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PRECESSIONAL NUMBERS FOUND AT ANCIENT SITES

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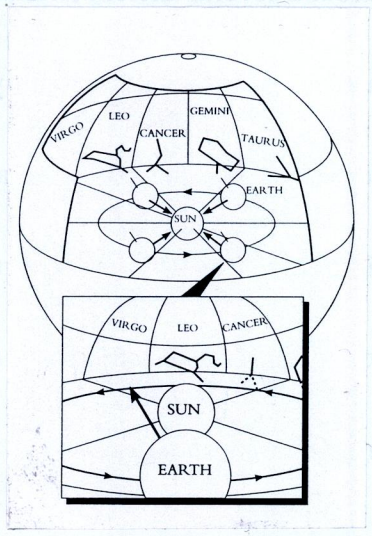
INTRODUCTION

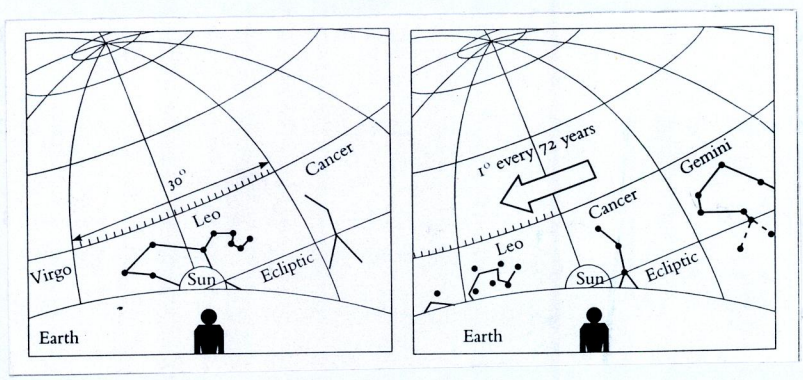
In my thesis I aim to take the reader around several ancient sites and to give a brief insight into the peoples who have inhabited them. I will be mainly looking at numerical codes found at these sites and in these civilisations, and showing a similarity between them. The common numerical code is based on an astronomical phenomenon called precession, which has a ruling number of 72. To best understand the idea of precession, it is worth explaining a few basic astronomical principles.

The sun always rises in the east, but not always in the same spot on the eastern horizon. During one year the sun will travel from the southern end of the eastern horizon at the winter solstice, through to the northern end of the eastern horizon at the summer solistice, or from right to left.

There are four important dates within the solar year, two I have just mentioned, the winter and summer solstices (December 21st and June 21st respectively) and the spring and autumn equinoxes (March 21st and September 21st). Each of these high points is really just a location of the earth's orbit around the sun.


VIRGO
LEO
CANCER
GEMINI
TAURUS
EARTH
SUN
VIRGO
LEO
CANCER
SUN
EARTH

1.


30°
Cancer
Leo
Virgo
Sun
Ecliptic
Earth
1° every 72 years
Gemini
Cancer
Leo
Sun
Ecliptic
Earth

2.

Because the earth is tilted at an angle of 23.5° from the vertical, the North Pole points away from the sun in December and towards the sun in June. In March and September it is in effect lying broadside to the sun.

The winter solstice is the shortest day of the year (in the Northern Hemisphere) both the spring and autumn equinoxes mark the point at which night and day are equal and the summer solstice, which is the longest day of the year (Northern Hemisphere only). Because we live on a spherical planet, we regard the cosmos as a giant sphere decorated with thousands of stars. Ancient astronomers organised a belt of these stars into the twelve constellations of the zodiac. These constellations lie in the plane of the earth's orbit. If we see this orbit as a circular band on a clockface, the zodiac would mark the hours. As the earth travels along its orbit it stands to reason that the sun will lie between the earth and one of these 'hours'. The effect for us on the earth is the rotation of a background of star – images throughout the year, each constellation spending roughly one month with the sun at dawn.

On a longer time scale is the astronomical phenomenon called precession. It is a very slow wobble of the axis of the earth, which causes the earth-bound observer to witness a cyclical slippage of the zodiacal belt against the rising point of the sun.

The result of this is that in any given epoch, the four constellations which mark the four key dates of the year slip anti clockwise at a rate of one degree every seventy two years. The distance of this can be roughly translated as the width of a forefinger held up against the horizon. Each constellation measures 30° therefore each constellation rises in union with the sun for an average of 2,160 years (30 x 72) on any given date, e.g the spring equinox. All twelve constellations cycle past the four key moments of the year in just under 25,920 years. (12 x 2,160).

There has been a recent interest into many ancient sites, new ideas dismissing what archaeologists have found in the past and linking much astronomy with ancient monuments. Neither side can prove the other wrong but at the same time they have no real proof with which to prove themselves right either. I stand on the 'new-wave' side of the fence but am not interested in any of the 'scare mongering' that is being banted around at the moment, especially with the 'new millennium' so close at hand.

The work of Hertha Von Dechend and Giorgio Santillana in *Hemlet's Mill* shows the use of a numerical code in ancient civilsations, a code which they cracked between them to reveal a precessional code.

They based their work mainly on the legends of ancient civilisations and Graham Hancock has written many books including *Fingerprints of the Gods, Keeper of Genesis and Heaven's Mirror* in which he concentrates on finding one ancestor civilisation that tie them all together. My own interest is in the fact that many of these civilisations were thought of as 'too stupid' by many archaeologists to have had any idea of astronomy and yet the proof is found at these ancient sites that precession was a central part of their cultures. The number seventy-two seems to be incripted in so many important sites, as I hope to show in the following chapters.

Egypt

The ancient Egyptians believed that the deceased must journey after death in a parallel universe known as the Duat. It was believed to have been located in the sky, in the eastern region, incorporating the bright star Sirius and the constellation of Orion. It was only visible an hour or so before dawn and has been described in some of the oldest surviving Egyptian funery texts.

> Orion has been enveloped by the Duat, while he who lives on the horizon purifies himself. So this Sirius has been enveloped by the Duat, while he who lives on the horizon purifies himself.

The best explanation of this is a view expressed by Selim Hassan, an Egyptologist, (Hassan, 1947, p.278). As the sun rises and 'purifies' itself on the horizon, the stars Orion and Sirius are 'swallowed up' by the glow of the dawn. This is a true observation of nature; the night sky which included the Duat, disappears at sunrise.

