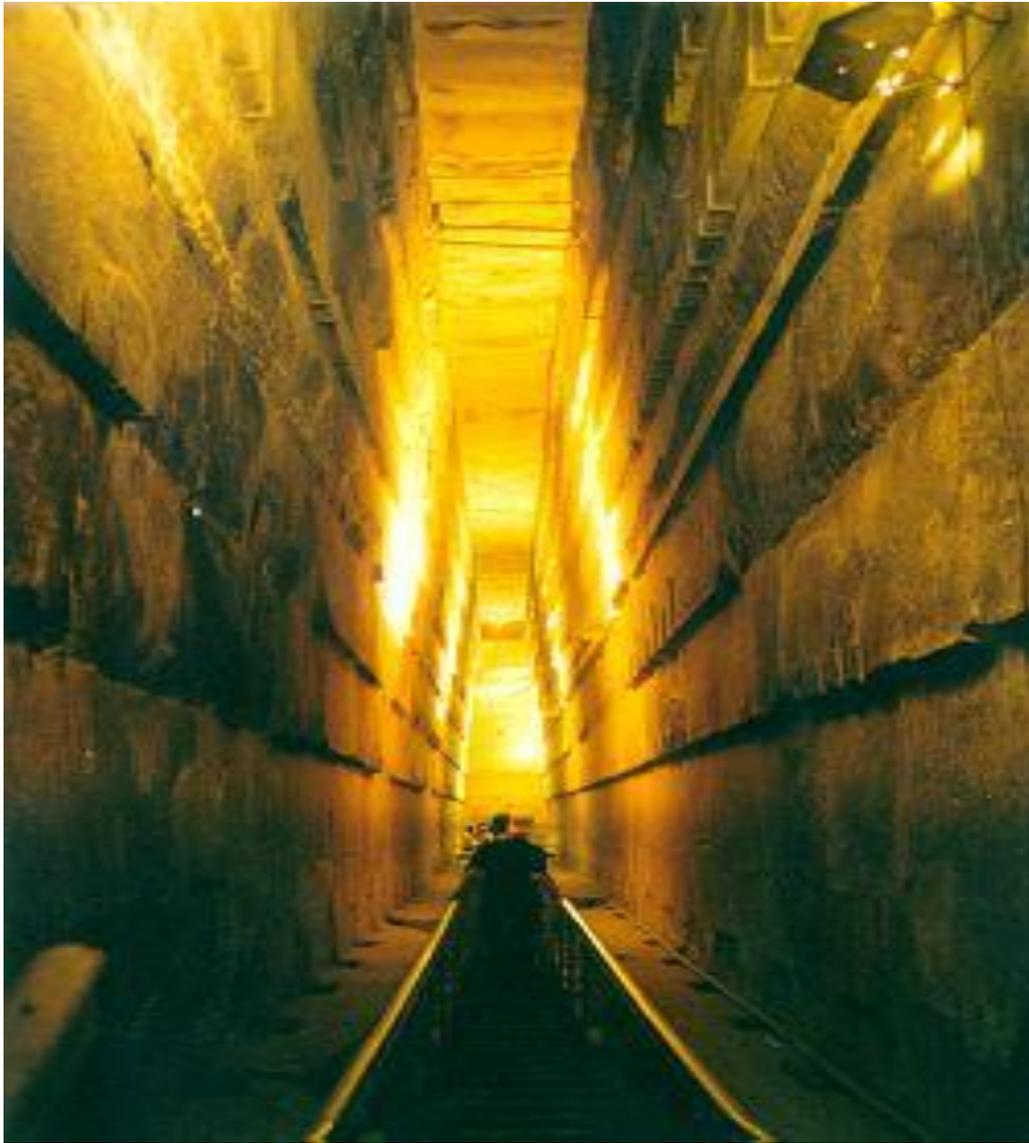


Inside The Great Pyramid Of Giza

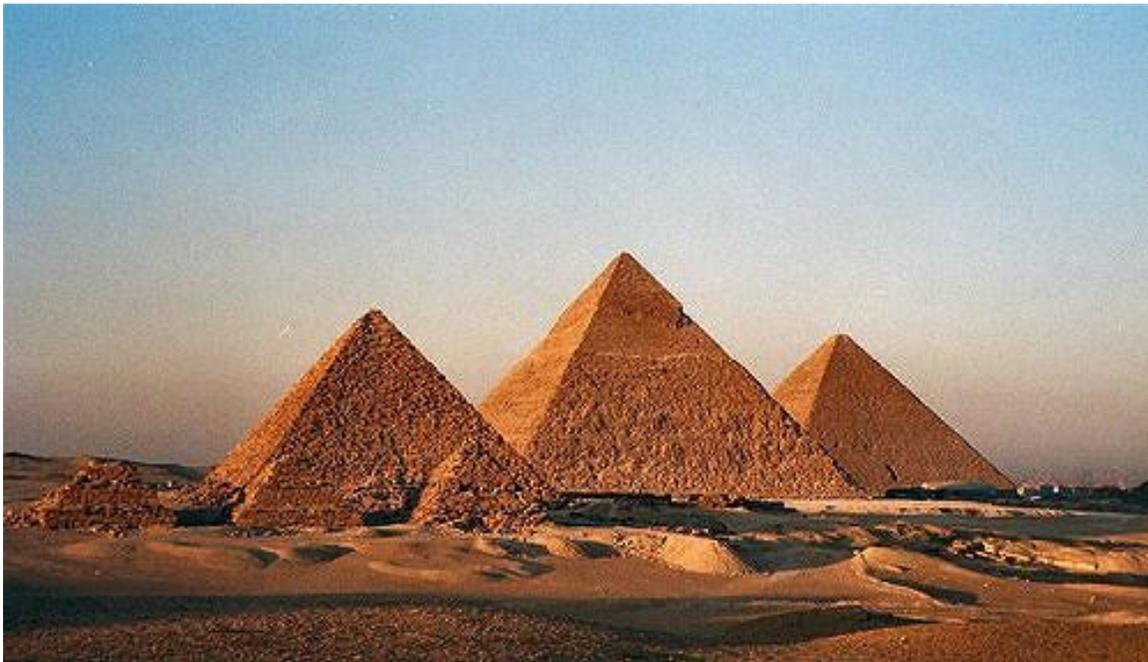


By JC RYAN

The great pyramid of Giza

This pyramid is the largest of the three pyramids that border El Giza, Egypt and it is also the largest pyramid ever built. The pyramid was built with about 2.3 million stone blocks and it is thought to weigh 5.9 million tons. The ancient name of the Great Pyramid of Giza was Khufu's Horizon.

It is one of the 7 wonders of the ancient world and the only one that remains in existence today.



The ancient pyramid has no proper historical records and we know very little about this ancient structure.

Although the Egyptians are famous for meticulously keeping records of everything — for some reason they never wrote one single word about the Great Pyramids. They have written about all other pyramids and tombs and statues in Egypt but the most majestic and biggest of them all they did not write about. Not one single word.

The Egyptologists say they have no doubt it was built as the tomb for the Fourth Dynasty Pharaoh Khufu (or Cheops), and was completed around 2560 BC. But there are many scientists who beg to differ and have dates going back anywhere from 4,000 BC to 13,000 BC, in other words 15,000 thousand years.

There are no hieroglyphics or writing in the Great Pyramid.

They never found any mummies, inscriptions or anything referring to any king inside or outside the great pyramid. When Arabs first entered the tomb in 820 AD, nothing was found but an empty granite box, uninscribed and unadorned. This contrasts with the other types of pyramids of kings where they always found a mummy, with all its food, tools, weapons, chariots, and more for the afterlife, and elaborate inscriptions about the life and history of that pharaoh.

Over the ages this structure has been the subject of many mystery, thriller, and suspense novels. And there is probably a good reason for it. Let's have a look at some of puzzling facts and questions those facts raise.

How was it built?

For the Great Pyramid, the builders levelled the ground of about 6 hectares (over 14 acres) to fit strangely shaped slabs.

The pyramid is estimated to have around 2.3 million blocks that weigh from 2 to 70 tons each, with different shapes and sizes, and laid perfectly horizontal and vertical, a feat any modern structure engineer would envy.

Some say it took between 20 and 30 years to complete. Others say it took around 85 years to complete. If it took 85 years to build, how old was Khufu when they commenced construction and how old was he when he died?

