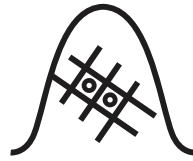




Drawing from the *Huichapan Codex* by Stephanie Constantino Vega

ears of maize



a stylized mountain pattern of rhomboids and circles used to express the idea of the reptilian skin of the Earth

five rivulets of water



interpretation:

mountain + water signs, represent a water-mountain, central Mexican metaphor, expressing the idea of a center of political power and its physical manifestation as an urban center

meaning:

the kingdom/town at the Mountain of the Tender Ears of Maize.

Signs of resistance:

Iconography and semasiography in Otomi architectural decoration and manuscripts of the early colonial period

David Charles Wright-Carr

The indigenous peoples of central Mexico developed a complex and sophisticated system for the visual expression of culture during the three millennia preceding the Spanish conquest. Central Mexican imagery was materialized in sculpture and painting, in monumental and portable formats, including the embellishment of architectural surfaces and the painting of manuscripts. This system continued to function in a variety of cultural contexts for over a century after the conquest, as native peoples adapted to colonial rule and interaction with European colonists. In this article, a brief review of the fundamental principles of central Mexican visual language is presented, then examples of sculpted images from early colonial public architecture in Otomi towns are discussed, comparing their signs to those found in pictorial manuscripts painted in the early colonial period. These examples reflect the cultural tenacity and ethnic resistance of the indigenous sculptors and painters. They also reveal the resilience of central Mexican visual language, which continued to serve the interests of native peoples coping with life under Spanish rule.

Keywords:

- ethnicity
- iconography
- semasiography

Introduction

During the late pre-Hispanic period, there was a relatively homogenous plurilingual culture in central Mexico. Among the linguistic groups that participated in this culture were the Otomi and the Nahuatl. They shared a system of visual communication with each other and with other linguistic groups, among them speakers of Mixtec, Zapotec and Tlapanec languages. This system of pictorial signs was essentially semasiographic in nature, communicating ideas without necessarily being bound to verbal language, although it occasionally exploited the possibilities afforded by homophonic or quasihomophonic substitution to express words, morphemes, and phonemes specific to a given language, like modern rebus writing. This system lies on the blurry border between the Western concepts of iconography and writing, making its classification problematic. Mesoamericanists continue to debate whether it qualifies as a writing system. The problem, however, lies more in the insufficiency of our Western conceptual categories than in the intrinsic nature of the system.

During the early colonial period, native peoples in this region continued to employ their ancestral system of visual communication in diverse social contexts, including the use of the ancient Mesoamerican calendrical system for ritual and divination, the recording of historical memory, cartographic documentation, economic record-keeping, and the meaningful decoration of architectural and urban spaces. Novel uses, reflecting efforts by native peoples to adapt to the colonial regime, included graphic representations of the European calendar using pre-Hispanic conventions, and the invention of new motivated graphs to express concepts related to Spanish political authority, monetary units, Catholic doctrine, and Christian saints, which became especially relevant due to their use in personal names, place names and the feast days of the liturgical year. At the same time, European materials, graphic techniques, forms, and symbols increasingly found their way into the native system, until they had all but replaced pre-Hispanic conventions by the mid-eighteenth century (Escalante 2010).

In this article, four examples of decoration found in the public architecture of the Mezquital Valley will be analyzed, using contemporary pictorial manuscripts as auxiliary sources for the interpretation of individual signs and for a deeper understanding of these images, in the context of local resistance to the efforts of European missionaries to transform native worldview and ritual traditions. The four images I have chosen are exceptional, as most decoration in missionary architecture expresses orthodox Catholic doctrine, but they are far from unique, as native sculptors and painters often included symbols related to their ancestral worldview, often in subtle ways, in the convents, churches, and chapels built throughout New Spain as part of the political, social, and religious transformation promoted by the Spanish government. These visual signs served as vehicles for the reaffirmation of

ethnic identity and political legitimacy in public spaces.

Central Mexican

visual communication

For the purposes of this study, the region called 'central Mexico' includes much of Mesoamerica, excluding most of western Mexico and the Maya area, two regions where visual communication presents distinct stylistic traits that require a separate treatment, despite sharing some pan-Mesoamerican features (Hernández 2013; Schele 2001). Within central Mexico, in the centuries preceding and following the fall of the Aztec capital of Tenochtitlan in 1521, a relatively homogenous pictorial style may be found, with regional variations morphing gradually through time and space. This style has its roots in the highly conventional sacred imagery of the Middle Preclassic period, or Olmec horizon, that developed from around 1200 to 600 B.C., when a visual style emerged throughout Mesoamerica, from central Mexico to Central America. Regional variants branched off from this tradition during the Late Preclassic, Protoclassic, and Classic periods, from 600 B.C. to A.D. 600. In the Epiclassic period, from A.D. 600 to 900, a tendency toward interregional stylistic integration began to emerge, and this tendency continued through the Postclassic, from A.D. 900 until the time of the Spanish Conquest in the early sixteenth century.¹

To understand this visual language, it is important to consider its intermediate nature, between what some specialists call 'iconography' and 'writing.' The category of semasiography occupies this middle area. Its boundaries cannot be drawn with precision, as there is a gradation from iconography to semasiography to writing. Experts continue to discuss the definitions of these terms, and the usefulness (or uselessness, as some Mesoamericanists continue to insist) of the concept of semasiography.

To avoid contributing to the scholarly babel by introducing novel ways of talking and writing about central Mexican visual communication, during the last fifteen years I have adopted the concepts, terms and definitions provided by linguist Geoffrey Sampson in 1985.² He classifies writing systems by the structures they represent. His classification is well suited for central Mexican visual language, although it has not been adopted by many Mesoamericanists.³ Sampson's conceptual toolkit is useful for comprehending the relations between visual signs, ideas, and verbal signs, but this is only part of what we need to appreciate the complexity of central Mexican visual language in its material, formal, semantic, and cognitive dimensions. Since this form of pictorial and graphic communication straddles the blurry boundary between iconography and writing, the tools traditionally employed by specialists in writing systems are insufficient when working with

1. For an overview of Mesoamerican visual communication, from the perspective of the study of writing systems, see Marcus 1992.

2. The second edition, published in 2015, will be used here.

3. For a notable exception, where the concept of semasiography is discussed and employed in a more systematic way, see Mikulska 2015.

systems that correspond only in part with what we traditionally consider writing. In these cases, semiotics or iconological methods have been used.

