

# THE FACE OF THE CALENDAR STONE: A NEW INTERPRETATION

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Note: The following post, a bit off-topic from the world of Maya hieroglyphs, is excerpted from a larger work now in preparation, provisionally titled *The Face of the Cosmos: Further Interpretations of the Aztec Calendar Stone*.



Figure 1. Photograph of the sculpted face of the Aztec Calendar Stone, or Piedra del Sol. Museo Nacional de Antropología, Mexico City.

After over two centuries of intensive scholarly attention and commentary there would seem little left to say about the symbolism of the so-called Calendar Stone or Piedra del Sol of Tenochtitlan, the single most iconic image of Aztec culture and ancient Mexico (Figure 1). Much has been written and debated about its imagery and iconography, yet a few basic questions regarding its intended meaning continue to be the subject of discussion and even fervent disagreement. If nothing else its varied interpretations reveal that the full significance of this quintessential Mesoamerican object, like much of Aztec and Maya iconography, still remains beyond our reach. Or, as Villela, Robb and Miller (2010:4) point out, “for all that has been written on the Calendar Stone, we can be sure that it has not yet full revealed its secrets.”

The truth of this statement comes across as soon as one delves into the long-running debate over the identity of the face at the very center of the design (Figure 2). It seems at once integral to the larger design of the solar disc as well as to the Olin day sign that forms the Nahui Olin (“Four Movement”) name of the current sun or era. Early in the twentieth century, Eduard Seler and Hermann Beyer were adamant that the visage at the center of the disc was that of Tonatiuh, or “an image of the sun, no more and no less,” as Seler (1904a:797) once put it. This became the standard interpretation reinforced by numerous publications over the ensuing decades. However, Navarrete and Heyden (1974) proposed that the face was rather that of the animate earth, Tlalteuctli. Around the same time Townsend (1979) made a similar interpretation in his important study of Aztec imperial art. And in a somewhat related vein Klein (1976) rejected the traditional Tonatiuh interpretation in favor of seeing it as the face of the night sun, Yohualteuctli. In this essay I would like to add some additional thoughts on this key question, based on epigraphic clues in the surrounding design, suggesting that it may also have a firm historical identity as a deified portrait of the Mexica ruler Moteuczoma II.



*Figure 2. The central Nahui Olin glyph of the Calendar Stone.*

Figure 3. A standard presentation of the hieroglyph for Nahui Olin (Four Movement), showing an eye (*ixtli*) in the center of the Olin element. From the Codex Borbonicus.



The face itself is clearly embedded within the hieroglyphic forms around it. As Klein noted (1976:9), the face's location in the center of the Olin glyph points to it being a graphic elaboration on the central eye motif that appears in nearly all other (simpler) examples of the Olin sign (Figure 3). This surely plays off of the full range of meanings of the Nahuatl noun *ixtli*, meaning “face, eye, surface” (Kartunen 1983:121). This is an important detail to consider, for it suggests that the central face, as a more visually developed *ixtli*, is more integral to the Olin sign than to the solar disc. In depicting a face at the center, the Nahuatl-speaking artist(s) thus chose to develop the Olin’s design in a way that was linguistically and conceptually logical. Interestingly, *ixtli* can have a more abstract notion of “identity” – the diagnostic “face” of a person or thing. The last of these definitions of *ixtli* is of special note given the many varied interpretations of the central visage proposed over the last several decades. Here we see how language serves as an important conceptual baseline for interpreting the Calendar Stone’s composition and hieroglyphic design – something that seems under-appreciated in some of what has been written on the monument and Aztec art in general.

Before the 1970s nearly all scholars followed Seler and Beyer in seeing the central face as a straightforward portrait of Tonatiuh, the sun god. Differing interpretations have largely hinged on two features of the central visage -- the knife-tongue of that emerges from the grimacing mouth and the clawed appendages that flank the face, each grasping a human heart. According to Navarrete and Heyden (1974) and Townsend (1979) these were clear indications that the face is that of Tlaltecuctli, the earth lord. As Navarrete and Heyden concluded:

...nos parece que el rostro esculpido en medio del Calendario Azteca or Piedra del Sol, no es de Tonatiuh sino de Tlaltecuctli, que irrumpe hacia arriba mirando al cielo, de acuerdo con la verdadera posición del monumento, esculpido y dedicado al Quinto Sol, el Sol de movimiento de Tierra, Nahui Ollin, o 4 Movimiento (Navarrete and Heyden 1976:374).

