

## Fire From Heaven:

### The Drilling of Fire and the Origin of the Sun in Aztec Lore

“Fire seems to have been the oldest, or one of the oldest, gods of center place in Mesoamerican cosmology.”<sup>1</sup>

“The concept of the sacred, perpetual fire was fundamental...The drilling of new fire on various ritual occasions, especially dedications of new structures, was very important in the overall ritual pattern. The great new fire ritual at the expiration of the 52-year cycle constituted the most important ceremonial occasion in the entire system... (Sahagún, 1950-69, bk. 4, p. 88; 1956, I:352).”<sup>2</sup>

“For the fire to go out was the greatest of catastrophes.”<sup>3</sup>

Those readers who have viewed Mel Gibson’s epic thriller *Apocalypto* will have some idea of the utter panic which likely overcame the captive warrior who, upon being outfitted with divine feathers and promenaded before a throng of frenzied villagers calling for blood, was led up to a local prominence on a pitch-black night in 1507 and, after being forcibly splayed out upon a blood-stained rock, had his heart ripped out to appease the Aztec god of fire Xiuhtecuhtli. Immediately after extracting the warrior’s still-beating heart, the priest presiding over the gruesome ceremony solemnly drilled a fire in the victim’s now-empty chest cavity, his every movement being monitored by the anxious crowd of onlookers, all of whom were convinced that the world would come to a sudden end should the new fire fail to be generated:

“It was claimed that if fire could not be drawn, then [the sun] would be destroyed forever; all would be ended; there would evermore be night. Nevermore would the sun come forth. Night would prevail forever, and the demons of darkness would descend to eat men.”<sup>4</sup>

By all accounts, the New Fire ritual was the most important religious celebration in Mesoamerica.<sup>5</sup> Commonly believed to reenact the central events of the Aztec Creation myth—

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<sup>1</sup> D. Carrasco, *City of Sacrifice: The Aztec Empire and the Role of Violence in Civilization* (Boston, 1999), p. 103.

<sup>2</sup> H. B. Nicholson, “Religion in Pre-Hispanic Central Mexico,” in *Handbook of Middle American Indians, Vol. 10* (Austin, 1971), p. 413.

<sup>3</sup> S. Pyne, *Vestal Fire* (New York, 2011), p. 76.

<sup>4</sup> B. Sahagún, *Florentine Codex: Book 7* (Sante Fe, 1953), p. 27.

<sup>5</sup> D. Carrasco, *City of Sacrifice* (Boston, 1999), pp. 90-105.

specifically, the creation of the sun through the self-immolation of Nanahuatl<sup>6</sup>—it was typically held after a period of 52 years had elapsed:

“The Aztecs conceived of the end of the fifty-two-year cycle as a commemoration of the world’s creation and would celebrate it by destroying their household items and extinguishing their fires. The rekindling of the new fire symbolized the creation of the sun and the beginning of time.”<sup>7</sup>

How is it possible to explain the origin of such peculiar belief-systems and customs? In what sense could the drilling of fire have anything to do with the origin of the Sun, much less Creation or the end of the world? In order to address such questions, it is instructive to briefly review fire’s role in cosmogonic mythology before proceeding to examine the Aztec cult of Xiuhtecuhtli in greater detail.

### **Ancient Cosmogony and the Drilling of Fire**

For various ancient cultures, fire was deemed to be the primal spark that generated all life and therefore it occupied a prominent place in many early pantheons. Creation itself, in fact, was widely believed to have resulted from the drilling of fire during the Age of the Gods. The Skidi Pawnee of the American Plains, to cite but one example of this belief-system, conceptualized the ritual drilling of fire as a union of divine powers—specifically, a *hieros gamos* or “marriage” between the planets Mars and Venus. In Skidi cosmology the drilling fire stick was identified with the prototypical masculine power (Mars as the “Morning Star”) while the hearth symbolized the female power (Venus as the “Evening Star”). The primeval union of Mars and Venus brought fertility and abundance to the world and, among other things, produced the first human being. Creation was commemorated or reactualized every time a fire was kindled:

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<sup>6</sup> K. Taube, “The Turquoise Hearth,” in D. Carrasco ed., *Mesoamerica’s Classic Heritage* (Boulder, 2000), p. 315.

<sup>7</sup> A. Headrick, “Gardening with the Great Goddess at Teotihuacan,” in A. Stone ed., *Heart of Creation* (Tuscaloosa, 2002), pp. 88-89.

“The Skiri also conceive of the firesticks as male and female. The idea is that the kindling of fire symbolized the vitalizing of the world as recounted in the creation. Specifically, the hearth represents the Evening Star and the drill the Morning Star in the act of creation.”<sup>8</sup>

It will be noted that the hearth—the matrix of Creation—was explicitly identified with the planet Venus by the Skidi skywatchers. The prototypical fire-drill, on the other hand, was identified with the planet Mars. For the Skidi, as for indigenous cultures around the globe, the drilling of fire was conceptualized as a sexual act between cosmic powers.<sup>9</sup> Indeed, the fire drill was said to have been a gift from the red planet to Venus at the time of their marriage.<sup>10</sup> Thus it is that, from a functional and symbolic standpoint, the ritual drilling of fire is identical to a *hieros gamos* between Mars and Venus *in illo tempore*.

### **The Aztec Fire-god Xiuhtecuhtli**

The fire-god Xiuhtecuhtli is generally recognized as one of the most important gods in the Aztec pantheon. A prayer recorded by the Franciscan Friar Bernardino de Sahagún in the 16<sup>th</sup> century reports that the god dwelled within the center of the hearth:

“Ueuteotl [the old god, i.e., Xiuhtecuhtli], who is set in the center of the hearth, in the turquoise enclosure.”<sup>11</sup>

In the prayer before us the hearth is explicitly identified with a turquoise enclosure (*xiuhtetzaqualco*). A related passage from elsewhere in the same book of Aztec prayers reveals additional information of interest:

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<sup>8</sup> J. Murie, “Ceremonies of the Pawnee: Part I: The Skiri,” *Smithsonian Contributions to Anthropology* 27 (1981), p. 40.

<sup>9</sup> R. Hall, *An Archaeology of the Soul* (Chicago, 1997), p. 98: “The drilling of fire by friction for the New Fire ceremony also symbolized the sexual union of Morning and Evening Star. The lower board or hearth board in such cases represented the Evening Star; the fire drill symbolized Morning Star.” See also M. Graulich, “Myths of Paradise Lost in Pre-Hispanic Central Mexico,” *Current Anthropology* 24 (1983), p. 580 stated: “The boring of the horizontal stick with a drill for the Mesoamericans symbolized sexual intercourse.” See also J. Frazer, *Myths of the Origin of Fire* (London, 1930), pp. 26ff.

<sup>10</sup> V. Del Chamberlain, *When Stars Came Down to Earth* (College Park, 1982), pp. 54-55.

<sup>11</sup> *Florentine Codex: Book 6* (Santa Fe, 1969), p. 41.

“The father of the gods [Xiuhtecuhtli], who resideth in the navel of the earth, who is set in the turquoise enclosure, [enclosed] with the waters of the lovely cotinga, enclosed with clouds—Ueueteotl, he of Ayamictlan, Xiuhtecuhtli.”<sup>12</sup>

It will be noted that the Aztec fire-god is represented as residing in the navel of the earth (*tlalxicco*)—hence the god’s epithet *Tlalxiccentica*, “He Who Is in the Earth’s Navel.”<sup>13</sup> The navel in question, moreover, is specifically identified as a “circle of turquoise,” thereby seemingly identifying it with the hearth (In ancient Mesoamerica, as in other cultures around the globe, the hearth was conceptualized as representing the world center).<sup>14</sup>

In addition to his role as Father of the Gods, the Aztec fire-god was also celebrated as the “archetype of all rulers.” Henry Nicholson emphasized this aspect of the god’s cult:

“Conceived as the eldest of the gods (*Huehueteotl*), *Xiuhtecuhtli* also served as the archetype of all rulers, who were preferably consecrated and confirmed in their public offices on his special calendric sign, 4 *Acatl* (Sahagún, 1950-69, bk. 4, p. 88; 1956, I:352).”<sup>15</sup>

As is evident from Sahagún’s testimony, the ruler’s intimate connection with the ancient fire-god forms a cornerstone of Aztec religion.<sup>16</sup> Indeed, the Aztec ruler was believed to actually incarnate the fire-god: “The new ruler was thought to serve as substitute of the deity and called ‘the precious turquoise.’”<sup>17</sup> In perfect keeping with this symbolism, Montezuma—the Aztec ruler at the time of the Conquest—had himself depicted as Xiuhtecuhtli.<sup>18</sup>

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<sup>12</sup> *Ibid.*, p. 89.

<sup>13</sup> B. Sahagún, Book IV, 87.

<sup>14</sup> K. Taube, “The Jade Hearth: Centrality, Rulership, and the Classic Maya Temple,” in S. Houston ed., *Function and Meaning in Classic Maya Architecture* (Cambridge, 1998), p. 432, writes: “The domestic hearth represents the world center.” See also M. Pearson & C. Richards, “Architecture and Order,” in M. Pearson & C. Richards eds., *Architecture and Order: Approaches to Social Space* (London, 1994), p. 11.

<sup>15</sup> H. B. Nicholson, “Religion in Pre-Hispanic Central Mexico,” in *Handbook of Middle American Indians*, Vol. 10 (Austin, 1971), p. 413.