While combining writing systems theory with semiotic and iconological analysis has permitted important advances, a more integrated approach is now needed to bring the study of Mesoamerican visual communication into alignment with recent developments in cognitive science. I propose that this field could benefit from a thorough revision, drawing on the emerging paradigm of embodied, enactive, extended, embedded, and situated cognition. This transdisciplinary perspective considers human cognition as emerging from the interaction of our bodies with our environmental, social, and cultural contexts. In its more radical form, it denies that we rely on internal representations of external reality. This has important implications for understanding how humans interact with visual and verbal languages.⁴

The blending of imagery and language in systems of visual communication reflects essential aspects of human cognition. Thoughts are not strings of verbal signs, but reflect conscious and unconscious processes arising from multisensorial bodily impressions of our experience of ourselves and our environment, structured by culturally conditioned patterns of meaning-making. The cognitivist paradigm of the second half of the twentieth century, in which cognition is seen as the computer-like manipulation of symbolic representations, seems inadequate to explain the use of visual signs as a medium for the intersubjective communication of thoughts, impressions, and feelings, with or without a direct linkage to spoken language.⁵

Sampson (2015, 18-24) defines semasiography as those relatively permanent, specific, and conventional systems of visual communication that do not depend on spoken language. Whether semasiography is considered a class of writing, he tells us, depends on how we define writing, and he leaves this open to question. He exemplifies with international garment-care symbols, road signs, and mathematical notation, three systems that function within narrow semantic domains. He considers Siberian and American semasiographic systems to be limited; while he doesn't mention central Mexican semasiography in the body of his text, a footnote cites a collective volume about semasiography in Mesoamerica and the Andes. For a more syntactically complete semasiographic system, he describes Blissymbolics, invented by an Austro-Hungarian engineer at the end of the nineteenth century.

For Sampson, glottography is writing that depends on spoken language, although the degree of correspondence between visual and oral signs varies between systems and is never absolute. Glottography represents linguistic structures, and is subdivided into logography –representing words or morphemes–, and phonography –representing syllables, segments (phonemes), or phonetic features– (Sampson 2015, 24-26).

There are critical distinctions between semasiography, logography, and phonography. In semasiography, elementary signs –graphemes– repre-

sent ideas, without being necessarily linked to the structures of verbal language. In logography, graphemes represent linguistic units –words or morphemes– that possess both semantic and phonemic properties, and thus are necessarily linked to structures in a given language (or set of closely related languages). In phonography, graphemes represent phonemic or phonic elements –phonemes, allophones, and features– that in themselves have no precise meaning.⁶ Thus semasiography represents ideas alone, logography represents ideas with sound, and phonography represents sound alone.

These distinctions are not always made clear in studies of Mesoamerican systems of visual communication, and those of other regions and eras.

Most historical writing systems are mixed, so I prefer to speak of individual semasiograms and glottograms (the latter including logograms and phonograms, as noted above) within these systems, rather than speaking of semasiographic, glottographic, logographic, or phonographic systems. Such generalizations can lead to unnecessary confusion. Another point to consider is that within a mixed system, a compound sign may include individual graphemes from more than one category. For example, a semasiogram may be bound to a phonogram, the latter sign serving as a complement, to ensure that the compound graph is interpreted phonetically as the author intended. By the same token, a glottogram may have a semasiographic complement to resolve potential homophonic ambiguity, insuring that the intended meaning is comprehended by the reader. In these cases, a visual sign may be more comprehensible than the corresponding oral sign.

A grapheme can be located on a gradation between motivated signs –those that pictorially represent things that exist in the world– and arbitrary –abstract– signs. The motivated or arbitrary nature of a grapheme is independent from its quality as a semasiographic or glottographic sign. That is, a semasiogram may be motivated –for example, a smiley emoticon 😊– or arbitrary –the interrogative punctuation mark '?'–. The same may be said of a glottogram: a motivated sign representing a human eye '👁' in addition to its potential use as a semasiogram, may stand for the first person singular pronoun 'I' in a rebus, exploiting the homophony between the English words 'eye' and 'I'. In the latter case, the motivated sign '👁' is logographic, representing the word 'I', while the arbitrary alphabetical sign 'I' is phonographic, representing the phoneme /i/, which, when written with a capital letter, stands for the same pronoun. In central Mexican visual communication, nearly all graphic signs are motivated. This is why the phrase 'pictorial writing' and the word 'pictography' are often used to describe this system.

Distinguishing between semasiograms and glottograms is simple in principle: if a graph may be 'read' (verbalized) in two or more languages –excluding tongues that are closely related–, then it is a semasiogram, since it expresses an idea without being necessarily linked to a verbal element in a specific language. If, on the other hand, a graph is clearly linked to a linguistic element in a given language, then it is a glottogram, and its subclass de-

6. A phoneme is a minimal linguistic unit that if substituted for another can affect the meaning of a word. An allophone is a variant of a phoneme that differs in pronunciation –sometimes very subtly– from other variants, without affecting meaning. A phonetic feature is a characteristic of sound quality, determined by articulation; the sum of several features determines the sound of an allophone (Sampson 2015, 11-17).

depends on the element represented, as explained above. Despite the relative clarity and simplicity of this principle, complications arise when attempting to classify graphs in a given system of visual communication, often because of a lack of certainty regarding the meaning of a graph, or regarding the etymology of the verbal signs associated with it.⁷

Central Mexican visual language around the time of the Spanish conquest was essentially semasiographic. This system, however, permits the inclusion of glottograms through homophonic or quasihomophonic substitution –rebus writing–, producing logographic and phonographic signs. These glottograms were used most often for representing personal and place names (Marcus 1992; Nicholson 1973; Whittaker 2009). There are a few examples of glottography in pre-Hispanic central Mexican painting and sculpture, some clear and others mere possibilities, showing that this was part of the system before the arrival of Europeans and the alphabet (Marcus 1992; Mikulska 2015; Wright-Carr 2009b). In certain regions, the use of glottography appears to have increased during the early colonial period. In some codices, an incomplete syllabary was used for writing proper names, particularly in the Tepetlaoztoc region of the eastern Valley of Mexico (Valle 1994; Williams and Harvey 1997). This did not occur everywhere, however. As we shall see, the signs that are discussed in this article, found in monumental decoration and pictorial manuscripts, are iconographic and semasiographic in nature. A few possible glottograms employing the traditional central Mexican system of visual communication have been identified in other colonial period codices by Otomi authors, notably the *Huichapan Codex* (Wright-Carr 2012), but these exceptional cases will not be discussed in this article.

The frontier between semasiography and iconography, or images that are less like writing (being less specific and conventional) is quite blurry. In Western culture, during the last quarter of a millennium, the latter signs are considered ‘art,’ and their study can be called ‘iconography’ or ‘iconology.’⁸ We use mutually exclusive conceptual categories, ‘writing’ and ‘art,’ but this dichotomy can be an obstacle in understanding how visual communication can work on multiple cognitive levels. Contemporary graphic designers are acutely aware of the communicative value of the composition, size, color, shape, and surface treatment of alphabetic graphemes, and of their combination with iconic elements and background colors, textures, or images. By the same token, ‘artistic’ compositions may incorporate arbitrary or motivated glottographic elements. ‘Art’ and ‘writing’ are combined in many ways in contemporary visual language. Such combinations may also be found in the visual communication of other human cultures throughout time and space (Coulmas 2003; Sampson 2015). This tells us something profound about human cognition. Rudolf Arnheim’s (1969) call to reconsider the importance of images in human thought is currently being vindicated by the advances in cognitive science discussed above.

