



## ADVANCED TECHNOLOGY OF THE EGYPTIAN PYRAMID CHEOPS

April 8, 2016

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### INTRODUCTION

In our last Dove program on February 3, 2016, we considered how a belief in extraterrestrial life (ET) and unidentified flying objects (UFO's) has created a monumental dilemma for the secular scientific field of archaeology and archaeologists that insists on replacing the biblical account of creation with a belief in Darwinian evolution. That dilemma is the level of intelligence and capabilities of ancient man. A basic premise of evolution states that man has evolved from an animal with minimal intelligence to modern man with an advanced level of intelligence. Contrary to this viewpoint is the biblical account of mankind that clearly states Adam and Eve were created with a high level of intelligence in order to subdue and rule over the earth (Genesis 1:28).

These divergent viewpoints present an interesting dilemma to secular science and archaeologists. Either man has evolved from an animal and has slowly acquired a high level of intelligence over many thousands of alleged years, or man was *originally* created with a high level of intelligence that should be evident to archaeological examination. Previously, we briefly looked at the Antikytheria Mechanism – a mechanical computer that is dated to 87 B.C. – the astronomical expertise of the ancient Babylonians, Assyrians, Hindus, and the precise granite Stone Technology that is clearly evident in Latin America, the Middle East and Europe. Not surprisingly, these examples unmistakably

demonstrate that the technology of ancient mankind was advanced far beyond the alleged evolutionary simplicity of ancient mankind and substantiates the validation of the biblical account of mankind being created with advanced intelligence.

With these thoughts in mind, let's continue and focus on what is undoubtedly the most recognizable and apparent dilemma to secular science and archaeology, the Egyptian pyramids and specifically the Great Pyramid of Cheops (hereinafter known as Cheops).

### **THE GREAT PYRAMID OF CHEOPS (Kufu)**

Of all the megaliths on earth, the most well known are the giant pyramids in Egypt, and although about 4,500 years old, some still remain in fairly good condition today. The largest of the pyramids is Cheops that was inspired and built by Pharaoh Khufu. Even in the 19<sup>th</sup> century, it was the tallest building in the world and is the only one of the famous *Seven Wonders of the World* that is still standing. Even in modern times, Cheops remains as the most colossal building ever constructed by any civilization (Figure 1).



Figure 1. The Giant Pyramid of Cheops

One of the most perplexing mysteries of this pyramid is how it was constructed around 2560 BC by an alleged *"simple farming community that did not have the wheel or pulley and used simple farming tools"* as stated in Figures 2 and 3.



Many theories have been advanced to try to explain the emergence of civilization, some of which can readily be dismissed. Civilization did not arise because of any mental or physical evolutionary changes in humans themselves.

Mentally fully modern humans probably evolved between 50,000 and 40,000 years ago, when art, body ornaments and other material evidence of symbolic thought begin to appear in the archaeological record. The immense scientific and technological accomplishments of the present day are not, however, evidence

Perhaps surprisingly, technological innovation does not seem to have been a critical factor in the emergence of civilization. Most of the technology on which the Old World civilizations depended had been developed hundreds, or even thousands, of years earlier. Even advanced techniques, such as the lost-wax method of bronze-casting, iron-working and shipbuilding, were not the exclusive preserve of civilized societies. The civilization of ancient Egypt illustrates this point very clearly. The pyramids of the Old Kingdom Period (2649–2150 BC) were built without knowledge of pulleys or the wheel, using stone tools and soft copper chisels. Egypt's was essentially a stone-age civilization, dependent on technology that was no more advanced than that used by the contemporary small-scale farming societies of northwest Europe. Most of the early civilizations of the Americas were based on simpler technology still, as they lacked metal tools of any kind.

The critical factor in the emergence of the first civilizations was the transition from hunting and gathering to the farming way of life, which allowed population increases and the accumulation of surpluses ('wealth'). The numbers of hunter-gatherers are limited by the productive capacity of the natural environment, and they need large territories to support them. Except in very rich environments, the Pacific coast of North America for example, settled life is impossible. As a rule, hunter-gatherer populations are dispersed and of low density. Estimates suggest that the maximum global population that could be supported by hunting and gathering might be less than ten million. Farming began to free humans from the constraints imposed by the natural environ-



Excavations of Jericho, identified as Tell es-Sultan in Palestine, revealed the remains of this round tower which dates to 8000 B.C. Jericho is one of the oldest known settlements in the world, dating back more than 10,000 years. Although Jericho is often mentioned in the Bible, archaeological evidence does not support the biblical chronology of events.

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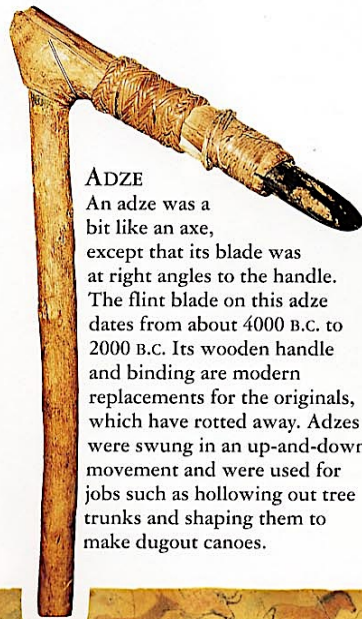


## Carving Wood and Bone



### SPEAR-THROWER

This carving of a reindeer's head is probably part of a spear-thrower. Wood, bone and antler all have natural cracks and flaws in them. Prehistoric carvers often incorporated these into the design to suggest the animal's outline, as well as particular features, such as eyes, mouth and nostrils. Engraved, or carved, pictures in caves also often make use of the natural form of the rock.



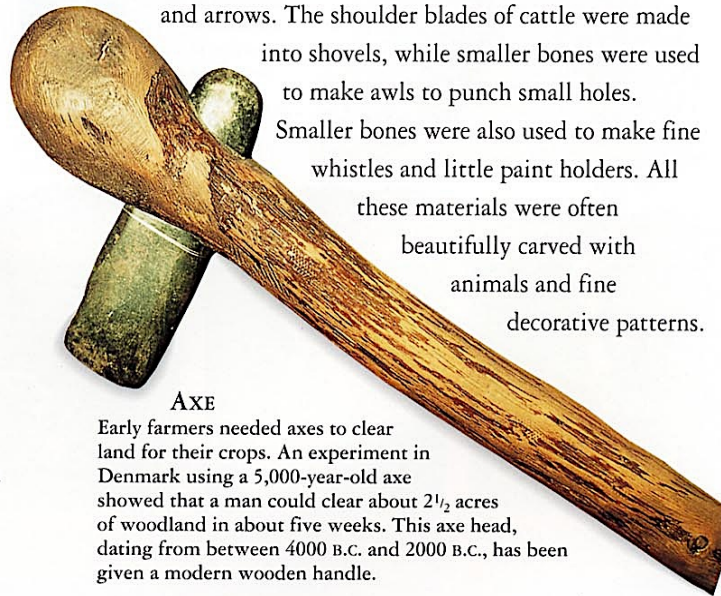
### ADZE

An adze was a bit like an axe, except that its blade was at right angles to the handle. The flint blade on this adze dates from about 4000 B.C. to 2000 B.C. Its wooden handle and binding are modern replacements for the originals, which have rotted away. Adzes were swung in an up-and-down movement and were used for jobs such as hollowing out tree trunks and shaping them to make dugout canoes.

