

# Station 1

## Timeline of Ancient Egypt

Ancient Egypt was one of the oldest and longest lasting world civilizations. It was located along the Nile River in the northeast part of Africa and lasted for over three thousand years. Historians generally use two ways to outline the history of Ancient Egypt:

**1. Dynasties:** The first is by using the different dynasties that ruled Egypt. These are the families that had power and passed the leadership of Pharaoh(their name for king) down from one family member to another. Counting the Ptolemaic Dynasty set up by the Greeks, there were over 30 dynasties that ruled Ancient Egypt. This sounds like a lot at first but remember this was over the course of 3000 years.

**2. Kingdoms and Periods:** There are also three primary kingdoms that historians use to define periods of Ancient Egypt. After each kingdom there is an "intermediate" period. The three kingdoms were the Old, Middle, and New Kingdoms.

Here is a brief outline of the timeline of the Ancient Egyptian civilization showing the Kingdoms, periods, and dynasties:

### Early Dynastic Period (2950 -2575 BC) - Dynasties I-III

The Ancient Egyptian civilization begins. The first Pharaoh of Egypt, Menes, united the Upper and Lower parts of Egypt into a single civilization. He put the capitol at the midpoint of the two lands in a city called Memphis. During this time the Egyptians developed hieroglyphic writing which would be important for making records and running the government.

Near the end of the Dynastic Period and the start of the Old Kingdom, the first pyramid is built by the Pharaoh Djoser and the famous Egyptian Architect Imhotep.

### Old Kingdom (2575-2150 BC) - Dynasties IV-VIII

The fourth dynasty begins, and the Great Pyramids of Giza and the Sphinx are built. This is often called the Age of the Pyramids. The fourth dynasty is a time of peace and also a time when the sun god Ra became prominent in the Egyptian religion.

The Old Kingdom nears its end as the 7th and 8th dynasties are weak, and the government begins to collapse. The end of the Old Kingdom is a time of poverty and famine.

### **First Intermediate Period (2150-1775 BC) Dynasties IX-XI**

Egypt splits back into two countries. The Old Kingdom ends, and the first Intermediate period begins.

### **Middle Kingdom (1775-1640 BC) Dynasties XI-XIV**

The Pharaoh Mentuhotep II reunites the two parts of Egypt under one rule signaling the start of the Middle Kingdom. The royal tombs are moved to the north near the city of Memphis. The Egyptians start to use irrigation to carry water from the Nile to their crops.

### **Second Intermediate Period (1640-1520 BC) Dynasties XV-XVII**

The Middle Kingdom ends, and the Second Intermediate Period begins. Some of the dynasties at the end of the middle kingdom and during this period only last for a short time. The horse and chariot are introduced during this period.

### **New Kingdom (1520-1075 BC) Dynasties XVIII-XX**

The New Kingdom is the time of greatest prosperity for the Ancient Egyptian civilization. During this time the Pharaohs conquer the most lands and the Egyptian Empire reaches its peak.

**1520 B.C.** - Amhose I reunites the kingdom and the New Kingdom begins.

**1506 B.C.** - Tuthmosis I becomes Pharaoh. He is the first to be buried in the Valley of the Kings. For the next 500 years this will be the main burial area for the royalty of Egypt.

**1479 B.C.** - Hatshepsut becomes Pharaoh. She is one of the most successful woman pharaohs and rules for 22 years.

**1386 B.C.** - Amenhotep III becomes Pharaoh. Under his reign the Egyptian civilization would reach its peak in prosperity, power, and art. He builds the Temple of Luxor.

**1352 B.C.** - Akhenaten changed the Egyptian religion to worship a single god. This was a major change of life. It only lasted for his rule, however, as his son Tutankhamun would change the religion back to the old ways.

**1279 B.C.** - Rameses II becomes Pharaoh. He would rule for 67 years and build many monuments.

### **Third Intermediate Period (1075 - 653 BC) Dynasties XXI-XXIV**

The New Kingdom comes to end when Egypt becomes divided. Third Intermediate Period begins. Egypt grows weaker and is eventually conquered by the [Assyrian Empire](#) near the end of this period.