Much of the stone used in the construction was mined at a quarry located at the modern-day Aswan (Assuan), 934 kilometres (580 miles) south from Giza up the Nile river (about 700 km (435 miles) airline distance).

The workers, estimated by some historians to be between 20,000 and 30,000, must have worked at a speed we can't comprehend — building it in 20 years with over 2.3 million stone blocks using only chisels, stone mallets, and hemp ropes. Although, the Greek historian, Herodotus, claimed in 500 B.C. that 100,000 people built the Pyramids.

When compared to modern structures,

- During the 1960s, the Abu Simbel Temple (in Egypt) was built using 2,200 blocks — it took 5 years.

- The dumping of rocks in France to create a pile as big as the smallest pyramid took 12 years to create — but note that was the dumping of rocks not cutting and laying them and then building passages and chambers.

It makes us wonder how they could carry such massive stones towards the site if one keep in mind that 4,500 years ago, when the pyramid was constructed, it was still 500 years before the wheel was invented.



In the Aswan granite quarry, 500 miles away, there is an unfinished obelisk that is 126 feet tall and weighing approximately 1300 tons. We don't have any cranes on earth today that can lift that piece of rock – let alone move it 500 miles.

Once on the pyramid site, the blocks were stacked on top of each other without the use of cement but a razorblade or sheet of paper cannot get through or fit between two blocks.

There are 3 chambers and there is a 300-foot long by 3-foot wide passage to reach the lowest chamber. It was built with complete precision. The passages and chambers were cut into the rock after the pyramid was built.

A close look at some of the rocks inside the Great Pyramid shows that the grooves on the rocks are similar to those left when modern stone cutting tool are used. In other areas, holes are found in rocks which could likewise match bores that can only be done using machines of today's times. There is no person or craftsman alive today that can do it by hand.

The outer casing

The Great Pyramid was originally covered with casing stones (made of highly polished limestone). These casing stones reflected the sun's light and made the pyramid shine like a jewel. They are no longer present; being used by Arabs to build mosques after an earthquake in the 14th century loosened many of them.

It has been calculated that the original pyramid with its casing stones would act like gigantic mirrors and reflect light so powerful that it would be visible from the moon as a shining star on earth.

Appropriately, the ancient Egyptians called the Great Pyramid "Ikhet", meaning the "Glorious Light". How these blocks were transported and assembled into the pyramid is still a mystery. - <http://www.gizapyramid.com/general.htm>

The outer mantle was composed of 144,000 casing stones, all of them highly polished and flat to an accuracy of 1/100th of an inch, about 100 inches thick, and weighing approximately 15 tons each. The average casing stone on the lowest level was 5 ft. long by 5 ft. high by 6 ft. deep and weighed 15 tons.

The mortar used to hold the casing stones is of an unknown origin (Yes, no explanation given). It has been analyzed and its chemical composition is known, but no scientist has yet been able to reproduce it. It is stronger than the stone and still holding up today.

With the mantle in place, the Great Pyramid could be seen from the mountains in Israel, and probably the moon as well.

Its polished surfaces would have reflected light like a beacon.

The sarcophagus

The granite coffer (sarcophagus) in the "King's Chamber" is too big to fit through the passages and so it must have been put in place during construction.

The coffer was made from a block of solid granite. This would have required bronze saws 8-9 feet long, set with teeth of diamond. Hollowing out the interior would require tubular drills of the same material applied with a tremendous vertical force.

Microscopic analysis of the coffer reveals that it was made with a fixed-point drill that used hard jewel bits and a drilling force of 2 tons.

Earthquake proof

It is earthquake proof because of its heterogenous, comprising of blocks of different shapes and sizes. If they did not do that the Great Pyramid would have collapsed just like all other structures built such a long time ago.

It is also quite strange that the Pyramids of Giza are still in almost perfect condition, while the other pyramids, which were supposedly built about 500 years later, all have sub-par masonry, and are crumbling down. An example of this is the famous 'bent' pyramid, which started out with the sides being built at one angle, then suddenly shifts in the middle to a shallower angle. This is because the angle at which it was started was much too steep for it to stand when finished.