Robert Bauval has, in a more recent study, given us a clearer location of the Duat in time and space. Because of the earth's orbit, the background of stars against which the sun rises each morning, changes very slowly throughout the year, so Orion and Sirius do not rise in conjunction with the sun on every dawn, only at certain points of the solar year. In

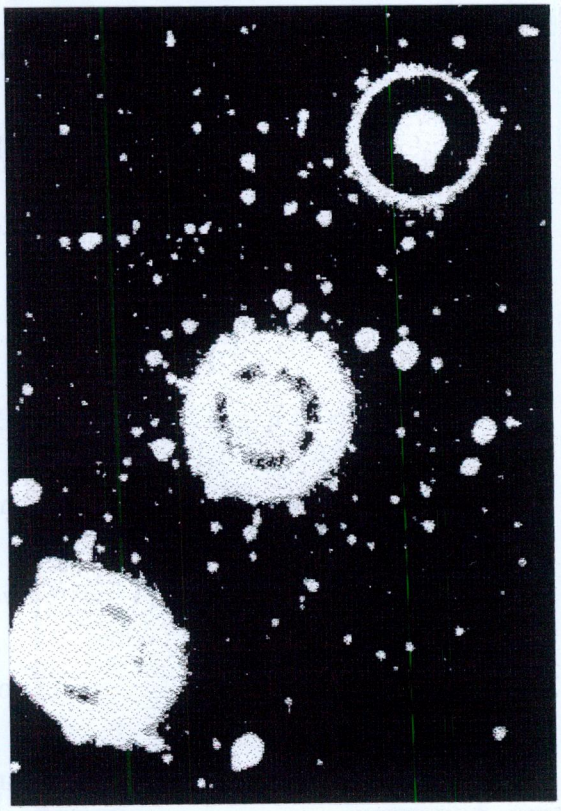
2,500 BC the Duat would have been 'active' at the time of the summer solstice, the longest day of the year. 2,500 BC also happens to be the date given to the oldest surviving Egyptian funery texts (Bauval 1994 p. 213-214).

By using precessional calculations, the sky moving anti-clockwise at a rate of one degree every seventy-two years, the season in which the Duat is active changes also. In 10,500 BC- 8,000 years before the funery texts were written, the Duat would have been active on the spring equinox (March 21st), thought of by many civilisations as the most important day of the year. At this present moment in time, the Duat is active at the autumnal equinox (September 21st).

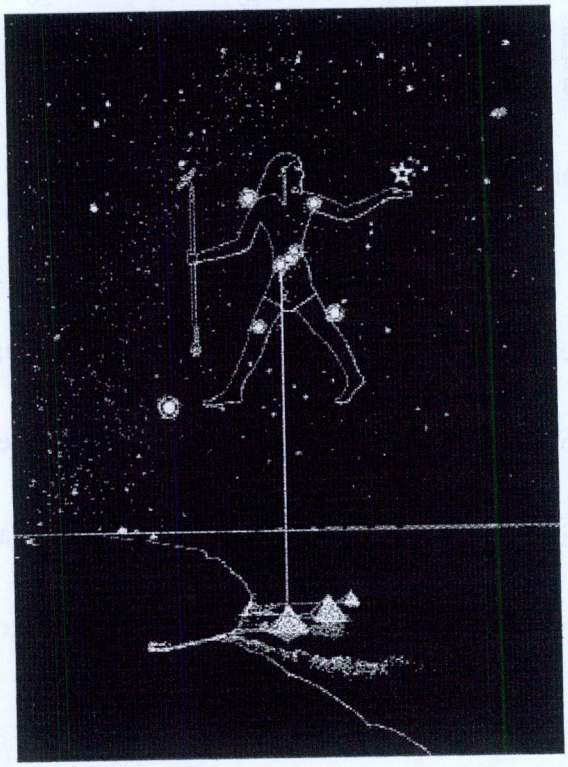
Orion and Sirius play a very important role in Egyptian mythology. Their earthly counterparts were Osiris and Isis, the parents of Horus. The myth tells of rebirth and resurrection and of eternal life.

Osiris ruled Egypt in the 'first time' or 'Zep Tepi'. He ruled his kingdom with cosmic justice and it was said to be a golden age. Osiris was brutally murdered by his jealous brother Set, who was said to have had 72 co-conspirators, which is a precessional number. Osiris was briefly restored to life by the sorcery of his sister Isis, who took the

3(i)



3(ii)

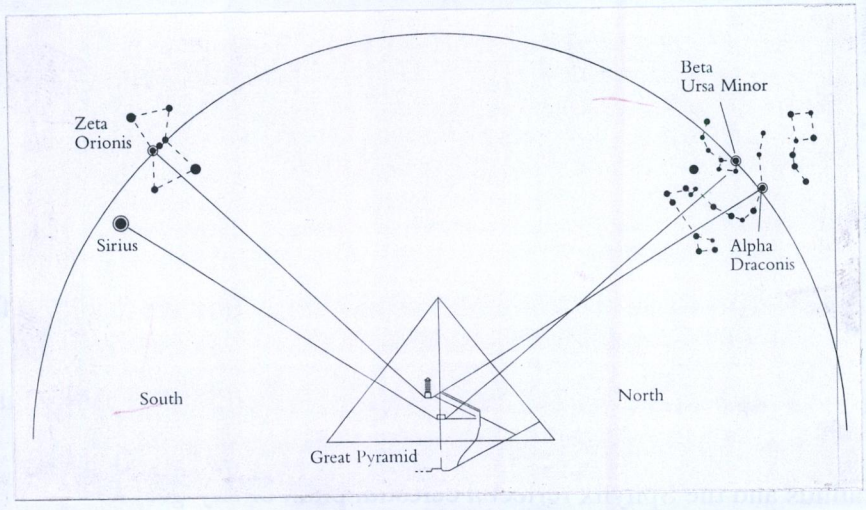


3(iii)

form of a kite and hovered over his phallus and received his seed. It was in this way that Horus was conceived. He is often depicted as a falcon headed king in many texts. When Horus had grown to manhood he set about avenging his father's death and conquered Set, while at the same time, restoring his father's kingdom. This action gave Osiris a new spiritual life in the heavens, where he presides over the souls of the dead, for all of eternity as Lord of the Duat.

It was the belief of the Pharaohs that to live as an 'Horus king' would enable them to become an 'Osiris' in the 'life of a million years' (Reeves and Wilkinson 1996 p. 38).

It was also part of their belief to prepare their souls for the journey through the afterlife and to know the plans of the heavens. In *The Orion mystery* Robert Bauval shows that at Giza, the three pyramids and the Sphynx reflect a celestial plan, or sky-ground architecture. He draws our attention to the Giza plateau from an overhead view. The great pyramid and the second pyramid are on a 45° diagonal line to the southwest of the Eastern face of the great pyramid and the third pyramid is offset slightly to the East of this line. This offset diagonal mimics the three bright stars of Orion's belt. To further enhance this image, the River Nile runs to the East of the pyramids, mimicking the Milky


Beta
Ursa Minor
Zeta
Orionis
Sirius
Alpha
Draconis
South
North
Great Pyramid

4.

Way in relation to the belt stars of Orion. In Egyptian funery texts the Milky Way could be represented by the 'winding waterway' (Pyramid Texts cited in Hassan 1947 p. 106).

Considering the high ranking of Osiris in the religious beliefs of the Egyptians, it seems like a fairly obvious point that the three great pyramids should reflect the three bright stars of Orion's belt.

There is more to the great pyramid that this. It has the unique feature of four air shafts which, as Bauval points out, align with three main stars of ritual importance in the sky of 2,500 BC - the date the pyramids were constructed. The two shafts to the North align with Kochab in the constellation of the little bear (Beta Ursa Minor) and Thuban in the constellation of Draco (Alpha Draconis). The Southern shafts align with Sirius (Isis) and Al Nitak, the brightest star in Orion's belt (Zeta Orionis).