### **Late Period (653 - 332 BC) Dynasties XXV-XXX**

The late period begins as the Assyrians leave Egypt and the locals regain control from vassals left by the Assyrians.

**525 B.C.** - The [Persians](#) conquer Egypt and rule for over 100 years.

**332 B.C.** - Alexander the Great and the Greeks conquer Egypt. He founds the great city of Alexandria.

### **Ptolemaic dynasty**

**305 B.C.** - Ptolemy I becomes Pharaoh and the Ptolemaic period begins. Alexandria becomes the new capital.

**30 B.C.** - The last Pharaoh, Cleopatra VII, dies.

# Station 2

## The Nile River

None of the achievements of the remarkable ancient Egyptian civilization would have been possible without the Nile River. There is always a connection between landscape and how a people develop. It does not take the wisdom of a sphinx to understand why.

Archaeologists and historians don't know exactly how Egyptian civilization evolved. It is believed that humans started living along the Nile's banks starting in about 6,000 B.C.E. For the earliest inhabitants of the Nile Valley, food was not easy to find.

### **Food for Thought**

Over time, however, despite being in the midst of desert surroundings, people discovered that the Nile River provided many sources of food. Along the river were fruit trees, and fish swam in the Nile in great numbers.

Perhaps most importantly, they discovered that, at the same time each year, the Nile flooded for about six months. As the river receded, it deposited a rich, brown layer of **silt** that was suitable for growing wheat, beans, barley, or even cotton. Farmers learned to dig short canals leading to fields near the Nile, thus providing fresh water for year-round irrigation. Planting immediately after a flood yielded harvests before the next year's flood.

### **Prime Time**

In order to know when to plant, the Egyptians needed to track days. They developed a calendar based on the flooding of the Nile that proved remarkably accurate. It contained a year of 365 days divided into 12 months of 30 days each. The five extra days fell at the end of the year.

Here's a problem that the sphinx might have trouble answering: how did the ancient Egyptians make their calendars? What material did they use? Remember, there was no paper. Need a clue? Take a dip in the Nile.

Large reeds called **papyrus** grew wild along the Nile. The Egyptians developed a process that turned these reeds into flattened material that could be written on (also called papyrus). In fact, the English word "paper" has its root in the ancient Greek word "papyrus." Among the first things written on papyrus were calendars that tracked time.

Papyrus had many other uses. Boats were constructed by binding the reeds together in bundles. Baskets, mats, rope, and sandals were also fashioned from this multipurpose material.

### **Sand, Land, and Civilization**

Even today, the world around the Nile is quite barren. Outside of the narrow swath of greenery next to the river, there is sand as far as the eye can see. To the Nile's west exists the giant Sahara Desert, the largest desert in the world.

