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The Woven Shadow  
of Time:  
Four Inti Motifs  
from Q'ero\*

por

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## RESUMEN

Presenta un estudio basado en textiles provenientes de la comunidad de Q'ero, ubicada en el Departamento de Cuzco, Perú. A través de estos registros la autora identifica la presencia de la concepción diaria del tiempo en esta comunidad, fundamentando su interpretación en los motivos que ornamentan dichas manufacturas y que aluden a la trayectoria diaria del sol.

## ABSTRACT

A study based on textiles of Q'ero community at Cuzco Department, Perú. By these records, the author identifies the presence of a daily time concept in this community, based on motifs of their manufactures representing the daily movement of the sun.

## INTRODUCTION

The purpose of this paper is to demonstrate how textile motifs woven in Q'ero, Peru, store cosmological knowledge in cloth. This information is transmitted from generation to generation in a monolingual culturally conservative Quechua community where both writing and spoken Spanish are relatively scarce<sup>1</sup>.

Increasing interest has centered on the subject of Andean textiles in their cultural context in general and their function as a system of communication in particular since the late 1970's. At first, research focused on the technical aspect of cloth production. Sling braiding techniques were described by Zorn (1983) for the Department of Puno, while Rowe (1977) discussed the technical aspect of cloth production. Several studies also dealt with the reproduction of both Peruvian and Bolivian motifs (Tidball 1969, Cahlander and Cason 1976, Cahlander 1983).

Then, research turned towards the cultural context of Andean cloth. Seligmann (1978:) studied the cultural continuity of textiles produced in Santa Barbara and Ayapata, located southeast of Cuzco, while Zorn (1983) studied the economic function of textiles in Taquile, Perú. Interest also focused on textiles as indications of ethnic identity (Matos Mar 1984, Meisch 1981), Wasserman and Hill 1984).

Later, with the development of the analytical tools of structuralism and semiotics, graphic art forms such as textile motifs began to be perceived as a system of communication. Here, graphic art was either viewed as "a code to be deciphered" (Levi-Strauss 1964) thus relating textile motifs to writing, or as "a language to be interpreted" (Geertz 1973) thus relating textile motifs to language. Using this theoretical perspective, Gelbart-Sayer (1985: 143) studied the geometric designs painted on Shipibo-Conibo cloth and attempted to demonstrate that they "may once have been a codified system of meanings... a graphic device comprising symbolic, semantic units, in perhaps a mnemotechnical arrangement...". Cereceda (1976) related the multicolored stripes in the Isluga talega to language while Solari (1982) demonstrated how Taquile textiles contained a decipherable code. Vargas (1985) questioned the possibility of contemporary textile designs as representing metaphorical language.

Since 1980, my principal interest has centered on textile iconography that is perceived as recorders of knowledge. Focusing on the Q'ero textile tradition in relation to the textiles produced in the Department of Cuzco, my earliest research (1983, 1984) endeavored to describe their complete textile inventory which included such factors as weaving loom, weaving technique, colors (both natural and chemical) as well as both motif identification and meaning. Then my chief interest concerned the decipherment of the *Inti* and *Ch'unchu* motifs used by the Q'ero to store both cosmological and mytho-historical knowledge. First, I discussed the probable signification of four varieties of the Inti motif based on untested hypotheses (1985). Then (1987) I demonstrated how the *Tawa Inti Qocha* motif

<sup>1</sup> Benito Salas Paucarr, 1986.

CARTE DE Q'ERO

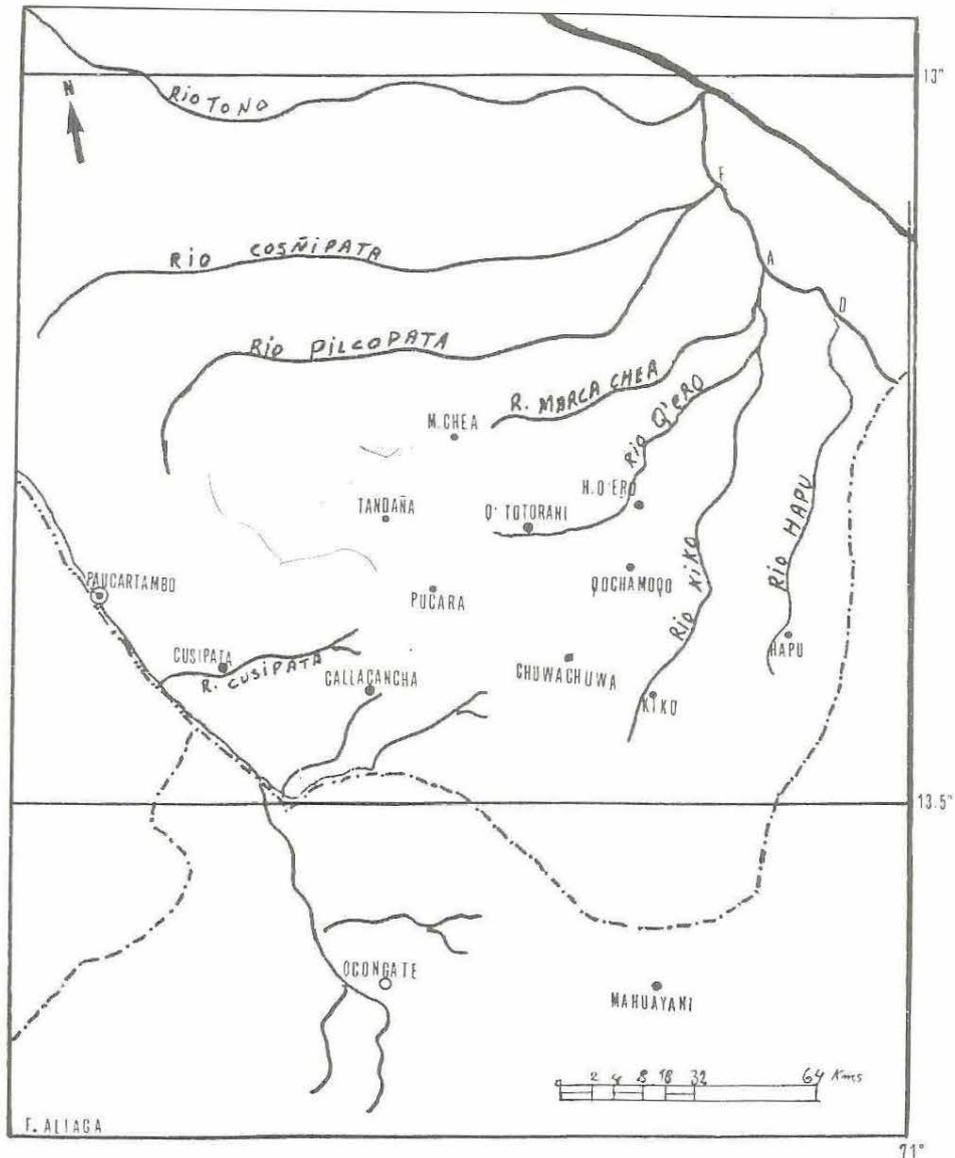


Figure 1

represented both temporal and spatial concepts but dealt with only its spatial aspect which was based on interpretations of this motif by Q'ero informants. Later (1987) I also demonstrated how four varieties of the *Ch'unchu* design represented the principal stages in the life of their cultural hero and founder, Inkarrí, and how only Q'ero cloth stored secret, sacred knowledge concerning Inkarrí's immediate return.

