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Egyptian Cosmology

Ask Westerners about the religion of the ancient Egyptians, and they will probably say that Ra, the sun god, was their supreme deity. It will be unlikely that they will mention other gods, and may even believe that Ra was the one and only god of the Egyptians. However, a closer look reveals that multiple gods played a number of roles in Egyptian cosmology. Ra did play a vital role as the sun god in the Egyptians' model of the universe, but he did not make up any tangible element of the universe's actual structure as other gods and goddesses did. There are also conflicting creation stories, which challenge whether Ra was the sole creator of the universe, or a god that was created as a part of a longer lineage. Also, although his importance can be seen in the living world, another goddess, Maat, had more power than Ra when it came to the afterlife: a significant aspect of Egyptian cosmology. Finally, the Egyptians developed their time keeping structures, such as their calendar and clock, based on the moon, the stars, and the Nile River instead of the sun. If Ra really was as important as Westerners believe, surely these systems would have been sun-centered, right? These details of Egyptian cosmology clearly question the common Western belief that Ra was the most important of the Egyptian gods.

The ancient Egyptians structured their universe around the physical manifestations of their most important god and goddesses. According to Leonard Lesko in his article "Ancient Egyptian Cosmogonies and Cosmology", "Egyptians saw the earth as a flat expanse of land, personified by the god Geb, over whom arched the sky goddess Nut. The two were separated by Shu, the god of air. Beneath the earth lay a parallel underworld and undersky, and beyond the

skies lay the infinite
 expanse of Nu, the chaos
 that had existed before
 creation,” (117). Like these
 gods, Ra did play a vital
 part in the universe’s
 function through the sun’s
 daily journey through the
 air and nocturnal trip across
 the water, but otherwise his



Figure 1: This is an example of the structure within Egyptian cosmology. With Geb, the god of land, and Nut, the sky goddess, arching over him. Also, Ra is making his trip across the Nile River. (<http://emergent-culture.com/preview-relating-web-bot-synchronicity-mayan-calendar-the-dna-and-future-forecasting/>)

physical being wasn’t manifested into any model of their universe (Figure 1). Additionally, it was Maat, the goddess of justice, who played the most significant role in the overall order of the universe. In *Middle Egyptian: An Introduction to the Language and Culture of Hieroglyphs*, James Allen explains that, “Maat operated both in the world at large and in the world of human affairs. On the cosmic level it governed the proper functioning of the universe. Maat was what kept the world’s elements fixed in their appropriate places, the seasons following in their natural order, night giving way to day, and each generation being succeeded by another,” (115).

Another aspect of Egyptian cosmology, creation stories, further show how Ra was not the only god in ancient Egyptian culture. In his book *The Power of Stars: How Celestial Observations Have Shaped Civilization*, author Bryan Penprase describes the god Atum as, “containing within all the potential for creation of everything,” (85). It is Atum who then proceeds to create a new lineage of other gods and goddess including Ra, and together they divide the power of the universe equally. Many scholars argue that Atum is synonymous with Ra

including El-Sayed El-Aswad in his article “Archaic Egyptian Cosmology”. El-Aswad argues that, “Atum means the sun in the evening twilight,” while Ra “conquered chaos through the creation of the universe,” (71). In that, the creation of the universe is set up so as to have involved both a single creator as well as other gods: Ra himself did not hold all the power. James Allen adds “[Creation] was a cooperative effort among all the forces and elements of the universe,” (130), supporting the idea that even though Ra may have been slightly more important, Egyptian religion was still highly polytheistic and involved many other prominent deities. Such deities serve greater functions in specific aspects of Egyptian cosmology, such as that of the afterlife.

In general, Ra has very little to do with both the Egyptian beliefs and practices regarding the afterlife. In *The Power of Stars*, Bryan Penprase explains that it is the gods Osiris and Anubis who play the most prominent roles in determining if a person’s soul moves on into the afterlife. After a person dies, their heart is placed on a scale by Anubis, while Osiris and a group of divine judges looked on. The heart is weighed against a feather of Maat, typically thought to be an ostrich feather. A heavy heart indicated that the person had performed bad deeds in life, whereas a light heart meant the person had lived their life honorably. If the heart was lighter than the feather, the person’s soul would enter Osiris’ domain; but a heavy heart meant the deceased would be eaten by the lion-crocodile monster Amemit (101).

Even though Ra is not mentioned in this crucial belief about the afterlife, Ra does come into play when discussing Egyptian pyramids. The world famous Great Pyramids at Giza, for example, lie almost perfectly across the East-West directional line, mirroring the pathway of the sun. This is because, as Penprase explains, the pyramids were believed to be tangible symbol of the Sun’s rays and of Ra himself. Still, other aspects of the pyramids’ construction seem to

