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Ancient History

Decoding the Secrets of Egyptian Hieroglyphs

Course Guidebook

Professor Bob Brier
LIU Post



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This guidebook uses the following typographical conventions:

- Quotation marks are used for English words cited as words (rather than used functionally; e.g., The word “ginormous” is a combination of “gigantic” and “enormous”).
- Italics are used for all Egyptian words, word parts, and phrases that are not in hieroglyph form.
- Slashes are used to indicate sounds (e.g., /b/).
- Often, hieroglyphs and English appear in the same sentence. Here’s an example: At the top, the scepter also has a *djed* pillar, , representing the backbone of the god Osiris and meaning “stability.” (Note that the commas are English and not part of the pillar hieroglyph. The same applies to any English punctuation mark appearing next to a hieroglyph.)
- In pronunciation transliterations involving suffix pronouns, the suffixes are technically part of the word they are attached to. This is indicated by periods. Here’s an example: The sentence  is pronounced something like *Yew.i em per.i*. (Note that the final period ends the sentence as a whole and has nothing to do with suffix pronouns.)
- If the pronunciation of a complete transliterated sentence is embedded in a full English or English/hieroglyph hybrid sentence, it will start with a capital letter, as in the example in the previous bullet point. ■

Decoding the Secrets of Egyptian Hieroglyphs

This course is for everyone who has wondered what the mysterious hieroglyphs carved on ancient Egyptian temples say. The course's goal is to give you the ability to read ancient Egyptian texts. You'll start slowly by learning the ancient Egyptian alphabet and by writing names in hieroglyphs. Once you see that all those birds, feet, and snakes are not just pictures, you will be on your way to translating ancient texts.

The early lectures will introduce some hieroglyphic words, but will also tell the story of how hieroglyphs were deciphered. Decoding ancient Egyptian writing was one of the great intellectual adventures of all time, and it was not easy. The early lectures follow this story's heroes as they struggle to decipher the Rosetta Stone, a feat that took the greatest minds of Europe two decades to complete.

With a thorough understanding of how hieroglyphs were deciphered, you will be ready to learn the language itself. First you'll learn vocabulary words and then the basic rules of grammar. Soon you'll be working on simple sentences from papyri and temple and tomb walls.

In addition to learning how to read hieroglyphs, you will also learn how to write them, enabling you to think like an Egyptian. Hieroglyphs serve as a doorway into ancient Egyptian culture. When you learn to read and write the names of the gods, you will also learn the mythology associated with them. The course focuses on the myth of Isis and Osiris, which was central to the Egyptian belief in resurrection, and also on how Ptah created the world with words.

You will use your hieroglyphic knowledge to understand royal jewelry of Middle Kingdom queens in a new way. With your new translating skills, the jewelry becomes texts to be read.

By the end of the course, you will have learned the various ways that hieroglyphs can be used. You will know hundreds of ancient Egyptian words and understand the order of these words necessary to form sentences. You will be ready to translate the Hotep-di-nesu, a prayer for the dead carved on tomb walls. And in the final lecture, you will pull it all together and translate a lengthy inscription of the lid of Tutankhamen's sarcophagus. ■

Why Egypt Needed Hieroglyphs

LECTURE

1

Learning ancient Egyptian is easier, in some ways, than learning Spanish or French. One reason for this is that Middle Egyptian, the phase of the language that will we learn, is not spoken; thus, we can devote most of our efforts to learning to read it. Further, we don't have to conjugate verbs in ancient Egyptian or worry about masculine and feminine nouns. By the end of the course, you will understand how the language works and be able to translate rather complex sentences from real texts. And when you go to museums that have Egyptian collections, you will have a much better understanding of what you are looking at. Hieroglyphs will be your doorway into the culture.

Helpful Hints for Our Course

- The word *hieroglyph* comes from Greek. When the Greeks entered Egypt around the late 4th century B.C., they saw the carvings on temple walls and called them, in Greek, *hieroglyph* (“sacred”) *glyph* (“carvings”). Note that *hieroglyph* is the noun form of the word and *hieroglyphic* is the adjectival form.
- In each lecture of this course, we will learn new vocabulary words, which is the most important part of learning a language. This guidebook has a small dictionary of the words we will need, but you should also make your own handwritten dictionary to give yourself extra practice in writing.
- To write hieroglyphs on your computer, you can download a free program called JSesh. You may also want to get a copy of Sir Alan Gardiner’s book *Egyptian Grammar*. The book contains a rather complete dictionary; it lists all the hieroglyphs, explaining

what they are and the sounds they represent; it has sequential lessons that teach grammar and vocabulary; and it has homework assignments at the end of each lesson.

- Probably the best way to view this course is to watch just one lecture per day. That way, you can let the hieroglyphs sink in, have time to think about them, and spend 20 minutes or so writing them.

Egypt's Invention of Writing

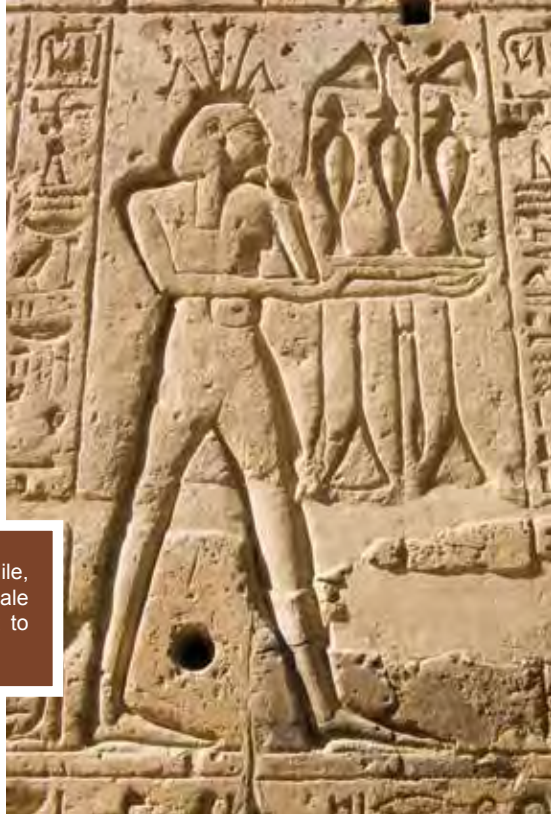
- The Nile is one of the main reasons that Egypt had to have writing.
- Egypt is bounded on the east and west by desert and, on the north, by the Mediterranean. These are not easy boundaries to

After visiting Egypt around 450 B.C., the Greek historian Herodotus said, "Egypt is the gift of the Nile."



cross, especially because Egyptians feared the desert and were not particularly good sailors.

- The last natural boundary is the southern one, which in ancient times was at the city of Aswan. Here, there is a cataract—large boulders in the river—making passage difficult, both into and out of Egypt from the south.
- Each year, monsoons in Ethiopia bring torrential rains that wash rich topsoil into the Nile. In July, the Nile overflows its banks and deposits this soil on both sides of the river. For us, this is a natural phenomenon, but for the Egyptians, it was a magical event.
- The Egyptians fully appreciated the importance of the Nile. They made offerings to Hapi, the Nile god, who was shown as having both male and female traits. He's clearly male, but he has a female breast. The idea is that by himself, he gives life to Egypt.
- The annual inundation from the Nile fertilized the land of Egypt every year, allowing it to grow more food than it needed. But when there are surpluses, people want to keep track of



Hapi, the god of the Nile, had both male and female traits and was thought to give life by himself.

them, especially if there is a system of taxes. That's where writing came in. The Egyptians needed writing to keep track of the taxes that were due and the taxes that were collected.

The Narmer Palette

- Another reason that Egypt had to have writing relates to the fact that the Egyptians had a pharaoh as a ruler. To understand this, let's look at one of the oldest historical documents in the world: the Narmer Palette.
- In ancient Egypt, both men and women wore eye makeup. This makes sense in a desert country, to reduce the glare from the sun. The ancient Egyptians made these cosmetics by mixing duck fat and ground malachite. Palettes were used for combining these materials.
- The Narmer Palette is thought to be a ceremonial palette, created to celebrate the unification of Upper and Lower Egypt. Interestingly, Upper Egypt is in the south because when you went south, against the current, you were going "up the Nile." Thus, Upper Egypt is below Lower Egypt.
- One side of the palette has a large figure in the center. We know this figure is the king because he is wearing the tall white crown of Upper Egypt. In his hand is a mace, with which he is about to smash a captive. This king's name is Narmer, perhaps the first king of unified Egypt.
- Above the captive is a falcon holding the head of another captive by a nose ring. The falcon is the symbol of the pharaoh. The six papyrus plants that come out of the stylized body of the captive may be hieroglyphs for 6,000; each plant is 1,000 in hieroglyphs. Narmer may have taken or defeated 6,000 of the enemy. Narmer is wearing a kilt, and coming down its back is a bull's tail, a symbol of his power. He also wears a false beard, another symbol of authority.

- Behind Narmer is a smaller figure, his sandal bearer, and behind that figure are the hieroglyphs for the word *servant*. He is not, however, just a lowly servant but an important official. Around his neck is a cylinder seal on a cord, which shows that he is high up in the hierarchy.
- Behind the captive may be the name of the town he comes from. Beneath Narmer's feet are two fleeing enemies, with their towns apparently indicated by the hieroglyphs above them.
- How do we know that the king's name is Narmer? The palette shows a rectangular structure called a *serekh* that represents the façade of a palace. Inside that rectangle are two hieroglyphs. The one on top is a catfish, which was pronounced *nar* in ancient Egyptian. Beneath it is a chisel, pronounced *mer*, forming the word *Narmer*.
- The second side of the palette has the same top, with the name of Narmer in the palace façade. Beneath this is a victory procession. Narmer is now wearing the short red crown of Lower Egypt. He came from the south, conquered the king of the north, and now rules both north and south, unifying Egypt.
- In the procession that precedes him is a figure that's larger than the others. The hieroglyphs above him mean *vizier*, or prime minister. His posture is stooped because he is wearing a heavy leopard skin, the sign of a high priest. The smaller figures hold standards, perhaps the divisions or towns from which the army came. They are walking toward decapitated bodies that have their hands tied.
- Beneath this procession are two mythological animals with their necks intertwined. This may well represent the unification of the two lands. At the very bottom of the palette is a bull, breaking down a walled city while trampling the enemy. The bull is yet another symbol of the pharaoh.

- The Narmer Palette is important because of its historical content and because it is very early writing and describes the beginning of Egypt as great nation. But it's also important to ancient Egyptian art. It set conventions that would be followed for 3,000 years.
 - The palette depicts hierarchical proportions. The more important people are shown larger.
 - The “smiting the enemy” pose would become the logo for Egypt, appearing on temples for the next 30 centuries.
 - The falcon and the bull also reappear as emblems of kingship.
 - Also important is the practice of placing the action on registers. In other words, the palette is divided into sections, which makes it easier to read.
- As mentioned, the Narmer Palette is an early example of Egyptian writing. The hieroglyphs on the palette are not sentences but more like labels. They give Narmer's name, the vizier's title, and perhaps the captive's name. Because they don't tell a full narrative, we have to fill in the blanks, and it's possible that we don't have the right story.
 - The “handwriting” on the two sides of the palette seems different. For example, on one side, the *serekh* (the palace façade) is almost crudely drawn, while on the other side, it's much more complete. Even Narmer's name is different on the two sides.
 - It seems likely that the two sides were carved by two different artists. Perhaps one side was carved, then some time elapsed, and it was decided to carve the second side. But which side was carved first?
 - It may be that the side with the intertwined mythical beasts was carved first. After all, the object is a palette, and where

the necks intertwine is the only suitable place for grinding cosmetics. Sometime later, the second side was carved. That would mean that what is generally thought of as the front is the reverse, and we may be telling the story backwards.

The Egyptian Pharaoh


- In Egypt, the pharaoh was viewed as a god. He had absolute power and owned all the land. With such centralized power, the pharaoh was capable of marshaling all the manpower of Egypt for his purposes.
- For example, just before the inundation of the Nile, the pharaoh could organize farmers to begin digging irrigation canals so that more crops could be grown. Then, the pharaoh could collect even more taxes, which required writing.
- As a pharaoh, if you grow more crops than you need, you can support a large class of people who don't contribute to the economy and can serve in an army. You no longer need to call out the farmers when invaders are coming because you have a trained and equipped army that can easily defeat them.
- You can also march out with your professional army and invade other countries, such as Palestine, Syria, and Turkey. After your enemies are defeated, you can demand an annual tribute. At this point, the army is not a drain on the economy but contributes to it.
- The Egyptians had the first professional standing army in history, and because they had to keep track of thousands of soldiers in different divisions, once again, they needed writing.
- Egypt was the world's first great bureaucracy. It had surpluses that had to be recorded, taxes to be collected, and armies to keep track of, and all this required writing. We have looked at one of the first historic documents in the world, the Narmer Palette, not only as an introduction to hieroglyphs but also as a statement about the importance of the king.



The Ancient Egyptian Alphabet

LECTURE


2

Consider this ancient Egyptian sentence: . Almost everyone guesses that the sentence concerns birds and going somewhere, which is reasonable given that we see birds, feet, and so on. However, if you made that guess, you're making the same "Big Mistake" that scholars trying to decipher the inscription on the Rosetta Stone made: assuming that the hieroglyphs are completely ideographic, that is, picture writing. It seems as if the depiction of a bird would mean that the text is related to birds. But in fact, this sentence translates to "The sun is shining in the sky." In this lecture, we'll learn why that's true.











Translating 

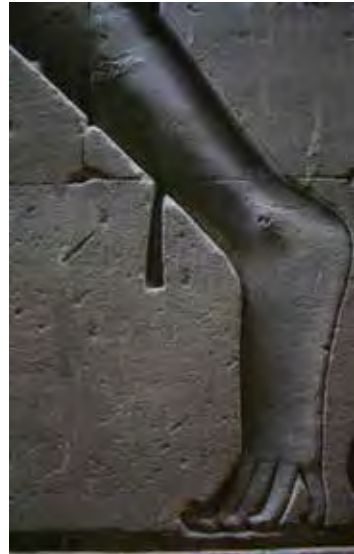
- For the most part, hieroglyphs are phonetic and represent sounds. The bird in the sentence above is a quail chick and represents the sound *w*, the foot has the sound *b*, and the wavy line is *n*. The small circle at the end, though, is ideographic. It represents the sun and helps make clear the meaning of *wbn* (pronounced *weben*—it's sometimes easier to spell these with vowels for pronunciation) clear. It is the word for "shine." Thus, we note two things about our first Egyptian word. It is mostly phonetic, with no vowels, and an ideograph provides a clue to its sense.
- The second word in the sentence is made up of three hieroglyphs. A mouth sign (*r*), an arm (*eh*), and the sun circle again, which has no sound but helps make the meaning clear. The sound is *reh*, and the meaning is "sun."
- Next comes an owl. That's pronounced *m* and means "in." The last word has a rectangle (*p*) and a semicircle (*t*); it is pronounced *pet*.

