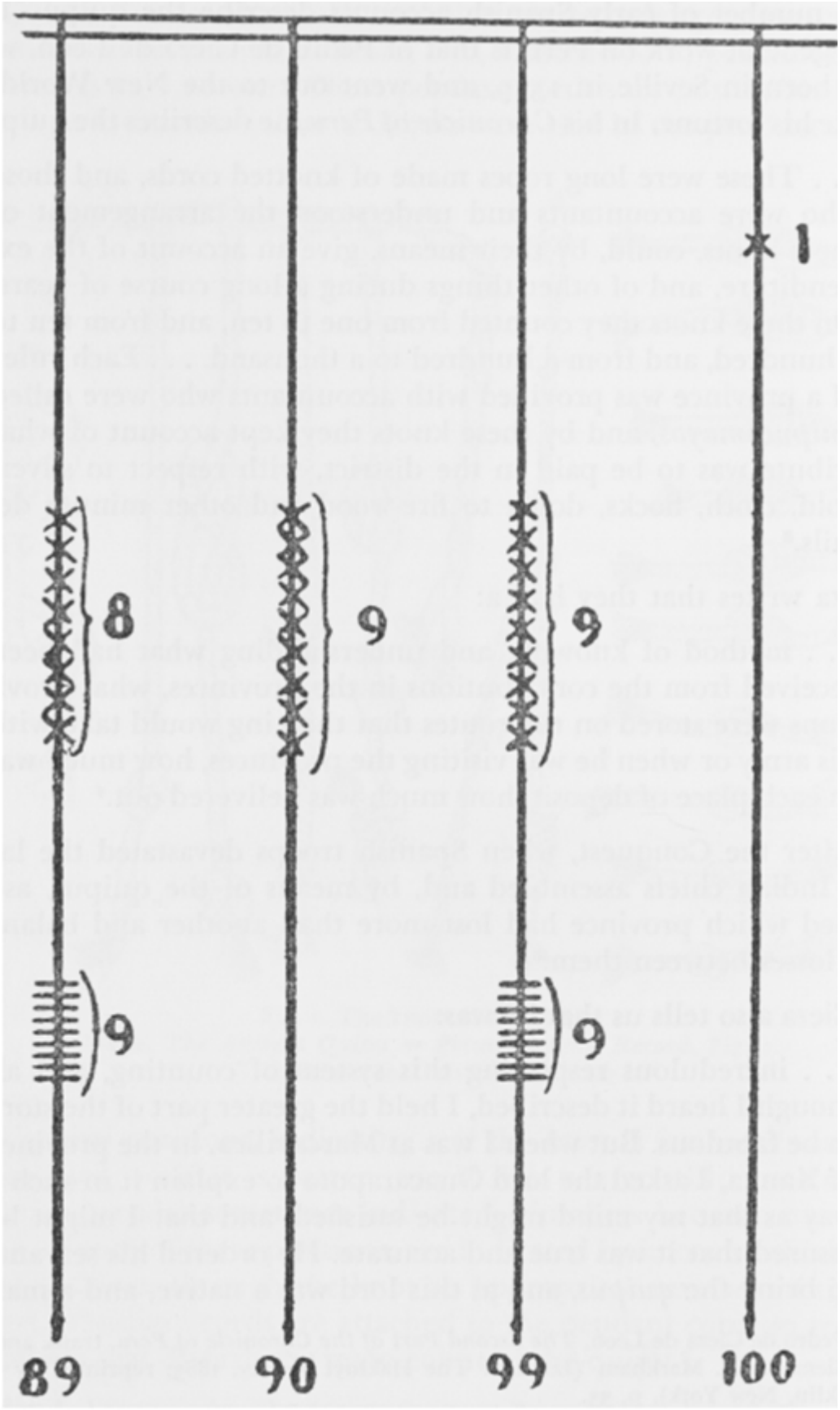


Fig. 2. Scheme of knot values according to the decimal system.
Nordenskiöld, "The Secret of the Peruvian Quipus," Fig. 2.
The Princeton University Library.

But more controversial is the question of whether the quipu could also contain messages, or even the literature of the Inca.

One Jesuit priest named Joseph de Acosta is quite clear in his accounts that the quipu were more than just counting

devices.