<sup>16</sup> J. Olko, *Turquoise Diadems and Staffs of Office* (Warsaw, 2005), p. 128: “There is no doubt that the fire god Xiuhtecuhtli was a special patron of Aztec rulers.”

<sup>17</sup> M. Izeki, *Conceptions of ‘Xihuítl’: History, Environment and Cultural Dynamics in Postclassic Mexica Cognition* (Oxford, 2008), p. 36, citing Sahagún, Book 6, 17.

<sup>18</sup> As in the *Codex Borbonicus*, for example. See the discussion in P. Hajovsky, *On the Lips of Others: Moteuczoma’s Fame in Aztec Monuments and Rituals* (Austin, 2015), p. 88.

The peculiarities of Aztec royal ideology prompt questions at every turn. Given fire's role in the natural world, how is it possible to understand Xiuhtecuhtli's status as the archetype of rulers? Why would fire be associated with the origin of kingship and archaic conceptions of sovereignty? For possible answers to these questions we pivot to briefly consider the cult of the fire-god from Vedic India.

### **The Vedic Fire-god Agni**

"The mystery of Agni's birth is unquestionably the central motif of the Indo-Iranian mythology."<sup>19</sup>

The first words of the *Rig Veda*, the oldest collection of religious texts in India, attest to the prominence formerly accorded fire: "I worship the sacred fire" (*agnim ile*).<sup>20</sup> Again and again we read that the sacred fire must be generated in the ancient manner, which is to say by means of a fire-drill employing two sticks of wood, known as *arani*. In India, as in the New World, the fire-churning (*agni manthana*) was likened to sexual intercourse, with the two fire-sticks being conceptualized as male and female. This archaic symbolism is evident in the following hymn: "Bring thou the Matron: we will rub forth Agni in ancient fashion forth."<sup>21</sup> The word translated as Matron here, *vispátni*, denotes the flat wooden board upon which the fire was drilled.

The sacred fire itself was identified with Agni and conceptualized as the prototypical masculine power. The hearth-like *vedi*, in turn, was conceptualized as the corresponding female power. According to Mircea Eliade, the union of male and female powers inherent in the drilling of fire was a central component of Vedic symbolism:

"In Vedic India the sacrificial altar (*vedi*) was looked upon as female and the fire (*agni*) as male and 'their union brought forth offspring.' We are in the presence of a very complex symbolism which cannot be reduced to a single plane of reference. For, on the one hand, the *vedi* was compared to the navel (*nabhi*) of the Earth, the symbol *par excellence* of the 'centre'. But the

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<sup>19</sup> F. Kuiper, *Ancient Indian Cosmogony* (Leuven, 1983), p. 29.

<sup>20</sup> *RV* 1.1.1.

<sup>21</sup> *RV* III:29:1. See also S. Jamison & J. Brereton, *The Rigveda* (Austin, 2014), p. 503: "This process of churning out the fire was regularly identified in the Rgvedic hymns with sexual intercourse, and this repeated image presents the upper fire-churning stick as the father...and the lower fire-churning stick as the mother of fire."

*nabhi* was also established as being the womb of the Goddess (cf. Shatapatha-Brahmana I, 9, 2, 21).”<sup>22</sup>

Evident here is the idea that the hearth (*vedi*) symbolized the navel of the primordial earth, the latter commonly identified as the center of the cosmos.<sup>23</sup> The Vedic Agni, like the Aztec fire-god Xiuhtecuhtli, resided within this navel. A hymn from the *Rig Veda* alludes to this archaic symbolism:

“As he was being born in the highest distant heaven, Agni became manifest to Matarisvan. By the resolve and might of him as he was kindled, his blaze illuminated heaven and earth...The all-possessor whom the Bhrgus have aroused upon the navel of the earth.”<sup>24</sup>

In ancient India, as in pre-Columbian Mexico, the ritual landscape was purposefully modeled in order to reproduce the cosmos.<sup>25</sup> The local hearth and central fire, according to this archaic ideology, mirrored and symbolized the exemplary cosmic hearth and its stellar fire. As Eliade pointed out with great insight and erudition, the ritual drilling of fire was commonly believed to commemorate Creation *in illo tempore*. And insofar as the fire was to be found at the center of the world, it follows that Creation proceeded from the center outwards:

“It is from a ‘centre’ (navel) that the creation of the world starts and, in solemnly imitating this primary model, every ‘construction’, every ‘fabrication’, must operate from a starting ‘centre’. The ritual production of fire reproduces the birth of the world.”<sup>26</sup>

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<sup>22</sup> M. Eliade, *The Forge and the Crucible* (New York, 1962), p. 39.

<sup>23</sup> A. Coomaraswamy, “An Indian Temple,” in R. Lipsey ed., *Coomaraswamy: Selected Papers* (Princeton, 1977), p. 7: “The sacred hearth, is always theoretically at the center of navel of the earth.”

<sup>24</sup> *Rig Veda* 1:143:2-4 as translated in S. Jamison & J. Brereton, *The Rigveda* (Oxford, 2014), p. 320.

<sup>25</sup> S. Jamison & J. Brereton, *The Rigveda* (Austin, 2014), p. 401: “[The net effect of identifying Agni with the fire] is to concentrate all of the cosmos into this small space, the sacrificial ground, and this single entity, the sacrificial fire—indeed making the sacrificial microcosm the equivalent of the macrocosm.”<sup>25</sup> K. Taube, “The Jade Hearth: Centrality, Rulership, and the Classic Maya Temple,” in S. Houston ed., *Function and Meaning in Classic Maya Architecture* (Cambridge, 1998), p. 429: “Aside from serving as god houses, temples were also models of the cosmos.”

<sup>26</sup> M. Eliade, *op. cit.*, pp. 39-40.

In addition to his status as the Prime Mover in Creation, the Vedic fire-god was intimately associated with ancient conceptions of kingship and sovereignty. Jan Gonda offered the following summary of the fire-god's cult in ancient India, one that we would endorse in its entirety:

“Thus the Indo-Iranian god of fire, which was never disconnected from the element in which he was believed to exist, was worshipped, praised and feared as a strong and powerful, pure and wise god, a giver of food and glory, of offspring and intellectual power, friendly to the house and its inhabitants, but a destroyer of enemies and evil spirits...In India and elsewhere this idea of fire was expanded to gigantic proportions, the element becoming a paramount deity, a universally vivifying power, a fundamental principle, supporting mankind and the universe; seated on the back of the earth, Agni fills the air with his shine, props the sky with his light, upholding the quarters by his lustre (cf. *Vaj.S.* 17, 72). His is universal sovereignty (*samrajya-Sat.Br.* 9,3,4,17), through whom everything exists (*Sat.Br.* 8,1,1,4)...He is the lord of offspring (*Sat.Br.* 9,1,2,42) and regarded as identical with Prajapati (*Sat.Br.* 6,2,2,33), the procreative power of fire being a frequent theme of mythical traditions.”<sup>27</sup>

To summarize: In Vedic India, as in indigenous Mexico, the fire-god was intimately associated ancient conceptions of sovereignty and Creation and localized at the navel of the earth. Insofar as not one of these symbolic associations finds any rational explanation by reference to fire's role in the familiar natural world, the question arises as how best to understand the origin of these particular belief-systems?

### **The End of the World**

To return to the constellation of ideas associated with the Aztec New Fire ritual: Fear that the world would come to a catastrophic end if the sacred fire was not rekindled hung like a dark pall over the entire celebration. The observations of Sahagún are representative in this regard, being echoed by other early chroniclers:

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<sup>27</sup> J. Gonda, *Some Observations on the Relations Between 'Gods' and 'Powers'* (S-Gravenhage, 1957), p. 44.

“At nightfall, from here in Mexico, they departed. All the fire priests were arranged in order, arrayed in and wearing the garb of the gods...And the one who was the fire priest of Copulco, who drew new fire, then began there. With his hands he proceeded to bore continuously his fire drill...And when it came to pass that night fell, all were frightened and filled with dread. Thus it was said: it was claimed that if fire could not be drawn, then [the sun] would be destroyed forever; all would be ended; there would evermore be night. Nevermore would the sun come forth. Night would prevail forever, and the demons of darkness would descend, to eat men...”<sup>28</sup>

In order to make sense of such deep-seated and widely held fears it is necessary to recognize the fundamental affinity between the new fire and the new “sun” which it represented.<sup>29</sup> For the one belief is impossible to understand apart from the other. The decisive key to deciphering the archaic belief-system in question is the following statement recorded by Sahagún: “It was claimed that if fire could not be drawn, then [the sun] would be destroyed forever; all would be ended; there would evermore be night.”

It is commonly acknowledged that Sahagún’s text includes clear evidence of archaic language and mythological references not otherwise preserved.<sup>30</sup> What, then, does the *Florentine Codex* have to say regarding the Aztec traditions surrounding the generation of the new fire and associated ideas of Creation and apocalyptic cataclysm?<sup>31</sup>

In the classic Aztec myth of Creation, it is the leprous god Nanahuatl who sacrifices himself on a giant hearth in order to generate the “sun.” This myth is told in a number of different indigenous sources, typically in a frustratingly fragmentary fashion. According to the account preserved by

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<sup>28</sup> *The Florentine Codex* (Sante Fe, 1953), p. 27.

<sup>29</sup> M. Izeki, *Conceptions of ‘Xihuitl’: History, Environment and Cultural Dynamics in Postclassic Mexica Cognition* (Oxford, 2008), p. 34 writes: “The sun was regarded as the celestial fire by the Mexica.” S. Jamison & J. Brereton, *The Rigveda* (Oxford, 2014), p. 41 observe: “As a god he [Agni] is often identified with the sun, the celestial form of fire.”