The hieroglyph under it represents the sky, and the word means “sky.” (The Egyptians viewed the sky as a canopy held up by four pillars.)






- Notice how the word for sky is formed, with two small hieroglyphs above a longer one. The ancient Egyptians were concerned with aesthetics. They wanted their words and sentences to look good, and stringing out the three hieroglyphs on one line wouldn’t look nearly as nice.
- Thus, the sentence means, “The sun is shining in the sky.” We should also notice that the verb *shine* comes at the start of the sentence. Verbs came first in ancient Egyptian.
- In this sentence, hieroglyphs are actually used two ways: phonetically, to represent sounds, but also as pictures to help us determine the meanings of phonetic words, such as the sun and sky hieroglyphs. These signs are called *determinatives*.
- Hieroglyphs can also be used as *ideograms*. These are hieroglyphs used pictorially but not at the end of a word. Rather, ideograms stand alone. To help you recognize that they are standing alone, they are usually flagged in the ancient Egyptian language with a stroke. Thus, for “sun,” we could write  .
- To summarize, hieroglyphs can be used in three ways:
 - Phonetically, representing a sound.
 - As a determinative, coming at the end of a word to clarify its meaning.
 - As an ideogram, in which the picture represents a concept all by itself.











The Egyptian Alphabet

- The following bullets show the Egyptian symbols for English letters. For full words, see the dictionaries located at the end of this guidebook.
- Egyptians didn't write vowels, and their A is not exactly the sound of our A. Philologists call it semivocalic, as in the Arabic 'ayn. For this sound, we draw a vulture. 
- B is a foot. 
- There is no real C, but there is a CH, as in the Scottish *loch*. It's a placenta: ☉. Note that this course will use the transliteration *kh* because this fits more closely with many conventional spellings of ancient Egyptian words.
- D is a stylized hand. 
- E is an arm. 
- F is a horned viper. 
- G is a jar stand. 
- There are two different Hs in the Egyptian alphabet. The reed hut H is a simple structure made of reeds to give farmers some shade from the blistering sun.  The other H is twisted flax. It represents two strands of the flax plant twisted together.  The difference between the two Hs is that the reed hut is more emphatic, as in "hot," where you expel your breath forcefully. The flax H is not so emphatic and is more like the /h/ in "hello."
- I is a reed leaf, the kind that flowers by the seashore. 
- J is a snake. It is really a /dj/ sound, as in "judge." 









- K is a basket with a handle. 
- There's no L in the ancient Egyptian alphabet. Note that the Greeks later added a lion for L.
- M is an owl. 
- N is simple up-and-down peaks. The word for water was *nun*; thus, it is not surprising that the ideogram for water also represents the /n/ sound. The water sign may have been the first hieroglyph. 
- There is no O in the ancient Egyptian alphabet.
- P is a rectangle (not a square) and represents a woven reed mat. 
- Q is a hill. 

- R is a mouth. 
- The letter S looks like a cane, but it's a bolt of folded cloth. 
- T is a loaf of bread. 
- The U is a quail chick. 
- There is no V in the Egyptian alphabet, but the horned viper, F, can be used as a substitute. 
- W is also the quail chick. 
- There is no X in the Egyptian alphabet.
- Y is the reed written twice. It has the sound of a long /e/ as in "merry." 
- Z is a bolt on a door. 
- Two more hieroglyphs complete the alphabet. They are for sounds for which English doesn't use a single letter.
 - /Sh/ is really one sound, but in English, we use two letters to represent it. The ancient Egyptians used a pool of water for the /sh/ sound. 
 - Last is the sound /tch/. This is represented by a tethering ring. 

Writing Your Name in Hieroglyphs

- When we write our names in the Egyptian alphabet, note that we are not translating our names. We are not working at the level of meanings. We are simply transcribing our names from one alphabet to another. This is called *transliteration*.

- Let's say that your name is Andrea Schwartz. 
- Notice that you have to be careful with the positioning of hieroglyphs. If you have two signs that are long and narrow, they would go one over the other; in this case, the water sign goes on top of the hand.  Then the mouth hieroglyph  goes on top of the arm sign. 
- Only hieroglyphs in the same word are stacked. The Egyptians didn't usually merge words.

Lecture 2's Homework

1. Practice writing one line of each hieroglyph on lined paper. In other words, do a line of vultures, then the foot, and so forth. To improve your hieroglyphic penmanship, use a fine-point felt-tipped pen. Hieroglyphs were intended to be drawn with a brush. A felt-tipped pen will approximate the brush.

How a Language Becomes Lost

LECTURE

3

In the last lecture, we learned the Egyptian alphabet, practiced how to draw the hieroglyphs, and wrote our names in hieroglyphs. In this lecture, we'll review what we've learned so far. But first, we'll look at the issue of lost languages. How is it possible to lose a language that was written for thousands of years by the greatest power in the world? The answer lies in Egypt's long and unique history.

The Prehistoric Period and the Old Kingdom

- The Egyptian civilization lasted for 3,000 years. In fact, its history is so long that Egyptologists divide it into segments that are more manageable to conceive.
- The Prehistoric Period includes everything before writing. Egypt started writing down its history around 3100 B.C., with the Narmer Palette. Thus, while Egypt was in the historic period around 3100 B.C., all of Europe was still prehistoric and would be for thousands of years to come.
- The Old Kingdom follows the Prehistoric Period (3100 B.C.–2181 B.C.). The first date is an approximation, but the important point is that this is the beginning of Egypt's greatness as a nation. Although it comes at the beginning of Egypt's historic period, this is the period Egypt attained some of its greatest achievements, such as building the pyramids.
 - A king named Zoser built the first pyramid ever: the step pyramid of Saqqara. For more than a century, people had been buried under mud-brick *mastabas* (Arabic for “bench”),



Many people think that the pyramids were the culmination of Egyptian civilization, but in fact they came at the beginning, although it took two centuries to get them right.

so named because of their shape. Then, Zoser's architect, Imhotep, built a mastaba for the pharaoh out of stone, creating the first stone building in the world. But when it was completed, Zoser was still alive; thus, Imhotep decided to place a smaller mastaba on top of the first, and he kept going as long as Zoser was alive. The result was the step pyramid.

- For the next two centuries, Egypt was caught up in pyramid mania, building larger and more elaborate pyramids, culminating with the Great Pyramid of Giza, the only one of the seven wonders of the ancient world still in existence.
- The base of the Great Pyramid base covers 13.5 acres. It's made out of about 2 million blocks of stone averaging 2.5 tons each, and it's all done with remarkable precision. The

inside is a maze of rooms and passageways also requiring great precision. To create something like this, writing was necessary, along with mathematics, architecture, and the ability to coordinate thousands of workers.

- The pyramids weren't the only amazing achievements during the Old Kingdom. Some of the greatest masterpieces of art come from this early period of Egypt's history, including the fabulous pair of statues of Rahotep and Nofret, son and daughter-in-law of the pharaoh Khufu, and the great statue of Kephren with the falcon on his shoulder.
- After five centuries of amazing civilization in Egypt, there was a governmental collapse that has still not been fully explained. One theory is that the last pharaoh of the Old Kingdom, Pepi II, may have lived too long. He ruled for about 94 years. According to the theory, toward the end of his reign, he became unable to control the country; the governors of various districts, or nomes, then vied for power, and the centralized government collapsed.
- For more than 100 years, Egypt experienced a period of decentralization of power. This is called the First Intermediate Period (2181–2040 B.C.).

The Middle Kingdom

- The Middle Kingdom lasted from 2040 to 1782 B.C. Once again, there was a strong central government centered on the pharaoh. After about 400 years, there was another collapse, this time, because of an invasion by a people called the Hyksos.
- The Hyksos may have been able to conquer Egypt because they had superior weapons, as well as the horse and chariot. They ruled Egypt for more than 100 years; this is now called the Second Intermediate Period (1782–1570 B.C.). But a mighty ruler expelled the Hyksos, and once again, an Egyptian pharaoh took the throne. This began the New Kingdom.

The New Kingdom

- The New Kingdom (1570–1069 B.C.) was the period of some of the greatest and most famous pharaohs. Queen Hatshepsut took the throne and ruled as king; Akhenaten briefly changed the religion of Egypt to monotheism and almost destroyed the country; and Akhenaten's son, the boy-king Tutankhamen, ruled for 10 years.
- Toward the end of the New Kingdom, Ramses the Great took the throne. He ruled for 67 years and engaged in many construction projects, including his mortuary temple, the Ramesseum. Perhaps the most famous temple he built is Abu Simbel, carved into the rock just past Egypt's southern border.



Tutankhamen's tomb shows that Egypt in the Middle Kingdom was a country of incredible wealth.

Abu Simbel, built by Ramses the Great



Loss of the Language

- With all these temples and tombs and an incredibly stable, powerful nation, how is it possible to lose the ability to read the language? Texts are everywhere in Egypt: on temple walls, papyrus, and coffins. The answer to how a language can be lost lies in Egypt's last 1,000 years of history.
- Once again, Egypt would collapse, but this time, it wouldn't recover its glory. About 100 years after Ramses the Great, the priests had become quite powerful. They had been given large tracts of land by the pharaohs for centuries; they were now as powerful as the king himself and took over control of Egypt. The 21st Dynasty was a dynasty of priest-kings, but it was not a strong government, and soon, Egypt was invaded and ruled by foreigners. This is the Third Intermediate Period (1069–525 B.C.)
- There would be Libyans, Nubians, and other rulers, and in the end, even more powerful countries took over. This is called the Late Period (525–332 B.C.). The brutal Persians invaded and destroyed temples and tombs. The priests, the literate class, were not supported, and fewer people could read hieroglyphs.
- In 332 B.C., Alexander the Great entered Egypt and expelled the Persians. The Persians were so cruel that Alexander was probably viewed as a savior rather than a conqueror of Egypt. Alexander's entry into Egypt began 300 years of Greek rule. This is called the Ptolemaic Period (305–30 B.C.) because when Alexander died, his kingdom was divided among his generals. Ptolemy got Egypt, and all subsequent Greek rulers were named Ptolemy.



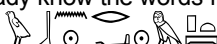





Alexander the Great
(356 B.C.E.–323 B.C.E.)

- The queens have only three names. They are: Berenike, Arsinoe, or Cleopatra. There were seven Ptolemaic queens named Cleopatra and the famous one was the last, Cleopatra VII.
- As far as we know, Cleopatra VII was the only one of the Ptolemies who ever learned to speak Egyptian, and that is how the loss of the language began.
- The Ptolemies lived in Alexandria and almost never left. The Ptolemies still conducted business, collected taxes, and permitted the priests to build temples, but most transactions were conducted in Greek. Smart young men in Egypt who wanted to rise in the bureaucracy learned Greek. But Egyptians still spoke Egyptian. To some extent, the final loss can be attributed to the Romans.
- Led by Octavian, the Romans defeated Cleopatra and Mark Antony at the Battle of Actium, ending three centuries of Greek domination over Egypt. The Romans ran Egypt like a business, wanting only to ship grain back home to feed Rome's growing population. The priesthood was not supported, the Egyptian religion declined, temples closed, and the ability to read hieroglyphs was gradually being lost. The final blow was Christianity.


Octavian (63 B.C.E.–14 C.E.)



hieroglyphic word, add it on the appropriate page. (Vocabulary words are also listed in Dictionary at the back of the book.)

- We already know the words from the sentence “The sun is shining in the sky,” . Add *shine*, *sun*, *in*, and *sky* to your list.
- If we make a slight change to the word for *sun*, we can have the name of the sun god, Re: . Simply substitute the sun determinative for the god determinative. This shows us something important about the ancient Egyptian religion. The Egyptians used different words for the sun and for the sun god. This shows that the Egyptians didn't worship the fiery globe in the sky. Although the sun was associated with the god, it was not the god himself. This is a much more sophisticated position than the worship of inanimate objects.
- The owl, , is pronounced *m* and means “in,” “from,” and “out of.” It's a one-letter word, similar to our words *a* and *I*.
- , a variant, means “there in.” Here, a reed appears before the owl. Put this word on the reed or *I* page of your homemade dictionary.
- The water hieroglyph, , is pronounced *n* and means “to” but only with regard to persons. As in, “I gave it to Alice.”
- If we want to go to a place or do something to a thing we use the mouth sign, . It is pronounced *r*, and it means “to” with regard to places, as in, “I went to the city.” Here, the mouth *r* would be used for “to.”
- Remember, because the ancient Egyptians often didn't write the vowels, we say *r*. It could have been pronounced *ir*, *ar*, *ru*, or in other ways. The same is true with the owl for “in,” “from,” and so on. It could have been pronounced *am*, *im*, *mu*, or in other ways.

Practicing Pronunciation

- For the next exercise, try to figure out how the following word was pronounced: . The answer is *ten*, meaning “this.” We insert the

short *e* to make the word easier to say. It is the feminine form, which is easy to remember because almost all feminine words have a *t* at the end. (The word *ten* doesn't have a *t* at the end; it is an oddity.) The word “this” comes at the end of the word it modifies, like most adjectives in Egyptian. Thus, “this sky” would be . We know that *sky* is feminine because it ends in a /t/. Thus, we would say *pet ten*.

- The masculine form of *this* is the rectangular reed mat and a water sign, pronounced “pen,” . Notice how it is written. Because they are both short hieroglyphs, one is on top of the other. The two demonstrative adjectives for *this* are placed after the nouns. This is usual; almost all adjectives follow their nouns.
- A pair of adjectives that is the exception to the rule is , pronounced “key.” The basket is /k/, and the double reed leaf is /y/. This word means “another.” This is the masculine form, and unlike most other adjectives, it goes before the noun. The feminine form is “ket,” ; this pronunciation makes sense because the word is feminine and ends in /t/.
- The pronunciation of is “bew.” The foot is /b/, and the chick is /w/. The word is the noun for “place.”
- The pronunciation of is *khet*, which means “thing.”

Lecture 3's Homework

1. Translate the phrase “to another place.”

Napoleon in Egypt

In the last lecture, we talked about how the ability to read hieroglyphs was lost. In this lecture, we'll see how it was rediscovered during Napoleon's invasion of Egypt. In 1798, France's governing body, the Directory, suggested Napoleon attack England. He demurred, instead invading Egypt for two reasons: If France could control Egypt, it would cripple England's trade route with India; and Napoleon wanted to follow in the footsteps of his hero, Alexander the Great. This lecture focuses on that invasion, and then on some new vocabulary words.