In this article, I wish to show how the same four *Inti* designs which symbolize spatial conceptions, also signify temporal concepts. First, I shall describe these four motifs called *Inti Lloqsimushan*, sunrise, *Hatun Inti*, zenith, *Inti Chinkapushan*, sunset, and *Tawa Inti Qocha*, antizenith. Next, based on an analysis of the graphic elements which compose



### DESCRIPTION OF Q'ERO

Q'ero is located in southern Peru, in the Department of Cuzco, the provinces of Paucartambo, Quispicanchi, and Madre de Dios. It is composed of eight communities called Q'ero, Totorani, Q'achupata, K'allakancha, Pukara, Markachea, Hapu and Kiko, as well as numerous hamlets. These villages are distributed in four principal valleys which range from 1800 to 5600 meters above sea level, and overlook the upper tributaries of the Madre de Dios River, situated to the north.

The Q'ero live in a relatively isolated area, as there are no modern communication routes there. Access to Q'ero, via Paucartambo, is a very difficult two day horseback ride. They number approximately 800 to 900 people and as previously stated, are largely monolingual Quechua speakers.

Q'ero's specific socio-economic organization is based on their exploitations of multiple ecological zones called *puna*, *gheswa* and *monte*. The *puna* is situated between 5600 and 4000 meters above sea level and is the principal residential area due to the pasturing of their llama and alpaca herds there. Qochamogo, Chuwa Chuwa, Tandaña and Wilkakunka are some of the main residential villages at this zone. The second zone, *gheswa*, is located between 4000 and 3000 meters above sea level and is the site of many of their potato fields. Such villages as Hatun Q'ero, Q'ero Totorani, K'allakancha and Hatun Kiko are located at this zone. Some of them such as Hatun Q'ero Totorani and Hatun Kiko are unoccupied ceremonial centers and are used only during the festivals of Corpus and Carnival. The *monte*, the third ecological zone exploited by the Q'ero, is situated between 3000 and 2000 meters above sea level is the site of the corn fields.

Fieldwork in Q'ero, as well as in surrounding communities, has been conducted since 1979 during six different periods. A total of 27 months has been spent deciphering the Q'ero textile code.

### DESCRIPTION OF THE FOUR INTI MOTIFS

#### Inti Lloqsimushan: Sunrise



Figure 3

**Inti Lloqsimushan** is the name given by the Q'ero to three diamonds which are placed inside each other in decreasing size and then set into a rectangular frame. First, this design is composed of large pink lines which begin at the rectangle's edge and radiate towards the first diamond which they do not touch. Then, this first diamond is composed of short brown-green lines which are slightly curved. These also direct towards the center of the diamond but do not touch it. A row of beige curvy lines separates this series of long lines from the first diamond. Next, there is a second centrally located diamond which is also composed of short curvy pink lines. These lines are all joined to form a small four part centrally located diamond. Last white dots are placed inside this smallest diamond.

Like the other four sun motifs, Inti Lloqsimushan is always woven in a discontinuous manner, being separated from the next design by a horizontal dividing line (Fig. 3).

#### Inti Chinkapushan: Sunset

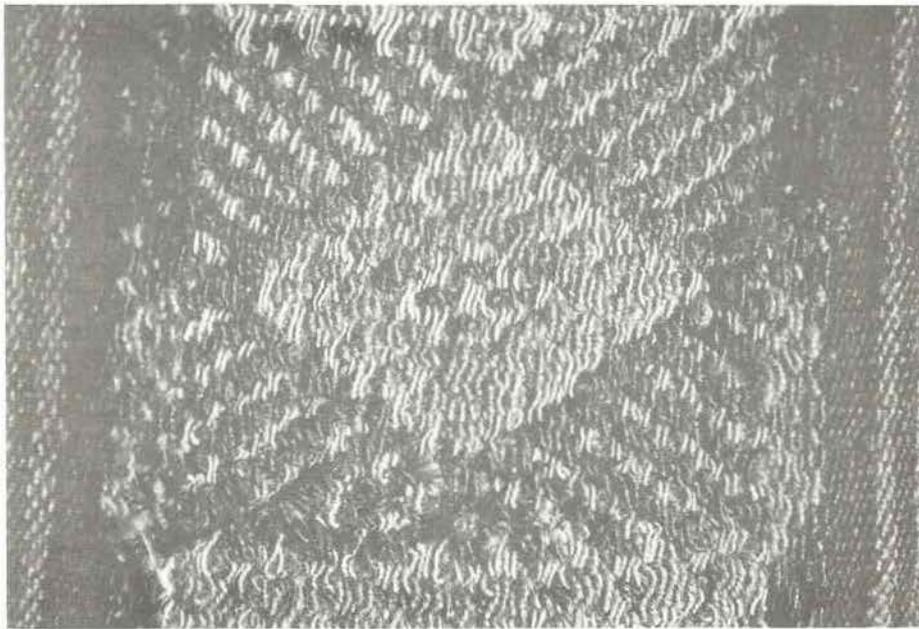


Figure 4

**Inti Chinkapushan** is the exact opposite of the *Inti Lloqsimushan* motif. It is also formed by three diamonds placed one inside the other in decreasing size and then set into a rectangular frame. But it used dark colors, as well as lines which radiate out, in order to distinguish it from *Inti Lloqsimushan*.

The first diamond consists of long, brown-green lines which outline it and radiate towards the edge of the rectangle. They do not touch this rectangular frame. Then, short, curvy, beige lines separate the first diamond from the second one. Next, this second diamond is composed of short, curvy pink lines which begin at the edge of the diamond and then radiate towards the rectangle. Last, there is a small beige diamond placed in the center with four, brown-green dots in its middle (Fig. 4).

#### Hatun Inti: Zenith

**Hatun Inti** is composed of one half of the *Inti Lloqsimushan* motif and one half of the *Inti Chinkapushan* design because it is characterized by a vertical line which divides this motif



Figure 5

into two distinct parts. This vertical line is formed by the use of lightly colored lines which radiate in on the right half of this design, as opposed to dark colored lines which radiate out on the left half of it.

In this way, Part A (the right half) is woven with red, cranberry and beige. Long red and short cranberry lines begin at the edge of the rectangle and radiate in towards the diamond. Part B, on the other hand, consists of black, pink, and beige lines.

Both long black and short pink lines begin at the edge of the diamond and radiate out towards the rectangular frame.

Next, Hatun Inti is divided into three diamonds which are placed one inside each other in decreasing size. These diamonds are exactly like the overall motif, with part A consisting of short red and cranberry lines which radiate in towards the diamond, while part B is composed of short black and pink lines which direct towards the rectangle (Fig. 5).

### Tawa Inti Qocha: Anti Zenith

Tawa Inti Qocha is exactly like the *Hatun Inti* motif except for the addition of a white "X" which quarters the motif. First, it is exactly like *Hatun Inti* because it also has a vertical line which separates the motif into two parts. Part A is composed of long, red lines which begin at the rectangular frame and radiate in, while part B is composed of long, black lines which begin at the centrally located diamond and radiate out towards the rectangle.

