INCA HISTORICAL CONSCIOUSNESS AND WRITING

Inca theology and cosmology remain a mystery even for those who have studied them most closely. Gary Urton, a leading scholar concludes: "There is something in their way of thinking that is very alien to us. Most of your natural intuitions don't serve you well looking at Inca sites. It's hard for us to know how they thought."[9] It is not surprising that the same Gary Urton has studied the *khipus* and tried to find their correlation to the mystery of writing.

Whether or not the Inca possessed writing is a matter that has remained impenetrable until the present. The Miccinelli documents seem to finally offer evidence that should help establish this matter beyond doubt. However, other well-known authors have come to similar conclusions through independent research, among them: Gary Urton, R. Larco Hoyle, and W. Burns Glynn. The chroniclers themselves left contradictory statements about the *khipus* as tools for written communication. Not only are the references contradictory; sometimes, even the same author contradicts himself on the matter!

Garcilaso declares: "The *khipucamayocs* were assigned by the *curacas* and nobles of their respective provinces to the preservation of historical facts that had been transmitted by their predecessors or of all other events worthy of mention that occurred in such or such district; and the *khipucamayocs*, in guise of writers and historians, preserved the records, which, as we have said, were the *khipus* or 'annals'" (author's translation).[10] Contradicting himself, in other places Garcilaso asserts that "the knot indicates the number, not the word" (Book 6). Polo de Ondegardo indicates, "In that city there were many officials of the Inca, both in charge of religion and of government, and something else which I would not believe if I had not seen it, that through strings and knots are preserved the laws and statutes of this and that, and the succession of the kings, and there was even some clarity about the statutes that had been instituted in the time of each one of them [kings]" (author's translation). Domingo de Santo Tomas (1560) affirms that the Indians did not use writing but rather "an ingenious means." This statement is reinforced by J. de Acosta who asserts that the Indians made up for their lack of writing with paintings and *khipus*. Cabello de Balboa indicates that, upon dying, Wayna Capac drew lines of different colors that expressed his last wishes on a post. These were translated into *khipus* and further studied by the *khipucamayocs*. The friar Martin de Murua

indicates that the *khipu* was the equivalent of a book. He adds that the use of the *khipu* was admirable but quite obscure, and that from the *khipu* all sort of information was extracted.[11] Another explicit reference to *khipus* as books is present in the thirty-seventh chapter of the Third Session of the Provincial Council of Lima, celebrated in the cathedral of Ciudad de los Reyes on September 23, 1583. The council declared that it was necessary to destroy these *khipus*.[12] Other chroniclers who confirm various aspects of these statements are: Pedro Cieza de Leon, Cristobal de Molina, Sarmiento de Gamboa, the anonymous Jesuit, Anello Oliva, and Antonio de Calancha.[13] Finally, Spanish amnesia about Inca writing seems hard to justify in light of the fact that even the Spaniards used them at some point. The Mercederians—a missionary order—used *khipus* extensively in their effort to evangelize Peru in the middle to late 1580s. The missionaries obliged the natives to write down the major Catholic prayers. The friars also encouraged the natives to record the Christian year in *khipus* and use these for recording the will of the deceased.[14]