> . . . There are quipus, memoranda or registers made of strands of cord, in which different knots and colors signify different things. It is incredible what they have comprehended in this way, for what books can say of histories, laws, ceremonies, and business accounts, all of this is provided very precisely by the quipus. . . . Because for different kinds of things, like war, government, tribute, ceremonies, and lands, there were different quipus or strands of cord. And in each bunch there were large and small knots and attached cords; some of the cords were red, others green, others blue, others white, and there was indeed such diversity that, as we arrange twenty-four letters in different ways to make an infinite variety of words, so they draw from these knots and colors innumerable meanings for things. In this manner, even today in Peru, at the end of two or three years, when the Indians come to a magistrate with the detailed accounts for which they have been asked, they say that in such-and-such a village they have given him six eggs,

As far as we can tell, the quipu knots don't follow the structure of any known indigenous Peruvian language, and so it has long been believed that they don't hold phonetic information – that is, they don't encode sounds like our alphabet does.



However, others have suggested that the knots might encode binary information that could be interpreted to create sounds.

Gary Urton The Khipu Database Project (KDP) claims to have already decoded the first word from a quipu – the name of the village of Puruchuco (pictured).



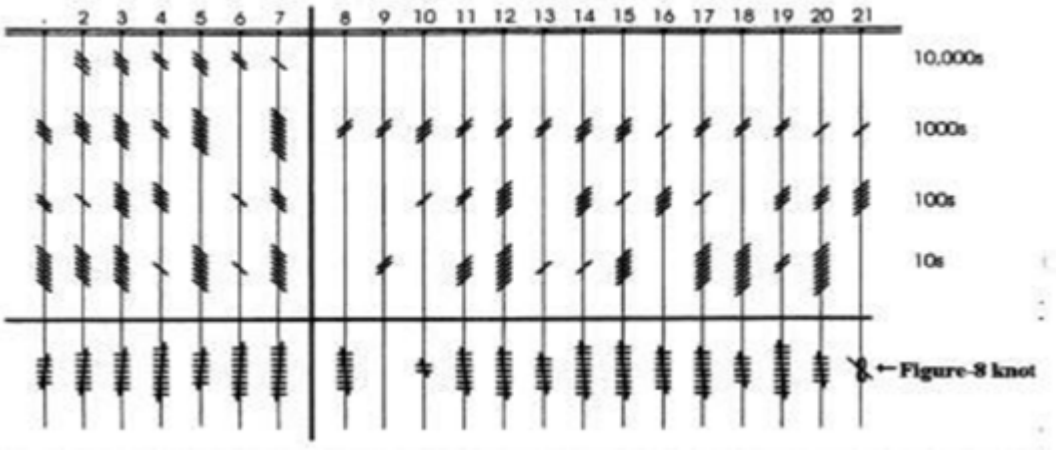
Urton believes that this name was represented by a three-number sequence, similar to a postal code.

If this hypothesis is correct, then the quipu are the only known example of a complex language recorded in a three-dimensional system.



One study led by Alberto Sáez-Rodríguez has even claimed to show that the distribution and patterning of S- and Z-knots can organize the information system from a real star map of the Pleiades cluster.

Source: https://t.co/BHnp4Zy6pW



If the quipu do contain writing, and could be decoded, then it would be an immensely significant discovery.

No example of written Quechua has been found before the arrival of Europeans in the 16th century, and all our knowledge of Andean culture comes from later sources.



But the quipu we have are only a fraction of what once existed. Soon after their conquest of Peru, Spanish authorities quickly suppressed the use of quipus.

Quipu were often used to record offerings to Inca gods, and were therefore considered idolatrous objects.



Christian officials of the Third Council of Lima banned the system, and in 1583 ordered that all quipu discovered should be burned.

We do not know the total number of quipu burned, or what information may have been contained within them.



We can hope that perhaps one day a breakthrough in the interpretation of the surviving quipu will allow them to speak once more.

But for now, they stand as a silent testimony to the fragility of human culture, and how easily the connections of memory and history can be severed.



Further reading:
“The Quipu: ‘Written’ Texts in Ancient Peru.” Elizabeth P. Benson. https://t.co/26SK1S66Cb

“The last of the Incas : the rise and fall of an American empire” by Edward Hyams. https://t.co/tQUX6poEGP



If you enjoyed this thread, you can find out more about the rise and fall of Inca society in the new episode of Fall of Civilizations.

Listen here, or on any podcasting app.

Spotify: https://t.co/9K5NNrvhfu
YouTube: https://t.co/SqceXyJi2P

You might also enjoy this thread on the only true writing system of the Americas - Mayan hieroglyphs.
https://t.co/9Mm5V6NqNx

> A short thread on Ancient Mayan hieroglyphics.
>
> The only true writing system that developed in the American continent, these were carved into the stones of temples, pyramids & palaces without the help of metal tools. pic.twitter.com/33NOKVxVew
>
> — Fall of Civilizations Podcast (@Fall_of_Civ_Pod) November 27, 2018

You can also support the show here: https://t.co/5Hf5lI90g8