ALTHOUGH THIS PERIOD is called the Stone Age, wood, bone, antler and ivory were just as important for making tools and other implements. Not only could these materials be carved and shaped by stone tools, but bone and antler hammers and punches were used to shape the stone tools themselves. By using these implements, better cutting edges and finer flakes of stone could be achieved.

Antler, bone, wood and ivory had many different uses. Antler picks were used to dig up roots and chip out lumps of stone. Antlers and bones were carved into spear-throwers and, along with ivory, were used to make needles, fish hooks, harpoon heads and knives. Wood was used to make the handles and mounts for spears, harpoons, axes, sickles and adzes, which were tools used for shaping wood, as well as to make bows and arrows. The shoulder blades of cattle were made

into shovels, while smaller bones were used to make awls to punch small holes. Smaller bones were also used to make fine whistles and little paint holders. All these materials were often beautifully carved with animals and fine decorative patterns.



### AXE

Early farmers needed axes to clear land for their crops. An experiment in Denmark using a 5,000-year-old axe showed that a man could clear about 2½ acres of woodland in about five weeks. This axe head, dating from between 4000 B.C. and 2000 B.C., has been given a modern wooden handle.

Figure 3. Simple tools allegedly used during the time of the ancient Egyptians

It is important to remember that the focus of Figures 2 and 3 is the emphasis that modern secular archaeology places on the perception of *ancient means primitive*, yet the archaeological remnants of ancient technology in Egypt (and also many other areas in the world) clearly refutes this ideology. Part of this dilemma among academics is this persistent barrier in their beliefs that has resulted in their unwillingness to consider ancient civilizations as being advanced.

To begin, let's briefly consider two key certainties that should require careful thought and analysis as applied to Cheops, considering that conventional history has always believed that the pyramids were used as burial edifices for pharaohs and they were constructed by a simple farming community. Then we will overview the technology, a brief history, the interior components and then the possible purpose of Cheops.

## **CERTAINTIES**

### **Tombs**

It is assumed that Cheops and the other pyramids were tombs for the pharaohs but the current evidence is against this assumption. Surprisingly, no Egyptian pharaoh has ever been found in a pyramid. In 1975, U.S. Egyptologist Dr. Mark Lehner stated, "*no burial has ever been found in any pyramid in Egypt.*" Considering that more than 108 pyramids have been identified in Egypt, this fact alone negates the tomb theory. However, it is a fact that the burial location for pharaohs was in The Valley Of The Kings, not the pyramids.

### **Accuracy**

Cheops is the largest most precisely built and most accurately aligned building *ever* constructed in the world, and it is obvious that Cheops was conceived and constructed with machines and technology that were clearly very advanced, even when compared to the efforts of modern technologies. Remember that much of the accuracy used by the Egyptians was not realized until modern day technologies such as Metrology (the modern science of measurement) were employed. Respected builder and architect James Hagan (who designed Walt Disney Shopping Village in Florida, Sanford Stadium in Atlanta and the MARTA Five Points Central Station in Atlanta) has stated that "*it would be impossible to build the Great Pyramid today using modern building methods, and, therefore, impossible by primitive methods.*"

This is why it is amusing when intelligent men and women (along with the History, Nat Geo, and PBS channels) propose that the pyramids and other ancient Egyptian artifacts were created using elementary hammers and copper chisels. Additionally, and in keeping within the central focus of this discussion,

there is no evidence to support the speculation that a civilization, for one brief period of time, could produce works that are so advanced they would be considered brought from space (ET life) to the members of that society.

## TECHNOLOGY

Now, lets take a brief look at some of the technology (in no particular order) that is displayed by Cheops:

- 2.3 million gigantic blocks were cut out of quarries, dressed, transported, and fitted together on the building site to within the nearest thousandth of an inch
- While the majority of the pyramid was constructed of a softer limestone, the exterior of the pyramid was encased in white casing stones of firmer limestone with a highly polished and smooth surface that was designed to reflect the suns rays
- The white casing stones weighed between 16-20 tons each, were flat with a sloping front and with a mean variation of 1/100 inch (.010) over an area of 35-square feet (size of each block). Fitted together, the blocks maintained a gap of 0 to 1/50 inch (.020) that is comparable to the thickness of a fingernail (Figure 4). Modern quarries typically maintain tolerances of about ¼-inch
- The amount of accuracy of over 100,000 casing stones is equal to most modern opticians straight edges and/or the precision that is found in modern machine shops but not on modern building sites