<sup>30</sup> R. Townsend, “Coronation at Tenochtitlan,” in E. Boone ed., *The Aztec Templo Mayor* (Washington D.C., 1987), p. 391.

<sup>31</sup> M. Graulich, “Aztec Human Sacrifice as Expiation,” in J. Bremmer ed., *The Strange World of Human Sacrifice* (Leuven, 2007), p. 10 offered a similar opinion: “These rituals [Aztec human sacrifice] helped the universe function by reenacting the creation of the world and the birth of Venus-Maize, then the creation of the sun that vanquished the forces of darkness in the underworld and rose, bringing the day and the rainy season associated with it.”



Sahagún, Nanahuatl eventually succeeded in bringing light to a darkened world through an act of self-sacrifice in the time of Beginnings:

“It is told that when yet [all] was in darkness, when yet no sun had shone and no dawn had broken—it is said—the gods gathered themselves together and took counsel among themselves at Teotihuacan. They spoke; they said among themselves: ‘Come hither, o gods! Who will carry the burden? Who will take it upon himself to be the sun, to bring the dawn?’...None dared; no one else came forward [apart from Tecuciztecatl]. Everyone was afraid; they [all] drew back...And not present was one man, Nanauatzin; he stood there listening among the others to that which was discussed. Then the gods called to this one. They said to him: ‘Thou shalt be the one, O Nanauatzin.’...And then, also, at this time, the fire was laid. Now it burned, there in the hearth...And when this was done, when midnight had come, all the gods proceeded to encircle the hearth, which was called *teotexcalli*, where for four days had burned the fire...[Tecuciztecatl fails to throw himself on the fire out of fear]...And Nanauatzin, daring all at once, determined...All at once he quickly threw and cast himself into the fire; once and for all he went. Thereupon he burned; his body crackled and sizzled. And when Tecuciztecatl saw that already he burned, then, afterwards, he cast himself upon [the fire]. Thereupon he also burned...And after this, when both had cast themselves into the flames, when they had already burned, then the gods sat waiting [to see] where Nanauatzin would come to rise—he who first fell into the fire—in order that he might shine [as the sun]; in order that dawn might break...And when the sun came to rise, when he burst forth, he appeared to be red; he kept swaying side to side. It was impossible to look into his face; he blinded one with his light. Intensely did he shine. He issued rays of light from himself; his rays reached in all directions; his brilliant rays penetrated everywhere...They could only remain still and motionless [i.e., the two celestial lights Nanauatzin and Tecuciztecatl]...Here endeth this legend and fable, which was told in times past, and was in the keeping of the old people.”<sup>32</sup>

The report that Nanahuatl’s auto-sacrifice by fire occurred at a time when all “was in darkness” is one of several clues that suggests we are likely dealing with an archaic account of Creation, inasmuch as the cosmogonic myths of cultures around the globe typically place the inaugural

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<sup>32</sup> B. de Sahagún, *The Florentine Codex: Book 7* (Santa Fe, 1953), pp. 1-8.

appearance of light—the prototypical Dawning—in a general context of apocalyptic Darkness.<sup>33</sup> Indeed, Creation itself is widely interpreted as the triumph of light over darkness.<sup>34</sup>

If this much is clear, it is less obvious what natural events or conditioned learning process might have caused the Aztec skywatchers/priests to recognize a fundamental affinity between the sacred fire and the sun. That just such an association was made is evident—hence their belief that if the fire were allowed to go out the sun would be extinguished. The same conclusion is supported by the fact that a very similar belief system prevailed in Vedic India. Witness the following hymn to Agni from the *Rig Veda*, wherein the Angirases perform the archetypal deed traditionally ascribed to the Vedic Thundergod Indra—namely, the cleaving of the primeval rock that proved to be the origin of all things:

“By truth they threw open the rock, having split it. The Angirases roared along with the cows. For blessing the men besieged the dawn; the sun became visible when the fire was born.”<sup>35</sup>

Here, too, the appearance of the first dawn and prototypical “sun” is expressly analogized to the generation of fire. Indeed, a recurring theme in the *Rig Veda* holds that the appearance of the sun is contingent upon the kindling of Agni.<sup>36</sup>

If a logical connection between the ritual drilling of fire and the generation of the sun can be recognized in ancient Vedic and Aztec lore—and it is quite impossible to deny such a connection in light of the cosmogonical traditions adduced above—it stands to reason that the Aztecs’ angst regarding the ominous effects that would befall the world were the perpetual fire allowed to go out forms a close parallel to ancient fears attached to solar eclipses. For much as was the case with fears regarding the extinction of the perpetual fire, numerous cultures feared that a

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<sup>33</sup> E. Cochrane, *On Fossil Gods and Forgotten Worlds* (Ames, 2010), pp. 231-244.

<sup>34</sup> H. Ringgren, “Light and Darkness in Ancient Egyptian Religion,” in *Liber Amicorum* (Leiden, 1969), pp. 144-145 writes: “The victory of light at creation, however, is not a final one. Darkness is not defeated once and for all, it has only been pushed back and surrounds this world of light, continuously threatening to encroach upon its dominion...Consequently, darkness has to be repelled constantly. Every sunrise is a repeated defeat of chaos and darkness or, if you like, a new creation.”

<sup>35</sup> *RV* IV:3:11 as translated in S. Jamison & J. Brereton, *The Rigveda* (Oxford, 2014), p. 562.

<sup>36</sup> *RV* V:6:4. See especially the discussion in G. Nagy, *Greek Mythology and Poetics* (Ithaca, 1990), p. 147: “The macrocosmic principle inherent in Agni, god of sacrificial fire, is anchored in a belief that the rising of the sun is dependent on the kindling of the sacrificial fire.”

permanent “Night” might ensue every time the sun was eclipsed. Sahagún himself provides ample evidence of this particular belief-system in ancient Mexico:

“Then [upon an eclipse of the sun] there were a tumult and disorder. All were disquieted, unnerved, frightened. There was weeping. The common folk raised a cry, lifting their voices, making a great din, calling out, shrieking. There was shouting everywhere. People of light complexion were slain [as sacrifices]; captives were killed. All offered their blood...And in all the temples there was the singing of fitting chants; there was an uproar; there were war cries. It was thus said: ‘If the eclipse of the sun is complete, it will be dark forever! The demons of darkness will come down; they will eat men!’”<sup>37</sup>

It is difficult to explain such collective hysteria by reference to the familiar natural world insofar as solar eclipses are never accompanied by cosmic disaster. Nor, for that matter, are solar eclipses permanent or even prolonged in nature, lasting for a few minutes at most. How, then, are we to explain such stubbornly held beliefs—beliefs which, it must be stated, are commonplace among indigenous cultures on every inhabited continent?<sup>38</sup>

Note further Sahagún’s reference to the “demons of darkness” that would descend from the sky during an eclipse, wreaking havoc and destruction. The demons in question are the Tzitzimime, falling stars elsewhere described as being long-haired agents of destruction.<sup>39</sup> Here, too, the mere mention of disaster-bringing falling stars is enough to confirm that Sahagún’s indigenous informants were not describing a run-of-the-mill solar eclipse—rather, a terrifying catastrophe threatening the world with destruction.

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<sup>37</sup> B. Sahagún, *Florentine Codex: Book 7* (Sante Fe, 1953), p. 2.

<sup>38</sup> J. Grimm, *Teutonic Mythology*, Vol. 2 (Gloucester, 1976), p. 706: “One of the most terrific phenomena to heathens was an *eclipse* of the sun or moon, which they associated with a destruction of all things and the end of the world.” The following report from the Amazonian region not only recalls Sahagún’s report, it is representative of analogous traditions that recur around the globe: “[Upon a solar eclipse] it is then feared that the epoch of chaos will return and monsters and demons will come from the jungle and rivers to attack people.” See G. Reichel-Dolmatoff, *Amazonian Cosmos* (Chicago, 1971), p. 72.

<sup>39</sup> Eduard Seler, *Codex Vaticanus No. 3773* (Berlin, 1903), p. 172 doubtless had it right when he described Tzitzimime as “*stellar deities* who became demons of darkness.” See also B. Brundage, *The Fifth Sun* (Austin, 1979), pp. 62-64.

Sahagún's statement that an eclipse might lead to permanent darkness is especially telling. The Aztecs' obsessive fears about solar eclipses, like their sense of dread regarding the extinction of the perpetual fire at the end of their sacred Calendar Round, can only be properly understood by reference to the Aztec myth of Creation, wherein a terrifying period of darkness forms a central theme.

Insofar as Sahagún's account of the New Fire ceremony emphasizes its connection with the New Year (see below), it is not surprising to find that analogous fears of apocalypse inform Mesoamerican beliefs about the end-of-the-year rituals associated with New Year, the latter acknowledged to commemorate Creation:

"Among the Postclassic Maya of Yucatan, the end of the 365-day vague year was an especially dangerous time and, according to the colonial *Cantares de Dzithalché*, was equivalent to the destruction and re-creation of the world. Thus much of the imagery in the Yucatec new year rites also appears in Maya creation mythology. Similarly, the completion of the Aztec fifty-two year cycle was marked by an anxious vigil: if new fire was not successfully drilled, the terrifying star demons of darkness, the *tzitzimime*, would reassert their control over the world."<sup>40</sup>

According to Sahagún's eye-witness account, upon the successful generation of the fire all the local villagers put on new clothes and replaced their hearths and pestles, the latter of which were intentionally destroyed at the outset of the ritual. With the dawning of the New Year, the threat of apocalyptic darkness and assault at the hands of pestilence-causing demons was effectively banished:

"Thus it was said that truly the year newly started. There was much happiness and rejoicing. And they said: 'For thus it is ended; thus sickness and famine have left us.'"<sup>41</sup>

Such ideas find striking parallels in the Old World. In ancient Rome, for example, the Old Year was ushered out with the extinction of all fires; the New Year, in turn, was marked by the generation of a new fire in the temple of Vesta, the latter representing a renewal of the generative

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<sup>40</sup> K. Taube, *Aztec and Maya Myths* (Austin, 1993), p. 15.