Like the vertical line, this "x" functions to create an opposition based on the use of light and dark colors and lines which radiate in or out. In this way, part "a" is composed of two partial diamonds and one complete one. The two partial diamonds, located at the top and bottom of the complete one, are formed with short, curvy, cranberry lines which radiate in towards the diamond. These lines touch each other, thereby forming a second, smaller

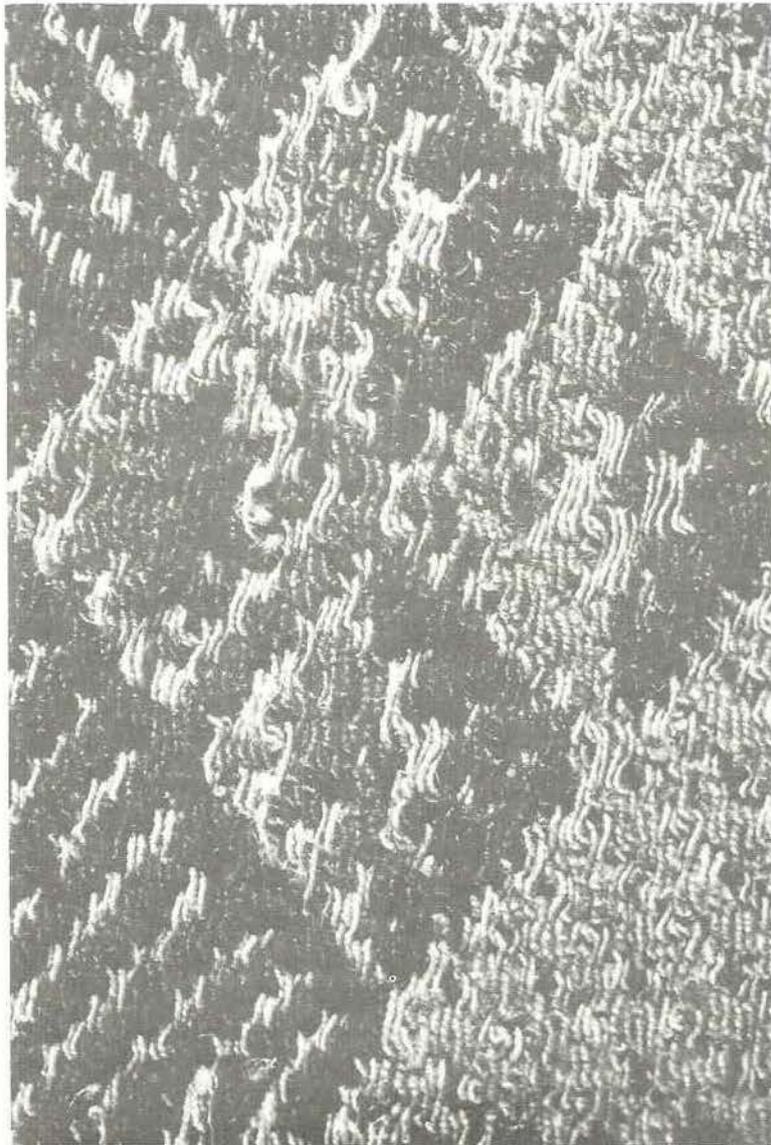


Figure 6

diamond. The single complete diamond is similarity divided into two parts; part "a" with short, cranberry lines which radiate in, and part "b" with short red lines which also radiate in.

Part B of the overall motif, on the other hand, is the exact opposite of part A because it is composed of dark lines which radiate out. First, it is composed of one complete diamond and two partial ones. The two partial diamonds, located at the top and bottom of the complete one, are formed with short, curvy pink lines which radiate out. The one complete diamond is also formed with short, pink lines which radiate out on one side, while the other half is composed of short, black lines which also radiate out. Thus, *Tawa Inti Qocha* is divided into 2, 4 and B parts based on an opposition in lines which radiate in or out and in the use of dark and light colors.

By way of summary, we can say that all four varieties of these Inti motifs are formed with some of the same graphic elements such as a diamond set into a rectangular frame, three diamonds placed one inside the other in decreasing size, a vertical line, an "X" and their division into two or four smaller diamonds. In order to understand the signification of these motifs and the graphic elements which form them, I conducted more than 54 formal and informal interviews with Q'ero weavers and men. Using the *Tawa Inti Qocha* motif as just one example, Sra. Rosa Chura Flores, of Tandaña, identified these elements in the following way: *Inti* was the term used for the large diamond, *pupu* was the term used for the three diamonds placed inside each other in decreasing size, *raya* was the name for the lines which radiate in opposite directions, *mayu* is the term used for the vertical lines, the white "X" was called *cruz* and the quartered diamond was called *qocha*.

An analysis of these graphic elements which is based on both drawings, as well as on explanations given by Q'ero Kauri informants, will help us to understand how the Q'ero perceive daily time. However, first I want to discuss the way in which the sun travels through the Q'ero sky during the day, as well as to describe the different observational methods used by the Incas to watch the sun, and then I shall demonstrate how these ideas are represented in their motifs.

#### THE Q'ERO CONCEPTION OF DAILY TIME: THE SUN'S 24-HOUR TRAJECTORY

Benito Salas Paucarr described the sun's daily trajectory through the Tandaña sky in the following way:

"Kay Wayna Capac lloqsimushan puntata riki, Inti. Chay Inti taytanchis riki. Qo'to lloqsimun las tres mananat a Inti Wayna Capacmanta. Kay Inti Wayna Capac lloqsimushan kay pacha p'unchay luzta purishan riki. Wayna Capac kay pachata riki puntata chinkaypushan. Anchaymanta haykun hoq laduta muyunayasma kashan qocha. Chaymansi tardiyaykuqtaqa chinkapushan. Hinaspa kay uku pachataman pampa ukumansi tutaqa puripushan intiqa. Otro chaymantaqa illarimuspaqa uku pachata puriyta nospaqa patanta phaqaqmushan kay pachata intiqa riki". (Of course, Wayna Capac rises from the mountain peaks. He is our Father the Sun. The Pleiades rises at 3 am from Wayna Capac. Wayna Capac, the Sun, rises and travels in our world bringing sunlight. In our world, Wayna Capac sets into the mountain peaks. Then he enters into one side of a round lake. (Next, during the late afternoon he sets). Then, the sun travels in the ground of the interior world. After that, the sun rises again,... he sets again, voyages into the interior world, and then flies towards our world)". (Taped 1986)<sup>2</sup>.

The sun travels the sky during the day casting both sunlight and shadow. The contemporary Quechua, like their Inca ancestors, observe this shadow cast by the sun's rays in order to tell daily time. Señor Prudencio Hakawaya, a Kauri astronomer, explains how the Quechua observed the shadow cast by the sun's rays during ancient times:

<sup>2</sup> Benito Salas Paucarr, 1986.

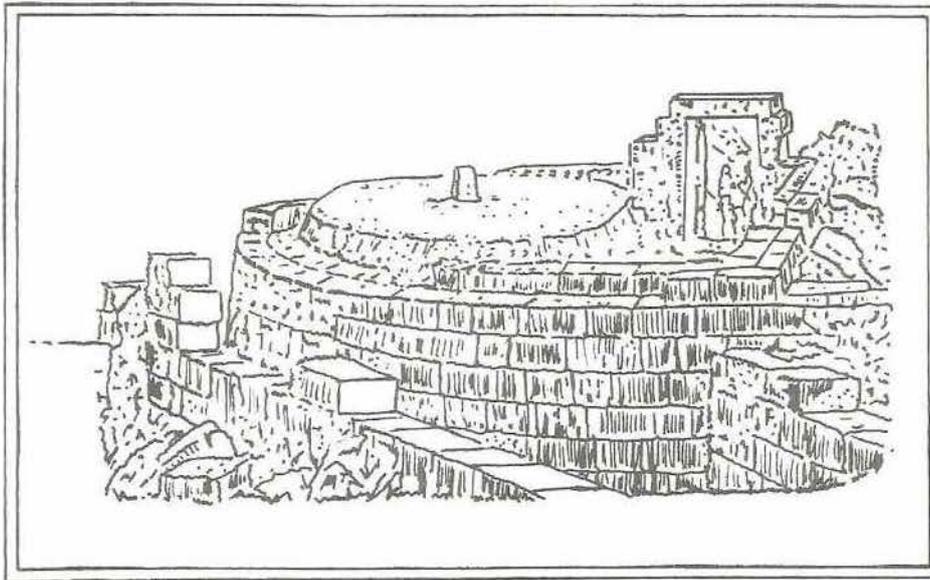


Figure 7

“Ñawpa tiempupi qhawarankichu llanthu imas horas chay p’unchay”. (“During ancient times, we looked at the shadow (cast by the rays of the sun) in order to know what time it was during the day”). (Taped 1985)<sup>3</sup>.