The 'mystery' is that the airshafts seem to align to the sky of 2,500 BC, but the ground plan of Giza is of a much older sky, 8,000 years older. With the help of computer programmes such as *Sky Globe* and *Red Shift* it is possible to track the path of stars throughout the ages. Bauval shows the cycle of Orion as it slips up and down the southern meridian over a period of 26,000 years, 13,000 years up and 13,000 years down.

It's lowest point was last seen in 10,500 BC when the three belt stars were shifted in a slight clockwise direction, giving the diagonal seen on the ground with the three pyramids.

I think that this could be seen as the ''first time of Orion' or ''Zep Tepi'. Orion will peak over the next 500 years or so, perhaps this could be seen as the ''last time of Orion'. It will then begin its long decent back down to the horizon.

Bauval also shows that it isn't only the pyramids of Giza that match the sky of 10,500 but also the Sphynx. This giant monolith gazes with pinpoint accuracy to due east. By using the same computer programmes it is possible to see the constellation of Leo rising on the Spring equinox 12,500 years ago, one hour or so before dawn, in direct line with the gaze of the lion-bodied Sphynx. The relevance of this is that the Duat is said to lie between Leo and Orion.

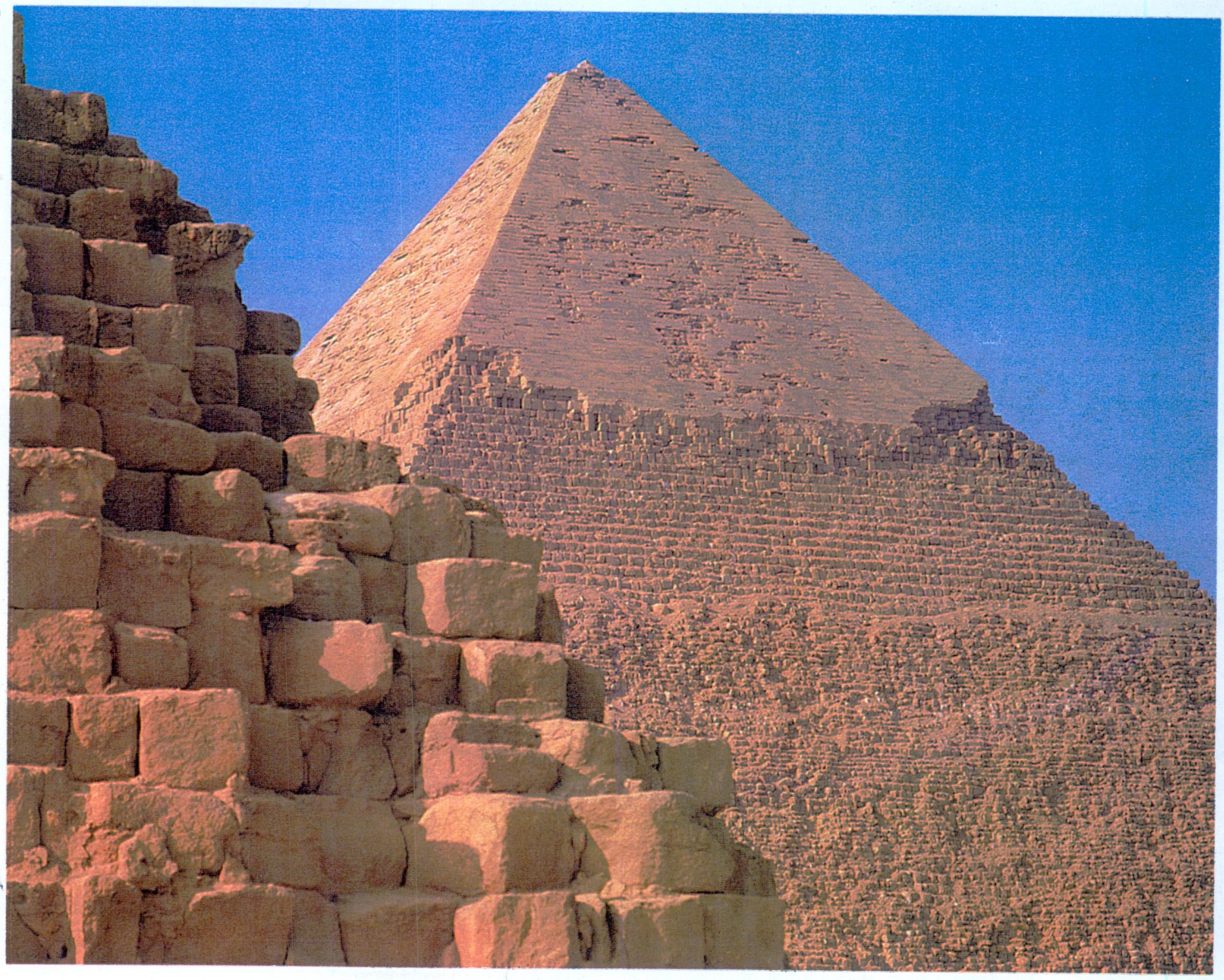
It is a strange fact that the pyramids were build in 2,500 BC but the Sphynx is vastly older; no accurate date has ever been given. It was thought it was built anywhere between 10,000 and 2,000 BC (Robert Schoch, cited in Hancock, 1998 p.92-94) – but both the Sphynx and the pyramids reflect the same sky. The 8,000-year difference

between the 'sky'of the ground plan and the 'sky' of the airshafts seems like the perfect way to show the Egyptians the effects of precession.

There are also the dimensions of the great pyramid to consider. In *Heaven's Mirror,* (Hancock 1998 p. 47-48) Hancock shows that the height of the pyramid when multiplied by 43,200 equals a figure amazingly close to that of the polar radius of the earth, and that the base measurement, when multiplied by the same number, gives a figure similarly close to that of the equatorial circumference of the earth. This doesn't seem that interesting until he points out that 43,200 is a precessional number. If it takes 72 years to shift one degree of sky, then it takes 2,160 years to move one constellation, each constellation being 30° (30 x 72 = 2,160). Two constellations to move take 4,320 years (2,160 x 2 = 4,320) and multiplied by 10 = 43,200 – the ratio between the great pyramid and the Northern Hemisphere of the earth.

Surely if the Egyptians just wanted to make a monument big enough to stand the test of time, any ratio between 1:40,000 and 1:50,000 would be fine, but to have picked a number 1:43,200 seems to me to be more than just a pure coincidence.

In 1969 Hertha Von Dechend and Georgio Santillana published a book called '*Hamlet's Mill*' in this study they show signs of a precessional 'cult' in many ancient civilisations through the use of myths and legends.



They also show some interesting dimensions of the King's chamber situated in the Great Pyramid. The chamber in which no pharaoh was ever found, is strategically placed halfway up the interior of the Great Pyramid and halfway horizontally. They explain a right-angled triangle incorporated in the red granite room. The dimensions are as follows:-

The shortest side, which runs diagonally across the west wall, measures fifteen cubits. The hypotenuse, which runs from the upper northwest corner down to the lower south east corner, is twenty-five cubits. The third line, which connects the other two, runs along the entire floor of the south side of the chamber and measures twenty cubits. The three lengths of 15, 20 and 25 can be described as a ratio of 3:4:5, each length being divisible by five. This is known as a Pythagoras triangle, named after the Greek philosopher who was supposed to be the first person to discover its properties, even though he was born over 1,500 years after the pyramids were built. It is only when these numbers are cubed that a precessional number is found. Rather than a Pythagoras triangle being squared (e.g. $a^2 + b^2 = c^2$) or the hypoteneus squared is equal to the square of the other two sides added together (3x3 =) 9 + (4x4 =) 6 = (5x5 =) 25, the hypoteneus cubed equals the cube of the other two sides added together or $a^3+b^2 = c^3$ (3x3x3 =) 27 +

(4x4x4 =) 64 = (5x5x5 =) 125. 27+64+125 = 216, a precessional number describing the movement of the zodiac of 30° (30x72 = 2,160).

