



## Orient

One of the age-old questions is found in the land of the Nile. This is where Pharaoh Cheops built the Great Pyramid, one of the largest and most perfect pyramids of Giza. Who was Cheops? When did he live? What do we know about him?

Truth be told: we know very little. He is said to have commenced construction of this giant structure around 2551 BC; its height was once 146.60 meters. Since the top is no longer there, it is now about 9 meters shorter. Each side is 230.30 meters long, which is, supposedly, the equivalent of 440 ancient Egyptian cubits. According to various sources, 2.3 million blocks of stone were used in the construction of the pyramid.

It can be accessed from the north side, with the entrance located 16.5 meters above the ground; inclined passageways lead to three chambers. One of these chambers is far below the ground and was never completed. Another, the so-called "Queens chamber" is located in the center of the pyramid itself. Later a third chamber, the so-called "Kings Chamber" was constructed on top and somewhat eccentric of the "queens Chamber". The granite stones above have a total weight of about 400 tons.

When the "Kings Chamber" (5.2 x 10.4 meters) was opened, only the bottom half of the sarcophagus was found. This chamber is located 42.2 meters above the ground level of the pyramid.

Opinions on the meaning and purpose of the Great Pyramid have traditionally differed greatly. Experts also disagree, considerably, on the aspects of structural engineering. The basement of the Great Pyramid is so large that the cathedrals of Florence, Milan and St. Peter's in Rome and the St. Paul's Cathedral in London would have space.

Pharaoh Cheops (2551-2528 BC), also known as Khufu, is said to have ruled for only 23 years. How does this fact impact on the construction of the pyramid? Each day, in shifts of 12 hours, an average of 300 to 400 limestone blocks had to be cut, and, hauled to the construction site and put up.

Even with today's engineering tools, it would be next to impossible to build pyramids like those of Giza near Cairo. Especially the Cheops pyramid, simply known as the Great Pyramid, is a mystery and phenomenon of stone.



## **How was the Great Pyramid erected?**

No one knows. None of the workers, priests, architects or pharaohs ever revealed or talked about the secrets behind the construction of the Great Pyramid. Neither the Cheops pyramid nor any other site contains any hieroglyphics on this subject matter

## **Theories and nothing but theories**

The most common theory about the construction of the pyramids involves the use of wooden sleds. According to this theory, the large and heavy blocks of stone were moved around on sleds, which, in turn, were underlaid with wooden beams. It is possible, but not necessarily so. Back then, just like today too, wood was a rare commodity to come by in Egypt, and wood, when moved over soft ground and loaded with heavy stones, has a tendency to break very easily.

Also: what type of rope was used? What was the tensile strength of these ropes? At what point did the beams start to break? At what point did the ropes tear? With loads of three tons? 5 tons? Or 50 tons? We do not even know that. It is all we can do to reconstruct and recreate past situations and to keep on looking for reasonable answers.

The most reasonable theory to date is that of the ramp.

Building a pyramid seems to be quite easy. You start at the Nile, because that is where they got their building materials from, then place bricks and stones on top of each other and mix it all up with wood. Such a ramp would have to be three kilometers long, because the Nile is below the construction-site level. So, the ramp, at the highest point, would be 147 meters high and would thus exceed the volume of the pyramid several times over. In addition, the ramp, in its inclined position, could not be moved at short notice. For example, it would be impossible to include a bend. Each elevation of the ramp would have to be implemented for the entire length of it.

Think about it: constantly adjusting the height along the entire ramp - week after week!

Other, technically skilled, people suggest that it is not necessary to build a ramp from the Nile; they say there is a better way: a spiral ramp enveloping the pyramid.

In theory this sounds fine, but this ramp too would have to be very wide, because it would have to accommodate several sleds - those going up and those going down, side by side. And a spiral ramp would also amount to a multiple of the volume of the actual pyramid. The construction of those pyramids is still one of the unsolved mysteries. Not a year goes by without several experts churning out new theories.

Egyptologists, however, still maintain that the Great Pyramid of Gizeh was built by Pharaoh Cheops within 20 years - but we should not ignore all the other temples and facilities that were built in that very same era! Ancient Egyptian sources, on the other hand, mention different timelines. Scholars of Arabian history speak of "antediluvian" dates. Tales of Arabian Nights?

## **Also, there are additional theories and discoveries that pose challenges to the scientific community:**

Realizing today that astronomical coordinates were incorporated into the structure of the Great Pyramid - and maybe into all of the pyramids of Giza - is an eye-opener: almost like "messages in a bottle" traveling through time. Are we able to decipher these messages today and to understand the code? Could it be that the choice of location for the pyramids was not random?