In pre-Hispanic Mesoamerica, the activities we call ‘writing’ and ‘painting’ were not two distinct semantic categories, but a unified concept. This is reflected in speech: when we consult native-language vocabularies, we often find the same word associated with the Spanish terms for both writing and painting. The Otomi verb was *ofo*; in Nahuatl it was *tlahcuiloa*.⁹ A kenning, or metaphorical couplet, expressed the profound cultural importance of central Mexican visual language. The Otomi said *mayati nekuhu*, the Nahuatl-speakers *in tilli in tlapalli*. Both phrases have the same meaning: “the black ink, the colored paint.” This kenning has three layers of meaning: on a superficial level, it refers to the pigments used to paint codices, murals, sculptures, and human bodies; on an intermediate level, it denotes the paintings produced with these materials; on a deeper level, it evokes the ancestral knowledge and wisdom contained in the painted images (Wright-Carr 2011).

The signs in pre-Hispanic and early colonial imagery and writing did not function in isolation. There was a performative aspect to the ‘reading’ of codices. The painted and sculpted images on the surfaces of public architecture contributed to the symbolic meaning of the rituals performed in the spaces defined by these buildings. Performance included complex aesthetic manifestations, combining the experience of images with verbal discourse, music, dance, theatrical performance, ephemeral installations, the burning of incense, and other forms of carefully coordinated sensorial stimulation. These traditions survived into the colonial period and beyond, in the context of Catholic ritual, native celebrations, and the syncretic fusion of Western and Mesoamerican traditions.¹⁰

Visual communication in public architecture

The traditional view, found in many historical studies from the twentieth and early twenty-first centuries, tells of a broken-spirited indigenous population in central Mexico, submissively adapting to Spanish colonial rule and abandoning their ancestral deities, rituals, and beliefs in favor of Christianity. A closer look at the historical, archaeological, monumental, and ethnographic records shows that the Indians indeed had to adapt to the new political, social, and religious order, but that their leaders were skillful in negotiating power, while much of the population developed strategies to maintain their worldview and ritual tradition, ranging from subtle syncretic blending of Mesoamerican and European traditions to clandestine ritual and, on occasion, open rebellion (Gruzinski 1989; Lara 2007). In this section, we shall look at images from the decoration of four public monuments in Otomi towns of the Mezquital Valley, showing how the pre-Hispanic tradition of visual

7. For examples of semasiography and glottography in central Mexican pictorial writing, produced by Nahuatl and Otomi painter-scribes, see Wright-Carr 2005a; 2009b; 2012; and 2013.

9. This can be found in Tarascan (Gilberti 1990), Yucatec (Barrera 1995), Pocomam (Smith-Stark 1994), Zapotec (Córdova 1987), Mixtec (Alvarado 1962), and Pipil (Smith-Stark 1994), as well as Otomi (Urbano 1990) and Nahuatl (Molina 1571).
10. Boone (1994, 71–72) and Johansson (2000, 143) describe the public performance of Aztec painted histories. Monaghan (1990; 1994) and Pohl (1994, 12–13; 2001, vol. 1, 5–6) point out the theatrical aspects of the public display and declamation of Mixtec codices. For a description of the ritual performance of a pictorial manuscript in sixteenth century Yucatán, see Landa 2000, 40 recto–40 verso.

8. I use the words ‘iconography’ and ‘iconology’ here in the Panofskian sense, where the former implies identifying individual iconic elements and interpreting them within their cultural context, and the latter seeks to arrive at a deeper understanding of the image after analyzing its constituent parts (Panofsky 1982).

communication survived and adapted in the context of colonial New Spain. Otomi manuscripts will be used as auxiliary resources for understanding the formal, iconographic, and iconological aspects of these pictorial signs.

The examples discussed in this section are atypical. They were selected because they provide examples of the survival of pre-Hispanic worldview in the decoration of Christian architecture. There are many examples of ideological and iconic persistence in pictorial manuscripts produced during the early colonial period, but the public display of native visual language is relatively rare and, when found, it tends to be more discreet, with several notable exceptions.¹¹

11. Reyes-Valerio (1978; 2000) provides an exhaustive review of native imagery and signage in the architecture of sixteenth-century New Spain.

Convent of Saint Peter, Jilotepec

At the time of the Spanish conquest, the Otomi kingdom of Jilotepec was a regional capital that dominated the western half of the Mezquital Valley, north of the Valley of Mexico, integrated into the Aztec tribute state. The nobility of Jilotepec had close dynastic ties to the ruling families of Tenochtitlan, the preeminent Aztec kingdom with its seat in the Valley of Mexico. Like many pre-Hispanic kingdoms of central Mexico following the Spanish conquest, Jilotepec became an Indian town, where native rulers continued to govern the population under the town's jurisdiction, as a political unit under the control of the Spanish colonial administration. After a period of transition, in which pre-Hispanic political structures remained intact, the kingdom was substituted with a *cabildo* or town council modeled on the Spanish *ayuntamiento* system, with native officials elected under the vigilance of colonial authorities. *Cabildo* members were generally descendants of the ruling class that had been educated by friars. The Indian towns paid tribute, in goods and services, first to Spanish *encomenderos* –conquistadors who had been granted the right to exploit native polities–, then to royal officials as the *encomienda* system was phased out of existence. The conquest was legally and morally 'justified' by the claim that the natives' souls would be saved by their adopting the Christian faith. European friars and secular clergy embarked on a massive campaign of forced conversion, using methods of coercion ranging from public humiliation and incarceration to the death penalty (Gerhard 1993, 3-34; González 2002; Wright 2005a, vol. 1, 130, 167-169, 192-218).

The Franciscan convent of Saint Peter at Jilotepec was probably founded between 1530 and 1540 by Friar Alonso Rengel, the first Christian priest to learn the Otomi language. Rengel distinguished himself by tearing down temples and smashing sacred images in his missionary zeal. Two times Indians tried unsuccessfully to kill him. He died at sea in 1547, on his way to a meeting of Franciscan friars in Assisi (Mendieta 1997, vol. 2, 378-379). Jilotepec had been an influential kingdom in the late pre-Hispanic period, and

maintained its prominence in the decades following the Spanish conquest, until it was eclipsed by the nearby town of Huichapan (Gerhard 1993, 383-386; Wright-Carr 2005a, vol. 1, 167-169, 199-202, 213-218).

