

The most complete and authoritative treatment of Egyptian astral traditions is Rolf Krauss's *Astronomische Konzepte und Jenseitsvorstellungen in den Pyramidentexten*, first published in 1997. In the work in question Krauss translates and analyzes every major passage in the Pyramid Texts touching upon stars and, at the same time, offers an extensive review of the past 100 years of research into the astral foundations of ancient Egyptian religion.

It is instructive to enumerate Krauss's principal conclusions—this after some 300 pages of detailed analysis. With respect to the principal celestial bodies, Krauss believes it is possible to securely identify the planet Venus, Orion, Sirius, and the Moon from literary descriptions in the Pyramid Texts.¹ These stars are to be identified with Horus, Osiris, Isis, and Thoth respectively. We have already presented evidence disputing Horus's identification with Venus and there are equally insurmountable problems with each of the other identifications as well.

Perhaps the most novel hypothesis advanced by Krauss would identify the Egyptian god Seth with the planet Mercury. Although this identification is attested from the New Kingdom period, only Krauss—to my knowledge—has supposed that it is valid for the Pyramid Texts as well.² Pointing to various passages in the Pyramid Texts describing different interactions between Seth and Horus, Krauss opines that they likely have reference to the movements of Mercury and Venus in the Memphis skies of 2400 BCE.³

With regards to the outer planets, Krauss confesses his inability to securely identify either Jupiter or Saturn. Certainly it must seem strange that the ancient Egyptians would have ignored the brilliant planets Jupiter and Saturn in favor of the diminutive Mercury. Indeed, if we are to believe Krauss on this point, the ancient Egyptians would be alone among ancient skywatchers in focusing on Mercury to the apparent exclusion of Saturn

¹ R. Krauss, op. cit., p. 292.

² K. Goebis, *Crowns in Egyptian Funerary Literature* (Oxford, 2008), p. 89 has recently endorsed Krauss's identification.

³ R. Krauss, op. cit., pp. 283.

and Jupiter. This alone should raise a red flag with regards to Krauss's methodology in general and the attempted identification of Seth with Mercury in particular.

A prominent feature in the deceased king's voyage to the celestial Hereafter is the so-called Winding Waterway. Krauss would identify the Winding Waterway—*ḥꜣ mr*—with the ecliptic. This hypothesis appears to be original with Krauss and he seems to have found a convert in James Allen.⁴ Hitherto most Egyptologists have identified the Winding Waterway with the Milky Way.⁵ There is no credible evidence, however, that the Egyptians were already cognizant of the astronomical concept of the ecliptic as early as 2400 BCE.

As Krauss himself points out, the ecliptic fluctuates with the seasons. To make matters more complicated, Krauss points out that it is not easy to track the Sun's movements with respect to the ecliptic.⁶ Thus it is most unlikely that the Egyptians would have deduced the ecliptic's proper structure during Old Kingdom times. Such difficulties notwithstanding, Krauss speculates that the Egyptians may have deduced the structure of the ecliptic from tracking the movements of the Moon.⁷

The argument with respect to the ecliptic is not the only instance wherein Krauss seems to attribute an otherwise unknown advanced stage of astronomical knowledge to the early Egyptians. In PT 2061, for example, Krauss claims to find an early reference to Venus's propensity for traveling along the ecliptic. The passage in question reads as follows: "Be firm, O King, on the underside of the sky with the beautiful star upon the bends of the Winding Waterway." Although Faulkner asked whether Sirius might be the subject of this reference,⁸ I have no doubt that Krauss is right and that Venus is the Beautiful Star (*sbꜣt nfrt*) in question. That said, Krauss would explain the "bends" in the Winding

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Comment: Allen: "Pepi Neferkare will remain more than you beneath the sky's belly, as the young girl's helmsman on the bends of the Winding Canal." (291)

⁴ J. Allen, *The Ancient Egyptian Pyramid Texts* (Atlanta, 2005), p. 9.

⁵ R. Faulkner, "The King and the Star-Religion in the Pyramid Texts," *JNES* 25 (1966), p. 154, footnote 7.

⁶ R. Krauss, *op. cit.*, p. 65.

⁷ *Ibid.*, p. 56.

