

Precession of the Equinox

The Ancient Truth Behind Celestial Motion

By Walter Cruttenden

German site predates Stonehenge: Archaeologists have found what could be Europe's oldest astronomical observatory near the town of Goseck in the eastern German state of Saxony-Anhalt. The archaeological discovery lies only 25 kilometers from the forest near the village of Nebra, where an Early Bronze Age disc with gold foil ornaments and undeciphered astronomical information was unearthed just over three years ago. The site, which is estimated to be around 7,000 years old and measures 75 meters in diameter, is thought to be one of the oldest and largest of the 140 similar sites now discovered throughout Western Europe.

Hardly a week goes by without an announcement that some ancient structure or astronomical artifact has been found, or some civilization is discovered to be older or more advanced than previously thought. Graham Hancock, Robert Bauval, John Anthony West, and many other leading edge thinkers are now correcting years of academic bias that filtered out anything that didn't fit with a linear progression of history. We are learning that the Sphinx and other megalithic structures are probably much older than we first thought and they almost always align to key astronomical coordinates or reflect the patterns of the heavens. Some of these things have been noticed for years but they were almost never discussed by academics that were discouraged from straying too far from their peers.

The fact that there were numerous highly evolved civilizations all over the globe is slowly gaining acceptance, at least among the thinking public. Consequently, greater effort is now being employed to find out exactly how much the ancients knew, how widespread their cultures really were and how far back their knowledge might date. Offshore searches, better technology and the ability to communicate and access obscure data quickly over the Internet are aiding in this spontaneous collaborative process.

As the evidence mounts, other major questions are being asked: What is the source of the ancient knowledge? Does it stem from a long lost civilization, possibly an Atlantis or Lemuria that predates even the early Egyptian and megalithic cultures? Or as others might argue: Was man really a hunter-gatherer on a slow path of evolution and then suddenly benefited by contact with a highly advanced alien race? Or could there be another answer why we find that primitive man was not so primitive after all?

In recent years we have found: that the Sumerians engaged in brain surgery, the Egyptians used prosthetic devices and engineered structures that still can't be duplicated today, the ancient South Americans built massive stone structures of such fine tolerances they did not require mortar, an unknown race etched out patterns on the ground that only make sense when viewed from the sky, and the ancient Europeans built megalithic structures and astronomical observatories in England, France, Germany, Ireland and more and more are now being found all over the world. All of these cultures seemed to have a profound knowledge of star movements as well as lunar and solar cycles. Furthermore, we know from Giorgio Santillana of MIT and Hertha von Dechend of Frankfurt University, the two brilliant scholars behind *Hamlet's Mill*, that the myth and folklore of almost every ancient culture indicate they had a broad, indeed universal knowledge, of the "precession of the equinox".

Precession

Why precession? What is so important about the slow backward movement (precession) of the equinox through the constellations of the zodiac that it became the number one myth of the ancient world? Only the flood story seems to be as widely repeated throughout these old world cultures.



Precession of the equinox is the phenomenon whereby the sun on the day of the equinox (that day when the day and night are of equal length) rises in different constellations, changing by about 50 arc seconds per year. At that rate it takes almost 26,000 years to "precess" (move backwards) through all twelve signs of the ancient zodiac. The Spring equinox, moving through Pisces for the last 2000 years, is now at the "dawning of the age of

Aquarius”, meaning its just about to rise in Aquarius and will keep doing so for about another 2000 years, until it moves completely through that constellation unto the next, and so on.

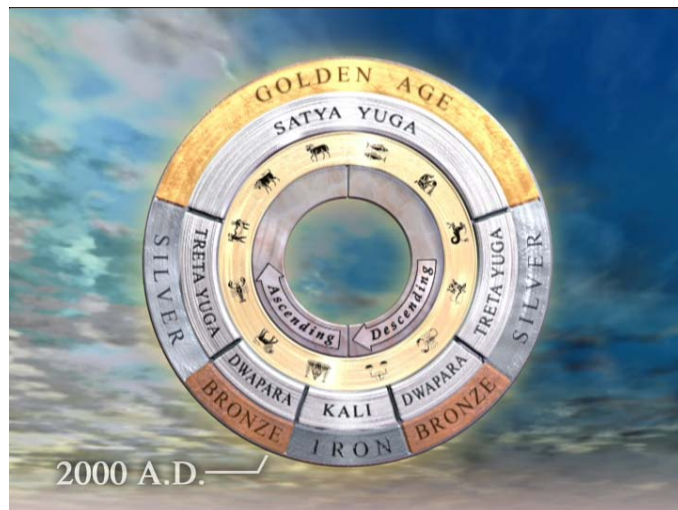
From any fixed point on earth we notice the stars shift position by about 4 minutes per day due to the earth’s annual orbit around the sun. This is not precession but it is a similar observed motion that is easy to notice from night to night or month to month. Precession however proceeds so slowly, about one degree per 72 years, that it takes very patient observation to notice this subtle astronomical phenomenon. A megalithic structure, with its large fixed stones, is an ideal vantage point for observing this slow movement of the stars from year to year, and ancient cultures certainly had many of these “observation” structures. Nevertheless, it would have taken generations, and careful record keeping to notice a large enough movement to be sure that the equinox was indeed precessing through the constellations. Some say the only reason for all the myths and folklore about precession and the heavens is just because the ancients didn’t have televisions and had to spend their time talking about the stars? This explanation sounds as hollow as the explanation that Stonehenge was built out of virtually unmovable rocks, moved over a hundred miles with unknown technology, just so the local farmers would know when to plant their crops! These guesses only show our limited knowledge of ancient cultures and portray the modern bias that all who came before us must be “primitives”.