Archaeologist Felipe Solís (1997) found five slabs of worked volcanic stone in the storage vaults of the National Museum of Anthropology. These were identified as part of a lot of seven slabs that were once embedded in a wall of the Franciscan convent at Jilotepec. Whether they were carved for this building or recycled from some pre-Hispanic structure has not been determined. Solís favors the latter hypothesis, but the persistence of the native pictorial system for over a century after the fall of Tenochtitlan makes it impossible to rule out the former on stylistic grounds alone. Each slab bears a relief carving with a conventional motivated sign pertaining to the central Mexican system of visual communication. Solís compared these slabs with painted signs in the *Huichapan Codex*, a pictorial manuscript containing the historical memory of Jilotepec and Huichapan. He was able to match four reliefs to similar signs in the codex. The fifth relief is difficult to interpret and was not included in Solís's article.

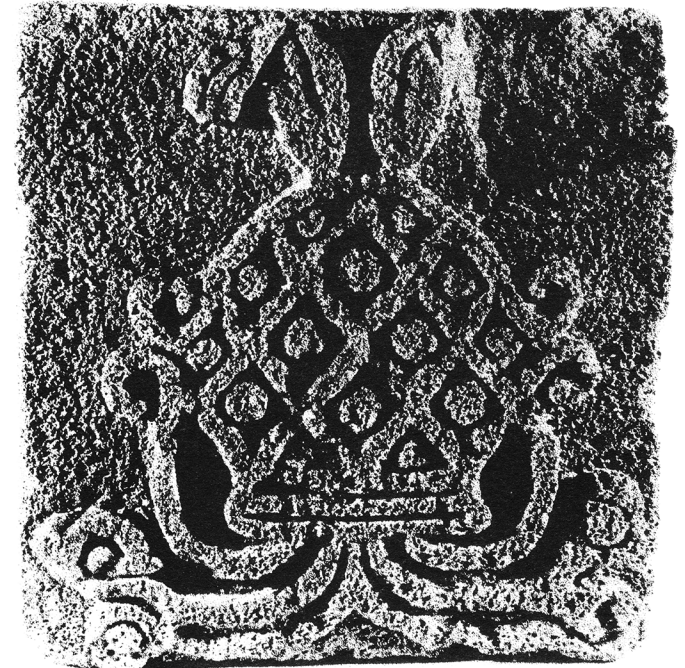
One of the slabs from Jilotepec bears a toponymic sign representing the pre-Hispanic kingdom, or colonial period Indian town, of Jilotepec (*figure 1*). The image is highly conventional, combining several iconic elements or graphemes. The central element represents a stylized mountain

Figure 1.

Relief expressing the name of the 'water-mountain' (kingdom or town) of Jilotepec.

Convent of Saint Peter, Jilotepec (National Museum of Anthropology, Mexico City).

Solís 1997, 44.



with a straight bar at the bottom, as if it had been severed from its rocky substrate. It has an unusual contour, resembling an inverted pot. Pairs of volutes on its sides conventionally express its rocky complexion. Within the mountain sign is a net pattern with circular elements in each of the diamond shapes defined by the crisscrossing bands. This pattern of rhomboids and circles was commonly used to express the idea of the reptilian skin of the Earth. It is found in central Mexican codices on the body of the Earth monster and on mountain and cave signs. The same pattern covers the serpent bodies carved into the Aztec sculpture of *Cōātl Īcue*,¹² a telluric goddess whose name in Nahuatl means “Snake is Her Skirt.”¹³ On top of the mountain are twin motifs representing ears of maize. Under the mountain is a sign representing six rivulets of water, each terminating in either a ring-shaped element, expressing the idea of a jade bead –and by metaphorical extension the precious nature of water– or a stylized sea shell, evoking the life-giving quality of the vital liquid while reiterating its preciousness.

The mountain and water signs, when juxtaposed, represent a water-mountain, another central Mexican metaphorical kenning, expressing the idea of a center of political power and its physical manifestation as an urban center. The pictorial sign displays a stylized mountain with water gushing from its base. In Otomi documents the verbal equivalent is *andehent'ohō* (Urbano 1990);¹⁴ in Nahuatl we find the lexicalized phrase *āltepētl* (Molina 1571). The words in both languages literally mean “the water, the mountain.”

This modern name of this town, Jilotepec, is derived from the Nahuatl toponym *Xilōtepēc*, “On the Mountain of the Tender Ears of Maize.” Its Otomi name was *Amadontäxi*, “Place of the Flowering Tender Ears of Maize.” Most toponyms in central Mexico were calques, or semantic loans in which the idea behind the name was reconstructed using the morphemes of each language. Unlike most European toponyms, what mattered most was the meaning, not the sound. This compound sign may be ‘read’ in Otomi, Nahuatl, or any other language spoken in this region. A feasible reading in Otomi of the entire relief is *Andehent'ohō Amadontäxi*, “the kingdom/town at the Place of Flowering Tender Ears of Maize.” In Nahuatl, the same compound sign may be expressed as *Āltepētl Xilōtepēc*, “the kingdom/town at the Mountain of the Tender Ears of Maize.” Thus each iconic element, as well as their sum, may be classified as semasiographic, expressing concepts visually, without being necessarily linked to a particular language. An interesting feature of the semiotic interplay between the visual sign and the two verbal expressions is that in the Otomi phrase, the image of the mountain is verbalized only once, in the word meaning ‘water-mountain’ – *t'ohō* means ‘mountain’ in this language–. In the equivalent phrase in Nahuatl, it is verbalized twice, using the nominal root *tepē*, ‘mountain:’ once in the ‘water-mountain’ kenning and again in the name of the pre-Hispanic kingdom or the colonial town (Wright-Carr 2013).

Similar compound graphs may be found in the *Huichapan Codex*,

which includes a pictorial history of the kingdom of Jilotepec during the late pre-Hispanic and early colonial periods. In one instance (*figure 2*), we find the same combination of iconic or semasiographic signs: a mountain with net-and-circle pattern, lateral volutes, and horizontal incision at its base; rivulets of water with jade beads and shells; and two ears of corn sprouting from the top of the mountain. Unfortunately, the alphabetical gloss is lost, due to the deterioration of the edges of the manuscript. In other parts of this document we find the Otomi name of Jilotepec, *Amadontäxi*, confirming the translinguistic and semasiographic nature of this compound sign.¹⁵ The painted sign in the codex is stylistically within the native tradition, with no Western influence, in spite of the fact that it was painted on European paper over a century after the fall of the Aztec capital.

Neither the relief slab from Jilotepec nor the painted sign in the *Huichapan Codex* show influences from the Western tradition of visual communication, except for the use of European paper as a support in the case of the codex. As noted above, the relief may have been carved before the Spanish conquest and later incorporated into a wall of the Franciscan

12. Nahuatl words in this article were translated using the method developed by Wright-Carr (2007); long vowels (marked with macrons: ā, ē, ī, ō) and *saltillos* (a phoneme usually pronounced as a glottal stop) were restored using the extensive vocabulary prepared by Wimmer (n.d.).