There is further evidence of astronomical observation at Giza. The Great Pyramid's aligned to be cardinal directions with pinpoint accuracy. The north-south axis of the Great Pyramid is aligned to celestial north with an error of just $1/16^{th}$ of a degree. This is truer than the meridian building at the Greenwich observatory in London.

Mexico

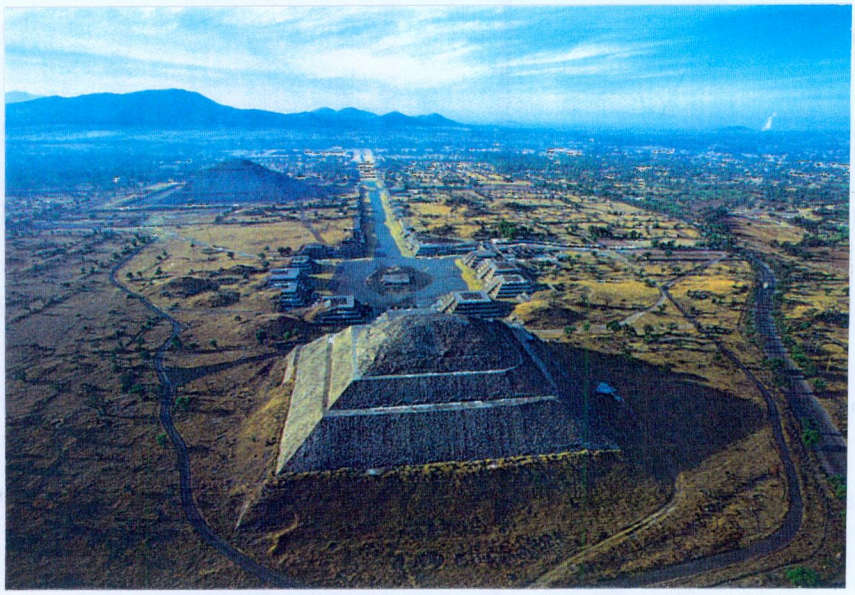
Mexico is a mysterious country for historians because of the lack of information available before the Spanish invasion in March 1519. Hernan Cortes found it amazingly easy to conquer the Aztecs and other Central American cultures due to a legend that had been handed down by preceding civilisations such as the Maya and the Olmecs. The Olmecs are the oldest known civilisation in Central America, although there is no definite age given to them. It is thought that they flourished and their culture 'peaked' at around 1,500 BC in the region of the Gulf of Mexico. They worshipped a God-King by the name of Quetzalcoatl, which translated means plumed or feathered (Quetzal – plume/feather, coatl means serpent). His image is also seen as a white skinned man with a fair beard. He was known to the travel in boats that moved by themselves. This was very fortunate for Hernan Cortes.

When he landed he found barbarism beyond description. The Aztecs performed human sacrifice on a colossal scale. The victims were often burnt alive or had their hearts cut out and offered up to the gods. This was often followed by a ceremonial flaying of the corpse. A Spanish friar by the name of Bernardino Sahagun recorded much of the Aztec culture in a book called *Historia General de las Cosas de Neuva Espana* or *History of the things of New Spain* (cited in Coe 1988). He explained that the Aztecs seemed to

5.

perform a ceremony based on the teachings of Quetzalcoatl, albeit in a far too literal way. The heart being the spiritual soul offered to the gods, the burning would purify the soul and flaying stripped the soul of all material goods before its journey into the after-life. Their netherworld was located in the sky in the same region as the Egyptian's Duat. Hancock draws our attention to the similarity of this and other features of these two civilisations in *Heaven's Mirror*, even though the two cultures are separated by thousands of years and thousands of miles. They both believed in stellar re-birth: the Egyptians belief of Osiris being resurrected as Orion and, in Mexico, Quetzalcoatl was believed to have enclosed himself in a stone sarcophagus or stone box for four days. When he rose he made his way to the shore of the celestial ocean and set fire to himself. His ashes were immediately raised up and in eight days the star Quetzalcoatl appeared. If the idea of stellar re-birth is similar, then I feel that surely the celestial ocean described could be translated as the Milky Way which is equally important to the Aztecs as it was to the Egyptians.

Just as at Giza where the river Nile is symbolic of the Milky Way, the Way of the Dead at Teotihuacan plays the same role. Teotihuacan is a 'city' that lies thirty-five kilometres to the northeast of modern day Mexico City. It too has been found to reflect the sky. In academic papers published in the 1920's, Stansbury Hagar puts forward the opinion that



6.

Teotihuacan is a ground plan for the sky (cited in *The Mayan Prophecies* 1995). It consists of three main pyramids – step sided rather than smooth as at Giza. These pyramids are connected by the arrow straight way of the Dead, or Way of the Stars, along which the souls of the deceased must journey between the earth and the land among the stars.

The Way of the Dead is offset fifteen degrees northeast and southwest. At the northern most point stands the Pyramid of the Moon at a height of roughly forty-six metres. One kilometre to the south of the Pyramid of the Moon, on the east side of the Way of the Dead is the Pyramid of the Sun. This is the largest of the pyramids at Teotihuacan, at a height of over seventy metres. Beyond this is the smaller temple Pyramid of Quetzalcoatl. The offset angle of the Way of the Dead is the same angle as that of the west face of the Pyramid of the Sun, fifteen degrees and thirty minutes northwest-southeast. This alignment of the west face picks out the setting point of the sun on two days of the year, May 19th and July 25th, the two days of the year when the sun is at an exact vertical at noon over Teotihuacan.

Hugh Harleston Jnr. (cited in *Heaven's Mirror*,p 23) shows that a complex mathematical grid was used in the ground plan of Teotihuacan. From over nine thousand on-site measurements he has uncovered an interesting theory regarding the precessional numbers. The original architects of the site use a standard unit of measurement called the Standard Teotihuacan unit or STU. One STU = 1.05946 metres. When expressed in STU the precessional code becomes apparent. The centres of certain structures are 72 STU apart or 36 STU (half of 72) or 108 STU (72+36) or 54 STU (half of 108) or 216 STU (108x2), or multiples of ten e.g. 2,160 STU or 5,400 STU. The base of the Pyramid of the Sun is 216 STU, the east-west axis of the Pyramid of the Moon is 144 STU (72x2). The distance between the centre of the Pyramid of the Sun and the Pyramid of the Moon is 720 STU.

The sun itself was probably the most important deity for the civilisations of Central America, just as Ra was for the ancient Egyptians. The Spanish Friar Bernardino Sahagan discovered that central to their philosophy was a belief in the cyclical nature of time and a deep rooted fear that sooner rather than later this 'World Age' will come to a catastrophic end. They tried to nourish the sun with sacrifices and offerings, believing that it's life force would expire and thus end the fifth and final age of man.

