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Signs in three dimensions. Sensitive writing and scriptural landscape (Bolivia, 21st century)

In 1953, in *La escritura indígena andina*, published in La Paz, Bolivia, Dick Edgar Ibarra Grasso described documents on leather and paper containing pictorial signs organized as writing systems. The Argentine author reported various scholars and researchers who, since the second half of the 19th century – and talking about different regions located around the Titicaca and Poopo Lakes, as well as in the region of Potosí – had each made brief references to Catholic texts transcribed into this form of pictorial writing.¹

For the most part, these scholars' references did not reflect in situ observations. Moreover, the Argentine Ibarra and his colleagues were more concerned with establishing proof for the existence of pre-Columbian writing, than with the actual use of the signs in contemporary Bolivia (**Fig. 1**).

This paper has a different goal. The examples I will provide here date, for the oldest ones, from the 1940s, and the uses of the signs I will describe are those I have observed during fieldwork between 2012 and 2017. That said, while it would be possible to suspect an initial creation of these systems in colonial times, these are only hypotheses, due to a lack of sources. My interlocutors cannot testify to this use before the beginning of the 20th century. In my opinion, this system of pictorial signs most likely has been invented during the second half of the 19th century.

It is during a stay he made in Bolivia in the 1940s that Ibarra discovered still common practices in the Potosí region and copied notebooks used by several inhabitants. These native speakers of Quechua language used pictorial signs to transcribe and learn Christian doctrine in their own language. After reading these testimonies, more than 70 years after Ibarra, and thinking that I would only discover traces of them, I was surprised to discover that these writings were still in use in the area of the municipality of San

1 Including Tschudi 1869; Wiener 1880; Posnansky 1910 and 1912.



Fig. 1: A woman called Manuela Astoraiqui, writing a catholic text and using pictorial signs on a notebook placed directly on the ground (Ibarra Grasso 1953, 16)

Lucas. Each year, native speakers use these documents to produce three-dimensional clay discs associated with figures and objects as signs.² The community destroys these clay discs at the end of the Lenten period and Easter celebrations, engaging a renewal of the practice during every Lent's period.

At this moment of the year, a *doctrinero* or *maestro* is appointed in the communities (between 50 and 500 inhabitants) surrounding the capital city of San Lucas, a small-town of 1 360 inhabitants. He is a specialist responsible for teaching doctrine

2 The information and photographs in this paper were collected during Lenten fieldwork in 2011, 2013, 2014 and 2017. This research started as part of a collective project (with my colleagues Pierre Déléage and Isabel Yaya) and benefited from funding from the CNRS and LabEx TransferS. I pursued them in the framework of two post-doctoral research projects at LabEx HAS-TEC (attached to the Centre d'études en Sciences sociales du religieux – Césor) and LabEx TransferS (attached to the Laboratoire d'anthropologie sociale – LAS – and its linguistic anthropology team). This work was developed during a research residency at the Nantes Institute for Advanced Study, stay during which I have been kindly invited by D. Wengrow to participate in the Symposium *Thought, Image and the Making of Social Worlds* (Freiburg, July 2019). I would like to thank D. Wengrow as well as my friend Justin Pope for sharing with me their comments and corrections.



Fig. 2: Two *doctrineros* elected for Lent (Padcoyo district, 2017; photo B. Gaillemin)

(*doctrina cristiana*).³ The doctrinal Christian texts are the Sign of the Cross, Lord Father, Hail Mary, Salve Regina, Creed, Ten Commandments, Sacraments, etc., and they are, for most of them, almost the same than those translated into Quechua (and also in Aymara) during colonial times (**Fig. 2**).⁴

To transmit them, the *doctrinero* uses clay *rezos* (*rezo* meaning ‘prayer’ in Spanish) and through these artifacts, he teaches children and old adults, i.e. the generations not directly considered as part of the labour force. This charge falls to the

3 The municipality counts 123 communities, spread over a territory of more than 4000 km² (32 000 inhabitants in total) and grouped into 15 districts. Depending on their size and their commitment to this teaching technique, there may be in each district one or more *doctrineros* designed each year, in charge of teaching a set of communities whose number also varies. My essay is essentially based on a fieldwork made in a community called Padcoyo (3000 inhabitants), 20 km far from the eponym capital of the municipality of San Lucas (department: Chuquisaca; region: Nor Cinti). As Garcés reports (2017, 71), the whole period of Lent and Holy Week, in San Lucas, is called the time of Doctrine.

4 The Third Lima Council (1582–1583) sponsored a trilingual *Doctrina* that was published in 1584 (*Doctrina christiana* 1584).

doctrinero as well as to his helpers, called *wiskales*.⁵ It is an obligation that requires the chosen person to make himself available throughout the ‘doctrine time’, that is Lent, in order to teach the doctrine. In the same way, each (Catholic) family in the community also undertakes, under penalty of a fine, to send their children to learn the doctrine from this designated master. For the masters, ‘knowledge’ lies in the way in which *rezos* are elaborated, read and transmitted. These *rezos* are also called with the Quechua term, *llut’asqa*, which literally means ‘whose surface is covered with clay’. Obviously, it is necessary to know the original text in Quechua, how it works and how it is transcribed and vocalized in order to be able to elaborate and transmit it. Here materialized, on the ground, we find a kind of map of the teaching, since every prayer has to be learnt in a specific order. Depending on the building where the lessons take place, small groups are formed around each text according to their progress in knowledge.

Underlying the semiotic issue, I will interrogate what drives the inhabitants of these communities to submit to this teaching every year. Indeed, I should add that the Church, through the priest residing permanently in the capital of the region (San Lucas), does not take part in this practice at all. On the contrary, the priest stays at a distance, sometimes is not even aware of the practice taking place, and usually does not speak Quechua. It is therefore a practice that has its value at the community level. But it remains costly in many ways and does not seem a priori justified, since masses and sacraments are not held in this language, since also children are totally alphabetized, so they could directly read alphabetical texts to learn those texts. So the question is: What does this practice really reveal?

While it would be tempting to quickly assert that this type of sign is used ‘for lack of’ knowledge of the alphabet (and insofar as this is generally not the case), we will explain the meaning of several signs, thanks to the information provided by the teachers and their pupils. On the basis of these observations, and beyond a purely semiotic analysis of a system for encoding a given message, I shall propose hypotheses on the relations that inhabitants have with these signs rooted in matter which, beyond transcribing or translating, enter into a complex system of implicit transmission, formulate a thought and refer to the whole of a collective imagination.