Napoleon in 1798

- In 1798, a 28-year-old General Bonaparte returned to Paris, victorious from his Italian campaign. The Directory didn't want an unemployed hero hanging around, so they suggested he invade England, France's enemy. Bonaparte suggested an alternative: an invasion of Egypt.
- When he prepared for his Egyptian campaign, Napoleon recruited France's top scientists, known as savants. They would describe every aspect of Egypt, from botany to zoology. He brought more than 150 of the best minds of the time, including the mathematician Joseph Fourier, the geologist Déodat de Dolomieu, and the naturalist Étienne Geoffroy Saint-Hilaire.
- This was an all-star cast. They also brought their students. Jean-Baptiste Jollois and Édouard Devilliers were only 21 and 18, respectively, when they went along. They teamed up for the expedition and went up and down the Nile together, recording its monuments.

The Battle of the Pyramids

- The Battle of the Pyramids was the army's first test in Egypt. They were fighting the Mamelukes. Ostensibly, Egypt was controlled by Constantinople, but the Ottoman Empire was crumbling and the Mamelukes had a free hand in running Egypt.
- *Mameluke* is Arabic for "bought man." Centuries earlier, the sultan of Egypt bought hundreds of young boys from the Circassian mountains to be trained as his military elite. They were educated, well fed, and clothed. When they became adults, they revolted, killed the sultan, and took control of Egypt. They were fierce warriors.
- As the Mamelukes massed to fight the French, Bonaparte's men formed squares, with cavalry on the inside and rifles along the edges. Artillery was positioned at the corners. The men were instructed not to fire until the Mamelukes were upon them.
- As the Mamelukes charged, the French held fire till the horsemen were practically on top of them, then they blew them away. The battle was over in less than two hours. The Mamelukes were no match for a disciplined European army. They charged Bonaparte's squares several times, but to no avail. Bonaparte was now in control of Egypt, but not for long.

The Battle of the Nile

- The Battle of the Nile doomed the Egyptian campaign. The French vice admiral François-Paul Brueys anchored the French fighting ships at Aboukir Bay, very close to shore. He was convinced no one could sail between his ships and the shore. All his guns faced seaward so that if the English found the fleet, all the firepower would be aimed at them.
- On August 1, 1798, England's rear admiral, Horatio Nelson, found the anchored fleet and went straight into battle. He sailed between the anchored French fleet and the shore, which Brueys thought was impossible. With all their cannons fixed seaward, the French were vulnerable. The English blasted away, sinking almost the entire fleet.

- The battle was a total victory for Nelson. With their fighting ships gone, the French were stranded with no way of getting supplies or reinforcements.

After the Battle

- Undaunted, Bonaparte set up the Institut d'Égypte, a society devoted to the study of Egypt. But he was also fighting a losing war. Bonaparte marched his men to Acre, which is in Israel today, but was then in Sidon, part of the Ottoman Empire. He needed to head off an invasion of Turkish soldiers. Djezzar Pasha, a ruthless man with a reputation for cruelty, controlled the fort at Acre.
- Acre was on the water and the British were supplying Djezzar from the sea. Bonaparte didn't have the cannons needed to bombard the fort, so he ordered his men to storm the fort using tall ladders. Assault after assault failed with the loss of many men. Acre was Bonaparte's his first loss on land, and things were going to get worse.
- Napoleon's army was decimated by the plague, had no supplies, and was cut off from France. One year after he landed, Bonaparte deserted his men and sailed for France.

Discoveries after Desertion

- While the army Bonaparte left behind was fighting a losing war, they shored up an old fort at Rosetta, where they discovered a large inscribed stone built into the wall near the foundation. It seemed to have the same message in three different scripts: one hieroglyphic, one unknown, and the third Greek. Since the savants could translate the Greek, they hoped it would be the key to deciphering hieroglyphs.
- The Rosetta Stone was not the only contribution the Egyptian campaign made to decipherment. When the savants finally returned to France, they published the *Description de l'Égypte*, one of the largest publications in the history of the world. It included numerous volumes of engravings that recorded the antiquities of Egypt.

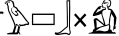
- Some of the savants went beyond mere recording and made important archaeological discoveries. The young friends, Jollois and Devilliers, copied the Dendera Zodiac and caused a sensation in Paris when they returned. When scholars saw how the constellations were depicted on the zodiac, they were astonished. It suggested that the Egyptian civilization and the world itself were much older than was previously believed.
- They also discovered the tomb of Amenhotep III in the Valley of the Kings. They, of course, couldn't decipher the hieroglyphs, so they didn't know whose tomb they had found, but it was still a great adventure.

Ushabtis





- As they explored the tomb by the light of their candles, they came upon a group of small statues. They brought them out of the tomb, did their drawings, and later published them in the *Description de l'Égypte*. Today, Egyptologists call these statues *ushabtis*.
- Ushabti figures were intended as servants for the next life. On tomb walls of the nobles, we often see painted scenes of the next world. The deceased are at banquets, hunting in the marshes, and sometimes working in the fields, but always in their finest linens. The statues these two young men discovered were intended to do this work.








Ushabtis were made of various materials, depending on what a person could afford. The least expensive were terra cotta.

- The word *ushabti* is derived from the ancient Egyptian word for “answer”: *usheb*, or .
- The man has his hand to the mouth because the word has something to do with speaking. It's unclear why what looks like an x is there. The little statues were called *ushabtis* because when your name was called in the next world to work on the irrigation ditches, the little statue would come to life and answer for you: “Here I am!”
- Napoleon's savants made all kinds of contributions to the new science of Egyptology. In addition to recording scenes, the savants published drawings of hieroglyphs, books of the dead, and inscriptions on tombs. But the most important discovery was the Rosetta Stone, the topic of the next lecture.





Man and Woman

- Let's add some more vocabulary words and translate some real sentences. The hieroglyphs for the words “man” and “woman” are very important.
- The word for “man” is z: .
- Often the word is just written with an ideogram stroke: . Sometimes the stroke is omitted, leaving just the man hieroglyph.
- The word for “woman” can also be written several ways. One is phonetically, with the woman determinative, pronounced *zet*. Here's the woman hieroglyph: .
- If you want to say “people,” you write the man and woman hieroglyph together: . This would have been pronounced something like *retchu* when spoken. Note the three strokes. That's how you indicate a plural.

Verbs

- Now let's learn some verbs so that our man and woman can do things. This will let us translate real sentences. Below are some hieroglyphs, their pronunciation, and their meaning.
-  is pronounced *iew* or *yew*. It means “to be.” The good news is it doesn't have to be conjugated.
-  is pronounced *djed*. It means “to speak” or “say.”
-  is pronounced *ger*. It means “to be silent.”
-  is pronounced *rekh*. The determinative at the end is a papyrus roll. It has been rolled, tied with a string, and sealed with clay to ensure confidentiality. This is the verb “to know.” The idea is that knowledge can be written.
-  is pronounced *khem*. The position of the arms practically says, “I don't know,” which is this verb's meaning.

Nouns and a Conjunction

- Now for a couple of nouns. First up is a proper noun, a name: . This is the name of a god, Ptah. He's a god of creation who is usually shown wearing a distinctive cap. His feet are together, like a mummy's.
-  is pronounced *ren*; it means “name.”
- Now for a conjunction. The ancient Egyptians didn't have a direct parallel for our word *and*, but they had this word: . It is pronounced something like *heneh*. It means “together with.”
- So if we wanted to say “the man together with the woman” we would have this: . It would have been pronounced something like *z heneh zet*.

Translating Sentences

- We'll do some translation next. Here's our first sentence:
- What's our first word? The verb "say" or "speak." The next is "man," followed by the verb "to be silent." The last word is "woman." This sentence is a sexist maxim: "When man speaks, woman is silent."
- In spite of this proverb, women in ancient Egypt had more power and rights than anywhere else in the world. They even had women who ruled as kings (not queens), such as Hatshepsut.
- Here's our next sentence:

 The verb is first, and it's "is." Then comes "Ptah." Then "in." Next is "place," *bew*, and then "this," *pen*. In English, "this" comes first, but not in hieroglyphs. Our translation would be, "Ptah is in this place." It would have been pronounced something like: *Yew Ptah em bew pen*.

Dictionary Entries

- Now that we are starting to accumulate some real vocabulary words, let's review how we will set up our dictionary. Let's begin by seeing how we would enter the two forms, masculine and feminine, for "another" in our dictionaries.
- First we go to our page we have set aside for words that begin with K. The top of the page will look like this: —K. Then we enter our word, . Then, in parentheses, we put our transliteration to remind us how it sounded, making (*ket*). Then we can note it is feminine and add the meaning:

(<i>ket</i>) f. another






- The process is the same for the masculine form:







(<i>key</i>) m. another

- For "Ptah" we would go to our page set aside for words beginning with *p* and write this:

(<i>Ptah</i>) Ptah

Lecture 3's Homework Answer

The previous lecture asked you to translate “to another place.” First we need the word for *place*. That would be *bew*: . *Bew* is masculine, so we need *key*, the masculine form of *another*: . This goes in front of the noun:   .

The last word to translate is *to*. We have two *to*'s, one for people () and one for things and places (). A place is a thing, so we know to use , the mouth *r*. So our phrase “to another place” is   , or *r key bew*.

Note that the mouth *r* is right above the basket *k*. This is for aesthetics. Normally the Egyptians didn't merge words this way, but with a single-sign word, it was sometimes acceptable.

Lecture 4's Homework

Translate these sentences from English into ancient Egyptian.

1. The woman does not know this man.
2. Re and Ptah are together in this place.
3. The man does not know another thing.
4. The woman knows this name.

Early Attempts to Decipher the Rosetta Stone

In this lecture, we will discuss early efforts to decipher the Rosetta Stone, which contained two languages: Greek and Egyptian. The French discovered the Rosetta Stone, but it was an Englishman who started the ball rolling: Thomas Young, perhaps the greatest scientist of his time. A polymath, he is best remembered for the wave theory of light, but he also made contributions to physiology and Egyptology. We'll cover his efforts to decode the stone, and then move on to some new dictionary entries.

The Rosetta Stone's Contents

- From the very beginning, there was no mystery about what the Rosetta Stone said. Many of the savants in Egypt with Bonaparte could read the Greek section. It was basically a thank-you note written in 196 B.C. from the priests of Egypt to King Ptolemy V, the Greek ruler of Egypt.
- Ptolemy had granted some favors to the priests, especially reducing their taxes, so they erected the stela to thank him. After listing the specific benefits granted to priests, they also thanked him for general kindness to the people: releasing prisoners, restoring sacred buildings, and so on.
- Stelae were the bulletin boards of ancient Egypt. If you wanted something known, you carved it on a round-topped stone and erected it in front of the temple, where everyone would see it. The Rosetta Stone was one of these.
- Students used to learn that the Rosetta Stone contained three languages. This is wrong. It contains only Greek and Egyptian.



The Rosetta Stone

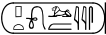
However, the Egyptian was written in two different scripts, a bit like cursive versus printed English.

- The hieroglyphic script at the top is the most damaged, and a great deal of it is missing. Herodotus dubbed the second script Demotic (from the Greek word for “popular”). It is an extremely cursive form of hieroglyphs.
- The Greek script at the bottom is the most complete. It is important for several reasons. First, it gave a readable version of the text. Second, at the end it says that the stela contained the same message in all three scripts, providing a strategy for decipherment. Third, it provided the name King Ptolemy, which would prove to be the most important of all clues.

Thomas Young


- The English scientist Thomas Young began deciphering the Rosetta Stone during his summer vacations. But Young was

working under the mistaken belief that hieroglyphs were primarily ideographic, that they were picture writing. He was not the only one laboring under this error—the Big Mistake.

- His great insight, however, was that the name Ptolemy, which he saw in the Greek text, must also appear in the Demotic and hieroglyphic texts as well. He realized that the hieroglyphs and Demotic characters for the name couldn't be ideographic.
- There is no picture of what a Ptolemy was, so at least for names, there must have been an alphabet. Others before Young had suggested that the ovals called *cartouches* by Bonaparte's men held the names of the kings. Young agreed and began to work on the cartouche: 
- He figured that the hieroglyphs inside the cartouche must correspond to letters spelling out Ptolemy. The rectangle must be a *P*, the semicircle a *t*, the loop an *o*, the lion an *l*, the statue base an *m*, the reed leaves a *y*, and the folded cloth an *s*, forming "Ptolmis." The Greek version of the name is actually "Ptolemaios," which is pretty close. Young figured out this approximation. He now had seven letters of the alphabet.
- The beginning of decipherment was extremely difficult. The process took 20 years. Young published his findings in the 1819 supplement to the *Encyclopaedia Britannica*. He presented his partial alphabet and also made some correct (and incorrect) guesses for groups of words, but he never took it much further. The problem was that he never gave up his conviction that hieroglyphs were ideograms, an idea that had been firmly entrenched for centuries.



Kircher's Attempt

- In the 5th century, a mysterious Egyptian named Horapollo wrote *Hieroglyphica*, the earliest work on hieroglyphs. In his book, Horapollo explains how hieroglyphs work. But he clearly doesn't have a full grasp of how hieroglyphs work. For example, he is






correct when he says that the duck hieroglyph, , represents the word “son,” a male offspring, but the explanation he offers is wrong.

- The reason he gives is that the duck fights so fiercely for its offspring that it is associated with children. Horapollo believed, incorrectly, that hieroglyphs are basically picture writing.
- But the duck actually phonetically represents the syllable *sa*; it's what we call a *biliteral*, a hieroglyph that represents two sounds. There are even hieroglyphs that represent three sounds, called *triliterals*.
- The word *sa* in ancient Egyptian meant “son.” Therefore, the duck has phonetic value, not ideographic. This book by Horapollo presenting the Big Mistake threw off everyone who wanted to decipher hieroglyphs. But it is not all his fault.
- From the 3rd century on, many students of the occult believed there was a corpus of secret texts written by Hermes Trismegistus, or “Thrice Great Hermes.” Written in mystical hieroglyphs, these texts were intended to be kept secret, revealed only to the initiated. This belief in the essential secret nature of hieroglyphs permeated the study of ancient Egyptian texts right up till the Renaissance.
- No one imagined hieroglyphs were used to record history, or workmen's wages. They were sacred texts of Hermes Trismegistus. The only problem was that Hermes never existed. The belief in Hermes also lasted into the Renaissance and greatly influenced Athanasius Kircher's attempt at decipherment.
- A Jesuit, Kircher was, by many accounts, a genius in several disciplines. He built automata, studied volcanoes and botany, was a master of a dozen languages, and was considered by some to be the greatest mind the 17th century. Others considered him a fraud.
- For much of his life, he lived in Rome and worked under the protection of the pope. This was an era when obelisks that the Roman emperors had brought from Egypt were being rediscovered

beneath the streets of Rome and re-erected. Kircher turned his extensive learning to the task of translating the hieroglyphs on Rome's obelisks.

