

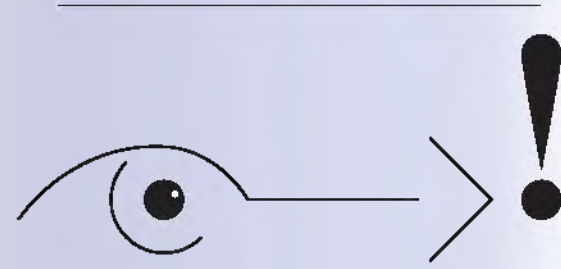
3 Hong Knog = tea shop

8 Maya text = sow

13 ISOTYPE 100 families

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51 . 2

Visible Language

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Before there was reading there was seeing. *Visible Language* has been concerned with ideas that help define the unique role and properties of visual communication. A basic premise of the journal has been that created visual form is an autonomous system of expression that must be defined and explored on its own terms. Today more than ever people navigate the world and probe life's meaning through visual language. This journal is devoted to enhancing people's experience through the advancement of research and practice of visual communication.

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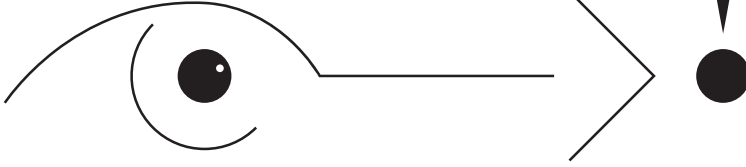
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51.2 Visible Language

the journal of
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special issue:

Symbols _ Icons _ Pictograms

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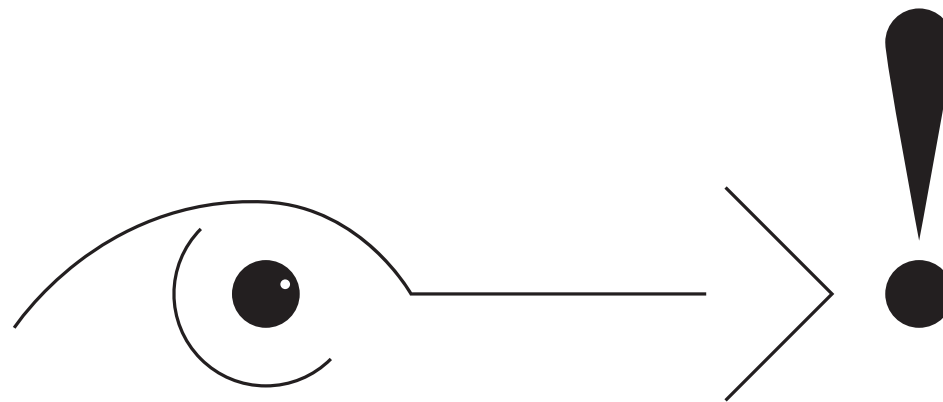
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I noted in the previous issue, *Visible Language* 51.1, that people have communicated with visual symbols / icons / pictograms for thousands of years. To punctuate that point - four articles in these issues are on ancient Mesoamerican hieroglyphic communication systems: two in 51.1 "Tz'ihb 'write/paint': Multimodality in Maya glyphic texts" by Agnieszka Hamann, and "Signs of resistance: Iconography and semasiography in Otomi architectural decoration and manuscripts of the early colonial period" by David Charles Wright-Carr, and two in 51.2 "Metonymic and metaphoric series in the *Codex Borgia*, Plates 33-34" by Angélica Baena Ramírez, and "The Written Adornment: the many relations of text and image in Classic Maya visual culture" by Daniel Salazar Lama and Rogelio Valencia Rivera.

These papers were first given as presentations at the conference *Sign and Symbol in Egypt and Mesoamerica: Exploring the Interrelationships of Writing and Iconography* held June 30 -July 07, 2016 at the University of Warsaw, Warsaw, Poland. The aim of the conference was to address a question that has received little attention: how graphic communication systems - traditionally known as notation/numeration, iconography, and writing - relate to, interact with, and exert influence on each other. The focus was on the civilizations of Egypt and Mesoamerica that provide abundant evidence for the interplay of systems in books and on monuments. The conference also sought contributions relating to cultures and systems beyond the bounds of the focal area, such as Mesopotamia, Anatolia, India, and China.