The precision

Sense of direction

The position is precise, pointing directly to magnetic north within 500 seconds of a degree. The three pyramids, the Pyramid of Menkaure, the Pyramid of Khafre, and the Great Pyramid of Khufu, are precisely aligned with Orion's belt in the constellation of Orion.

Aligned True North: The Great Pyramid is the most accurately aligned structure in existence and faces true north with only 3/60th of a degree of error. The position of the North Pole moves over time; however, the pyramid was exactly aligned at one time.

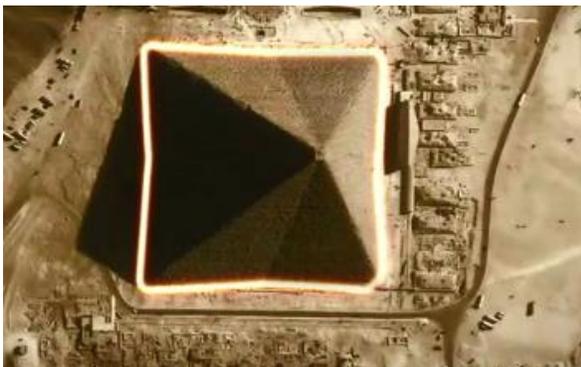
The Descending Passage pointed to the pole star Alpha Draconis, circa 2170-2144 BCE. This was the North Star at that point in time. No other star has aligned with the passage since then.

The magnetic compass was first used by the Chinese military in the year 1040 – in other words, 2,000 years after the pyramids were reportedly built.

The 8 sides

The four faces of the pyramid are slightly concave, the only pyramid to have been built this way.

There are 8 sides to the pyramid, a fact that was only learned during modern times, and the 8 sides have an accuracy down to a millimeter.



According to experts like Eric Gonthier, a geologist, Andre Pochan, professor of Mathematics in Cairo, and Chris Wise, a structural engineer, the 8 sides of the pyramid were intentional. They couldn't have happened by accident. If by

accident, the break would only be in two of the sides and not all four. This makes it highly improbable to be an accident.

The centers of the four sides are indented with an extraordinary degree of precision forming the only 8-sided pyramid. This effect is not visible from the ground or from a distance but only from the air, and then only under the proper lighting conditions. This phenomenon is only detectable from the air at dawn and sunset on the spring and autumn equinoxes, when the sun casts shadows on the pyramid that reveal the true shape.

Gilles Dormion has said that those breaks would definitely have been the architect's choice. One theory was that, if the breaks of the pyramids were indeed intentional, then it would have to be to signal the Equinox. But Hipparchus of Rhodes, Greek astronomer and mathematician, only discovered the precession of the equinoxes in 127 BC.

How did they know that?

The curvature designed into the faces of the pyramid exactly matches the radius of the earth.

There is so much stone mass in the pyramid that the interior temperature is constant and equals the average temperature of the earth, 20 Degrees Celsius (68 Degrees Fahrenheit).

The east/west parallel that crosses the most land and the north/south meridian that crosses the most land intersect in two places on the earth, one in the ocean and the other at the Great Pyramid. Is it coincidence that the location of the pyramid on the longitude line, 31 degrees north and the latitude line 31 degrees west are the same? They are the two lines that cover the most combined land area in the world. In essence, the pyramid is right at the center of all of the land mass of the earth!

The weight of the pyramid is estimated at 5,955,000 tons. Multiplied by 10^8 gives the earth's mass. Twice the perimeter of the bottom of the granite coffer times 10^8 is the sun's mean radius. (270.45378502 Pyramid Inches * $10^8 = 427,316$ miles) Coincidence? Hardly.

The relationship between Pi (p) and Phi (F) is expressed in the fundamental proportions of the Great Pyramid. If you take the perimeter of the pyramid and

divide it by two times the height, you get a number that is exactly equivalent to the number pi (3.14159...) up to the fifteenth digit. The chances of this phenomenon happening by sheer chance is remarkably small.

Did you know that the height of the pyramid (481 feet) is almost exactly 1/1,000,000,000 of the distance from the earth to the sun (480.6 billion feet)?

During the evening of the summer solstice, from the view of the Sphinx, the sun sets right between the Great Pyramid and its neighbor. For the Egyptians to be able to do this they must have known the day of the summer solstice, and they therefore, must have known the exact length of the year, or 365.25. Again, a fact not discovered until long after the pyramid builders were gone.