Townsend furthermore noted, “the idea that the central mask of the Sun Stone represents the face of the earth, and not the face of Tonatiuh, ‘the sun,’ is consistent with the enclosing glyph olin” (Townsend 1979:69). This is because of the common translation of olin as

“earthquake” (its meaning is actually a bit more general, hence my preference for “movement” or “quake”), and perhaps also that the meaning of the corresponding seventeenth day in other Mesoamerican cultures includes “earth” (for example, the Maya day Caban < kab, “earth”). In his view the central visage represented “both the sacred earth and the territory of the Mexica nation” (Townsend 1979:69). Such interpretations in favor of Tlaltecuctli, the animate earth, at the center of the Calendar Stone seem compelling for two reasons: the face’s formal qualities as well as the stone’s original orientation as a flat, upward-facing surface. Spatially this all seems to make considerable sense.

The Tlaltecuctli interpretation failed to win over all specialists in Aztec iconography, however. In a nuanced and influential study, Cecilia Klein (1976) also called into question the traditional Tonatiuh identification but proposed that the central face is neither a direct representation of the sun nor of the earth. Rather she interpreted it as an image of Yohualtecuctli, the “Night Lord,” who Seler had specifically identified as the nocturnal sun within the Underworld. As Klein noted, “since Yohualtecuctli was a god of the earth, darkness, death and the south a center of the world, his appearance in a context of the world at the center of the earth in the middle of the night is far more logical than would be that of Tonatiuh” (Klein 1976:10). Klein suggested that a specific aspect of a solar being is at the center of the Calendar Stone, just not its more obvious aspect as the warming Tonatiuh who rises in the eastern sky.

Nicholson (1993:14) offered a strong rejoinder to all of the many alternate interpretations that emerged in the 1970s, preferring to adhere to Seler and Beyer’s original and more direct interpretation: “Despite all of the recent efforts on the part of many serious students to refute or significantly modify the traditional view that this image represents Tonatiuh, the diurnal solar deity, I believe the best evidence still supports this identification.” Nicholson noted that the knife-tongue of the central face was not necessarily a strong diagnostic feature of Tlaltecuctli, appearing with some frequency on images of other deities in Aztec iconography. Nicholson was not even sure of the knife-tongue’s “debatable” significance.

To complicate the debate further, Felipe Solís more recently noted that the central face of the headdress of this Calendar Stone’s might be best interpreted as Xiuhtecuctli, the “Turquoise Lord,” considered the god of “the center of the universe, whose image has hybrid characteristics of the earth and underworld” (Solís Olquín 2000:36). He based this assertion on a consideration of the headband, seeing its central jewel as a variant of the xiuhtototl bird, considered a diagnostic feature of that deity (see also Matos Moctezuma 2004:63).

Although such arguments reflect significant disagreement regarding the identity of the central face, they also could reveal the inherent ambiguity in identifying some Aztec deities as singular, discrete entities. The rigid either-or dichotomies of those earlier studies go against the more fluid senses of identity that Aztec artisans and theologians ascribed to such religious imagery. Nicholson was surely correct in pointing out that the animate knife-tongue and clawed hands clutching hearts pertain to different supernatural beings, but I would argue that their meaning is fairly clear: rather than being diagnostic features, they characterize those powerful deities that pierce, cut, take and consume the hearts from human sacrifice. Knives used in sacrifice were, perhaps, metaphorical “tongues” of the sun and of the earth. Both the earth and the sun in their varied aspects are equally viable candidates in this respect. Moreover, I think it also very

relevant that one of the hieroglyphs prominently featured in relationship to the central image of the Calendar Stone is 1 Flint (Ce Tecpatl), equally translatable as “1 Knife” (see Figure 4, below). This day-sign shows the same attached eyes and fangs replicated the animated knife-tongue of the central face. As we will see, this hieroglyph carries specific mythological meaning as a calendar name for yet another important Mexica deity.

Decades after the related studies by Klein, Navarrete, Heyden and Townsend, the identify of the central face of the Calendar Stone’s Olin glyph will no doubt continue to be debated. Again, I suspect that a lack of any firm consensus reflects the deliberate intention of the stone’s original designers to present a conflation of forms and spatial ideas. The face shows a combination of features that at once suggest Tonatiuh as well as the sun’s reflection on or within earth. In other words, a number of merged identifies may play into the overall significance of the central face. Surely the original orientation of the Calendar Stone as an upward-facing monument reflects its earth-bound nature, but it was also a reflection of the sun at zenith (Taube 2000). And as the face of the Olin sign it presents the animate visage of both terrestrial and celestial “movement.” There is a good deal more to say about the identity of the central face. What previous writers have neglected to point out is that the designers of the Calendar Stone may have been quite explicit in marking its identification by means of hieroglyphic labels and elements. As I elaborate in the following section, certain hieroglyphic names and designation that are embedded in the design of the Calendar Stone gravitate to the central olin sign and seem to make direct reference to it, serving as labels of identity that have until now gone unrecognized or misunderstood.