We appreciate the help of Katarzyna Mikulska, Daniel Tacacs, Gordon Whittaker, and conference organizers in bringing these papers to our attention and helping the authors prepare them for publication.

Mike Zender



meaning

Eagle as a calendrical sign

meaning

Eagle associated with the Northern region

meaning

Eagle representing the movement of the sun



Metonymic and Metaphoric Series in the *Codex Borgia*.

Plates 33-34.

Angélica Baena Ramírez

The main objective of this article is to understand how the metaphoric and metonymic graphic series helped to convey sequences of meanings and how they combined to provide a global interpretation of the content. As well, I will also analyze the relationship between signs with literal/fixed and metaphorical meaning, based on the context where the images are located and their association with other graphic signs.

I will take some examples from plates 33 and 34 of the *Codex Borgia* to explain how the Mixtec-Nahua semasiographic system worked and how the different signs were combined for the transmission of a message, which was not univocal, but which functioned as a tool for the priest to remember and recombine the information contained.

At the end of this research, an attempt will be made to provide an interpretation of plates 33 and 34, based on the understanding of the Mixtec-Nahua graphic system. I will try to prove that the apparent “chaos” contained in these plates, in fact serves to emphasize a mental and mythical concept that can be expressed in different ways, in order to provide the priest (tonalpouhque) with a mnemonic tool. The tonalpouhque could use the codex not just to remember information, but also to create new content.

keywords

semasiographic system
Codex Borgia
graphic series

Systems of Graphic Communication in Mesoamerica and Graphic Phrase Series

There is an interesting discussion in relation to the graphic systems of Central Mexico, particularly of the Mixtec-Nahua system, because it has been postulated that this is a logo-syllabic writing system, like Maya and Zapotec, although the Nahua writing system is restricted to names of places, people and trades (Lacadena, 2008).

For Gordon Whittaker (2011), there are three graphic communication systems, which coexist and complement each other: iconography, notation, and writing. Regarding the iconographic system, he points out:

Iconography, traditionally prominent in religious, political, military, and sports contexts, but also increasingly employed to facilitate orientation in the public arena, codifies and represents information by means of graphic elements (variously called symbols, icons or semasiograms) of non uniform size arranged in sequence and a hierarchy in which the relative positioning and size of these elements carries meaning, and serves to represent, symbolize, and illustrate nonlinguistic data.

(Whittaker, 2011, 936)

An iconographic system has conventions that can be understood independently of spoken language. A notational system distinguishes units of non-linguistic information, such as mathematical language. A writing system reflects language, and its components are morphograms (units of meaning) and phonograms (sound) (Whittaker, 2011, 935-937).

In what we know of the divinatory codex or tonalamatl up to now, there is evidence of the use of a notational system, which in addition to designating counts, was employed to give calendrical names to distinct gods and beings, as well as some rare examples of writing. In this regard, Juan José Batalla (2008, 302) notes that in the tonalamatl codices most of the information is transmitted exclusively by iconographic elements.

From a different perspective, Elizabeth Hill Boone proposes the use of the concept of semasiography and points out that semasiography (based on the Greek word *semasia*, which means “meaning”) are systems of writing that do not have to go through speech to be understood (2010: 42).

On the other hand, the work of Katarzyna Mikulska (2008) also agrees that in the codices we find semasiographic writing and that it should not be considered something lesser than glottographic writing, given that it works properly within its context. As well, Vauzelle has analyzed the god's garments, confirming that the semasiographic system is based on polysemy and “each element does not convey a clear meaning that would allow it to be “translated” by a word or phrase, because the garments do not form texts.

But it is possible to highlight the symbolic associations that are related to each element or its metaphorical and metonymic networks that may vary according to the context” (2017, 105).¹

Mikulska (2015a, 351-352) states that the graphic communication system of Nahua-Mixtec tradition makes use not only of the iconic principle but also, occasionally, of the glottographic (a writing system of visual symbols for spoken language). Therefore, it would be more pertinent to speak of a “semasiographic principle”, since there are no pure systems, taking into account that the graphic information can be verbalized. It should be noted that verbalization and reading are different, since reading implies the reproduction of an original and fixed model, while verbalization implies an interpretative and performative speech.

