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Author

Lopez, Felicia

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Case Study for Development of a Visual Grammar: Mayahuel and Maguey as Teotl in the Directional Tree Pages of the Codex Borgia

Felicia Rhapsody Lopez, University of California Santa Barbara

“The books stand for an entire body of indigenous knowledge, one that embraces both science and philosophy.” – Elizabeth Hill Boone (2007:3)

The results of the invasion and colonization of the Americas include not only widespread genocide, but also the destruction of Indigenous texts and culture. Today only 12 codices from Precontact Central Mexico remain. Among these are a group of six, defined by their similarities in iconographic style, content, and geographic region of origin, called the Borgia Group, so named for the Codex Borgia, the most iconographically detailed of the group, which in turn was named for Italian Cardinal, Stefano Borgia, who possessed the document before his death and before its gifting to the Vatican Library, where it now resides. None of the six Borgia Group documents, it should be noted, are still within or near the communities that created them, but rather are kept in various libraries, museums, and universities in Europe. In my examination of Precontact Central Mexican codices, both in general and in

my current examination of the Codex Borgia, I seek to further the decolonial project of recovering Indigenous knowledge through methods that center Mesoamerican voices, documents, and language.¹

Mesoamerican scribes created a wide variety of texts (from historical, to topographical, to ritual) containing maguey iconography, which draw upon the cultural symbolism, metaphor, and scientific understanding of the plant and of the teotl² Mayahuel in order to provide a rich and layered meaning for their Indigenous readers. The metaphorical connections between Mayahuel and maguey drawn on Codex Borgia page 51 reveal what I develop here: an internal visual grammatical structure, which in turn allows for the identification of the primary tree on Codex Borgia page 51 as Mayahuel/maguey, rather than corn, as it has been interpreted by previous scholars (Seler 1963; Nowotny 2005; Boone 2007; Byland, Diaz, and Rodgers 1993). In the process of outlining the methods for this identification, my first goal is to uncover the linguistic complexity of

¹ For her work outlining some of the ways to decolonize the studies of and by Indigenous people, I am indebted to Linda Tuhiwai Smith and her 1999 book, *Decolonizing Methodologies: Research and Indigenous Peoples*.

² Although the common Western translation of the word teotl is given as ‘god’ or ‘goddess,’ I have intentionally resisted these words and will instead use the word teotl throughout this paper. The words ‘god’ and ‘goddess’ contain a

variety of meanings not found in Mesoamerican belief systems, and the use of this common translation has led to misunderstanding about Mesoamerican cultures. One of the functions of this paper will be to continue to explore the complex meaning of teotl apart from Western constructions, and I will specifically return to the word itself in the penultimate section: Mayahuel/Maguey as Teotl.

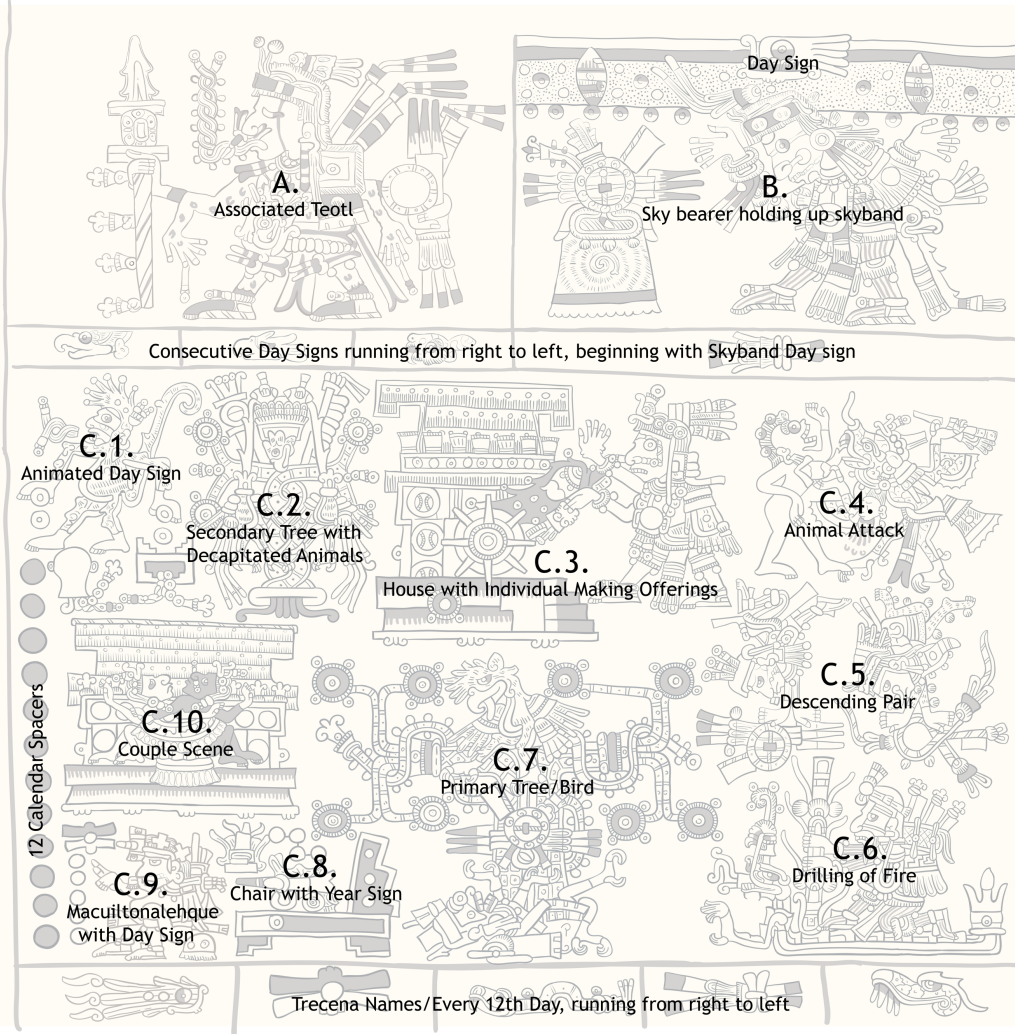


Figure 1: Codex Borgia 49 with labeled overlay (all illustrations redrawn by Justin McIntosh based on facsimiles of the original Codex Borgia)

Ancient Mesoamerican pictorial texts. Here I rely on a familiarity with local languages and cultures. Based on this understanding, I examine Mayahuel/maguey as a case study for the ways in which iconography can be read and understood as a language with its own complex set of grammatical elements. Lastly, I use this visual grammar to draw upon various stories, myths, and histories related to Mayahuel/maguey in order to understand her role as teotl,

thus shedding further light on the nature of “deity” within Mesoamerica more generally.

Through the identification of patterns in meaning and association using Nahuatl sources and linguistics, I present here a new method of reading these pictorial texts, which provides tools for further research and decipherment.

Background

The Codex Borgia is a traditional Mesoamerican book made of a continuous single sheet, folded accordion style upon itself forming 76 pages. The physical form of the book allows for multiple consecutive pages to be viewed simultaneously. Pages 49 through 52 and the right side of 53 of the Codex Borgia follow a similar pattern, and were likely folded out to allow an indigenous reader to view pages 49 through 54 as a single and complete set of pages.³ Each of the pages, from page 49 through 52 and the right side of 53 of the Codex Borgia, follows a similar pattern of separate panels. Each of pages 49 through 52 (which are read from right to left) is broken up into two parts: a large lower panel that takes up about two-thirds of the content; and an upper panel that is further separated into two smaller panels. (Figure 1)⁴ The first half of page 53 shares a similar pattern, with the bottom half containing a tree in the same general form as the primary trees (C7) seen in the other pages, yet with only one page above this image. Many scholars have addressed these two portions, top and bottom across the four and a half pages, separately (Seler 1963; Boone 2007; Anders, Jansen and Reyes 1993), and for the majority of this research, I am following this trend. In this paper, I primarily focus on the bottom portion of these pages, each of which centers on a tree with a bird perched atop its forking branches.

The trees and the pages upon which they appear, have long been read by

scholars as representations of the directions east, north, west, south, and center (Seler 1963:2:85-103; Nowotny 2005:34; Boone 2007:121-131; Anders et al 1993:261-277; Hernández and Bricker 2004:299-320; Hernández 2004). Eduard Seler (1963: 2:85-103) was the first to recognize that these pages are analogous to the frontispiece of the Codex Fejérváry-Mayer, wherein trees representing east, north, west, and south surround a central figure. The detailed imagery put forth by the original Mesoamerican scribes suggests to many of these same scholars above that the trees depicted correspond to plants indigenous to the regions of and around Mesoamerica (Seler 1963:2:85; Nowotny 2005:34-36; Boone 2007:114; Anders et al 1993:81). Previous interpretations of CB51, have identified this region as the West and its tree as a young corn plant (Seler 1963:2:87; Nowotny 2005:35; Boone 2007:123; Byland, Diaz, and Rodgers 1993:xxvii). While there is certainly some evidence for these proposals, my own research using iconographic, cultural, and linguistic evidence suggests that this tree is instead a flowering, mature maguay.