Most of the native Meso-American documents were destroyed by the Spanish invaders, but a few pieces did survive and were taken back to Europe as gifts. One such 'gift' was a strange hieroglyphic book written by the Maya Indians of Central America. This book, which is also known as the Dresden Codex (named after the town library it was kept in, in Germany), was eventually translated in 1880. Once the hieroglyphic 'code' was cracked many scholars have been able to add important information about this now called *Mayan Calendar* (Mayan Prophecies Web Site). It is a calendar of such precision that it puts our own Gregorian Calendar to shame. It depicts lunar eclipses, cycles of Mars and Venus and the helical rising of the Pleides Star cluster seen as a cosmic serpent's rattle, which, I feel could easily be translated as Quetzalcoatl, the Plumed Serpent. This calendar has a system for counting back the days to the'Birth Date of Venus' or 3114 BC, the thirteenth of August to be more specific. This date is seen as the beginning of the fifth age of the sun. The Mayan Calendar is divided into months and years (Uinals and Tuns respectively) and also longer periods of time, Katun – 7,200 days (72x100) and Baktun, 144,000 (72,000x2) days. The end of this epoch according to the Mayan Calendar is 22 December 2,012 AD. The idea of different ages of the sun is not unique; there is a very similar calendar in the Hindu belief, which is found at Angkor in Cambodia but their end date gives us more time!

7.

The precessional number 72 appears at another site in the Yucatan Peninsula. Chichen Itza is also a temple dedicated to Quetzalcoatl. It is believed to be Mayan in origin, dating back to 500 AD and developed up until at least the thirteenth century. The Mayan name for Quetzalcoatl was Kukulcan and this temple here is angled northeast –southwest. In *Heaven's Mirror* Graham Hancock visits Chichen Itza at the time of the autumn equinox (September 21st).

> By about 5.15pm it was clear what was happening. So skilfully was
> This magnificent pyramid aligned to the trajectory of the setting equinoctial
> Sun that it has been possible for the ancient builders to contrive a pattern
> Of light and shadow on the western side of the northern stairway .....
> By around 5.30pm it had manifested itself fully as a gigantic undulating
> Serpent with seven coils of shadow defined by seven triangles of light.
> The tail of the serpent reached the top platform of the pyramid, with its body
> Extending down the balustrade all the way to the ground where a huge
> Sculpted serpent's head with gaping jaws completed this illusion
> (Hancock, 1998, p.26-27).

This pyramid of Kukulkan is like many other temples, built on a much older 'sacred mound' (Reeves, 1996).

Since the 1930's the Pyramid of Kukulkan has been extensively researched and excavated by archaeologists. Behind the northern stairway is a tunnel leading all the way to the top at which point it opens up into a chamber. In this room is a statue of

Chacmool, an idol used as a prop in many sacrifices – the same statue that inspired Henry Moore's recumbent figure, 1938 ('The Art Book, p. 323). At the rear of Chacmool is a sculpted Puma, the spots of which are significantly formed from seventy-two pieces of jade (Hancock 1998, p. 27).

The ancient Maya believed that the entrance to Xibalba, their netherworld, lay in the open jaws of the Puma. I think that this is a very similar idea to the Egyptian belief that the Duat lay in-between Leo (lion) and Orion. Both cultures seem to depict the 'Big Cat' as an entrance to the afterlife.

There is further evidence of sky-ground architecture at Uxmal, 200km west of Chichen Itza. In *Fingerprints of the Gods* (Hancock 1995). Hancock shows that many pre-Columbian Maya Temples are based on the zodiac. An almost complete zodiacal sequence can be recognised at Uxmal and the mysterious fact of this is that the Greaco-Babylonian zodiac we use today was contrived in 700 BC. However, an amazingly close zodiac was used in Central America even though Central America was not 'discovered' until 1519. It was a central belief of the Mayans that everything in this world is a reflection of the perfection on the ground would enhance the lives of all those that lived in these 'planned cities'. Orion is also present in sky-ground architecture. At Utatatlan,

the capital city of the Quiche Maya, the settlement core of the city has been established to reflect the helical settling points of Orion. Even though Orion is non-zodiacal, it is the celestial counter-part of Osiris Lord of the Duat. The Mayan belief is that Orion was the place of creation and re-birth and that the three belt stars of Orion are three stones in the hearth of creation.

Cambodia

The Mekong Delta

Angkor is a site in Columbia which was built by a Hindu civilisation in Indo-China between 802-1220 AD. Its name is translated from the Sanskrit word 'Nagara', which means town.

In *Heaven's Mirror* Graham Hancock shows a world grid with both longitude and latitude. Latitude has long been established in the northern hemisphere by measuring the angle of the pole star (True North) from the horizon, but longitude, the vertical lines on the grid, was unable to be measured until the invention of sea-going chronometers in the eighteenth century. Nowadays Greenwich in London marks the first line of longitude, zero degrees, and the equator marks latitude. Zero degrees longitude is also known as the Prime Meridian and it is this that Hancock uses to demonstrate a certain plan in the layout of ancient sites around the globe. If the prime meridian is moved from Greenwich to Giza then Angkor lies seventy-two degrees east of Giza. At the moment with the prime meridian at Greenwich, Angkor is one hundred and three degrees east and Giza is thirty-one degrees east. 103-31 = 72.

I think there is a phonetic quality of Angkor that could be interpreted as Angkh Hor, an Egyptian phrase meaning 'Life to Horus'.

8.

Angkor Wat is one of the largest stone buildings ever built, but it is only one of many stone 'monuments' in the area of the Mekong Delta, including tombs and temples as well as geometrical 'cities'. The whole area is almost three hundred square kilometres. Angkor Wat is translated as Angkor Temple. It consists of five rectangles graduating in scale and nested inside each other. Each of their orientations are remarkably precise to the cardinal directions, true north south showing no deviation whatsoever and east-west out by just three-quarters of one degree. The outside perimeter measures one thousand three hundred metres north south and fifteen hundred metres east west, and the entire perimeter has a survey error of barely one centimetre (www.sacredsites.com). The five rectangles are also gradually raised above each other, giving the impression of a low-lying pyramid. Buddhist Monks have likened the layout of Angkor Wat to a Mandala, a representation of the universe, a collection point of universal forces. When you enter a Mandala and proceed towards its centre, you are literally guided through the process of cosmic disintegration and re-integration. These mandalas were usually painted on paper or cloth for convenience. A novice monk would condition his mind with this thought process; they could be seen as an aid to meditation.

9.

Angkor Thom (Angkor the Great) is situated to the west of Angkor Wat and is comprised of three main temples: Phimeanakas (Palace of Heaven) on the north west of the enclosure; Baphoun (Temple of Bronze) two hundred metres to the south; and the Bayon (Father of Yantra), which is built in the exact centre of the enclosure. The Bayon is the largest and undoubtedly the most magnificent of these temples. A 'Yantra' is a specialised form of Mandala, so it is reasonable to suggest that the Bayon has a similar purpose to Angkor Wat. The Bayon is also a five-tiered pyramid but it is much harder to make out due to the amount of towers surrounding it.