Tonalamatl codices, such as the *Codex Borgia*, served as tools to make predictions. They contain calendrical information that served to perform rituals and also encompass mythical information that could be verbalized in different ways, depending on circumstances. That is the reason I agree to consider this system as semasiographic, following the proposals of several researchers (Boone, 2007; Boone 2010; Mikulska, 2015; Wright Carr, 2011)

Daniele Dehouve (2009) has also pointed out that images in ancient Mexico were constructed using metaphoric and metonymic methods. She revisits the classic text of George Lakoff and Mark Johnson (1980), accepting their proposal that metaphors are not only a resource of language but a cognitive process. She mentions that metaphorical construction is a necessary condition of abstract thinking and, in addition to the metaphorical process, there exists a cognitive process through contiguity or metonymy: “there is a relationship of contiguity between the referent and the designated entity. In general, this is what happens with the definition by extension, which expresses the totality by the extension of its parts” (Dehouve 2009, 24).²

Metaphor, as intellectual process, is reflected verbally and ritually. For this reason, rather than limiting this process to pairing or diphrasism³, she points out that there may be a larger phrase series and that the basis is

1 Cada elemento no transmite un significado claro que permitiría “traducirlo” por una palabra o una frase, porque los atuendos no forman textos. Pero es posible poner en evidencia las asociaciones simbólicas que están relacionadas con cada elemento o sus redes metafóricas y metonímicas que pueden variar según el contexto (Vauzelle, 2017: 105).

2 Existe una relación de contigüidad entre el referente y la entidad designada. De manera general, es lo que pasa con la definición por extensión, la cual expresa la totalidad por la extensión de sus partes (Dehouve 2009: 24).

3 Montes de Oca defined diphrasism as “the juxtaposition of two terms that are associated to construct a unit of meaning that may or may not be different from that stated by each lexeme” (Montes de Oca, 2013, 39). La yuxtaposición de dos términos que se asocian para construir una unidad de significado que puede ser o no distinta del que enuncia cada lexema.

not diphrasism, but monophrasism (Dehouve, 2009). Recapitulating, metonymy is a way of conceptualizing one thing from the components and it has an affinity with all designated. On the other hand, metaphor is conceptualizing one thing in terms of something else.

It should be noted that these series do not always exactly correspond with the diphrasisms collected orally during the sixteenth and seventeenth centuries. In a recent work, Mikulska has proposed that:

The graphic set of meaning undoubtedly lacks an exact correspondence between the graphic and the oral form. It can be given, but it is not an *a priori* condition because the goal is to represent some mental idea in graphic form. Oral expression is merely a verbal expression of the same mental concept and, since the same is true of graphic expression - which is the proper mechanism of the operation of semasiographic systems - sometimes the oral expression coincides with the visual. (Mikulska, 2015a, 387)

Taking into account the above, I consider that seeking these conceptual resources in images, rather than just linguistic ones, is feasible and appropriate, as already mentioned by the authors quoted. What is sought is the understanding of the mental concept behind the metonymic series and the visual metaphors that appear graphically. The painter can subtract or add graphic elements to convey meaning, depending on the available space (Mikulska, 2015a, 386).

This work is the continuation of an investigation that I carried out on plates 29 and 32 of this same codex (Baena, 2014). In the present research, I will focus on analyzing plates 33-34 looking for concepts of graphic meaning that clarify the overall significance of the images.

The Borgia Codex

The *Codex Borgia* is pre-Hispanic *tonalamatl*⁴ that is currently deposited in the Vatican Apostolic Library. It is made in a folded strip format on screen and consists of 39 pages of 27 x 26.5 cm. Painted on both sides except the first and last, which have whitened exterior faces, that is, when the book is folded no paintings are observed, which means there is no possibility of damage or deterioration of its contents (Batalla, 2008, 272-273). This document presents several sketches that were later covered by stucco, which revealed restructurings of the image carried out by the painter or painters (Mikulska, 2015b, 172-177). The pigments used in the preparation of the

⁴The *tonalamatl* is a ritual calendar consisting of 260 days. It was used for divinatory purposes, although it was not disconnected from the annual or solar calendar (Siarkiewicz, 1995, 12).