13. See López Luján (2009) for a detailed iconographic study of the Aztec sculpture commonly called Coatlicue.

14. Otomi spelling has been standardized in this article with the orthography currently used in bilingual education programs of the Secretariat of Education (*Njau nt'ot'ira hñähñu* 2008), consulting the dictionary by Hernández, Victoria, and Sinclair (2010). The variant used in the colonial period has been translated and reconstructed using the vocabulary prepared in the early seventeenth century by Friar Alonso Urbano (1990).

15. The Nahuatl word, *Xilōtepēc*, is found as an alphabetical gloss associated with a similar pictorial sign (but without the net-and-dot pattern nor the rivulets of water) in the tribute lists of the *Codex Mendoza* (Berdan and Anawalt 1992, vol. 3, 31 *recto*).

Figure 2.

Painted toponymic sign for the kingdom or town of Jilotepec.

Huichapan Codex, circa 1632, 5 *recto*.

Reyes Retana 1992, plate 9.



convent, or it may be contemporary with the construction of this Christian missionary establishment. In either case, the native iconographic or semasiographic sign was effectively framed by its integration into this architectural context. The presence of the toponymic sign expressing the idea of Jilotepec as a water-mountain or kingdom, together with other toponymic signs –presumably of subordinate towns, according to Solís–, appears to represent the continuing political legitimacy of this regional capital during the early colonial period, through the use of native imagery.

Church of Saint Anthony of Padua, Mixquiahuala

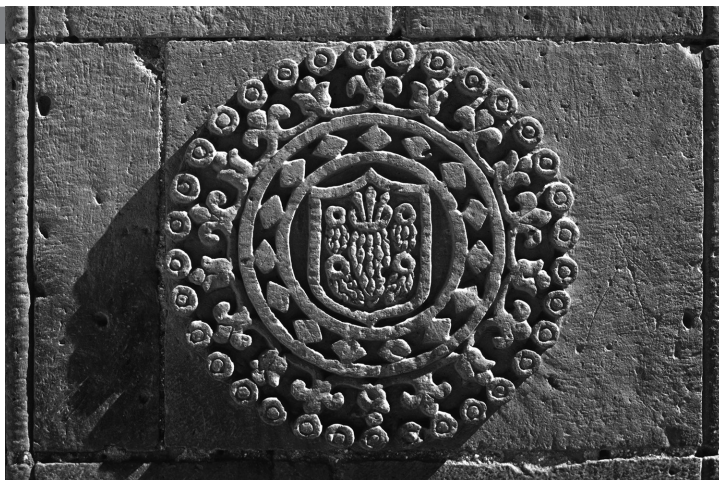
Mixquiahuala is another town, originally populated by the Otomi, in the southern Mezquital Valley. In late pre-Hispanic and early colonial times, it fell outside of the political jurisdiction of Jilotepec, paying tribute first to Tula or Axocopan, kingdoms that formed part of the Aztec tribute state, then to Spanish *encomenderos*, and finally to the Crown (Wright-Carr 2009a). Its Nahuatl name, *Mizquiyahuallah*, means ‘Place Surrounded by an Abundance of Mesquites.’ The Otomi toponym was *Tsit’ähi* (López Yepes 1826, 192), which can be translated as ‘Little Mesquite’ or ‘Revered Mesquite.’

The evangelization of this Otomi town was initially undertaken by Franciscan friars stationed at the convent in the nearby town of Tula, to the southwest, and Augustinians from the convent at Actopan, to the east. At some time before 1569 its first secular parish priest was appointed. Franciscan motifs in the two identical relief carvings on the pilasters flanking the entrance of the church of Saint Anthony of Padua (figure 3), and the choice of this saint as the town’s patron, speak of the missionary efforts of the order founded by Saint Francis (Wright-Carr 2009a). These same reliefs reveal, in a subtle way, the persistence of native worldview.

Figure 3. Relief depicting the wounds of Jesus and Francis of Assisi.

Church of Saint Anthony of Padua, Mixquiahuala.

Photograph by the author, 2000.



At first glance this composition does not look overtly indigenous. A medieval escutcheon contains a representation of the ‘five holy wounds’ of Jesus. From the larger wound, corresponding to the lance cut on the side of Jesus’s chest, emerge the three nails used to fix his extremities to the cross. This symbol was often used by the Franciscan order, alluding to the stigmata received by Saint Francis at La Verna in 1224 (Duchet-Suchaux and Pastoureau 1994, 152-153, 317). This escutcheon is framed by two concentric bands framing a circular row of diamond motifs, another ring formed by interlaced *fleurs-de-lis*, and an outer ring of disks, each containing a circular incision.

The hand of a native sculptor may be inferred from the circular elements, used to represent the wounds in Jesus’s and Francis’s hands and feet. In pre-Hispanic central Mexican iconography and semasiography, similar representations of jade beads were associated with precious things and substances, particularly water and blood.¹⁶ We have seen this sign in the rivulets of water in two compound ‘water-mountain’ signs; it is clearly associated with blood on the reverse of the *Teocalli of the Sacred War*, an Aztec sculpture in the National Museum of Anthropology, where it emerges from signs representing human hearts that grow from a prickly pear cactus (genus *Opuntia*) (Wright-Carr 1998, 100). Blood was an essential element in central Mexican rites. Blood drawn from the bodies of participants, and the blood of sacrificed animals and human beings, was offered to nature deities in propitiatory rites. The Sun was fed with human hearts and blood to maintain cosmic equilibrium. The diamond motifs surrounding the escutcheon may be related to patterns in the dorsal scales of rattlesnakes; serpents are ubiquitous in Mesoamerican iconography and semasiography, representing diverse aspects of a sacred, sentient universe. Finally, the radial composition recalls representations of the Sun in central Mexican sculpture and painting (Matos and Solís, 2004).

An example of such a solar disc is found in the *Huamantla Map* (ca. 1567-1598), a large historical and cartographic manuscript from the Otomi town of Huamantla, in the eastern part of Tlaxcala, painted on native paper made from the inner bark of a fig tree. In the visual narration of a native cosmogonic myth, the god *Nānāhuatzin*, ‘the revered (or the poor little) pustulent one,’ sacrifices himself in the sacred bonfire at Teotihuacan, rising as the Fifth Sun and initiating a cosmic era (figure 4).¹⁷ In this solar disk, the profile face of the deity has a feathered headdress and speech scroll in front of his mouth. This central motif is surrounded by concentric circles. Four ‘v’-shaped elements, with curled ends representing solar rays, occupy the space between the inner circles and the outer ring. Between these are banded triangular signs, each with three feathers, suggesting sculptures called *cuauhxicalli*, ‘the food-bowl of the eagle,’ in which human hearts were placed as offerings to the solar deity, metaphorically associated with the eagle (Gutiérrez 1983, 82-115). Touching the feathers are four circular beads,

16. The use of bead signs in representations of the wounds of Jesus and the stigmata of Francis is found in the decoration of other sixteenth-century convents in Mexico. This iconographic syncretism was pointed out by Reyes-Valerio (1978; 2000) in his classic study of native art in early colonial New Spain.