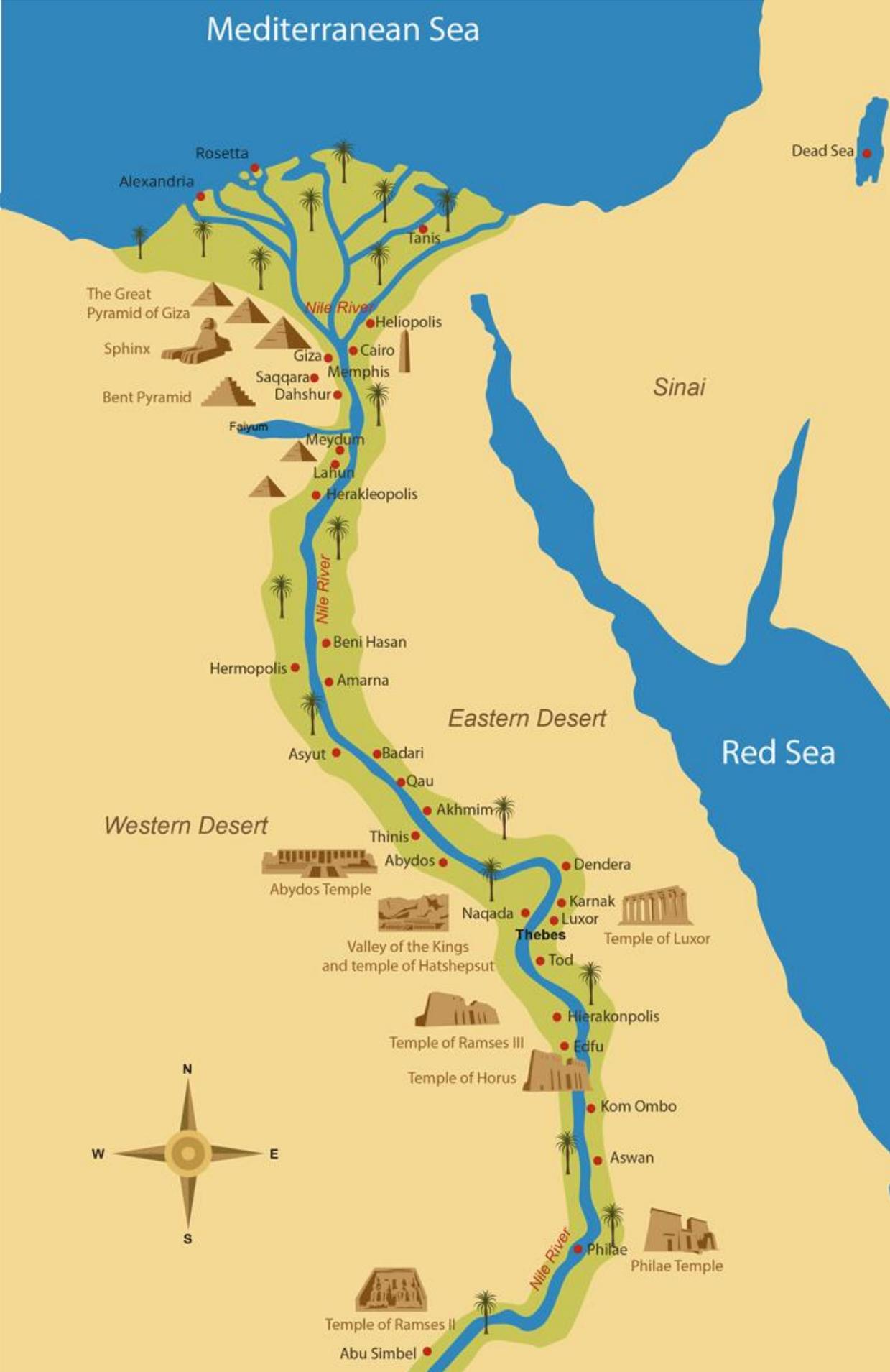
From north to south, the Sahara is between 800 and 1,200 miles wide; it stretches over 3,000 miles from east to west. The total area of the Sahara is more than 3,500,000 square miles. It's the world's biggest sandbox.

And, as if there weren't enough sand in the Sahara, east of the Nile are other deserts.

Although sand had limited uses, these deserts presented one tremendous strategic advantage: few invaders could ever cross the sands to attack Egypt — the deserts proved too great a natural barrier.

After learning to take advantage of the Nile's floods — and not having to fear foreign attacks — the Egyptians concentrated on improving farming techniques. As the years passed, Egyptians discovered that wheat could be baked into bread, that barley could be turned into soup (or even beer), and that cotton could be spun into clothing.