- The word “obelisk” is not Egyptian; it's from the Greek *obeliskus*, which refers to a meat skewer. This was the ancient Egyptian word in hieroglyphs: 
- It was pronounced *tekhen*. The last hieroglyph is the determinative; it's an obelisk standing on its base. Notice the compact, pleasing arrangements of the hieroglyphs, rather than this one: 
- Kircher believed the hieroglyphs were picture writing and contained wisdom of the ancients. He was guessing when he claimed they had religious significance. He translated most of the obelisks in Rome, but it was pure fantasy. They merely contained the names and titles of the pharaohs who erected them in Egypt.

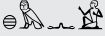



More Verbs




- Let's learn some more words so we can say more complex things, starting with some new verbs.
-  is *khed*, which means “to fare downstream.”
-  is pronounced something like *ha*. The word means “to go down” or “to descend.”
-  is a similar word, pronounced *hab*. It means “to send.”
-  is an unusual one. The ear hieroglyph is a trilateral, representing three sounds, one after the other: /s/, /dj/, and /m/. It's pronounced *sedjem* and the word means “to hear.” When you add this word to your dictionary, add it on the S page since it begins with an /s/ sound.
-  is pronounced *depot*. This is the kind of boat people used.

- is pronounced *wia*, and it is a sacred boat—one in which a god might ride across the sky.
- is unusual. It seems to have two determinatives: a face in profile and a papyrus roll. It may have been pronounced *reshwet*. The word means “joy” or “gladness.” It’s like the profile is there because you see joy on the face. The papyrus roll, which usually determines abstract things, may be there because joy is an internal state. The ancient scribes never left us an explanation.
- is pronounced *sekher* and means “plan” or “counsel.” Again, this is an abstract concept—not something you can touch.
- means “town.” What we are looking at is a crossroads, and where two roads cross, you have a town. It was pronounced *niwit*. This one would be added to the N page of the dictionary since it begins with the sound /n/.
- Be sure to add these words to your personal dictionary in alphabetical order.

Lecture 4's Homework Answers

1. The first sentence to translate was “The woman does not know this man.” Start with the verb, *khem*, “to not know.” Next we put “woman,” followed by “man” with the masculine version of “this.” In the end, we get: , pronounced something like *khem zet z pen*.
2. The second sentence was “Re and Ptah are together in this place.” This is , pronounced *Yew Re heneh Ptah em bew pen*.
3. The next sentence was “The man does not know another thing.” We start with the verb, . Next is the subject, “man,” which gives us


 "Another" comes next, but we have to determine if "thing" is masculine or feminine so we can decide which "another" to use. *Khet*, , is feminine, ending in a /t/, so we know we must use the feminine form of "another," *ket*. That is . This adjective comes in front of the noun, so the whole sentence is: *Khem z ket khet*. In hieroglyphs, that is .

- Our last sentence was, "The woman knows this man." Start with the verb, *rekh*, "to know": . Next we add the subject, "woman," making . Last we need "this man." "Man" is obviously masculine so for the "this" we need *pen*. It goes after the noun: .

Lecture 5's Homework

Here are four sentences to translate into hieroglyphs.

- "Ptah goes down in another boat." Note: Be careful. This is just "go down," not "fare downstream."
- "[When] this man fares downstream, the city is in joy." Note: There is no word for "when" in Middle Egyptian, so you can't translate it. It is understood.
- "This woman listens to Ptah."
- "A man is there in the city."

William Bankes and the Keys to Decipherment

This lecture discusses two crucial steps along the road to the decipherment of hieroglyphs. Both involve a rather unusual antiquarian named William Bankes, who made some huge contributions to decipherment. In this lecture, we'll cover some of Bankes's discoveries, and then discuss some misconceptions classicists held about the beginnings of civilization. After that, we will continue building our vocabulary. We'll also cover the previous lecture's homework assignment and close with a new one.


William Bankes's Grand Tour


- In 1810, William Bankes took a seat in the House of Commons, but politics was not to his liking. He was far more interested in art and architecture. He could read Latin and Greek, was an accomplished artist and draftsman, and was extremely interested in the new discoveries being made in Egypt and the Middle East.
- Bankes was a gay man, and this was a serious matter in homophobic 19th-century London. The previous year, 21 young men had been hanged for merely having “indecent thoughts,” so William decided to leave London and go on the Grand Tour—a tradition among wealthy Englishmen. He wasn't eager to return.
- In Bankes's time, during the Grand Tour, one was expected to go to Italy to see the ruins of Rome, to study the paintings and sculpture in Florence, and to experience the atmosphere and architecture of Venice. Then it would be off to Greece, to see where Western civilization was born. The more adventurous and wealthy could continue on to Turkey and Egypt, and William Bankes was both adventurous and wealthy.

- Bankes's Grand Tour would last from 1815–1819, a full four years. He visited Egypt twice, first in 1815–1816, and then he returned to Egypt in 1818 for a second look.

Philae

- When Bankes reached Philae, the beautiful temple built on an island in the Nile, he fell in love with the place. Bankes decided he had to have something from Philae for his estate back in England.
- There was a 20-foot-tall inscribed obelisk still resting on its original pedestal. Bankes made arrangements with Giovanni Belzoni, a 6'7" Italian strongman who was making his living by excavating, finding large sculptures, and selling them back in Europe. Belzoni agreed to ship both the pedestal and obelisk to England for him.
- After the obelisk was lowered from its pedestal, Belzoni was loading it onto a boat when it slipped into the water. Only lots of rope and many men pulling saved it. There were difficulties, too, with the pedestal, which was left behind on the banks of the Nile for two years before it made its way to England.
- When everything finally arrived and Bankes returned from his Grand Tour, he erected the obelisk on its pedestal on his estate, where it can be seen today. Modern tourists in Egypt only see a poor quality concrete replica of the obelisk, and most walk by it without knowing what it is or the part that its original played in the decipherment of hieroglyphs.
- The base of the original obelisk has a Greek inscription while the obelisk itself is in hieroglyphs; like the Rosetta Stone, it's bilingual, in Greek and Egyptian. Bankes could read the Greek, which bore the names of Ptolemy and Cleopatra.
- "Ptolemy" had already been deciphered, so Bankes correctly deduced the other cartouche must be "Cleopatra." He sent his copy of the inscription to Thomas Young, who by looking at the

hieroglyphs, , was able to confirm his earlier findings and also add some letters to the alphabet.

- That cartouche starts with the hill *q*, which is close to the /k/ sound. Since Cleopatra starts with a /k/ sound, Young added that hieroglyph to his alphabet as a /k/ sound. He was correct.
- The next letter, a lion, must be an *l*, and this confirmed that letter in Ptolemy's name. The reed leaf and the rope loop he had already seen in Ptolemy's name, so he confirmed these. The vulture *a* does not appear in Ptolemy, though, so Young had a new letter to add to his alphabet.
- Now the hand hieroglyph, the /d/ sound, gave him a bit of a puzzle, but he figured it out. Its position corresponds to the *t* in Cleopatra's name. But Ptolemy also had a *t* in his name; it was the loaf hieroglyph: .
- Young figured the two hieroglyphs had pretty much the same sound, and he was right with respect to the Greek pronunciation of Cleopatra: *Kleopadra*. Later he would see in other cartouches of Cleopatra's name that it was often spelled with a loaf *t*.
- The mouth *r* doesn't appear in Ptolemy's name, so Young had a new arrow in his quiver *r*. Imagine how excited he must have been as he added more and more letters to his alphabet.
- Young even realized that the last two hieroglyphs, the egg and the loaf *t*, had no phonetic value but were determinatives for female queens, goddesses, and princesses. Real progress was being made.

The Temple of Abydos

- Bankes's second big contribution was at the temple of Abydos. Today the temple is visited by millions of tourists each year, but when Bankes found it, it was filled in with sand. We must also

remember that hieroglyphs hadn't been translated yet, so no one knew who had built it.

- According to Egyptian mythology, Osiris, the god of the dead, was buried at Abydos. Egyptians wanted to make a pilgrimage to Abydos to place an offering at Osiris's grave, so they, too, would be resurrected.

Seti I, the father of Ramses II, built the temple of Abydos. In the hall of the ancients, you can see Seti with young Ramses, reading the names of all the kings.








- Bankes had the sand that choked the rooms inside the temple cleared and made an incredible discovery: a hall of the ancients. When pharaohs built a temple, they often listed all the pharaohs before them, to show what a long lineage they had. This hall of the ancients had the longest list of pharaohs ever discovered, and in near-perfect condition.
- When Bankes discovered this list, he understood that it was important, and made a very accurate copy of it to bring back to England for Young. This provided many more names for Young, so even more letters of the alphabet could be deduced.

Civilization's Beginning




- At first, everyone in Europe was convinced that Greece was the source of civilization. Once the hieroglyphs were deciphered and the Egyptian records could be read, the question had to be raised: Could Egypt be the source of civilization?
- There was tremendous resistance to this idea. Astonishingly, late into the 19th century, classicists were still claiming that Greece was where it all started. Yet Herodotus said Greece learned how to build in stone from the Egyptians.
- Herodotus acknowledged that Greek gods were derived from the much older Egyptian pantheon. He recounted how he was shocked by how far back Egyptians could trace their ancestors.
- The classicists were ignoring everything the ancient Greeks said about Egypt. Why the resistance? It seems they couldn't accept the idea that an African civilization could have been so advanced thousands of years before Europe had writing. It was racism.
- Today, Western civilization's debt to Egypt is well known and acknowledged, but it has been a rocky road. In 1954, a book titled *Stolen Legacy* by George James attempted to point out our debt to Egypt, but it was tragically flawed and scholars attacked it.

- In 1987, a far more serious book on the subject appeared: *Black Athena* by Martin Bernal. Here was a real Cambridge scholar who was pointing out the 19th-century racism that refused to credit Egypt with her accomplishments.
- But Bernal's expertise was Chinese political history, and because he was writing on a subject outside his field of expertise, he made errors and overstated his case. This book, too, was widely criticized, but it is worth reading.





New Vocabulary Words

- In this lecture, we'll learn vocabulary necessary for talking about the earth and a couple types of people. We'll also encounter some ideograms.
-  is pronounced *heru*. The determinative at the end tells us it has something to do with the sun, or time. The word means “day.”
-  is pronounced *gerah* and means “night.” The determinative is a bolt of lightning coming out of the sky.
-  sounds something like *yeah*. The determinative is the phases of the moon, and the word means “moon.”
- The next word, , has two determinatives. It is pronounced *nedjes*. The first determinative, the small bird, usually determines things that are small or bad. With the man hieroglyph at the end, we know it is a person. The word means “commoner,” who, in a social sense, is a small person. The word also means “poor man,” so it wasn't so good to be a commoner.
- Now for a couple of ideograms.
-  is pronounced *sesh*. It is obviously a man of some kind from the last ideogram in the word. The key is the other ideogram, which represents writing implements. The rectangle that looks like a traffic

light is a scribe's palette. The two circles are the red and black inks. A man with writing implements is a scribe. That's the word: "scribe."

-  is pronounced *akhet*. The ideogram is a sun rising or setting in a notch in a mountain. It means "horizon" and is feminine.
-  might be pronounced something like *she*. The little sign next to the ideogram stroke is probably an irrigation channel that feeds a lake or pool. And that's what the word means, "lake" or "pool."
-  was pronounced *ta*, and means "land." The thin oval is a spit of land, and the three dots means it comes in chunks, like clumps of dirt. The other sign is probably an irrigation canal. We know it's masculine because it doesn't have a loaf *t*.

Lecture 5's Homework Answers

1. "Ptah goes down in another boat" was the first sentence. We start with *ha*, "to go down," because it's the verb and verbs come first. Next comes Ptah, the subject, followed by "in," which is the owl. For "another," we use the feminine *ket*, and then we add "boat." The end result is , pronounced *Ha Ptah m ket depet*.
2. Next we had "[When] this man fares downstream, the city is in joy." The "when" is understood, not written, so we start with a verb, *khed*, "to fare downstream." *It's this one:* . Notice the position of the boat determinative.
 - Now we need "this man." We use the masculine *pen*, and it follows the noun. 
 - For the second half of the sentence, the verb is "is." In hieroglyphs, that's *yew*, the reed leaf and the quail chick. 

Jean-François Champollion Cracks the Code

When the Rosetta Stone was discovered, everyone thought the code would be cracked quickly, but it wasn't. It took more than 20 years before someone would finally be able to read the ancient Egyptian inscription. Everyone had been making the Big Mistake, assuming that the language was primarily ideographic. Even as Thomas Young and the French historian Jean-François Champollion were figuring out the alphabet, they both made that mistake. Today we will see how Champollion made the big breakthrough and became the first man in 2,000 years to read hieroglyphs.

The Competition

- Champollion and Young competed to be the first to decipher hieroglyphs. But this was more than just a matter of academics. France and England were at war. William Bankes, an Englishman, gave Young, another Englishman, the inscription on his obelisk and the king's list from Abydos. Young shared information with Champollion.
- Champollion, however, denied that Young was the first to figure out an alphabet. In 1822 Champollion published his *Lettre à M. Dacier*, which proclaimed that he had cracked the code and could read hieroglyphs.
- Around the time that Champollion was wrongly claiming he could translate ancient Egyptian, his friend, Jean-Nicolas Huyot, visited him. Huyot was a member of the team that Bankes had hired to copy inscriptions in Egypt and was there on Bankes's second visit to Abu Simbel.




- Huyot showed Champollion his drawings of Abu Simbel. Inside one of the cartouches he had copied were four hieroglyphs: ☉𓆎𓆏𓆐. This was where Champollion's knowledge of Coptic became crucial.
- He saw the circle and figured it was the sun, but he also knows that the Coptic word for sun is *ra*. Now he was left with three hieroglyphs to decipher. From his alphabet he also knew that the last two hieroglyphs were *s*. So, he had Ra__ss. Champollion also knew from classical sources that there was a King Ramses, so he guessed that the unknown sign was an *m*. He was very close. The unknown sign is really an *ms* biliteral, but still, he has the name correct: Ramses.
- Huyot had his drawings from other sites as well, and he showed Champollion another cartouche: (𓆑𓆎𓆏𓆐).
- It was known that the ibis represented the god Toth. With the other hieroglyphs he came up with Tothmosis, another king's name known from the classical writers. But this wasn't the breakthrough.
- The breakthrough was when Champollion realized that *mss* is very much like the Coptic word for birth, *mise*. Now the names of Ramses and Tothmosis didn't just have phonetic value. They meant something: "Ra is born" and "Toth is born." The phonemes spell out words with meanings; hieroglyphs weren't just ideographic. The Big Mistake was over.
- Champollion rushed over to his brother's house, announced his achievement, and fainted. He was so overcome and exhausted that he remained in bed for five days. When he finally got out of bed and resumes work, Champollion started reading out loud all the words he had on the Rosetta Stone and listened for Coptic matches.
- Soon he had dozens and dozens of words; he really could translate hieroglyphs. It was all due to Bankes's taking draftsmen with him to the temple and tombs of Egypt to copy inscriptions.