5 Spanish colonial loan ‘fiscal’ integrated to Quechua language. Apart from various changes in the economic, religious (development of the evangelical churches) and sociological fields, the practice studied bears a remarkable resemblance to those described in colonial texts. Indeed, as Burkhart indicates, it is known that in the Andes as in New Spain, colonial catechetical practices developed rapidly so that “indigenous people, regardless of their piety, had a stake in knowing the basic catechism and were pressured to do so. Children were taught these texts, and adults were obliged to participate in weekly recitations directed by their priest or their fiscal, the indigenous church official who oversaw a large part of community religious life, especially in communities with no resident priest” (Burkhart 2016, 169).

To present this analysis, I will begin by describing some of the semiotic characteristics of this writing, taking as an example the signs used to transcribe a particular prayer: The Apostles Creed. To do so, I will use different materials. For the same prayer, we can count on the notebooks of the *doctrineros*.⁶ We can also count on photographs of the clay *rezos* and their figurines. Photographs are hard to be used alone, as one figurine is difficult to isolate from the other objects. This difficulty in itself illustrates the fact that it is indeed a non-exportable technique, to be used *in situ*, in a relational framework (*maestro-pupil*) and in relation as much to matter as to three-dimensional space. Aware of these constraints, I also use the drawings I have made myself, directly from the clay, and adding the translation and commentaries made by masters and pupils. This comparison allows us not only to observe constant uses, omissions or innovations, but also to test reading hypotheses, moving from the flat surface of the paper to its three-dimensional realization.

Reading the first sentences of the Creed: first questions

Now, let us take as an example the signs used to transcribe the Apostles Creed (**Fig. 3, 4**). Considering its translation in Quechua, made on colonial times and published in 1585, we can first compare this text with the notebook copied in the 1940s. This notebook is written in boustrophedon, starting on the lower part, on the right. Its pictorial signs can be then compared to a photograph I took in 2017. There, each three-dimensional sign, corresponding to a word or a syllable, is organized following a spiral pattern, anticlockwise, from the exterior of the clay disk until its center, which ends the prayer.

The first sentence transcribes “I believe in God, the Father almighty, Creator of heaven and earth.” (**Fig. 5**). For the verb “believe”, we can see a sign which seems to represent a stick, more precisely a cane with a rounded handle. Indeed, on the clay disk, we can observe a stick, surrounded by black and white wool strands. This sign remains enigmatic and no exegesis has been given to me.⁷ That said, I will get back to the woolen signs later.

6 The notebooks available at the moment are the copies from the 1940s, made and reproduced by Ibarra 1953, 190 (originals nowadays held by P. Déléage, private collection). As my main informant, I can also count on Isidoro Flores's notebook, a *doctrinero* born in 1936 who shared with me some of his knowledge and let me take pictures of the personal notebook he uses to develop the three-dimensional prayers each year.

7 It is important to consider the fact that the sign used to say “belief”, in itself associated with a complex network of chain cognitive activities, is close in its materiality to the sign used for “sin” (see below) and is characterized by an alternation of black and white strands.

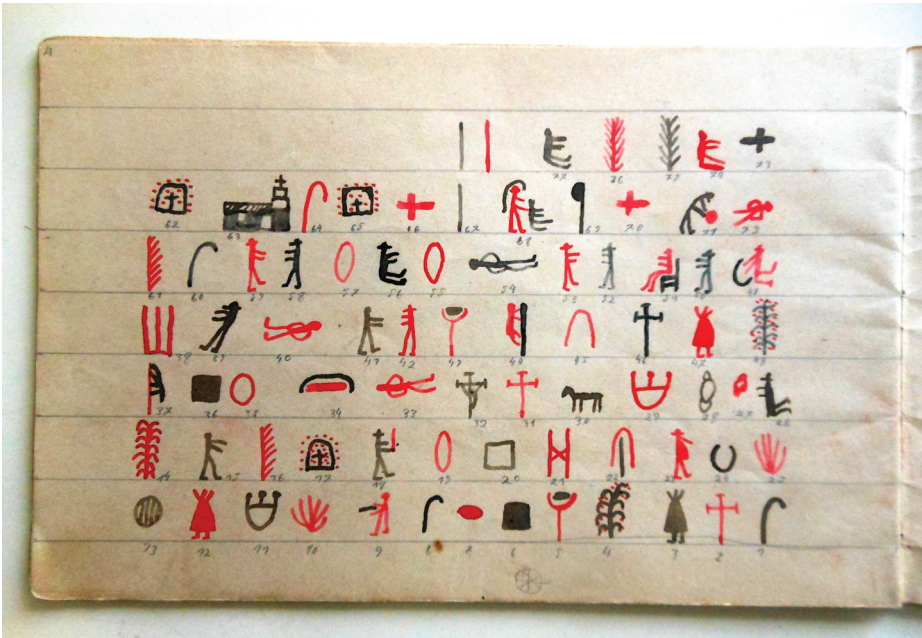


Fig. 3: The Apostles' Creed. Julian Guerrero's Booknote (reproduced in Ibarra Grasso 1953; picture from P. Délégé's private collection).

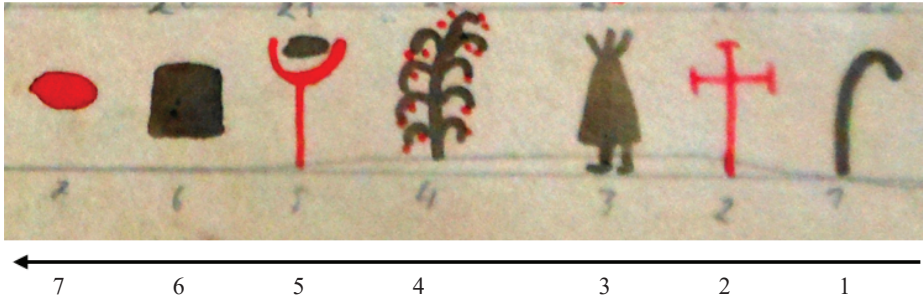
To transcribe the word “God”, we find the drawing of a cross (Fig. 4, right), reported on the clay disc as a multicolored cross. Then, the word “Father” is transcribed by a character painted in black with a kind of crown on his head. While it is difficult to recognize this sign transposed into the clay, my drawing shows three spikes that correspond, in my opinion, to those of the typical tricorn hat of religious members of the Jesuit order (Fig. 6). I think – but it still has to be demonstrated – this element could highlight the role of this order in the creation of this method of evangelization.⁸

For the term “almighty”, while the *doctrinero* drew a plant on the manuscript, a herb called *llapa* has been placed on the disc (Fig. 5, nr. 4). Here, it is neither a symbol nor a figuration but a sign functioning on the principle of homophony: “almighty”, translated *llapa ati* in Quechua, contains several phonemes in common with the name of this plant, *llapa*.