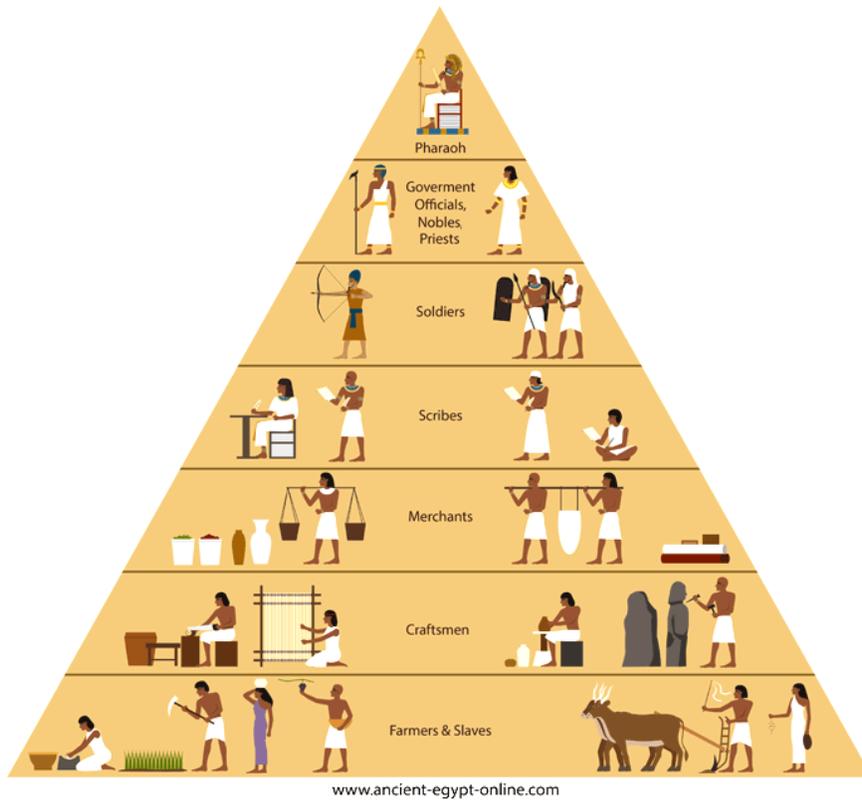
With many of life's necessities provided, the Egyptians started thinking about other things, such as art, government, religion, and philosophy — some of the basics needed to create a civilization. Eventually, pyramids, mummies, Cleopatra, and the Sphinx of Giza became touchstones of this flourishing culture.



# Station 3

## Egyptian Social Classes

The social structure of ancient Egypt can be sorted into a social pyramid. At the top of the social pyramid was the pharaoh with the government officials, nobles and priests below him/her. The third tier consisted of the scribes and soldiers with the middle class in the fourth level. Peasants were the fifth tier of society with slaves making up the lowest social class.



### Duties of Each Level

#### **The Pharaoh**

The Pharaoh was a god on earth and the ultimate authority in Egypt. It was his/her duty to make the law and maintain order in the Kingdom. The people expected the pharaoh to keep the gods happy so the Nile would flood and there would be a good harvest. S/he had to maintain

the army to defend the country from outside threats and internal difficulties. The people looked to the pharaoh to ensure their well-being and when s/he did not live up to this expectation s/he had less power. The Pharaoh owned all the land in Egypt but he could gift land to other people as gifts or to award them.

## **Government Officials**

Government officials consisted of members of the royal family, nobles and priests. The royal family made up the original members of the government, the highest position of which was the **vizier**. Over time, the royal family left government positions, leaving the nobles to fill them. At first, the pharaoh appointed all government positions but soon they became hereditary.

The vizier was the pharaoh's second-in-command and sometimes served as High Priest of [Amun-Ra](#). He oversaw the political administration and all official documents had to have his seal on them. The vizier managed the taxation system and monitored the supply of food. He listened to problems between nobles and settled them. The vizier also ran the pharaoh's household and ensured the royal family's safety.

Priests served the gods' needs and, at times, the power of the High Priest of Amun-Ra rivaled pharaoh's. Pharaoh appointed the priests during early periods but later the posts became hereditary. They spent their time conducting rituals and ceremonies, in pharaoh's name, in temples to keep the gods happy. Priests were a part of [ancient Egypt's daily life](#) and they oversaw the running of the temple community.

Nobles were the only group, beside the royal family, who could hold a government office. They ruled the nomes (regions of Egypt), made local laws and maintained order. Nobles also owned farm land which the peasant class worked for them.

## **Scribes and Soldiers**

**Scribes**, part of the third level of the pyramid, were some of the only people in Egypt who could read and write. They kept the records of the country including the amount of food produced and gifts presented to the gods. Scribes also kept records of the number of soldiers in the army and the number of workers on construction sites. They also wrote the copies of the [Book of the Dead](#) and biographies found in ancient Egyptian tombs.

Soldiers protected Egypt from outside attacks and ended social uprisings. At times, they also oversaw the lowest classes when they built the pyramids. Second sons would often join the army because they gained wealth. They could get riches from battles and the pharaoh might reward them with land for their service.