Fortunately, we learn from Oriental Astronomy, and from carefully studying the myths themselves, why precession was so vitally important to advanced cultures of the ancient world. That is: just as the daily spin of the earth on its axis causes night and day and has a dramatic effect on consciousness producing waking or sleeping states on a mass scale, and just as the earth’s annual motion around the sun causes plants to spring out of the ground, bloom and give fruit only to decay again and all manner of other life to spawn, hibernate, fly south or otherwise change its behaviors, so does the slow movement of the earth in its precessional cycle indirectly cause the very rise and fall of civilization. Although this knowledge, or even a clear understanding of the legends, has been lost for thousands of years it is now being rediscovered. If true, that civilizations rise and fall as an indirect result of the precessional movement, it could be an alternative explanation for why we see evidence of advanced cultures back when man was supposed to be a primitive hunter-gatherer. Also, it might explain the ancient fascination with precession: it was their “what time is it and how’s the weather” topic, at least on a long term scale.

The Yuga Cycle or Great Year

Plato and the Greeks called this cyclical, precessional motion the “great year” as did the early Chinese. The Vedic Indians called it the Yuga cycle. These ancient cultures explained that just as the earth had a seasonal year that effected all life so too did it have a type of great year, a very long period where the earth went through a metamorphosis from a dark age, to an age of enlightenment then back again. Just as the day and year

have their phases of increasing and decreasing light, the ancients broke the great precessional year into two parts: 12,000 years ascending and 12,000 years descending (when things are getting better and things are getting worse) and broke each of these into four sections which the Greeks called the Iron, Bronze, Silver and Golden ages. Each of the ages were said to have a particular characteristic sort of like the four seasons, but whereas the seasons are more noticeable as a physical effect and only indirectly affect man’s consciousness (we think), the ages were said to have a profound effect on man’s consciousness and indirectly on his state of development on earth. For example, fables of a golden age or age of enlightenment refer to the higher ages or the “summer” of the yugas.



The Vedic culture probably expounded on this cycle better than any other and they broke it into great detail describing the incredible powers of man in the higher ages and the misery and chaos that exists in the darkest age which they called the Kali Yuga. Unfortunately, during the last Kali Yuga, corresponding with the world wide dark ages, the method of calculating the yugas became obscured. Hence the period of time for one ascending or descending age, correctly referred to as 12,000 years in the Mahabharata, was multiplied by 360 resulting in an immense period of time that lost all correlation to the precessional cycle or the archaeological record. Such is the way of the dark ages!

Celestial Cause

The great year was said to be driven by a celestial motion just as real as the two motions that drive night and day and the seasons of the solar year. These first two motions; a spinning earth and an earth that orbits the sun, are the cause of most natural cycles on earth and are the basis of our daily and annual time systems. But the great precessional year is no longer equated with any time system and its slow effect on mankind is no longer discussed. Thus the great year has gone from being the number one topic of discussion in the ancient world to near total oblivion. If one was the god “Kali” and really wanted to cause a great dark age, there would be no better way than to obscure knowledge of time and the basic motions of the earth – and this is just what happened.

In the dark ages, man lost the knowledge that the earth was spinning or that the earth went around the sun. Although Aristarchus of Samos, Archimedes and other ancients knew and wrote about our heliocentric system, man somehow forgot this and thought that the earth was "flat" and that the "sun went around the earth". This condition persisted for over almost two thousand years (the length of the combined Kali age on earth) until Copernicus resurrected the old knowledge near the beginning of the ascending "spring" age, now known as the renaissance. Incidentally, this term "renaissance" means renewal, and refers to the renewal of the higher ages.