<sup>41</sup> B. Sahagún, *Florentine Codex: Book 7* (Sante Fe, 1953), p. 31.

forces of nature.<sup>42</sup> So, too, in ancient Greece the new fire generated at Delphi was “a signal of a new beginning.”<sup>43</sup>

The strange beliefs and ominous portents surrounding the end of the year have received relatively little attention from scholars—this despite their seemingly universal distribution and the profound importance they held within indigenous cultures in general. A notable exception in this respect is the Dutch scholar Arent Wensinck. As Wensinck discerned many years ago, traditions regarding the potential disasters attending the turning of the Year reflect archaic conceptions regarding Creation, wherein it was commonly believed that an all-engulfing Darkness threatened to destroy the world:

“This material speaks for itself; not only is each New Year a memorial of the creation but it is a repetition of it, and the creation itself is regarded as a kind of New Year. Indeed the last expression is the right one. New Year belongs to cosmogony, New Year and creation are the reflection one of the other...Finally we come to the relation between New Year and the chaos that precedes the cosmos and without which the latter cannot come into existence...Only when the Tehom is beaten back, or—in mythological language—when Tiamat is defeated, does the world order begin...It is a struggle of life and death between the powers of darkness and light, of confusion and order, of Evil and Good... The end of the cosmos is seen in an eclipse of the sun, when the very existence of the god of order is threatened and the world is abandoned to the powers of darkness.”<sup>44</sup>

Eliade, doubtless influenced by Wensinck’s insightful analysis, also drew attention to the apocalyptic fears attending the end of the Year. Thus, in a discussion of the ritualized drilling of the new fire, he offered the following conclusions:

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<sup>42</sup> Ovid *Fasti* 3, 141-144. See also G. Dumezil, *Archaic Roman Religion, Vol. 1* (Baltimore, 1966), p. 322.

<sup>43</sup> H. S. Versnel, “Apollo and Mars One Hundred Years After Roscher,” *Visible Religion* IV/V (1985/6), p. 154.

<sup>44</sup> A. J. Wensinck, “The Semitic New Year and the Origin of Eschatology,” *Acta Orientalia* (1923), p. 169.

“The ritual production of fire reproduces the birth of the world. Which is why at the end of the year all fires are extinguished (a re-enactment of the Cosmic night), and rekindled on New Year’s Day (this is an enactment of the Cosmogony, the rebirth of the world.)”<sup>45</sup>

At this point in our analysis we are finally in a position to identify the probable natural-historical basis for the Aztecs’ seemingly irrational fears surrounding the drilling of the new fire and solar eclipses: It is precisely because the Aztec priests *knew* that the world had once been brought to the very brink of extinction when a previous “sun” had been blotted out by an apocalyptic Darkness that they had reason to believe that such terrifying conditions might return were the present Sun to become eclipsed or—in what amounts to the same thing—were the perpetual fire allowed to die out. Indeed, it is our opinion that such collective fears can only be understood by reference to cultural traditions telling of an extraordinary cataclysm attending the First Dawn, whereupon the “sun” *was* eclipsed and a pall-like Darkness threw the cosmos into chaos and confusion.

Such archetypal fears, in turn, are incomprehensible apart from the Aztec traditions of multiple suns. It was a central tenet of Aztec cosmology, after all, that previous suns had come and gone amidst terrifying catastrophic disasters of one form or another.<sup>46</sup> Equally widespread and foreboding were archaic traditions that told of a “Long Night” or an extended period of Darkness that had gripped the world during a previous Age.<sup>47</sup>

If such traditions of a Primeval Darkness have an historical basis, it follows that the Aztecs’ fears regarding eclipses and the extinction of the perpetual fire originated in witnessed natural events of a catastrophic nature and are thus essentially rational in origin, albeit induced by traumatic experiences and regularly reinforced by commemorative rituals further fomenting collective hysteria. That we have to do here with *remembered* events of a catastrophic nature—racial memories, as it were, rather than figurative language run amok—is rendered virtually certain by ancient traditions reporting that the prototypical “sun” of Creation must be distinguished from

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<sup>45</sup> M. Eliade, *The Forge and the Crucible* (Chicago, 1962), pp. 39-40.

<sup>46</sup> H. B. Alexander, “Latin American Mythology,” in L. Gray ed., *The Mythology of All Races* (New York, 1964), p. 85 observes: “The earlier world-epochs, or ‘Suns,’ as the Mexicans called them, are commonly four in number, and each is terminated by the catastrophic destruction of its Sun and of its peoples, fire and flood overwhelming creation in successive cataclysms.”

<sup>47</sup> E. Cochrane, *On Fossil Gods and Forgotten Worlds* (Ames, 2010), pp. 233-236.

the present Sun. Here, too, such traditions have been almost uniformly ignored by scholars of comparative myth—this despite the fact that they are surprisingly widespread.

As it turns out, some of the most compelling testimony comes from Mesoamerica: Witness the following account of the “dawning” of the prototypical sun from the Quiché Maya *Popol Vuh*:

“But, then, the sun came up...Instantly the surface of the earth was dried by the sun. Like a man was the sun when it showed itself, and its face glowed when it dried the surface of the earth...But the sun put forth such heat that it became unbearable: it seemed to stand still. It showed itself when it was born and remained fixed [in the sky] like a mirror. Certainly it was not the same sun which we see, it is said in their old tales.”<sup>48</sup>

Yet if it was not the current sun that formed the subject of the Quiché account of Creation, which sun was it? The unbearably intense “heat” of the former sun, together with its “fixed” or motionless nature, offers a decisive clue: Recall again Sahagún’s description of Nanahuatl’s “sun” in the Aztec myth of Creation:

“And when the sun came to rise, when he burst forth, he appeared to be red; he kept swaying side to side. It was impossible to look into his face; he blinded one with his light. Intensely did he shine. He issued rays of light from himself; his rays reached in all directions; his brilliant rays penetrated everywhere...They could only remain still and motionless [i.e., the two celestial lights Nanauatzin and Tecuciztecatl]...”

However such traditions are to be explained from the standpoint of modern astronomical science, it seems obvious that the peculiar stories surrounding Nanahuatl hold the key to sorting out the Aztec belief-systems associating the drilling of fire with the origin of the sun. Yet despite his prominent role in Aztec cosmogonical traditions, the pustulous god in question has generally received short shrift from modern scholars.

## **Nanahuatl**

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<sup>48</sup> D. Goetz & S. Morley, *Popol Vuh* (Norman, 1950), pp. 187-188.

To my knowledge, the most comprehensive and insightful analysis of Nanahuatl's mythology was that offered by B. C. Brundage. This vastly underrated historian summarized the god's myth as follows:

“One of the more enigmatic figures in Mesoamerican mythology is the diseased god Nanahuatl. The name itself is curious. Nanahuatl is the word for afflictions of the skin, generally running or pustulous sores. The god's name is thus simply the name of a disease, and he may be considered to be the god who sends the disease and who can also cure it. Human sacrifices made to him in fact were chosen from among those who suffered from his diseases. He is thus the ‘disease’ Quetzalcoatl. He must have been a very old god, for he appears to have had a limited cult at the time of the Spanish entry, yet he is the central figure in the myth of the five suns that originated in the days of Teotihuacan. His name also appears as Nanahuatzin or Nanahuaton, both translated as Little Nanahuatl, the implication being that he was a dwarf or was thought to be strikingly small in stature. He appears among the Quichés as Nanahuac and is one of their early creator gods, along with Gukumatz (Quetzalcoatl), and he is called by them ‘dwarf,’ or ‘green,’ that is, young.”<sup>49</sup>

What are we to make of this curious mishmash of traditions? As is evident from Brundage's summary, Nanahuatl is literally defined by his pustulous sores. Yet here, too, scholars have been virtually silent about what this particular trait could signify or reference. Michel Graulich, in his discussion of this core Mesoamerican myth, could only muster the following admission of ignorance:

“What are the gods doing on earth and in darkness? Why are they material and why is one of them bubonous?”<sup>50</sup>

The fact that the Morning Star was commonly conceptualized as suffering from “sores” or skin eruptions by indigenous cultures throughout North and South America provides an obvious clue

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<sup>49</sup> B. Brundage, *The Fifth Sun* (Austin, 1979), pp. 224-225.