8 As I have observed in the analysis of pictorial catechism elaborated during colonial times in Central Mexico, it is quite common for the word “father” to be transcribed by means of the representation of a religious figure associated with different missionary orders sent to America with the aim of converting the indigenous populations.



Fig. 4: Creed's rezo in clay, elaborated by Isidoro Flores in 2017 (photo and drawings of the first five tridimensional signs; B. Gaillermin).



I believe (1) in God (2), the Father (3) almighty (4) Creator (7) of heaven (5) and earth (6).
 Yñini (1) Dios (2) Yayn (3) Ilapa atipaq (4) hanaq pachap (5), kay pachap (6) ruraqin (7).

Fig. 5: Detail from Fig. 3, first sentence of the Creed (read from right to left), with a transliteration transcription, in English and nowadays Quechua (when it differs, footnotes show the colonial version, taken from the trilingual *Doctrina* published in 1584 after the The Third Lima Council (1582–1583) (B. Gaillemin).



Fig. 6: The sign used for the substantive “father”: a Jesuit hat? (B. Gaillemin, detail from Fig. 3).

For the following words (**Fig. 5**, see the last four images), as the syntax of English (“Creator of heaven and earth”) differs from that of Quechua (in which the verbal adjective “creator” is placed at the end of the sentence), the term “sky” is placed first in the sequence of the drawing (no. 5): it looks like a red fork holding a black oval. In reality, i.e. in the three-dimensional transcription on the clay disc, a stick is surmounted by black wool strands. We will come back to the meaning of this sign later in this paper (see **Fig. 12**). The sign for “earth”, on the other hand, is similar



creator of - **earth** - and - heaven

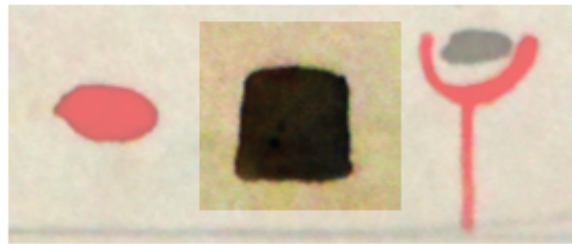


Fig. 7: A black square made real: a piece of cloth to transcribe the term “earth”, homophonic with “cloth” (B. Gaillemin, detail from Fig. 3).

to a black square in the drawing while it is materialized with a square piece of white cloth placed on the clay disc (**Fig. 7**). It is because the words “earth” and “cloth”, here again, are almost homophonic (*pacha* and *p'acha*, respectively).

Finally, a red oblong shape is drawn and we understand this drawing when we discover that it corresponds to a peach core. The word “peach” is not only close to the verb “to make, to create” in Quechua (for the term “Creator”), but it is also an essential element of the *production* of these agro-pastoral societies, harvested at this time of the year, exactly when clay discs are made, in this case during Lent.

Activities, landscape and imagination

As we can see, the principle of this semiotics is based on a logo-syllabic system. That said, it should be noted that, like the culture of peach, we can observe the presence of different activities of these peasant societies. The culture of squash, *zapallo* in Spanish, is also present. The name of this vegetable in Spanish is used to describe a Quechua term, the adjective “unique” (*sapa*).



ICHU - KHIRU
 plant - tooth
 = **Jesu-Christu**

Fig. 8: Phonetic approximation used to spell Jesus Christ's name (B. Gaillemin).

Similarly, still operating on the principle of homophony, the name of Jesus Christ is transposed by means of two elements: *ichu*, a common plant; followed by an animal tooth, *khiru*. These two words, *ichu kiru*, evoke the Quechua pronunciation of “Jesu-Cristu”, Jesus Christ (**Fig. 8**).

Here, the sign “tooth”, drawn or materialized by an animal tooth, refers to the homophony between the two terms; at the same time, by metonymy, it evokes the breeding of ewes in the region, the main activity of these agro-pastoral populations. Obviously, the signs not only play on the sounds, but each of the elements is also marked by a strong symbolic charge. Another example is the *churqui* tree, evoked by a small branch, and which has assonances in common with the word “son”, *churi*. But it is certainly not by chance that the word “son”, as well as Jesus' name (transcribed with a sample of *ichu*), are both transcribed by a plant. Thus, these signs would resonate well beyond this homophony. Through the various metaphors used, at the end of the lesson, the student will directly experience this natural environment, life-size. For example, the vision of this majestic tree and other elements of flora and fauna will allow him, on a daily basis and throughout the year, to establish the link between abstract concepts and the surrounding landscape.⁹

In this way, the surrounding landscape to which the signs refer can also be conceived as a mirror that evokes the miniature figures in a larger scale. And these in turn could be seen as the materializations of the small towns and hamlets surrounding the

9 With regard to the landscape, it is worth recalling that Garcés, an author who was also interested in the *rezos*, completes his analysis by mentioning “the alphabetic presence and the literate landscape of the urban environment” (Garcés 2017, 91). Although in this paper I am mainly interested in the natural landscape environment, I fully agree with the fact that a precise analysis of this three-dimensional writing must also take into account the links between orality and writing, figurative signs and alphabet, elements that also form the social landscape of these communities.



Fig. 9: Two women learning / “traveling” (through) a *rezo* (Padcoyo, 2015; photo B. Gaillemín).



Fig. 10: Meals in reduction (left: on the *rezo*'s surface) reminiscent of the textile receptacles used to collect food (corn, beans and beans) eaten for Easter (right: on the church's ground, Padcoyo 2017; photo B. Gaillemin).

communities. Here a bush, elsewhere a field of gourds, there a flock of sheep. Many of these signs can be compared to the toponyms punctuating the space described by Basso and which mark the landscape of the Western Apache;¹⁰ toponyms which, through their descriptive and pictorial aspect, refer to descriptions formulated by the Apache ancestors, to the first human settlements, to the primordial and agrarian relations maintained by man with space, as well as to past events that crystallize the virtues through which the inhabitants define themselves. In a similar way, in Bolivia, like a walker, the pupils' gaze on the clay discs travels along a furrow dug in the clay, punctuated by signs referring to the surrounding spaces, themselves associated with countless stories and myths. Implicit, these stories are not formulated by the *maestros*, who do not spontaneously deliver exegeses on how the figurines and symbols were chosen (Fig. 9).