Early twentieth century German scholar of Precontact Mesoamerica, Eduard Seler, was the first European to produce an extensive study the Codex Borgia. As Elizabeth Hill Boone (2007:7) states, “He described, identified, and interpreted just about every image in the codices. Most of Seler’s specific

³ Page 53 of the Codex Borgia, in addition to containing patterns that mirror those on pages 49 through 52, contains part of the Venus Table that appears on page 54. Because page 53 shows no physical evidence of having been folded in half, the physical layout of the

manuscript suggests that these six pages were viewed simultaneously.

⁴ High-resolution color images of the illustrations for this article can be viewed online at: <http://www.chicomoztoc.com/images-for-chapter-3-case-study-of-a-visual-grammar/>

readings of individual iconographic details have been accepted by subsequent scholars and remain fundamental to all later research.” Seler was the first scholar to identify the tree illustrated on page 51 (Figure 2) as an immature maize plant—i.e. one that had not yet yielded corncobs or other visible fruit. He noted that the black stripes on the yellow and brown tree resemble the face paint of the maize god, Cinteotl, reasoning that, by association, the plant represented here was a form of maize. In fact, two black zigzagging lines, one thick and one thin, do appear on representations of Cinteotl within the Codex Borgia, on plates 14, 15 and 57, so Seler’s assertion is not without evidence.

Seler (1963:2:87), within this visual decipherment, goes on to assert that the centerpiece of the tree represents a sort of transforming star. He states:

[H]ay en el tronco un dibujo extraño: una raíz ancha y dos flores flanqueadas de espinas; los pétalos (muy alargados) de las flores se levantan, a su vez, sobre espinas. Como conjunto el dibujo tiene aspecto de un ojo-estrella –o un ojo-rayo transformado en flores.

Through this reading, Seler presents the West as being characterized by what he identifies as a young maize plant with a star icon at its center. This assessment follows the early twentieth century trend that found astronomy throughout Mesoamerican art and writing (Aldana 2011; Aveni 1999; Bricker 2001; Carlson 1991; Hernández and Vail 2010; Wells 1991).

Karl A. Nowotny, an Austrian scholar of Mesoamerica who began publishing in the field about 50 years after Seler, also identified this tree as a corn plant, though not consistently. In his work,

Nowotny sought to incorporate ethnographic data collected largely from Indigenous people of Central Mexico in the early 20th century and use that data in his analysis of and comparisons to the imagery within the codices. As George A. Everett and Edward B. Sisson, the translators of his work *Tlacuilolli* (2005:xx), state: “In particular, [Nowotny] offers well-reasoned and insightful alternatives to the astral interpretation of the great master Eduard Seler.” Despite his goal of challenging Seler and his students in their tendency to seek astral significance within the Codex Borgia, in his original *Tlacuilolli*, Nowotny (2005:35) describes the tree at the bottom of page 51 as, “a corn tree with a large star,” showing that he seems to agree with Seler’s interpretation. Yet by 1976, in labeled overlays Nowotny provided to accompany a newly available Codex Borgia facsimile (the Akademische Druck und Verlagsanstalt facsimile), Nowotny offers an alternative reading. Written in the position of the tree he previously identified as a corn tree with a star, Nowotny (2005:116) simply writes “Quetzal Flower Tree” and makes no mention of stars or other tree emblems. While the likely reasoning behind Nowotny’s re-identifying this as a quetzal flower tree come from the visual similarity between representations of quetzal feathers and the foliage of the tree, as both appear as curved green outshoots, Nowotny does not provide explanation nor support for his identification within this facsimile or elsewhere.

Nowotny’s interpretation is challenged by the translators themselves. In Everett and Sisson’s footnotes (2005, 328n111), they disagree



Figure 2: Detail of the primary tree/bird [C.7.] from Codex Borgia 51 (J. McIntosh)

with Nowotny's interpretation writing: "This appears to be a plant, perhaps a maguey, and not a star." Elizabeth Boone (2007:123), in her comprehensive overview and examination of the "general principles" of the codices within the Borgia group, follows the latter interpretation by identifying the Western tree as a flowering corn plant with maguey—and not a star—at its center. More recently, Christine Hernández and Gabrielle Vail (2010) outlined similarities between codices within the Borgia Group of Mexico and

the Mayan Madrid Codex as evidence for cross-regional scribal communication. In their work, they follow Seler's original interpretation that this page represents a maize plant, and they make no mention of the iconography on the trunk of the tree. At this point, therefore, we are left without clear consensus and without an agreed upon method for interpretation.

Mayahuel ~ Cinteotl, Maguey ~ Maize⁵

⁵ The symbol, ~, has multiple meanings in mathematics. I use it here as a form of glyph to

mean that these figures have a rough equivalence in some ways but not others,

Underlying the published interpretations of the plant/tree of CB51 is an implied ambiguity between the representation of corn and that of maguey. I have found this ambiguity reflects an overlap in representation within other codices and within mythohistorical narratives. The conflation of maize and maguey, for example, shows up in another book in the Borgia Group, Codex Rios (also called the Codex Vaticanus A). Within the Codex Rios, Mayahuel and Cinteotl are represented as sharing the eighth *trecena*, the eighth grouping of 13 tonalli (13 days) within the larger 260-day tonalpohualli⁶ year. Within this part of the text, images of corn and Cinteotl, the teotl of corn, are accompanied by glosses describing Mayahuel, who is identified as the mother of corn, and *octli* (called pulque in Spanish), the fermented juice of the maguey. The description for Mayahuel explains that, according to indigenous advisors, she has four hundred⁷ breasts with which to feed and nourish many. However, the description for Cinteotl, rather than focusing exclusively on corn, continues to focus on Mayahuel and her maguey by outlining the affects of the “vine” and “wine” of the indigenous populations, maguey and *octli* respectively. Beside the image of Cinteotl, the chronicler states, “wine changes the heart’, since it caused these people to believe that from

this woman (Mayaguil) Cinteotl sprung whose name signifies the origin of the gods; giving us to understand, that from the vine which bears the grape the gods derived their origin.”⁸ Here, the chronicler suggests that Mayahuel is a mother figure for the “gods,” for corn as Cinteotl, and therefore for the indigenous populations in general. Additionally, this passage affirms the strong connection between Mayahuel and Cinteotl, and suggests the possibility of the overlap in the representation of maguey and corn as well.

Just as corn is cited as the crop that allowed Mesoamerican groups to become sedentary and thrive culturally, the maguey plant had nearly limitless uses for the Pre-Contact people of Mesoamerica. Maguey could provide food, unfermented drinks, honey-like syrup, *octli* (pulque), medicines, textiles, artisan tools, weapons, implements for ritual use, building supplies, paper, clothing, rope, and more (Ortiz de Montellano 1990). Such scientific and practical knowledge of plant uses impressed early Spanish chronicler Francisco Hernández, who in 1577 stated that a single maguey could continue to reproduce and ultimately support an entire community. “This plant, by itself, could easily furnish all that is needed for a simple, frugal life since it is not harmed by storms, the

much in the way the symbol is used in comparison of similar triangles in geometry.

⁶ Within Mesoamerica, two calendar years run simultaneously. One, the *tonalpohualli*, counts out 260 days. The other, the *xiuhpohualli*, counts out 365-day years. Within a given *tonalpohualli*, there are 20 *trecena*, or 20 groups of 13 days, to make 260 days. For a more thorough look at the *tonalpohualli*, see Boone (2007).

⁷ The word in Nahuatl commonly translated as 400, *centzontli*, also means innumerable, much in the same way as “a ton” in English means 2,000 pounds or very large amount.

⁸ Pohl, John MD. “A Colonial Era Decipherment of Codex Rios, (Borgia Group).” *FAMSI*. Accessed June 17, 2014. <http://www.famsi.org/research/pohl/jpcodices/rios/>.



Figure 3: Detail of Mayahuel/maguey from Codex Laud 9 (J. McIntosh)

rigors of the weather, nor does it wither in drought. There is nothing which gives a higher return.”⁹ Maguey still serves as a means of survival for many living in the deserts of Mesoamerica today, where octli is consumed in place of water. In her ability to provide for the people, the maguey and the octli she

produces have the power to sustain life in a manner that is most often associated with corn. While corn domestication began as early as 7000BC,¹⁰ the roots of Mesoamerican agriculture began with the regular harvesting of maguey an estimated 1,600 years earlier.¹¹ Culturally and historically

⁹ F. Hernández, 1959; vol. 1, 348-349, as quoted and translated by Bernard R. Ortiz de Montellano, 1990, 110.

¹⁰ Matsuoka, Yoshihiro, Yves Vigouroux, Major M. Goodman, Jesus Sanchez G, Edward Buckler, and John Doebley. “A Single Domestication for Maize Shown by Multilocus Microsatellite Genotyping.” *Proceedings of the*

National Academy of Sciences 99, no. 9 (April 30, 2002).

¹¹ Zizumbo-Villarreal, Daniel, and Patricia Colunga-GarcíaMarín. “Origin of Agriculture and Plant Domestication in West Mesoamerica.” *Genetic Resources and Crop Evolution* 57, no. 6 (2010): 813-25.

we can understand this to mean that maguey served as a reliable food source similar to corn and previous to corn. Maguey's role as a food source, in allowing for a sedentary lifestyle for larger populations prior to the adoption of agricultural dependence on corn, resonates with Mayahuel's depiction as a mother with four hundred breasts, able to feed her innumerable children.