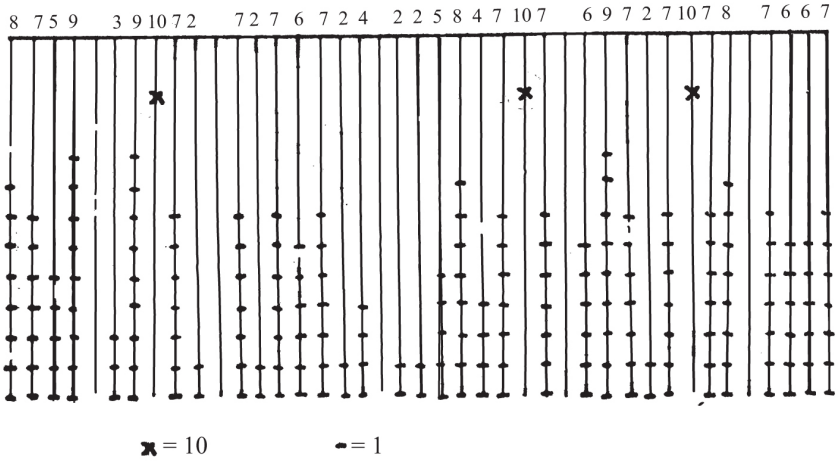

Figure 4.1: Numerical Khipu

Khipu means "knot" and counting through knots. The *khipus* consisted of a string with a series of knots; the many strings were placed together around a main string in a sequential fashion (figure 4.1).

The material used was of either animal origin (llama, alpaca, and vicuña) with its natural hues, or of dyed cotton; in some cases even human hair or threads of gold and silver were used. Valera illustrates how the royal *khipus* were used. He filled five pages of his manuscript with drawings of royal *khipus*. He also mentions a system of translation from the royal *khipus* to the numerical ones. Interestingly, the translation was also done in relation to the *yupana*—the abacus of the Incas.

Sabine Hyland emits the hypothesis that the literary *khipus* may have been the invention of Blas de Valera, a little like the Cherokee syllabary was the invention of Sequoyah. Once more her objections are based on her refutation of possible concordances between Inca and Christian symbolism. She comes to the conclusion that this system was devised by Valera because of:

- Aristotelian quadripartition of fire/air/water/earth in relation to the depiction of Pachacamac, the godhead.
- The correspondence with Western concepts of the gods; the Christlike quality of Wirakocha, described as the god incarnate.

To this it can be countered that at the time of the Conquest, the Aristotelian conception of things was more alive in the Andes than in Europe, in fact more natural to the *amauta* than to the friar. The convergence of symbolism is a de facto phenomenon that can only be understood from a spiritual perspective. Hyland points out that no royal *khipus* have been found, but two factors could have contributed to this state of affairs: the systematic destruction of the *khipus* and the natives' desire to hide them for preservation. After all, larger things have been hidden from view, and for centuries.

Juan Anello Oliva (Book JAO II of the Miccinelli documents) reveals that the woolen *khipu* of Acatanga (site located below Tiwanaku)—attached to the manuscript *Historia et Rudimenta*—is about the song "*Sumac ñusta*."[(15)] The song reads: "Beautiful princess, your brother broke your urn, Pachacama sends back your sap in rain." Anello Oliva adds the drawing of a royal *khipu* in which once again appears the song "Sumac ñusta" (figure 4.2).

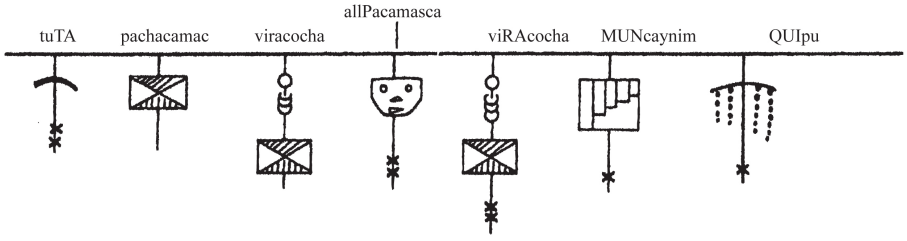

Figure 4.2: Literary khipu

Valera offers us a valuable insight into the origin of the *khipus*. According to the knowledge he received, they would go back to the time of Manco Capac. In the *khipu* Manco Capac invented a writing that imitated the rays of the

sun, the colors of the *quychu* grass and the contours of the mountains. He used wool (of the llamas) and cotton and he devised three kinds of *khipus*. Note, in passing, that the various sources point to either two or three kinds of *khipus*. The third kind may be the one referred to by Burns Glynn via Guaman Poma, of which more will be said shortly.