Featured within the interior of the design, adjacent to the Olin glyph, are four smaller hieroglyphs grouped into two pairs. Like the four “era” glyphs infixed within the arms of the olin, these are oriented to face one another along the central vertical axis of the composition. At the base of the circle are two date glyphs, 1 Rain and 7 Monkey, the significances of which remain uncertain. Umberger (1988) pointed out that 1 Rain was the day, according to Sahagún, when sacrifices were made to rejuvenate the strength of the king. She notes (ibid.) that “Motecuhzoma, like the sun, apparently needed sacrifices to renew him.” Of the the upper pair of glyphs, the left-most hieroglyph shows a royal *xuihuitzolli* headband with falling hair and various adornments, opposite a calendrical reference to 1 Flint (Figure 4, in blue). The placement of these hieroglyphs above and in in direct association to the central Olin hieroglyph suggests to my mind that these may have direct bearing on the long-standing question of the identity of the central face.





*Figure 4. The two principal hieroglyphs (in blue) adjacent to the Nahui Olin sign. To the left is the name of Moteuczoma II, to the right is 1 Flint, the likely calendar name of Huitzilopochtli (Drawing by E. Umberger).*

The headdress or headband glyph was seen by Seler and Beyer as a symbolic reference to the spirits of deceased warriors and, by extension, to the eastern sky (Seler 1904). However, Umberger (1981:205, 1988), following an earlier suggestion by Peñafiel (1890), was surely correct to see this as a particularly elaborate version of the name hieroglyph of Moteuczoma II, of which there are many examples on other monuments (Umberger 1981, 1988) (Figure 5). Her groundbreaking insight provided a key historical context for the monument, dating it to between 1503 and 1519, an attribution that is now widely accepted.



Figure 5. Various examples of Moteuczoma's name glyph, (g) being from the Calendar Stone. From Hajovsky 2015:Fig. 1.1. (Drawings by P.T. Hajovsky).

The adjacent 1 Flint glyph, opposite the personal name of the ruler, has been variously interpreted. It was the name of a key year in the migration history of the Mexica, marking the departure date from Aztlan and also the year in which the Mexica defeated the Tepenecs early in the reign of Itzcoatl. However, it is perhaps significant that the 1 Flint glyph here lacks the square *xihuitl* cartouche that one customarily finds with year records. Perhaps, then, it is not to be taken as an explicit year reference, but as something more oblique and metaphorical. Indeed, in another important insight Umberger (1988) suggested that it should more correctly be seen as the calendrical name of Huitzilopochtli, the patron deity of Tenochtitlan, an embodiment of the sun, and in certain respects Moteuczoma's supernatural counterpart. This interpretation seems intrinsically attractive given 1 Flint's visual juxtaposition with Moteuczoma II's name glyph, as if these were two names associated with and reflective of one another. And in addition to being a probable calendar reference to Huitzilopochtli, 1 Flint may symbolically evoke the theme of heart sacrifice. Here I am reminded of the evident symbolism of the day 1 Etznab (equivalent to 1 Flint) among the Classic Maya. In the mythological text of Temple XIX at Palenque, 1 Etznab is the day of the axe sacrifice of the great alligator(s) by the local dynastic patron god GI (see Stuart 2005:68-75).

Those who accept the presence of Moteuczoma II's name on the Calendar Stone generally consider his hieroglyph as designating the *tlahtoani* (ruler) who commissioned the sculpture in the early sixteenth century, not as something more functional or integral within the larger design of the monument. However, it seems reasonable to suppose that the careful and intentional positioning of both the ruler's name and the 1 Flint glyph (also a name) within the inner circle holds important meaning in the Calendar Stone's overall composition and meaning, and deserves further consideration. Simply put, both glyphs are placed directly above the face and its surrounding Nahui Olin glyph, within the circular frame, and thus seem integral to the central design. This interior placement of the glyphs is highly significant, suggesting that they serve as labels or names. That is to say, they serve to identify the deity represented at the center of the stone as both historical and mythical aspects of the sun. After all, several examples of the Moteuczoma II name glyph accompany portraits of the ruler, such as on the Hackmack Box, the Chapultepec Cliff Sculpture, and the Teocalli of Sacred Warfare (see Figure 5, e and f). In this new interpretation the central face of the Calendar Stone is explicitly labelled as Moteuczoma II as well as an embodiment of 1 Flint, the birth date of Huitzilopochtli. Here we should recall that the 1 Flint name glyph visually echoes an obvious feature of the central face, its flint-knife tongue. The *xiuhuitzolli* diadem that adorns the name glyph of Moteuczoma likewise bears an animated "flint face," perhaps visually linking it as well to the central face of the monument.