Codex Borgia were of natural origin for aesthetic purposes, because they produce a glossier finish than that of mineral pigments: "the underlying purpose of the development of color technology, based on organic materials to paint the pre-Hispanic manuscripts of Central Mexico, was the obtaining of a pictorial layer that was characterized by its luminosity" (Dupey, 2016, 160)⁵.

Although the question of the place of provenance of this codex has not been solved, it seems most likely that its origin stems from the Puebla-Tlaxcala region (Peperstraete, 2006: 29; Boone, 2007, 227-228; Batalla, 2008, 207), possibly Cholula (Nicholson, 1994, 113-114; Milbrath, 2007, 157) based on archeological and iconographic evidence. Therefore, it could be argued that it was elaborated by speakers of Nahuatl, although it could be understood by speakers of other languages.

The central plates of the *Codex Borgia* have been very enigmatic for the investigators, because there are no parallel passages in other codices with similar content. Given its complexity, there are several perspectives and interpretations (Seler, 1980; Milbrath, 2007; Nowotny, 2005; Anders et al. 1993; Boone, 2007; Batalla 2008) about the central plates. I believe that the contributions of the researchers mentioned above are all very valuable and have undoubtedly helped to elucidate the meaning of these complex images. I will solely focus on analyzing a group of graphic series that appear in the central plates 33 and 34 of the *Codex Borgia*, in order to examine the indigenous process of the construction of the images and their meanings, depending on the context.

The Metaphoric Use of Colors

in Plates 33-34.

Red and Black Snakes Related to the Diphrasism in Tlilli in Tlapalli.

In tlilli, in tlapalli: These words together refer to the concepts of knowledge and wisdom. Although this diphrasism has been translated as "black, red", it must actually be translated as "the black, the colorful", because *tlapalli* denotes all the pigments used to make the codices (Wright Carr, 2011, 287-288).

The color red has been associated with the term *tlapalli* (Boone, 2010, 31), being one of the colors used in the elaboration of the codices, particularly in the dividing lines of the sections of the different documents.

⁵La finalidad subyacente al desarrollo de una tecnología del color basada en materias orgánicas para pintar los manuscritos prehispánicos del México Central fue la obtención de una capa pictórica que se caracterizaba por su luminosidad (Dupey, 2015, 160).

In tlilli in tlapalli have a metaphorical meaning, related not only to the elaboration of codices, but to knowledge and wisdom. Likewise, the expression *tlapalli tlilli nic tlatia* refers to “setting a good example” (Velázquez in Wright Carr, 2011, 288). “The direct reference is to the immemorial legacy that has been present since ancient times” (Montes de Oca, 2013, 160).⁶

In plates 33 and 34 (figures 1 and 2), as we can see, there are two different temples, surrounded by the black and red snake respectively. These colors are no coincidence because they refer metaphorically to the mythical place known as in Tlillan Tlapallan, the place of black and red/colorful. Selser had already pointed out this possibility, however, the German author, in his eagerness to maintain an astral interpretation corresponding to precise

astronomical cycles, states that both houses symbolize the west or evening sky (Selser, 1980 II, 24). Later however, he has problems justifying this idea and then accepts that *Tlillan Tlapallan* is associated with the east and the west.