The placement of this shadow on the side of a mountain allowed them to tell what time it was during certain periods of the day:

“... deruchapi llanthu kay. Chay derechu llanthuchapi willaychaku doce kashan, tardistan kashan”. (“This shadow came from the right. This shadow came from the right and told us when it was noon, when it was sunset”)<sup>4</sup>.

A second method that was used to tell daily time was the construction of a solar observatory which they called Intiwatana. (Fig. 7).

Sr. Francisco Lara, a Kauri astronomer, explains how this circular stone structure was used in the observation of daily time:

Q. ¿Imanatin paykuna antes controlanku horata o sea ima horas kan chayta? (How did they used to control the hours, or what hours were there)?

A. “Paykunata mana leyta yacharankuchu. Paykunataqa horata qhawaranku illarikumanta. Quipupitaraq rimaranku q’ayto quipu. (They didn’t know how to read. In order to know how to read they looked at the illari star. They spoke about it in the quipu, a threaded quipu). Paykunata reqsinaku intiwatana... Intiwatana paykunata... waskachawan, waskata apakispa (coughs) intita watasqa ruwanku hinaspa. Chaypi intita paykuna saraychayranku chay intiwatana horankunanpaq. Paykunakunqa horanku rumimanta. Hatun cercuita waspa chayman apamasunchis nispa rumimanta sayachiriwanchu”. (“They knew the Intiwatana They made the Intiwatana... whitt a small rope... they looked at the sun for a year like that. Then, they placed this rope in a vertical position. This Intiwatana was used to tell the hours. They looked at the hours with a stone. They had brought a large circular stone. This stone was placed in a vertical position”). (Taped 1985)<sup>5</sup>.

Both of these methods which were used either today or in the not too distant past, were also utilized by the Incas. The chronicler Guaman Poma de Ayala (1936: 183) stated that daily time was observed during the Inca period by watching the shadows that the rising and set-

<sup>3</sup> Prudencio Hakawaya, 1985.

<sup>4</sup> Prudencio Hakawaya, 1985.

<sup>5</sup> Francisco Lara, 1985.

ting sun cast on a ravine. According to him, these rays turned like the needle of a clock; the first six months of the year were on the right side, while the last six were on the left side. Francisco Avila in his chronicle, Rites at Traditions du Huarochiri (1980: 77) noted that there were special astronomers called *yañca* who also observed the sun's movement by the shadow it cast on a special wall which was built for that purpose. And the *Intiwatana* (Squier 1974: 285; Lira 1946: 284) was thought to be a solar observatory "located at a high altitude there were the sun showed itself three times, at sunrise, at zenith, and at sunset... We can consider the *Intiwatana* as a solar clock... the shadow projected by the sun's rays matched the hours..."

Based on the descriptions given by both the Q'ero and Kauri astronomers, as well as early Spanish descriptions of the observational methods used by the Incas to tell daily time, it is clear that there is an important relationship between certain celestial and topographical features. First of all, there is a direct relationship between the sun and specific mountain peaks, as well as a relation between *Inti* and an interior lake. Second, there is a correlation between lines moving along the side of a mountain and lines moving around a circular stone structure. These structural relations must be considered in the graphic elements which compose these motifs, if we are to be able to understand how the Q'ero perceive daily time and then store this knowledge in their cloth. Thus, in this section I want to explore the similarities between the structural relationships discussed above in relation to the form of the following motifs: a diamond placed inside a rectangle which is bordered on both sides by chevrons, the use of light lines radiating in, as opposed to dark lines radiating out, a vertical line and an "X".

#### AN ANALYSIS OF THE GRAPHIC ELEMENTS

##### Inti in relation to K'iraqey Puntas

**K'iraqey Puntas**, *puntas*, *puntada*, *orqo puntas*, and *orqo* are the names given by the Q'ero to a secondary motif which borders both sides of the principal *Inti* and *Ch'unchu* designs.

This secondary motif is composed of a series of alternating triangles which are aligned sideways Figure 8. Both Spanish and Quechua words are used to identify this motif. For example, *puntas* is Spanish for "point", while *puntada* is another Spanish term which means "a stitch with a needle and thread." The Quechua-Spanish word *K'iraqey puntas* means "a tooth-like point which is derived from the Quechua word *kiru* which means "tooth". While the weavers generally employ the terms *k'iraqey puntas*, *puntas*, and *puntada* in order to identify this motif, it is called *orqo punta* (mountain peak) or *orqo* (mountain) by the men. In fact, *k'iraqey puntas* is a metaphor used by the weavers to describe the teeth-like pointed mountain peaks which border their valleys.