The perimeter of the base is 36,524 feet. When divided by 100, it is 365.24 feet, the exact number of days there are in a tropical year to the exact 5 digits.

The length of the diameter of the Pyramid, when measured as a circle, is also 365.24.

The ratio of the length of Grand Gallery, a room in the Pyramid, to the length of the King's Chamber is also equal to 365.24.

The height of the Pyramid is 5,449 inches. This is also the average height of land above sea.

But only in the 2nd century BC did Hipparchus calculate the length of the year to be 365 solar days, 5 hours, 55 minutes, 12 seconds. A modern computer model gives 365 solar days, 5 hours 49 minutes, 19 seconds.

A tropical year (also known as a solar year), for general purposes, is the length of time that the Sun takes to return to the same position in the cycle of seasons, as seen from Earth; for example, the time from vernal equinox to vernal equinox, or from summer solstice to summer solstice. Because of the precession of the equinoxes, the seasonal cycle does not remain exactly synchronized with the position of the Earth in its orbit around the Sun. As a consequence, the tropical year is about 20 minutes shorter than the time it takes Earth to complete one full orbit around the Sun as measured with respect to the fixed stars (the sidereal year).

They must have known ...

The length of a year

Tropical Year or Calendar Year: The length of a base side is 9,131 Pyramid Inches measured at the mean socket level, or 365.24 Pyramid Cubits, which is the number of days in a year [$9,131/25 = 365.24$, accurate to 5 digits]. The perimeter of the base divided by 100 = 365.24, the number of days in a year. [$9\ 131\ \text{Pyramid Inches} * 4 / 100$, accurate to 5 digits]

Tropical Year: The length of the Antechamber used as the diameter of a circle produces a circumference of 365.242 (accurate to 6 digits).

Tropical Year: The ratio of the lengths of the Grand Gallery to the solid diagonal of the King's Chamber times 100 equals the number of days in a tropical year. [$(1,881.5985600 / 51.516461) * 100 = 365.242200$, accurate to 8 digits].

Sidereal Year: The length of the antechamber of the King's Chamber times Pi = length of a sidereal year [$116.26471\ \text{Pyramid Inches} * 3.14159 = 365.25636$ days, accurate to 8 digits].

Sidereal Year: The length of a base side at sidereal socket level is 365.256 Pyramid Cubits. [accurate to 6 digits].

Marks Spring Equinox: Due to the angle of the sides of the pyramid versus its latitude, it casts no shadow at noon during the spring equinox.

Precession of the Equinoxes: The sum of the pyramid's two base diagonals in Pyramid Inches = length of the Precession of the Equinoxes (25,827 years).

Precession of the Equinoxes: The distance from the ceiling of the King's Chamber to the apex of the pyramid = 4,110.5 Pyramid Inches. Which is the radius of a circle whose circumference = the precession of the equinoxes. [$4,110.5 * 2 * \text{Pyramid Inches} = 25,827$].

Precession of the Equinoxes: The perimeter of the 35th course of blocks, which is much thicker than any of the other courses, gives a figure for the precession of the equinoxes.

About the sun and the moon

Mean Distance to the Sun: Half of the length of the diagonal of the base times 10^6 = average distance to the sun.

Mean Distance to Sun: The height of the pyramid times 10^9 represents the mean radius of the earth's orbit around the sun, or Astronomical Unit (AU).
[5,813.235565376 Pyramid Inches x 10^9 = 91,848,816.9 miles].

Mean Distance to Moon: The length of the Jubilee passage times 7 times 10^7 is the mean distance to the moon. [215.973053 Pyramid Inches * 7 * 10^7 = 1.5118e10 Pyramid Inches = 238,865 miles].

Sun's Radius: Twice the perimeter of the bottom of the granite coffer times 10^8 is the sun's mean radius. [270.45378502 Pyramid Inches* 10^8 = 427,316 miles].

About the earth

Earth's Polar Radius: The Sacred Cubit times 10^7 = polar radius of the earth (distance from North Pole to earth's center) [25 Pyramid Inches * 10^7 * (1.001081 in / 1 Pyramid Inches) * (1 ft / 12 in) * (1 mi/ 5280 ft) = 3,950 miles].