Do these monuments represent some geodetical positions; and if so, can it be mere coincidence? No other monument has ever captured the imagination of scientists, engineers and amateur

archeologists to the same extent as the Cheops pyramid. There have been countless scientific articles expounding on astronomical, mathematical and geodetical references. Which of these, and how many, can actually be verified? What sort of information has been documented in this (timeless) way? How? Why? For whom?

Among today's experts, there is largely agreement on the fact that the Great Pyramid holds no more secrets. This seems to be contradicted by a sensational discovery - the public, however, was kept in the dark for the most part. Over the past 100 years, Egyptologists have thoroughly explored the inside of the pyramid. So, were there, in fact, still mysteries to be discovered? Hidden canals and chambers, perhaps, as suggested by ancient Egyptian lore?

### **"No," said experts, "stop dreaming"**

But in 1993, German engineer Rudolf Gantenbrink had a stroke of genius. Gantenbrink designed a sophisticated robot, a small high-tech caterpillar vehicle with laser beams and a built-in video camera. This is how the UPUAUT (Egyptian for "opener of the ways") project got started. The project began in the Queen's chamber in front of a small opening in a wall behind which, according to Egyptologists, there was hidden a short shaft of symbolic importance.

The shaft ran horizontally for the first 2.3 meters; the rest ascend at a gradient of approx. 40°. That marvelous little robot inched along smooth walls, managed a few smaller accumulations of sand and clattered past natural stone. The headlights, mounted at the front end of the robot, shed light on scenes not seen by human eyes for at least 4,500 years.

Then, after 2 weeks, on March 22, 1993, and after 59.84 meters, right across in the inner sanctum of the pyramid, the revelation: a wall with two metal fittings. A door or just a stone slab? According to meticulous calculations, the shaft ends 17 meters from the exterior surface of the pyramid, roughly at the height of the "King's chamber".

**Hidden behind the little door is a small room or hollow space. At the end of the small room, there is a second door. We still do not know what we might find behind this second door. Anything is possible**

It is certain, however, that the newly discovered shaft must have been part of the original design of the pyramid.

There simply is no other explanation: no one, not even a child, could have gone in later on and carved out a shaft of only 20 centimeters in width with a chisel. Not to mention the smoothed walls. In a nutshell: the shaft was built at the same time as the pyramid itself.

Scientists from the Waseda University in Tokyo also discovered some new facts about the last existing of the Seven Wonders of the Ancient World: They arrived in Egypt with state-of-the-art equipment. This equipment could be used to "x-ray" the stones. The Japanese found that at least three percent of the pyramid's interior had to be hollow, containing chambers and passages. And the French were even more successful a few years ago: A team of scientists believes that as much as 15 percent of the pyramid's interior might be hollow.

So, what are we to expect? What else will we find if new passages and chambers are opened? Messages from the past? From a long-forgotten past when Europeans were still living in caves? Or, perhaps, messages of some "teachers"?

The Cheops pyramid must be seen in the context of other mysterious finds.

Monumental structures of Cyclopean proportions (Abydos, the "Tomb of Osiris", the "Temple of Isis", etc.) far exceed any architectural standards. What was the reason for such "bunker-type" structures? How were they constructed?

**Anyone who believes that there are no more mysteries in Egypt should think again**

The question remains whether those perfect stone workings were even feasible using the techniques that Egyptologists have put forth and that strike us as somewhat primitive.

Core drilling, for example, is by all accounts a very advanced drilling technique, the development of which was painstaking. What type of material did ancient Egyptians use for the drill bit? Did they use sand for abrasive material or, perhaps, diamond pieces? And if so, what bonding material was used to glue the diamond pieces to the bit? What was the purpose of precision drilling anyway? Did they want to produce holes to make it easier to move the stones?

The sacred texts of ancient Egypt - just religious fantasies? Gods were portrayed as real beings, even though they were superbeings - but always in direct contact with the priests. They were the masters deciding on life and death, and they even created the most outrageous hybrid beings - the horror visions of today's genetic engineering. The sphinx, half man and half lion, is only one example. Holy bulls were creatures that were buried in the largest sarcophagi mankind has ever seen (in Saqqara).

Strange...only tiny fragments of bones were found, in a bituminous substance. Had they been hacked up, because people were afraid that those monsters might rise from the dead?



Ancient electricity? All the wall reliefs contain the motif of the so-called "Djed pillar." These structures can be found, in particular, in the temple of Dendera; at first sight, they look like equipment to be used to generate electricity in the middle of a sacred act. Were they used to produce artificial light?

Is this the reason why we do not find any traces of soot in the ancient passageways and tombs? Who instructed the scholars in engineering? Are there any reports of artificial light in mythology?

***The world of "question marks" grows.***