17. Aguilera 1984; Sahagún 1979: vol. 2, 228 verso-233 recto.

Figure 4.

Painting of the rising of the Fifth Sun at Teotihuacan.

Huamantla Map, circa 1567-1598.

Aguilera 1984, plate 7.



evoking the idea of precious blood, analogous to the four beads representing the wounds of Christ in the escutcheon at Mixquiahuala.

The twin radial designs flanking the entrance to the church at Mixquiahuala, as noted, do not contain overt pre-Hispanic iconic or semasiographic signs, beyond the circular bead-like elements related to jade and, by extension, to preciousness, as a sort of visual adjective. The placement of an escutcheon containing the five wounds of Christ with these precious bead elements at the center of a radial design with patterns arranged in concentric bands, however, suggest that the designer was relating the concept of the redemptive blood of the Christian savior to native religion, specifically the offering of human sacrificial blood to the solar deity. This possibility is supported by solar imagery integrated into a few other missionary buildings erected in New Spain during the sixteenth century. The alternation of concentric rings with Western and central Mexican iconic elements – or semasiograms – suggests a complex pattern of mutual framing, with the precious beads at both the center of the composition, where they are framed by the European escutcheon, and in the outer ring, framing the entire design. The overall effect is not unlike that of the solar disc from the *Huamantla Map*, which, despite its origin in the last third of the sixteenth century, over a generation after the conquest, does not display any stylistic influences from the Western tradition of pictorial communication.

Figure 5.

Relief with a representation of Snake Mountain framed by Christian signs.

Chapel of Saint Mary, Amealco.

Photograph by the author, 2002.



Chapel of Saint Mary, Amealco

Amealco is a village located in the central Mezquital Valley, near Chapan-tongo, within the former tributary province of Jilotepec. Its modern name comes from the Nahuatl toponym *Āmēyalco*, 'By the Spring.' Little is known about its history. This village lies about five kilometers south of a prominent mountain now called Hualtepec. Geographic, historical and archaeological evidence suggests that Hualtepec may be the mountain formerly called *Cōātepēc*, 'On Snake Mountain,' that appears in Aztec cosmogonic myths and in the story of their migration into central Mexico (Gelo and López 1998).

The chapel of Saint Mary at Amealco was built in a style like that of other examples of Christian architecture from the sixteenth century, although a carved stone over the entrance bears the date 1609. Several reliefs adorn the facade. One of them (*figure 5*) has a compound toponymic graph with the mountain sign, like the two examples discussed above, with a net-and-dot pattern and severed base, in this case without the rivulets of water. On top of the mountain is a detailed representation of a rattlesnake with a forked tongue, ventral scales, and a diamond-and-circle pattern suggesting the dorsal scales of the genus *Crotalus*. This is clearly a visual expression of the toponym *Cōātepēc*, 'On Snake Mountain,' a meaning which may be expressed in Otomi as *Ank'ënt'ōho*.¹⁸ This sign is framed by a knotted cord commonly found in Franciscan iconography, representing the waist cord worn by friars of this order, with three knots to remind the wearer of his vows of poverty, chastity, and obedience (Duchet-Suchaux and Pastoureaux 1994, 153). Alternative meanings in the native central Mexican tradition are possible, as cords are found in a variety of iconographic contexts. Filling the

18. The latter toponym is unattested in documentary sources known to the author, although this reconstruction is feasible, as toponyms commonly passed as calques from one language to another. In early colonial period Otomi, *An-* is a nominal prefix often found in toponyms; *k'ēn* is an apocopated form of the noun *k'ēnyā*, 'snake,' *t'ōho* is a noun meaning 'mountain' (Urbano, 1990).

upper space defined by the knotted cord are two Christian monograms in circular frames: IHS –the first three letters of the name Jesus in Greek– and XPS –three letters of the word Christ in Greek– (Ferguson 1961, 150). The centrality of the Snake Mountain sign, and the placement of the monograms above it, suggest that the circular frames could have been interpreted by the native sculptor and viewers as the Sun and Moon, the Christian monograms serving to placate Spanish priests. Today the phrase *Zi Dada Hyadi*, 'Venerable Father Sun,' is used by the Otomi of the Mezquital Valley, while Jesus Christ is called *Zi Dada Jesu*, 'Venerable Father Jesus.' The phrase *Zi Nänä*, 'Venerable Mother,' is used to speak of both the Moon and Mary, mother of Jesus (Wright-Carr 2005b).

In an Aztec myth, the solar deity called *Huitzilopochtli*, 'Left Hand of the Hummingbird,' was born to the Earth Goddess on Snake Mountain, armed as a warrior. He promptly vanquished the Lunar deity, decapitating and dismembering her, and chased away the stars, killing most of them (Sahagún 1979, vol. 1, 202 *recto*-204 *verso*). This myth, in which the forces of light and life triumph over the forces of darkness and death, was central to Aztec ritual. The Great Temple in Mexico City was an architectural metaphor for Snake Mountain. Each human sacrifice, performed in front of the temple of *Huitzilopochtli* on its summit, symbolically and magically recreated the defeat of the nocturnal deities by the Sun, thus insuring the stability of the universe (Matos 1987).

In an illustration of this cosmogonic myth from the *Florentine Codex* (figure 6), a toponymic sign, composed of the mountain graph with a snake on its summit, visually locates the scene where Left Hand of the Hummingbird vanquishes the nocturnal deities at Snake Mountain. This compound graph has the same essential elements as the central motif of the relief at Amealco: a mountain with a severed base and a rattlesnake. The *Florentine Codex* was painted on European paper by native scribes educated in Franciscan convents, as part of a grand project of ethnographic documentation undertaken by Friar Bernardino de Sahagún in the mid-sixteenth century (Sahagún 1979).

The central iconic or semasiographic motive in the relief at Amealco, the mountain and the rattlesnake, are stylistically very close to the pre-Hispanic central Mexican tradition, except for the *fleur-de-lis* on the serpent's back. Circular bands frame the Christian monograms, creating a potentially ambiguous symbolism, between the holy names of Jesus Christ and the two main astral bodies that travel across the sky daily. The entire iconic-semasiographic complex is framed by a Franciscan cord, seemingly to integrate this sign complex into its architectural context on the facade of a Christian chapel, acknowledging the religious authority of the Franciscan order without abandoning native worldview. The illustration from the *Florentine Codex* has a purely indigenous content, while Western stylistic conventions may be seen in the proportions and poses of the human figures, the use of overlap

Figure 6.

Painting of the birth of Left Hand of the Hummingbird at Snake Mountain.

Florentine Codex, circa 1578.