However, in the course of conversations, I sometimes gain access to knowledge other than that conveyed by catechesis. Obviously, several signs refer to pious attitudes peculiar to Catholicism: genuflection, holding a candle in one's hand; and the modeled figurines are distinguished from one another by the addition of small details. For example, a red veil placed on his head identifies the penitent confessing, while a piece of white cloth – a dawn – recalls the habit of the confirmand and, by ricochet, is associated with the destitution of the poor. As we have seen, with the elements relating to the surrounding fauna and flora, agricultural, pastoral and culinary activities are also represented (presence of corn grains as well as grinding stone, meals in reduction) (Fig. 10).

¹⁰ Basso 2016.

At the same time, mineral powder suggests mining exploitation. Its evocation completes this landscape that not only depicts a surface but also considers the territory in its verticality. Let us recall here that the underground activities undertaken in response to the economic project of the Spanish crown during the colonial period, led to the modification of the social, cultural and ecological landscape of Spanish and Portuguese America, while at the same time having repercussions on the global European and world economy as a result of the extraction of precious minerals such as gold, silver or tin.¹¹ However, this exploitation, which is linked to the history of the region, is still going on and can just as much be linked to a contemporary memory: the dangerous activity that develops in the subsoil of these regions (the mines of Potosí are only 120 km away) and engages an increasingly destitute workforce.

Finally, several signs recall past rituals, such as the one once held during the festivities celebrating Saints John and Peter at the time of the summer solstice.¹² Alongside the drums miniaturized in clay,¹³ the *charangos* – small Andean stringed instruments of the lute family – whose music usually punctuates the festivities, are evoked with a piece of sugar cane cut lengthwise, associated with clay to round out its contours and evoke its wooden chest. We also often find evocations of embers (always integrated in rebus, “brasa” being used to transcribe the syllables /ra-sa/, in order to denote the word (g)ra-cia, i.e. “grace”, even playing the role of synonym to evoke the Virgin Mary. Now, to clarify what these small pieces of charcoal correspond to, Maestro Isidoro explains to me that they are similar to the elements burnt when the “mesas” are made up, these ritual offerings composed by different elements, burnt on charcoal embers and exhaling aromatic fragrances.¹⁴ The fact that the embers and the grace of the Virgin Mary are associated with each other is again certainly not fortuitous. On the contrary, this connection shows that most of the elements must be considered, beyond the meanings offered by the literal interpretation of images, since others are hidden under homophonic, homomorphic and conceptual networking.¹⁵

But the element which, from my point of view, crystallizes a deep semantics, playing on symbols and whose *raison d'être* engages beyond its phonetic assonances, is the one constituted by small stones. These stones punctuate the clay discs and several of them can be placed in the same text, as is the case with the Decalogue. Raised and set in the clay like menhirs in reduction, one could quickly analyze their presence using phonetic explanation: indeed, these “stones” – translated *rumi* in Quechua – are useful for transcribing the first syllable of the

11 Scott 2008.

12 See Gaillemin 2021.

13 See Gaillemin – Yaya McKenzie 2018.

14 About the “mesas”, see Fernández Juárez 1997; Bastien 1987.

15 Angenot 2005.

term *runa*, “person, human”. Here again and more than anywhere else, the fact that the stone serves as a substitute for the term referring to humans certainly finds its symbolism in myths specific to the Andes, themselves inextricably associated with the surrounding landscape. Myths related in Quechua texts often draw comparisons between men and stones. As Taylor writes,

[t]he erected stones, those kinds of obelisks called huancas, which protected the fields and which received fertility cults (as in the case of Tunshuhuanca, to whom children were sacrificed to ensure the fertility of the crops) were often described as shuytu rumi [generally defined as ‘a stone longer than it is wide’]. However, in one myth that this one translates, Tunshuhuanca is a huge monolith, described as ‘like a human being with a head and hands’.¹⁶

These comparisons have their origin in the Andean cosmovision, in which, as reported by Millones and Romero Barrón, “the original formation or conversion of human or divine beings into stone is a constant”. Reporting different quotations from the first chronicles elaborated in the colonial period [among which that of Juan de Betanzos, Antonio de Recinos, Guamán Poma, Joan de Santa Cruz Pachacuti and the Inca Garcilaso de la Vega], the authors add that

[f]requently the animation of beings confined [within] the mineral which, under certain circumstances, can also regain a form (of voice or activity). Once reconverted, they can communicate or intervene in the lives of the people or gods who visit them, simply pass through their vicinity, or stumble upon them.¹⁷

All these elements lead us to understand why the tradition of the *rezos* in the municipality of San Lucas – although it was not created spontaneously by the indigenous people and was certainly imposed by missionaries – is today developing and transmitting itself autonomously and independently of the Church. Its long-term anchorage and stability – at least for more than a century – can certainly be explained by the fact that they are truly effective social memories, constructed by means of iconographic and oral traditions crossed in ritual action; in what way they are similar to the iconographic traditions analyzed by Severi in 2007. As “traps to

16 Taylor 1990, 131. Translation is mine.

17 Spanish original text: “También es frecuente la animación de seres confinados al mineral que, en determinadas circunstancias, pueden recobrar una forma (voz o actividad). Una vez reconvertidos, pueden comunicarse o intervenir en la vida de las personas o dioses que los visitan, o simplemente transitan por sus cercanías, o bien tropiezan con ellos” (Millones & Romero Barrón 2017, 12). Translation is mine.

see” and “traps to think”, we can indeed say that their signs reveal, through their poly-functionality, a semantic thickness whose multilayered nature we are still far from understanding. Yet these representations, as Severi would say, are based on as many “mental operations” condensed into images that are effective, intense and fragmentary at the same time, forming true “arts of memory”. Techniques that are both visual and oral, they are moreover based on a cognitive activation triggered by the use of the body, solicited through all the senses insofar as the very materiality of the signs plays a primordial role. We must add that, if people do not usually pray in Quechua in church, these prayers can be used on different occasions, linked to the agricultural cycle (to ask for rain, to keep the storms away) but also to accompany a traveler or to cure certain diseases such as “fright” (*el susto*) or “evil” (*el mal*).¹⁸

Thus, we can think that the artefacts (clay discs that can be considered as much as texts as a linear sequence of figurative spaces inscribed in a materiality of their own, referring to a place or a value that are themselves associated with myths) can be understood as inscriptions in the space of world-places, revised annually and periodically transforming the conceptions that the inhabitants have of their own past and present. This past articulates together certain pre-Columbian activities such as modelling, the adobe technique, weaving and dyeing, with Hispanic elements such as the breeding and use of sheep’s wool, the culture of peach and, of course, all references to Christianity. As Basso writes:

[...] les relations qu’entretiennent les peuples avec leur environnement sont intimement liées à l’image qu’ils se renvoient d’eux-mêmes en tant que membres d’une société et habitants de la Terre, et bien qu’il s’agisse en principe de deux activités distinctes, ces relations s’avèrent dans les faits indissociables. Si elle est une manière de construire le passé, un vénérable instrument permettant de faire l’histoire humaine, la création de lieux a également pour vocation d’instaurer des traditions sociales et, ce faisant, des identités collectives. D’une certaine manière, nous incarnons les mondes-lieux que nous imaginons.¹⁹

That is why I began to wonder if these signs, by their materiality, did not bear the trace of a way of categorizing the world, ways of knowing intrinsically linked to ways of believing.

