

The Aztec Calendar Stone is the most widely recognized emblem of Pre-Columbian Mesoamerican civilization. Although it was sculpted by anonymous Aztec artisans during the reign of King Axayácatl (1469-1481), only forty years prior to the Spanish Conquest, it embodies a rich cultural tradition that extends back another 2000 years through the Toltec, Mayan, and Olmec civilizations. It is less a representation of a practical calendar than of the Aztec cosmic world view and a monument to their principal deity, the Sun god *Tonatiuh*. Consequently it is more correctly called the Sun Stone, *Piedra del Sol*. The stone is a massive, 24.5 ton, round basaltic monolith, three feet thick and nearly twelve feet in diameter, intricately carved on one face and originally replete with bright colors. It was apparently meant to be mounted horizontally to serve as a sacred repository for the ritualistic feeding of the hearts and blood of captured warriors to the Sun god. The stone was buried during the Spanish defeat of Tenochtitlán (modern Mexico City) in 1521, but it was recovered in 1790 during the repaving of the Plaza Mayor. The stone is presently exhibited at the Museo Nacional de Antropología de Mexico in Mexico City.

The iconography of the stone and its connections to Aztec religion and cosmology have been extensively studied, but we lack a definitive interpretation, largely because verbal traditions were only imperfectly conveyed to and recorded by post-Conquest Spanish scholars. The Aztecs viewed existence as a series of cycles of creation and destruction, not only for mankind but for the gods as well. Close familiarity with astronomical sky cycles, most notably by the famously accomplished Mayan astronomers, undoubtedly intensified their cyclic mythology. The theme of the stone can be said to be cosmic time cycles, and its circular shape is a metaphor for repeating time.

The outer half of the stone's face consists of concentric circular bands, each with a distinct series of carvings. On the outermost border, coiled around its contents, are two *Xiuhcoatl* fire serpents with tails that touch the symbol for "13 Reed," the date the current Sun was created and perhaps the date the stone was carved (1479). Stylized flames protrude inward from their bodies. Their heads meet at the bottom of the stone; thrust out of their opened mouths and confronting one another are the heads of two gods, probably *Tonatiuh* and *Xiuhtecutli* (the fire god). In the stone's original orientation, with the top oriented toward the East, the serpents are following the diurnal motion of the Sun toward the West. Inside the serpents are two bands embellished with small, stylized, U-shaped feather ornaments and groupings of four spur-like elements that possibly symbolize splattered blood. There are six box-like figures that may represent thorns used in bloodletting rituals. Eight solar rays blaze outward through these bands.

The innermost two circular bands represent the so-called Calendar Round, a 52 year cycle of four concurrently running series of day counts: two numerical and two symbolic, with names linked to a sequence of rituals. The smaller band contains the glyphs for the 20 day-signs of the 260-day long *tonalpohualli* cycle, sequenced counterclockwise from the top. The larger band contains 52 *quincunxes*, small squares containing 5 points or gems representing the 52 year length of the Calendar Round. The end of a Round marked a dangerous time that demanded a solemn cleansing and renewal ceremony (the "Binding of the Years") and the symbolic rekindling of the Sun to ensure its continued motion through the heavens.

The heart of the stone contains the glaring face of the Sun god *Tonatiuh* embedded in the six-lobed day-sign for *Ollin* or “movement,” the only one of the twenty signs to represent an abstract concept as opposed to “Reed,” “Wind,” or “Water,” for instance. “Movement” here is associated with the motion of the Sun through the sky and possibly movement through cosmic time; it is also the symbol for earthquakes. The four square panels of the *Ollin* sign arranged in a large X-shape depict the four cosmic eras (or “Suns”) thought to have preceded the current era (the Fifth Sun). Although the gods struggled to make Earth fruitful and secure, mankind was destroyed in four successive catastrophes---devoured by jaguars, swept away by raging hurricanes, incinerated by a rain of fire, and drowned in a great flood. The date and nature of each cosmic holocaust is given in the panels: 4 Jaguar, 4 Wind, 4 Rain, and 4 Water---the numeral 4 being a bad omen. The fifth era began with the self-immolation of the god *Nanhuatzin* on behalf of mankind. Four small circles at the corners of the large *Ollin* symbol give the date 4-*Ollin* on which the transformed god, now the Fifth Sun, began moving through the sky. But the date also predicts the cataclysm that will end the fifth epoch, this time by violent earthquakes. To forestall their doom, the Aztecs assiduously offered the Sun god the regular nourishment of blood sacrifices to help him maintain the diurnal cycle of day and night and thereby safeguard their survival. This grim obligation is symbolized by a tongue-shaped sacrificial flint knife that protrudes from the god’s mouth and, at either side of his face, a claw gripping a human heart.

Many similar features can be found in other Aztec sacrificial carvings, but the Sun Stone is the most magnificent example and stunningly captures the vibrant and exotic cosmos of the Aztecs.

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RECOMMENDED ILLUSTRATION: full color reconstructed image of Sun Stone, e.g. from this site: <http://www.gorbatyuk.com/pixels/calendar.htm>

REFERENCES: The earliest description of the Sun Stone was by Antonio B. León y Gama (1792). There are many excellent modern sources. A sublime pictorial with full supporting text is by Ignacio Bernal, *100 Great Masterpieces of the Mexican National Museum of Anthropology* (1969). Details of Aztec culture including a famous rendition of the Sun Stone by Felipe Dávalos is in "The Building of Tenochtitlán" by Augusto Molina Montes with paintings by Felipe Dávalos, *National Geographic* 158, 753-775 (1980). Interpretations of the central deity are discussed by H.B. Nicholson, in "The Problem of the Identification of the Central Image of the 'Aztec Calendar Stone'," in *Current Topics in Aztec Studies: Essays in Honor of Dr. H.B. Nicholson*, edited by Alana Cordy-Collins and Douglas Sharon, *San Diego Museum Papers* 30, 3-15 (1993). *The Aztec World*, a monograph by Elizabeth Hill Boone, is a comprehensive resource on Aztec history and culture with a detailed description of the Aztec calendar (1994). Anthony F. Aveni presents a thorough overview of Mesoamerican archaeoastronomy and calendar systems in *Skywatchers* (2001). The most current interpretation of the Sun Stone, including beautiful graphics, is by Eduardo Matos Moctezuma and Felipe Solís in *The Aztec Calendar and Other Stone Monuments* (2004).