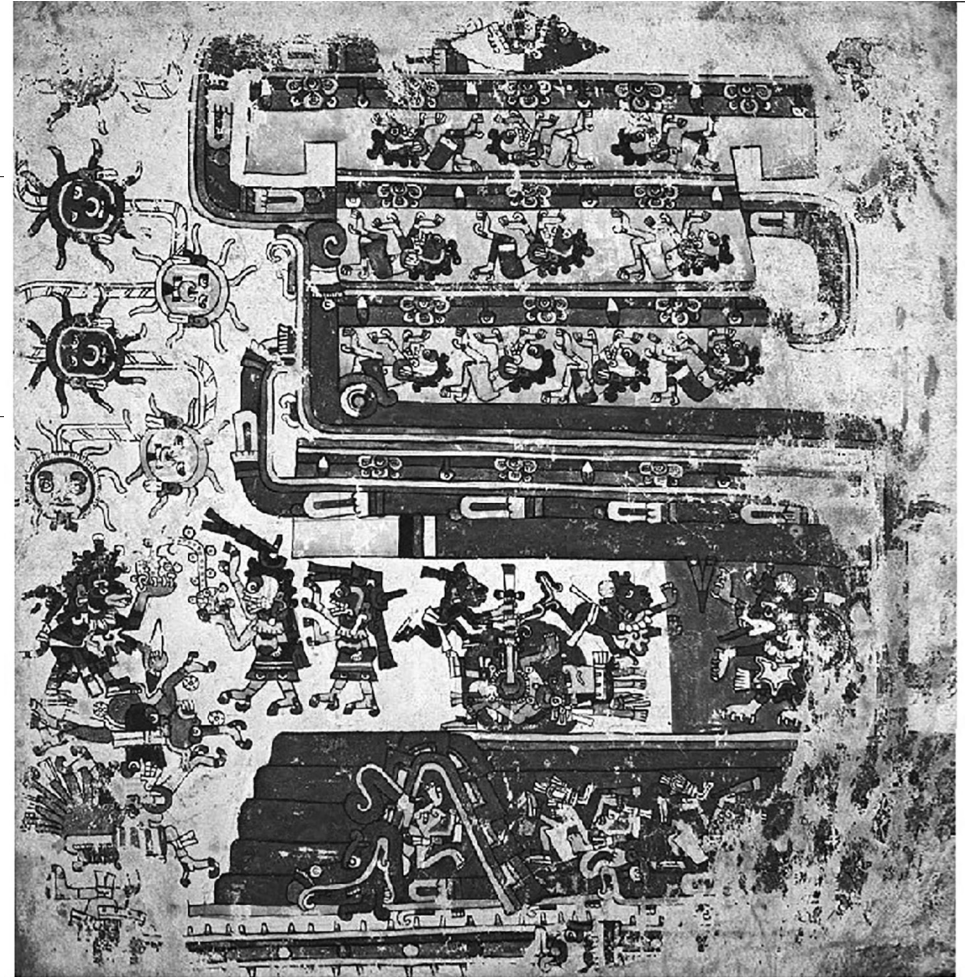
The red temple of Plate 33 would be associated with the East and the Temple of Plate 34 with the West (Boone, 2007, 186). Or more suitably, Plate 33 is associated with the daytime sky and Plate 34 with the night sky (Mikulska, 2015c) and jointly represent the cyclic movement of the sun.

The *Anales de Cuauhtitlan* point out that Quetzalcoatl left Tollan with his followers after being deceived by his enemies and having broken his penance, and arrived to *Tlillan Tlapallan*. “Then he halted and wept and

Figure 1
The black Temple of Heaven
(Codex Borgia, 1976,
plate 33)



Figure 2
The red Temple of Heaven
(Codex Borgia, 1976,
plate 34).



⁶“La referencia directa es al legado inmemorial que se encuentra presente desde tiempos remotos”

gathered up his attire, putting on his head fan, his turquoise mask, and so forth. And, as soon as he was dressed, he set himself on fire and cremated himself. And so the place where Quetzalcoatl was cremated is named Tlatlayan" (Bierhorst, 1992, 36).

As I have pointed out, this mythical place is related to the diphrasism *in tlilli, in tlapalli*, "the black, the colorful", which refers to the painted books, the colors with which the codices were made. The Temples of Heaven in these plates are associated with this diphrasism, because in these places were deposited the ancestral knowledge and they contain the basis of the cult.

For Elizabeth Boone (2007, 189) the black and the red snakes play a creative role, and relate them to the myth of the creation of Earth, where Quetzalcoatl and Tezcatlipoca separate the terrestrial monster, creating the earth and separating it from the sky (Garibay, 2005, 109). Anders et al (1993, 203) considered that these beings would correspond to the serpents of vision. Without denying the creative and ritual burdens that these serpents, I propose that the Temples of Heaven, being part of the body of the Red-Black Serpent, are designated as places of wisdom and knowledge, as *Tlillan Tlapallan*, through a metaphoric use of the colors.