<sup>50</sup> M. Graulich, “Aztec Human Sacrifice as Expiation,” in J. Bremmer ed., *The Strange World of Human Sacrifice* (Leuven, 2007), p. 15.



to understanding the mythological traditions under review here.<sup>51</sup> The following myth from the Sikuani of South America is representative in this regard:

“In those days the sun and the moon and everyone were human beings and lived on this earth. Sun had a son who had sores all over his body; he was the morning star.”<sup>52</sup>

Analogous traditions are also attested in Mesoamerica. According to the Mixe-Popoluca of Oluta, the Creator Viejito was a dwarfish being beset by skin eruptions or pimples:

“The Mixe-Popoluca of Oluta and Sayula, in the Veracruz Isthmus region, view the morning star as an old man, *El Viejo* or *Viejito*, and the east is described as the ‘place of the Old Man’s house’...Viejito is alone, not married. Viejito has a ragged shirt, white is his hair...long is his hair. He is frail, he walks with his staff, dirty little breeches, long is his white beard, his body has pimples all over...”<sup>53</sup>

If we are to take our cue from these Amerindian traditions describing the Morning Star as covered with sores, it stands to reason that the Aztec Nanahuatl is to be identified with that same celestial body.<sup>54</sup> This identification is further bolstered by the fact that native sources identify Nanahuatl with Quetzalcoatl. The so-called *Legend of the Suns* (1558), for example, describes the former god as follows:

“The name of this sun is 4 Motion. This is now our sun, the one under which we live today. This is its figure, the one here, because his sun fell into the fire at the sacred hearth in Teotihuacan. It is the same sun as that of Topiltzin, ‘Our Beloved Prince’ of Tollan, Quetzalcoatl. Before becoming this sun, its name was Nanahuatl, who was of Tamoanchan.”<sup>55</sup>

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<sup>51</sup> E. Cochrane, *Starf\*cker* (Ames, 2010), pp. 56-72.

<sup>52</sup> J. Wilbert & K. Simoneau, “Sun and Moon,” in *Folk Literature of the Sikuani Indians* (Los Angeles, 1992), pp. 25-28.

<sup>53</sup> Quoted from I. Sprajc, “The Venus-Maize Complex in the Mesoamerican World View,” *Journal of the History of Astronomy* 24 (1993), pp. 35-36.

<sup>54</sup> E. Cochrane, *Starf\*cker* (Ames, 2006), pp. 111-114.

<sup>55</sup> Quoted from the translation in M. Leon-Portilla et al eds., *In the Language of Kings: An Anthology of Mesoamerican Literature* (Norman, 1963), p. 58.

That Quetzalcoatl himself is to be identified with the Morning Star is well-known. On this matter, the indigenous sources speak as if with one voice:

“The old ones used to say he was transformed to the dawn star; thus it is said that when Quetzalcoatl died this star appeared, and so he is named *Tlahuizcalpanteuctli*, “Lord of the Dawn House.”<sup>56</sup>

Not unlike Nanahuatl, Quetzalcoatl was described as being horribly ugly in appearance, with warts all over his face. Indeed, the god was so intimately connected with skin diseases that he was viewed as an advocate for human beings so afflicted:

“The annual ceremony to Quetzalcoatl here is also described, which featured dancing by the merchants and lords and comic impersonations of deformed and diseased individuals and animals on a large platform in the patio of the temple. These had serious ritualistic overtones, for Quetzalcoatl was held to be ‘*abogado de las bubas y del mal de los ojos y del romadico y tosse.*’ During their mimic performances, the participants uttered pleas to this god for health, while sufferers from these afflictions came to his temple with prayers and offerings.”<sup>57</sup>

As the sore-laden god who became a “sun” and ushered forth a period of prodigious light, Quetzalcoatl is evidently the same celestial figure as Nanahuatl.

At this point it will no doubt appear that we have wandered far afield from our original subject matter—i.e., the Aztec cult of Xiuhtecuhtli. Yet Xiuhtecuhtli himself was expressly identified with the Morning Star in the *Dresden Codex*.<sup>58</sup> The god’s epithet “Prince of the Dawn,” points in the same direction, recalling Quetzalcoatl’s epithet *Tlahuizcalpanteuctli*, “Lord of the Dawn House.”

There are additional reasons to suspect a fundamental affinity between Xiuhtecuhtli and the Morning Star. It will be remembered that the Aztec fire-god was conceptualized as dwelling

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<sup>56</sup> Quoted from the translation in *Ibid.*, p. 191.

<sup>57</sup> H. Nicholson, *Topiltzin Quetzalcoatl* (Boulder, 2001), p. 107.

<sup>58</sup> See page 49 of the Codex as illustrated in C. & J. Villacorta, *The Dresden Codex* (Walnut Creek, 1930), p. 98. See also K. Taube, *op. cit.*, p. 49; S. Milbrath, “The Many Faces of Venus in Mesoamerica,” in G. Villalobos & D. Barnhart eds., *Archaeoastronomy and the Maya* (Oxford, 2014), p. 126.

within a turquoise enclosure, the latter explicitly identified with the cosmic hearth. Yet the turquoise enclosure in question, according to Sahagún, was the very place associated with the birth of the Nanahuatl. Witness the following account of the generation of the fifth sun:

“This is its [the sun’s] story. It is said that when the god was made, when the god was formed in the time of darkness, it is said, there was fasting for four days. It is said that the moon would be the sun...And it is said that when the moon would be the sun, it is said, a very great fire was laid in a place called the god’s hearth, the turquoise enclosure...But he dared not do it [i.e., leap into the fire]; he feared the fire...But little Nanauatl had already dared; he thereupon leaped into the fire. Thus he became the sun.”<sup>59</sup>

Nanahuatl, not unlike Xiuhtecuhtli, was “born” from the turquoise hearth—hence the inherent connection between the drilled fire and the new-born “sun.” And much as Xiuhtecuhtli was remembered as the archetypal sovereign, the *Leyenda* reports that, after suffering immolation on the hearth and transforming into a sun during a time of oppressive darkness, Nanahuatl became the ruler of the world (native sources describe him as being installed upon the celestial throne).<sup>60</sup>

Nanahuatl’s post-mortem enthronement, moreover, mirrors the mythical biography of Quetzalcoatl who, according to the *Codex Chimalpopoca*, was first established on the throne *after* immolating himself on a great funeral pyre and becoming transformed into the Morning Star:

“The elders used to say that he was transformed into the star that comes out at dawn...They said that when he died, he did not appear for four days, because then he was dwelling amongst the dead (Mictlan); and that also by the fourth day he was provided with arrows; so that on the eighth day the great star appeared (Venus, the Morning Star), that they call Quetzalcoatl. And they added that it was then that he was enthroned as Lord.”<sup>61</sup>

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<sup>59</sup> B. Sahagún, *op. cit.*, p. 84.

<sup>60</sup> M. Graulich, “Aztec human sacrifice as expiation,” *History of Religions* 39:4 (2000), pp. 356-357 writes: “In the *Leyenda*, when he reaches the sky, the supreme creators solemnly enthrone him.”

<sup>61</sup> *Codex Chimalpopoca* 11 as translated in E. Florescano, *The Myth of Quetzalcoatl* (Baltimore, 1999), p. 20.

As the legendary first ruler of Tula, Quetzalcoatl was regarded as the exemplary model for all future Mexican rulers.

## Mictlan

In the tradition quoted above from the *Codex Chimalpopoca* it is reported that Quetzalcoatl experienced a sojourn in the Underworld (Mictlan) prior to his glorious appearance as the Morning Star and concomitant enthronement. According to Sahagún, the god formerly resided there: “And elsewhere he built a house all underground at a place called Mictlan.”<sup>62</sup> As we have documented elsewhere, the idea that the Morning Star formerly resided in the Underworld is attested around the globe and constitutes a central theme in cosmogonic myth.<sup>63</sup>

That analogous ideas were attached to Xiuhtecuhtli is beyond question. Witness the god’s epithet “*minaya Mictlan*, ‘he who hides in the world of the dead.’”<sup>64</sup> This testimony, in turn, complements that provided by the epithet *Chicnauhyotecuhtli*, which describes the Aztec fire-god as a dweller “in Mictlan, the place of the dead, from which he sent the fire of regeneration to stimulate the growth of plants.”<sup>65</sup>

Nanahuatl was also alleged to have spent some time in the Underworld prior to his ascent to heaven. According to the account in the *Legend of the Suns*, Nanahuatl resided in Tamoanchan “before becoming the sun.”<sup>66</sup> Tamoanchan itself was remembered as an Elysian Fields of perpetual spring—a “house of greenness, of rebirth, and creation.”<sup>67</sup>

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<sup>62</sup> A. Anderson & C. Dibble eds., *Florentine Codex, Book 3* (Santa Fe, 1978), p. 37.

<sup>63</sup> E. Cochrane, “Light Bringer,” *Chronology & Catastrophism Review* (2015), pp. 29-37.

<sup>64</sup> A. Austin, “The Masked God of Fire,” in E. Boone ed., *The Aztec Templo Mayor* (Washington D.C., 1987), p. 275.

<sup>65</sup> M. Izeki, *Conceptualization of ‘Xihuitl’: History, Environment and Cultural Dynamics in Postclassic Mexica Cognition* (Oxford, 2008), p. 35.

<sup>66</sup> Quoted from the translation in M. Leon-Portilla et al eds., *In the Language of Kings: An Anthology of Mesoamerican Literature* (Norman, 1963), p. 58. On Tamoanchan as the Underworld, see W. Lehmann, “Tomoanchan und andere Bezeichnungen des Westens zur Erde in der mexikanische Etymologie,” in *International Congress of Americanists* (Easton, 1905), p. 249.

<sup>67</sup> J. Lara, *Cyclical Thought in the Nahuatl (Aztec) World* (2007), p. 225. This is a dissertation for the Binghamton University State University of New York.