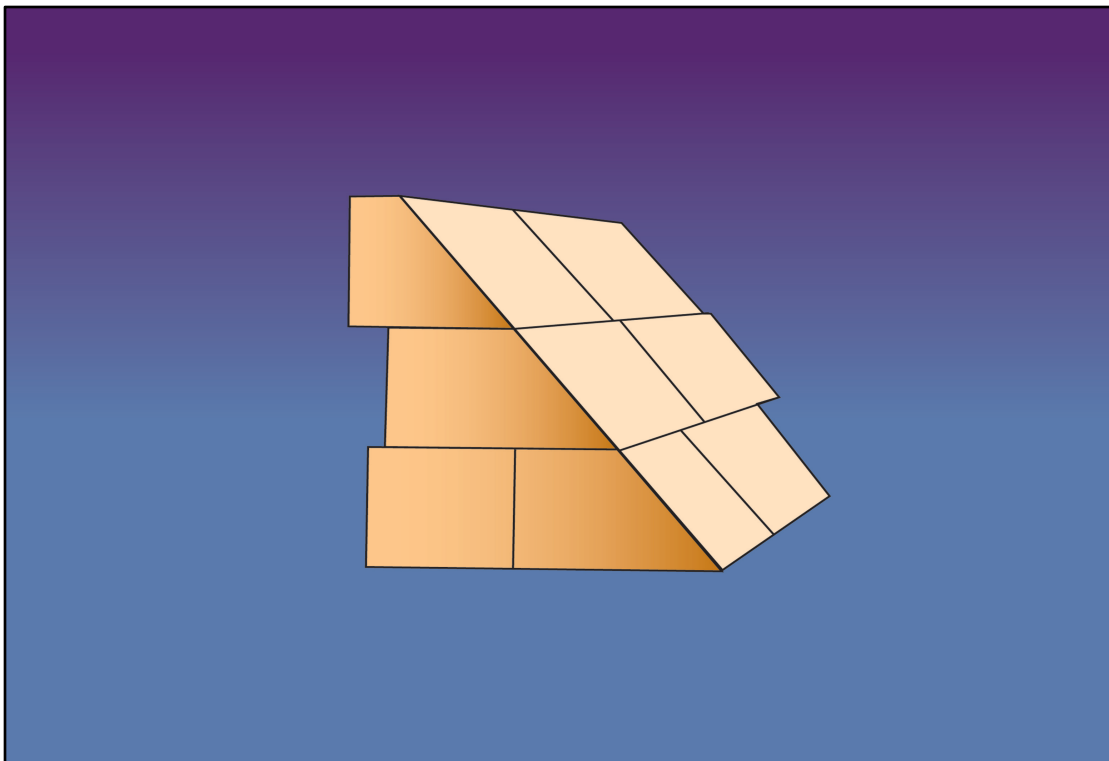


Figure 4. Polished casing stones

- It is reported the capstone at the top of the pyramid was sheathed in gold and that would have added to the brilliance of the sun's rays striking the pyramid. It is also believed that the reflected sun's rays from the polished white exterior casing stones would have been visible from the moon
- The meridian running through the pyramid divides the continents and oceans into two equal halves
- The centerline of the pyramid lies at the center of gravity of the continents
- The area of the base of the pyramid divided by twice its height gives the mathematical figure of Pi (3.14)
- The northern face is perfectly aligned to true north, the eastern face perfectly to true east, the southern face perfectly to true south, and the western face perfectly to true west
- The error of the pyramid sides only deviate from true of less than 0.015 per cent, considered incredible accuracy for any building in any era
- There is a difference of less than 8-inches between the shortest and longest side of the pyramid, and an error of less than 1%
- The base of the pyramid covers 13 acres and is level to within 7/8-inch over the entire thirteen acres which is an error rate of .001-inch in one foot
- Some type of cement was used between the blocks (which makes a bond stronger than the blocks) of which the composition is still unknown today
- The larger blocks of red granite used for the *alleged tomb area* within the pyramid weighed about 70 tons each and came from a quarry in Aswan, 500 miles away
- Egyptologists believe it took about 20 years to construct the pyramid. If there are 2.3 million blocks from 15 to 18 tons each, and if masons worked ten hours a day, 365 days a year, they would have had to place 31 blocks per hour or one block about every two minutes
- It is commonly alleged that building the pyramid required ramps up the sides so blocks of stone could be dragged up the ramps and placed into position. However, the Egyptology department at Oxford University has calculated that to build an inclined plane to the top of the pyramid at a gradient of 1 in 10 would have required a ramp 4,800 feet long and more than three times as massive as the pyramid itself
- The pyramid contains more stone than used in all the churches, cathedrals, and chapels built in England since the time of Christ. Also, 30 Empire State buildings could be constructed from the 2.3 million blocks of stone and a wall three-feet high and one-foot thick could be built across the United States and back using the amount of masonry in the Great Pyramid

- The swivel door to the interior weighed about 20 tons, yet was so well balanced that one person could easily open it from the interior. From the exterior, the door was nearly undetectable due to the cuts being so precise

## **BRIEF HISTORY**

Even though the preceding facts are extraordinary – some of which are beyond the scope of modern construction methods – there is another fascinating item that is unique to Cheops. Even though the pyramid was constructed in about 2560 BC and remained relatively secure for about 3,000 years, a Caliph named Al Ma'mun constructed a passageway from the exterior of the pyramid into the interior in 820 AD that provided access into the interior of the pyramid. Today, it is not known if the location of this passageway was deliberate or accidental and/or if Caliph Al Ma'mun was a tomb robber just attempting to access the interior of the pyramid. Nevertheless, his passageway intersected one of the hidden passageways in the interior that led to the additional discovery of numerous unexplained passageways and chambers within the interior of the pyramid (Figure 5). The overriding focus of the subsequent discovery of the pyramid's interior is the fact that the precision, complexity, and design of the passageways and chambers is *not* what is found for burial/funerary purposes and have remained unexplained since their discovery.

## **INTERIOR COMPONENTS**

Before we continue with scientific evidence that tends to support the speculated purpose of Cheops, let's clarify and then expand on the numerous passageways and chambers as follows:

- A. Al Ma'mun's tunnel
- B. Entrance
- C. Descending passage
- D. Subterranean chamber
- E. Well shaft
- F. Grotto
- G. Ascending passage
- H. Granite plugs
- I. Grand gallery
- J. Antechamber
- K. King's chamber
- L. Queens chamber
- M. Southern shafts
- N. Northern shafts