So how did the *capac khipu*—royal *khipu*—work? To a string were attached some cardinal symbols corresponding to a specific Quechua word. From each symbol hung one, two, or more knots that indicated which syllable of the word was to be read. One knot indicated the first syllable, two the second, three the third, etc. The sequential reading of the syllables of the various threads that held the symbols spelled the message of the royal *khipu*. The cardinal symbols or words were called *ticcisimi* (foundation words). Valera knew of sixty-five symbols but was told that there were a total of two hundred.

One of the Miccinelli manuscripts, *Exsul Immeritus*, was found together with some of the cardinal symbols in metal and in wool and a little *khipu* in gold. In fact many cardinal symbols also appear depicted in the manuscript. Juan Antonio Cumis independently confirms the notion of the royal *khipus* that he has received, not from Valera, but from the *curaca* Mayachac Azuay. He gives a list of fifty-six such cardinal symbols.[16]

Another confirmation about Inca writing appears in the *Nueva Coronica* of Guaman Poma, subtly embedded in the chronicle itself, and mostly in the drawings. However, even in the text appears a reference to the value of the *khipus*. At one point the author states that "the Indians did not know of letters or writing, this is why everything that appears in this opus has been taken from *khipus,*" and later, "The writers placed everything in the *khipu* with such skill that the recording made with the strings was equivalent to what is written in a letter."[17] A figure from *Nueva Coronica* suggests a parallelism between books and *khipus*; in it is represented an Inca official holding in one hand a *khipu* and in the other a book. In another a *chasqui* (messenger) is holding in his hand a *khipu* while he appears to be running; on the same hand is a little sign that says "letter," as if to specify the purpose of the *khipu*. Valera also gives a complex explanation—not given in the published Miccinelli text, and not accessible to the author—of how to transform a literary *khipu* into a numeric one and vice-versa.[18]

William Burns Glynn intuited that the *Nueva Coronica* conceals more than it wants to deliberately let out, before the appearance of, and independently from, the revelations of the Miccinelli documents.[19] He has arrived at this conclusion by looking at the symbols portrayed in the so-called *uncus*, the tunics of important Inca officials. In the *uncus* appear some

vertical or horizontal bands called *tucapo*. The same symbols of the *uncus* also appear on vases and ancient clothes. It is interesting to note that the *tucapos* were prohibited by the Spanish viceroy, Toledo, because they were known to convey messages.[20] Burns Glynn found that the key for deciphering the characters lies in reading the signs that are used in the *tucapos* of all the Inca emperors. This is possible since the drawings are accompanied by the names, which are most often very short. A first observation will confirm the rightness of this approach. The same glyph characters appear as the last syllable of the names Sinchi Roca and Inca Roca in their respective *tucapos*. Burns Glynn observes that this kind of writing was done from right to left and vice-versa, from top to bottom and reverse. A word could also be written in zigzag or other broken forms. He further finds confirmation of his findings in the fact that in textiles we find the written symbols together with a graphic (drawing) confirmation of the sentence written, e.g., the youth with the smiling face, both in writing and in drawing.

How then did this second kind of literary *khipu* differ from the royal *khipus*? The chronicles tell us that the *khipu* used a decimal system. In order to use the decimal system for writing, the Inca had to use a system of conversion of sounds into letters, and obviously this is hardly possible with a decimal system. However, it becomes possible if only the consonants are used. The absence of vowels would only be a problem in reading an isolated word. In a sentence the context defines the word. Added to this would be the fact that those who read or wrote would obviously need a lengthy training.

Using consonantal writing has been done before by the Phoenicians with the so-called Ogham Consaine. Others who used similar systems (no vowels written) were the Egyptians and Hebrews. Ogham Consaine used a system of base 10. It is probably the extension of finger-signing and possibly derived from it. In Ogham Consaine it is as if the hand symbols (with up to five signs) were used on either side of a line—one hand above it, the other below. Ogham Consaine was also written indifferently from the right or the left, the top or the bottom.

