

Aztec Illumination

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Who are we discussing?

Aztecs were a tribe of people living in southern Mexico and Central America from the Gulf of Mexico to the Pacific Ocean. Their territory stretched from modern day Veracruz into Guatemala and encompassed a territory of approximately 80000 mi². At the peak of their Empire (1430-1519) there were approximately 250000 people living in Tenochtitlan with an estimated total population of 12 million (Malinowski, 1998). They spoke a language called Nahuatl but documents were pictographic.

The Aztec culture interacted with the Mayan culture in the 1200s in the Yucatan as evidenced by the Mayan use of Nahuatl (Cole, 1999). Therefore, some crossover in artistic design would not be out of the realm of possibility. Much of what is known about this culture is due to the arrival of Cortes in 1521. However, many were burned in the wake of the Conquistadors path.

The Aztecs worshipped approximately 1000 gods, had complex rituals for seasons and recorded these gods in rituals in screenfolded books. In addition, government documents and historical references were made by the artists called toltecaye (Kerpel, 2014) and individual scribes called tlacuilos (Minassian, 2014).

Types of Source Documents

There are approximately 20 pre-Columbian Mesoamerican codices and 500 codices from the colonial period from the 16th to the 18th century remaining (Minassian, 2014).

1. Tonalpohualii
 - a. Calendars with rituals, sacred animals and birds for the days, and a monthly god or goddess to whom sacrifices should be made.
 - b. Tonalmatl- document that shows on lunar cycle with its deity.
 - c. Screenfolded

Examples: Codex Borbonicus- The Codex Borbonicus dates to 1507 AD, before the Spanish explorers reached the new world (Benson, 1995). Only two of these codices are thought to have been produced before the Spaniards arrived in the new world (Barnett, 2008). The original document would have been constructed in a screen fold fashion by Aztec high priests (Cardenas & Erickson, 2011). The document is a type of Aztec illuminated calendar having Spanish markings to translate the pictures.

The codex contains 40 pages and measures approximately 40 centimeters square (Couch, 1985). The first portion of the codex is the tonalamatl which includes 18 divisions corresponding to the solar year with each cycle having a distinct name and deity depicted in pictorial form (Couch, 1985). The second is the tonalpohualli, a count of days containing twenty named days in thirteen day rotations resulting in 260 day cycles (Benson, 1995). Each day also has a corresponding bird of omen and lord of daylight (Buckland, 1957). The central figure in plate 12 shown at right (FAMSI, 2011) is the Aztec god Itztlacoliuhqui known as the maize god, and the god of winter, ice and frost (Sprajc, 1993). Therefore, this page might represent the month occurring between October and December (Sprajc, 1993).

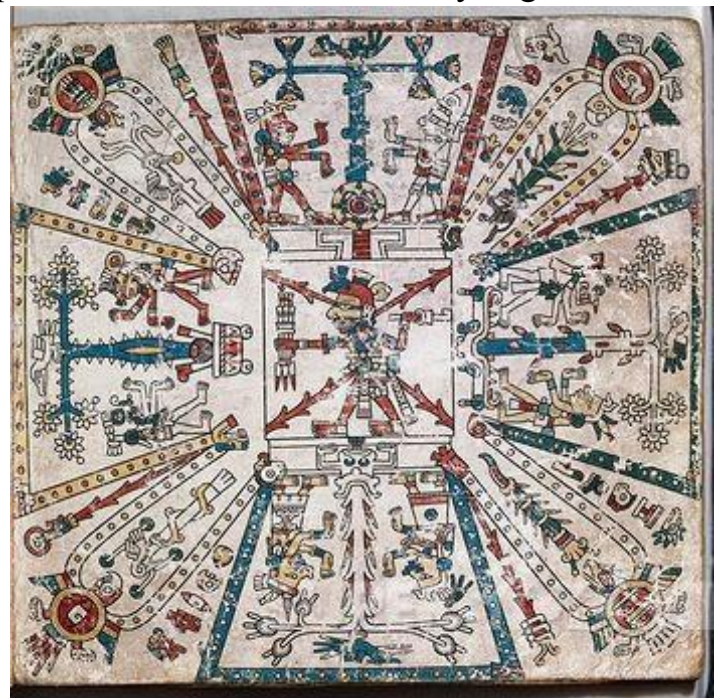


Codex Borgia- The Codex Borgia is a pre-Columbian 260 day ritual calendar with a similar screenfold arrangement as the Borbonicus. It is read right to left on one side the flipped to read the other side (Rodgers & Diaz, 1993).