Earth's Polar Radius: The Pyramid embodies a scale ratio of 1/43,200. The height * 43200 = 3,938.685 miles, which is the polar radius of the earth to within 11 mi.

Radius of the Earth: The curvature designed into the faces of the pyramid exactly matches the radius of the earth.

Equatorial Circumference of the Earth: The Pyramid embodies a scale ratio of 1/43,200. The perimeter of the base * 43,200 = 24,734.94 miles, which is within 170 miles of the equatorial circumference of the earth.

Earth's Volume: The product of the pyramid's volume and density times 10^{15} equals the ratio of volume to density of the earth. [10,339,823.3 cubic cubits * 0.4078994 * 10^{15} = 4.21760772 x 10^{21} cubic cubits = 259.93 x 10^9 cubic miles].

Earth's Mass: Mass of the pyramid = volume * density = 10,339,823.3 cubic cubits * 0.4078994 earth density = 4,217,497. The mass converted to pyramid tons = 4,217,607.72 * 1.25 = 5,272,010 pyramid tons. Since the mean density of the earth was defined as 1.0, then the mass of the earth is 10^{15} times the mass in pyramid tons = 5.272 x 10^{21} pyramid tons = 5.99 x 10^{24} Kg.

Speed of Earth around the Sun: The Pyramid Inch times 10^8 = the speed of the earth around the sun, circa 2600 BC.

Average Land Height: The average height of land above sea level for the earth is 5,449 inches. This is also the height of the pyramid.

The Light Equation: The height of the Great Pyramid, minus the height of the capstone, represents one millionth the time it takes light to travel the mean radius of the earth's orbit around the sun (1 astronomical unit) using 1 Pyramid Inch equals 24 hours (mean solar day). $[(5,813.2355653 - 103.0369176) / 10^6 = .0057101986+ \text{ days} = 493.36116 \text{ seconds} = 8 \text{ minutes}, 13.36 \text{ seconds}]$.

About the speed of Light: With distance of one A.U. known and the transit time of light for this same distance, the velocity of light can be found. $[91,848,816.9 \text{ miles} / 493.36+ \text{ seconds} = 186,169.5 \text{ miles/sec}]$.

About the Sun's Parallax: The size of the earth as viewed from the Sun and expressed as an angle and generally taken to be 1/2 the diameter at the equator (Solar Equatorial Parallax) is 8.9008091 seconds of arc using 91848,817 miles as the mean distance to the sun and 3,963.4914 miles as the equatorial radius. The distance between the mean socket level and the height of the leveled bedrock is 8.9008 Pyramid Inches.

I know all this math is dizzying but any couple or three of these facts could be coincidence, but the likelihood of all of them being coincidental is vanishingly small.

A few astronomical coincidences

The 344ft length of the Descending Passage provides an angle of view of only +/- 1/3 of a degree. Alpha Draconis has not been in alignment for thousands of years.

The southern shaft in the King's Chamber (45 deg, 00 min, 00 sec) pointed to the star Al Nitak (Zeta Orionis) in the constellation Orion, circa 2450 BC. The Orion constellation was associated with the Egyptian god Osiris. No other star aligned with this shaft during that epoch.

The northern shaft in the King's Chamber (32 deg, 28 min, 00 sec) pointed to the star Alpha Draconis, circa 2450 BC.

The southern shaft in the Queen's Chamber (39 deg, 30 min, 00 sec) pointed to the star Sirius, circa 2450 BCE Sirius was associated with the Egyptian goddess Isis and is also part of a unique ceremony practiced by the African Dogon tribe.

The northern shaft in the Queen's Chamber (39 deg, 00 min, 00 sec) pointed to the star Ursa Minor, circa 2450 BC.

The pyramid positions on the ground are a reflection of the positions of the stars in the constellation Orion circa 10,400 BCE Five of the 7 brightest stars have pyramid equivalents: The 3 great pyramids of Khufu, Khafra, and Menkaura for the belt of Orion, the pyramid of Nebka at Abu Rawash corresponds to the star Saiph, the pyramid at Zawata al Aryan corresponds to the star Bellatrix. The only two missing star positions are for Betelgeuse and Rigel.