To verify his hypothesis, Burns Glynn proceeded to reduce the sixteen Quechua consonants into their sounds. He finds that although there are sixteen of them, they can be reduced to ten sounds without any resulting loss of meaning in a message. The key for translating a letter into a number lies in one of the predominant sounds of each numeral: *Juk* = 1 ("one" is said "*Juk"* in Quechua) in which the letter J stands for 1; *iskay* = 2 ("two" is said "*Iskay"* in Quechua) in which the semi-vowel ay stands for 2; *kimsa* = 3, in which m stands for 3, etc. The final result of the conversion is the following:

1=j; 2=w(y); 3=m; 4=t; 5=r; 6=s; 7=q(k); 8=p; 9=n; 10=ch.[21] The interest of the hypothesis lies in its simplicity and directness. Ultimately it lies in the fact that it seems to work first of all in deciphering the names of all the emperors based on the symbols that are visible in the *tucapos* of their *uncus*. Much longer messages also convey coherent meanings.

Burns Glynn goes a step further in adding another hypothesis of how Quechua was used as a sort of mathematical language. He was moved to explore in this direction by the enigmatic drawing of the Inca accountant officer and treasurer in the *Nueva Coronica*. There we see a presumed accountant holding an outstretched *khipu* between extended arms (figure 4.3). Below, in the right corner appears a *yupana* (*yupai* means "to count")—the Andean abacus—with a precise numerical configuration. Joseph de Acosta indicates that the Indians used maize grains to make complex calculations with great skills. The *yupana* was a system of 5 rows and 4 columns (see bottom of figure 4.3). The first column could be filled with 5 grains, the second with 3 grains, the third with 2 grains, and the last one served as a memory. The bottom row indicated the units, the next one up the multiples of 10, the third row the 100s, the 4th the 1,000s, the last the multiples of 10,000. When one row was full the memory next to it was used. Later it could be transferred as a unit to the next row above. The progression of prime numbers 2, 3, and 5 was used like a support table.

In looking at the drawing of the *yupana* of the *Nueva Coronica,* Burns Glynn simply applied the previous hypothesis of the letter to number conversion to the use of the abacus, since it is also keyed on a decimal basis. Converting the numbers of each row, starting from the top of the abacus, he reads RMSMS. In interpolating vowels he spells this further into: *rimai simasi*, which means 'that which helps to speak.' As if to congratulate those who would decode the meaning of his book Guaman Poma ends his treaty with the figure entitled "the author asks." It is the figure of Guaman Poma himself in which the symbols spell: KRCHTYCHR. Interpolating the vowels, Burns Glynn reads: *Qari Chiti Yacharii*. This means: "Diligent Man, Verify." It seems that the *Nueva Coronica* was a coded book, and that Guaman Poma wants to congratulate those who find the hidden meanings everywhere encoded in its pages.

What would be the advantage of this other type of *khipus* over the royal *khipus*? A first response lies in the ease it provides since no symbols are needed, therefore all the labor needed to produce them was eliminated, and there was no need to carry them around. The price to pay for this convenience is a loss of precision or a higher skill required, since consonantal writing is obviously less precise and more subject to

misunderstanding than the syllabic spelling of the royal *khipus*. In essence this second kind of writing could have been an earlier form of writing, preserved for its usefulness as a sort of shorthand writing, and for its use while traveling.

Figure 4.3: Accountant holding a khipu (*Nueva Coronica)*

Of added interest for our analysis is the hypothesis that the symbols visible in the *tucapos* far preceded Inca civilization. Glynn Burns recognizes them even in a Pukara stela in the first centuries AD: two characters on a stela spell w-k, word that could easily refer to *waka*.[(22)] He is not the only one to think this! Valera knew of the tradition that attributed the *khipus* to Manco Capac.

Writing: Innovation or Rediscovery?

In light of the continuity between Inca and previous traditions, it is not surprising to find at least some evidence that writing also accompanied the revolution of the Dawning. Such is the case for the earliest *khipu* found in

Caral on Peru's north coast, going back to possibly two millennia before the turn of our era.

A tentative but solid response to the puzzle of writing comes from a very famous Peruvian archaeologist—Rafael Larco Hoyle—that was already stated as early as 1944.[(23)] Larco Hoyle finds evidence for his claims among Nazca, Paracas, Tiwanaku, and Moche! All of these are civilizations that arose at the turn of our era.