In fact, according to the *Anales de Cuauhtitlan* (Bierhorst, 1992, 36), the complete toponymal would be in *Tlillan Tlapallan Tlatlayan*. The departure of Ce Acatl Topiltzin Quetzacoatl from Tollan to this mythical place, will serve as a model for the Nahuatl rulers, who ritually recreate the journey from Quetzalcoatl to *Tlillan Tlapallan Tlatlayan* during the funeral of the ruler or tlatoani (Johansson, 2015, 162). In the *Hystoire du Mechique* (Garibay, 2005, 116) the previous hypothesis is corroborated, since it is affirmed that after the death of Quetzalcoatl by fire, the custom of burning the dead bodies of the warriors and kings was established.⁷ *Tlatlayan* means in Nahuatl "The place of burning" and that is the reason of the presence of the igneous elements in these images⁸.

According to a myth, a god was thrown into the fire and thus the sun was created. As the star did not move, Xolotl sacrificed the rest of the gods by heart extraction and then himself, giving rise to this practice and worship of the sacred bundles, which were made with the clothes of the dead gods (Mendieta, 1993, 79-80). As I had pointed out above, when Quetzalcoatl had to embark on his journey to *Tlillan Tlapallan Tlatlayan*, he

7 In Mexica society, the merchants were allowed to be cremated because they gained social status through time.

8 For example: the birth of fire ñuhus, the presence of fire serpents, the appearance of women dressed as priestesses of fire on the steps of both temples as the extraction of fire from the breast of a god and the birth of igneous spirits. In addition to the previous examples, the presence of Xolotl and Tlahuizcalpantecuhtli in these images is very important, since both gods have a fundamental role in incineration as a generative act.

also had to sacrifice himself to become the star of the dawn and had to pass through Tlatlayan, "The Place of Burning," to be reborn as Tlahuizcalpantecuhtli or Venus.

In the Temples of heaven, place of wisdom and knowledge, the place of burnt, it is evident that the presence of the stars and igneous elements are combined. Both the sun and the fire give are a source of heat or *tonalli* (Mikulska, 2017, 54), as well as incineration and sacrifice by heart extraction.

In summary, in the context of these images, the red and black snakes are working in a metaphoric way, expressing a deep mythological concept. As well, they refer to the place *Tlillan Tlapallan Tlatlayan*, where Quetzalcoatl went to burn himself in order to become Venus. That is the reason for the presence of stellar elements (Mikulska, 2017, 47) and beings, because they were born thanks to a sacrifice by fire, according to different myths, including the creation of the sun (Boone, 2007: 188-189).

Methaphoric Ways To Express Cyclical Time

Graphic signs are polysemic (can mean multiple things) and their significance depends on the context in which they are found. For example, the rabbit or the deer, can function as a sign of the day (*figure 3*) or, in the case of the rabbit, it can act as a marker of the year.

Figure 3
Rabbit and deer as calendrical signs (Codex Borgia, 1976, plate 5).



In plate 33, the sun and the moon are attached from the thread that the spider weaves (*figure 4*). The representation of the sun as a deer and the moon as a rabbit respond to an ancient mythical tradition in Mesoamerica, where these animals play an astral role. In a myth of southern Durango (Medina Miranda in López Austin, 2009, 23) the rabbit does not have the strength to load the antlers and is forced to give them to the deer, which from then on will possess them. Among the Maya, Huichol, Totonacs of Cuahueyatla and Kekchies, the deer appears clearly associated with the sun, but also with the hunter (Olivier, 2015, 277-281).

Both the rabbit and the deer were related to vagrancy and disobedience (Sahagún, 1999, 417), for being both eternal travellers of the firmament (Lopez Austin, 2009, 49-53). The rabbit is deeply associated to the

moon (Sahagún, 1999, 431-432). The rabbit and the deer, associated to the sun and the moon, are a graphic metaphor of cyclical time.

Figure 4

The sun/deer and the moon/ rabbit. (Codex Borgia, 1976, plate 33)



The sense of the appearance of the sun/deer and the moon/rabbit in the thread is to symbolize the becoming of time, the duality of day and night, the continuous movement of the two stars. In addition, the rope symbolizes the connection between the sacred world and the human world through rituals and sacrifice (Díaz Álvarez, 2015, 87).