Another name for the Aztec Underworld is Tlalocan, conceptualized as a place of perpetual spring.<sup>68</sup> Significantly, Tlalocan was expressly identified as a house of turquoise.<sup>69</sup> It was in Tlalocan, according to Sahagún, that those unfortunate souls afflicted with skin-sores resided:

“And there [to Tlalocan] went those who had been struck by thunderbolts, and those who had been submerged in water, and those who had been drowned, and those who suffered from the ‘divine sickness,’ and those afflicted with pustules, and those afflicted by...skin sores.”<sup>70</sup>

Yet Tlalocan was also remembered as locus of the sunrise. Witness the following tradition from the *Florentine Codex*:

“That which was known as [the wind] was addressed as Quetzalcoatl. From four directions it came, from four directions it traveled. The first place whence it came was the place from which the sun arose, which they named Tlalocan.”<sup>71</sup>

The discerning scholar can’t help but recognize a common pattern behind these diverse mythological traditions. A house of turquoise where those afflicted by sores resided; a house of turquoise where the sun first appeared: In these fragmentary reports attached to Tlalocan we would recognize vestigial reminiscences of the traditional history associated with Nanahuatl, the sore-laden star who emerged from the turquoise enclosure to become the “sun.” Indeed, these archaic traditions strongly suggest that the turquoise enclosure (*xiuhtetzaqualco*) associated with the generation of the Sun (as Nanahuatl) and the New Fire (as Xiuhtecuhtli) is to be identified with the navel of the earth (*tlalxicco*) and the underworld (Mictlan, Tlalocan).<sup>72</sup>

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<sup>68</sup> A. Anderson & C. Dibble eds., *Florentine Codex, Book 3* (Santa Fe, 1978), p. 47: “In Tlalocan there is always the putting forth of young shoots, there is always sprouting, it is always spring, it is continually springtime.” See also M. Graulich, “Afterlife in Ancient Mexican Thought,” in T. Barthel eds., *Festschrift für Thomas Barthel, Vol. 2* (New York, 1990), p. 180.

<sup>69</sup> C. Klein, “Post-Classic Mexican Death Imagery as a Sign of Cyclic Completion,” in E. Benson ed., *Death and the Afterlife in Pre-Columbian America* (Washington D. C., 1975), p. 74.

<sup>70</sup> A. Anderson & C. Dibble eds., *Florentine Codex, Book 3* (Santa Fe, 1978), p. 47.

<sup>71</sup> B. Sahagún, *Florentine Codex: Book 7* (Santa Fe, 1953), p. 14.

<sup>72</sup> C. Klein, “Post-Classic Mexican Death Imagery as a Sign of Cyclic Completion,” in E. Benson ed., *Death and the Afterlife in Pre-Columbian America* (Washington D.C., 1975), pp. 71ff offered a very similar opinion many years ago. See also J. Olko, *Insignia of Rank in the Nahua World* (Boulder, 2014), p. 54: “This association between Xiuhtecuhtli and the creation is

To summarize our discussion in this section: Much as Quetzalcoatl resided in Mictlan prior to rising forth in spectacular splendor as the prototypical “Morning Star” so, too, did his double Nanahuatl reside in Tamoanchan “before becoming the sun.” Sahagún’s testimony that the Underworld known as Tlalocan was remembered as “the place from which the sun arose” doubtless represents a variation upon the same general theme. The common idea alluded to in each of these seemingly disparate cosmogonic traditions is that the first “star” to appear at Creation sprang forth from *within* the Underworld.

### **The Turquoise Enclosure**

The sacred traditions of the Aztecs identify a turquoise enclosure as the dwelling-place of the archaic fire-god Xiuhtecuhtli—“the archetype of all rulers”—and describe it as a cosmic hearth or “circle of turquoise.” Yet the turquoise enclosure is also identified as the locus of sunrise—specifically, as the birthplace of Nanahuatl as the fifth sun. Such convergent traditions naturally beg the question: How are we to understand this turquoise structure from the perspective of ancient astronomical conceptions? If the Aztec traditions reference a tangible celestial structure and encode actual historical events, as we believe to be the case, it stands to reason that other cultures around the globe likely preserved analogous traditions with respect to a spectacular turquoise enclosure associated with the ancient sun.

It is a remarkable fact, one almost wholly ignored by comparative scholars, that ancient texts around the globe describe a towering circle in the sky. The Old Testament, for example, references a “circle” (*ḥag*) in the sky on more than one occasion. A famous passage in Proverbs recounts the Creation as follows: “When he established the heavens, I was there, when he drew a circle on the face of the deep, when he made firm the skies above, when he fixed fast the foundations of the deep.”<sup>73</sup> Job elsewhere describes Yahweh as walking along “the circle of the sky” (*ḥûg šamáyim*).<sup>74</sup>

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clearly seen in an image from the *Codex Borgia* (fol. 46) where the deity is shown within the turquoise enclosure in the scene referring to the fiery creation of the sun.”

<sup>73</sup> Proverbs 8:27-28 as translated in J. Day, *God’s Conflict with the Dragon and the Sea*, p. 56.

<sup>74</sup> Job 22:14. See the discussion in M. West, *The East Face of Helicon* (Oxford, 1997), p. 144.

The so-called *Babylonian Talmud*, which preserves Jewish traditions pertaining to the central events of Creation, alludes to the Tohu as a green line or band encircling the world. The following passage from the *Hagigah* is representative in this regard: “It is taught: Tohu is a green line [*qav yarok*] that encompasses the whole world, out of which darkness proceeds, for it is said: He made darkness His hiding-place round about him.”<sup>75</sup>

Analogous conceptions were common to the ancient Greeks and other Indo-European cultures. Herodotus, for example, spoke of the “circle of the sky.”<sup>76</sup> As Martin West pointed out, the same basic idea informs the tragedies of Aeschylus and other writers:

“Tragedians use expressions such as ‘circle of the aither’ (of the starry sky), ‘circle of night’, ‘the circle above us’ (=the sky). *κύκλος* in these phrases refers not to just the rim of the sky but to the whole expanse contained within the periphery.”<sup>77</sup>

Early texts from Mesopotamia describe a “circle in the sky” known as *kippat šamê*. Wayne Horowitz called attention to such archaic conceptions in his authoritative monograph on Sumerian cosmic geography:

“The visible heavens were thought to be circular in shape, since the clear sky appears to be a giant circle. Textual evidence for this belief is found in the terms *kippat burumê* ‘circle of the sky’ and *kippat šamê* ‘circle of heaven’; the latter occurs in two hymns to the Sun-god: “You are their (mankind’s) light in the circle of the distant heavens” [and] [You are the direc]tor of people in the circle of heaven.’...Although the clear sky seems to us to be shaped like a dome, rather than a flat circle, there is no direct evidence that ancient Mesopotamians thought the visible heavens to be a dome. Akkadian *kippatu* are always flat, circular objects such as geometric circles or hoops.”<sup>78</sup>

If a “circle in the sky” is difficult to visualize, much less locate in the present celestial landscape, the ancient traditions describing the locus of the sunrise as a “circle” are more problematic still.

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<sup>75</sup> B. Ogren, “Chaotic Beginnings: Yohanan Alemanno on the Time of Creation,” in B. Ogren ed., *Time and Eternity in Jewish Mysticism* (Leiden, 2015), p. 94.

<sup>76</sup> 1.131.2. See the discussion in M. West, *op. cit.*, p. 143.

<sup>77</sup> *Ibid.*, pp. 143-144.

<sup>78</sup> W. Horowitz, *Mesopotamian Cosmic Geography* (Winona Lake, 2011), p. 264.

Yet such traditions are surprisingly widespread. In ancient Mesopotamia, for example, the locus of the sunrise was known as *kippat erṣeti* “circle of earth.”<sup>79</sup> Among other terms describing the locus of sunrise are included *kippat matati*, “circle of the lands,” *kippat tubuqat erbetti*, “circle of the four corners,” and *kippat šar erbetti*, “circle of the four (regions).”<sup>80</sup>

An instructive parallel to Xiuhtecuhtli’s turquoise enclosure is provided by the Egyptian *shen*-bond, commonly held to depict the sun within a turquoise-colored band—this despite the fact that a turquoise-colored structure is nowhere to be found in the immediate vicinity of the current solar orb (see figure one). Typically described as turquoise in color and explicitly identified as a “circle in the sky,” the so-called shen bond was a popular symbol of royalty otherwise known as the ring of sovereignty.<sup>81</sup>



**Figure one**

The turquoise colored shen-bond, in turn, shares much in common with the crown of kingship associated with the Egyptian mother goddess Wadjet, the latter conceptualized as a uraeus-serpent incarnate in the royal crown. It was Wadjet—literally, “the green one”—who crowned the king in Egyptian coronation ritual, thereby sanctioning him as universal sovereign: “By fixing the uraeus on the forehead of Ḥaremḥab, his right to be king is established.”<sup>82</sup>

As if to emphasize the inherent relationship between the encircling (*šnj*) uraeus-serpent and the *shen*-bond, Egyptian scribes occasionally wrote the word *šnw* with a determinative showing the

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
<sup>79</sup> *Ibid.*, p. 186.



<sup>80</sup> *Ibid.*, p. 186.

<sup>81</sup> S. Quirke, *Ancient Egyptian Religion* (London, 1992), p. 62. See also A. Sugi, “The Iconographical Representation of the Sun God in New Kingdom Egypt,” in Z. Hawass ed., *Egyptology at the Dawn of the Twenty-first Century, Vol. 2* (Cairo, 2003), p. 515.