- Champollion published his findings in 1824 in his *Précis du système hiéroglyphique des anciens Égyptiens* and never credited Young, who was always a gentleman in the race to decipher. Even Champollion's teacher and mentor, Silvestre de Sacy, warned Young early on that Champollion would try to claim all the credit.
- When Young published his findings in 1823, he did so under the title *An Account of Some Recent Discoveries in Hieroglyphical Literature and Egyptian Antiquities: Including the Author's Original Alphabet, as Extended by Mr. Champollion*.
- In any case, thanks to Young and Champollion, we could learn the ancient Egyptian language.


Bilaterals

- Bilaterals are signs that represent two sounds, one after the other. Bilaterals are difficult to remember because there are so many of them.
- To make them easier to remember, we organize them into groups that end with the same sound. In this lecture, you'll learn bilaterals that end in the sound /a/. Don't try to memorize them. You will learn them when you see them in words and also by writing them.





Birds

-  is the *ba* biliteral. His most distinctive feature is the leash around his neck, but he also has a long beak. In the entry after next, you will see a similar bird, a pin-tailed duck. You can write the *ba* bird the same way and then just add the leash and long bill.
-  is the *pa* bird; he represents /p/ and /a/ together. To draw him, start with the head. Then extend the body. Next, add more body and a tail, then a wing. Finish with the second wing and feet.
-  is the *sa* bird, a pin-tailed duck. He's also the word for "son." This hieroglyph frequently appears because one of the pharaoh's names was always preceded by *Sa Re*, meaning "Son of the sun"


god Re.” In hieroglyphs, that’s , with the sun determinative for the god Re.

-  is the *tcha* bird. His distinctive feature is that he looks like he is coming in for a landing on the water. He’s actually a duckling. To draw him, start with the head and lower body. Next, complete the little wings and body. Finally, give him some feet. Note that while this may look like a trilateral at first, the *tch* is only one sound, made by expelling air once through your teeth while the tip of your tongue is touching the roof of your mouth.

Other Bilaterals



-  is *kha*, a lotus plant. When it stands alone, it is the hieroglyph for 1,000. The 6,000 captives on the Narmer Palette had six papyrus plants to indicate 6,000. The papyrus plant later evolved into the lotus plant.
-  is *dja* and is a bow fire drill. Using a bow, you rapidly turn the obelisk-shaped piece of wood in a smaller block of wood. The friction generates enough heat to start a fire.
-  is pronounced *eha* and is a wooden column. It’s also used vertically.
-  is pronounced *ha* and is plants.

Body and Soul




-  looks like a modern field-goal sign. It is pronounced *ka* and is the word for “soul.” There were several aspects to the soul, and the *ka* was something like a double for the body. The wealthy Egyptians even had *ka*-statues so that if something happened to their actual body, the statue could take the place of the body.
- But just having your *ka* in the next world wasn’t enough for immortality. You, as a person, were composed of several elements. A crucial part was your *ba*. This was your personality. Often papyri

showed the deceased as having the body of a bird and the head of a person. That's the *ba*. Sometimes it is spelled out with the *ba*-bird biliteral.


More Biliterals

-  is the *ma* biliteral, and it is a sickle. There were several ways of writing the word for "truth," and most involved the *ma* biliteral. A common one was . The long thin rectangle is the base on which a statue stood, and is another way of writing an *m*. It's equivalent to an owl. The arm is usually an *eh* sound, but the word for "truth" is usually transliterated as *maat*. We can see the loaf *t* at the end.



-  is of plants growing in a field, and is pronounced *sha*.
-  is pronounced *ta*, and we think the hieroglyph depicts a potter's kiln, but we're not sure about this one.
-  is a rope with a loop, and is pronounced *wa*. By Greek times it was used as the letter *o*.







Learning Biliteral Words








-  is a good biliteral-using word to start with. The sickle is pronounced *ma* and has a phonetic complement, a silent vulture. But there are two vultures. That means the word is pronounced

maa. The eye determinative shows us that it has something to do with seeing. Indeed, it is the verb “to see.”



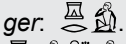


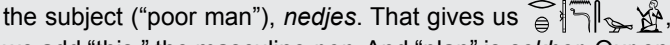

- To help you learn the biliterals, make a chart of them. For now, we only have the *a*-family, so take a sheet of paper and write A on the top with a vulture next to it since that’s /a/.
- Below that, draw the biliterals in alphabetical order with their sounds written next to them. The only exception to the alphabetical order is that it might be a good idea to write the four birds in the *a*-family together. They will be easier to remember that way.
- Our new word, *maa*, “to see,” will go on the M-page, along with our owl and other words beginning with /m/. Our word “to remember,” *sekha*, will go on the S-page. This will help us to learn how to write the biliterals and also to remember their sounds.

More Biliteral Words

-  has the *ba* bird, with no phonetic complements, followed by the basket *k*. This word is *bak*. The man determinative tells us it is a person. The word means “manservant.”
-  is the word “maidservant,” pronounced *baket*.
-  means “vizier” and can also be written . In the first version, we have the *tcha* biliteral and a *t*, so it looks like *tchat*. But it is also sometimes written with a double reed, as in the latter version. That has a /y/ sound, so we usually say *tchaty*. In ancient Egypt, the vizier was the second-highest official in Egypt after the pharaoh.
-  is pronounced *kha*. The word means “office” or “hall.”
-  is pronounced *dja*. Given the boat determinative, it obviously has something to do with boats. It’s the verb to “ferry across,” or just “cross.”

-  is pronounced *wat*. The vulture is once again a silent phonetic complement. The word means “road.” Often this word is simply written as an ideogram: .
-  is pronounced *niwit* and means “city.”
-  is pronounced *sa* and means “son.” It’s an idiom because we don’t know why there’s a stroke.
-  is the word for “daughter” and is pronounced *sat*.
-  is pronounced *eha* and means “donkey.” The phallus is there to show us it’s a donkey instead of a sterile mule.
-  is pronounced *seshta*. It’s the word for “secret.”

Lecture 6's Homework Answers

1. “The moon rises in the sky” translates to , pronounced *Weben yeah em pet*. To get there, just start with the verb ( or *weben*), then add the symbol for the moon, then the owl for “in,” and the word for “sky,” *pet*.
2. To translate “The scribe is silent day and night,” we start with the verb, *ger*. . The subject is “scribe,” or *sesh*. Adding that gives us . Then we need “day” and “night,” but there is no conjunction in Middle Egyptian, so we just add the two nouns, giving us . That’s pronounced *Ger sesh haru gereh*.
3. “This poor man knows a plan.” We start with the verb, *rekh*, then add the subject (“poor man”), *nedjes*. That gives us , to which we add “this,” the masculine *pen*. And “plan” is *sekher*. Our end product is , or *Rekh nedjes pen sekher*.






Lecture 7's Homework



1. Translate, "The maidservant knows the secret."
2. Translate, "The vizier is in the office."
3. Translate, "The donkey is in the road."
4. Translate, "The daughter ferries across in the boat."

Suffix Pronouns and the Hieroglyphs of Ptah



This lecture marks a turning point in our course. We have completed the story of the decipherment of hieroglyphs. It is important to understand how the code was cracked, but from now on, we won't begin the lectures with background material and end with hieroglyphs. From here on, we'll start with hieroglyphs, and then at the end of the lecture we will apply what we have learned to art, civilization, religion, and so on.







Vocabulary

- We'll start this lecture by adding a few vocabulary words to our dictionary so we can translate more real texts.
-  has two determinatives, so the only thing we have to worry about are the first two alphabetic hieroglyphs, *r* and *sh*. It is pronounced *resh*, similar to *reshwet*, which is  and means "joy" or "gladness." The variant *resh* means "to rejoice" or "be glad." The double determinative shows that it involves emotions, which one can see on the face or express by speech.
-  is an idiom. The horned viper hieroglyph is silent; the word is pronounced *it* and means "father."
-  is pronounced *iteru*; the three water signs at the end form the determinative that shows it has something to do with water. It's the word for "river."
-  is pronounced something like *mezeh*. Its determinative gives it away. It's the word for "crocodile."







-  has the ideogram stroke sign, so this is a picture of the concept. We know the *r* hieroglyph is a mouth, so the word means “mouth.” It also means “utterance” or “spell,” as in a magical spell. As you would expect, it is pronounced *r*.
-  is another ideogram; it means “face.” It also means “sight.” It is also the word for “upon,” and can mean “concerning” and “with respect to.” This one is pronounced *her* and is important because it has many uses.

Pronouns


- Now we’re going to start a new grammar unit: pronouns, which stand in for a noun or noun phrase. In this lecture, we’re going to focus on suffix pronouns, which are added at the ends of words. Unlike in English, the suffix pronouns are going to be the same for possession and in the nominative.
-  is a sentence with two pronouns. The man sign is the word for both “I” and “my.” It is our first suffix pronoun.
- Now let’s translate the sentence. The verb comes first, as it should, and *yew* is the word for “is.” Next we have our suffix pronoun, the man sign attached to the verb, so we know it is not going to be possessive. This gives us “I am.”
- The owl has several meanings, and we have to pick the right one. Let’s look at the end of the sentence. The house hieroglyph is being used as an ideogram. The man hieroglyph attached to it is the possessive, since it is attached to a noun, so we have “my house.”
- It looks as if the best meaning for the owl is “in,” which gives us “I am in my house.”
- The feminine version of the same statement uses the woman hieroglyph: . It’s pronounced something like *Yew.i m per.i*.

- Because suffixes are technically part of the word they are attached to, we don't separate them in transliterations. We conjoin them to the word by means of a dot or period.
- "You" or "your" (masculine) is simply the basket *k*: .
- "You" or "your" (feminine) is the tethering ring *tch*: .
- If you wanted to say, "You speak," to a man, you would write  and the transliteration would be *Djed.k*. If you were talking to a woman, it would be , transliterated as *Djed.tch*.
- "He," "his," "it," or "its" is a horned viper: .
- "She," "her," or "it" is a folded cloth: .

Plural Suffix Pronouns

- The above section covers the singular suffix pronouns. Now let's look at the plural suffix pronouns.
- "We," "us," or "our" is the water sign with three strokes for plural: , pronounced *n*. Three strokes are used for plurals of all sorts. "We hear" would be , pronounced *Sedjem.n*.
- We don't have to worry about masculine or feminine in the plural. It is what we call *common*. One suffix pronoun fits all.
- For "you" or "your" plural we have the tethering ring, water sign, and three plural strokes beneath them, pronounced *tchen*: .
- Our last plural is for "they," "them," or "their." That's a folded cloth, water sign, and three strokes, pronounced *sn*: . "Their scribe" would be , pronounced *sesh.sen*.
-  is pronounced *tu*. This is the impersonal pronoun. It means "one," as in "One should always be kind."

Translating Sentences

- That's it for suffix pronouns. Now we need lots of practice translating so we learn them.
-  is pronounced *Resh sesh yew.n em per.f*. The first word is *resh*, "rejoice," and ends with the man with his hand to his mouth. The next word is *sesh* "scribe," which ends at the man determinative. Next is a very familiar verb, "to be," pronounced *yew*. Then we have a suffix pronoun pronounced *n* and meaning "we."
- Then we have an owl ("in" or "from"), a house, and a viper (pronounced *f* and meaning "his.") The full English translation is, "The scribe rejoices [when] we are in his house." *When* is bracketed because that's probably the meaning and the Egyptians didn't have the word *when*. It was understood.

Shabaka and Ptah




- Now for an excursion into ancient Egyptian religion, focusing on Ptah. Ptah is one of the gods intimately connected to writing and words. Ptah was viewed as a creator god. In one myth, Ptah is presented as the god who creates the world with words.
- We have only one copy of the text of this myth. It dates from the 25th dynasty, which extended from about 760 to 656 B.C. This was when the Nubians marched north and conquered Egypt. For years the Nubians had been under Egyptian rule, but now Egypt had been invaded several times by foreign powers and was weak, and the Nubians saw their chance.
- The Nubians didn't like the idea that Egypt controlled Nubia, but they also admired Egyptian civilization. So when the Nubian kings conquered Egypt, they didn't plunder.
- They built their own temples to honor Amun, Egypt's most powerful god during this period, and even copied old religious texts to preserve them. One of these ancient texts, relating to the

god Ptah, is called the Shabaka Stone, after the Nubian king who had it copied.

- Today it is in the British Museum. It's shaped like a square and has a hole in the middle. It has an inscription in hieroglyphs all over it, but it is badly worn in the middle. It is sometimes called "The Philosophy of a Memphite Priest."
- The text starts with Shabaka saying, "I found the writings of the ancients damaged, and I restored it better than it was." What exactly does that mean?
- One possibility is that the old text was damaged, it had gaps, and Shabaka filled in the gaps. But the original text was likely on papyrus, so when Shabaka says he made it better, he could also mean that he is taking something that was written on papyrus and is carving it on stone. This was a pious act for Shabaka: He viewed the religious text as his heritage.

Ptah's Creation

- Ptah was the chief god of Memphis, one of Egypt's oldest cities. Egyptian gods usually came in threes: a husband, wife, and child. In Memphis, the triad was Ptah, Sekhmet the lioness, and their son Nefertum.
- The text on the Shabaka Stone describes the world's creation in three steps: First, Ptah thought it, and then he said it on his tongue, and finally, it became real.
- Atum was the traditional creator god of Egypt, who created all the other gods. The Shabaka Stone asserts the primacy of Ptah by saying, "There took shape in the heart [of Ptah], there took shape on the tongue [of Ptah] the form of Atum."
- Later, the text says, "Ptah the very great one gives [life] to the gods and their *kas* through his heart and tongue."

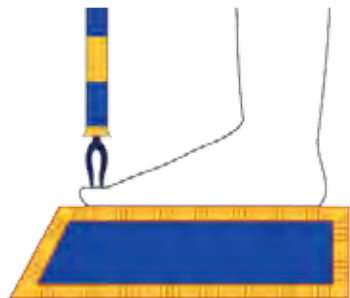
- Ptah was a very popular god, and Egyptian names often included him. For example, Ptahhotep, , means “Ptah is pleased.”
- Ptah is often depicted holding a scepter. In its simple form, the scepter is a *was* scepter. It has the head of a ram, representing the god Amun, and at the bottom is a ram’s cloven hoof. *Was* means “power” in ancient Egyptian.
- At the top, the scepter also has a *djed* pillar, , representing the backbone of the god Osiris and meaning “stability.” There is also an *ankh*, , representing “life.” You can add this to the A page of your dictionary.



In Egyptian lore, Ptah assisted at the opening of the mouth ceremony during mummification, which ensured the deceased would be able to speak in the next world.