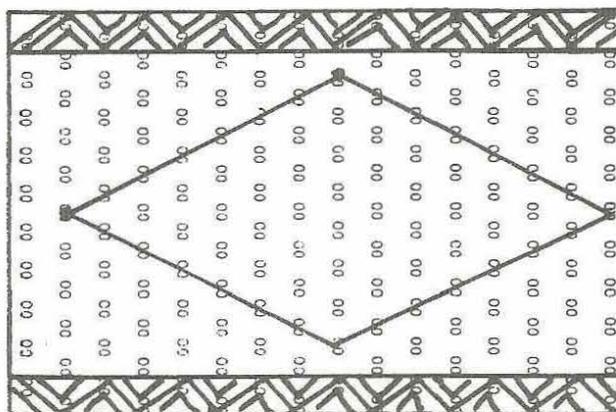


Figure 8

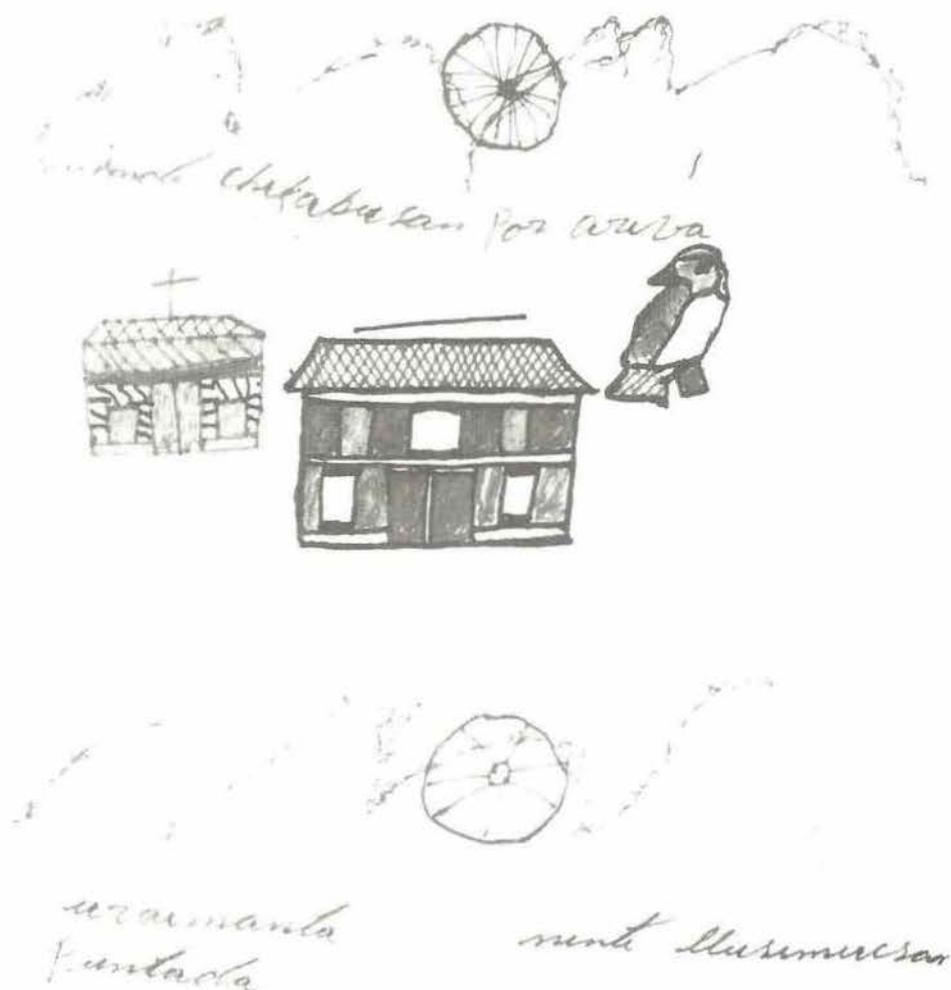


Figure 9

These mountain peaks are also directly related to the rising and setting sun. In Benito's description of the sun's 24 hour journey in mountain peaks during its voyage:

"Wayn Capac kay pachata riki puntata chinkaypushan".

(In this world, Wayna Capac sets into a mountain peak. (Taped 1985)<sup>6</sup>).

Benito then proceeded to draw a picture of the rising and setting sun which clearly shows their relationship to the mountain peaks. (Figure 9).

He wrote "Nindi Chikapusan por arriba" ("Inti Chikapushan por arriba— The sun sets in the higher moiety), and "Uraymanta ninti llusimucsan puntada" ("Uraymanta inti lloqsimushan puntada" (In the lower moiety, the sun rises from the mountain peaks"). Benito then explained how the rising and setting sun were related to specific mountain peaks. According to him, in Tandaña the sun rose from the Apu Yana Orqo (The sacred Black Mountain), it traveled the sky during the day, and then it set into the Qhwsawarani

<sup>6</sup> Benito Salas Paucar, 1986.

Mountain Peaks at dusk (Taped 1985). Similarly, a kauri astronomer also explained how the rising and setting sun were related to certain mountain peaks in Kauri. Señor Benito Nina Warkasaya said that the sun rose from the Apu Ausangate in the east, and it set into the Apu Akanaku in the west (Taped 1985)<sup>7</sup>.

Thus, from the descriptions given by both Benito and Benito Nina, we can see that the mountain peaks function as doorways into two worlds, the present world (*Kay Pacha*) and the interior world (*Uku Pacha*). This idea is represented in cloth by the use of the *k'iraqey puntas* motif which borders both sides of the *Inti* designs.

### Light lines in VS dark lines out

The second graphic element which must be analyzed in order to understand how the Q'ero perceive daily time are the light lines which radiate in and the dark lines which radiate out.

In Benito's drawing of the rising and setting sun in Tandaña he used distinct colors to symbolize two periods of daily time. He drew sunrise with a colorless circle while he represented sunset with a dark purple circle. During a conversation that I had with him concerning the use of color to represent these two periods of daily time, Benito stated that when the sun first appeared in the morning it was a reddish color:

"Kay Wayna Capac lloqsimun hoq puntamanta, tutamanta las cuatro y mediata. Hina lloqsimun puka pukacha riki".

("Wayna Capac rises from a mountain peak at about 4:30 am. It rises a red color, a little red"). (Taped 1986)<sup>8</sup>.

Señorita Juliana Samanta, from Chawpi Wasi, drew me a pasturing scene in which she also represented a rising sun with lightly colored lines. She said that this sun was "Inti lloqsimushan orqomanta" (The sun rises from the mountain", 1985)<sup>9</sup>. She drew this rising sun as a large circle with two smaller circles inside it. The large circle was made with pink, then the second circle was made with yellow and the smallest one was also in pink. She called these lines *sonran* (sun's rays) and by using both pink and yellow to draw it, she showed that light colors are always used in Q'ero to represent sunrise.

Casaverde Rojas (1970: 167) described a similar relationship between the use of light colors to symbolize sunrise and dark colors to symbolize sunset in the community of Kuyo Grande:

"El sol antes de su salida, esta *llukusqa* (cubierto) con el manto oscuro de la noche, de la que se despoja lentamente hasta quedar totalmente descubierto y emitir una luz roja incandescente, tornándose luego al amarillo" ("Before rising the sun is *llukusqa*, covered with the dark mantle of the night, from this it slowly rises until it remains totally visible and emits an incandescent red light, when it then turns yellow").

And according to Ossio (1976) in the community of Andamarca red was used to symbolize the east, while black was used to symbolize the west.

The Q'ero represent these differences between a light sunrise and a dark sunset in their cloth by using light colors to represent dawn and dark colors to represent dusk. However, we must also understand the relationship between color and the weaving technique used in the fabrication of these designs, if we are to comprehend the cultural significance of these colors.

The entire inventory of *Inti* motifs are woven using the *kinsamanta* technique in which two contrasting colors plus white are used to produce these designs. This technique creates a double faced cloth in which the motif woven on the face side is produced on the opposite side of the cloth in a reversed manner. In other words, if *Inti Lloqsimushan* is woven on the face side, *Inti Chinkapushan* will automatically appear on the opposite side of

<sup>7</sup> Benito Nina Warkasaya, 1985.

<sup>8</sup> Benito Salas Pauccar, 1986.

<sup>9</sup> Juliana Samanta, 1985.

the fabric. While there is a definite relationship between technique, color, and motif signification, it is the use of color which controls the meaning of the motifs. For example, in *chuspa* collected in Tandaña from Señor Miguel Salas Espinoza, the *Inti Lloqsimushan* motif is woven with red as the principal color and white and cranberry as the secondary colors, while *Inti Chinkapushan* is woven with purple as the primary colors and red and white as the secondary colors. The reverse face of this *Inti Lloqsimushan* design is a purple *Inti Chinkapushan* while the reverse side of the cranberry *Inti Chinkapushan* is a red *Inti Lloqsimushan*. So, when a weaver uses the *kinsamanta* technique to produce these motifs, she not only has to plan what it will look like on the face side of the cloth, but she must also plan what it will look like on the reverse side. Therefore, she must choose her colors according to whether she is weaving a rising sun, the setting sun, or the sun at zenith:

Motif	Face Side	Lines	Reverse	Lines
Inti Lloqsimushan Inti Chinkapushan	Sunrise Sunset	Pink In Grey Out	Sunset Sunrise	Grey-out Pink-in
Inti Lloqsimushan Inti Chinkapushan	Sunrise Sunset	Red In Purple Out	Sunset Sunrise	Cranberry-Out Red-In
Inti Lloqsimushan Inti Chinkapushan	Sunrise Sunset	Pink In Black Out	Sunset Sunrise	Black-Out Pink-in
Inti Lloqsimushan Inti Chinkapushan	Sunrise Sunset	Pink In Green Out	Sunset Sunrise	Green-out Pink-in

The Q'ero never weave a rising sun with long, black lines just as they never weave a setting sun with long, pink lines because they are using both light and dark colors to symbolize sunlight and shadow.