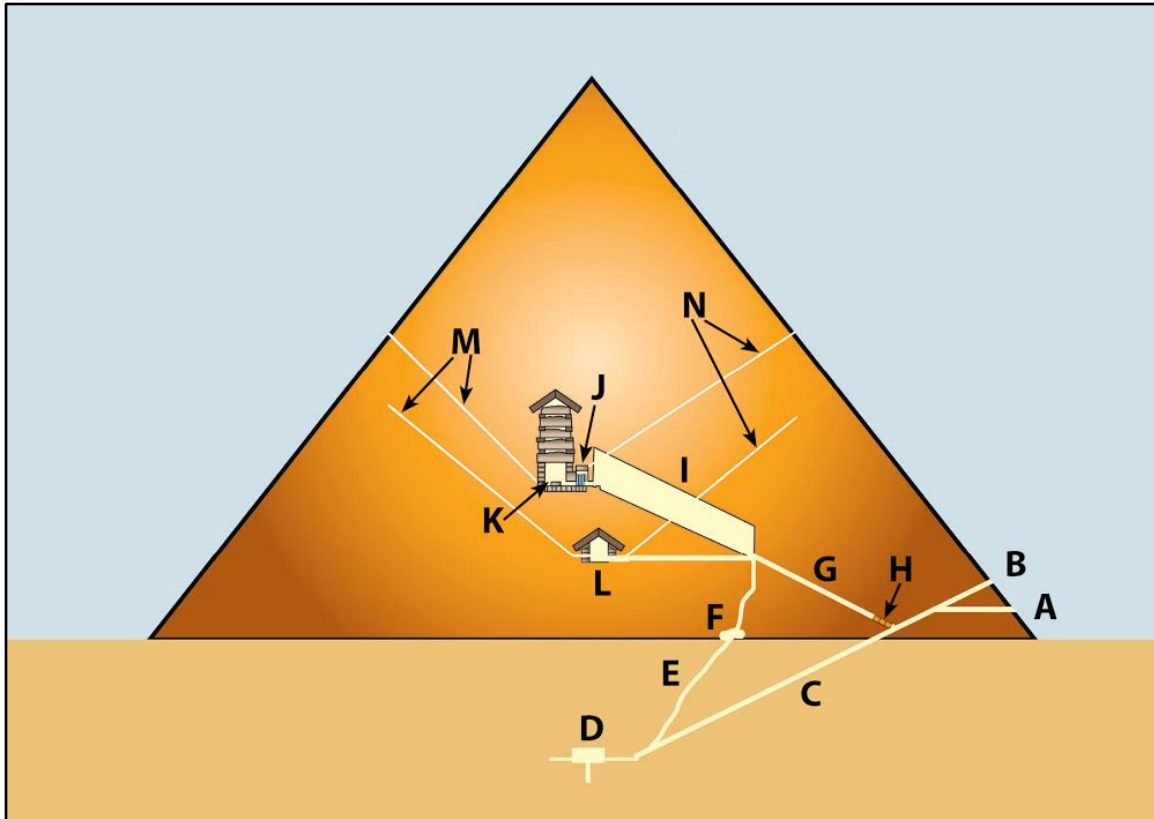


Figure 5. Unexplained interior passageways and chambers for a tomb

Using Figure 5, let's define the various labeled components of note that have baffled scientists and archaeologists for years. The following research is primarily taken from the book *The Giza Power Plant – Technologies of Ancient Egypt*, by Christopher Dunn, who ranks among the top researchers in this subject, Sir Flinders Petrie, Edwards Professor of Egyptology in University College, London, and resonance tests performed by Mr. Tom Danley, an Acoustic Engineer and Consultant to NASA. It should also be mentioned that some portions of this overview have appeared on the History and National Geographic Channels:

A. Tunnel

Caliph Al Ma'mun's tunnel

B. Entrance

The original entrance that was sealed at the conclusion of construction and not detectable from the exterior

C. Descending Passage

This passage angles downward at 26-degrees for 350-feet underneath the pyramid and into bedrock from the original entrance to an underground room called the Subterranean Chamber. The entire length of this passage only has an error of .25 inch of being perfectly straight. The first 150-feet of the passage is within .020 inch of being perfectly straight

**D. Subterranean Chamber**

A large room underneath the pyramid that was unfinished. Its purpose is unknown

**E. Well Shaft**

A small shaft that connects the base of the Grand Gallery to the Subterranean Chamber. The shaft is about 200-feet long and passes through a small cavern known as the Grotto. Its purpose is unknown

**F. Grotto**

A small cavern that is accessed by the Well Shaft. Its purpose is also unknown

**G. Ascending Passage**

The Ascending Passage travels upward for 125-feet and at 26-degrees from the Descending Passage to the junction of the Horizontal Passage to the Queens Chamber and the entrance of the Grand Gallery. The dimensions of this passage are 4-feet wide and 3.5-feet high

**H. Granite Plugs**

Three plug-blocks of red granite were positioned in the Ascending Passage at the beginning portion of the junction of the Ascending Passage and the Descending Passage. Their purpose is not entirely clear

**I. Grand Gallery**

The Grand Gallery is one of the most mysterious passages inside the pyramid. At the bottom of the Gallery is a passageway leading to the Queens Chamber. From the relatively small Ascending Passage, the Grand Gallery opens to a passageway that is 29-feet high by 7-feet wide, made from red granite (not limestone), and travels upward for 156-feet at a 26-degree angle. Of particular interest are side ramps on either side of the Gallery that contain twenty-seven pairs of slots (one on either side of the ramps for one pair) that travel the length of the Grand Gallery and are visible in Figure 6. Also, there are two additional construction features worthy of mention. First, a slot or groove has been cut into the second granite layer of the wall and located above each slot in the side ramps (left side of Figure 6). Second, the ratchet-style ceiling that is composed of overlapping tile-like stones that are tilted to face towards the top of the Grand Gallery

**J. Antechamber**

The Antechamber is a small horizontal passageway that connects the top portion of the Grand Gallery into the Kings Chamber and also contains three slab-like granite stones (Figure 7) that can be raised or lowered via wooden rollers and ropes in the Antechamber. Vertical slots in the opposing walls guided the slabs vertical movements and the wooden rollers were held in place by half-round grooves above the slabs



Figure 6. Grand Gallery with side ramps and slots

#### K. Kings Chamber

The Kings Chamber is likely the focal point of the interior of the pyramid and is located about 175-feet above grade level. As there are numerous interconnected workings of the Kings Chamber, refer to Figure 7 as we summarize the noteworthy components:

- While the pyramid used limestone blocks for the majority of its interior stone construction and the exterior casing stone facing, all of the interrelated portions of the King's Chamber were constructed out of red granite from Aswan quarries located 500 miles away from the pyramid (this type of granite contains over 55% silicon quartz crystals)

- The granite blocks used for the walls and floor of the chamber actually sit on what is classified as corrugated rock (similar to an egg carton). This results in the entire complex being freestanding from the limestone masonry around the chamber and also guarantees that the complex is free to vibrate at a specific resonate frequency
- Above the Sarcophagus in the King's Chamber are five rows of red granite beams for a total of 43 *beams weighing up to 70 tons each!* Each layer of beams is separated by a space that a person can crawl between