## **The Middle Class: Craftsmen and Merchants**

The middle class consisted of craftsmen, merchants and other skilled workers such as doctors. Merchants sold the goods made by craftsmen and doctors treated injuries. Craftsmen or artisans included carpenters, jewelers, metalworkers, painters, potters, sculptors, stone carvers and weavers. Women could work in some of the crafts, such as weaving. Craftsmen often worked in workshops with other artisans of the same type.

## **Peasants**

Peasants were the farmers, servants and construction workers. The government employed construction workers who built royal buildings like pyramids and palaces. Servants worked in the homes of the higher levels of society cleaning, making food, and completing other tasks.

Farmers were the most important part of the society because they raised the food that fed ancient Egypt. Pharaoh, or the nobles they worked for, provided them with food and clothing. This was an exchange for their cultivation of royal or noble land. Farmers lived in small, mud-brick houses and could rent land in exchange for a percentage of the crops from nobles or the Pharaoh.

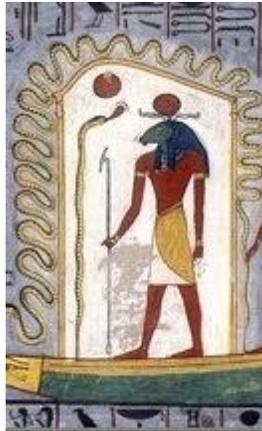
## **Slaves**

At the bottom of ancient Egypt's social structure were the slaves. Egypt did not have slave markets. Most of the time, the ancient Egyptians acquired slaves as prisoners-of-war. Slaves worked in the homes of the nobles, in the royal palace and in the temples. They also mined and quarried stone and precious materials. None of the records found to date say that slave labor built [the pyramids of Giza](#), despite myths claiming they did.

## Station 4

# Egyptian Religion

Religion played a big part in the lives of the Ancient Egyptians. They believed in a wide variety of gods and goddesses. These gods could take different forms, usually as animals. The same animal may represent a different god depending on the area, temple, or timeframe.



*Ra by Unknown*

### **Major Gods and Goddesses**

There were some gods and goddesses that were more important and prominent than others. Here are some of the more important ones:

**Ra** - Ra was the sun god and the most important god to the Ancient Egyptians. Ra was drawn as a man with a hawk head and a headdress with a sun disk. At one point Ra was combined with another god Amun and the two made an even more powerful god, Amun-Ra. Ra was said to have created all forms of life and was the supreme ruler of the gods.

**Isis** - Isis was the mother goddess. It was thought that she would protect and help people in need. She was drawn as a woman with a headdress in the shape of a throne.

**Osiris** - Osiris was ruler of the underworld and god of the dead. He was the husband of Isis and father of Horus. Osiris was drawn as a mummified man with a feathered headdress.

**Horus** - Horus was the god of the sky. Horus was the son of Isis and Osiris. He was drawn as a man with the head of a hawk. The ruler of the Egyptians, Pharaoh, was thought to be the living version Horus. In this way Pharaoh was the leader of the Egyptian religion and the people's representative to the gods.

**Thoth** - Thoth was the god of knowledge. He blessed the Egyptians with writing, medicine, and mathematics. He was also god of the moon. Thoth is drawn as a man with an Ibis bird head. Sometimes he was represented as a baboon.

## **Temples**

Many Pharaohs built large temples in honor of their gods. These temples would have large statues, gardens, memorials, and a place of worship. Towns would have their own temples as well for their own local gods.



*Luxor Temple at night by Spitfire ch*

Some famous temples include the Luxor Temple, the Temple of Isis at Philae, the Temple of Horus and Edfu, the Temples of Rameses and Nefertiti at Abu Simbel, and the Temple of Amun at Karnak.

## **Was Pharaoh considered a god?**

The Ancient Egyptians considered Pharaoh to be their main intermediary to the gods; perhaps more of a high priest than a god. He was, however, closely associated with the god Horus and may have, at times, been considered a god in human form.

## Afterlife



*The Book of the Dead* - Drawn on the walls of a tomb  
by Jon Bodsworth

The Egyptians believed that there was a life after death. They thought that people had two important parts: a "ka", or life force that they only had while alive, and a "ba" which was more like a soul. If the "ka" and "ba" could be united in the afterworld the person would live in the afterlife. A key component was that the body be preserved for this to happen. This is why the Egyptians used the embalming process, or mummification, to preserve the dead.