Being a Scribe

- For most people in ancient Egypt, being a scribe was a worthy goal. But many Egyptian boys had to be convinced.
- There is a wonderful papyrus in the British Museum called Papyrus Lansing because Ambrose Lansing owned it and papyri are named after their owners.



- Papyrus Lansing is all about becoming a scribe. Written by the royal scribe, Nebmare-nakht, it is addressed to a student who doesn't realize what a noble calling being a scribe is. It begins with an extolling of the virtues of being a scribe: "You will make friends with those greater than you. You will be advanced by your superiors. ... Love writing, shun dancing. Then you will become a worthy official."
- Nebmare-nakht then goes on to explain why all other professions are inferior: The washerman's limbs become tired; the pot maker gets smeared with oil; the cobbler develops an odor and his hands turn red; and the unskilled laborer is forever burdened, toiling before the scribe.

Lecture 7's Homework Answers

1. "The maidservant knows the secret" translates as *Rekh baket seshta*. That involves us starting with the verb, *rekh* ("to know"), then adding the subject, *baket*, for "maidservant." *Seshta* is the word for "secret." The hieroglyphs come out to . The hieroglyphs are: a seated woman (baket), a bird (rekh), a lotus (ses), a hand holding a lotus (sta), a lotus (sh), a lotus (st), and a lotus (sh).
2. "The vizier is in the office" translates as *Yew tchaty m kha*. Our verb is "is," so we start with *yew*, . Next we add the subject, the "vizier," which is pronounced *tchaty* and has our *tcha* biliteral, giving us . We next need "in," and that is our old friend the owl hieroglyph, creating . Last we need the word for "office," which uses the *kha* biliteral. is the complete phrase.
3. "The donkey is in the road" requires two biliterals and the verb "is," *yew*. The donkey (*eha*) and the verb (*yew*) make . Next, he's "in" the road, so that's our owl. Last we need the "road," which has the *wa* biliteral. The entire word was pronounced *wat*. In the end, we get , or *Yew eha m wat*.

The Immortal Scribe



This lecture begins with practice exercises to assist with learning the suffix pronouns. You'll practice translating from English to hieroglyphs. You have probably discovered that it is more difficult to translate from English to hieroglyphs than the other way around. The reason is that when you have a hieroglyphic sentence in front of us, you don't have to create it. But when you have to create the hieroglyphic sentence, you need to know how to spell the words and how to order them. That's why this type of exercise is so valuable. After the exercises, this lecture adds one very important vocabulary word, and then covers the role of scribes.

Charting

- To help you learn the suffix pronouns, you might want to make a chart of them. You can use the same format you're using for your dictionary. Start with the hieroglyphic word, then add the pronunciation, and then add the meaning. An example is below.

 (f) He, his, him, it, its

Exercise 1: "We send the boat to her city."

- We'll start by translating, "We send the boat to her city."
- Begin with the verb, "to send," which is *hab*, and the suffix pronoun for "we," which is the water sign with three strokes. Those two give us  for "we send."
- "Boat" is *depet*, giving us . The little boat at the end of the word is the determinative. Now we need the "to," and

understood; there is no word for it. For “she listens,” we can use the verb *sedjem*, “to hear,” and the folded cloth for “she.”

- The final product is , pronounced *Djed. sen n sesh.n sedjem.s*.

Exercise 4: “He rejoices when his daughter goes down to their house.”

- Start with *resh*, “to rejoice.” Next comes the viper for “he,” giving us .
- The “when” is understood, so we go to the next verb, “to go down,” which is *ha*.
- Now we have .
- “Daughter” comes next, then the suffix pronoun. We add *sat*, “daughter,” and attach the suffix pronoun “his” to it. That’s the horned viper. At this point, we have .
- Coming to the end, we just need “to their house.” The “to” is the mouth *r* since it is to a place, the house: . (We could stack the mouth on top of the viper, but since the mouth *r* is usually its own word, we’re not doing that here.)
- “House,” *per*, comes next, and then “their,” which is the folded cloth water sign with three strokes. In the end, we have . That’s pronounced *Resh.f ha sat.f r per.sen*.

Exercise 5: “He hears the crocodile from his house upon their road.”

- To translate, “He hears the crocodile from his house upon their road,” we start with “hears,” which is *sedjem*, and “he,” which is the viper: . Next we need our crocodile, *mezeh*: .

- Up next is “from,” the owl: . “His house” is the house followed by the viper: .
- Now it is time to use a word we haven’t used much, “upon.” It is *her*, the face with the stroke. That gives us .
- “Road” is pronounced *wat*. Adding it gives us .
- It’s “their” road, so we will add the folded cloth, water sign, and three strokes for “their.” The final product is , pronounced something like *Sedjem.f mezeh m per.f her wat.sen*.

Vocabulary

- In this lecture, our vocabulary addition consists of one word: . It was pronounced *kheper*, and the root is the beetle. It is a trilateral equal to *kh-p-r*.
- Both the hieroglyphic scarab and the actual beetle were very important in ancient Egypt. The scarab hieroglyph was pronounced *kheper* and meant “to exist.” But it also meant “beetle” as in the insect.
- The beetle was very special to the Egyptians. The female lays its eggs in a dung ball and then rolls it to a safe place and buries it. Later, little scarabs pop out, like magic. The Egyptians didn’t understand the biological process, so to them, this was a remarkable case of procreation. Thus, the beetle became a symbol of existence. They carved little beetles as amulets to be worn to ensure continued existence.
- When Pharaoh Amenhotep III wanted to make announcements to the world, he had large scarabs carved, then wrote his message on the bottom. He famously used a scarab to announce his marriage to Queen Tiye.



Scarabs were so important in ancient Egypt that the god Khepri was depicted with the body of a man and the head of a scarab.

The Greeks on Writing

- Although the social position of the scribe was continuously revered throughout Egyptian history, there was at least one voice in the conversation who did not agree. The Greek philosopher Plato lived between about 428–348 B.C. and was well aware of Egyptian civilization.
- Though he admired much of Egyptian culture, Plato lamented the invention of writing. This belief was shared by his teacher, Socrates. What we know of Socrates comes from a body of works

called the dialogues. Socrates often had philosophical discussions with his students (Plato included), and the students wrote down these dialogues for future generations.

- In several of the dialogues, Socrates discusses the invention of writing. He credits the invention to the Egyptian god of writing, Toth, who was often depicted as an ibis-headed man.
- While Socrates credits Toth with the invention, he laments the day writing was conceived. Socrates believes that with writing, man will no longer have knowledge. He will merely have the appearance of knowledge. For Socrates, knowledge is in the mind. Writing is external to the mind, so it can't be knowledge.

The Egyptians on Writing

- As Papyrus Lansing shows, the Egyptians didn't agree with Socrates, and offered materialistic reasons for becoming a scribe. Other papyri give more idealistic reasons to become a scribe. One papyrus in the British Museum, Papyrus Chester Beatty IV, links being a scribe with immortality.
- The papyrus was written during the New Kingdom, a time when Egypt had already collapsed twice: once at the end of the Old Kingdom and once at the end of the Middle Kingdom. Both collapses led to periods of lawlessness, tomb robbing, and general disillusionment with life.
- For the first time, people saw the uncertainty of life. They saw that continuity couldn't be guaranteed, and that even building a stone tomb didn't guarantee your mummy would be preserved so that you could resurrect in the next world.
- Papyrus Chester Beatty IV fully acknowledges all these uncertainties. It suggests that being a scribe is the only sure route to immortality, but it is a different kind of immortality than what was

promised by the Egyptian religion. It is the immortality of being an author. Talking about scribes, the author says:

The reed pen is their child,
The stone surface their wife...
Death made them forgotten,
But books made them remembered.

Papyrus

- Papyrus was a very important medium for writing. Papyrus was viewed as less permanent than stone, but in Egypt's dry climate, papyri have survived for thousands of years quite well.
- Papyrus grew along the banks of the Nile. It could grow to more than 10 feet tall with a diameter of four inches. To create papyrus

Papyrus






sheets, it was harvested and the stalks were cut into sections about 12 inches long.

- These cylinders were then cut into thin strips. Next the strips were placed on a board and overlapped. Then this was beaten with a wood mallet or pressed so the sap comes out and serves as the glue that binds the strips together. The overlapping strips were left in the sun, and when they dried, each sheet would be burnished with a smooth stone to prepare the surface for writing.
- Individual sheets could be glued together to make a papyrus roll as long as desired. Some are more than 100 feet long. Papyrus was used for bureaucratic records, literary productions, international commerce, and religious texts such as the Book of the Dead.
- Papyrus used to grow wild in Egypt on the banks of the Nile, but industrialization has ended that. Today it is farmed to make into sheets so artists can paint ancient scenes to be sold to tourists.
- You can buy sheets of papyrus in most large art supply stores, and you might enjoy trying writing on the real thing.

Lecture 8's Homework Answers

The first part of the homework was English-to-hieroglyphs translations.

1. To translate, "The crocodile is in the river," start with the verb, "is," *yew*, then add the crocodile subject, *mezeh*: . Next comes the owl for "in" and the word for river, *iteru*, giving us: , pronounced *Yew mezeh m iteru*.
2. "The moon rejoices when the sun is in the horizon" is a compound sentence, one with two verbs and two subjects. Start with the verb, "to rejoice," *resh*, and the subject, "moon," *yeh*: . The "when" is understood, so we can skip to the second verb, "is," *yew*, and

the second subject, “sun,” *re*: . We conclude with the owl hieroglyph for “in” and *akhet* for “horizon”: , which is pronounced *Resh yeah yew re m akhet*.

3. To translate, “The land rejoices because Ptah is in the city,” start with the verb *resh*, “rejoice,” and the word for “land,” *ta*, creating . There is no word for “because,” so it’s understood. Next add the verb *yew*, “is,” and the second subject, “Ptah,” to make . Finally we add the owl for “in” and *niwit* for city: .

The second part of the homework was hieroglyphs-to-English translations.



- 1.

- This is a long one. Start with the verb, *maa*, “to see.” Next is the word for “man,” *z*. So we know a man is seeing something.
- Our next word, *sat*, means “daughter,” followed by a viper, so this must be “his daughter”—the viper is a suffix pronoun meaning “he” or “his.”
- Next we have an owl, a house, and a viper, which together mean “in his house.” Then we see another verb, *yew* for “is” and another viper for “he.”
- Next is our owl again, and that’s the word “in.” Our last word is the long one, *reshwet*, which means “joy.” Putting it all together, we have “The man sees his daughter in his house; he is in joy.”
- To make the sentence smooth, we can add an understood “when” at the beginning. That gives us, “When the man sees his daughter in his house, he is in joy.”

2. starts with the biliteral *dja* and a boat determinative, giving us the word for “to ferry across.” Re, the sun god, is being ferried. From the next word, *pet*, we can see that Re is ferrying across the sky.

- Next we have the owl, “in.” And that is followed by the word *wia*, which is a sacred boat. Added onto the sacred boat is a suffix pronoun, the horned viper, meaning “his.”
- If we put it all together, we have, “Re ferries across the sky in his sacred boat.” *Dja Re pet m wia*.

Lecture 9's Homework

Translate these two sentences from hieroglyphs to English.







1.

2.

Hieroglyphs and the Bible

In the previous lecture, you practiced translating English sentences with suffix pronouns into good, hieroglyphic sentences. This lecture covers a few more points you should know about suffix pronouns, then gives you a pair of exercise to round out your work on suffix pronouns. Then the lecture covers the story of the Exodus from the Bible. Perhaps no other story is as closely related to Egypt. Many scholars have wondered if the events of Exodus actually happened. However, with a little knowledge of hieroglyphs, we might be able to shed some light on this question.

Singular, Plural, and Dual







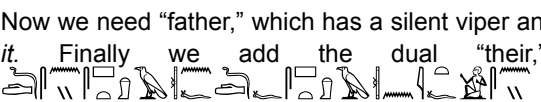
- In the Middle Egyptian language, suffix pronouns can be singular or plural. But Egyptian also has a dual. There are suffix pronouns used only for pairs of people. They are exactly the same as the plurals, except instead of three strokes they have only two strokes. Also, these strokes are drawn at an angle.
- For example, for “we” in the plural, the suffix pronoun is the water sign with three vertical strokes: . But the dual would be the water sign with two slanted strokes: .
- The same goes for “you.” In the plural, the suffix pronoun is the tethering ring, water sign, and three strokes: . For the dual we just have two strokes: .
- For “they” or “their” in the plural, we would have the folded cloth, water sign, and three strokes: . For the dual, we simply change the three strokes to two: .

- The duals are pronounced a bit differently than the plurals. They have a /y/ sound at the end. For example, the plural for “they” is pronounced *sen*, but the dual is pronounced *seny*.
- This holds for nouns, too: The word for “obelisk” is pronounced *tekhen*, but if we’re talking about a pair of obelisks, it’s *tekheny*.
- Suffix pronouns can also be used after prepositions. For example, this could be “to me”: . Here’s another example: . We see our familiar word “together with” (*heneh*) and the folded cloth suffix pronoun for “she” or “her” following it, so we have “together with her.”

Exercise 1: “We [dual] send our scribe to him.”


- Let’s try translating a couple of sentences from English to hieroglyphs to become familiar with our new uses of personal pronouns.
- “We [dual] send our scribe to him” lets us use the two new uses for our personal pronouns: the dual pronoun and a pronoun coming after a preposition.
- We start with our verb, *hab*, “to send.” That is . The little feet determinative suggests walking, as in sending someone out.
- We want to use the dual form of “we,” giving us . That’s “we send” when it is two people sending. We are sending “our scribe,” so we first need “scribe” then the dual “we.” Now we have: .
- Now for the “to him” part. We need the water sign “to” because “him” is a person. For the “him,” we can add the personal pronoun, which is the horned viper. That gives us , or “We send our scribe to him.”



Exercise 2: “They [dual] tell the secret to him [and then] he tells the secret to their father.”


- We start with the verb, “to say,” or “speak,” or “tell,” *djed*: . Now we need “they” in the dual, giving us .
- Next is “secret,” *seshta*, and “to him,” the water sign and the viper: .
- The “and then” is understood, so next comes our verb “to tell” once more, giving us .
- Next up we have “he” and *seshta* again: .
- After that, we need the “to” which is the water sign: .
- Now we need “father,” which has a silent viper and is pronounced *it*. Finally we add the dual “their,” giving us:  as our final translation.


Bondage

- There are three stages to Exodus: bondage, the Exodus itself, and the Promised Land. This section of the lecture focuses on the bondage segment of Exodus.
- The book of Exodus involves an unnamed pharaoh, but we may be able to figure out who he is. By the time of the events in the book of Exodus, the Israelites (the descendants of Jacob, who was also called Israel) have become numerous, and this bothers the pharaoh.
- The pharaoh puts a taskmaster over them and enslaves them. They build store cities in brick—not in stone—for the pharaoh. This is an important detail.