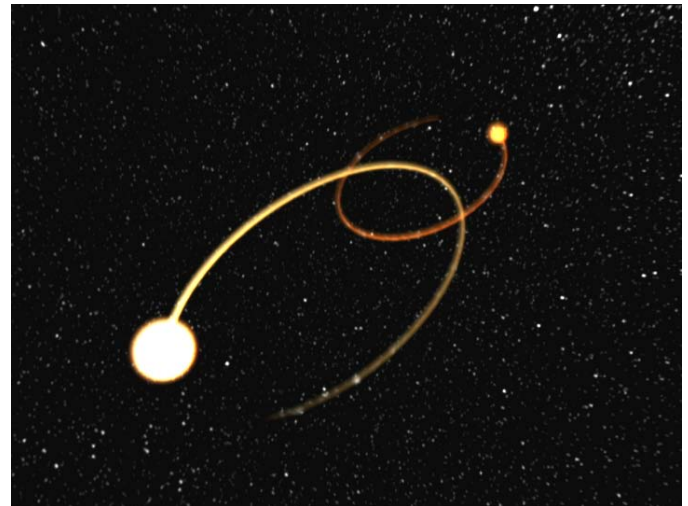
Copernicus acknowledges that he consulted ancient texts when he properly interpreted the first two motions of the earth. Unfortunately, he did not have access to information on the third motion, yet he still needed to explain the phenomenon of precession. Consequently, to address this obscure subject he said the earth must wobble or experience "libration". While this does properly explain the apparent motion from the earth (as the pole of the axis does draw an elliptical shape in the stars from our point of view) it does not explain the cause of this apparent motion. So along came Newton who said that if the axis wobbled it must be due to his newfound laws of gravity, probably the sun and moon tugging on the oblate earth. The fact is his equations for these motions never quite worked, and have been continuously modified ever since, but that's another story.

Binary Motion

In 1894, a great Indian sage, Swami Sri Yukteswar, wrote a science book explaining the rise and fall of the ages and attaching the cause of this phenomenon, and that of precession, to a binary motion of our sun. He said, " We know from Oriental Astronomy that moons revolve around their planets, and planets revolving on their axis with their moons revolve around the sun, and the sun takes some star for its dual and revolves around it in a period of about 24,000 years causing the backward movement of the equinox." Interestingly, this statement was made at a time when there was very little knowledge of "rare double stars" (now known as binary systems) and no knowledge that some stars like brown dwarfs or black holes might be very difficult or impossible to see. According to the latest NASA figures a huge number of stars are undetectable and roughly 80% of all visible stars are now considered to be part of a binary or multiple star system. So what are the odds that our sun is part of a binary system?

Most scientists will tell you if we were in a binary system we would know it by now. However, if the orbit period were long enough or if the companion were faint enough or if gravity worked a little differently outside the solar system, as proposed by some*, then it is quite possible we would not know our sun has a companion star. And what about precession, could it be the result of our sun's curved motion through space, which is what our sun would do if it were part of a binary system? This question raises the ire of all those who were taught that precession is strictly the result of lunisolar forces acting upon the oblate earth. Although it is an extremely complex theory that is impossible to prove or model in a laboratory, it has been

left unchallenged until just the last few years, and some now say it just doesn't work.



Here at the Binary Research Institute we accept modest lunisolar forces but have found fundamental flaws in the current explanation of precession, whereas a binary model seems to solve many of the long-standing problems in solar system formation theory. For example: it has been found that the earth does not precess relative to objects within the solar system (like the Moon or Perseids comet debris) but it does precess relative to fixed stars outside the solar system. This is very hard to explain if precession is caused by anything other than a binary motion. Also, the binary motion seems to easily solve problems with an uneven distribution of angular momentum within the solar system, and it provides a logical reason for the observed non-random long cycle comet paths and the sheer edge of the Kuiper Belt.

Other non-traditional scientists are also coming to similar conclusions. The Homann's of Canada have been saying for several years that current lunisolar precession theory does not work, and they make compelling arguments that any rotation of the earth (as lunisolar theory requires) does not show up in time and motion equivalency measurements. And Carlo Satagata of Italy, taking a dynamicist's approach shows us current precession theory fails miserably to account for even known relativistic effects. In summary, the lunisolar theory seems doomed while the binary theory looks very promising.

Most recently, work has been done applying Kepler's law to a binary motion, to show that if the binary orbit were slightly elliptical, as virtually all orbits are, then precession, now at a rate of 25,770 years, (for both ascending and descending phases combined) would average about 24,000 years if the apoapsis (farthest point of distance) between the two stars was reached at the depths of the dark ages, about 500AD. This would show that the average precession rate agrees perfectly with the ancient Vedic interpretation of the Yugas.