<sup>82</sup> K. Bosse-Griffiths, “The Great Enchantress in the Little Golden Shrine of Tut‘Ankhamun,” in K. Bosse-Griffiths ed., *Amarna Studies and Other Selected Papers* (Fribourg, 2001), p. 118. See also the discussion in H. Frankfort, *Kingship and the Gods* (Chicago, 1948), p. 108.



outer band as a uraeus-serpent: . <sup>83</sup> In perfect keeping with this archaic and multi-faceted symbolism, royal reliefs celebrating the Pharaoh's sovereignty depict the uraeus handing him the shen-bond. Sally Johnson emphasized this particular role of the uraeus-goddess:

“She presents to the king's cartouche and Horus name the *wꜥs*, , scepter and *šnw*, , the signs for ‘dominion’ and ‘infinity of the circuit of the sun’, ‘enclosure’ or cartouche’, thereby legitimizing his crown and sovereignty.”<sup>84</sup>

Granted that the turquoise-colored shen-bond forms a striking parallel to the turquoise enclosure associated with the Aztec fire-god, how are we to understand this celestial “circle” from the vantage point of modern astronomy? In addition to identifying the uraeus-goddess with the crown of kingship, the earliest Egyptian coronation rituals identify Wadjet with the Eye of Horus, a prominent symbol in ancient Egypt.<sup>85</sup> The Eye of Horus, in turn, is to be identified with the planet Venus as several Egyptologists have acknowledged.<sup>86</sup> Such converging and deeply intertwined traditions strongly suggest that the crown of kingship and shen-bond have something to do with the planet Venus.

Analogous ideas are evident in ancient Mesopotamia, where the planet Venus (as Inanna) was credited with endowing the king with sovereignty. In an Old Babylonian hymn known as *Enmerkar and the lord of Aratta*, the hero Enmerkar announces: “The ever-sparkling lady gives me my kingship.”<sup>87</sup> The word translated as “ever-sparkling” here is *mul-mul-e*, “to radiate, or shine,” a verb formed from the Sumerian word for star (*mul*) and hence referring to the brilliant splendor of Venus. The clear import of this passage, accordingly, is that it is the planet Venus which invested the stellar hero Enmerkar with kingship.

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<sup>83</sup> W. Barta, “Zur Bedeutung des Stirnbands-Diadems,” *Göttinger Miszellen* 72 (1984), p. 8.

<sup>84</sup> S. Johnson, *The Cobra Goddess of Ancient Egypt* (London, 1990), p. 7.

<sup>85</sup> See Utterance 220-222 in the Pyramid Texts.

<sup>86</sup> R. Krauss, “The Eye of Horus and the Planet Venus: Astronomical and Mythological References,” in J. Steele & A. Imhausen eds., *Under One Sky* (Münster, 2002). See also R. Krauss, *Astronomische Konzepte und Jenseitsvorstellungen in den Pyramidentexten* (Wiesbaden, 1997), pp. 193-208. It will be noted that Talbott and I offered this identification well over a decade before Krauss.

<sup>87</sup> Line 632.

To be more specific: It is Inanna/Venus who “makes” the king by investing him with his extraterrestrial headband or crown. Thus an early hymn invokes the planet-goddess as follows:

“May the lord whom you have chosen in your heart, the king, your beloved husband, enjoy long days in your holy and sweet embrace! Give him a propitious and famous reign, give him a royal throne of kingship on its firm foundation, give him the scepter to guide the Land, and the staff and crook, and give him the righteous headdress and the crown which glorifies his head!”<sup>88</sup>

The Sumerian word translated here as “glorifies” is *dalla*, denoting a ring or crown. The same word also signifies “to appear” or “shine,” and is commonly used to describe the rising of the sun or some other brilliant celestial body.<sup>89</sup> The fundamental idea expressed in this passage is that *it is the planet Venus itself* which provides the king with his regal glory or “crown,” thereby causing him to appear or “shine” as a “sun-like” body.

The inherent connection between sovereignty and a headband is most explicit in early Sumerian texts surrounding the goddess Nintur, invoked as the “mother of the gods” and creator of kings.<sup>90</sup> A Temple Hymn describes the mother goddess’s temple as follows:

“Mother Nintur, the lady of creation, performs her task within your dark place, binding the true *suh* crown on the new-born king, setting the crown on the new-born lord who is secure in her hand.”<sup>91</sup>

Evident here is the archaic conception that the mother goddess herself *creates* the king through her act of tying on the royal headband (*suh*<sub>10</sub>=*MUŠ*<sub>3</sub>), the latter of which is specifically described as greenish-blue in color.<sup>92</sup> The Sumerian pictograph transcribed *suh*<sub>10</sub>/*MUŠ*<sub>3</sub>, moreover, is the very pictograph used to denote the planet Venus as Inanna, the clear implication being that the

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<sup>88</sup> Lines 36-41 in “A song of Inana and Dumuzi (Dumuzid-Inana D1), *ETCSL*.

<sup>89</sup> *Electronic Pennsylvania Sumerian Dictionary*, at <http://psd.museum.upenn.edu/epsd/> (hereafter *ePSD*). See also J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 39.

<sup>90</sup> See Gudea A III 4-6 for Nintur’s epithet “mother of the gods.” See also the discussion in T. Jacobsen, “Notes on Nintur,” *Or NS* 42 (1973), p. 278.

<sup>91</sup> Lines 500-503 from “The temple hymns,” *ETCSL*.

<sup>92</sup> The royal headband is consistently described as *za-gin* (=lapis-lazuli), or greenish-blue in color. On the greenish color of lapis lazuli, see line 413 from *The Return of Lugalbanda*, as translated by H. Vanstiphout, *Epics of Sumerian Kings* (Leiden, 2003), p. 159.

planet was conceptualized as a headband-like form at one point in its evolutionary history (see figure two).<sup>93</sup>



**Figure two**

It is significant to note, moreover, that Nintur’s creation of the king is explicitly stated to have occurred in a “dark place”—ostensibly a reference to the innermost sanctum of the temple (literally the *šag*<sub>4</sub>, or “heart,” of the dark place, wherein *ku*<sub>10</sub>-*ku*<sub>10</sub>-*ga* qualifies *ki*, “place”).<sup>94</sup> Yet the very same word *Kukku* also serves as an archaic kenning for the Underworld, a clear indication that the innermost recess of the temple was intended to symbolize the “dark earth” or Underworld.<sup>95</sup>

It will be remembered here that *Xiuhtecuhtli*, the archetypal king, was commonly believed to reside at the center of the earth enshrouded in darkness, where he was ensconced in a turquoise enclosure (*xiuhtetzaqualco*). According to Sahagún and his Aztec informants, the cosmic site in question was conceptualized as the Underworld. Recall again the passage quoted earlier:

“The old god spread out on the navel of the earth, within the circle of turquoise... The old god, he who inhabits the shadows of the land of the dead, the Lord of fire and of time.”<sup>96</sup>

Such archaic conceptions seemingly inform the illustration from the *Codex Borbonicus* (Folio 34) depicting the New Fire ceremony (see figure three), wherein the ritual structure presiding

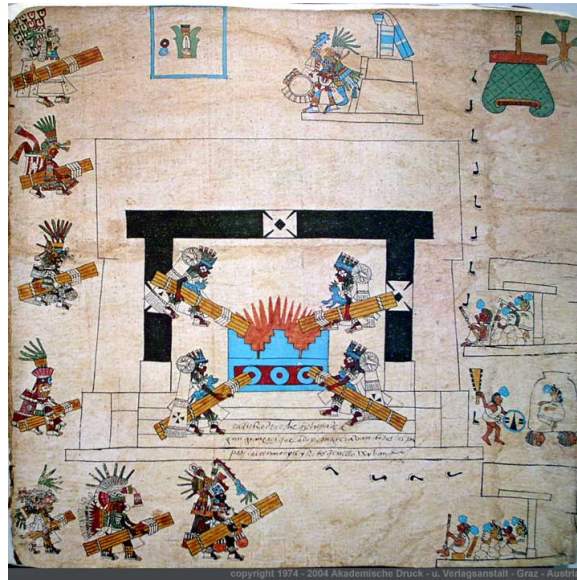
<sup>93</sup> P. Steinkeller, “Inanna’s Archaic Symbol,” in J. Braun et al eds., *Written on Clay and Stone* (Warsaw, 1998), p. 95: “It would seem, therefore, that the archaic symbol of Inanna depicts a scarf or head-band.”

<sup>94</sup> T. Jacobsen, *op. cit.*, p. 107 translated the clause in question as follows: “working in a dark place, the womb (lit. ‘heart’).”

<sup>95</sup> W. Horowitz, *op. cit.*, p. 269.

<sup>96</sup> *The Florentine Codex* Chapter VI: 71v as translated in Miguel León-Portilla, *Aztec Thought and Culture* (Norman, 1963), p. 32.

over the drilling of fire is specifically labeled Tlillan, literally the “place or house of darkness.”<sup>97</sup> The New Fire, like Nintur’s “king,” was created in a place of darkness—i.e., the Underworld.



**Figure three**

Xiuhtecuhtli is elsewhere renowned for his turquoise headband—the *xiuhuitzolli*—the supreme symbol of kingship and sovereignty that ultimately came to serve as the Aztec ideogram for *tecuhitli*, “Lord or ruler.”<sup>98</sup> Johannes Neuroth, in his comprehensive study of the *xiuhuitzolli*, observed: “It was a widespread emblem of royal power in Post-classic Central Mexico.”<sup>99</sup> At the same time, however, he expressed puzzlement as to why the turquoise-colored headband was so intimately associated with the Aztec fire god: “To begin with, the symbolic significance of *xiuhuitzolli* seems to be founded on its association with the Aztec cult of fire.”<sup>100</sup>

From our vantage point, however, there is no great mystery surrounding Xiuhtecuhtli’s intimate connection with the royal headband (*xiuhuitzolli*). Taking our cue from the archaic

<sup>97</sup> D. Durán, *The History of the Indies of New Spain* (Norman, 1994), p. 297. See also D. Carrasco, *City of Sacrifice: The Aztec Empire and the Role of Violence in Civilization* (Boston, 1999), p. 100.