An inscription found at Angkor, believed to have been written by Jayavarman VII, a Khmer God-King who was responsible for the building of Angkor Thom and he Bayon in the twelfth century, states quite clearly that 'The Land of Kambu (Cambodia) is similar to the sky' (Demain p.182-183). In 1996 John Grigsby, who was doing research for Graham Hancock in Angkor, put forward the notion that the entire site does reflect the sky; in fact, it reflects the constellation of Draco (Hancock 1998 p. 126-127). At least fifteen of the main Pyramid Temples can be pinpointed to the principle stars of Draco and its neighbouring constellations such as Ursa Major, Ursa Minor, and Theta Corona Borealis.

He states that:

> Not only do the stars of Draco seem to sit over the temples of Angkor when both images are aligned to north, but also the distances between stars and movements are as accurate as possible when you take into account that the Khmers were without the luxury of photographs of the stars, just maps made manually. There had to be an allowance for human error for the transference of the constellation onto the map and then the transference of the fallible map onto difficult terrain over the hundreds of square kilometres with no method of viewing the overall site from above. (Hancock 1998, 126-127).

Hancock and Grigsby did not find that the ground plan and the sky matched for the dates when Angkor was under construction, 1150 AD and thereabouts. However, with the use of the *skyglobe* program, they found the match in 10,500 BC when the constellation of Draco had done a 180° shift on the vertical plane. In fact, the date was even more exacting; an hour or so before dawn on the spring equinox 10,500 BC, the exact same date and time as the Giza correlation.

One point I would like to add is that at Giza there is a certain amount of evidence to suggest that the pyramids and other temples are built on the sites of far older mounds (Reeves '96) and the same is true of Chichen Itza. However, there is no evidence,

archaeological or otherwise, to suggest that any civilisation was present at Angkor before the Khmers in the first century AD. Draco the celestial serpent has his own counter-parts in the spiritual belief of the Hindus. At Angkor both Buddhism and Hinduism were practised.

In Indian mythology there are serpent God – Kings called Nagas – a word that has great similarity to the Sanskrit Nagara (Angkor/Town). These Nagas were known as 'shapeshifters', appearing either as fully human or as hybrids, human above the waist and serpent beneath. The first and greatest of these Nagas is Sesha who has seven heads. He is also known as Ananta - this means 'Duration or Endlessness'. Before creation took place, the all God Vishnu lay resting in the coils of Sesha, in a vast expanse of nothing. Before he caused creation to happen, he split himself into three, Creator, Preserver and Destroyer. Brahma is the creator, Vishnu is the preserver of creation and Shiva is the destroyer of creation. As each creation is subsequently destroyed, the essence of everything that existed in that Universe is embodied into the coils of Sesha the celestial serpent in whose coils Vishnu rests, until a new age commences.

In *Hamlet's Mill,* Von Dechend and Santillana describe a Hindu myth depicted in bas-relief at Angkor Wat. The myth is the Churning of the Milky Ocean. It is over forty-nine

10(i)

10(ii)

metres in length, situated along the southern wing of the eastern side of the central gallery. The story starts at the southern most point with the five-headed naga King Vasuki being gripped in the powerful hands of a demon or asura. The asura is of titanic build and is helped by two other gigantic asuras and eighty-nine smaller asuras. They are pulling Vasuki like a rope in a tug-o-war. On the opposing team are three Gods of equal statue helped by eighty-five smaller demi-gods or divas. Vasuki's body is wrapped around Mount Mendala, a key landmark in Hindu Mythology, and Vishnu himself is depicted in the centre, near Mount Mendala, seeming to control or direct the movement of Vasuki with his immense grip, using two of his four hands. Above this scene is a panel containing heavenly realms and below is a panel showing an ocean teaming with life of all descriptions. As the tug-o-war continues, Mount Mendala is churning this ocean, asuras at the head and devas holding the tail. This, say Von Dechend and Santillana, is what is happening in the heavens. If you can imagine two hoops encircling the earth at right angles to each other, crossing over at the poles, one hoop would depict the equinoxes, the background stars against which the sun rises on 21 March and 21 September when day and night ware of equal length, and the other would depict the solstices, the sun's address against the background stars of 21 June and 21 December, the longest and shortest days respectively. Because precession causes the polar axis to rotate, it follows that these hoops will rotate because they are attached to the poles.

(ii) 11

(iii) 11

Therefore the image of the naga turning Mount Mendala like a churn explains this rotation or precession of the equinox, part of an external cycle spinning very slowly backwards (one degree every seventy- two years) along the path of the ecliptic – the path of the sun – and also moving the constellations that house the sun on the four most important days of the year. The whole idea of precession could, I feel, be seen as a kind of Mandala, focusing the mind on the cosmic mystery and revolutions of the stars. The ancient Egyptians believed a knowledge of the heavens was paramount to succeeding in the afterlife journey, the ability to ' go down to any sky.'

The image of the churning of the Milky Ocean is also found at Angkor Thom, although unlike Angkor Wat it is in three dimensions. Angkor Thom's enclosure is surrounded by a water filled moat with five bridges crossing it: one on the north side, one of the south side, one on the west side and two on the east side. Along each bridge are two teams of fifty-four devas and asuras pulling on the body of Vasuki as before, one hundred and eight figures to each bridge, five bridges in total. That's five hundred and forty figures altogether. Von Dechend and Santillana show that fifty-four and 108 are precessional numbers. 72+36 ($^1/_2$ of 72) = 108. Half of 108 = 54. Ten times 54 = 540.

108 appears again at Phnom Bakeng, a pyramid mound two kilometres north west of Angkor Wat. 108 towers surround the central sanctuary of this pyramid. It has long been known to archaeologists that a numerical code was used at Angkor, but it was not until Von Dechend and Santillana cracked the precessional code that any of it seemed to make sense. It was generally thought that the Khmers believed that it was better to build fifty statues of Vishnu rather than just one. Only it wasn't fifty, it was fifty-four.

Fifty-four towers surround the Bayon itself, each tower having four giant faces of Vishnu carved into it. Each face is aligned again with exceptional precession to the cardinal directions. There are two hundred and sixteen faces altogether. 216 is also a precessional number (108 x 2 = 216). One constellation of thirty degrees would take 2,160 years to move along the ecliptic at the rate of one degree every seventy two years (30 x 72 = 2,160).

It is also worth nothing that Draco and Orion resemble a celestial seesaw. When Draco is at its highest culmination, Orion is at its lowest point on the horizon and vice-versa. Both constellations take 13,000 years to complete one half cycle. At Giza the pyramids depict Orion at its lowest and Angkor matches Draco at its highest. Today due to precession,

the skies are exactly opposite with Orion in its *last age* and Draco I suppose could be seen in its *first time*.