18 Sánchez – Sanzetenea 2000, 3; Garcés 2017, 72 and 101.

19 Basso 2016, 30.

Form, color and material as classifiers? An attempt to understand wool as an emic category

In a recent article, Selz, Grinevald and Goldwasser²⁰ address the issue of determinative Sumerian. Their publication provides an accurate inventory and analysis of these signs. The authors point out that both assyriologists and egyptologists “have traditionally found these determinatives to be of little interest, since they consider them to be an extra-linguistic phenomenon that merely provides paralinguistic or metalinguistic information”. Indeed, determinatives – also known as a taxogram or semagram – are generally only described as signs that precede or follow words or names “in order to specify them as belonging to semantic groups”, adding that they are generally “unpronounced”. Seen only from this angle, scholars have so far shown little interest in them.

However, as they explain in their introduction, the aim of their research, “is to show how momentous and elaborate this neglected phenomenon of determinatives is, and how it can be demonstrated to resemble systems of categorization known in linguistic typology as ‘classifier systems’”. I completely converge with their methods and will try to start doing a similar analysis concerning Bolivian *rezos*. Indeed, as is the case with all other classifier systems of the world, a semantic analysis of the *rezos* determinatives (if they are) should provide knowledge about organization in this culture.

Starting from the materiality or appearance of the signs rather than the words they allow to transcribe (not in a linguistic approach), my objective is therefore to try to understand the way in which concepts and categories are organized. Adopting a ‘praxeological approach’, I will seek to identify categories, testifying of “the ability to connect things to each other, due both to the a priori semantic conjunction of concepts and to a practical familiarity with the social domains they organize”.²¹

First of all, let us specify that, in our case, it would not be a question of apprehending a sign placed before or after another sign, but that this sign could, for example, correspond to an element added to another sign: it could be a flower, for example, but also a color, a texture, a direction, etc. These elements, beyond to providing extra semantic information, would especially organize different concepts according to an emic classification. As Lakoff writes, “The classical view that categories are based on shared properties is not entirely wrong. We often do categorize things on that basis. But that is only a small part of the story.” Alluding to the new theory of categorization, called prototype theory, Lakoff explains that “a large proportion of

20 Selz et al. 2017.

21 Quéré 1994, 21; quoted by Monod Becquelin 2012, 14: “la capacité de connecter les choses les unes aux autres et cela en raison à la fois de la conjonction sémantique a priori des concepts et d’une familiarité pratique avec les domaines sociaux qu’ils organisent”; my translation.

our categories are not categories of things; they are categories of abstract entities”.²² Thus, while specialists in ancient writings will group together, for example, all the terms associated with a ‘determinative’, which would be that of ‘wooden elements’, we might wonder about the reasons (beyond practical reasons) for using this material rather than another to make, name or designate – or even classify – such and such a thing (object or concept).²³

Before we get more concrete by submitting the example used as a basis for our hypotheses, let us insist on the fact that classifications, such as species, animate and inanimate beings, or materials, are highly cultural choices and hide complex worlds. This is why we must therefore avoid isolating part of this reality, or analyzing cognitive system according to western cultural choices. Aware of the possibility of falling into this pitfall, I will list different signs, in order to ask whether or not it is an emic category. This category remains to be studied in more detail; but I propose that it would group together signs containing wool.²⁴ Indeed, I quickly realized that it was being used in various forms: it can be unspun or spun, undyed or dyed, with different sorts of colors. It can also be associated with sticks (one to four) and be arranged in more complex compositions.

Spun and undyed

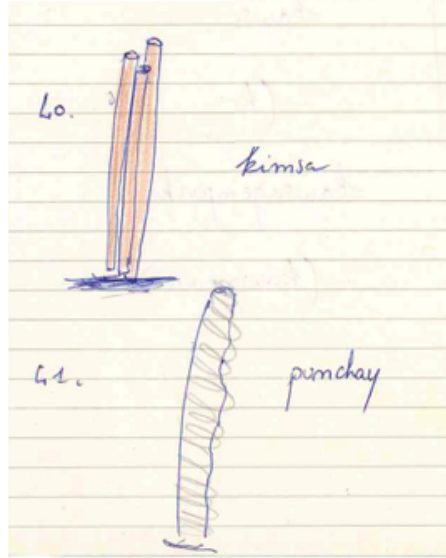
Placed just after three sticks used to transcribe the number “three”, the wool is spun and undyed, wrapped around a stick: in this case, it is used for the term “day” (“he rose from the dead on the third *day*”) and therefore seems to refer to time (**Fig. 11**).

This is confirmed by another occurrence, this one coming from the text enumerating the five commandments of the Church. Where it is said that it is obligatory to confess “at least once a *year*”, the term “year” is again transcribed by means of a stick to which is attached a naturally white strand of wool.

22 Lakoff 1990, 6.

23 With regard to the divinatory codices produced in pre-Columbian times in Central Mexico, some scholars are currently asking questions similar to ours. The work of Katarzyna Mikulska (University of Warsaw) is indeed in line with our approach (see the annual meeting *Sign and Symbol in Comparative Perspective*). For example, Mikulska has been demonstrating that the color of the flints, black and red, usually associated with blood and stone, are also used for the depiction of teeth and punches for self-sacrifice. She deduces that their colors would thus convey the idea of ‘sharpness’. This way, the two colors, white and red, do not necessarily refer to a specific material but to a characteristic common to different objects (Mikulska 2008; Vauzelle 2018, 588).

24 Note that among the determinatives listed in their inventory, no. 44 corresponds to the ‘wool classifier’: “wool” classifies all sorts of (woolen) fabrics, with extension from wool to all sorts of other fabrics. b. PR; originally part of compound lexemes, “made of wool”; c. EA (mid 3rd mill.); relatively frequent” (Selz et al. 2017, 98).