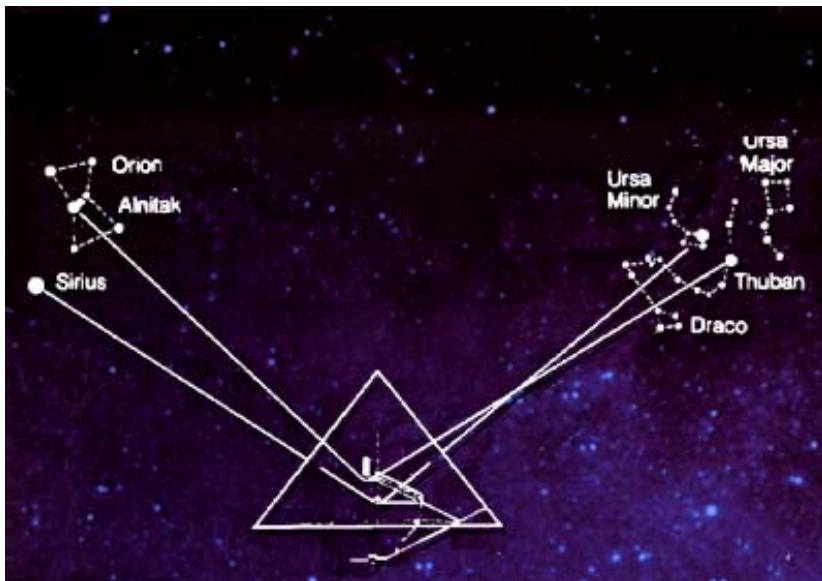


Figure 2: This picture depicts the alignment of the pyramids with Orion's belt and the star Thuban. (<<http://www.crystalinks.com/pyritaly.html>>.)

undermine Ra's significance to the structures. For example, shafts within the pyramids were aligned perfectly with the stars in Orion's belt, as well as another star called Thuban, which was the brightest star at certain points during the construction of the pyramids. The pyramids were tombs for the

pharaohs, and the attention to the stars of Orion and Thuban is highly important as those stars were associated with the god of the underworld, Osiris (207) (Figure 2). Additionally, authors Bauval and Hancock write that

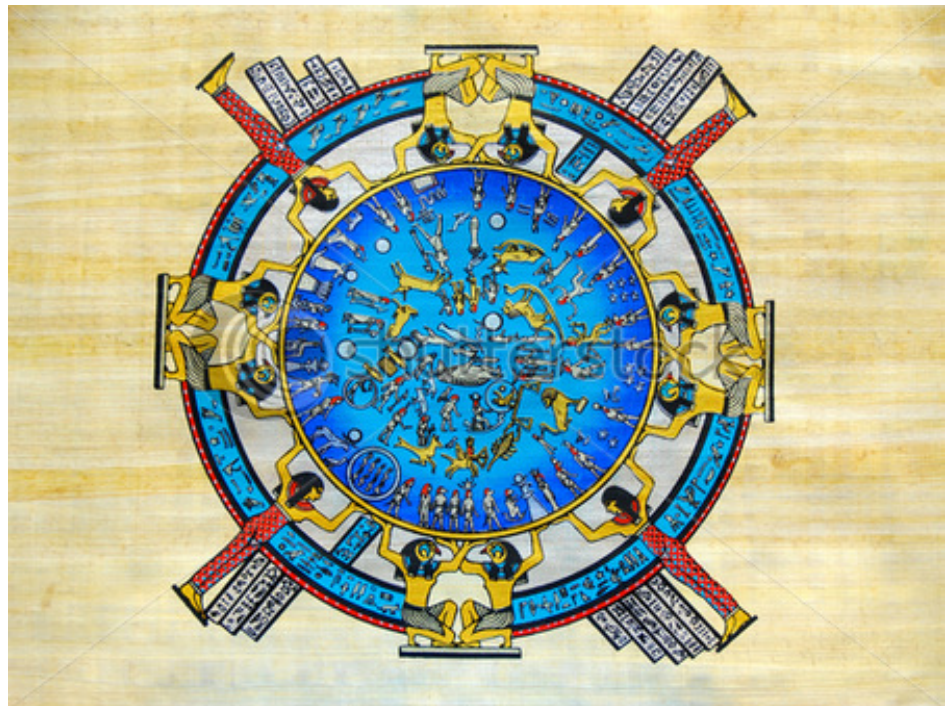
An overhead view shows that the Great Pyramid and the second Pyramid stretch out along a diagonal running 45 degrees to the south and west of the former's eastern face. The third Pyramid, however, is offset somewhat to the east of this line...it is hard to resist the conclusion that the Pyramids of Giza represent a successful attempt to build Orion's belt on the ground. This makes all the more sense when we recall the firm identification of the Orion constellation with the high god Osiris.

The ancient Egyptians seemed to pay a lot of attention to Osiris and the stars, which further questions whether Ra was the most influential god in ancient Egyptian culture. If he were, then why do the Great Pyramids mirror the position of stars, instead of something like the sun's position at the summer solstice? Such a question, as well as others, dispute Western beliefs

about Ra's importance to the afterlife, as well as other aspects of Egyptian culture such as their calendar and time-keeping systems.