Similarly, within the Codex Laud (another manuscript within the Borgia Group), Mayahuel and Cinteotl are depicted together. Cinteotl is presented here sitting upon a chair under a brown tree. His legs are not visible under his attire, and he holds, in his only visible arm, a single sharpened bone. Mayahuel, on the adjacent page (Figure 3), sits naked in a position suggestive of the *mamazouhticac*, or "hocker," position associated with childbirth,¹² and her blue-green, and maguey plant is in full bloom with the red-tipped spines of the plant extending to her right and left, and the "tree" and flowers of the maguey extending above her head. Here she squats atop a snake and turtle's shell, which is suggestive of an alternative name for her found in Sahagún's (1997:110) *Primeros Memoriales*: *Texcacoac Ayopechtli*, or "Mirror-Snake Tortoise-Bench." This alternate name is given as part of a song dedicated to her—a song sung to ease the pains associated with giving birth. And though there are no accompanying glosses within the Codex Laud to explain the connection between the representations of Mayahuel and Cinteotl, the maternal connection

described and represented in the Codex Rios likely remains.



Figure 4: Detail of the animated day sign [C.1.] from Codex Borgia 51, highlighting a repeating symbol, the Mayahuel Band (J. McIntosh)

Current Readings of CB51

Comparing the flowering tree on page 51 of the Codex Borgia to the corn plant found on plate 53 of the same text reveals obvious similarities and differences. One similarity is the presence of a variant of what I call a Mayahuel band (Figure 4). This band appears in six places upon the tree of this page, once on the Day Sign in the far-left corner of the main cell upon the page, and once on an animal contained within the secondary tree to the immediate right of the Day Sign. This iconographic repetition suggests ideological connection between these images. The two animals that share this Mayahuel band are the *cipactli*

¹² See Codex Borbonicus, page 13. Also, see Nicholson (1954, 166; 1967, 82) and Matos Moctezuma (1997, 22-23).



Figure 5: Detail the central corn/maize tree from Codex Borgia 53 (J. McIntosh)

(crocodile) and the michin (fish). Various codices support the ideological associations between Mayahuel and both the michin and cipactli, which I will discuss below.

A variation of this Mayahuel band also appears within the central corn tree on page 53 (Figure 5), albeit with different colors. Seler (1963:2:87) practices this method of decipherment in his identification of this plant as corn, wherein one similar element is seen in various places and can therefore be used as a way to decode otherwise veiled meaning. Yet while this method does provide clues about how the artists and communities conceptualized and represented a wide array of figures and

ideas, relying on isolated similarities such as these in iconography as the basis for identification leads to an illicit minor fallacy. For example, one story of Tezcatlipoca explains that his foot was bitten off, and in iconographic depictions, Tezcatlipoca is often shown with a missing foot that has been replaced with a mirror. While this is one method of identifying Tezcatlipoca, we should not assume that all figures who are missing a foot or who are adorned with mirrors, even in place of a missing foot, necessarily represent Tezcatlipoca, especially if all other defining attributes are absent. For example, on CB51 in the upper right corner of the main cell, a cipactli is shown in the act of biting off

an individual's foot. While this image may suggest Tezcatlipoca, Seler (1964:54-55) identifies this individual as Xochipilli, while Boone (2007:127) identifies him as Tlahuizcalpanteuctli based on his attire. Such differences in identification suggest that scholars must often take a variety of iconographic details under consideration, and the use of only a single iconographic element in identifying any given figure can often be insufficient.

While this method of interpretation (in which an individual or a small number of emblems are used for identifying a larger whole) may lead to accurate conclusions in some instances, this method is also in large part responsible for the current belief that this tree represents a young corn plant. The central tree on CB53, with its cobs of corn extending from various places throughout, is easily identified as corn. In the absence of corncoobs, the similar auxiliary iconography in itself does not identify this Western tree as a young version of the same. Much like the fish and crocodile carry a similar element (the Mayahuel band) as that of the Western tree, I argue that the reason the Western tree and the Central tree carry

similar elements is because of ideological associations evidenced in culture and language.

Rather than follow Seler's lead in attempting to identify this plant as corn despite the absence of its corncoobs—the absence of its most distinctive feature—a more straightforward interpretation would be that the absence of corncoobs implies that this plant is not corn at all. In the absence of corncoobs, Seler's criteria for establishing the tree on CB51 as corn are the tree's black stripes and flowers. We saw above Seler associates the black stripes on this tree with similar stripes on the face of Cinteotl. However, these identifying stripes of varying thickness are absent in the representation of the corn tree on plate 53, (Figure 5) and are likewise absent from any representation of a corncob producing corn plant within the Borgia Codex (such as those presented on pages 20 and 24). Similar stripes to those seen on the face of Cinteotl can also be found on the maguey spines on most plants pictured in the Borgia Codex (see pages 12, 16, and 48), as well as on some representations of flowing water (see page 27). The flowers on both of the trees that Seler identifies as corn do appear similar to one another, as

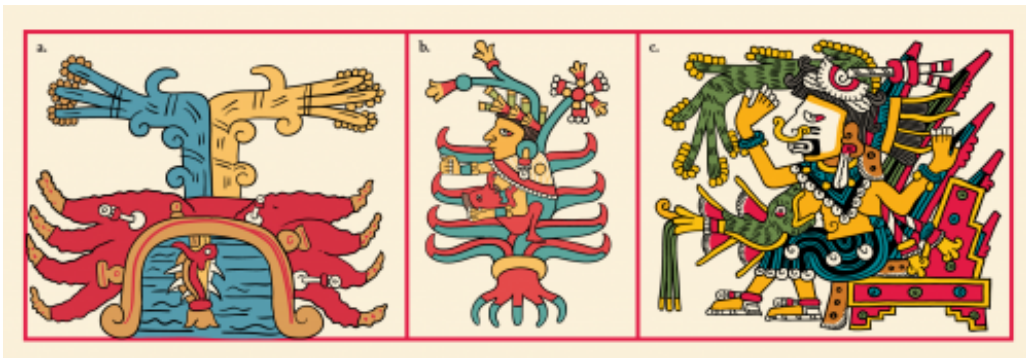


Figure 6: a) Detail of maguey from Codex Vaticanus B 40, b) detail of Mayahuel/maguey from Codex Fejervary-Mayer 28, c) detail of Mayahuel/maguey from Codex Borgia 16 (J. McIntosh)

both yield the tassels or “flowers” associated with the corn plant. Yet as similar as the flowers appear, they do show variation in the numbers of flowers and in the shape and number of auxiliary petals or leaves.

These differences may be considered minor variations due to artistic style and are, in and of themselves, not justification for the dismissal of the interpretation that the tree on plate 51 represents an immature corn plant. On the other hand, artistic renderings of maguey often include a flowering stalk that appears similar to a flowering corn plant. For example, on plate 16 of the Borgia, in the upper right corner (Figure 6c), Mayahuel appears seated in her maguey. Above her head the flowering stalk of the maguey appears again, as it does in the Codex Laud, looking similar to both of the trees pictured on the directional pages. Scholars agree that this section of CB16 denotes Mayahuel and maguey, and none claim that a corn plant appears within the page. Cognates in the Codex Vaticanus B page 40 and the Codex Fejérváry-Mayer page 28 (Figures 6a and 6b, respectively) show similar flowering shoots above the recognizable maguey plant. Additionally, this maize flower, as depicted in the Codex Borgia does not belong exclusively to the corn plant and the maguey. Rather, the same flower is seen within the Day Sign for Malinalli/Grass throughout the Borgia. (Figure 7) This too makes ideological and scientific sense, as corn shares visual similarities with related grasses, especially before it produces corncobs, and corn (maize) and teosinte (its closest wild relative) are both

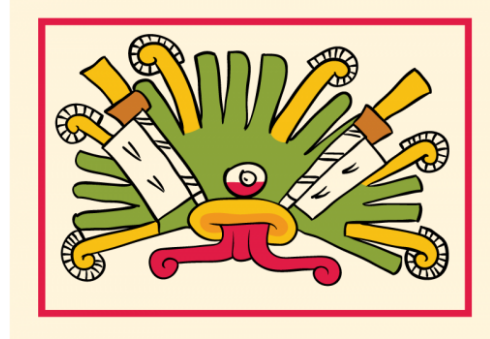


Figure 7: Detail of the day sign malinalli from Codex Borgia 18 (J. McIntosh)

taxonomically classified as part of the Poaceae or “true grass” family.¹³

It is also worth pointing out that, according to Frances Karttunen (1992:149), one of the Nahuatl words for the flower and tassel of maize is *miyahuatl*, which is phonetically similar to and therefore a possible mnemonic for Mayahuel’s name. This sort of visual pun, which I will continue to address later, mirrors regular use of puns in Nahuatl poetry observed by Miguel León-Portilla (1986) and the continued use of similar words in divination among the Highland Maya witnessed by Barbara Tedlock (1992). This potential visual pun between *miyahuatl* and Mayahuel, in addition to ideological connections between corn and maguey and Cinteotl and Mayahuel, would justify the use of “corn flowers” in identifying maguey rather than corn in this context. Therefore, the *miyahuatl* imagery likely functions as a visual marker clarifying the identity of the plant in a manner that is ideologically consistent with Mayahuel/maguey. So while elements of corn do appear on Borgia 51, the visual grammar of the page, as I will outline, supports the

¹³ Lukens, Lewis, and John Doebley. “Molecular Evolution of the Teosinte Branched Gene

among Maize and Related Grasses.” *Molecular Biology and Evolution* 18, no. 4 (2001): 627–38.

positive identification of this tree as maize rather than corn.