If we interpret these two related name glyphs as labels for the accompanying image, we naturally must wonder how they pertain to the long debate about the identity of the central face as either the visage of the sun or of the earth. I doubt the issue is so binary and oppositional, as explained above, and prefer to see an intention to convey multiple identities for the central face. But the key point here is that the monument provides its own explicit indication of two identities: one historical, the emperor Moteuczoma II, and one mythological, the solar aspect of Huitzilopochtli. The face is directly labeled by these hieroglyphs as a portrait of the defied ruler who embodies and exemplifies the Mexica patron god.

As Stephanie Strauss has pointed out to me (personal communication, 2016), one intriguing detail of the inner circle could be taken as indirect support for such a historical identification. If we consider the face to be a deified portrait of the *tlahtoani*, it is possible to see the large pointed form above the head, a feature of the Olin glyph -- as a playful visual reference to the ruler's *xuihuitzolli* diadem. Indeed the shape is identical to the diadems when they are seen in frontal view (Figure 6). And as we can see in Figure 5 above, the very same diadem (in profile view) and the strands of hair visible on other side of the face are the two consistent elements of the king's name glyphs. In those examples the diadem stands for the word *teuc(tli)*, "lord," a core term embedded within the name Moteuczoma.



Figure 6. Comparison of the headband of the Calendar Stone's central face to the royal *xuihuitzolli* diadem as depicted in the *Codex Borbonicus*.

It seems appropriate then that the central image of the Calendar Stone would be at once cosmological and personalized, linking the cosmic forces of the sun to the persona of the living ruler. The solar identification of the *tlahtoani* was elegantly conveyed by the oration of Nezahualpilli, the king of Texcoco, at the accession ceremony of Moteuczoma II, as described in Durán's *Historia*:

O most powerful of all the kings on earth! The clouds have been dispelled and the darkness in which we lived has fled. The sun has appeared and the light of the day shines upon us after the darkness that had been brought by the death of your uncle the king. The torch that illuminates this city has again been lighted and today a mirror has been placed before us, into which we are to look (Durán 1994:391)

Here the poetic parallelism is made between the inauguration of the king, the rise of the bright sun, and to the symbolism of New Fire ceremony. The ruler is the diurnal sun as well as a mirror



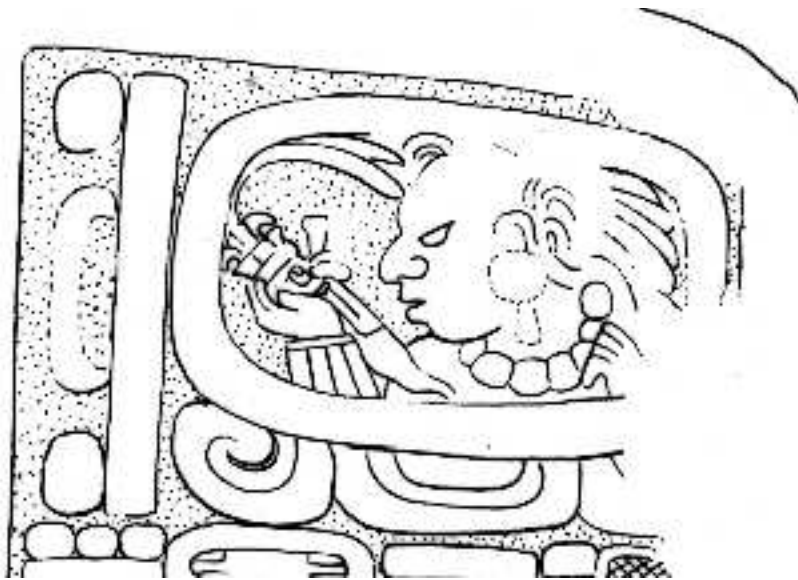
of the community. All of these metaphors are among the many visual messages that are encoded visually in the design of the Calendar Stone.