# The Book of the Dead

The ancient Egyptian 'Book of the Dead' is part of the Egyptian religion. It contains all of the information that is needed for the spirit of someone who has died to get through the trials and tests and emerge to their afterlife. Hieroglyphs and passages have been found on the walls of many burial tombs.



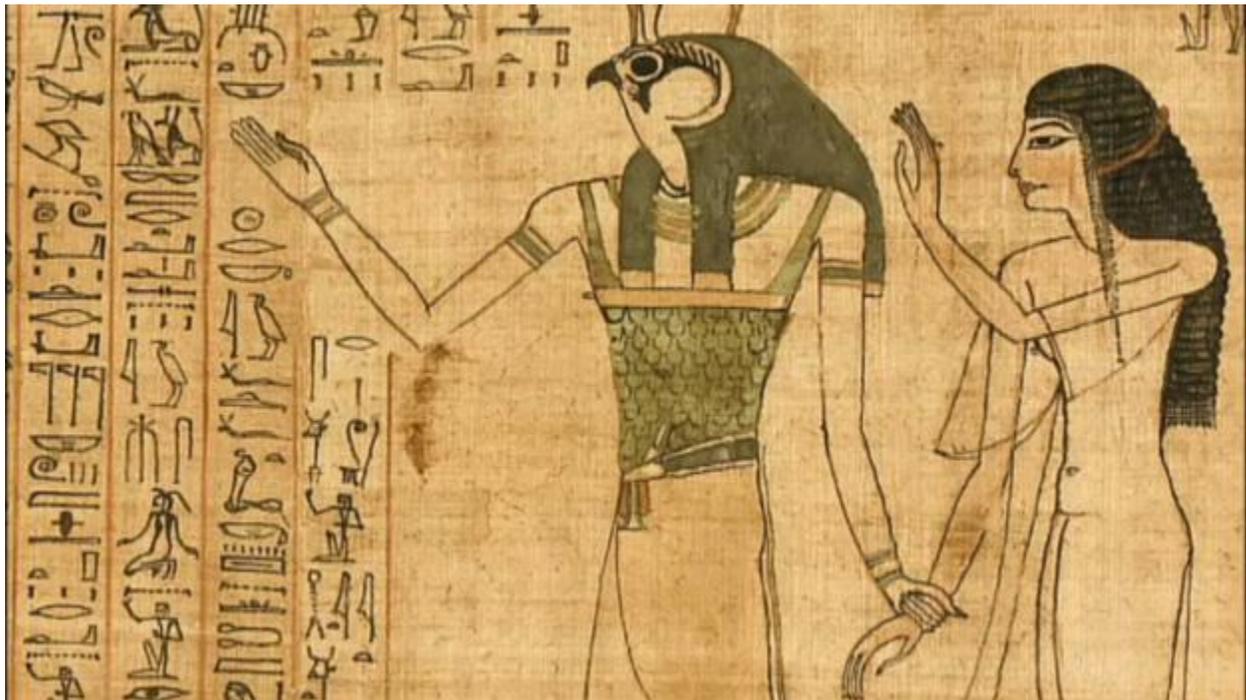
Ancient Egyptians believed in magic and the book is actually a collection of magical speeches and prayers that would be used by the person that died. It was designed to help and guide them so that they could pass the spiritual tests and enter the afterlife.

Many of the chapters of the book are written on papyrus paper, but some are also found on coffins, scarabs, tomb walls and even other funeral

objects. They include illustrations and pictures that sometimes show the individual person as they make their journey to their afterlife. Pharaohs and wealthy families would have personal inscriptions, but the average middle class family could not usually afford the cost.

The Egyptian civilization lasted 3,000 years and throughout the time there were different versions of the Book of The Dead. The various spells that were created by the priests depended upon the importance of the gods and goddesses of the time. Around 1500 B.C.E., what is called the Eighteenth Dynasty, they created the version that we see today. At that time, it was normal to include images of their gods.

It is believed that the Book of the Dead is a collection of stories from various traditions. This is because some of the wording in the book is strangely opposite of other wording in the book.