⁸ R. Faulkner, *op. cit.*, p. 154: "Is Sothis referred to here?"

Waterway as a reference to the meandering movements of the planet along the ecliptic.⁹ Are we to believe, then, that the ancient Egyptians were already charting the movements of Venus with respect to the ecliptic in 2400 BCE? If so, this would make the Egyptians the most accomplished astronomers of that era, a claim that is otherwise unsubstantiated by any credible evidence.

For Krauss the central mystery of Egyptian religion—the deceased king’s journey to the stars and installation as an Imperishable Star within the *Akhet*—is a deliberate fiction.¹⁰ The much-celebrated solar bark, in accordance with this interpretation, is a figment of the Egyptian imagination.¹¹ Yet it must be questioned whether an astronomical reconstruction is to be believed if it cannot account for either the solar bark or the phenomenological basis behind the deceased king’s journey to heaven—two of the most prominent themes in Egyptian religion. On this score Krauss’s conclusions would appear to be at odds with the ancient Egyptians’ reputation as accomplished observers of nature—to say nothing of their predilection for concrete imagery.

Failure to provide a celestial prototype for the all-important solar bark is not Krauss’s only problem. Most troubling, perhaps, is the fact that he is incapable of reconstructing the ancient Egyptian conceptions of the movements of the solar body itself. Thus, Krauss expresses puzzlement that the Pyramid Texts “do not express themselves as clearly on the solar orbit as would have been desirable.”¹² Yet how can this be if, as Krauss and every Egyptologist would have us believe, the ancient Egyptians were keen observers of nature and made the rising and setting of the Sun the focal point of their religion? One would think that the Pyramid Texts would be chock full of references to the Sun rising in the

⁹ *Ibid.*, p. 62.

¹⁰ R. Krauss, *op. cit.*, p. 21 states: “Während die Vorstellungen der PT über den täglichen Sonnenlauf auf einer Realität gründen, ist die Himmelsreise des Toten imaginierte und allenfalls in eine reale topographische Umgebung versetzt.”

¹¹ R. Krauss, *op. cit.*, p. 145 states: “Das imaginierte Sonnenschiff selbst liesse sich im entsprechenden stellaren Bereich suchen.”

¹² R. Krauss, *op. cit.*, p. 65: “Die PT sprechen sich zum Thema Sonnenbahn nicht mit wünschenswerter Klarheit aus und es bleibt offen, ob für die Sonne nur die täglichen horizontalen Anfangs- oder Endstationen im *h3*-canal von Bedeutung sind bzw. wie die jährliche Sonnenbewegung aufgefasst und ausgedrückt wurde.”

east and setting in the west while occasionally conjoining with the Moon and other prominent stars and constellations while traveling across heaven. And yet such expected references are nowhere to be found in the Pyramid Texts.

It is Krauss's view that the so-called Imperishable Stars are not to be identified with the circumpolar stars after all—a point accepted by virtually every Egyptologist of the 20th century—but with certain circumpolar *and* non-circumpolar stars situated north of the ecliptic.¹³ Although this hypothesis avoids some of the more obvious problems presented by the ancient Egyptian testimony with regards to the Imperishable Stars, it will not stand up to scrutiny. How, for example, can this hypothesis account for the role of the Imperishable Stars as the crew of the solar bark? Surely it is difficult to securely identify the Imperishable Stars in question if one can't even provide a satisfactory celestial reference for the bark itself? Note also that Krauss's hypothesis would make the Imperishable Stars—like the solar bark itself—invisible during the daily voyage of the Sun.

For Krauss, the Egyptian conceptions of the celestial Hereafter represent a projection of archaic funerary beliefs onto the celestial landscape.¹⁴ In this sense, the Egyptian traditions of the deceased king's transfiguration and crowning are a fictional construct and thus have no phenomenological basis in the ancient Egyptian cosmos.

Our reconstruction stands in stark contrast to that of Krauss. Far from being a figment of the Egyptians' imagination, the myth of the celestial journey of the deceased king was firmly grounded in reality, being purposefully modeled on the prehistoric behavior of the Horus-star. It was the Horus-star—as the mythical Morning Star—which ascended to heaven and eventually came to rest within the *akhet*, wherein it suddenly blossomed into a brilliantly luminous form. Visibly transfigured as a result of its conjunction with the

¹³ *Ibid.*, pp. 120-121.