On the third - **day** - [Jesus rose again]

Fig. 11: Using the wool to refer to “time”: the word “day” (photo and drawing B. Gaillemin)

Unspun and dyed

Unspun and dyed, wool seems to be able to replace another material. Indeed, I observed that the “sky”, for example, was transcribed by means of a stick topped with wool. The stick indicates a distance between the ground and the celestial level. The whole stick-wool set is therefore a metaphor for the sky, based itself on the shape of wool used as a metaphor for clouds (**Fig. 12**).

Color still plays a particular role in the sign used as a metaphor for “holiness”. When it comes to saints, an arch (rather a kind of headstone) of clay is surmounted by pink wool. My hypothesis is that this sign refers to the arches used in religious festivities, decorated in the reality with flowers. In the absence of flowers, here the pink wool would refer to holiness (**Fig. 13a, b**).

Spun and monochrome dyed

Spun and monochrome dyed, wool is used dyed in green or black. In this case, the stick schematically represents a person’s body. When it is covered with green wool, the stick refers to the realm of “life” and “living”, or even “resurrection”. When the



Fig. 12: Using the wool to refer as a substitute for another material: the word “heaven” (photo B. Gaillemín)

stick is surrounded by black wool strands and tilted towards the surface of the disc, then, the stick, its inclination and color convey the idea of a dead man.

Here we see the role that the color of the wool plays, as well as the semantic displacement of the polysemic stick: denoting time and space in some signs described earlier, the stick here evokes the human body.²⁵ And here, in both cases, the wool does not refer any more to the clouds in the sky, but to the human’s clothes. At the same time, the stick replaces the stone described above and used when it is the term “human” that is targeted (rather than here the past participle “living” or “dead”).

Multicolored

Finally, two other examples of signs are associated with wool, this time multicolored. The first refers to the “kingdom” (in the sentence of the Lord’s Prayer “Thy *kingdom* come”): it is a simple, multicolored stick. Note that, in Quechua, the term *qhapaq*, a term that refers as much to the king as to wealth and power, has been used to translate the “kingdom”. The second, as seen in the Creed, is a cross, made of several strands of multicolored wool and referring to “God” (**Fig. 14**).

Do the Quechua of the San Lucas communities establish classifications according to their knowledge, and would it be possible to think that these signs, made from woolly material, share common characteristics? I also noticed that these wool sticks were the only ones that were kept from one year to the next. They are certainly the least perishable, but perhaps also the most precious. Now, if I use my examples

²⁵ Note that the word “flesh” for one of the last phrases of the Creed, referring to the resurrection of the flesh, is transcribed using pieces of non-woven black wool.



“The **Holy** Catholic Church, [...] The Communion of the **Saints**”

Fig. 13a: Association between pink wool and holiness? (B. Gaillemin)



Fig. 13b: Use of flowers during Easter celebrations, 2017 (photo B. Gaillemin)

again, what do the terms “heaven”, “life”, “death”, “holiness”, “wealth” and “God” have in common?

For the moment, it seems that wool expresses a certain relationship to the sacred. At the same time, wool would be a material – like the flowers on the arches found in other contexts – used to express specific values or concepts. This material is

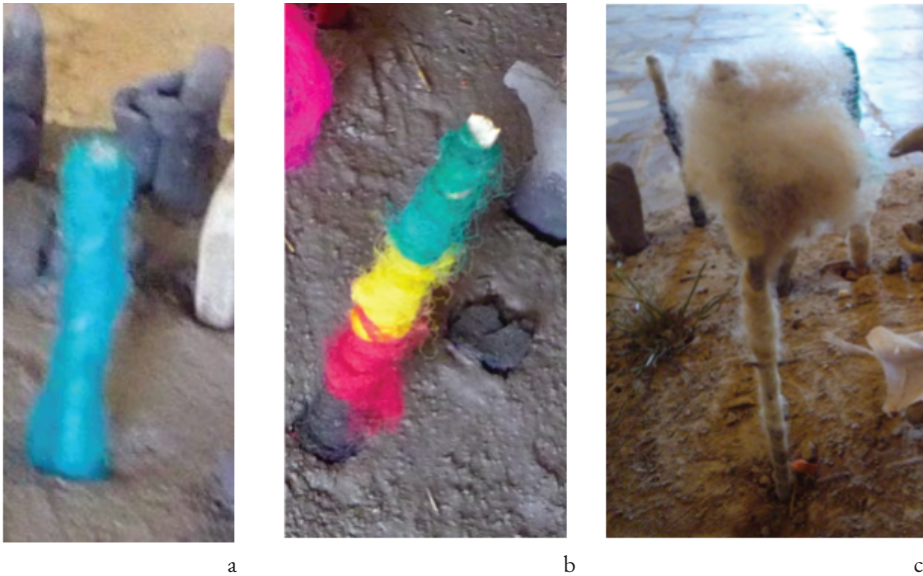


Fig. 14: Woolen signs for the words “life” (a), “rich” (b) and “sin” (c) (photo B. Gaillemin)

omnipresent in the life of communities, whose activities are mainly focused on agriculture and sheep breeding. And when they take their animals out to pasture every day, the shepherds usually take the opportunity to spin the wool with a spindle. The spinning is indeed constant: when walking or travelling, on the roadside or in the mountains, alone or during a conversation. Also, let’s add that the wool is sometimes still dyed and buyers crowd in front of pigment sellers during *ferias*, these large mobile markets to which people from dispersed communities travel about once a month (**Fig. 15**).

While in the past, pigments were natural, of mineral or vegetable origin, today they are artificial and sold directly in powder. Most of the time, wool is bought already dyed. Nevertheless, it appears that even if the strands of the *rezos* are not dyed manually, their colors retain a certain symbolic imprint. Colors play an important role, depending on their symbolic value, some of them also being more expensive or difficult to obtain. The green color that we have seen attributed to “living” and “life” can be approached to other powders, also sold in the large occasional markets, all of green color and used to elaborate different medicinal remedies (**Fig. 16**).

Finally, I would add that weaving (multicolor) is a key livelihood activity in these regions. If we remember that the term *qhapaq* (also commonly spelt *capac*) was used to translate the “kingdom” of God, we will also remember that it originally meant “generous” and was the title given to the powerful lords. To be *qhapaq* was to be



Fig. 15: Seller of powdered dye pigments at the *feria* (Ocuri's monthly market, 2014; photo B. Gaillemin)

“able to give goods to a clientele”.²⁶ In the communities, they were the rich herders, with many livestock and therefore able to obtain, in exchange for meat and animal fertilizer, the labor force of families without livestock. Therefore, it is possible that the multicolored wool evokes the rich colored clothing worn by the *qhapaq* (Fig. 17).