Writing in Precontact Central Mexico

While decipherment of the writing styles of Mesoamerica has yielded advancements in the way certain writing, specifically Mayan syllabic writing, has been perceived, few scholars have acknowledged that the writings found in texts such as the Codex Borgia qualify as a complete and formal writing system. The style of the Codex Borgia, often called the Mixteca-Puebla style, suggests that the codex was written by people who spoke a Mixtecan language. This is misleading, as the exact location of its authorship and therefore the linguistic group(s) its author(s) belonged to continue to be debated.¹⁴ The Codex Borgia embodies what Donald Robertson (1970) first called an “international style.” Elizabeth Boone and Michael E. Smith (2003) went on to further explore the concept of an international style by differentiating between what they call the Postclassic International Style and the Postclassic International Symbol Set, in which the former refers to artistic and spatial conventions in artistic rendering and the latter refers to the use of symbols to present meanings that could be understood across linguistic divides. For example, in (Figure 10), the symbols that run along the bottom of the page are examples of the International Symbol Set, while the style of representing people in profile and with contour lines reveal an aspect

of the International Style. In other words, the use of shared stylistic and symbolic representations among linguistic groups such as the Mixteca and the Nahuatl in Central Mexico allowed for understanding of texts regardless of spoken language. The use of this shared symbol set suggests a written lingua franca, much as Nahuatl had become the spoken lingua franca of Central Mexico during the Postclassic period.

Despite these widely accepted theories of cross-cultural, cross-linguistic styles and symbols (Nicholson and Keber 1994; Pohl 2003; Masson 2003; Taube 2010), the written texts of Central Mexico continue to be classified as lacking in its ability to convey specific verbal messages to their readers. According to Elizabeth Hill Boone (2007:33):

Writing in central and southern Mexico—as represented by the historical and religious codices—was fundamentally pictorial. Although to the east the Maya had developed a hieroglyphic script to represent words logographically and syllabically and to reproduce phrases and sentences, the Aztecs, Mixtecs, and their neighbors did not. Instead, their writing consisted of images that are spatially organized in various ways to create visual messages that sometimes parallel spoken language but do not usually record it.

And while scholars such as Boone acknowledge that deeper meanings are embedded in the images presented in these texts, few scholars have followed

¹⁴ Place of origin ranges from Tlaxcala, to Cholula, to Mixteca. For more on this debate see Cassidy, Anne. “Divination By Image: The Borgia Group of Pre-Hispanic Mexican

Manuscripts.” PhD diss., Columbia, 2004, pp. 98-113.

early Mesoamericanist Joseph Marius Alexis Aubin, who, in 1849, identified the Nahuatl writing system as syllabic.¹⁵ However, recent research by Alfonso Lacadena (2008) and Marc Zender (2008) has convincingly argued that the written texts of Central Mexico meet the same criteria for a logosyllabic written language, such as Mayan, Egyptian, and Sumerian.

According to Lacadena (2008:13-14, 17), the three characteristics that Nahuatl writing shares with these other logosyllabic languages are: 1) the use of logograms and phonograms to make up word signs; 2) the use of logograms to form rebus writing; and 3) the optional use of phonetic complements to clarify logogram meaning. Within the logosyllabic writing of Nahuatl, most of the signs (discrete iconographic elements or collections of iconography called glyph blocks within a codex) represent logograms, wherein the image corresponds to a word or set of words that share the meaning of the image itself. In other words, the image of a hill in codices such as the Codex Mendoza often serves as a logogram for the Nahuatl word *tepe-tl*, meaning hill, wherein the *-tl* is a noun suffix that often is dropped when forming larger, compound words. (See Figure 8b) A phonogram, on the other hand, is a word part that creates a sound that is not intended to play into the meaning of the word. For example, the Nahuatl word for a person's hindquarters is *tzintli*, and when the names of people and places that have the sound *-tzin-* (which, in addition to the aforementioned meaning, is a common honorific suffix), the glyphs of these



Figure 8: a) Detail of Tetzineuh from Codex Mendoza 2r, b) detail of Metepec from Codex Mendoza 10r (J. McIntosh)

names will often be represented with a man's haunches as a component. The presence of this glyphic component as a phoneme means that "haunches" is not included in the meaning of the word, but rather a homophonous word, syllable, or affix is meant instead. These phonograms can then be used as a phonetic complement, as the *-tzin-* in Tetzineuh (Figure 8a), which I will discuss further below. Logograms and phonograms provide the basic building blocks for any logosyllabic language. These logograms, as stated, can be used in rebus writing as well, wherein the logogram used does not share the meaning with what is being represented. This would be an example of what I call a visual pun, wherein two words may sound similar or the same, but their appearances are different. (An example of this can be seen in the *miyahuatl* imagery as a stand-in for *Mayahuel* mentioned above.) In Western culture this can be seen in informal notes, wherein people write out in images "eye-heart-ewe." In this example, the heart is a logogram that has the meaning of "love." However, the "eye" and the "ewe" are images that do

¹⁵ Lacadena, Alfonso. "Regional Scribal Traditions: Methodological Implications for

the Decipherment of Nahuatl Writing." *The PARI Journal* 8, no. 4 (Spring 2008): 1-2.

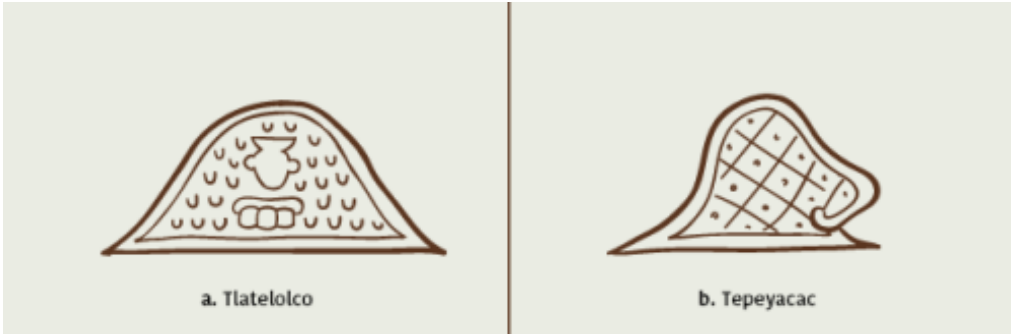


Figure 9: Detail from Codex Xolotl (J. McIntosh)

not share meaning with the words/word-sounds they are meant to represent. Rather, they are merely homophones, but as such they are still easily understood as having a direct connection to specific spoken words.

Finally, according to Lacadena (2008), these logosyllabic forms of writing can incorporate the use of phonetic complements to clarify which logographic meaning is intended. For example, the hill sign represented earlier is most often representative of the logogram *tepe-tl*. However, the logogram for hill at times looks similar to that for *tlatelli* and *tetzcotl*, which also signify types of hills. Since a single glyphic element may represent one of multiple sounds (or synonyms) or may be mistaken for a similar looking glyphic element by the reader, a scribe may choose to add a phonetic complement. According to Lacadena (2008) and Marc Zender (2008), these phonetic complements disambiguate the reading of the glyphs. For example, in the logogram for the place name of

Tlatelolco, the hill sign has a pair of teeth at its base and, as these teeth serve as a phonogram for the syllable *tla-*, this additional element lets the reader know that the word intended is *tlatelli* rather than the more common and similarly represented *tepetl* (as it does not contain the syllable *tla-*). The location glyph for Tlatelolco in the Codex Xolotl (Figure 9a) consists of three basic elements: the hill shape, which could represent a variety of words including *tlatelli* and *tepetl*; the teeth iconography, which is *tlantli* in Nahuatl and here represents the phonetic complement of *tla-*; and the pot or jar iconography, which is *comitl*¹⁶ in Nahuatl, and here represents the phonogram *-co*. In the second example (Figure 9b, the location glyph for Tepeyacac, consist of only two elements: the hill shape, which in the absence of a phonetic complement seems to default to the Nahuatl *tepetl*, and a nose shape, which in Nahuatl is *yacatl*. (Here, the final consonant *-c* is absent from the spelling. The omission

¹⁶ The word *comitl* undergoes a great deal of elision in standard use. As *comitl* is a noun, it would rarely be found in its absolute form, but rather would lose its nominal suffix (*-tl*) before joining with a possessor. This first step turn *comitl* into *comi-*. Additionally, a final short *-i* is always dropped, forming *com-*. Final *-m*

sounds in Nahuatl syllables transform into *-n* sounds, and, when appearing at the end of a word, the *-n* is unvoiced. Therefore, *comitl* would be pronounced *co*, as seen in *nocon*, pronounced *noco*, or my jar. For more on elision in Nahuatl, see Lockhart (2001).

of syllables, sounds, and larger word parts seems to be a common practice, which has made decipherment more challenging.)