#### K'anchay/Llanthu: Sunlight and Shadow

The third graphic element which represents ideas about daily time is the vertical lines which functions to divide day into sunlight and shadow. An analysis of this vertical line will help us to comprehend how they are symbolizing sunlight with light lines which radiate in, while they are symbolizing shadow with dark lines which radiate out.

When the Q'ero are described the *Inti* motifs in terms of temporal ideas, they usually call both sets of lines by the general word, *raya* which means sunray. But when they want to relate these lines specifically to sunlight and shadow then they call them *k'anchay* and *llanthu*. For example, when Benito spoke about the rising sun and drew a sun with a colorless circle he called the sunrays, "luzta", which is Spanish for sunlight.

Sr. Benigno Quispe, of K'allakancha, on the other hand, specifically called the sunlight observed with the *Intiwatana*, *k'anchay*:

Q. Ima rikuwanku *intiwatnawan?* (what do you see with the *Intiwatana?*)".

Rikukupuni inti... Munaychata inti lloqsimun saltaspa, saltaspa, saltaspa...

K'anchayta qhawan inti lloqsimuqtin". (We see the sun. The sun rises beautifully turning, turning, turning... We look at the sun's rays when it rises, (Taped 1986)<sup>10</sup>.

In our discussion of the relation to the rising and setting sun to specific mountain peaks, Kauri astronomers also used the terms *llanthu* and *k'anchay* to refer to shadow and sunlight.

Another way in which specific words are used to represent ideas about sunlight and shadow, is in the use of the suffixes *mu* and *pu* which are used in the terms *Inti Lloqsimushan* and *Inti Chinkapushan* respectively. For example, the suffix *mu* means that sunlight is directing towards Q'ero, while the suffix *pu* signifies that the sun is moving away

<sup>10</sup> Benigno Quispe, 1986.

from them. *Pu* (Taylor 1981: 88) also suggests the idea that the sun is no longer benefiting them because it is moving away from Q'ero. The term *Hatun Inti* can also be analyzed in a similar way. First, *hatun* (Bertonio 1916: 435) means "high" or "large". Analyzed in this way, the high or large sun refers to the sun at zenith because it is at noon that it is the highest and brightest in the sky. Secondly, *Hatun Inti* is composed of a vertical line which the weavers call *sonqocha*, or "little heart". Thus, there is a relationship between this term and a vertical location, zenith in the sky. Sra. Austina Flores Wauman and Basilia Cruz Arana, both from k'allakancha, also called this motif *iskay t' aqapi*<sup>11</sup> "which means" separated into two parts (Cusihuaman 1976: 149). What the *sonqocha* line does, then, is to divide day into two equal parts of daylight and shadow.

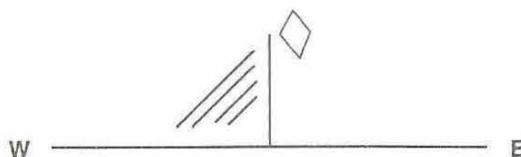
It is therefore apparent that the very structure of the *Hatun Inti* motif can be related to the various observational devices used by the Incas and the Quechuas in order to tell daily time. In this way, *Hatun Inti* can be viewed as the graphic representation of the sun dial, the *Intiwatana*, in which the quantity and placement of shadow distributed on it by the sunrays, allowed them to tell time. Thus, I view part A of the *Hatun Inti* motif (1/2 *Inti Lloqsimushan*) as signifying the quantity of sunlight left for the day, while part B (1/2 *Inti Chinkapushan*) symbolizes the amount of light already used. The vertical line functions to separate light from shadow, dawn from dusk, day from night.

In order to illustrate this, I want to look at the sun as a reservoir of energy, or light, or daily time. Then we can see how the three sun motifs called *Inti Lloqsimushan*, *Hatun Inti*, and *Inti Chinkapushan*, each represent different amounts of light:

Inti Lloqsimushan	Represents the amount of light to be used for the entire day
Hatun Inti	Part A: Represents the sunlight left to be used. Part B: Represents the sunlight used during the morning
Inti Chinkapushan	All the sunlight has been completely used.

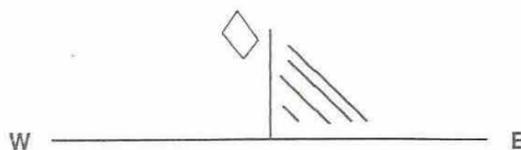
We can then understand how the Q'ero symbolize sunlight with light lines which radiate in and shadow with dark lines which radiate out by looking at the relation of these lines to the vertical *sonqocha* line:

#### The Morning Star



The morning sun casts its shadow in the west.

#### The Afternoon Sun



The afternoon sun casts its shadow in the east.

<sup>11</sup> Austina Flores Waman 1985 and Basilia Cruz Arana, 1985.

In effect, based on this relation between the *sonqocha* vertical line and the light and dark radiating lines, we can see that the shadow cast by the vertical line corresponds to the sunlight, time and energy which has been spent during the day. This suggests, then, that the light lines which radiate in represents the amount of light available for the entire day, while the dark lines which radiate out represents the amount of shadow spent. Each of these three motifs can thus be compared to both the amount of sunlight or shadow which is available to be cast and spent for the entire day;

Motif	Sunlight	Shadow
Inti Lloqsimushan	Represents the sunlight to be used for the entire day.	There is no sunlight neither in the east, nor in the west.
Hatun Inti	Part A: light used during the morning Part B: light remaining to be used	The shadow is cast in the west There is no shadow in the east.
Inti Chinkapushan	All the sunlight has been used.	All the shadow has been cast.

Last, in order to completely understand how the sun voyages between this world (*Kay Pacha*) and the interior world (*Uku Pacha*) we must analyze the relation between the diamond and the "X" which quarters the sun.

### Inti and the Qocha

In Benito's description of the sun's 24-hour trajectory, he stated that *Inti* traveled through a lake situated in the interior world in order to rise again the next morning. I asked Francisco Lara to explain the relation between the sun, and moon, and the lake:

Q. "Qan, ¿Ima significan qochawan, intiwan, killawan? (What is the meaning of the lake with the sun and the moon?).

A. "Intiwan, qochawan, killawan". (The sun with the lake and the moon). "Killawan, killaga qocha chiri kasqa". (With the moon, this moon makes the lake cold). "Inti kan chaytaq ninamanta intita". (There is fire from the sun). "Dios kamaraq chayrayku intita alimentaku qochawan". (Good made it that the sun nourishes itself from the lake). "Qochaman hayku inti". (Inti enters from the sea). "Chay mar chinkapunka inti". (The sun sets into that sea).