The archaeologist found Nazca vases adorned with beans of the type *pallar* that combined with others in order to form polychromatic ideograms. The same motifs appear in both Nazca and Paracas textiles. In some textiles the gods appear with vestments decorated with *pallares*; in others the *pallares* emanate from the mouth in order to graphically represent the beings' voices. The author finds parallels to these phenomena among the Maya at the same historical epoch (figure 4.4).

Comparing what appears to be Moche writing with the contents of the Mexican Troano Codex, Larco Hoyle has found that in both cultures, individuals hold similar signs (glyphs or *pallares*). In the same codex Larco Hoyle sees that scribes use the same stamps as the Moche scribes, that they hold in their hands a sign in the form of a kidney-shaped bean and in other instances they are shown in the act of painting these beans. Larco Hoyle has found that the Moche made incisions on their beans, whereas the Nazca people painted them.

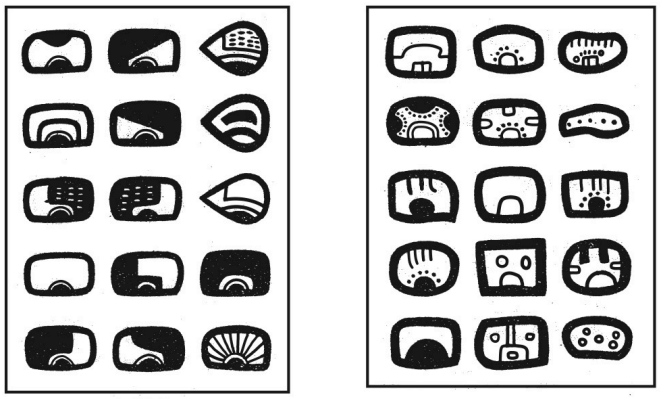

Figure 4.4: Maya (right) and Nazca/Paracas ideograms

Finally, the archaeologist compares what he sees as Peruvian writing with its Mayan counterpart. The Maya ordered their writing with either horizontal or vertical lines; at times they would write around the figures

portrayed. Much the same can be said of Nazca and Paracas writing. The Moche wrote in horizontal lines or else next to the figures or the deities.

In almost all of Mayan glyphs, in the place where the sprout would emerge from the bean, there is a drawing of a circle, a square, parallel lines, or a wide rectangular line. These seem to be the symbols for the sprout. The same motifs appear in Peruvian culture as among the Maya. Similar parallels are visible even in the more stylized forms originating from both cultures. Moreover, many elements constituting the glyphs appear both in Mayan and Peruvian glyphs, e.g., dots of diverse dimensions and number, circles, straight lines both simple or parallel, curved lines and curved parallel lines, semicircles, broken lines, etc. However, Mayan signs are more complicated and indicate a further evolution of writing.

There is little doubt that the Inca had achieved historical consciousness. That they may have brought it back to the surface after a long interlude remains to be proved. The author believes that they had achieved restoration of the heritage of the time and legacy of Thunupa, which already included writing. Many of the gifts of Pachacuti's initiation were rediscoveries, carrying Thunupa's legacy to a new level in the changed conditions of the times. The reader will not be surprised therefore that together with writing, the Inca had full knowledge of the solar calendar. These two inventions go often hand in hand. Here too, there is indication from the work of Posnanski, Milla Villena, Makowski, Luizaga, and others that the solar calendar had already existed at the time of Christ in Tiwanaku. In fact the priesthood was probably already aware of the solar calendar in the centuries leading to our era, as we know now on the basis of the Chankillo site that dates back to the fourth century AD.

All of the above, both in North and South America, indicates that during and after a time of "Twilight of the Gods," the Mysteries lost their strength. The new consciousness at the time of Christ could no longer entrust to memory the body of knowledge of the Mysteries. Writing and calendar the world over have their origin from this cardinal necessity. It is not surprising to find confirmation in South America's central Andes of what we know from Mesoamerica. The turning point of time introduced the new possibility of gaining historical consciousness.