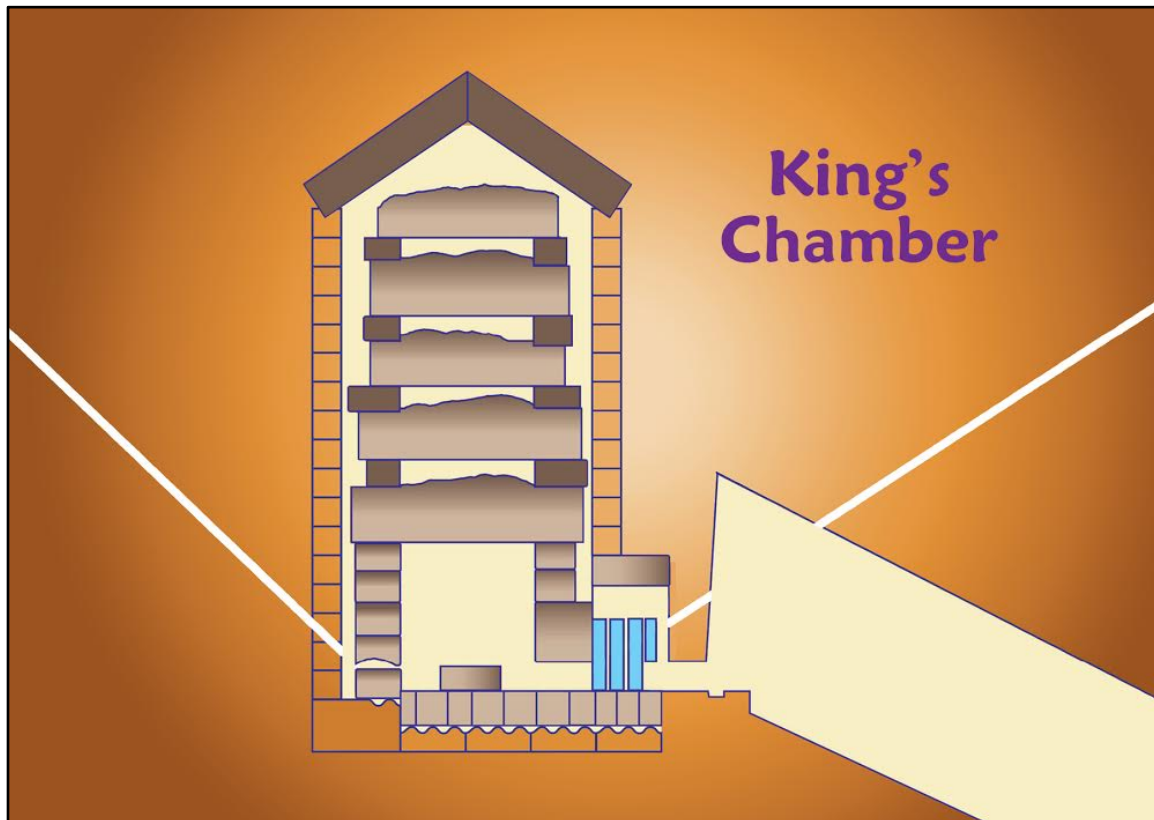


Figure 7. The components of the Kings Chamber

- The beams are suspended at their ends only, are not restricted from vibrating, and can react to induced motion and freely vibrate
- Each beam has been hand carved to resonate at the same frequency. That frequency is the same as the fundamental frequency of the earth
- The granite box in the chamber is commonly referred to as the Sarcophagus (or coffer), and weighs an estimated 70-tons (Figure 8). The interior was *machined* out of a single block of *solid red granite* and is an operation that is not accomplished by modern quarries. As an example, when questioned, four American precision granite manufacturers stated they could not achieve this kind of work. Instead, they would create the



coffer in five pieces (four sides and bottom), ship them to the customer and then bolt them together on site. Note: Earlier tomb robbers broke the corner of the Sarcophagus in Figure 8



Figure 8. Sarcophagus in the Kings Chamber

- High-speed machine tools were used inside the granite Sarcophagus (apparent from remaining machine/tool marks). One type of tool that was used and is clearly evident was tube-drills used to hollow out the interior of the granite box. This is referred to as "*trepanning*." To grasp the significance of that statement, let's briefly look at how the Egyptians powerfully used this system. In order to hollow out the interior of the solid granite box, masons would drill systematic holes (cusp) around the area to be removed with 18-inch hollow core tubular drills (Figure 9). After tubular drilling the appropriate area of the box, there would be cores and webs that would need to be removed. Following their removal, any irregularities would then be *machined* away until the surface was *perfectly flat*. As a result, the walls and floor would be finished to an accuracy

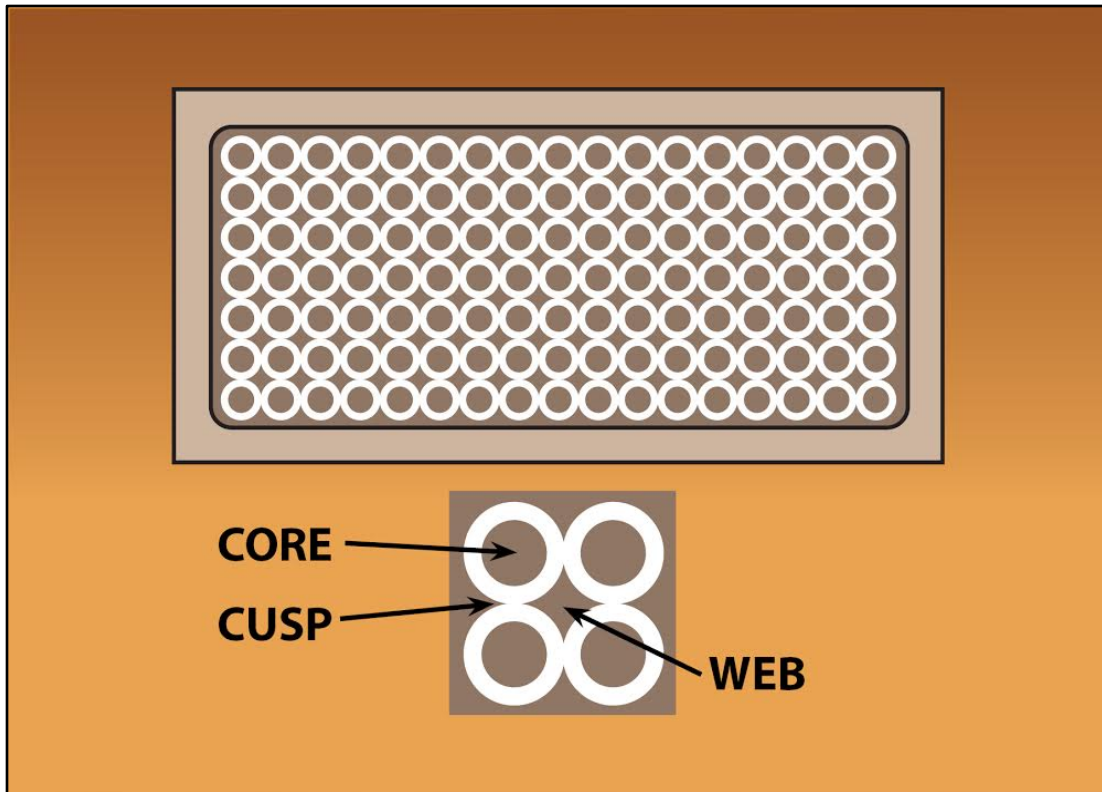


Figure 9. Egyptian trepanning

- modern manufacturers reserve for precision surface plates. Tool marks that left spiral-grooves on cores that were cast aside by workers and left outside the pyramid indicate that the feed-rate of the Egyptian tubular drills was .10-inch per revolution of the drill and are visible in Figure 10. To keep this in perspective, the feed-rate of modern drills is .0002-inch per revolution. This indicates that the ancient Egyptians drilled into granite with a feed-rate that was *five hundred times greater (or deeper per revolution of the drill) than modern drills* which is an astounding comparison between the capabilities of ancient Egyptian masons and modern masons
- When contemplating the ability of ancient Egyptian masons to surpass the abilities of modern masons to drill and finish granite to unbelievable specifications, the application and use of modern *ultrasonic machining* is the only method that completely satisfies this logic from a technical and modern viewpoint. As an additional consideration, remember that sophisticated tools would also need some type of an appropriate power supply for the tools/machines although there has never been any artifacts of this consideration that have been discovered