One of the main parts of the Book of the Dead is showing the process that the person who has died must go through. There is a test that must be passed in order to enter the afterlife. The spirit of the person who has passed away enters the Hall of Two Truths. The Egyptian god, Anubis, would

be waiting with a scale. There was an ostrich feather on one side of the scale and the god would put the heart of the person that died on the other side. If the feather weighed more than the heart it proved the person led a good life and was allowed to go to the afterlife.

There are other ancient Egyptian gods that appear in the Book of the Dead. Each has their own purpose. One would play the part of a scribe and write all of the details down, while another was there to punish the soul of the person if they didn't pass the test.

The Egyptian people believed that one of the most important things in life was happiness. Most of the ancient Egyptians seemed to be optimists and so they thought that everyone would pass the test. Since the Egyptians lived in a culture where everyone had their own social status, they also believed that the poor people would be poor in the afterlife and rich people would have the same rich status.

Those that have studied some of the copies of the Book of the Dead have noticed that, for people other than the pharaohs, it appears that the artists and priests had a standard copy that they wrote on papyrus. The only areas that were blank was the name of the person that had passed away. This would have made it a lot easier to include in a burial tomb because they could make up copies ahead of time and just fill in the name. One of these copies is on exhibit at the British Museum. It is for someone named Ani, who "the Accounts-Scribe of the Divine Offerings of all the Gods," and the tomb was also for his wife Tutu.

# Station 5

## Egyptian Advancements

**Much can be attributed to the ancient Egyptians, even some of the earliest forms of technology and inventions that we still use today. They were innovators in astronomy, mathematics, medicine, language and even architecture.**

### **Hieroglyphics**

The ancient Egyptians were among the first groups of people to write and keep records of events that happened in their lives. The earliest form of writing was in the form of hieroglyphics, which, simply put, were drawings that portrayed a story. Hieroglyphics are some of the oldest artifacts in the world today, and the Egyptians used them to keep accurate records and maintain control of their empire.



### **Papyrus**

Papyrus was the first form of durable sheets of paper to write on, and the ancient Egyptians were the ones to develop it. The material was termed “papyrus” because it was made from the papyrus plant.

The ancient Egyptians primarily used papyrus for recording religious texts and other important documents. Papyrus was mass produced in Egypt and sold to other ancient civilizations, such as Ancient Greece, for their record keeping.

## **Calendars**

The ancient Egyptian calendar was invented more than 5,000 years ago and was originally based on the 12-month lunar cycle. They grouped the months into three seasons of four months that seemed to coincide with the Nile River.

However, this calendar wasn't accurate enough. They soon noticed that although the river would flood every year around the end of June, the flood occurred within a range of 80 days.



Therefore, after noticing that the river's flooding and rising coincided with the heliacal rising of the star Sirius, they based their year on the cycle of this star's reappearance, effectively applying astronomy principles to develop a more accurate calendar by which to track the days of the year. We still use ancient Egyptians' calendar model in our tracking of the days today.

## **Clocks**

Ancient Egyptians were also one of the first groups of people to divide days into equal parts through the use of timekeeping devices. Some of the earliest forms of clocks were sundials, shadow clocks, merkhets and obelisks.

Generally, the passing of the day was determined by the position of the sun, and the passing of the night was determined by the rise and fall of the stars.

There is even evidence of water clocks in ancient Egypt. These were shaped like bowls and had a small hole in the bottom of them. They floated atop water and were allowed to fill up in a way so that the rising water represented a number of hours passing.

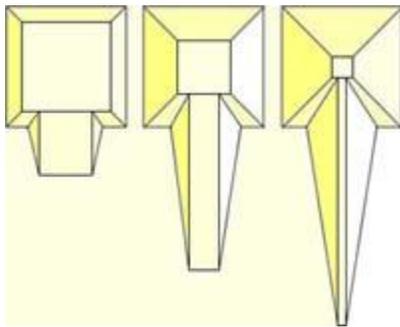
Water clocks were mostly used by priests, as they allowed a way to measure time independently of the sun and were more accurate gauges of time for performing special religious ceremonies.