<sup>98</sup> On the crown as the ideogram for *tecuhitli*, see H. Nicholson, “A Royal Headband of the Tlaxcatleca,” *Revista mexicana de estudios antropológicos* 21 (1964), p. 82.

<sup>99</sup> J. Neuroth, “*Xiuhuitzolli*—Motecuhzoma’s Diadem of Turquoise, Fire, and Time,” *Archiv für volkerkunde* 46 (1982), p. 123.

<sup>100</sup> *Ibid.*, p. 123.

Mesopotamian traditions attached to Nintur, we would suggest that the Aztec god's *xiuhuitzolli* is functionally analogous to the Sumerian goddess's greenish-colored MUŠ<sub>3</sub>-headband. The turquoise headband represents the "crown of kingship" and, as such, marks its wearer as the universal sovereign.

Also relevant to our historical reconstruction is the fact that the Sumerian fire-god Girra is described as residing within this very same MUŠ<sub>3</sub>-band. A Sumerian temple hymn preserves this archaic idea:

"Your mùš (is) a mùš (lustrous as) lapis lazuli, spreading over Meslam, Your Prince Girra, the lord of Meslam. Huskia, the lord of Sunset, Nergal-Meslamtaea." <sup>101</sup>

The Sumerian fire-god is here described as residing within a turquoise-colored mùš (=MUŠ<sub>3</sub>), the latter of which is associated with the Underworld (Meslam), thereby paralleling Xiuhtecuhtli's dwelling within the turquoise enclosure which also doubles as the Underworld (Mictlan). And much as we would expect, Girra is explicitly identified with the planet Mars (Nergal) as the "red one" (huš) of the Underworld (ki). <sup>102</sup> Nergal himself, in turn, is elsewhere invoked as the universal sovereign: "At the place of the queen, the most precious place, you exercise the role of supreme deity! Directing a noble gaze, you exercise kingship in the Land!" <sup>103</sup>

### **The Turquoise Dragon**

A number of indigenous sources report that the Aztec fire-god was intimately associated with a turquoise-colored serpent—the so-called Xiuhcoatl. Alternately described as a comet-like celestial body <sup>104</sup> or as a fiery serpent weaponized in the service of Xiuhtecuhtli or Huitzilopochtli, the Xiuhcoatl is commonly depicted as a sort of cape or back-device adorning

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<sup>101</sup> Lines 462-465 as translated by Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 44.

<sup>102</sup> The Sumerian word *Δuš* denotes "fiery red, angry, fierce." The word *ki*, "earth," also signifies the Underworld.

<sup>103</sup> Lines 32-33 in "A hymn to Nergal (Nergal B)," *ETCSL*.

<sup>104</sup> M. Izeki, *Conceptions of 'Xihuitl': History, Environment and Cultural Dynamics in Postclassic Mexica Cognition* (Oxford, 2008), p. 41 notes that "the depiction of Xiuhcoatl in the history sections of the codices are limited to scenes recording the observations of comets."

the Aztec fire-god (see figure four).<sup>105</sup> Yet as Justyna Olko has documented, there is much reason to believe that the Xiuhcoatl-serpent is to be identified as the celestial prototype for the turquoise headband (*xiuhhuitzolli*):

“Of particular importance is the link between Xiuhtecuhtli and the fire serpent Xiuhcoatl, for this creature appears to have been the most probable prototype of the *xiuhhuitzolli*. It was Beyer who first suggested that the *xiuhhuitzolli* was a schematic form of the head and tail of Xiuhcoatl...Although the idea linking the shape of the *xiuhhuitzolli* to the fire-serpent has not been developed or even accepted in any subsequent studies, there are good reasons to believe that it is valid.”<sup>106</sup>



**Figure four**

If the findings of Olko and Beyer are well founded, it is patently obvious that the Xiuhcoatl's function as the fiery serpentine-crown of Aztec kings (*xiuhhuitzolli*) offers a striking parallel to the fiery uraeus-serpent as the Egyptian Pharaoh's crown of sovereignty.

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<sup>105</sup> J. Olko, *Insignia of Rank in the Nahua World* (Boulder, 2014), p. 54: “Xiuhtecuhtli and his fire-serpent manifestation [Xiuhcoatl] were believed to embody the celestial fire, also conceived as a dangerous weapon that could take the material form of turquoise.”

<sup>106</sup> *Ibid.*, p. 128.

It is also possible to recognize a certain affinity between the Xiuhcoatl's spiraling form as depicted in figure four and that displayed by the MUŠ<sub>3</sub>-sign in the earliest Sumerian script (see figure two above). Like the Xiuhcoatl, which was expressly identified as a comet-like celestial body, the MUŠ<sub>3</sub>-sign denoting Inanna/Venus clearly resembles a comet-like form. How interesting, then, to find that the Sumerian word muš also denotes "serpent-dragon."<sup>107</sup> Indeed, in early Sumerian temple hymns the MUŠ<sub>3</sub>-headband is specifically likened to a giant muš-serpent, thereby confirming their fundamental affinity.<sup>108</sup> And much as the MUŠ<sub>3</sub>-headband served to designate or "make" the Sumerian king so, too, evidently, did the Xiuhcoatl-headaddress designate the king in Mesoamerican tradition.

To bring the argument full circle: In light of the fact that the turquoise enclosure served as a hearth in which the New Fire was drilled, it is significant to find that Aztec codices depict fire being drilled on the Xiuhcoatl serpent (see figure five).<sup>109</sup> Karl Taube called attention to this curious motif: "In many Late Postclassic Central Mexican representations of fire making, fire is drilled on the segmented, larval body of the Xiuhcoatl meteor serpent."<sup>110</sup> Although such imagery is wildly incongruous as a realistic depiction of fire's generation in the natural world, it makes perfect sense given the historical reconstruction offered here, which recognizes a fundamental structural affinity between the turquoise-colored hearth and the turquoise-colored Xiuhcoatl serpent.

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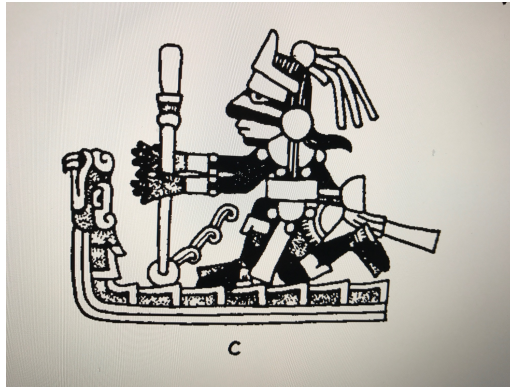
<sup>107</sup> J. Halloran, *Sumerian Lexicon* (Los Angeles, 2006), p. 182.

<sup>108</sup> Line 112 as translated by Å. Sjöberg & E. Bergmann, *The Collection of the Sumerian Temple Hymns* (Locust Valley, 1969), p. 23.

<sup>109</sup> Adapted from K. Taube, "The Turquoise Hearth," in D. Carrasco ed., *Mesoamerica's Classic Heritage* (Boulder, 2000), figure 10:15:c.

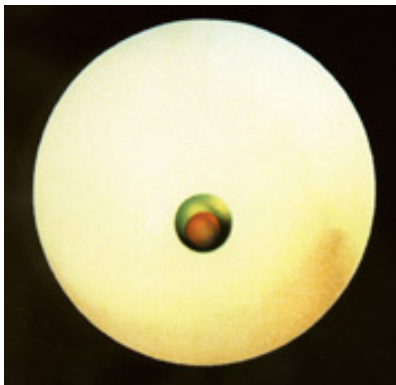
<sup>110</sup> *Ibid.*, p. 294.





**Figure five**

To summarize: The key to understanding the Aztec traditions speaking of a turquoise enclosure encircling the prototypical fire-god and serving as the god's hearth or headband is a very real celestial structure that formerly spanned the heavens, the latter conceptualized as the crown of kingship *and* the house of the gods.<sup>111</sup> According to the historical reconstruction offered here, such mythological traditions encode astronomical events—specifically an extraordinary conjunction of planets in which the red planet Mars (Xiuhtecuhtli) was positioned in front of the much larger Venus (see figure six). The image presented by this spectacular conjunction of planets was exactly that depicted in the Egyptian shen-bond, in which a green band appeared to surround a reddish orb. It is in this perfectly concrete sense, then, that we would understand the Skidi Pawnee report that a cosmic hearth associated with the planet Venus was the site of the prototypical drilling of fire.




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<sup>111</sup> See the ground-breaking analysis in D. Talbott, *The Saturn Myth* (New York, 1980), pp. 145-171.



### Figure six

Occam's razor suggests that the turquoise-colored headband associated with the Aztec fire-god Xiuhtecuhtli (*xiuhhuitzolli*) is indeed identical in origin with the turquoise-colored enclosure (*xiuhtetzaqualco*) associated with the drilling of the New Fire. If the former object represented the royal crown marking Xiuhtecuhtli as the archetypal sovereign, the latter structure represented the cosmic hearth associated with the transfiguration of Nanahuatl, the prototypical "sun" and "king" in Aztec cosmogony.