Similar to the example of hill iconography, the presence of a maguey plant in logosyllabic writing can have various meanings, and scribes added phonetic complements to distinguish which intended word and meaning they sought to represent. (I will discuss this example in more detail below.) By analogy, an outline drawing of a four-legged equine might be otherwise unidentifiable, but the addition of the letter H can provide a clue to distinguish the drawing as one of a horse.

Within Lacadena's (2008:2) compelling argument for the use of logosyllabic writing within Central Mexico lies one of the limiting factors in the decipherment of the written language; primarily, even within the documents that specifically list names and places, and include Spanish glosses, "what one finds is an overwhelming use of logograms." This creates a challenge for the decipherment because if a written language consists primarily of logograms, the functions of those logograms can be overlooked and misunderstood as a strictly pictorial "story-book" rather than as a logosyllabic writing system. Only with the clues provided by syllabic phonetic writing does this recognition occur. Such was the case with Maya writing before its recent decipherment. As Lacadena (2008:18) points out in the case of Maya writing,

It was precisely the substitutions at Chichen Itza in which the name of the deity K'awiil and words for 'house' and 'fire,' in addition to appearing in their statistically more common [logographic] forms, are written

phonetically...that offered in due course the final evidence of reading their respective logograms.

As of this publication, no scholarly work has attempted to read the Codex Borgia as a logosyllabic text. However, I assert, through the recognition of the internal grammar between these sign blocks, or discrete iconographic units, that this does form a text that records spoken words, as well as complex ideas.

Mayahuel = Maguey

Mayahuel, as Michael E. Smith (2003:203) points out, is widely regarded as a "fertility figure who personified the maguey plant itself." On Borgia 51, Mayahuel, as personified maguey, is not shown. However, Mayahuel does appear in numerous other places within the Borgia Codex and within other codices. In these representations of Mayahuel in human form, she is identified by her physical connection to the maguey plant. Mayahuel appears within her maguey in a number of codices, including the Codex Borgia, Codex Laud, Codex Fejérváry-Mayer, and Codex Borbonicus. Her significance in these texts can largely be understood by examining the context in which she appears. She most often appears in two contexts: as discussed previously, she appears alongside Cinteotl in her human form as patron of the eighth trecena within the tonalamatl (the written 260-day calendar); and as part of a set of five female figures who appear suckling children. Within this second context, wherein Mayahuel suckles her young, the codices suggest an interchangeability wherein representations of Mayahuel's human form and maguey seem to convey the same message to readers. In Codex Borgia page 16, within a set of suckling women,

Mayahuel is shown suckling a fish (Figure 6c), whereas the parallel pictorial passages, or cognates in the Codex Fejérváry-Mayer and the Codex Vaticanus B show Mayahuel suckling a human child and a maguey (without her human form) suckling a fish, respectively (Figures 6c and b).

Some of the meaning of these figures, and these discrepancies between them, can be explained through an examination of Mayahuel within the Codex Chimalpopoca, where she goes by other names, including the name Mecitli, which is commonly translated as Maguey Rabbit (though 'citli' can be translated as either rabbit or grandmother). Here as Mecitli, Mayahuel/maguey nourishes and feeds many, as she breastfeeds the Mixcoa—the four hundred or innumerable children (just as she is described in the Codex Rios). Few of these innumerable children survive, and John Bierhorst's translation of the Codex Chimalpopoca (1998:9, 151) suggests that the sole surviving Chichimec among the Mixcoa was named Mimich. In this way, Mimich acquires the role of symbolic representation of the Chichimeca (the semi-nomadic Nahua groups from semi-arid areas northern of Central Mexico) while also having a name that suggests a connection with fish, mich.¹⁷ That Maguey and Mayahuel (also called Mecitli here) is mother figure and patron of Chichimeca people is further supported in Bierhorst's (1998:150) translation of the Codex Chimalpopoca in its explanation of the origin of the name Mexica (who also have Chichimeca origins): "Mecitli suckled

[the Mixcoa]. This Mecitli is Tlalteuctli [Earth Lord]. And so we today who are Mexica are not really Mexica but Mecitin." While the origins and meaning of the name Mexica are contested, this source supports a connection between the various Chichimeca people and maguey as mother and sustainer, in a way that is similar to how Central Mexican Tolteca (or city-dwellers) saw corn as their life source and sustainer.

Returning to the codical representations, the theme of sustaining through suckling remains despite changes in the way maguey and her young are portrayed. That the cognate from the Codex Vaticanus B lacks Mayahuel's human form, and yet the fish (like that seen in the Borgia) suckles inside of the maguey, illustrates the interchangeability of her human and plant forms her to a Mesoamerican audience. Through the use of this surviving story as a means of analysis, I argue that the three parallel codex images, of Mayahuel suckling a fish, of Mayahuel suckling a human child, and of maguey suckling a fish, may be understood as conveying similar narrative and symbolic meaning.

The ideological and iconographic connection between Mayahuel and her maguey is further emphasized in the Codex Mendoza. The name of a military leader is given in roman letters as Teçineuh (which could be alternately spelled Tetzineuh), which is represented by a glyph combining the maguey plant and the phonetic complement -tzin (or in this case -çin), which is represented by hindquarters.

¹⁷ Mimich suggests a reduplication typical in the plural form of nouns, where fishes would be called mimichtin.

(Figure 8a) However, in this case the maguey does not produce the me-sound often associated with name building within the Codex Mendoza, as it does in the glyph for Metepec; the maguey forms a me-sound (using the root of the Nahuatl word for maguey, metl), the hill or mountain (tepetl in Nahuatl) is represented as a logogram, and the suffix -c signifying a place, is absent or assumed. (Figure 8b) Since the maguey plant does not function as a phonetic element in the case of Teçineuh, as the me-sound does not occur in the name, the maguey plant in this text serves instead as a logogram with a more complex meaning. Frances F. Berdan and Patricia Rieff Anawalt (1997:5) translate the name Teçineuh as “he who expels someone,” while Frances Karttunen (1992:313) says the metaphorical meaning of tzinehu(a), is “to hurl [someone] down from a high place, defeat, destroy.” We find that the translations of this name correspond to some of the ideological significance of maguey and Mayahuel’s name as synonymous with destruction.

For example, within Bierhorst’s (1998:92) translation of the Codex Chimalpopoca, the planting of magueys signifies the defeat of a town in much the same way as a burning temple does throughout various codices. In relating

the conquest of Cuauhtitlan, Bierhorst’s (1998:92) translation cites both of these consequences as signs of defeat: “This was when they finally came and broke up the soil in the marketplace of the Cuauhtitlancale and planted it with magueys and set fire to their temple.” Just as the concepts of conquest and the “expelling” of another are ideologically connected, the translation of Teçineuh as “he who expels someone” closely matches the meaning of the likely root of Mayahuel’s name. Although the translation of her name remains contested, with scholars often arguing for a wide range of etymologies,^{18,19} I argue that root of her name is the Nahuatl mayahui²⁰. This word has been translated “rechazar, alejar,”²¹ “to reject scornfully,”²² and “to fall; to hurl something down, to dash someone down to his death.”²³ Understanding Mayahuel’s name and the maguey, as a symbol of death via downfall corresponds as well to her origin story within the Histoyre du Mechique. In this account, the wind teotl Ehecatl takes Mayahuel with him down to the earth. Mayahuel’s grandmother and aunts (the Tzitzimime, who are associated with the stars), upon discovering she is missing, descend

¹⁸ Quiñones-Keber, Eloise. “Mayahuel and Maguey: Sustenance and Sacrifice in Aztec Myth.” *Latin American Indian Literatures Journal* 5, no. 2 (1989): 72–83.

¹⁹ Klein, Cecelia F. 2000. “The Devil and the Skirt: An iconographic inquiry into the pre-Hispanic nature of the tzitzimime”. *Ancient Mesoamerica*. 11 (1): 36n38.

²⁰ According to James Lockhart (2002, p.29), the suffix -l can be added to the root of a transitive verb (mayahui) to form a passive form of a noun. In this case, the word or name mayahuil (a form of Mayahuel’s name) could

be understood as one that has been hurled or dashed down to death.

²¹ Simeon, Remi. *Diccionario De La Lengua Nahuatl o Mexicana*. Siglo XXI Editores Mexico, 1977, p. 250.

²² Bierhorst, John. *A Nahuatl-English Dictionary and Concordance to the ‘Cantares Mexicanos: With an Analytic Transcription and Grammatical Notes*. 1st ed. Stanford University Press, 1985, pp. 207, 297.

²³ Karttunen, Frances. *An Analytical Dictionary of Nahuatl*. University of Oklahoma Press, 1992, p. 141.