As well, the passing of time is emphasized by the presence of warriors killed in battle and dead pregnant women. Mikulska (2015a) analyses in depth the relations between the *macuiltonaleque* and the *tzitzimime*⁹. It seems to me very important to point out the proposal of this researcher (Mikulska, 2008, 239; 2015a, 147-156), since, based on the analysis of myths, ethnographic and iconographic material, she observes that *mimixcoa* (that possess an identity associated with *macuiltonaleque*), as well as dead women in childbirth *chuateteo* or skeletal beings *tzitzimime* in their role of stars¹⁰, have a joint role in indigenous narrative:

It seems that the most important function of the *macuiltonaleque* together with the star-dead women was to introduce a state of chaos and subsequently restore order. Thus, in the images of the sky-temple of the *Codex Borgia* (33-34), it is surely a representation of the diurnal sky, and although there surely stands the function of warriors and dead women as companions of the sun, I would understand it in the sense that they help you mark the passage of time. (Mikulska 2015a: 155)¹¹.

9 One of its most important characteristics is that they are skeletal or defleshed beings (Dakin, 1996, 316). The *tzitzimime* appear in the contemporary myths as primordial characters to whom Quetzalcoatl had to overcome, under some of his invocations, to be able to give way to the creation of the present world (Stresser-Pear, 2011, 432-433).

10 I agree with the author when she states that in the female figures that appear on the roof of sheet 34 of the Borgia codex can be identified as *tzitzimime*, by their emaciated faces, and as *chuateteo*, by their belly of previously pregnant women" (Mikulska, 2015a, 154).

11 "Parece que la función más importante de los *macuiltonaleque* junto con las mujeres muertas-estrellas era introducir un estado de caos y posteriormente restablecer el orden. Así, en las imágenes de los templo-cielo del Códice Borgia (láms. 33-34), seguramente se trata de una representación del cielo diurno, y aunque seguramente allí se destaca la función de los guerreros y mujeres muertas como acompañantes del sol, yo lo entendería en el sentido de que ellos le ayudan a marcar el transcurso del tiempo."

On the other hand, the appearance of the graphic sign "eagle", in this case works to complement the idea of movement of the sun and temporal becoming. The eagle sign could be a calendrical sign in the context of *tonalpohualli* (figure 5) or appear as directional from the Northern region (figure 6), but in this case, due to its position and the general context of the image, is associated with the movement of the sun. This animal reiterates again the idea of the movement of the sun from its ascent and descent by the Temples of the Sky, precincts of wisdom (figure 7).



Figure 5

Eagle as a calendrical sign. (Codex Borgia, 1976, plate 11).

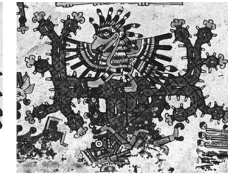


Figure 6

Eagle associated to the Northern region (Codex Borgia, 1976, plate 50).



Figure 7

Eagle representing the movement of the sun. (Codex Borgia, 1976, plate 33).

Metonymic Series to Express Self Sacrifice and Sacrificial Activities

The sacrificial activity is represented by several graphic elements in these plates. The tails of the red and black serpents have sited at the top, a flint. The flint is associated with the Gods Tezcatlipoca and Quetzalcoatl¹² (figure 8). In Plate 33, the flint hangs on the thread of the spider and the objects attached to the sacrificial activity hanging on the thread are: *chalchihuitl*, a sacred stick, the spines of maguey, a flag, and a sacrificial feather.

These graphic elements form a graphic inventory associated with sacrifice (Dehouve, 2009; Mikulska, 2015a), which although it has some oral correspondence (Montes de Oca, 2013, 393), is not limited by it. The elements hanging from the sacrificial rope may be paired in other images, such as the sacrificial feather and the flag. The maguey spines may incorporate the thread (figure 9) or appear combined. In all cases, the associated signs create a metonymic series that refers to sacrificial activity (figures 1 and 8).



Figure 8

Rope with sacrificial elements. (Codex Borgia, 1976, plate 10)

12 Taking into account these elements and the facial painting of the character that appears in the flint, I consider that this is Quetzalcoatl, since from its descent to the ground lay the foundations for the emergence of political and religious power established by the god, as it also appears in the Mixtec codex.