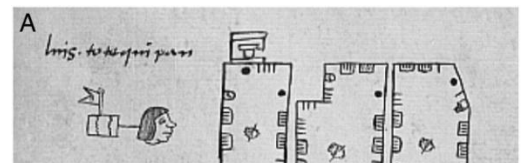
(http://www.famsi.org/research/graz/borgia/img_page13.html)

Codex Fejervary-Mayer- The Codex Fejervary-Mayer, housed at the Free Public Museum in Liverpool, is a tonalpohualli which shows a 260 day augural cycle (Library of Congress, 2012). In this page, the trees indicate the main compass directions and surround the god of fire, Xiuhtecuhtli. This leaf is one of 22 pages with the dimensions of 390.5 cm by 17 cm (British Museum, 2013). The approximate date of the Codex is between 1400 and 1521 AD (Getty Images, 2013).



2. Historical References

- a. Florentine Codex- The Florentine Codex not only has the pictographic representation of daily life and historic events but also contains Spanish translations of the images. This document amongst many other scenes contains images of the construction of the Montezuma II headdress (Kerpel, 2014). (http://www.famsi.org/research/pohl/pohl_meeting.html)



3. Government Records

- a. Codex Vergara- This codex is a census record and shows the acreage calculations for each farmer. (Jorge, Williams, Garza-Hume &Olvera, 2011)

CONSTRUCTION

Currently, there is not a wealth of information about the materials used in Aztec illumination. However, some research is being conducted on the Codex Borbonicus such as raman spectroscopy. Some of the other codices have also been studied in similar fashion.

1. Media- The majority of research states bark from the amate tree (a relative of the fig tree) was used to produce a paper called amatl. The paper used for the Codex Borbonicus is amate or amatl paper which is similar to birch paper (Cardenas & Erickson, 2011). FAMSI (2011) states the Codex Ferjervary-Mayer was likely made from animal hide. The Codex Borgia was found to be “14 strips of skin attached end to end” and “trimmed to 27 cm” (Rodgers & Diaz, 1993). Some sources even reference the use of agave plants as the source of the paper. It has also been noted that some codices have a wood or hide cover (lib.uci.edu)
2. Utensils- Very little has been noted about the types of paint brushes of applicators used in Aztec Codices however, rabbit fur is suspected as one of the materials (lib.uci.edu).
3. Pre-painting- some Codices such as the Codex Borgia and Codex Borbonicus have been treated with a white lime plaster coating to prepare the surface for painting (Rodgers & Diaz, 1993).
4. Paints- Pigment, whether mineral or vegetable, was added to gum from orchid pseudo-bulbs. This gum is called tzacutli. Addition of acids or bases was done to alter the natural colors of paints as well.

The following table summarizes the name of the paint color (tlapalli meaning the colors), its parent material and the resulting hue.

Aztec color term	Parent material	Hue produced	Manuscript found in	Cited source
Tlili	Carbon black	Black ink	Florentine	Kerpel
Tizatli	Clay	White	Florentine	Kerpel
Texotli	Palygorskite and indigo	Mayan blue	Borbonicus, Ferjevary-Mayer, Borgia	Kerpel, 2014, Tobin, 2012
Zacatlaxcalli	Calcium carbonate	Yellow		Kerpel, 2014, Tobin, 2012
Xochipalli	Orpiment	Yellow		Kerpel, 2014, Tobin, 2012
Nocheztli	Cochineal	Scarlet		Kerpel, 2014, Tobin, 2012
Tlahuilit	Hematite and cinnabar	Red		Kerpel, 2014, Higgett, 2012
Achiotl	Annatto	Red		Kerpel, 2014
Quiltic	Orpiment, indigo and clay	Green		Kerpel, 2014, Tobin, 2012
Tlaceuilli	Vegetable	Blue		Kerpel, 2014
	Minimum		Florentine codex	Kerpel, 2014
	Calcium carbonate, Cochineal and orpiment	orange		Kerpel, 2014
	Prickly pear fruit	tan	Ferjevery-Mayer	Cardenas and Erickson, 2011

TYPES OF IMAGES

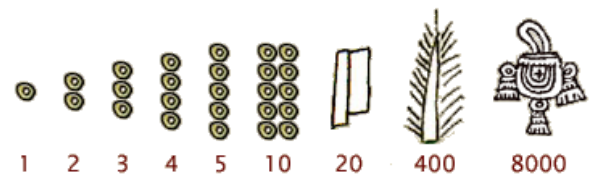
Sacred animals, numbers, gods/goddesses, buildings, plants, household objects and weapons can all be found in different codices. Below are some examples of these images.