Undyed and unspun

I will conclude with a last example, the meaning of which seems to be due to a complex interweaving of cascading metaphors. This is the sign used to communicate the idea of “sin” (Fig. 14). It is easily identifiable at a glance, frequently used especially during the prayer of the Confession: “I sinner... I have sinned, I have sinned, I have sinned a lot”.

It is a large ball of unspun wool, neither dyed, but hung on the top of a stick. In this case, we find the stick which is used as a symbol of the human being. Here, the

²⁶ See Gaillemin 2021.



Fig. 16: Beautiful shade of green powder, each small pot being used for medical purposes (Ocuri, 2014; photo B. Gaillemin)

weight of sin is evoked by this mass of wool. Thus, man carries this heavy burden of wool that he will unload during confession: “It’s something that weighs, someone who has a lot of problems”, the students explain to me.

The object also seems to convey the original meaning of the Quechua term *hu-cha*, which originally referred to an obligation not yet fulfilled. Where weaving is a primary subsistence activity, it is not surprising that the burden of sin is metaphorically transposed by means of a material that is carried on the shoulders in the same way that we are obliged to transform it. By confession and/or weaving, the penitent will relieve the heavy burden or work it to convert it into an orderly and flat textile.²⁷

Note that another hermeneutic level could be embedded in this sign: we remember that “time” (through the terms “day” and “year”) is indicated by means of a stick associated with one or more strands of spun wool. In this way, we could think that the *time* associated with *sin* (committing, admitting, confessing, being forgiven, repenting, feeling attrition or contrition) is also indicated through the non-woven ball.

²⁷ It should also be noted that the action of leveling was chosen by 16th century religious missionaries to translate the verb “to forgive” (*pampacha-*, “to level, forgive”).



Fig. 17: Man setting up his loom (Ventilla's community, 2017; photo B. Gaillemin)

Conclusion: Diagram and affordances

Our last example shows how semiotics can contribute to anthropological analysis. It makes it possible to understand that an object can in fact be understood no longer as a simple abstract symbol or a simple semantic transport (sin = weight; or sin = tangled wool). From my point of view, we can rather see the sign for “sin” as a complex diagram. After Burucúa, some images indeed can be seen as “agent diagrams or talismans that turned symbols into powerful objects [...] [And those diagrams are built] with figures that are considered capable of triggering a cognitive activity in the soul of the reader-contemplator”.²⁸

Now, perception of this scheme – the whole of stick-wool – involves and leads to action, as the arrangement of figures is capable of causing cognitive activity. In this way, let us argue that just as some images can force the eyes to see/work (cf. Houston, this volume), others would go even further by forcing the mind to work. I propose that the the sign chosen to denote the word “sin” is a diagram, which triggers

²⁸ Burucúa 2017, 47 and 58.

an action of thought and integrates into the rest of the conceptions accumulated in the mind, body and daily habits of the person who observes, memorizes and incorporates it durably in his ways of acting, believing and thinking.

To access what people communicate through this material, it can also be fruitful to call upon on the notion of affordance and to focus directly on the trends or aptitudes of substances and objects, consequences of their physical and chemical qualities. Initially used by psychologist Gibson, we can appropriate the term thanks to Norman's definition,²⁹ talking about affordances in the context of interaction between a human and a machine; but also, between a human and a material.³⁰ Looking at 'action possibilities' for a given material allows us to ask: which are the qualities of this material, in this region, for this population at this particular time, and what is said/thought/communicated showing or using this quality in particular?

Considering the material dimension of the rite, some researchers proposed to take a closer look at their physical supports and the sensitive properties of these supports, their 'affordances'. I also think that considering the mobilization of these 'affordances' is essential to understand the process of conceptualizing the invisible. It would thus be a question of not taking clay discs and their figurines as a simple mode of communication or a memory medium, but as an expression of a vision of the world that the ritual act contributes to produce in an ever-changing way.

The inhabitants do not arbitrarily attribute certain qualities to an objectively neutral material. I think that beyond that, the distinction between 'things' (such as clay or wool) and 'concepts' (such as power or the sacred) does not seem relevant to them. Thus, the material used in this catechesis informs us about the conceptualization and construction of the powers it stages. This remark allows me to underline here the importance of materiality in the semiotic used in this Bolivian ritual.

However, although I stated at the beginning of this presentation that the priests of this region were not interested in this practice, in 1988, Father Juan Miranda discovered this form of transcription and published a book on it (**Fig. 18**).

With the help of a *maestro*, every figurine and each object have been translated into computer pictograms, completed by a translinear translation in Quechua. Thinking of revitalizing or at least encouraging this practice, he distributed this book across the region. So much so that today, the book is sometimes copied directly into the clay, in such a way that the page from which the prayer comes can sometimes be quoted (**Fig. 19**).

This publication finally removed any evidence of the material used to make the signs. Spinning, weaving, dying or even the weight of the sinner's burden, have been

29 Gibson 1979; Norman 1988.

30 See in particular Holbraad 2007 and Kedzierska-Manzon 2016.



Fig. 18: Miranda's book (extract from the Creed, Miranda 1988, 50-51)



Fig. 19: Miranda's catechism "quoted" directly into the clay's *rezo*: see the small label placed on the disc "Dios Creador, p. 28" (lower part of the picture), Quirpini, 2013 (photo B. Gaillemin)

converted into soccer balls, little cute cats or simple colored vertical sticks, inserted on a page whose cellulose will no longer crack, whose flowers will hardly fade, and whose collective will no longer be led to gather around, in circles, watering the *Pachamama* with alcohol each time a prayer is elaborated (or before it is destroyed).

This book is read directly in Quechua by means of Latin characters, it only expresses a willingness to pray in Quechua but no longer claims the use of signs around which the community gathers annually. Stowed on a shelf it can be kept from year to year and read individually. Thus, if some communities have adopted it, they are also those where evangelical churches are most successful. They are also those where prayers are only sung and no longer conceived in their three dimensions. And from this point of view, the impact of print, beyond literacy, plays an essential role in redefining identities.