Sahagún 1989, vol. 1, 204 *verso*.



to give a limited illusion of spatial depth, and in the timid use of shading to suggest volume; within this hybrid style, the compound Snake Mountain graph conserves the essential properties of its pre-Hispanic antecedents.

.....
Church of Saint Michael the Archangel, Ixmiquilpan

The town of Ixmiquilpan is the political and commercial hub of the north central Mezquital Valley. The modern toponym derives from the Nahuatl word *Itzmiquilpan*, 'The Obsidian-Arrow Edible Herb.' Its Otomi name, *Nts'utk'ani*, means 'The Thin Edible Herb' (Hernández, Victoria, and Sinclair 2010). Both names refer to purslane (*Portulaca oleracea*), a nutritious plant with small oval leaves that grows in the maize fields of central Mexico.

Ixmiquilpan was a middle-ranking kingdom before the Spanish conquest, paying tribute to Axocopan as part of the Aztec state (Berdan and Anawalt 1992, vol. 3, 27 *recto*). After the fall of Tenochtitlan, Spanish

encomenderos collected the tribute, and in 1550 Augustinian friars arrived in Ixmiquilpan. The friars directed the construction of a monumental convent dedicated to Saint Michael the Archangel, consisting of a cloister, a church, a walled atrium with a chapel for the celebration of open-air masses, and an orchard. The church is famous for the polychrome mural paintings in its interior. A large frieze runs around the nave at eye-level, with a looping acanthus scroll inspired by Renaissance friezes, providing the compositional structure for a scene where native warriors and composite man-animal-plant creatures do battle, in a fusion of grotesque imagery derived from classical antiquity and native iconographic and formal features. Similar pictorial elements are found in the lunettes painted between the lower frieze and the ribbed vault supporting the choir loft, and between the ribs of this vault and another vault over the presbytery. Another frieze, with a more orthodox use of Renaissance forms and symbols, runs around the upper walls, at the spring line of the barrel vault. The murals of the lower frieze, the lunettes, and the ribbed vaults incorporate an articulated set of signs linked to pre-Hispanic iconography and semasiography, expressing the native concept of sacred war, waged to obtain human sacrificial victims for the sustenance of the solar deity. The Sun is represented in this church, in reliefs on the facade and in the paintings inside the church, by an eagle, perched on a prickly pear cactus bearing red fruits, metaphors for human hearts. At the time these murals were painted, around the decade of 1571-1580, Otomi warriors from towns in the Mezquital Valley were aiding the Spaniards in the conquest of north central Mexico, home to the nomadic and seminomadic Chichimec tribes (Wright 1998; 2005b).

I shall limit the present discussion to one of the two escutcheons carved high up on the plateresque facade of the church, flanking the window of the choir loft. The images in these escutcheons echo, in a simplified form, the murals painted in the lunettes at the foot of the nave, under a choir loft supported by ribbed vaults. The composition on the northern side of the facade is framed by an escutcheon suspended by a band or strap from the mouth of a lion head carved in high relief; this much of the design would not be out of place on a Spanish church from the same period. The native signs are carved in low relief within the frame of the escutcheon. The details cannot be seen from the atrium; a telescope, binoculars, or zoom lens is required to appreciate the symbolism, which is clearly visible only in the early afternoon light (*figure 7*).

The central element in this composition is an eagle, viewed from the front, wings spread, head in profile. As mentioned above, the eagle was a metaphor for the Sun. This example shares attributes with solar eagles in pre-Hispanic imagery: a disc-shaped ornament on its chest, a feathered headdress, and a banner, albeit a European-style bifurcated flag, suggesting warfare. The eagle perches on a prickly pear cactus bearing metaphorical human hearts, the food of the Sun god. On both sides of the cactus are

Figure 7.

Relief with an escutcheon framing an eagle, flanked by jaguars, perching on a toponymic sign.

Church of Saint Michael the Archangel, Ixmiquilpan.

Photograph by the author, 1982.

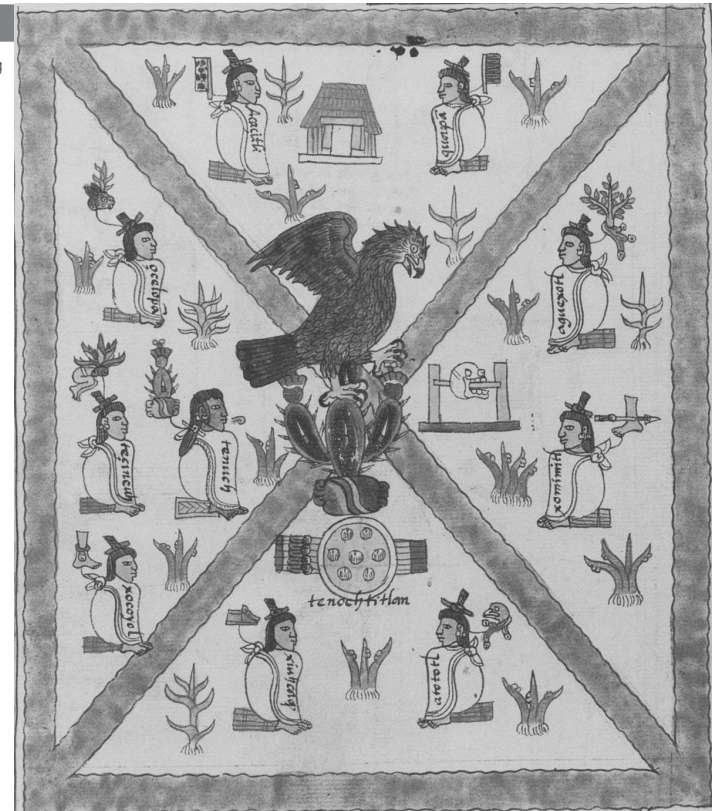


Figure 8.

Painting of an eagle perching on a toponymic sign.

Codex Mendoza, circa 1535-1550.