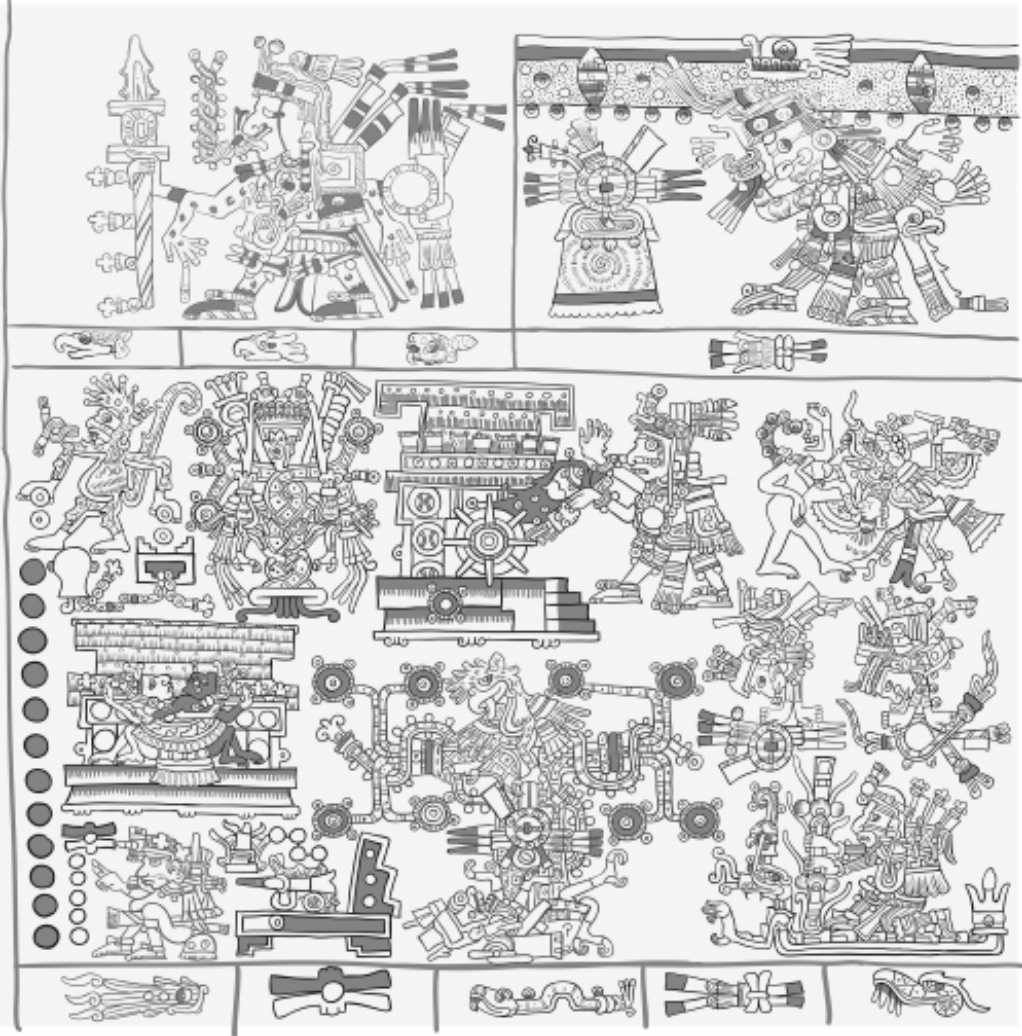


Figure 10: Codex Borgia 49 (J. McIntosh)

upon her, killing and devouring her.²⁴ From her buried remains grew the first maguey, making the maguey a sign of her destruction. In this way, the maguey imagery within the codices, the maguey itself, and Mayahuel's name illustrate her literal connection with downfall and destruction.

The representations of Mayahuel and maguey in origin stories, such as those found in the *Histoire du Mexique* and the *Codex Chimalpopoca*, mirror the complex ideology and symbolic meanings imbedded in the diverse codical representations of Mayahuel and maguey. The stories of Mayahuel and maguey as mother to the

²⁴ De Jonghe, Edouard. 1905. *Histoire du Mexique, manuscrit français inédit du XVIIe siècle*. PERSEE.

http://www.persee.fr/web/revues/home/prescript/article/jsa_00379174_1905_num_2_1_3549.

Chichimeca, as told in the Codex Chimalpopoca, echo the iconography of the Borgia, Rios, and Vaticanus B. Similarly, the story Mayahuel's origins recounted in the *Histoyre du Mechique* and her ideological and practical significance to Mesoamericans as maguey correlate in some respects with Eduard Seler's interpretations of the primary tree on Borgia 49. Though I dispute his identification of this tree as a young corn plant with a star emblem, I would argue that his misinterpretation draws on intentional iconographic similarities, and ideological connections between maguey and Mayahuel, and corn and stars. The similarities between the representations of maguey and maize can readily be explained via an understanding of the plants' roles as a vital food source for the diverse populations of Mesoamerica. Similarly, Mayahuel sharing iconographic elements with stars directly reflects her origin stories where she, as the granddaughter and niece of stars (the Tzitzimime), is arguably a star of a sort herself before journeying to the earth's surface and ultimately becoming maguey. Using this understanding of the ideological, historical, and cultural significance of maguey/Mayahuel, while maintaining that texts such as the Codex Borgia (and texts in the Mixteca-Puebla style more generally) employ a complex and highly logographic writing system, I propose the following methods for decipherment.

Visual Grammar

Rather than relying primarily on iconographic similarities to arrive at the denotative meaning of isolated imagery, I propose the recognition and examination of a visual grammar designed by Indigenous scribes and contained within the Mesoamerican codices. Through the use of such things as visual puns, the visual grammar of the pictorial codices could provide meaning across linguistic groups to create rich connotative significance for a potentially larger Mesoamerican audience. As with the understanding of spoken and written languages, the understanding of a visual grammar within a multi-linguistic writing style depends on a shared cultural knowledge base such as that shared within Postclassic Central Mexico.

We can begin to explore the visual grammar within the Codex Borgia by examining the iconography present in pages 49 through 52. On each of these four directional tree pages (those representing West, South, East, and North²⁵), we see similar figures and symbols in parallel positions. (Figure 1, and Figure 10) Starting from the top left corner and going clockwise, these images include: an animal/Day Sign (C1); a secondary tree with beheaded sacrifices (C2); a house with a figure giving offerings (C3); a battle involving animals (C4); and two descending figures, male and female (likely sets of macuiltonalehqueh²⁶ and cihuateteoh) bringing forth objects (C5); the making

²⁵ I am leaving out the central directional page, seen on the right half of CB53. While it does share the pattern seen on at the center of the other pages (a directional tree emerging from a person with a bird atop its bifurcated branches), it lacks the majority of the other imagery found on the other directional pages.

²⁶ The macuiltonalehqueh are so identified based on the Day Signs with coefficients of five, as well as by the outline of the five-fingered hand around their mouths. According to Ruiz de Alarcón, (1987: 230), the macuiltonalehqueh are the owners of five tonals, which can be interpreted as the owners of five days and are

of fire (C6); the directional tree emerging from a person with a bird atop its bifurcated branches (C7); a chair and specific year sign (C8); a seated macuiltonalehqueh and Day Sign (C9); and a couple scene (C10). While scholars believe each of these images held associations to the direction they shared, little has been said about the associations of these images to one another within a given page. However, at least a few of these images relate to one another forming a pattern of meaning, or visual grammar.

For example, the main tree shown at the bottom center of CB49, though taxonomically unidentified, is distinguished by the design of its trunk, by its blossoms (which are in the form of jewels), and its central emblem of a shield with spears, a spear thrower, a bag or bundle with tail-like ropes and white down-balls containing flint, and a white flag. (Figure 11b) This collection of symbols at the center of the tree's trunk, which Elizabeth Boone (2007:125) describes simply as a "war symbol," share the same form as those seen in

other places within the page. Most notably, these symbols are practically identical to those shown in the upper right hand corner of the page, atop a hill in front of Tlahuizcalpantecuhtli (Figure 11a), whose name is commonly translated Lord of the Dawn.²⁷

While tlahuizcalli does translate as "dawn" in Nahuatl, I assert that an alternate literal translation of the name Tlahuizcalpantecuhtli could read 'lord of the place of the house of weapons' (tlauiz-tli= armas, o insignias²⁸; calli=house; -pan=place²⁹; tecuh-tli=lord). The symbol in front of Tlahuizcalpantecuhtli, like that on the tree, has the three spears, the spear thrower, the white flags, and a shield with round shell-like decorations at its edges and a rope-design bisecting it, and a red rectangle at its center. Both also have what is likely a bag or bundle,³⁰ shown here tied with what looks like red animal-tail ropes draping over each side,³¹ and white circles, possibly feather-balls, beneath it (though only one can be seen on the tree).

ritual metaphors for the hands. Some scholars, such as Anders, Jansen and Reyes (1993: 252) claim that these are the warriors who have died in battle, who upon death have become dedicated to the sun, and who are the male counterparts of the cihuateteoh, the women who have died in childbirth. John Pohl (1998, 2003) associates these macuiltonalehqueh with court diviners.

²⁷ At this time, I am not proposing a connection between the tree and the figure in the upper right corner of the page. Rather, I am using this image as a decipherment key.

²⁸ Alonso de Molina. 1571. Vocabulario en lengua castellana y mexicana y mexicana y castellana, part 2, Nahuatl to Spanish, f. 145r. col. 2.