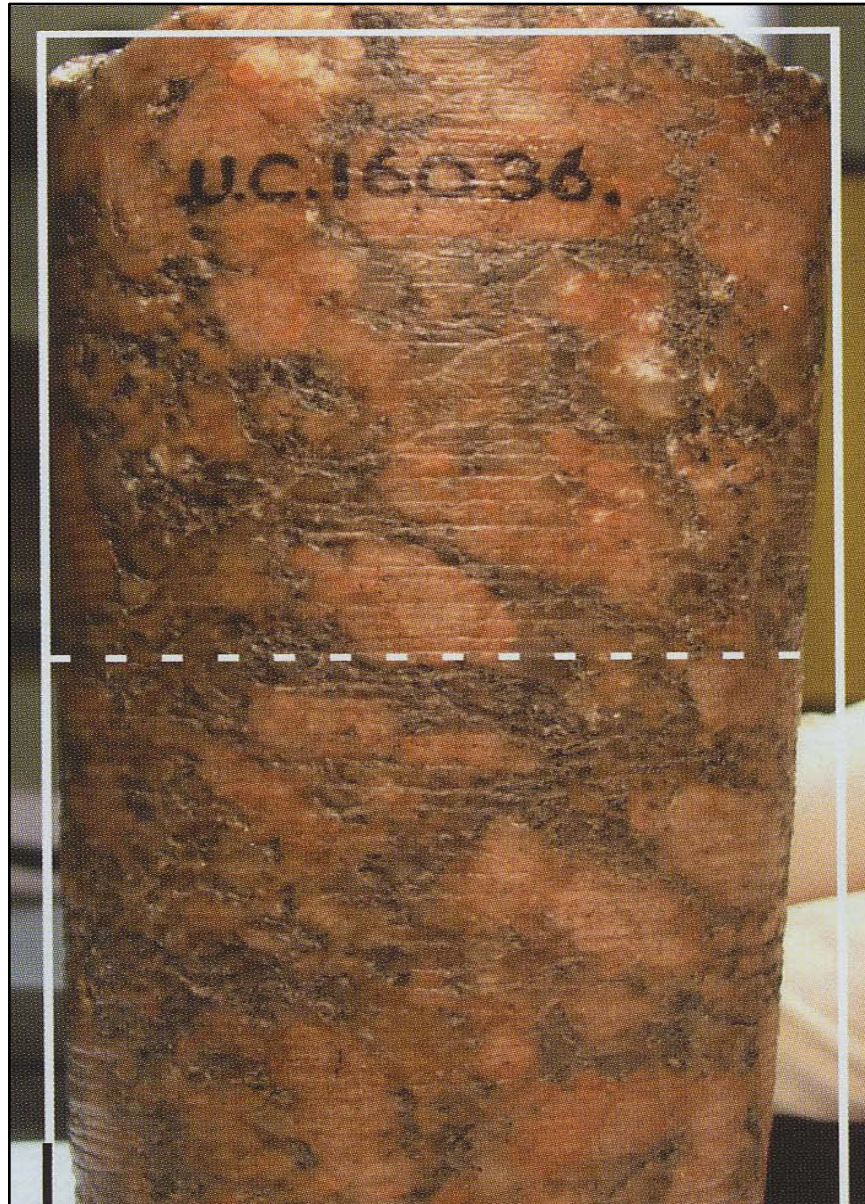


Figure 10. Core with cylindrical feed marks

**L. Queens Chamber**

The Queens Chamber is located below the Kings Chamber, is significantly smaller than the Kings Chamber and was made from limestone blocks only. It is positioned at the same level as the entrance to the Grand Gallery and accessed from a Horizontal Passage that begins from the junction of the Ascending Passage and Grand Gallery. The Queens Chamber was also accessed by a Southern and Northern shaft.

**M. Southern Shafts**

These are two small shafts on the south side of the pyramid. The upper shaft angles upward from the Kings Chamber to the exterior of the pyramid,

was originally lined with metal, and the interior mouth is 18-inches wide by 24-inches high before reducing in size to about 8-inches by 12-inches. The lower shaft angles upward from the Queens Chamber but stops about 20-feet short of the exterior of the pyramid and is about 8.5-inches wide by 8-inches high in size. Of particular note:

- An angled shaft demands a higher degree of technical skill to construct through the pyramid as opposed to a horizontal shaft so these shafts had a specific purpose
- In 1993 a mechanical robot explored the lower shaft in an upward direction. At a level higher than the Kings Chamber, a partition with two protruding copper fittings was discovered (Figure 11). This door has been named Gatenbrink's door for the engineer who designed and employed the robot that made the discovery, and will be discussed under Possible Purpose



Figure 11. Gatenbrink's door with two copper fittings

#### N. Northern Shafts

These are also two small shafts on the north side of the pyramid. The upper shaft angles upward from the Kings Chamber, was also originally lined with metal and is about 7-inches high by 5-inches wide. The lower shaft



angles upward from the Queens Chamber and also stops about 20-feet short of the exterior of the pyramid. A partition with two protruding copper fittings was also discovered in this shaft (Figure 11).

## **PURPOSE**

So, if Cheops (and the other pyramids) were not used for tombs as stated by Egyptologist Dr. Mark Lehner – as well as some other Egyptologists – and Cheops was constructed with an inordinate degree of precision along with numerous unexplained chambers and passageways that far exceed the requirements of a tomb/funerary, then a logical question is *what was its primary purpose?* One theory is Cheops was an astronomical observatory, another is it was used for geodetic markers, and still another is it was used for initiations. However, when the pyramid is over 4,500 years old and there is a complete lack of remaining verifiable documentation on its intended usage, it has been left to scientific observations (by scientists and non-scientists alike) to postulate the intended function of Cheops although virtually all theories are not without varying degrees of fact and controversy. Additionally, it must be stated that there are numerous theories and definitions that have been applied to Cheops so the following overview is an attempt to explain its possible purpose from the predominant viewpoint in comprehensible terms.

One of the more popular theories is the “*power plant theory*” that proposes Cheops was a geo-mechanical machine that responded sympathetically with the vibrations of the earth and converted that energy into some form of power (coupled oscillator effect). Interestingly, the word pyramid (*pyramidos*) means, “*fire in the center or middle.*” Although this theory is not without controversy, it is supported by an interesting assortment of thought provoking observations that can be considered scientifically noteworthy.