Figure 9

Sacrificial rope and maguey spines. (Codex Borgia, 1976, plate 64).



Figure 10

Archetype of sacrificial victim. (Codex Borgia, 1976, plate 33)



Figure 11

The *chalchihuitl* or jade sign combined with the flower sign and gold sign to express the "Preciousness" of the sacrificial blood. (Codex Borgia, 1976, plate 44).



Fig. 12

Chalchihuatl, diphrasism to precious blood. (Codex Borgia, 1976, plate 10).

A frontal image of a character appears on Plate 33, which is not common in the Mixteca-Puebla style. He has a sacrificial feather on his head, he carries only a *maxtlatl* and his arms are outstretched. It seems to represent the archetype of the sacrificial victim, which again emphasizes the idea of sacrifice (figure 10).

The jade or *chalchihuitl* appears on the rope as a marker of the preciousness of the sacrificial elements. The *chalchihuitl* sign and the flower, either together or individually are a metaphor of the precious and the valuable (figure 11) that does not correspond exactly to the oral diphrasism.¹³

As well, the *chalchihuitl* associated with water generated the diphrasism in *chalchihuitl* in *atl* or *chalchihuatl* that means "precious water or blood" (figure 12). It has an oral correspondence, but we can see that graphic signs are not always limited to the orality (Mikulska, 2015a, 392-393).

13 The oral diphrasisms that use the *chalchihuitl* to express the precious, the valuable thing are: in *chalchihuitl*, in *teoxihuitl*, "jade, turquoise"; in *chalchihuitl*, in *maqiztli*, "jade, bracelet"; in *chalchihuitl*, in *quetzalli*, "jade, feather thin" (Montes de Oca, 2013, 177). The *chalchihuitl* graphic sign may appear alone or in combination with the sign "flower" to express the same meanings associated with sacrificial activity.

Conclusion

The temples (plate 33-34) metaphorically refer to *Tilan Tlapallan Tlatayan*, a mythical place where Quetzalcoatl became Venus, a place of wisdom and knowledge (where the codices are kept), as well as the place where Xolotl became the Sun, after heading the Sacrifice of the gods, giving rise to the continuity of time. Here it was established the need for the extraction of the heart and self-sacrifice as a paradigmatic act.

The temples of Heaven in the codex are of an unusual size (Byland, 1993, xxiv) because they sought to emphasize their mythical origins and their transcendence. In the Mixtec codices, they are the seat of very important acts like marriages, births of founders of dynasties, as well as activities related to the power and the penitence.

I do not disagree with the proposal by Anders et al. (1993) when they affirm that these images refer to a specific ceremonial space, although I consider that what these plates present is the archetype of a space dedicated mainly to the Feathered Serpent, whose cult will be of enormous importance for the political and religious life of several places during the Postclassic period.

Through different images, it is sought to emphasize that the Temples of Heaven are places related to cyclical time, the cremation as a mythical model for the funerals of rulers, and the emergence of the stars from sacrifice. This visual redundancy serves to reiterate, complement and transmit graphic messages. *Tilan Tlapallan Tlatayan* is a metaphoric place that displays important religious meanings.

Graphic signs are polysemic and form association networks depending on the context in which they are found. Through the analysis of these plates, we can appreciate that the semiographic system was used in the elaboration of divinatory codices and that the meaning of the icons is not univocal (limited to one meaning), because these are related depending on the context. The graphic elements are grouped metaphorically and metonymically creating different complementary meanings.

The glottographic system seeks to transmit a specific and unique message, whereas in the semasiographic systems used in religious codex, the ritual specialist was a key participant in the construction of meaning, because the graphic elements create different levels of reading that are related or independent to each other.

Although the graphical elements have a relation with orality, they do not have an exact visual correspondence, which allows a permanent composition of signification. In the semasiographic systems, the priest played an active role in the transmission, elaboration and interpretation of the message embodied in the sacred codices, unlike the glottographic system, which seeks to specify information instead of creating it and recreating it through polysemous symbols. Both systems, semasiographic and

glottographic, are equally useful and rich, but they have a different operation because they have different objectives.

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