- The pharaoh says to the midwives, “Watch the two stones.” The two stones refer to the birthing stools that Egyptian women used to give birth. They gave birth squatting down. The pharaoh tells the midwives to kill the male infants when they are born.
- But even with this directive from pharaoh, the Israelites prosper. The pharaoh asks the midwives why; they reply that the Israelite mothers are giving birth before the midwives arrive.
- One Israelite child's mother was worried her son would be killed, so she put him in a basket and set him adrift on the Nile. The pharaoh's daughter finds the basket, adopts the baby, and names him Moses.
- Traditionally, we are told that she gave him that name because she drew him out of the reeds, and *moshe* in Hebrew means “to draw out.” But why would an Egyptian princess speak Hebrew? And would she give him a Hebrew name? It doesn't make sense.
- What does Moses mean in ancient Egyptian? Recall the hieroglyphs , *mss*, that Champollion figured out meant “birth.” It makes more sense that an Egyptian princess would give her newfound baby an Egyptian name meaning “birth.”
- Moses grows up in an Egyptian household but has an encounter with the god of the Israelites, Yahweh, who appears to Moses as a burning bush. Yahweh tells Moses to go to the pharaoh and tell him, “Let my people go.”
- Moses doesn't think he can do it. So Yahweh tells him to throw down his staff, and it turns into a snake. He next withers Moses' hand, then restores it. Moses is going to have supernatural powers, but he is still hesitant. He is “slow of speech,” so Yahweh lets Moses bring his brother, Aaron, to do the talking.

- Moses has an audience with the pharaoh. The pharaoh is never named. He is just called “Pharaoh,” which is not an Egyptian word. The word for “king” was *news*: .
- What does “pharaoh” mean in ancient Egyptian? Well, the two hieroglyphs that make the sound “pharaoh” are . That consists of *per* (house) and *ah* (great). Therefore, the pharaoh is the guy who lives in the great house. “Pharaoh” is a foreigner’s way of saying “king.” After the time of Exodus, the word “pharaoh” will enter the Egyptian language to mean “king.”
- During his audience with the pharaoh, Aaron throws down his staff and it turns into a snake. But this doesn’t impress the pharaoh. His magicians do the same thing with their staves. Still, Aaron’s snake swallows those of the pharaoh’s magicians, so that is a bit of a victory.
- The Coptic Bible contains the Exodus story, and the Coptic word for “magician” is *shesheronch*. Remember that Coptic is just a different script for writing the ancient Egyptian language, so let’s try to think of what hieroglyphic symbols correspond to the sounds in *shesheronch*.

○ *Sesh* is our scribe: .

○ *Per* is the house sign: .

○ *Onch* is the *ankh* hieroglyph: .

- When we put them together we get *shesheronch*, “scribe of the house of life.” Priests in ancient Egypt were educated in a school called the House of Life. Therefore, the magicians were priests. This detail shows that whoever wrote down the Exodus story had an intimate knowledge of ancient Egypt.

The Plagues

- Back to the story: The pharaoh doesn't let the Israelites go. Worse, he tells them they still have to make their bricks, but the straw for the bricks won't be supplied. The Israelites were going to have to gather their own straw and still have the same quota of bricks. Additionally, they were not going to get their three-day religious holiday.
- Next come the plagues: The Nile turns to blood; the Egyptians are tormented with frogs, lice, boils, locusts, darkness, and so on. None of this softens the pharaoh's heart.
- Then comes the 10th plague: the killing of the firstborn, even among the cattle. (The Jewish Passover holiday comes from death passing by their homes, which were marked with lamb's

Darkness plague



blood.) When the pharaoh's firstborn son dies, he relents and lets the Israelites go. Thus bondage ends and the Exodus itself begins.



Exodus and the Promised Land

- Yahweh tells the Israelites to plunder Egypt, and they leave with gold and silver. The Bible says 600,000 men, not including their families. This is a very large number of people and has led some scholars to question the Exodus story.
- Soon after the Israelites depart, the pharaoh has a change of heart and pursues them in chariots. Often it is said that pharaoh's army perishes in the Red Sea, but that's a bad translation of the Hebrew name *Yam Sough*, which means Sea of Reeds. We don't know where this marshy area was, but it parts for the Israelites and then closes to swallow Pharaoh's army.
- Next the Israelites wander in the desert for 40 years, until they reach the Promised Land. The Israelites finally settle. Their wanderings are over.


Hieroglyphic Evidence

- We have seen several places where knowledge of hieroglyphs has added some evidence that the Exodus actually took place, but there is one more bit of hieroglyphic evidence for the story.
- There's a stela in the Egyptian Museum in Cairo that is absolutely unique. It is the only place in the Egyptian record where Israel is mentioned.
- According to the biblical account, Ramses's firstborn son died during the 10th plague. Ramses ruled for 67 years, so many of his sons died before him. His 13th son, Merneptah ("Beloved of Ptah"), succeeded him. The stela in the Egyptian Museum was carved during the fifth year of Merneptah's reign.
- Merneptah brags about all his victories over foreigners. He says: "Canaan has been plundered into every sort of woe. Ashkelon


has been overcome. Gezer has been captured. Yano'am is made nonexistent; Israel is laid waste and its seed is not."

- This is the first and only mention of Israel in the Egyptian record. For this reason, many people believe that Merneptah is the pharaoh of the Exodus. But it is important to note that he is not talking about the Exodus. He is talking about battles outside of Egypt.
- The archaeological record is blank on the subject and doesn't support Exodus as an historical event. But with a little knowledge of hieroglyphs, we might be able to form some conclusions about whether Exodus occurred.
- In the Merneptah Stela, if you look at all the countries it mentions, at the end of each of them is the determinative hieroglyph for a foreign land: . But when Merneptah refers to Israel, we don't have the three hills to designate a foreign country. Instead, the hieroglyphs for people, a man and a woman, are present: .
- In other words, at this point in time, Israel not an established country. Why not? They are still wandering in the desert. So during the time of Merneptah, they have not yet established themselves as a nation.
- If we count backward from year five of Merneptah, when the Israelites were still wandering, we come to the reign of Ramses the Great. The Exodus must have happened during his reign.

Lecture 9's Homework Answers

1. To translate , start with the first word, *djed*, which means to "say" or "speak." Then comes the suffix pronoun, which is pronounced *tchen* and means "you" or "your." Since it is attached to the verb it must be "you," making "You say."

- Next is *ren*, the word for “name.” We see that the same suffix pronoun is attached to “name,” which is a noun, so it must be “your.” At this point, we have “You say your name .”
- Now for the water sign. That is “to” as in “to people,” and is pronounced simply *en*. The question is: to whom? The answer is “a scribe.” We have the word for “scribe,” *sesh*. But there is one more word *pen*, which is the masculine form of “this.”
- In the end, our sentence means something like “You say your name to this scribe.”

2. To translate , start with the first word, *hab*, which means “to send.” The next word is pronounced *it*—remember the viper *f* in the word “father” is silent. So it is the father who is sending.

- Next we have the pin-tailed duck, the stroke, and the man determinative, followed by the viper. So far, the sentence as a whole means “The father is sending his son.”
- We have a mouth sign next, which is the word for “to” in the direction of things or places. The next word we recognize as “town,” and it is pronounced *niwit*. So far, we have “The father is sending his son to the town.”
- Now we have another verb: The verb *djed* is “to tell” or “to say.” We also have the horned viper suffix, so it is a “he” in action, but what is he going to tell or say? The answer is a *sekher*, a plan.
- Next is the water hieroglyph for “to” with regard to people. He’s going to tell it to the *sesh*, to the scribe. So, our sentence is: “The father sends his son to the town to tell his plan to the scribe.”

Lecture 10's Homework

Translate these two sentences into hieroglyphs.

1. "They [dual] fare down to the city, together with her."
2. "This land is in joy when you [dual] are in the sky." Imagine the sun and moon as the "you" so the dual makes sense.

Dependent Pronouns and the Passive Voice

This lecture starts off with some more work involving suffix pronouns. You'll see how they can be used to talk about oneself. Then we'll move on to a new kind of pronoun: dependent pronouns, which are able to stand alone, unlike a suffix. The lecture next covers the passive voice (not to be confused with the past tense) before moving on to look at a monumental expedition. Then the lecture describes the Chicago House, which is doing very important work today in the field of Egyptology.

Reflexivity

- Suffix pronouns can also be used to talk about oneself. This is called *reflexive*. In English we say, “myself,” “herself,” and “himself.” They are used for emphasis: “I did it myself” carries more emphasis than “I did it.”
- Egyptians didn't have special reflexive pronouns. Often they just repeated the suffix pronoun for emphasis. For example, look at this sentence: .
 - The verb is *djed*, meaning “to say” or “speak,” and we have the suffix pronoun viper, which is “he.” So that's “He says.”
 - Next we have the water sign, which is “to” for people. Now we have “He talks to” someone. Another viper makes that someone himself: “He talks to himself.”
- Sometimes, to emphasize a reflexive, a special word is used, *djes*: . Here's an example: . *Ren* is “name” and the man


sign is the suffix pronoun for “my.” The folded cloth would give it the sense of “my own name,” which is a bit more emphatic.





Dependent Pronouns

- Unlike suffix pronouns, dependent pronouns do not have to be added onto any other word in the sentence. They stand alone.
- Dependent pronouns are usually used as the object of the verb—the thing or person receiving the action. For example, “He sends me” has two pronouns: “he” and “me.”
- Translating the “He sends” part is easy. It’s . But we haven’t had the “me” dependent pronoun. It is written like and was pronounced *wi*. So, “He sends me” would be pronounced *Hab.f wi* and written .
- “He sends you” needs a different dependent pronoun for “you.” If it is a masculine “you” that “he” is sending, like his son, then we need the masculine dependent pronoun *tchu*: . “He sends you” would be *Hab.f tchu*: .
- If it is a female “you” who is being sent, then we need *tchen*: . “He sends you” with a female “you” is .
- For “him” or “it” masculine, it is *sew*: . If someone is sending “him” it would look like this: . For “her” or “it” feminine, it is *sey*, . “He sends her” is . The two strokes typically mean dual, but once in a while it is a dependent pronoun.
- To help the process, make a dependent pronoun chart of your own. You can find a model of one at the back of this book.




Plural Dependent Pronouns

- There are also dependent pronouns for plurals. They are the same as the suffix pronouns. So, for example, if we wanted to say “You ferry us across,” we start with the verb, *dja*, . Then we add



the suffix pronoun for “you,” which is the basket.  forms the “You ferry across” part.

- Now we add the dependent pronoun, which is the same as the suffix in this case. That’s *tchen*, giving us . That’s pronounced *Dja.k tchen*.
- If we wanted to say “They ferry you [plural] across,” we’d start with the verb, “ferry across,” . Then it’s time for the suffix pronoun for “they,” which is *sen*, giving us .
- That’s the “They ferry across” part. Now we need the dependent pronoun for plural “you.” It’s the same as the suffix pronoun plural for “you.” That’s *tchen*, giving us  as “They ferry you across.”



Uses of Dependent Pronouns

- Dependent pronouns are very useful. They are often used after phrases of exclamation, like “Behold,” which is *mek*: .
- Sometimes the arm hieroglyph will be holding a rounded loaf in its hand: . This has the same meaning, “Behold.”
- Another exclamation that uses dependent pronouns is “Lo,” which is *istch*, .
- One grammatical note related to dependent pronouns: The ancient Egyptians never simply said something like “You are my scribe.” They would use an owl *m* to say “You are as my scribe.” The owl hieroglyph is the “as,” and we can call it the owl of predication.

The Passive Voice

- Next, let’s learn the passive voice.  is in the active voice and translates as “I hear,” pronounced *Sedjem.i*.
- If we insert a loaf and a quail chick between the verb and the subject, it would look like and sound like this: .

Sedjem.tu.i. This insertion of the loaf and quail chick forms the passive voice; we translate it as “I am heard.”

- Another example:  translates as “You hear.” If we insert *tu*, the loaf and quail chick, between the verb and subject, we get , or “You are heard.”

Rosellini's Expedition

- The first expedition to copy hieroglyphs that could actually read them was an all-star team composed of French and Tuscan scholars. The French were led by Jean-François Champollion and the Tuscans by Ippolito Rosellini.
- In 1824, Rosellini read Champollion's work on decipherment and fell in love with both Egypt and hieroglyphs. The two met in 1825 and quickly hit it off, with Rosellini happily taking the role of student.
- They visited each other frequently, with Rosellini helping Champollion catalog the Louvre's Egyptian collection. While there, Rosellini conceived the idea of a Tuscan expedition to Egypt to extend what the French had done with their *Description de l'Égypte*. Because his team could read hieroglyphs, he was convinced they could advance the study of Egyptology considerably.
- In 1827, Rosellini asked Grand Duke Leopold II to fund his expedition to Egypt. Leopold agreed. Champollion had never been to Egypt and enthusiastically agreed to join the expedition. He had some difficulty getting funding from King Charles X, but in the end prevailed.
- On July 31, 1828, the expedition sailed from Toulon for Egypt, almost exactly 30 years after Napoleon's savants left the same port for Alexandria. For 15 months, the dozen or so artists, Egyptologists, and scholars sailed up and down the Nile, recording everything.

- One of their goals was to validate Champollion's decipherment of hieroglyphs. In 1828, there were still linguists who doubted the validity of Champollion's translations, so the teams made a special effort to record inscriptions.
- When they returned, Champollion and Rosellini planned a joint publication, but it was not to be. Champollion died in 1832 at the age of 41. Champollion's elder brother, and executor, did not trust Rosellini with his brother's legacy. So in the end, each team produced its own publication.
- Because the two teams were working side by side at the same sites in Egypt, often sharing artists, the engravings produced by the Tuscans and French are often indistinguishable, but they have quite a different feel from the *Description de l'Égypte* engravings.
- Napoleon's men were mainly engineers and architects. The Franco-Tuscan expedition had professional artists. Another difference is that they could translate the hieroglyphs. They knew that an owl and a quail chick were not interchangeable. They spent days accurately copying lines and lines of hieroglyphs.
- This marvelous expedition set the ball rolling for the accurate and professional copying of hieroglyphic inscriptions.

The Epigraphic Survey

- The Epigraphic Survey of the University of Chicago's Oriental Institute has been copying hieroglyphic inscriptions for more than 75 years. It is a massive program, involving hundreds of extremely talented scholars.
- More than 100 years ago, the great American Egyptologist James Henry Breasted realized that the hieroglyphic inscriptions on temple walls were in danger of being lost to looting or decay.
- Breasted set out on a one-man campaign to translate every historical inscription in Egypt. He almost pulled it off. He ended up

publishing a monumental five-volume set of his translations called *Ancient Records of Egypt*.