¹⁴ *Ibid.*, pp. 286-287: “Im allgemeinen ist es so, dass die pyramidentextlichen Ägypter den Sternhimmel in astronomisch richtiger Weise beobachtet haben, dass sie aber den jeweiligen Himmelsbereichen und ihren Bewohnern Bedeutungen zuschrieben, die aus dem Bereich jenseitiger Erwartungen und Wünsche übertragen sind.”

planet Venus, the Horus-star came to be conceptualized as the all-powerful Universal King.

Most damning for Krauss's reconstruction of Egyptian cosmography is the fact that ancient skywatchers around the globe offered virtually identical descriptions of the post-mortem journey of departed souls (see Appendix X)—a logical impossibility if the Egyptian traditions were primarily fictitious in nature.

What stands out most in Krauss's survey is how seldom Egyptologists agree with each other with respect to the stellar identifications of the primary deities. For Sethe, Breasted, and Allen, Horus represents the Sun. For Rudolf Anthes, Horus Soped was to be identified with Sirius. For Raymond Faulkner, Horus represents the planet Venus. For Krauss himself, Horus is usually to be identified with the planet Venus but he could also represent Mars and possibly some of the other outer planets on occasion.

What is true with respect to Horus is also true with respect to the rest of the Egyptian pantheon apart from Re: Choose whichever deity you wish and it is possible to find a dramatic difference of opinion with respect to which celestial body he or she is to be identified with. If the goddess Nut is identified with the sky by one authority, others identify her with the Milky Way. Neugebauer and Parker confidently identify Isis with Sirius, yet other scholars identify the goddess with the Sun or Moon with equal confidence. Indeed, as we have documented, finding a one-to-one correspondence between the early Egyptian descriptions of the various celestial bodies and a modern planet or constellation—far from being obvious or conclusive—is virtually impossible. On this question the astronomer Ronald Wells offered the following observation:

“There are numerous allusions to astronomy in the lore of ancient Egypt which survive in the monuments and documents handed down to us from Dynastic times...At death, it was the aspiration of every pharaoh to become one with the *jlmw-sk*, the indestructible polar stars. Almost every aspect of daily life (and death) in ancient Egypt had some connection with astronomy...Although astronomy played such an important role in the socialization

and development of religious thought in ancient Egypt, specific correlations between astronomical events and scenes depicted on the monuments are few in number.”¹⁵

This is a most peculiar situation if all is indeed well in modern Egyptology’s understanding of ancient Egyptian astronomical lore. In a more recent article, Wells was even more outspoken on the difficulties of reconciling the ancient Egyptian testimony regarding the stars with the central tenets of modern astronomy:

“I was always of the opinion that if this were so [i.e., the hypothesis that a “variety of ancient Egyptian beliefs may have had foundations in astronomical observations”], then correlations would be direct and obvious, rather than convoluted and incredible or so abstractly involved as to be unintelligible: the latter course has unfortunately become the archetype in recent popular articles and books and, unfortunately, even expounded by several Egyptologists.”¹⁶

This bizarre state of affairs would seem to constitute compelling evidence for one of two propositions: (1) The early texts themselves are either confused or contradictory with respect to the astronomical identifications of the primary deities of the Egyptian pantheon; or (2) the conventional methodology employed by scholars in analyzing early Egyptian astral religion is seriously flawed. After all, if it is admitted that the early Egyptians were careful and accurate observers of nature—and all authorities are in agreement on this point—it stands to reason that it should be a fairly routine matter to match their descriptions of this or that astral deity with a particular celestial body or constellation as known to modern astronomy. That is, of course, if the ancient skies were virtually indistinguishable from the modern skies apart from the changes due to precession—a second point agreed upon by every Egyptologist.

¹⁵ *Ibid.*, p. 306.

¹⁶ R. Wells, “The Goddess Nut, Pharaoh’s Guarantor of Immortality,” *Varia Aegyptica* 10/2-3 (1995), p. 205.