

# Maya Cosmology

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Here is the story of the beginning,  
when there was not one bird,  
not one fish,  
not one mountain.  
Here is the sky, all alone.  
Here is the sea, all alone.  
There is nothing more  
-no sound, no movement.  
Only the sky and the sea.  
Only Heart-of-Sky, alone.  
And these are his names:  
Maker and Modeler,  
Kukulcan,  
and Hurricane.  
But there is no one to speak his names.  
There is no one to praise his glory.  
There is no one to nurture his greatness.  
...

From the *Popol Vu*  
translation by Dennis Tedlock

# 1 Introduction

The Maya civilization thrived and continues to exist in what is nowadays known as southeastern Mexico, Belize, Guatemala, and the northernmost parts of Honduras and El Salvador (see figure 1). Maya culture started to develop around 1800 BC, the period in which it really flourished, the classical period, lasted for about a millenium: from around 250 BC until 900 AD. The Maya have never had an empire comparable to that of the Aztecs, the Romans, or the Inca; Maya lived in a number of independent city-states. The fact that they shared trade routes, a writing system and religious beliefs makes it possible to define Maya culture as a unity.

Why the Mayan influence in the region ceased to grow at some point in time, remains an issue of debate among experts in archeology and history<sup>1</sup>. The fact

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<sup>1</sup>Different theories on the demise of the central Maya region exist, ranging from severe droughts to overpopulation and extensive warfare. It is most likely that the cause was a combination of factors.



Figure 1: A map of the region of Mesoamerica where Maya city-states existed.

is that most of the Maya cities in the highlands and the southern lowlands were abandoned during the ninth century. To the North, the Maya cities on the lowlands of the Yucatán peninsula continued to flourish, only to be discovered and conquered by the Spanish colonists in the early sixteenth century.

Mayan culture has not been lost: at present time, over 6 million Maya live in Mexico, Belize and Guatemala. Their culture is a merger of ancient Maya beliefs and traditions and the Catholic religion brought to the region by the Spanish conquerors. Although the hybrid of Catholicism and indigenous Maya religion is a very interesting subject on itself, it will not be discussed here. The topic of this essay is the view that the original Maya people had on the World.

## 2 The Creation

The *Popol Vuh* is part of a probably much larger collection of epic cycle of legends, it describes the creation of the World. In the beginning, there was only the sky and the sea, and one creator, called *Itzam Na*, who is responsible for putting into existence the earth, animals and humans. In the beginning, there was no one to see the World, no one to praise the glory of *Itzam Na*. He needed people to worship him. He tried making humans out of mud and earth, which did not give the desired result. Subsequently, he tried constructing humans out of wood, which resulted in people who were not able to speak, think or accomplish anything. Eventually, the 'True People' were constructed from water and maize.

This analogy is understandable, since the people in Mesoamerica were greatly dependent on the cultivation of maize crops, and on water from the sky. If no agriculture had been possible, the city-states in which Maya culture flourished would never have been able to sustain themselves.

The extensive calendar system developed by the Maya enables us to calculate back to the date when the World must have been created, according to their beliefs. The Beginning must have been on August 13<sup>th</sup> in 3114 BC.

## 3 The World Tree

The World Tree, *Yakché*<sup>2</sup>, represents the Maya view on the Universe. It is probably based on a view of the sky. At the time of creation of the World, at dawn on the 13<sup>th</sup> of August, the Milky Way runs through the zenith from south to north. This might be a good explanation for the vertical structure (the tree) in the Maya view of the Cosmos. The four directions in figure 3 represent the four corners of the Earth: red in the East, white in the North, black in the West and yellow in the South.

The horizontal bar in the middle is the Earth, sometimes also represented as a giant crocodile, apparently because the structure of the soil on which Maya

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<sup>2</sup>There are a number of different ways to write the name of the Tree of Life, such as *Tzuk-Te*, *Yakché* or *Yax-ché*.



Figure 2: *The sacred tree Yakché in the center of the World, supporting the sky with its branches, and its roots residing in the Underworld.*

grew their crops resembled the back of a reptilian animal.

The heaven is located at the branches of the Tree, where the gods live. The cyclic nature of the motion of the sun was somehow realised: during the night, the Sun passes through *Xibalba*, the Underworld.

The entire cosmos is represented as interconnected parts: *Xibalba* (the Underworld), *Cab* (the Earth), *Caan* (the Heaven) and *Yakché*, the World Tree which connects all of the other components. *Caan* is divided into thirteen steps: six ascending from the eastern (red) horizon to the zenith, the top level, where *Itzam Na* resides, and six more steps descending to the western (black) horizon, following the Sun. *Xibalba*, below the horizon, has nine levels: four descending down to the *Nadir*, and four ascending back to the surface of the earth.

## 4 Gods

The Maya people essentially had a polytheistic religion, although sometimes it seems that different deities become integrated into one supreme God, but this might have been a consequence of the mixing with the Christian religion introduced by the Spanish. Apart from that, it is not entirely clear which gods were considered separate entities, and which were simply different manifestations

of one deity. In addition, people living in different areas and different historical periods did not always recognise the same gods or address them by the same names<sup>3</sup>.