References

Angenot 2005

V. Angenot, Pour une herméneutique de l'image égyptienne, *Chronique d'Égypte-Bulletin périodique de la Fondation Egyptologique Reine Elisabeth* 809 (159-160), 2005, 11-35

Basso 2016

K. Basso, L'eau se mêle à la boue dans un bassin à ciel ouvert, *Zones Sensibles* (Paris 2016)

Bastien 1987

J. W. Bastien, *Healers of the Andes. Kallawaya Herbalists and their Medicinal Plants* (Salt Lake City 1987)

Burkhart 2016

L. Burkhart, The Little Doctrine and Indigenous Catechesis in New Spain, *Hispanic American Historical Review* 94 (2), 2014, 167-206

Burucúa 2017

J. E. Burucúa, O olho e as ideias. Uma indagação sobre as representações filosóficas do Renascimento, *Figura. Studies on the Classical Tradition* 5 (2), 2017, 43-109

Doctrina christiana 1584

Doctrina christiana, y catecismo para instruccion de los indios, y de las de mas personas, que han de ser enseñadas en nuestra sancta fé. . . . Ciudad de los Reyes, Antonio Ricardo (Lima 1584)

Fernández Juárez 1997

G. Fernández Juárez, *Los kallawayas. Medicina indígena en los Andes bolivianos* (Quito 1997)

Gaillemin 2017

B. Gaillemin, *D'argile, de fleurs et de laine. Catéchismes multisensoriels dans les hauts plateaux boliviens*, *Gradhiva* 26, 2017, 46–71

Gaillemin 2021

B. Gaillemin, *From Modeling to Destruction. Cyclicity and Multisensoriality in Learning Doctrine in the Bolivian Highlands*, in: J. Bodel – S. Houston (dir.), *The Hidden Language of Graphic Signs. Cryptic Writing and Meaningful Marks* (Cambridge 2021) 256–284

Gaillemin – Yaya McKenzie 2018

B. Gaillemin – I. Yaya McKenzie, *L'araignée, le cactus et la plume. Peindre et modeler la doctrine chrétienne en langues natives (Mexique-Andes, XVI^e–XXI^e siècles)*, in: C.-A. Brisset, F. Dumora and M. Simon-Oikawa (eds.), *Rébus d'ici et d'ailleurs. Écriture, image, signe* (Paris 2018) 181–202

Garcés 2017

F. Garcés, *Escrituras andinas de ayer y de hoy*, Instituto de Investigaciones Antropológicas y Museo Arqueológico de la Universidad Mayor de San Simón (IN-IAM-UMSS) (Cochabamba 2017)

Gibson 1979

J. J. Gibson, *The Ecological Approach to Visual Perception* (Boston 1979)

Hampe 2017

B. Hampe, *Metaphor. Embodied Cognition and Discourse* (Cambridge 2017)

Holbraad 2007

M. Holbraad, *The Powder of Power. Multiplicity and Motion in the Divinatory Cosmology of Cuban Ifa (or Mana Again)*, in: A. Henare – M. Holbraad – S. Wastell (eds.), *Thinking Through Things. Theorizing Artefacts Ethnographically* (London 2007) 189–225

Ibarra Grasso 1953

D. E. Ibarra Grasso, *La escritura indígena andina*, Biblioteca Paceña. Alcaldía Municipal (La Paz 1953)

Kedzierska-Manzon 2016

A. Kedzierska-Manzon, *Le sacrifice comme mode de construction. Du sang versé sur les fétiches (mandingues)*, *Archives en Sciences Sociales des Religions* 174 (2), 2016, 279–301

Lakoff 1990

G. Lakoff, *Women, Fire, and Dangerous Things. What Categories Reveal about the Mind* (Chicago / London 1990)

Mikulska 2008

K. Mikulka, Juegos de palabras, juegos de imágenes. Una mirada a la expresión pictográfica nahua, in: Actas del XV Congreso Internacional de AHILA. 1808–2008. Crisis y problemas en el Mundo Atlántico. Universiteit Leiden (Leiden 2008)

Millones – Romero Barrón 2017

L. Millones – J. R. Romero Barrón, Estudio del concepto de piedra y animación de la piedra en los Andes centrales, *Anales de Antropología* 51, 2017, 11–22

Miranda 1988

J. Miranda, Catecismo Dioswan Munanakuypi Kawsanapaj (Sucre 1988)

Monod Becquelin 2012

A. Monod Becquelin, Introduction, *Ateliers d'anthropologie* 37, 2012, <<http://journals.openedition.org/ateliers/9170>>

Norman 1988

D. Norman, *The Design of Everyday Things* (New York 1988)

Posnansky 1910

A. Posnansky, Guía para el visitante de los monumentos prehistóricos de Tiahuanaco e Islas del Sol y la Luna (Titicaca y Koaty), in: *Monumentos prehistóricos de Tiahuanacu*, Gamarra (La Paz 1910)

Posnansky 1912

A. Posnansky, Guía general ilustrada para la investigación de los monumentos prehistóricos de Tiahuanacu e islas del Sol y la Luna (Titicaca y Koaty), Hugo Heitmann (La Paz 1912)

Quéré 1994

L. Quéré, Présentation, in: B. Fradin – L. Quéré – J. Widmer (eds.), *L'enquête sur les catégories. De Durkheim à Sacks* (Paris 1994) 7–40

Sánchez – Sanzetenea 2000

W. Sánchez – R. Sanzetenea, Rogativas andinas, en *Ideografías andinas*. Boletín del INIAN-MUSEO 8, Instituto de Investigaciones Antropológicas, Museo Arqueológico (Cochabamba 2000)

Scott 2008

H. V. Scott, Colonialism, Landscape and the Subterranean, *Geography Compass* 2 (6), 2008, 1853–1869

Selz et al. 2017

G. Selz – C. Grinevald – O. Goldwasser, The Question of Sumerian Determinatives. Inventory, Classifier Analysis, and Comparison to Egyptian Classifiers, *Lingua Aegyptia*. *Journal of Egyptian Language Studies* 25, 2017, 281–344

Severi 2007

C. Severi, *Le principe de la chimère, Une anthropologie de la mémoire*, *Æsthetica* (Paris 2007)

Taylor 1990

G. Taylor, *Textes quechua de Laraos (Yauyos)*, *Journal de la Société des Américanistes* 76, 1990, 121-154

Tschudi 1869

J. J. von Tschudi, *Reisen durch Sudamerika* 5 (Leipzig 1869)

Vauzelle 2018

L. Vauzelle, *Tlaloc et Huitzilopochtli. Éléments naturels et attributs dans les parures de deux divinités aztèques aux XVe et XVIe siècles*, PhD, EPHE (Paris 2018)

Wiener 1880

C. Wiener, *Pérou et Bolivie, récits de voyage* (Paris 1880)