Q. "Y ima sutin kay qocha?" (And what is that called?)

A. "Kay qocha sutin mar... Sutin Oceano Atlántico!" (This sea is called "mar"... it is called the Atlantic Ocean!) "Kay qochatapi kashan allpa". (That sea... there is earth in that sea).<sup>12</sup>

Benigno Quispe of k'allancha (Taped 1986) also stated that the lake served to cool off the sun during the night:

"Inti k'anchapushawanchis mana hina hinachu intiqqa qochapuni. (Surely the relation of the sun to the lake means that there is no fire from the sun's rays). Kay (undecipherable) qhawarantichis intiqqa k'anchay tutamantaq qochaylla unulla phawaymushan q'omer. Q'omer qocha phawamun inti. Lliuw, lliuw, lliuw qochalla mana intipuni hina qellutarachu k'anchamunqa. Inti qocha anchay vale!" ("During the night the sun's rays are flying completely into the lake which is composed of green water. The sun flies in the green water. Like this the sun's ray absolutely cannot burn. For that reason *Inti* and the *Qocha* have value)". (Taped 1986)<sup>13</sup>.

<sup>12</sup> Francisco Lara, 1985.

<sup>13</sup> Benigno Quispe, 1986.

Based on both Francisco and Begnino's explanations concerning the relationship between the sun, the moon, and the lake, several new ideas are noted. First, God created this *qocha* which is composed of both green water as well as earth. Second, both the sun and the moon travel through the *qocha* but they each have a different relation to it. *Inti* heats the lake, while the moon cools it. Third, *Inti* receives its energy by drinking the water of the lake in order to rise again the next day. We can also see that there is a cyclical movement between the sun and the moon. When *Inti* enters this world (*Kay Pacha*) through the doorways of the sacred mountains located in the east, the moon is leaving this world and entering the interior world (*Uki Pacha*) via the sacred mountains which lie to the west. So while the sun is journeying through the sky during the day, giving us sunlight, the moon is traveling through the interior world in order to cool off its water. Then, *Inti* enters the interior world and drinks its waters in order to rise the next day, while the moon is traveling through the sky in *Kay Pacha* in order to bring light to the night.

Francisco Lara directly related the *Tawa Inti Qocha* motif to the sun's 24-hour trajectory in the following way:

A. "Imataq kay? (what is it?)

Q. "Kay larutaqmi Inti lloqsimuy laru. Kay larutaqmi Inti Haykuy laru. Kay larutaqmi ñawpa kepa quedan qhepa..." (This side is sunrise (pointing to the upper right), Inti Lloqsimuy). This side is the sunset, Inti Haykuy (pointing to the upper left). This side is the ancient sack which hold the future..." (Toped 1985)<sup>14</sup>.

Thus, it is apparent that there is a cyclical movement of the sun and the moon which travel through an interior lake in order to rise for set again the following dawn or dusk. This 24-hour trajectory is stored in cloth with the *Inti Lloqsimushan*, sunrise *Hatun Inti*, zenith, *Inti Chinkapushan*, sunset, and *Tawa Inti Qocha*, antizenith, motifs based on the observation of shadow and light cast by the sun's rays (Figure 10).

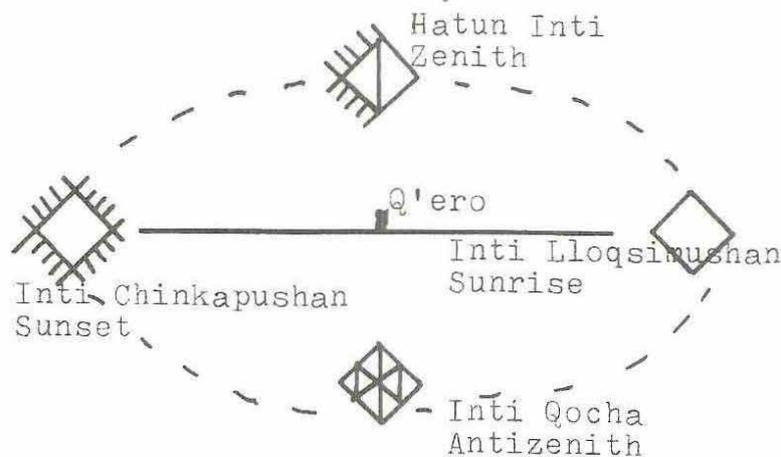


Figure 10

In his pioneering book, *At the Crossroads of the Earth and the Sky*, Gary Urton (1980: 68) describes a similar 24-hour trajectory for the sun in the village of Misminay: The sun rises from the east and moves through the sky from east to west. When it sets in the west, it enters the "sea" or "other world". After entering the sea... (it) makes a twisting motion to the right (north) and begins its journey back to the east beneath the Vilcanota River. It takes all night for the sun to move from *mar* to *inti seqamuna*.

These three periods of daily time, sunrise, noon, and sunset, were worshipped by the Incas during the festival of Inti Raymi. The chronicler, Cristobal de Molina (1916: 26)

<sup>14</sup> Francisco Lara, 1985.

stated that *Inti* was worshipped at the site of Huancauri when it rose, at Coricancha in Cuzco at noon, and on Mt. Aepiran when it set. Huancauri is located to the east of Cuzco, Mt. Aepiran is situated to the west, while Coricancha is the center of Cuzco. Thus, *Inti* was venerated at three sites which correspond to the three stages of the sun's daily journey from sunrise, zenith, to sunset.

Both contemporary and ancient Quechua and Aymara dictionaries name these three periods of daily time:

Period of Time	Ancien Dictionaries
Sunrise	Pacarimun Cecamun or ceccarcumun or pacarircumun (Holguin 1952: 671)
East	Intikk wach'inan (Lira 1946: 283)
Sunrise	Yndilluscimuc or yndiceccamun (Santo Tomás 1951: 283)
Sunset	Intiyacun chincaycupun or yaucritamun chincayaitamun (Holguin 1952: 671)
West	Intikk muchuynin (Lira 1946: 283-84)
Sunset	
Sunset	Yndiyacuni, qui or indipacani gui (Santo Tomás 1951: 301)
Zenith	Intikk sayanan (Lira 1946: 282-84)
Zenith	Yndip llucsimuc or yndipeccamuc (Santo Tomás 1951: 301)

Recent ethno-linguistic research carried out in the Department of Cuzco reveals the following terms used to denote sunrise, zenith and sunset:

Period of Time	Ancien Dictionaries
Sunrise	Inti Lloqsimushan (Silverman-Proust 1981)
East	Inti Seqamuna (Urton 1981: 68, Misminay)
Sunrise	Inti Seqay (Cusihuaman 1976: 60, for Cuzco)
Sunrise	Inti Lloqsimushan (Silverman-Proust, 1985 Huancarani)
Sunrise	Inti Lloqsimuy (Silverman-Proust, 1985, Kauri)
Zenith	Hatun Inti (SP 1986: 66)
Zenith	Hatun Inti (SP 1986, Huancarani)
Zenith	Doce Inti or Kuskan p'unchay (SP 1985 kauri)
Zenith	Chawpi p'unchay (Cusihuaman 1976: 108)
Antizenith	Kuska tuta (SP 1985 Kauri)
Sunset	Inti Chinkapushan (SP 1986: 66)
Sunset	Inti Haykuy tardi or Inti Haykuy or Inti Chinkaypun (SP 1985, Kauri)
Sunset	Inti Chinkapun tardita (SP 1985 Huancarani)
West	Mar, Ocean (Urton 1981: 68)
Sunset	Inti Haykuy (Cusihuaman 1976: 60)

The terminology that I collected refers to textile motifs, as well as information obtained by drawings made by various informants, coupled with the terms used when speaking about these three periods of time in regular conversation.