Implications for the Great Year

If the binary theory were correct it would go a long way to shedding light on the great year myths and folklore from around the world. Many of these myths directly relate the

The Rise and Fall of Time

Hermes said, "As above, so below". Perhaps if we prove our binary motion we will understand the significance of the daily time system we inherited from the Sumerians, Egyptians, and ancient Americans. They left us a 24-period system, with its two 12 hour periods of ascending (AM) and descending light (PM). During the AM hours the earth receives an expanding amount of photons until the zenith point (noon at equinox), then PM brings increasing darkness. Is this just coincidence or is this a microcosm of the 24,000 year cycle with its ascending and descending yugas of 12,000 years each? This might turn out to be the best evidence yet of an ancient knowledge of precession and the great year – and it was on our wristwatches the whole time!

movement of the sun through the constellations with a changing environment on earth. It is well known that in the Mythraic mystery school, that Mythra "moved the Sun and caused precession". According to Michael S. Heiser, a cuneiform scholar of the highest magnitude, the Sumerians said the celestial object "Nibiru" drove precession. According to Richard Thompson, "...the Greeks believed that each set of four ages ended in a catastrophe. Norse mythology taught that the destruction of the gods called Ragnarok was followed by a fresh cycle of creation. The Chinese called the interval between world destructions a "great year", the Hopi spoke of four worlds, with three ended by destruction. Likewise the Sioux Indians have a close parallel to the Hindu bull of Dharma that loses one leg during each of the four successive yugas".

No doubt there are great catastrophes, such as comets, asteroids, large earth movements or possibly even pole shifts that befall the earth from time to time and interrupt the history of man. And maybe even extraterrestrials affected life here on earth. But none of these explain why we had a progressively declining civilization for thousands of years before the dark ages, or why intelligence and technology generally seem to be advancing so smartly since the beginning of the renaissance. A binary system of our sun traveling through space taking the earth on a long elliptical journey where it might possibly be influenced by cosmic radiation, negative ions, a different magnetic field or even increasing or decreasing amounts of a certain spectrum of light, could very well explain the myths that come to us from every world culture. Incidentally, there is good science to prove the aforementioned subtle influences effect consciousness and can dramatically change test scores and individual behavior*. Imagine what would happen if the whole planet were affected on an ongoing basis for thousands of years.

Lost Knowledge – New Opportunities

Slowly but surely lost knowledge is being resurrected. Near the end of the Roman empire we lost our ability to build arches but that came back almost a thousand years later. We lost our ancient knowledge of plotting eclipses

and of the first two motions of the earth, but they have since been rediscovered. We lost our knowledge of Greek democracy and humanity and medicine, we forgot how to perform brain surgery or build prosthetic devices but these have all been rediscovered. And now we think we know much more than the ancients but our environment suffers and our natural resources are being depleted, and we live in a stress filled society with tremendous social problems.

If the great year cycle is true, perhaps we are close to rediscovering how to once again live in harmony with the earth and maybe each other. Consider what a golden age might have been like, when science and spirituality worked together, when we revered the heavens and only built permanent structures if they were aligned in harmony with the motions of the earth and stars. Were shaman, and saints and sages and yogis, and enlightened demigods just made-up stories of a fantasized higher age? Or were they people like you and me who achieved their full human potential?

Knowledge of a binary motion of our sun and its connection to the precession of the equinox may be the next major discovery. If it is confirmed, it might finally lead us to an understanding of who and what we really were, and more importantly, what we have the potential to become.

Walter Cruttenden is an amateur astronomer and author of the binary theory of precession. As Executive Director of the Binary Research Institute he spends much of his time researching the celestial mechanics of the Precession of the Equinox, as well as ancient structures, myth and folklore related to this phenomenon. He is the writer-producer of The Great Year; a PBS broadcast documentary film (narrated by James Earl Jones) that explores evidence of astronomical cycles of time known to cultures throughout the ancient world. He also the author of Lost Star of Myth and Time (St. Lynn's Press), a book that examines myth and folklore about a Golden Age, and finds it may have a basis in modern astronomical fact.

Cruttenden has written papers and articles and spoken on the topics of Precession, Our Binary System, The Cosmic Influence and Astronomical Myth and Folklore at numerous Universities and scientific symposiums including: the University of Virginia, University of Arizona, University of California at San Diego, the Scientific Society for Exploration, and similar forums throughout the United States.

Cruttenden is married, has four sons and resides in Southern California. He enjoys surfing, hiking, and esoteric studies. For more information on precession or the Great Year please see: www.BinaryResearchInstitute.org or www.TheGreatYear.com.