In 1976 a detailed survey of Angkor Wat was carried out and the findings were printed in *Science* magazine (July 1976). The dimensions of the main causeway are in direct linkage with the four ages of the world, a Hindu calendar very similar to the Mayan calendar. The unit of measurement used at Angkor is known as the *Khmer hat* equivalent to 0.435 metres. The causeway is made up of four main sections measuring 1,728 hat, 1,296 hat, 864 hat and 432 hat. The Hindu calendar states that the ages of Yugas of the world are as follows:

The Krita Yuga or the golden age lasts for 1,728,000 years, the Treta Yuga 1,296,000 years, the Davpara Yuga 864,000 years and the Kali Yuga, our present age has a duration of 432,000 years. So divided by 1,000 the ages of the Yugas are depicted on the main causeway. If these numbers are divided by seventy-two which was found as a ruling number in the Mayan calendar, a very simple mathematical regression becomes apparent.

432/72 = 6, 864/72 = 12, 1296/72 = 18 and 1728/72 = 24.

24 ➡ 18 ➡ 12 ➡ 6

Maybe this is just coincidence, but I do think it's worth including as a precessional code. Maybe the Yugas themselves are based on the phenomenon of precession.

Our present age, the Kali Yuga, began in 3,100 BC, very close to the start date of the Mayan fifth age of the sun. Similar again to this is the notion that this is the most decadent and wicked of the ages – also the last. I suppose the main difference is that the end of the Mayan sun is 23 December 2012, but the Hindu calendar says we have roughly 426,000 years left in the Kali Yuga.

12(i)

12(ii)

12 (iii)

The Pacific & South America

The most commonly used precessional number at Angkor is 54. The fifty-four devas and asuras on the bridges, fifty-four towers surrounding the Bayon and so forth. Again, using the world grid with the prime meridian running through Giza, Hancock searches for another site fifty-four degrees away from Angkor. What he found was Nan Madol, fifty-four degrees east of Angkor. At Nan Madol there are a series of temples and over one hundred artificial islands off the coast of the Micronesian Island of Pohnpei (Hancock 1998, 200). The legends attached to Pohnpei have a distinct similarity to those of Angkor and I think Mexico to a certain extent.

Two brothers, Olissopa and Olissipa, founded the city of Nan Madol. They arrived by boat from the west, just as Quetzalcoatl had done in Central America. With the help of a dragon they dredged canals around Nan Madol to separate the temples. This image of a dragon brings to mind the constellation of Draco (the dragon or serpent) so important in both Central America and Cambodia. The miles of canals at Angkor and the seawater canals at Pohnpei also have a sameness. Pohnpei's temples were constructed between 800-1250 AD, a very similar time frame as Angkor.

The largest structure at Nan Madol is a temple called Nan Douwas. It is orientated to the cardinal directions, once again with pinpoint accuracy. It has two perimeter walls separated by a sea water moat and has a centralised pyramid mount. The layout of Nan Douwas could also be seen as a kind of Mandala. The ancient local beliefs bear a striking resemblance to the Egyptians theory of the afterlife realm although, as Hancock states (Hancock 1998,p 202), the Pohnpein netherworld lay under the waves and the temples could have been built as three dimensional models of their netherworld.

The only real precessional code attached to Pohnpei is its placing on this world grid or network of ancient sites. Other Pacific sites are Kiribati,18° east of Pohnpei (36 ÷ 2) and 72° east of Angkor, and Tahiti, 108° east of Angkor (Hancock 1998, 254). Both islands have a number of megalithic sites and were obviously centres of some ritualistic importance. One other island in the Pacific has a deeper and more mysterious history and lies as close to 144° west of Giza as is possible to get in 3,000 square kilometres of Ocean (Hancock 1998, 223).

This island is Easter Island and similar to the fate of the Aztec history, the Easter Island history was lost when yet again European sailors conquered and destroyed the civilisation, although the Islanders themselves had been at war with one another for many

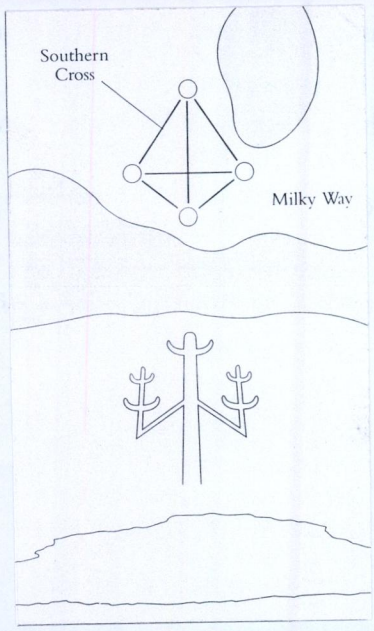
13.

years. After outbreaks of smallpox and TB and a vast slave trade, the population of the island was diminished to about 100 people. Maybe even more unfortunate was the fact that of these one hundred people left, not one of the wise or learned men survived to translate the complex hieroglyphs found on the Rongorongo tablets. To this day they still have not been deciphered. However, there are some myths and legends that have been handed down orally. In *Hamlet's Mill* Von Dechend and Santillana explain one such myth that has a precessional feel about it. (Santillana and Von Dechend 1969 p.62).

In the days of Rokoroko He Tau the sky fell
Fell from above onto the earth
The people cried out "The sky has fallen in the days of Rokoroko
He Tau"
He took hold: He waited a given time. The sky
Returned. It went away and stayed up there.

This could be translated as the end of a world age, when the effects of precession over thousands of years cause the ruling constellations of the four important days of the year (equinox and solstices) to slip downwards (anti-clockwise) at a rate of one degree every seventy-two years. With the passage of enough time it would be possible to see each constellation disappear below the horizon and the next constellation falls into place. There are other astronomical facts relating to Easter Island. For a start, Easter Island's local name is Mata-Ki-Te-Rani, which means Eyes looking at Heaven.

14(i)