To refine these concepts further, it is important to note that the person of the tlahtoani was viewed at times as the embodiment and personification of Huitzilopochtli, himself a specific aspect of the sun. In fact this equation is a basic tenet of ancient Mexica ideology. The core myth of Huitzilopochtli's birth was a metaphor of solar birth and creation, famously replicated through spatial performance at his shrine in the huey teocalli in the main precinct of Tenochtitlan. His main weapon, as described in Sahagún and elsewhere, was the *xiuhcoatl* serpent representing the shooting stars or the sun's piercing rays, and of course these are the two dominant images at the edge of the Calendar Stone. As Umberger (1987:425) noted, "the ruler, Huitzilopochtli and the sun are closely related in Mexico thought: the ruler is the human imitator of the sun god, and the fortunes of both are compared to that of the sun." We see this fundamental unity of ruler and patron god depicted in a very overt manner on the Stone of Tizoc, where the one labelled image of that ruler shows him as a conqueror wearing the regal hummingbird headdress of the Mexica patron deity (Hajovsky 2015:104) (Figure 7). I see a similar fusion of identities encoded by the hieroglyphic labels on the Calendar Stone, referring to the deified central face that visually presents itself as a more "generic" cosmic force and actor as the sun, the earth, or as some fusion of the two. It is the hieroglyphs that provide the specific ideological message.



*Figure 7. The ruler Tizoc (left) in the guise of Huitzilopochtli. From the Stone of Tizoc. (Photograph by D. Stuart).*

We know that elsewhere in Mesoamerica rulers were frequently presented as embodiments of the sun and of calendrical cycles, and in this light the Calendar Stone seems little different. Among the Classic Maya are several images of historical rulers as the hieroglyphs for Ahau, becoming the personified essence of of period endings in the Long Count calendar. On La Palma, Stela 5, for example, the local king of the Lakamtun royal line is portrayed within a hieroglyph pronounced ajaw, "king," in the writing of the time period 7 Ahau (Figure 8). In a similar way Maya kings were often shown on ritual occasions and upon their accessions as embodiments of katuns and of other units of time (see Stuart 1996). I wonder if similar ideas existed among the Mexica, and if the Calendar Stone similarly equates a specific ruler not only with the sun and with celestial power, but also with a particular calendrical and temporal identity, Nahui Olin. The notion that time itself could be embodied and personified through a living king or queen seems to have been prevalent in Mesoamerican ideology and theology.



*Figure 8. A Maya ruler as the embodiment of the time period 7 Ahau. Detail from El Palma Stela 5. (Preliminary drawing by D. Stuart).*

In sum, my tentative identification of the Calendar Stone's central face as that of Moteuczoma II in deified form remains a working hypothesis. It is not a portrait in any conventional sense, but rather a mythologized image of the living ruler who embodies other beings and cosmic elements. If true, this new interpretation would add an important new historical dimension to the long-standing questions surrounding the monument and its overall meaning, and of course regarding the old debate of its identity as Tonatiuh or Tlaltecuctli, etc.. To my mind either or both of these interpretations seem possible. In any case, layered with these multi-faceted identities are the labels that suggest the face is a deified image of Moteuczoma II as the Mexica patron deity Huitzilopochtli. Whatever other significances the central face may have, these two names

appear to be the two specific written identities featured by the artist who designed the Calendar Stone. This iconic monument thus becomes a more overt political, even personalized, statement, featuring the reigning emperor not only in the cosmic role as the reborn sun and/or consuming earth, but also as the embodiment of time in general.

### **Note and Acknowledgements**

Some readers may be confused by the varied spellings of the Aztec ruler's name. I use Moteuczoma following my former Nahuatl professor, J. Richard Andrews, who long insisted that common spellings such as "Motecuhzoma" or "Moctezuma" don't accurately reflect the underlying Nahuatl phonology nor the semantic parsing of the name, meaning "One Who Frowns Like a Lord."

I thank Emily Umberger and Stephen Houston, who provided very useful feedback. As noted, this essay is an excerpt of a longer study of the Calendar Stone now in preparation, much of which grew out of from my UT-Austin course on Aztec art in the fall of 2015, and a graduate seminar on Mesoamerican iconography in the spring of this year. I would also like to thank a number of students and colleagues at UT-Austin for their insights, including Tim Beach, Elliot Lopez-Finn, Edwin Román Ramirez, Sergio Romero, and, especially, Stephanie Strauss, who first pointed out the possible diadem on the Calendar Stone's central face.

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