²⁹ It is worth noting that the name Tlahuizcalpanteuctli may also be written as

two separate words: Tlahuizcalpan Teuctli. In that formation, the word part -pan serves as a suffix signifying a place in or on, as in the place where dawn breaks. However, the word pamitl, meaning flag or flags, as appears in the iconographic representation, also has pan- as its root. This is likely another example of a phonogram or phonetic complement places here to clarify the decipherment of the name of Tlahuizcalpanteuctli.

³⁰ This looks similar to what Guilhem (2007) identifies in the Codex Zouche-Nuttall as a tlaquimilolli. Also see Molly Bassett, 2014. The Codex Zouche-Nuttall 57 shows a tlaquimilolli with similar tail-ropes securing it.

³¹ See also, Codex Borgia page 23 for an image of Ehecatl holding similar elements.

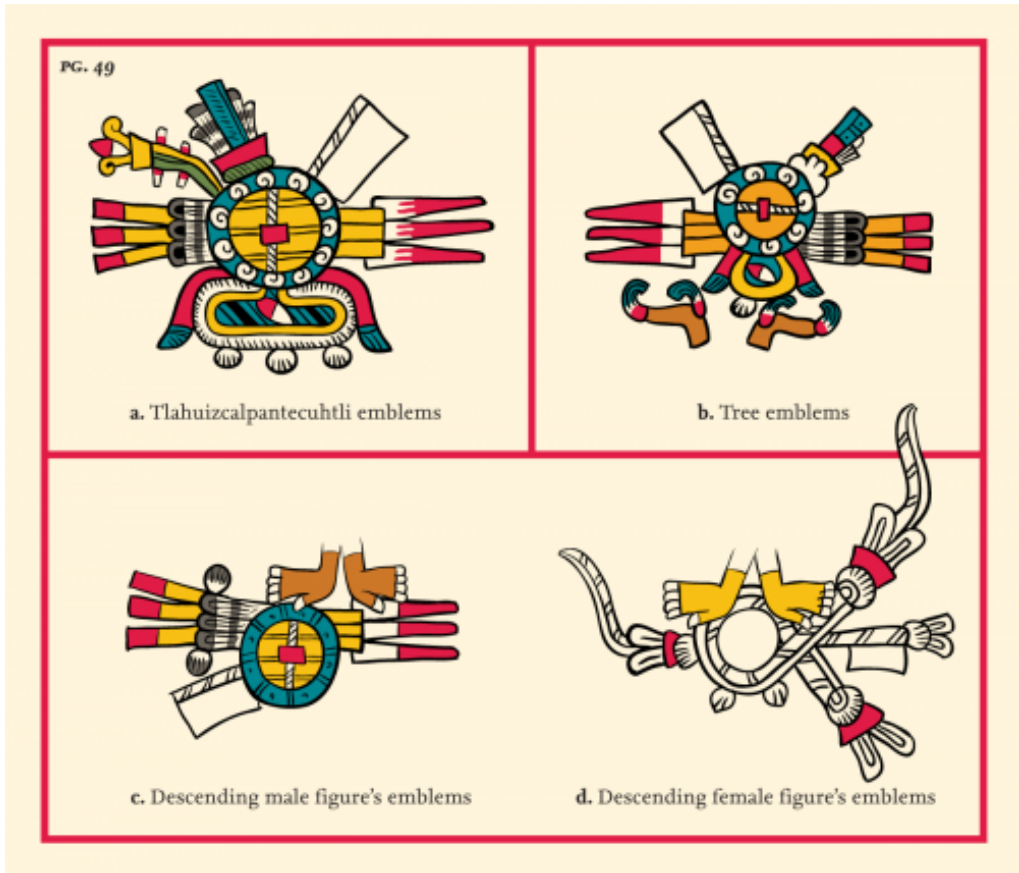


Figure 11: a) Detail of Sky Bearer's associated emblems [B.] from Codex Borgia 49; b) Detail of emblems on the primary tree/bird [C.7.] from Codex Borgia 49; c) detail of the items held by the descending male figure [C.5.] from Codex Borgia 49; d) detail of the items held by the descending female figure [C.5.] from Codex Borgia 49 (J. McIntosh)

This same shield pattern appears again in the hands of the descending male figure, the macuiltonalehqueh, to the right of the tree on CB51 (Figure 11c). While this male figure does not hold all of the elements, such as the spear thrower and the tlaquimilolli, and the shield no longer has the shell pattern seen in on the other two shields, the shield held by the descending figure does mimic the more intricate center design of Tlahuizcalpantecuhtli's shield, with the three paired lines running horizontally across, more precisely. The

female descending figure, one of the cihuateteoh, lacks weapons but holds related emblems designed in the pattern and shape of the shield and spears (Figure 11d). The white circles at the bottom of the coiled rope likewise mimic the white circles below the tlaquimilolli, and the upper end of the rope mimics the shape of the spear thrower. Her white body suit and white cords closely resemble those worn by a female gladiatorial participant pictured in the Codex Magliabecchiano.³² In this way, both of the descending figures

³² *Codex Magliabecchiano XIII. 3: manuscrit mexicain post-Colombien de la Bibliothèque*

nationale de Florence, (Rome: Danesi, 1904), 30r-30v.

bring forth and are adorned in such a way to form visual and ideological associations with the emblems of battle both generally and as shown on the tree. In the same way, the visual grammar that connects the descending figures with their respective trees continues on plates 50 and 52, where the figures carry some of the same implements, including spiked weapons and an axe. While the trees of these two directions differ, both are thorny trees whose thorns are mirrored by the thorns of the objects the descending figures carry. In the case of the Western tree, which I identify as the maguey, the two associated descending figures bring forth highly related goods. The male figure carries a container of octli, the fermented juice of the maguey, while the female figure carries a small, uprooted maguey (Figure 12). Therefore, in each page the items carried by the descending pair share direct ideological and iconographic associations with the corresponding directional trees.

A similar association exists between the directional tree and a figure in the upper left-hand corner of their

respective pages. According to scholars including Nowotny (2005:250-251) and Boone (2007:129), these images refer to calendrical dates evenly spaced within the 260-Day Count: 4 Ozomatli/Monkey, 4 Cozcacauhtli/Vulture, 4 Cipactli/Crocodile, and 4 Miquiztli/Death. While this interpretation of the iconography seems highly likely, the Day Sign on CB50 is not 4 Cozcacauhtli/Vulture, as the vulture has been replaced with a turkey, a replacement acknowledged by Nowotny (2005:250-251), and Boone (2007:129). I argue that the substitution of the Day Sign of vulture with a turkey rather than being problematic reveals further associations between the image of a turkey and other images on the page, specifically the connection between the turkey and the directional tree/bird. At the center of this northern page, CB50, an eagle sits within a thorny cactus. The eagle pictured closely matches the description given within the Florentine Codex of what the Nahuatl scribes called the *mixcoaquauhtli*, or the smoky-snake eagle. (This name also suggests the bird's direct connection to the

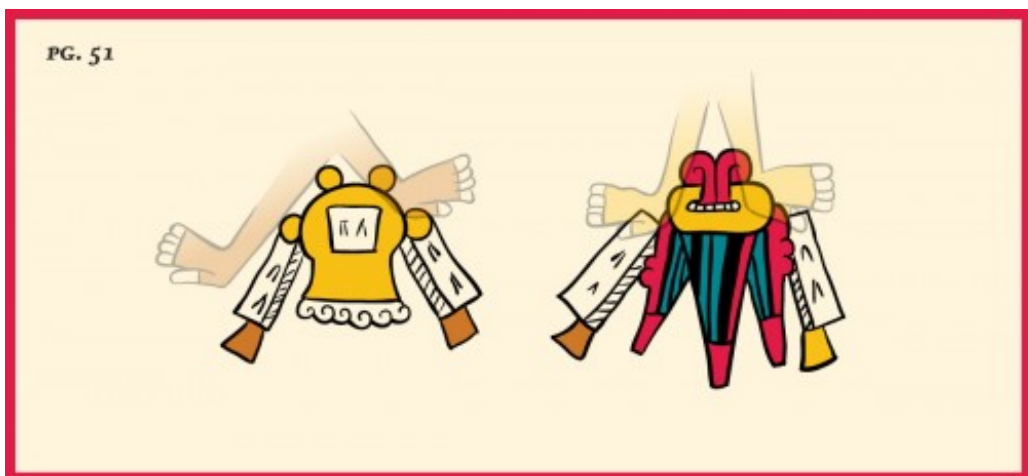


Figure 12: a) Detail of the items held by the descending male figure [C.5.] from Codex Borgia 51; b) detail of the items held by the descending female figure [C.5.] from Codex Borgia 51 (J. McIntosh)

ornaments in the tree, which includes a smoky snake or stream of darkness.³³) According to Sahagún (1950-1988:12:41), “[A]t the back of its head are its feathers, paired feathers forming its head pendant. It is white across the eyes, joined, touching the black; so is the face adorned.” This description matches the bird on CB50, with its crown of feathers and a white stripe across its eyes. Arguably, this description may not be unique to one bird. However, what is unique about the description of the mixcoaquauhtli is that it is, according to the Florentine Codex (1950-1988:12:41), “somewhat the same as the turkey hen living here.” Therefore, the mixcoaquauhtli and the turkey share an association that aligns with the representations seen on CB50, and this in turn links the animated Day Sign in the upper left corner of the cell with the tree/bird at the bottom center of the cell.