Several difficulties occur when one attempts to correlate contemporary temporal terminology with the vocabulary found in the ancient Quechua dictionaries. First, during the 16<sup>th</sup> century there was no standardization used with reference to the terms employed to designate sunrise, zenith and sunset. Second, Santo Tomás uses the verb *lloqsiy* to refer to

both the sun at zenith and at sunrise. So there is some confusion regarding exact vocabulary meaning. And based on a scant amount of data collected by myself and others relative to the terms used to signify daily temporal concepts, I can only say that there seems to also be a lack of standardization used for the terms employed for these temporal concepts today. However, what is important is the fact that the contemporary Quechua, like their Inca ancestors, named these three periods of daily time based on their observations of *k'anchay* and *llanthu* and that they are graphically represented in Q'ero cloth.

#### CONCLUSION

In the study of the Q'ero conception of daily time, I attempted to show how the Q'ero observe shadow and light in order to tell time during the day. Shadows cast on the ground by the sun's rays which were positioned on the sides of mountains, or positioned on stone structures, were used during Inca times, as well as in the recent past. Today in Q'ero, they observe *k'anchay* and *llanthu* by watching the shadow cast on the ground by the sun's rays.

Their knowledge concerning daily time is stored in their cloth. The rising sun, *Inti Lloqsimushan*, the sun at noon, *Hatun Inti*, the setting sun, *Inti Chinkapushan*, and the sun at midnight, *Tawa Inti Qocha*, are all composed of certain graphic elements which store ideas about daily time. Light lines radiating in signify sunlight, while dark lines radiating out represents shadow. The sun bordered by chevrons on both sides signifies the mountain peaks which are the doorways to two worlds, *Kay Pacha*, and *Uku Pacha*. The sun travels the *qocha*, represented by the "X" in order to rise again the next day. There is also a relation between the form of these motifs and the observational structures used to watch *Inti*.

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#### BIBLIOGRAPHY

- |  |   |
|--|---|
| AVILA, Francisco de<br>1980                  | Rites et Traditions du Huarochiri. Trad., G. Taylor. L'Harmattan, Paris.              |
| BERTONIO, Ludovico P.<br>1984                | Vocabulario de la Lengua Aymara (1612). CERES, IFEA, MUSEF. Cochabamba.               |
| CAHLANDER, Adele<br>1980                     | Sling Braiding of the Andes. Weaver's Journal Monograph IV. Boulder, Colorado.        |
| CASAVARDE, Rojas, Juvenal<br>1970            | El Mundo Sobrenatural en una Comunidad, Allpanchis, num. 11, pp. 121-244.             |
| CASON, Marjorie;<br>Cahlander, Adele<br>1976 | The Art of Bolivian Highland Weaving. Ed. Watson-Guptill, New York.                   |
| CERECEDA, Verónica<br>1978                   | Semiologie des Tissus Andins: les Talegas d'Isluga, Annales, num. 5-6, pp. 1017-1035. |
| CUSIHUAMAN, Antonio<br>1976                  | Diccionario Quechua Cuzco-Collao. Instituto de Estudios Peruanos. Lima.               |

- GEBHART-SAYER, Angelika  
1985 The Geometric Designs of the Shipibo-Conibo in Ritual Context, Journal of Latin American Lore vol. 11, num. 2, pp. 143-176.
- GEERTZ, Clifford  
1973 The Interpretation of Cultures. Basic Books. New York.
- GONZALEZ Holguín, Diego  
1952 Vocabulario de la lengua general de todo el Perú. (1608). Universidad Nacional Mayor de San Marcos, Lima.
- LEVI-STRAUSS, Claude  
1975 The Way of the Maska. University of Washington. Seattle.
- LIRA, Jorge  
1982 Diccionario Kkechuwa-Espanol. Secretaría Ejecutiva del Convenio "Andrés Bello". Cuadernos Culturales Andinos, num. 5. Bogotá.
- MATOS Avalos, Alejandro;  
Matos Mar, José;  
Matos Avalos, Rosalía  
1984 Tupe, Pueblo Tradicional en la Provincia de Yayos, Boletín de Lima num. 36, pp. 57-73.
- MEISCH, Lynn Ann  
1984 Costume and Weaving in Saraguro Ecuador, The Textile Museum Journal 1980, pp. 55-64.
- NUÑEZ, del Prado, Oscar  
1970 El Hombre y la Familia: Su Matrimonio y Organización Político Social en Q'ero. Garcilaso. Cusco.
- OSSIO, Juan  
1976 El Simbolismo del Agua y la Representación del Tiempo y el Espacio en la Fiesta de la Acequia, de la Comunidad de Andamarca, Actes de Congres de Americanistes, vol. 4. pp. 377-396.
- ROWE, Ann Pollard  
1977 Warp-Patterned Weaves of the Andes. The Textile Museum. Washington D.C.
- SANTO Tomás, Domingo de  
1954 Lexicón o Vocabulario de la lengua general del Perú. Universidad Nacional Mayor de San Marcos. Lima.
- SELIGMANN, Linda Jane  
1978 The Role of Weaving in the Contemporary Andean Socio-Economic Formation. University of Texas, MA. Diss. Austin.
- SILVERMAN-PROUST, Gail P.  
1983 La Notion du Temps telle Qu'elle Apparaît dans les Textiles Péruviens, M.A. Thesis, Université de Paris, V-Rene Descartes, Sciences Humaines Sorbonne.
- 1983 Motivos Textiles en Q'ero, en Q'ero el último ayllu inca. Edit. Flores Ochoa and Núñez del Prado. CEAC. pp. 87-105. Cusco.
- 1984 Los Motivos de los Tejidos en Q'ero: La Descripción de los Tejidos, Revista del Museo e Instituto de Arqueología, núm. 23, pp. 281-308.
- 1986 Cuatro motivos Inti de Q'ero, Boletín de Lima, num. 43, pp. 61-76.
- 1987 Tawa Inti Qocha: Símbolo de la Cosmología Andina. Su Concepción del Espacio. Antropológica, núm. 5.
- 1987 La Representación Gráfica del Mito de Inkarrí a través de los Tejidos Q'eros, En: Messianismo Andino, tomo 2, Edit. Juan Ossio, Lima .
- SOLARI, Gertrude B.  
1983 Interpretación de los Signos de una Manta de la Isla Taquile, Lago Titicaca, Boletín de Lima.
- TAYLOR, Gerald  
1981 Enonces Exprimant la Possession et l'obligation en Quechua, Amerindia, núm. 6, pp. 85-94.
- TIDBALL, Harriet  
1969 Perú: Textiles Unlimited. HTH Publishers. Washington.
- URTON, Gary  
1980 At the Crossroads of the Earth and the Sky: An Andean Cosmology, Latin American Monograph. University of Texas Press, Austin.

- VARGAS, Ernesto  
1985  
El Enigma del Pally. Boletín de Lima, núm. 41, pp. 39-56.
- WASSERMAN, Tamara;  
Hill, Jonathan  
1981  
Bolivian Indian Textiles: Traditional Designs and Costumes. Dover Publications. New York.
- WEBSTER, Steven S.  
1970  
An Indigenous Quechua Community in Exploitation of Multiple Ecological Zones. XXXIX Congreso Internacional de Americanistas. pp. 174-183.
- ZORN, Elayne  
1980  
Sling Braiding in the Macusani Area of Peru, Textile Museum Journal. vol. 19-20, pp. 41-54.
- ZORN, Elayne  
1983.  
Traditions Versus Tourism in Taquile, Peru: Changes in the Economics of Andean Textile Production and Exchange Due to Market Sale, MA. Thesis. University of Texas, Austin.