## Pyramids

There remains speculation regarding how the ancient pyramids were constructed. However, the first truly triangular shaped pyramids are counted among the many ancient Egyptian inventions, although it took them several tries in order to achieve an ideal model.



## Simple Machines



Part of what made it possible for the Egyptians to build some of the great buildings and monuments that they did was the employ of certain simple machines that they invented to assist them in the process. The ramp and the lever were a couple of the most famous construction inventions that the ancient Egyptians developed, and the principles that guide them are still widely used in construction today.

## Ships and Navigation



Trade was an important part of ancient cultures, so having working ships was extremely important. The ancient Egyptians employed knowledge of the science of aerodynamics in their ship construction processes to create ships that would catch the wind and push vessels through the water. They developed the use of numerous sails that could be adjusted to sail ships against the wind using side winds.

They also came up with the concept of using rope trusses to strengthen the beams of their ships, and they were also the first ones to stem-mounted rudders on their ships. At first, they built small boats out of papyrus reeds, but eventually they began to build larger ships from cedar wood.

## **Ox-Drawn Plow**

While not thought of in quite the same aspects as the tools we know today, the first ox-drawn plows appeared in Egypt as early as 2500 B.C. This advancement in agriculture required skilled metal working in order to form a workable plow, as well as animal husbandry.



One might wonder why the ancient Egyptians would have even needed ox-drawn plows when the majority of the Egyptian nation consists of deserts. While there certainly is a great amount of sweeping desert land in Egypt, the nation is also the home of extremely fertile black soil along the banks of the Nile River. This area provided a very hospitable environment for growing crops such as wheat, in addition to a multitude of vegetables.

## **Irrigation**

Of course, humans cannot control the amount of rainfall that is supplied to the Earth. Therefore, the ancient Egyptians developed irrigation systems using hydraulic engineering principles. Such systems were designed to replace rainfall during periods of drought. Early evidence indicates that irrigation systems were used in ancient Egypt as early as the twelfth dynasty, using the lake Fayum, as the reservoir to store water surpluses.

## **Astronomy**

The Egyptians made observations about the night sky, and their religion and heavenly bodies were greatly influenced by the sky and elements. Egyptians studied the rise and fall of the stars and even built circular mud-brick walls to create false horizons where they could mark the position of the sun as it rose at dawn.

Then, they used plumb-bobs to make note of the solstices. They used their knowledge of astronomy to develop the lunar calendar based on the cycles of the moon and the star, Sirius. From their knowledge emerged the calendar that we use today, divided in 12 months, 365 days and 24-hour units.

## **Medicine**

Some of the earliest developments in medicine were made by the ancient Egyptian people. They had a variety of medicines and cures for both humans and animals, along with much knowledge of anatomy, as they practiced mummification and preservation of the dead.

For instance, they used honey and human brains to cure eye infections, a cooked mouse to cure coughs and applied cow dung to wounds and piercing to ward off infections. There are indications that the use of such practices was one of the leading causes of people developing tetanus in ancient Egypt.

### **Mathematics**

The great pyramids that the ancient Egyptians built required some knowledge of mathematics, especially of geometry. Mathematical principles were applied in the invention of simple machines, as well as for transactions and record keeping.

Math and numbers were used to record business transactions, and the ancient Egyptians even developed a decimal system. All their numbers were factors of 10, though, such as 1, 10, 100 and so on. Therefore, in order to denote 3 units, they would write the number “1” three times.

### **Dental Hygiene**

Many people don't realize that toothpaste is actually another invention that can be attributed to the ancient Egyptians. Because their bread had so much grit and sand in it, Egyptians experienced problems with their teeth. They invented the toothbrush and toothpaste in an effort to care for their teeth and keep them clean of grit and sand.

The first toothpaste was made of a wide variety of ingredients, some of which included eggshells, ashes and ground-up ox hooves.

### **Make-up**

Even make-up originated with the ancient Egyptians, where men and women alike used to wear it. While the make-up was used primarily for cosmetic purposes and as a fashion statement, it served a practical purpose as well, in that it protected their skin from the sun.

Perhaps the makeup that they are most known for was the dark kohl that they wore around their eyes. Kohl was made from soot and other minerals and is the concept from which modern eyeliner originated.