This visual grammar that connects the animated Day Signs to the tree/bird repeats throughout the directional pages. The Florentine Codex suggests a connection between the eastern tree with the shield on Page 49 and its respective animated Day Sign of the monkey. According to the scribes of Sahagún’s (1950-1988:12:14) Florentine Codex, while the monkey is known traditionally as *ozomatli*, “Its name is also *quauhchimal*.” Literally translated, *quauhchimal* can mean wooden shield, tree shield, or eagle shield. Therefore the monkey Day Sign, as a *quauhchimal* or tree shield, becomes synonymous

with the tree and its shield emblem. Within this page, the presence of these figures—the monkey, the tree with a shield, and the two descending figures bearing weapons of various forms—indicates that all of these figures have associations with battle and with one another.

The figure that occupies the day-sign position on page 51 relative to the maguey plant is the 4 Cipactli/Crocodile Day Sign. The *cipactli* carries with it much iconographic, literary, and semantic meaning, the beginnings of which will hardly be covered here. Among other things, the *cipactli* represents the earth itself, as the flesh of the *cipactli* as seen in the Borgia appears nearly identical to the illustration of the ground under the center tree on plate 53. (Figure 5) And while any plant that grows from the ground may claim some connection to the *cipactli* as earth, the maguey has a much closer identification with the *cipactli* in the plant’s personification as *Mayahuel*. This is because within other codices she goes by other names; in the Codex Chimalpopoca, she is called *Tlaltecuctli*, or Earth Lord, and according to one of the translators of the Codex Telleriano-Remensis, she is known by the secondary name *Cipactonal*.³⁴ This Nahuatl name can be broken up into two parts, *Cipactli* and *Tonalli*. Literally translated, this name means day of *cipactli*, meaning that the animated *cipactli* Day Sign shown at C1 of this page of the Codex Borgia can be read as a pictorial representation of *Mayahuel*’s

³³ The ideological and metaphoric connection between the tree (*cuauhtli*) and the “eagles” within them (*cuahuitl*) is mirrored linguistically, as these general words for trees and eagles share a root stem of *cuauh-*. In this

way, they are linguistically tied through a visual pun.

³⁴ Quiñones Keber, Eloise. 1995. *Codex Telleriano-Remensis: ritual, divination, and history in a pictorial Aztec manuscript*. Austin: University of Texas Press, 174.

alternate name. This identification of the maguey with both Mayahuel and therefore with Cipactonal promotes a direct link between the directional tree and the Day Sign figure in the upper left corner of the cell. In this case, as seen in the other directional pages, the tree/bird and its adornments, the objects held by the descending figures, and the Day Sign allude to one another mnemonically, ideologically, and iconographically.

With this analysis, it is important to note that the Nahuatl language in its spoken and written forms, as with other languages of Indigenous peoples, rely heavily on metaphor and poetics. So while the connection between the animated date and the tree/bird may be at times homophonic, the connection may be less precise at other times. Some words may be perfect homonyms, while other words, such as the word for tree, *cuahuitl*, and bird, *cuauhtli*, form the same root, *cuauh*. And still other words are less similar, providing a looser pun. I would argue that such is the case for the southern tree and date (on CB52), which shows the day-sign death, *miquiztli*, and, based on my proposed visual grammar, the mesquite tree, *mizquitl*. Although these two elements do not share the same exact name, the words are similar enough to act as a sort of pun in the way that Barbara Tedlock (1992:107) witnessed among the Highland Maya.

Mayahuel/Maguey as Teotl

In identifying the tree on Borgia 51 as maguey, I am likewise identifying the tree as Mayahuel. I therefore read these two manifestations of the same *teotl* as ideologically linked and interchangeable. Although Mayahuel is commonly referred to as the Goddess of

Maguey, her many roles in Precontact Mesoamerica extend beyond that title and role. While the designation of goddess (or god) carries with it connotations derived from European traditions, seeing Mayahuel/maguey as a single *teotl* allows us to recognize her position within Mesoamerica while simultaneously gaining a better understanding of beliefs and traditions unique to the Indigenous cultures of the New World. It is necessary at this point to consider the term 'teotl' itself.

According to Michael E. Smith (1992:204), "The Nahuatl term *teotl* means 'deity' or 'sacred power.' This is a complex and multifaceted concept that does not fit well with modern preconceptions of ancient polytheistic religion." While Smith attempts to complicate the translation of *teotl* as god or deity, virtually every scholar continues to refer to Mayahuel and other Mesoamerican figures as gods. However, conceptualizing Mayahuel as a maguey goddess or deity, erases the complexity of her multifaceted nature as well as the complexity of the word *teotl*. Rather than seeing Mayahuel as a personification or deification of a passive maguey plant, Mayahuel and maguey share an identity wherein both possess the (not exclusively human) ability to think, choose, act, and affect the world around them; to interact with other *teteoh* (the plural form of *teotl*). Gerardo Aldana's (2011:55) interpretation of the concept of *teotl*, as "an 'entity' possessing three characteristics, the ability: *i.* to heal; *ii.* to poison; *iii.* to nurture," perhaps provides the most useful model for understanding how a single *teotl* can (choose to) take multiple forms and have a diverse impact within Mesoamerican experience. Mayahuel/maguey fulfills

these characteristics in her ability to heal others as evidenced by a song dedicated to her, sung to ease the pains associated with giving birth.³⁵ In addition to Mayahuel's help with the birthing process, the maguey plant and juices can act as a salve or poultice, especially for head wounds,³⁶ and as octli, what Diego Durán called the "Native wine," which "truly has medicinal quality."³⁷ Mayahuel/maguey embodies the ability to poison or in other ways defeat and destroy as shown by her plant form representing defeat, and in the consequences of an overconsumption of octli, and in the use of the spines of the plant in making weaponry; and Mayahuel/maguey serves as a great nurturer of people in her ability to feed and provide for the needs of entire populations, both in the recorded stories and in current and historical practice among Indigenous populations.³⁸ However, just as Mayahuel/maguey can be seen as teotl, so too can diverse people, animals, plants, and objects that would otherwise not be identified as a "god" or "goddess." By understanding Mayahuel/maguey as different representations of the same teotl, and through the recognition of a visual grammar within the Codex Borgia, I argue that the directional tree found on plate 51 constitutes a representation of Mayahuel through her plant embodiment as a maguey, despite the fact that her human form appears absent. While scholars have suggested

that CB51 portrays a corn plant with a maguey plant attached, I assert that although the maguey and corn plant are associated ideologically and iconographically, this tree does not represent a corn plant with a maguey in the auxiliary position; rather, this is Mayahuel/maguey with her flowering stalk in bloom.

Conclusion

Western academics of the last 150 years have provided other scholars with tools for understanding some of texts that had been left undecipherable since their initial destruction and abolition by Christian priests. However, much of this research provides superficial denotative decipherment of texts and often reproduces the damaging or narrowly framed narratives made prevalent by the Spanish accounts. By expanding my analysis of the Codex Borgia to include similar imagery from other Borgia group texts, cultural and scientific knowledge about maguey, stories from other Nahuatl texts, and linguistic and written systems from the region, I have challenged the assertions that Borgia 49 represents an immature corn plant. By reidentifying this tree as maguey, and by extension, Mayahuel, I seek to broaden the picture currently held of Mesoamerican people, in terms of their understanding of science, their cultural diversity, and the complexity of their language.

³⁵ Sahagún, Bernardino de, Thelma D Sullivan, and H. B Nicholson. *Primeros Memoriales*. Norman: University of Oklahoma Press, 1997, 142:n21.

³⁶ Sahagun, Bernardino de. *Florentine Codex: General History of the Things of New Spain*. Translated by Arthur J. O. Anderson and

Charles E. Dibble. University of Utah Press, 1970, 11:179.

³⁷ Durán, Diego. 1971. *Book of the Gods and Rites and the Ancient Calendar*. Translated by Fernando Horcasitas and Doris Heyden. Norman: University of Oklahoma Press, 310.

³⁸ Granberg, Wilbur J. *People of the Maguey: The Otomi Indians of Mexico*. Praeger, 1970.

Though the colonization of Mexico has left only 12 Precontact Central Mexican codices, the Indigenous knowledge contained within them has just begun to be explored by Indigenous scholars in a decolonial context. Utilizing Indigenous knowledge, including associations with Mayahuel, in her human and plant form, the complex imagery of the codices demonstrates a pictorial grammar with which the trees on the directional pages can be identified. Additionally, the recognition of the existence of a visual grammar opens the field to new forms of analysis beyond the goal of denotative understanding. Furthermore, using the Mesoamerican conception of teotl—wherein a single teotl, unlike an Old World god, can have simultaneously take human, animal, plant, and or object forms, all of which display agency—the imagery and language within the codices and other Indigenous-authored texts, can be better understood. By combining the knowledge shared in the various surviving media and the knowledge of local languages and culture, while maintaining an Indigenous-centered approach, previous assertions and assumptions made by Western scholars can be effectively challenged. This is vital for the continued decolonial struggle for the Indigenous people of Mexico and the Americas, their descendants throughout the world, and Indigenous people and their allies globally.

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