Calendars based on the solar cycle were prominent in the Judeo-Christian cosmology, and were eventually adopted by many other cultures. With that in mind, a Westerner would likely assume that Egyptians would have based their calendars off the solar cycle as well, especially given Ra's importance within their culture. However, Egyptian calendars were actually based on the lunar cycle, the star Sirius, and the Nile River. In Winlock's book *Origin of the Ancient Egyptian Calendar*, he describes that the

Egyptians used the lunar cycle as a foundation for their calendar while acknowledging the cycles of the Nile River to create a three-season year (Figure 3). John North also explains in *Cosmos: An Illustrated History of*



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how the cycles of the star,

Sirius were incorporated

since, "The festival of Sirius more or less followed the solar year of about $365 \frac{1}{4}$ days, but the length of twelve months, each of 29 or 30 days, average at only about 354 days," (27). This system founded on the cycles of the moon, Sirius, and the Nile River created problems for the Egyptians due to its

Figure 3: This Egyptian Calendar is an example of how the Egyptians structured their calendar around the lunar cycle, the cycle of the star Sirius, and the Nile River cycles. <http://www.shutterstock.com/pic-6250045/stock-photo-blue-egyptian-calendar-on-a-original-papyrus.html>.

variance and inconsistency. Eventually, it led to major problems in bookkeeping and keeping track of various periods of time. However, the lunar calendar was still simplest to use as the Egyptians did not have physical calendars, and the months were determined by phases of the moon, which could be observed by everyone. The Egyptians' continued use of the lunar cycle, the star Sirius, and Nile River cycles instead of the solar cycle, again challenges the assumption that Egyptian cosmology was purely "sun-centered".

Another major concept of Egyptian cosmology that emphasized the use of other elements besides the sun was the invention of the decan star clock system. *The Exact Sciences in Antiquity* by Otto Neugebauer describes the decans as 36 small constellations that rose consecutively on the horizon throughout each earth rotation. The Egyptians quickly picked up on the stars' predictable risings and used them to mark divisions in their calendar, and Neugebauer explains "when Sirius rises heliacally, only 12 decans can be seen rising during darkness. Hence the decadic succession of the decans leads to a 12-division of the night," (85). Again, the emphasis on other elements in the universe in the use of Egyptian cosmology all undermine the assumption that Ra, the sun god, was the supreme deity and the foundation of Egyptian belief systems.

A closer look at the different elements of Egyptian cosmology leads to the conclusion that, while Ra was fairly important, he wasn't the most prominent or powerful god within Egyptian culture. The Western misconception that the Egyptians had a monotheistic religion is, however, understandable because of the lack of education in Egyptian culture and cosmology that the average "Western" student receives. Where as Greek literature, for example, is part of the nationwide school curriculum, Egyptian literature is taught significantly less often, leading Westerners to glean their knowledge of Egyptian culture from less-factual sources like movies and the media. Being able to recognize the vast differences between popular belief and fact, however, is highly important as these

cosmologies were more than just interesting facts about the past: they were part of a belief system that shaped an entire culture. With that in mind, it is clear that an understanding of the Egyptian cosmology as well as the cosmologies of other cultures is something that more Westerners should strive for.

Works Cited

- Allen, James P. *Middle Egyptian: An Introduction to the Language and Culture of Hieroglyphs*. Cambridge: Cambridge UP, 2000.
- "Beyond Jung And All Guess Work: An Introduction To The Art and Science of Synchronicity." *Emergent Culture*. 2009. Web. 29 Apr. 2012. <<http://emergent-culture.com/preview-relating-web-bot-synchronicity-mayan-calendar-the-dna-and-future-forecasting/>>.
- "Blue Egyptian Calendar on Original Papayrus." *Shutterstock.com*. Shutterstock Images LLC. Web. 29 Apr. 2012. <<http://www.shutterstock.com/pic-6250045/stock-photo-blue-egyptian-calendar-on-a-original-papyrus.html>>.
- El-Aswad, el-Sayed. "Archaic Egyptian Cosmology." *Anthropos* 92.1.3. (1997): 69-81. Print.
- Hancock, Graham, and Robert Bauval. *The Message of the Sphinx: A Quest for the Hidden Legacy of Mankind*. New York: Crown, 1996. Print.
- Leonard H. Lesko. "Ancient Egyptian Cosmogonies and Cosmology" *Religion in Ancient Egypt: Gods, Myths, and Personal Practice*. Ithaca: Cornell UP, 1991. Print.
- Neugebauer, Otto. *The Exact Sciences in Antiquity*. Copenhagen, 1957. Print.
- North, John David. *Cosmos: An Illustrated History of Astronomy and Cosmology*. Chicago: University of Chicago, 2008. Print.
- Penprase, Bryan E. *The Power of Stars: How Celestial Observations Have Shaped Civilization*. New York: Springer Verlag, 2011. Print.
- "Pyramids in Italy." *Crystalinks Home Page*. Web. 29 Apr. 2012. <<http://www.crystalinks.com/pyritaly.html>>.

Weininger, Richard. "The Nile, the Moon and Sirius: The Ancient Egyptian Calendar." *Tour Egypt*. Web. 22 Apr. 2012. <<http://www.touregypt.net/egypt-info/magazine-mag03012001-magf1.htm>>.

Winlock, Herbert Eustis. *The Origin of the Ancient Egyptian Calendar*. [New York]: [Metropolitan Museum of Art], 1940. Print.