<http://www.ancientscripts.com/aztec.html>



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References

Barnett, R. (2008). *Early pictorial and written sources of aztec history*. Retrieved from: <http://www.mexconnect.com/articles/527-early-pictorial-and-written-sources-of-aztec-history>

Benson, E. (1995). *A history of art*. Oxford, England: Andromeda Oxford Limited.

Buckland, C. (1957). *Codex Borbonicus: pages 21, 22: a critical assessment*. Journal de la Societe des americanistas. Vol 46 p. 157-163.

Cardenas, G. & Erickson, M. (2001). Chicano and Chicano Space. Hispanic Research Center, Arizona State University. Retrieved from http://mati.eas.asu.edu/ChicanArte/html_pages/unkn4.html and http://mati.eas.asu.edu:8421/ChicanArte/html_pages/CodexIssOutl.html#artwork

Cole, M. (1999). *The Maya, sixth ed.* NY, NY: Thames and Hudson.; Gael Research, Inc. Vol 2. P. 402-404.

Couch, N. (1985) *The festival cycle of the aztec codex borbonicus: Images of the common man in the codex borbonicus*. Bar international series, BAR. p. 90-100.

De Agostini/Getty Images (2013). *Cosmological map from Codex Fejervary-Mayer, Aztec Codex of central Mexico from an Aztec manuscript, circa 1400-1521*. Retrieved from <http://www.gettyimages.ca/detail/news-photo/cartography-15th-16th-centuries-cosmological-map-taken-from-news-photo/122337849>

Field Museum. (2013). *Florentine Codex, Vol. 2, Folia 21L* Retrieved from <http://fieldmuseum.org/about/aztec-world-press-kit>

Foundation for the Advancement of Mesoamerican studies, Inc. (2011) . Retrieved from http://www.famsi.org/research/loubat/Borbonicus/images/Borbonicus_12.jpg

Foundation for the Advancement of Mesoamerican studies, Inc. (2011) . Retrieved from http://www.famsi.org/research/graz/borgia/img_page13.html

Foundation for the Advancement of Mesoamerican studies, Inc. (2011). Retrieved from <http://www.famsi.org/research/pohl/jpcodices/pohlborgia1.html>

Foundation for the Advancement of Mesoamerican studies, Inc. (2011) . Retrieved from http://www.famsi.org/research/pohl/pohl_meeting.html

Higgit, C. (2012). *Materials and techniques of the pre-colombian mixtec manuscript, the codex zouche-nuttall*. Access, research and technology for the Conservation of the European Cultural Heritage. London, UK: British Museum. http://www.eu-artech.org/files/Users_report_final_NUTTAL.pdf

Jorge, M., Williams, B., Garza-Hume, C.E., Olvera, A. (2011). Mathematical accuracy of Aztec land surveys assessed from records in the *Codex Vergara*. PNAS September 13, 2011. 108 (37) 15053-15057; <https://doi.org/10.1073/pnas.1107737108>

Kerpel, D. 2014. *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex*. Los Angeles, CA: Getty Research Institute.

Malinowski, S. (1998). *Gale encyclopedia of Native American tribes*. Detroit, MI: Gale Publishing. P. 402-404.

Minassian, V. (2014). *Aztec manuscript under the microscope*. Retrieved from <https://www.theguardian.com/world/2014/nov/28/codex-borbonicus-aztec-manuscript-date>

N.A. (2017). *Realms of the sacred in daily life: Early written records of Mesoamerica*. Retrieved 2018 from <https://www.lib.uci.edu/sites/all/exhibits/meso/sacred.html>

N.A. (2012). *Ancient scripts*. Retrieved from <http://www.ancientscripts.com/aztec.html>

Rodgers, A. & Diaz, G. 1993. *The Codex Borgia: A Full-Color Restoration of the Ancient Mexican Manuscript* Dover Publishing, Inc., NY, NY p. xiii.

SPRAJC, I. (1993). *The venus-rain-maize complex in the meso-american world view: part 1*. *Journal for the History of Astronomy*, vol xxiv, p.17. Science History Publications, ltd. NASA Astrophysics Data System.

Tobin, T. (2012). *The construction of the codex in classic- and post classic-period Maya civilization*. Retrieved from <http://www.mathes.duq.edu/~tobin/maya/#ink>