

HERU: How does pointing at something tell me anything about it?

MA-AHT: Wait, it was what we did *between* pointing at the two stars.

SUTIMES: Moving our finger in a circular way around us . . .

MA-AHT: . . . Creating an arc, that's right! [*pause*] Wow, the more I think about it, the more everything around me takes shape. Whichever direction I point toward, I find myself moving about the inside of what appears to be a great . . .

SUTIMES: . . . sphere. What the priest-astronomers call the celestial sphere. [*pause*] And now, dear friend, you've been initiated into the secrets of observational astronomy known to the wisest since ancient times, and with which all our knowledge of the heavens has been produced. It's by tracking the positions of stars, both moving and fixed, and the relationship between them severally, across the inside surface of this celestial sphere, that we have discovered the tools of mathematics, tracked the seasons with which to plant our crops, and mastered the calendar around which our society runs.

MA-AHT: Please, describe this celestial sphere a little more.

SUTIMES: Let us then anchor ourselves in this great sphere! Now, point to the spot straight up and directly overhead. This imaginary point is commonly referred

Astronomy Of the Great Pyramid

Modern day "establishment" historians of science will fulminate against the notion of an advanced ancient-Egyptian astronomical tradition. Apparently counterposed to them, the "alternative" Egyptian history movement, created under the influence of the Synarchists, claims that ancient Egyptian astronomy derives from either space aliens, or psychotropic drugs, or secret societies. Plato, Herodotus, Diodorus Siculus, and the Great Pyramid itself tell a different story.

In his 1982 *The Toynee Factor in British Grand Strategy*, Lyndon LaRouche hypothesized that Egypt was founded by the remnants of an earlier Atlantean civilization, moving eastward from the Straits of Gibraltar, as the last Ice Age was ending, and carrying with them a knowledge of astronomy. The First-century B.C. historian Diodorus Siculus described Atlas, the father of such an Atlantean civilization, as

the man who "discovered the sphaerical nature of the heavens." Plato's masterwork on the physical principles governing the universe, *Timaeus*, not only cites Egypt as the fount of Greek astronomy and mathematics, but dates Egyptian civilization back to at least 9600 B.C. And Herodotus reports that the Egyptians had knowledge of the precessional astronomical cycle of 25,900 years.

Sphaerics, or astronomy, dominated the architecture, religion, and economy of ancient Egypt,

especially the magnificent Old Kingdom (2700-2180 B.C.), which built the Great Pyramid of Khufu as an astronomical observatory. Located on the Giza plateau, the Great Pyramid is stunning in the precision of its construction, a construction which could only have been meant for astronomical study. It is located precisely at 30-degrees



The Sphinx, on the Giza plateau, site of the Great Pyramid.

to as the zenith. Now, imagine another point directly underfoot, extending out into the universe below the Earth on which you stand, as if the Earth were transparent. This is known as the nadir. Now, trace out a great circle around you, that lies exactly half-way between these two points . . .

MA-AHT: . . . The horizon, Sutimes! It traces out the horizon!

SUTIMES: Wonderful, Ma-aht, your mind has now divided the infinite whole of the visible universe in half. These two equal divisions of our great sphere have given us a geometry around which to navigate our voyage of discovery. Let us now sail to the northernmost point on our heavenly ocean.

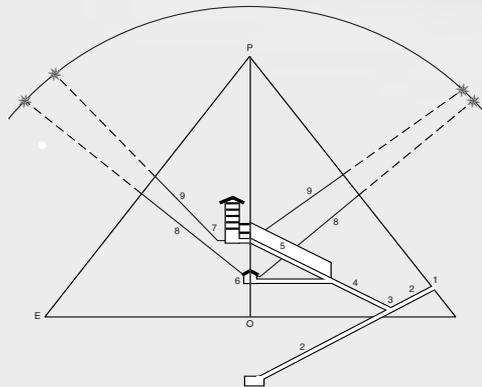
[They locate the North Star and elaborate.]

SUTIMES: Now, let us create more equal divisions of the sphere with our mind, by tracing out another great circle, starting from the North Star, and arching across the zenith directly above us. This is called a celestial meridian. It's crucial for describing the changing posi-

tion of stars. We can now describe and locate all night-sky phenomena within this newly created geometry. And so you begin to see, Heru, that what to your initial frustration seemed nothing more than the complete randomness of stars splattered about, is in fact highly ordered in the most divine and beautiful of fashions. In fact, the sun and moon, and even the planets which everyone would expect to fly about all over the place, follow roughly the same arc across the sky. We call it the ecliptic, on which the Zodiac lies. And interestingly enough, the twelve constellations or signs of the Zodiac that lie equidistant from each other on its path, appear to march across the sky on an annual basis, giving us a reliable reading of the season we're in.

MA-AHT: And that's how you know for certain when to plant for the best crops along the Nile?

SUTIMES: Almost, but not quite, Ma-aht. Actually, it is the perfectly synchronized movement of another constellation (not of the Zodiac, though) that signals with precision the beginning of the flood season. It is Sirius, the Dog Star, that pokes its head above the eastern horizon at the beginning of early dawn just before the sun rises, which tells us the flooding of the Nile's life-giving waters. Her flood-waters are so important to



Frank P. Roy/2002 <http://egyptphoto.nef.ca>

Above: *The Great Pyramid of Khufu.*
Right: *Diagram of the Great Pyramid, showing observation shafts.*

latitude, and is more accurately aligned to the four cardinal points than modern structures built to the same end. Within that alignment, the shafts built into the Pyramid, at crucial angles, allow for precise observations of key stars, such as Sirius, the North Star, and Orion's brightest star, as they transit the celestial meridian.

For the builders of the Great Pyramid to have accomplished such a task, the understanding of the regular motions of the stars and the celestial geometry of sphaerics had to have existed long before such an undertaking. The Pyramid Texts carved on the smaller pyramids of Saqqara,

describe important astronomical cycles as myths in which, for example, figures such as Osiris and Isis are represented by the constellation Orion and the star Sirius, respectively. Although carved in stone during the Old Kingdom, the Pyramid Texts are presumed to be much older.

—Susan Kokinda