## **Source of Power**

First, let's look at the *source of power* that is thought to have supplied Cheops with the necessary energy for its intended operation:

- Scientists believe the center of the earth's core is a circulating mass of molten metal (iron-nickel alloy) and is also generating an electromagnetic field that produces a frequency and pulse/vibration from the earth (known as the Schumann Resonance)
- If Cheops was designed so it was capable of resonating with the frequency of the earth's vibrations, then it would be possible to have an inexpensive, consistent and dependable source of energy
- Interestingly, Cheops is precisely positioned at the center of the earth's landmass. To achieve this placement required a system of measurements

based on the true spherical dimensions of the earth. It should not be surprising that the three key measurements of the earth (equatorial latitude, earth's circumference and earth's polar radius) are exactly incorporated into the dimensions of Cheops. It is believed there is a distinct relationship between Cheops and the earth that is evidenced by the measurements of Cheops and its precise location

- It is known that an object can draw mechanical energy from another vibrating object if both their resonant frequencies (all objects have a resonant frequency) are in harmony and/or identical. This is referred to as a coupled oscillator. Remember that resonance is the sympathetic vibration of one object with another. The failure of the Tacoma Narrows Bridge in 1940 is a prime example
- Current acoustic data tends to support the theory that Cheops was designed and constructed with a sonic purpose to respond sympathetically with the fundamental frequency of the earth. In effect, Cheops would be a harmonic receiver of resonant vibrations/frequencies from the earth
- Sonic experiments have indicated that the Kings Chamber and Sarcophagus (both made from red granite that is high in quartz crystals) would resonate at 438 cycles per second as well as sub harmonics of this frequency
- If our discussion to this point has merit from a scientific perspective, then it must be concluded that Cheops was a highly sophisticated machine

### **Design and Construction**

Next, let's look at how Cheops was *designed and constructed* to be able to respond sympathetically with the earth's vibrations and turn it into a form of usable energy:

- As a starting point, remember that unlike the limestone blocks that were used in a majority of the pyramid, the Kings Chamber complex was completely constructed of red granite that was specifically brought from the Aswan quarries 500 miles away. This granite contains at least 55% quartz crystal. Quartz crystals have the ability to convert mechanical energy (vibrations) into electrical energy and is known as the Piezoelectric Effect
- The 43 red granite beams that are located at the top of the Kings Chamber weigh 70-tons each and are suspended at their ends so the beams are free to vibrate. Additionally, material has been selectively removed from each beam so it vibrates at the right/same frequency. This also applies to the Sarcophagus in the Kings Chamber and the Grand Gallery
- The result of the complete use of red Aswan granite in the Kings Chamber components are thousands of tons of granite that were precisely tuned to resonate in harmony with the fundamental frequency of the earth. Remember

that the entire Kings Chamber components are freestanding from the surrounding limestone masonry in the pyramid (see Figure 7)

### Usable Energy

Now, let's look at how Cheops was theorized to respond sympathetically with the earth's vibrations and *turn it into a form of usable energy* (see Figures 5, 6, 7, 8 and 12):

- As the pyramid was specifically designed (location and mathematically) by the Egyptians to act as a coupled oscillator with the earth, the earth's vibrations would flow through the pyramid. However, the Egyptians designed a network of passageways and chambers to significantly *amplify* those vibrations within the pyramid before being transferred to the exterior of the pyramid. The following points are a brief summary of how it is believed that was accomplished:

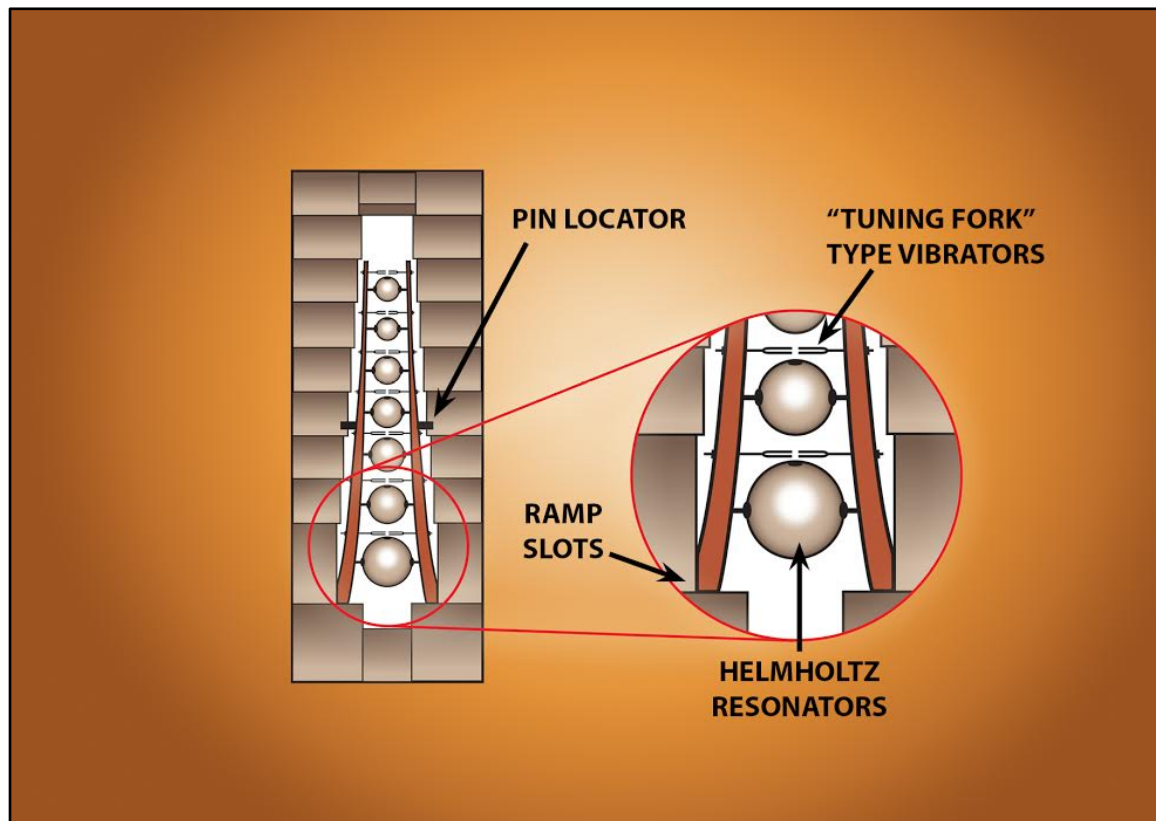


Figure 12. Resonator assemblies

- The Grand Gallery was not only specifically designed to direct the earth's vibrations upward into the Antechamber and into the Kings Chamber, but it is theorized the Grand Gallery also had resonators installed (remember the slots in the opposing side ramps, grooves in the walls above the slots

in the ramps and the ratchet style ceiling in Figure 6?) to amplify and convert the vibrations into sound waves while directing them into the Kings Chamber. Although the original contents of the Grand Gallery were likely removed by Caliph Ma'mun in 820 AD, it is believed there were 27 pairs of resonator assemblies consisting of wooden shafts that were anchored in the ramp/slots and stabilized by the pin locators in the vertical walls (Figure 12). Tuning fork type vibrators and basalt vases that were used as Helmholtz type resonators were anchored between the wooden shafts. A Helmholtz resonator is designed to respond to vibrations and maximize the energy from the vibrations (a common example of a Helmholtz resonator is a hollow sphere with a round opening about 1/10 to 1/5 the diameter of the sphere). As sound waves traveled upward thru the Grand Gallery, the tuning forks would vibrate (at the appropriate frequency). The Helmholtz resonators would then draw energy from the vibrating tuning forks and maximize the energy from the tuning forks. Interestingly, over 30,000 basalt vases that could have been used as resonators have been found underneath the Step Pyramid of Zoser at Saqqara. Several examples are also displayed in the Cairo Museum