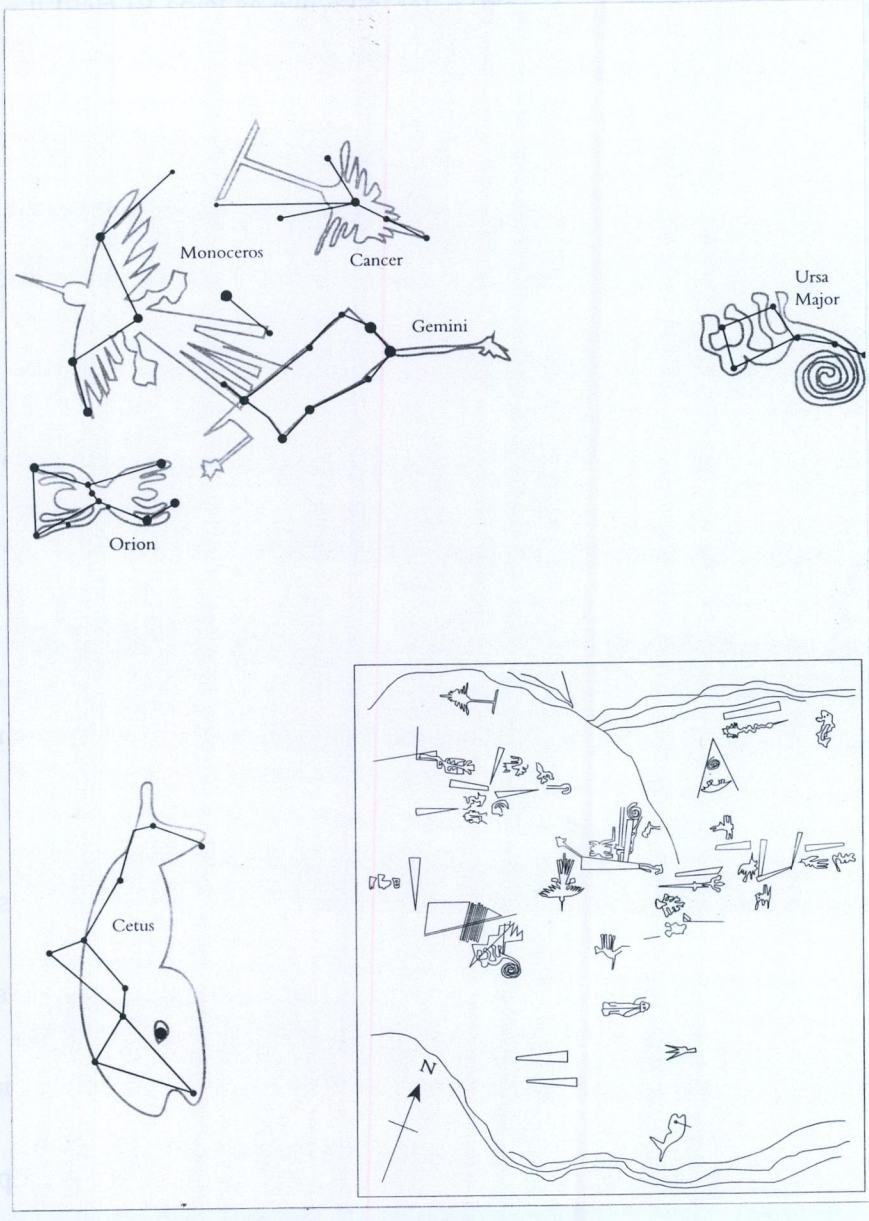


14(ii)

This must relate to the six hundred or so giant stone faces called Moai. Their blank faces stare at a slight upward angle towards the heavens, as if they've gazing at the stars. There was also a group of learned men who studied the stars, Tangata – Rani, a brotherhood who handed down the teachings of the sky to their pupils. (Hancock 1998, 247). They studied the heavens from a rocky outcrop known as Papa Vi Hetu'u – place to watch the stars.

The civilisation that lived on Easter Island, marooned in 3,000 square kilometres of ocean on an island no bigger than 18 by 19 by 24 kilometres could easily have felt like prisoners, but the fact is that they survived peacefully enough to provide extra provisions for the philosophers and artisans in their society. In ancient Egypt the ideal of the pharaohs was to live in unison with the Universe – *maat* was the balance between the people and all that was in the universe. Perhaps the Easter Islanders lived by such ideals?

Going back to the world grid, Hancock looks again for more sites. 36° east of Easter Island, 108° west of Giza and 180° east of Angkor (also 180° west of Angkor – exactly half of a 360° sphere) lies Paracas on the Peruvian coastline. A giant candelabra is carved into the red sandstone cliffs measuring two hundred and forty metres in length top to bottom and one hundred and twenty metres horizontally. It has been likened to the



15.

Southern Cross and Hancock uses the *skyglobe* program to match the two together. On the spring equinox an hour or so before dawn, the Southern Cross lay directly overhead of the candelabra two thousand years ago.

The Incas saw the Southern Cross as an entrance to their own netherworld. They once again used the Milky Way in afterlife tales, because the Southern Cross is part of the Milky Way. This idea is consistent with both the Aztecs and the Egyptians and the Milky Ocean at Angkor.

This massive candelabra seems to point inland. Three hundred kilometres inland are the plains of Nazca, which bear the extraordinary plans. Drawn on a mammoth scale are a series of animal shapes, hundreds of metres in size. Maria Reich has put forward many theories about these lines showing similarities to many constellations. The giant Nazca spider is seen as Orion, and many zodiacal images have been matched up including a Lion (Leo), Scorpion (Scorpio) and Crab (Cancer) and a Sea Goat (Capricorn). But what I personally find most amazing is that these images are continuous line drawings, difficult enough to match up on a piece of A4 paper but imagine trying to do this on a scale of hundreds of metres with no aerial view.

16.

Peru has many other extraordinary megalithic sites including Cuzco, Tiahuanaco and Sacsayhuaman, all of which have monumental dry stone walls, some stones weighing over two hundred tonnes and fitted so closely together that not even a razor blade could fit between them. And even more incredible is the fact that these stones are not of a uniform shape or size; at Sacsayhuaman there is a stone of *twelve corners*. (Hancock 1995, 52).

Andean traditions tell of a God-King called Viracocha who was seen as a white skinned man with a fair beard and blue eyes, the same description given to Quetzalcoatl in Mexico. Viracocha was a symbol of the sun and apparently brought about this age of the earth on the shores of Lake Titicaca at the Lion Cliff. Again, the images of the sphynx and Leo came to mind. Similar to the Mayan beliefs, the Andean traditions tell of four ages of creation before this one. The Maya believed that this age will end with a catastrophic turning of the earth and the Andean people believed it will end with an overturning of the sky. This idea of an overturning sky and the end of world ages must have a connection with the theory of precession, the way that the constellations drop down through the sky over 2160 years, bringing in a new age.

CONCLUSION

It seems to me that the idea put forward by Graham Hancock about a great ancestor civilisation is plausible, but there isn't any concrete evidence to back it up- yet. True, there are many similarities between the myths and legends of the civilisations I have briefly touched upon here, but the point I have been following is the only common denominator to them all. They have all used precessional numbes to some extent, in one way or another. I know that this could all be put down to coincidence, but with the astronomical myths apparent in each civilisation it just seems to make sense.

A world grid with important sites built at strategic distances does exist and again it has a precessional ruling number. Giza is 72° west of Angkor, Kiribati is 72° east of Angkor and 144° west of Giza. Easter Island is 144° west of Giza and 144° east of Angkor and so on – of course this is only apparent when the prime meridian is moved to Giza which is probably the greatest site ever built and home to one of the most distinct civilisations. What is also worth re-capping on is the sky-ground architecture found at these sites, especially Giza and Angkor which both reflect the sky of 10,500 BC. It is thought by Hancock to be a date of significance relating to the last great flood caused by the melting of the ice caps after the last ice age. The idea of a catastrophic flood is apparent in many civilisations, including our own with the story of Noah.

Last September (1998) archaeologists started researching a *wood henge* – similar to Stonehenge, or the south coast of England. It was uncovered by the receding tide. The henge was made up of fifty-four tree stumps encircling a central giant stump. Fifty-four is of course a precessional number. This site was obviously covered by rising sea levels, but there is no date given to this site as of yet to tie it into the floods of 10,500 BC and it is unlikely that this will be the case. I don't think it's possible for the wood to have survived for that amount of time.

On the spring equinox in the year 2,000, the sky will be exactly opposite to the sky of 10,500 BC due to precession. Aquarius will be rising where Leo was and Leo will be settling in Aquarius' place. Orion will be at its highest point and Draco at its lowest. This has given cause to a great many 'Doomsday Scenario's' which may or may not be right. Either way I'm sure the reader will agree that we do live in an age of extreme decadence and wickedness, and it may be time for us to take a good, long, hard look at ourselves and the way our civilisation is advancing.

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