The culture of the Maya has been influenced by the cultures of other peoples, such as the Aztecs and the Toltec. Some of the basis of the Maya beliefs might have originated from the Olmec culture. The Olmec people lived somewhat more to the west, but there is evidence that supports the theory that the two cultures had been in contact with each other in the preclassical period of the Maya civilization (around the third century AD). For example the idea of fourfold gods was probably an Olmec creation, which influenced not only the Maya, but a number of other cultures throughout Mesoamerica.

The Creator, *Itzam Na*, has already been mentioned in section 3. *Itzam Cab* was sometimes considered an Earth god, but is merely a different face of the general god *Itzam Na*.

The Sun god *Kinich Anau* protects the people from darkness, but is also feared for its ability to cause draughts. His wife is the Moon goddess *Ix Chel*, who is in constant disagreement with her husband. She is also the goddess of child birth and medicine.

Rain is extremely important to the Maya. The fourfold rain gods are called the *Chaacs*: there is one for every world direction, again red for the east, white for the north, black for the west and yellow for the south. Rain gods are often conflated with the gods of the earth, or soil, which they provide with water. An Olmec water or rain god called *Tlaloc* has been integrated into the Maya range of deities. Humans, mostly children or adolescents, were often sacrificed in the rituals of summoning rain gods.

*Tzultacah* is the god who protects the crops and the game. Together with the gods of the rain, *Tzultacah* was one of the more important gods, since he had the power to secure the production of food.

The planet known to us as Venus was worshipped by the Maya under the name of *Xux Ek*, which translates into 'wasp star'. It was feared, because it was thought to be able to endanger crops and life in general with its light rays; it was worshipped as a morning and an evening star.

Maize itself was such an important component of the life of the Maya, it might be considered a deity on itself. A great number of depictions of this god, sometimes referred to as *Yum Kaax*, have been found by archeologists: a human face, sometimes with leaves growing from his head, as if it were the seed.

In *Xibalba* lived, among the gods of death, a god depicted as a jaguar: the god of night. When the Sun was under the horizon, it was thought of as a jaguar. The night sky, filled with stars, was sometimes described as the spotted skin of the jaguar.

The most important god of death is *Cizin*. He burns the souls of the dead. *Cizin* has a black and yellow colour, a colour that the Maya associated with death.

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<sup>3</sup>One of the reasons for this is the fact that a lot of different languages were spoken in various city-states, although there *was* a unified system for writing and counting.

A god by the name of *Kukulcan*, the feathered serpent, was introduced from the Toltec culture in the late tenth century. *Kukulcan* represents the need for the Earth to ascend to the Heavens and vice versa. There are theories that claim that this deity had been an actual person (probably not an indigenous Maya), who created a myth around himself. This would be consistent with the desire of humans, or this one in particular, to ascend into the Heavens and become a god.

## 5 Astronomy

Maya investigated celestial objects that were visible to them with the naked eye. They were able to predict positions of objects years ahead. Archeologists have found tables that were able to predict lunar and solar eclipses, including a mechanism constructed for use of the tables at later times. The Maya clearly understood the mechanism of intersecting circles, and they were able to perform calculations and observations at remarkably high precision and accuracy, considering the fact that astronomical observations were all done with the naked eye. There are records of observations and predictions of motion of the Sun, the Moon, Jupiter, Mars, the ecliptic and the Milky Way. However, the Maya were especially interested in Venus, it might have been as important as the Sun in their view of the World.

The interest in the sky was not centered on scientific investigation, but more on augury and justifying rituals and myths. Religious rituals were performed at conjunctions of Jupiter and Venus, and some conjunctions have even been a motivation for Maya to go to war.

## 6 Conclusion

The Maya have shown to be excellent observers and mathematicians. The prediction of lunar and solar eclipses and retrograde motions of planets clearly indicated a basic understanding of the cyclic nature of the movement of celestial bodies. The extensive calendar system of the Maya<sup>4</sup> also contains a number of cycles, ingeniously interconnected.

The Maya Cosmos is one that puts the earth, and the humans on them, in the middle of Everything. The earth is ruled by gods. These gods were present even before humans existed. In fact, humans were created by the gods in order to worship these very same gods. The range of different deities is essentially not unlike that of the ancient Egyptians, Greeks or Romans of the Old World<sup>5</sup>. The creation story described in the *Popol Vu* bears some resemblance to the Genesis story of the Jews and the Christians.

The life of the Maya people revolved around their religion, which they supported by astronomical observations and predictions. Despite their mathematical and observational insight, they did not come to a more scientific, deterministic model of the World. The Maya might eventually have developed further, had they not been disturbed by the European colonists in the sixteenth century.

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<sup>4</sup>To my regret, I did not have time to include a discussion of the Maya calendar.

<sup>5</sup>The Old World (Europe, Africa and Asia), in contrast to the New World (America).