- The design of this system ensured the earth's vibrations were maximized and directed from the Grand Gallery into the Antechamber before entering the Kings Chamber complex. This configuration ensured the Antechamber served as a type of acoustic filter as the three stones could be raised or lowered to minimize/filter incorrect sound waves and maximize the *input* of the system
- If sound waves were directed into the Kings Chamber and then up into the cavity with the aforementioned 70 red granite beams, and these sound waves were the same frequency as the resonate frequency of the beams and the red granite walls and floor of the Chamber, all of the red granite in the Kings Chamber components (including the Sarcophagus) would oscillate/vibrate enhancing the piezoelectric effect (the ability of quartz to change mechanical vibrations into electricity)
- The gabled shape (about a 45-degree slope from the vertical plane) of the top portion of the area over the red granite beams would have directed the energy produced from the oscillating beams downward towards the Sarcophagus that would have collected the energy and directed it to the Upper Southern Shaft which terminated outside the pyramid
- The vibrational energy would have been converted in the Kings Chamber into a type of microwave/electrical energy that could have been used outside the pyramid



- There is an opening in the South side of the Sarcophagus that is perfectly aligned with the upper Southern Shaft (that was lined with metal). This alignment would have directed the energy from the Sarcophagus towards the receiving end of the Southern Shaft and out of the pyramid
- As many of the limestone blocks have been removed by subsequent empires (Ottomans, Romans, etc) that have defaced and damaged the exterior of the pyramid (see Figure 1 where only a few of the original casing stones remain at the very top), it is unknown how the energy was collected and used outside the pyramid

### **System Operation**

Finally, let's briefly discuss the function of the Queens Chamber and how it is theorized it allowed this *system to operate*:

- In the interior configuration, the vibrating mass of quartz-bearing red granite influences the gaseous medium contained within the system which initially would have been common atmospheric air
- However, to maximize the system, it was important to have a stable gas that would fill the chambers and passageways and replace the inconsistencies of air but would also have the same consistent natural frequency that would be able to resonate in harmony with the entire system
- It appears that hydrogen gas was used to replace the interior atmospheric air due to its ability to maintain a consistent resonant frequency, it is the simplest atom with one proton and one electron, and it is also responsible for the emission of microwave energy in the universe
- The essential ingredient to convert hydrogen gas to usable power in Cheops was the introduction of an acoustical vibration of the correct frequency and amplitude (amount of energy) from the coupled oscillator effect of the pyramid and interior red granite
- The necessary hydrogen gas was generated by a chemical reaction in the Queens Chamber where hydrated zinc chloride and a dilute solution of hydrochloric acid were introduced at a metered rate. One of the primary evidences of this chemical reaction is the presence of salt encrustation in the interior of the Queens Chamber, Horizontal Passage and lower portion of the Grand Gallery which is a natural by-product of this chemical reaction
- From remaining discolorations and stains, the Northern Shaft (from the Queens Chamber) was used for the hydrated zinc chloride solution and the Southern Shaft (from the Queens Chamber) was used for a dilute solution of hydrochloric acid which when introduced into the Queens Chamber produced hydrogen gas that then filled all of the cavities in the pyramid

- An integral factor of this scenario is the limestone partition with two copper fittings in the Southern and Northern Shaft from the Queens Chamber (illustrated in Figure 11). To maintain the proper fluid level in the shafts, the copper fittings (electrodes) would have been electrically charged (the Egyptians had the technology of electricity) and act as a fluid switch. When the fluid level was at the correct level and contacting the copper fittings there would have been continuity between the copper fittings. Conversely, when the fluid level dropped so the copper fittings were above the fluid level, contact would have been lost signaling the need for more fluid. Remaining evidence of this theory is enhanced by the erosion of the copper fittings and the fact that the copper fittings are insulated by a tar-like substance from the limestone (the erosion and insulation are visible in Figure 11)

## CONCLUSION

If you watch any current television program on history, open a history textbook, or walk into a museum, the past is always presented from the perspective of ancient is always associated with primitive in concert with an evolutionary past that has steadily progressed from a primitive beginning to the advanced culture of science and technological achievements of today. It is not an accident that virtually all of the artifacts that are preserved in geological and archaeological displays have been specifically arranged to fit within the secular archaeological view of evolution.

Yet, from the evidences that are plainly observed and known by modern archaeologists (a few of which are summarized in these notes), there is evidence of a different account of past history. This evidence is called "*out of place artifacts*" (OOPARTS) because they do not fit the established pattern of ancient evolutionary history. Instead, they direct attention to the existence of advanced technology, a very advanced technology that was present way before modern times. Though these discoveries are well documented, most secular historians would prefer to ignore, discount, or offer creative explanations for OOPART anomalies "*that should not be there – but are.*" As we discussed in our previous programs on January 5, 2016 and February 3, 2016, modern science often uses the premise that alien life has previously visited this earth with advanced technology. This ideology has also been adopted by secular archaeology to explain how evolving ancient civilizations could have built many of the OOPART artifacts and/or how alien life could have left the required technology here to be used by future generations.

If the dates of ancient technology are carefully examined, it readily becomes apparent that most of the dates are prior to the time of Christ! If the Bible is true, we should find evidences of technology in the past where there should be none according to the evolutionary time scale. Not surprisingly, that is exactly what we find, so accepting the biblical account of creation and ensuing history should be simplified. Unfortunately that is not the case as graphically outlined in Romans 1:18-23, *“For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of people who suppress the truth by their unrighteousness, because what can be known about God is plain to them, because God has made it plain to them. For since the creation of the world his invisible attributes-his eternal power and divine nature have been clearly seen, because they are understood through what has been made. So people are without excuse. For although they knew God, they did not glorify him as God or give him thanks, but they became futile in their thoughts and their senseless hearts were darkened. Although they claimed to be wise, they became fools.”*

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