Berdan and Anawalt 1992, vol. 3, 2 recto.



sprigs of purslane, the oval-shaped leaves blown up to approximately the same size as the cladodes of the cactus. This is not obvious when looking at the relief, even with proper optical magnification and illumination, but a parallel iconographic complex is repeated in the lunette under the choir, where despite the mural's fragmentary state, the juxtaposition of the cactus and the purslane is clear. The cactus in the relief emerges from a stone-sign with lateral volutes to indicate its hardness. Together, the cactus and the stone express the name of the former Aztec capital, *Tenōchtitlan*, 'By the stone prickly pear,' in Otomi *Anbondā*, 'the red-violet prickly pear.'¹⁹ The stone is superimposed on a mountain sign with water flowing from its severed base, visually expressing the 'water-mountain' metaphor which, as seen above, signifies a seat of political power. Flanking the solar eagle in the relief on the facade, and in the painting on the lunette, are two jaguars with quetzal-feather headdresses, armed with *mācuahuitl* (literally 'hand-stick'), wooden weapons with razor-sharp obsidian blades on both sides. The jaguars carved on the facade also carry feathered shields.²⁰

In the context of pre-Hispanic and early colonial central Mexican iconography and semasiography, the meaning of this complex of signs is evident. The opposition of an eagle with jaguars refers to the daily combat between the solar deity and the nocturnal astral deities, as these nocturnal felines are associated with the underworld, through which astral deities travel after setting below the western horizon and before their rebirth in the east. Eagles and jaguars also represent elite military orders. Warriors who had demonstrated their prowess on the battlefield were entitled to wear suits covered with eagle feathers or jaguar skins. Eagle warriors and jaguar warriors are represented in the frieze painted on the walls of the nave in the church at Ixmiquilpan. The solar eagle perches on the prickly pear cactus, associated with the Nahuatl and Otomi names of the Aztec city, *Tenōchtitlan* and *Anbondā*. The cactus provides red, juicy fruit for the sustenance of the eagle, just as the Aztec capital provided the human hearts of sacrificed warriors for the sustenance of the Sun. The juxtaposition of purslane with the cactus suggests a replacement: it is now Ixmiquilpan, the place of purslane, that sustains the Sun through warfare, as the ruins of the Aztec capital lie beneath the buildings, streets, and plazas of Mexico City.

On folio 2 *recto* of the *Codex Mendoza* (figure 8), we find another example of an iconographic-semasiographic complex showing an eagle, perched on a prickly pear cactus, associated with martial symbols: a feathered shield with arrows or darts. This central image is framed and criss-crossed by aquatic bands representing, in a simplified manner, the system of canals that penetrated the island city of *Tenōchtitlan*. In the quadrants defined by the canals are a skull rack, a thatched hut, two kinds of reeds, and men seated on reed mats, representing the founding fathers of the Aztec city, including their leader *Tenōch*, whose name in Nahuatl coincides with the nominal root meaning prickly pear, also found the name of the city. This

composition has multiple layers of meaning: beyond the literal interpretation of its iconic elements or semasiograms, it represents the founding of *Tenōchtitlan*, recalling a legend in which the Aztecs find the portent promised by their god *Huitzilopochtli*, an eagle perched on a prickly pear cactus that had sprouted from the heart of their enemy Copil (Berdan and Anawalt 1992, vol. 2, 3-5). A deeper, iconological layer is the one discussed above, in reference to the escutcheon on the facade of the church at Ixmiquilpan: the eagle is a metaphor for the solar deity, while the prickly pears growing on the cactus are metaphors for the hearts of sacrificed warriors, procured through warfare to sustain the Sun.

The iconic-semasiographic complex in the relief at Ixmiquilpan would not look out of place on a pre-Hispanic monument, if the European-style flag were replaced by a native banner like those carried by Aztec and Otomi warriors in the codices (two such banners are associated with the human figures in the upper quadrant of the image in figure 8). Once again, a Western motive, the escutcheon suspended from the mouth of a lion, frames the Mesoamerican signs, integrating them seamlessly into the general composition of a plateresque church facade. The central complex of signs in figure 8 provides an iconographic and semasiographic parallel, aiding us in our interpretation of the relief as a solar eagle consuming metaphorical prickly-pear hearts provided through warfare. As in the relief, these painted signs show little European influence in their material aspects, content, and form, other than their support of European paper and occasional shading.

Closing remarks

The Western concept of 'art' is not very productive for the study of images created before the eighteenth century. Our categories of 'writing' and 'sculpture' or 'painting' create a false dichotomy that limits our understanding of native central Mexican visual culture. Rather than attempting to translate visual signs into a verbal discourse, I have attempted here to understand the concepts expressed in a visual language, comparing these concepts to words and phrases in two verbal languages spoken in the region where the relief carvings and pictorial manuscripts discussed here were produced. The same conceptual metaphors were reflected in both visual language and in verbal expressions found in Otomi and Nahuatl.

The images discussed here, carved in stone and painted on paper, occupy the blurry border between iconography and semasiography, as they share characteristics with Western iconography and with the highly conventional and specific system of visual communication of the indigenous peoples of central Mexico, including concrete links between visual signs and verbal signs, especially evident in the toponymic signs. In none of these sign-clusters do we find clear examples of glottography, in which graphs

19. Reyes Retana 1992: plate 2;

Wright 2005a: vol. 2, 331-332.

20. A similar composition, better preserved than the image on the lunette, was painted on the ribbed vault over the presbytery of the same church. It lacks the jaguars, which would not have fit in the elongated triangular shape framed by the ribs. It includes an eagle with pectoral ring, headdress, and bifurcated banner, perched on a purslane superimposed on a water-mountain sign, with a prickly pear cactus behind it. In both paintings, an arrow-shaped tongue and speech scrolls emerge from the eagle's open beak.

can only be verbalized in a specific language. The contents of these reliefs and paintings were accessible to native viewers instructed in the interpretation of central Mexican visual communication, regardless of their linguistic affiliation.

The field of research that looks at the nature of central Mexican iconography and semasiography could benefit from a more profound understanding of the relations between visual language, verbal language, and human cognition. Following up on this line of inquiry is beyond the scope of this article, but I would like to suggest here that this is a promising area for future research that has the potential to move the discussion forward. An exploration of the cognitive foundations of visual thinking could help us get beyond the present tendency to merely 'read' these signs in verbal terms, rather than looking for deeper levels of meaning, involving our experience as embodied agents interacting with our environmental and cultural surroundings.

In the four examples discussed here, the intention of native sculptors and painters was to express vital aspects of their traditional worldview on the surfaces of Christian architecture. Doing so was an act of cultural resistance, in the face of the iconoclastic dogmatism of the European missionaries. This reveals the extent to which the natives manage to succeed in imposing their will within the asymmetrical negotiation of power in the colonial society of New Spain. An interesting feature shared by the four reliefs is how indigenous signs were framed by Western iconic elements as a way to integrate them into the overall decorative schemes of the monuments.

The indigenous peoples of central Mexico used imagery rooted in the traditions of their ancestors as a means for cultural, religious, and political resistance. The public display of images that express fundamental aspects of native ideology and worldview, particularly on the architectural surfaces of Christian temples –as seen in the examples presented here– testifies to processes of resistance to the imposition of European ideology and control. Central Mexican visual language was a means of asserting ethnic identity, and the material traces remaining testify to the efforts of the Otomi to conserve their dignity in the face of colonial repression. This process continues today, particularly in ritual settings involving dance, music, oral tradition, and visual manifestations of culture.

Another potentially fruitful line of inquiry, suggested by the concepts, ideas and conclusions presented in this article, would be to explore how visual communication in public spaces can serve as a vehicle for cultural resistance, and for the vindication of ethnic identity, in other contexts throughout time and space.

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