- Breasted convinced John D. Rockefeller that the temples of ancient Egypt were endangered and their inscriptions had to be accurately copied by a team of trained Egyptologists. Rockefeller agreed and provided money to build a compound in Luxor, Egypt, near the principal monuments, to house what would become known as the Epigraphic Survey.
- For more than 90 years, successive teams of scholars have lived at Chicago House, as the compound is called, recording inscriptions. Each epigrapher is both a talented artist and an Egyptologist who can translate hieroglyphs. Their painstaking recording method has become known as the Chicago House Method.
- The Epigraphic Survey chose the temple of Medinet Habu as its first major project. Medinet Habu, the mortuary temple of Ramses III (no relation to Ramses the Great), is the largest temple ever built by a single pharaoh.

Medinet Habu











- They began work in the late 1920s and published their first volume in 1934. Their work continues today. And their work has become urgent.
- Since the creation of the Aswan High Dam in 1970s, the water table in Luxor has risen considerably. This groundwater saturated the foundation stones of the temples and was wicked upward to the blocks higher up, causing the sandstone to crumble.
- This year the team has been aided by new digital technology. They are now able to photograph the walls, load the photographs onto a computer, and then “ink” the reliefs and hieroglyphs on the computer using a stylus. Then they digitally “bleach” the photo away, leaving the clean, clear drawing of the wall.
- All of Chicago House’s work is available digitally on the Oriental Institute’s website, and it’s free. If you want a hard copy, the massive volumes are available for purchase.

Lecture 10's Homework Answers

Lecture 10's homework gave you two sentences to translate into hieroglyphs.

1. The first was “[Dual they] fare downstream to the city, together with her.”

- We start with the verb, “to fare downstream.” That’s *khed*, . Next we attach our suffix pronoun for “they,” which is the folded cloth, water sign, and two strokes for dual: .
- Now how do we say “together with?” That’s *heneh*, . Finally, it is with “her,” so we can use the folded cloth suffix pronoun. We end up with     , pronounced *Khed seny heneh.s*.



Translate these three sentences to hieroglyphs.

1. "I am sent to the city."
2. "They are seen in the river."
3. "His daughter is sent to the boat."

Past Tense and Adjectives

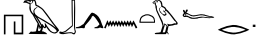
This lecture will show you how to form the past tense. It is similar to the passive voice in that you tack something on to the verb. For the past tense, it is the water sign. Overall, it's an easy concept. After an introduction to the past tense, the lecture introduces some new bilaterals that will let you expand your vocabulary. Then the lecture looks at how adjectives work before closing with an extensive homework section.

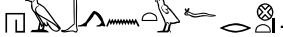
Introducing the Past Tense

- The past tense is extremely simple. For example, we know how to say “I see”: , pronounced *Maa.i*. The past tense, “I saw,” is the same thing, just with a water sign inserted after the verb: , pronounced *Maa.n.i*.
- “The vizier rejoices” translates as , *Resh.tchaty*. “The vizier rejoiced” is , *Resh.n.tchaty*.







“He was sent to town.”

- We can even combine our passive voice with the past tense and say: “He was sent to town.” We start with our verb, “send,” which is *hab*, .
- Now let's add the suffix pronoun for “he,” which is the viper, . But that's “He sends.” We want passive voice in past tense, so we insert the loaf and quail chick for the passive, and the water sign for past tense.
- The past tense water sign comes before the passive voice loaf and chick. So, “He was sent” would be: . Now

we need to add “to town.” The “to” will be the mouth *r* because it is to a place: 





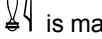
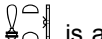


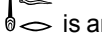
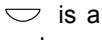

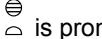
- “Town” is *niwit*, so we add that and we have it. “He was sent to town” translates to .

New Biliterals

- This lecture’s new biliteral family is the *w* family. They all end in the /w/ or /u/ sound.
-  is a small pot and is pronounced *new*. This is a very special pot, and we call it the “*new* pot.” Very often you will see a pharaoh making offerings to the gods. In his hand he holds two *new* pots. He is offering beer.
-  is pronounced *heket*. It has a little jug after it, so we know the word has something to do with a liquid. In this case, it’s “beer.”
-  is a plant, which is pronounced *sew*. It is another very important one used in the word for king and even became a symbol of kingship.
-  is a feather; it is pronounced *shew* and is yet another important hieroglyph in art.
-  is the horizon hieroglyph; it is pronounced *djew*.
-  is three water signs. It is pronounced *mew*. It is also used as a determinative, as at the end of river.
- There are other hieroglyphs in the *w*-family, but they are rarely used. For now, that’s enough of the *w*-family.

Vocabulary Words

- Next we’ll learn a few vocabulary words and see some of the new biliterals in action.

-  is pronounced *djew* and is the word for “evil” or “sad.” The quail chick is the phonetic complement. It helps us remember the pronunciation of the biliteral. The little bird at the end often determines things that are negative.
-  is the word for “empty.” The feather is the *shew* biliteral, so the word was pronounced *shew*.
-  is pronounced *bin*, and the word means “bad” or “miserable.”
-  is pronounced *iker* and means “excellent.”
-  is made up of a milk-jar carrier and a reed leaf. This hieroglyph was pronounced *mi*, and by itself it means “like” or “as” in the sense of comparison. The second hieroglyph, the reed leaf, is the phonetic complement *i*.
-  is a noun version of the same word, pronounced *mitlet* and meaning “a likeness.”
-  looks just like the passive loaf chick but has a completely different meaning. Loaf chick also is an impersonal pronoun and means “one,” as in “One always hopes for the best.” So if you see  and it doesn't make sense as a passive voice, think impersonal pronoun.
-  is an adjective pronounced *nefer*, as in Nefertiti and Nefertari, two great queens. The word *nefer* has three different but related meanings: “happy,” “good,” and “beautiful.”
-  is a woven basket and was pronounced *neb*. It's a biliteral and means “all” or “every.” It's an adjective.
-  means “lord.”
-  is pronounced *khet* and means “thing.”



- means “large” or “great.”
- is a cone of incense being offered or given to the gods. It is the word for “give.”
- is shorthand for “give,” especially in prayers where offerings are being presented.

Using Adjectives



- Adjectives can be used in three different ways. The first way is the traditional way, modifying a noun. This is known as using an adjective as an epithet. The adjective comes after the noun and agrees with the noun’s gender.
 - In the phrase “the evil plan” we would start with the noun “plan,” which is *sekher*, . Then comes the word for “evil,” *djew*, would come after: *sekher djew*, or .
 - If we wanted to say “the evil woman,” we would write “woman” first, , and then follow with the adjective *djew*. But we would add a *t* at the end of the adjective because “woman” is feminine and the adjective has to agree in gender with the noun it modifies: .


- The second use is as a predicate in cases where we have the verb “to be.” So instead of “miserable woman,” we can use the adjective “miserable” as a predicate and say “The woman is miserable.”
 - For this kind of use, the adjective begins the sentence and doesn’t have to agree with the subject, much like a verb. So, “The woman is miserable” would look like this: . We don’t need the *t* for the feminine form of *bin*. It’s being used as a predicate, so we use the masculine form.
 - Let’s try a second example, a sentence with a new ideogram: . The new ideogram is a heart. *Nefer* is at the beginning of the sentence, so it is a predicate, but we don’t know yet if it is “beautiful,” “good,” or “happy.”
 - “Heart,” pronounced *ib*, comes next, and then we have a man sign, which is probably the suffix pronoun for “my.” A reasonable translation is “My heart is happy.” It could also be a moral statement: “My heart is good.”
- The third use is slightly less common. It is an adjective used as a noun. Here it is just the adjective followed by a determinative. For example, here we have the determinative for “child”: . That could be “the bad child.” This third use can be confused with the predicate use sometimes, but will still result in basically the same meaning.

Lecture 11's Homework Answers

Lecture 11 asked you to translate these sentences to hieroglyphs.

1. “You [singular feminine] send me to him.” We start with the verb *hab*, “to send,” . Next we add the feminine singular suffix pronoun. That’s the tethering ring, giving us .

- Next we need the “me,” which is where we need the dependent pronoun *wi*. Now we have . For the “to him” part, we use the water sign *n* for “to” and the dependent pronoun *sw* for “him.” In the end, we have .

2. “You [singular masculine] ferry her across to the city.” We begin with the verb, “to ferry across,” which is *dja*, . For the “you” we can use the basket suffix pronoun, and for “her” we use the dependent pronoun *sey*.

- This gives us . Now we just need “to the city.” The “to” has to be the *r* mouth hieroglyph because it is to a place. “City” is *niwit*. In the end, we have .

To help you learn the passive voice, Lecture 11 asked you to translate these sentences to English.

1. 

- We start with the verb *hab*, “to send.” Right after the verb is the passive indicator, *tu*, the loaf and quail chick. So we know something or someone is being sent. The manservant is being sent.
- Now we have the mouth *r* followed by the word for “town.” The manservant is being sent to the town.
- Next is the face hieroglyph with a stroke. One meaning for the face hieroglyph, even with the stroke, is “concerning” or “because of.” That makes sense because the next word, *kat*, means “work.”
- At the end of *kat* is *ten* “this.” It agrees with the noun “work,” which is feminine. That’s why it is *ten*, not *pen*, which is the one used for masculine nouns. Our complete sentence is “The manservant is sent to town concerning this work.”

2. “They are seen in the river” uses the verb *maa*, “to see.” Since it is passive voice, we attach the loaf and chick to the verb: . The suffix pronoun for “they” is *sn*, so we add the folded cloth, water sign, and plural strokes: . Next we add the owl for “in” and the determinative of three stacked water signs for the “river.” Our final sentence:

3. “His daughter is sent to the boat.” Start with the verb, *hab*, and add the loaf and quail chick because it is passive: . It’s a daughter who is being sent so we add *sat*, “daughter.” And since it is “his daughter” we add the suffix pronoun *viper* for “his” to the end of “daughter.”

- That creates . The “to the boat” part is easy. We add the mouth *r* for “to” because a boat is a thing. Last we just need the word for boat, *depet*. The final sentence:

Lecture 12's Homework

Translate these sentences from English to hieroglyphs.

1. “She rejoiced when she saw his face.”
2. “The town was miserable when the river was empty of water.”
3. “They sent the beer to their father.”

Translate these sentences from hieroglyphs to English.

1.  Hieroglyphic sentence 1: A sequence of 21 hieroglyphs. The first row contains 10 symbols, the second row contains 7 symbols, and the third row contains 4 symbols. The symbols include various birds, lotus flowers, and other standard hieroglyphs.






2.  Hieroglyphic sentence 2: A sequence of 15 hieroglyphs. The symbols include a lotus flower, a bird, a staff, a lotus flower, a bird, a lotus flower, a bird, a lotus flower, a bird, a lotus flower, a bird, a lotus flower, a bird, a lotus flower, and a bird.

3.  Hieroglyphic sentence 3: A sequence of 5 hieroglyphs. The symbols include a lotus flower, a bird, a lotus flower, a bird, and a lotus flower.

New Ideograms Related to the Gods

You're now halfway through this course. Early on, you learned the history of decipherment of hieroglyphs, the alphabet, and then biliteral signs. You also accumulated a sizeable vocabulary and learned some basic rules about how to use those words. In the next 12 lectures, you will steadily move toward the goal of being able to translate actual inscriptions on Egyptian temples and objects. This lecture begins that journey by introducing ideograms related to Egyptian gods.

Ideograms





- Ideograms are those hieroglyphs that are pictures of what they mean. There are lots of ideograms for people:  means "man" and  means "woman."
-  is the one for "child"; the person is sucking on their finger. Ancient Egyptian craftsmen produced thousands of bronze statues of the god Horus as a child that are practically this hieroglyph. Horus is the archetype for child.
- In past lectures, we have seen two versions of the full word for "sun." One means the solar disk, and one means the sun god Re.  indicates the solar disk, while  is the sun god. But we must





Though the goddess Bastet was a woman with a cat's head, ancient Egyptians viewed cats as ordinary animals.





remember that the disk alone has several meanings as an ideogram, including “day,” “sun,” and “Re.”

-  is the *djed* pillar and is part of a god. It has stylized vertebrae and relates to the myth of Isis and Osiris. Isis and Osiris taught Egypt civilization, but were always contending with their evil brother Set.
 - Set was a formidable opponent and eventually tricked Osiris into a wooden chest, where he died. The chest was thrown into the Nile, swept all the way to Byblos, and came to rest in a huge tree.
 - As the tree grew, its trunk encompassed the chest. The king of Byblos was building a palace, and he cut down the tree for a pillar. Now, Osiris was inside a chest in a pillar in a palace.
 - Eventually Isis recovered the body of her husband and brought it back to Egypt for burial, but Set found it and hacked Osiris into 14 pieces.
 - The *djed* ideogram is one of the 14 pieces of the backbone of Osiris. It represents stability because the spine gives stability to the body.
-  is a flagpole. Most Egyptian temples had several flagpoles in front, flying banners with a god’s name or symbol on them. Thus, the flagpole became the ideogram for “god.” It was pronounced *netcher*. The plural was written with three flagpoles and was pronounced *netcheru*: .
-  is a staff of authority, a scepter, and is pronounced *was*. The top is a ram’s head. The god Amun was often depicted as ram-headed. And the bottom of the scepter is the cloven hoof of a ram. It was often held by the gods. When we see the staff by itself, it represents power.






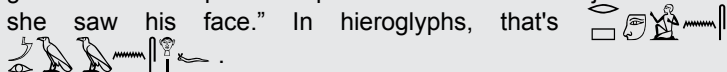
-  is a *was* scepter in another context. This word is pronounced *Waset*, and was the ancient Egyptian name for Luxor. Luxor was a place of great power, where Amun was very important.
-  is a lizard. Pronounced *esha*, it means “plentiful,” “rich,” or “many.”

Vocabulary Words

-  was pronounced something like *ehe*, and the feet give us a clue to the meaning. The word means to “stand up” or “arise.” The first hieroglyph is the mast of a ship and is a trilateral for *eh-h-eh*. The arm hieroglyph is a phonetic component. The etymology of the word probably comes from the fact that a mast is upright, so to say “stand up,” just add feet.
-  was pronounced *kha* and means “to appear” or “shine.” One of the sons of Ramses the Great was named “Khaemwaset,” which meant “Shining in Thebes.”

Lecture 12's Homework Answers

The first part of the homework dealt with the past tense.

1. To translate “She rejoiced when she saw his face,” start with the verb, “rejoice,” which is *resh*: . For “she,” add the folded cloth pronoun: . To make it past tense, we insert the water sign between the verb and pronoun. . The “when” is understood, so we next need *maa* for “to see,” followed by the folded cloth: . Then insert the *n* for past tense between verb and subject: . Now all we need is “his face.” We can use the ideogram for “face” and the horned viper for “his.” That gives us the complete compound sentence “She rejoiced when she saw his face.” In hieroglyphs, that's .

we have “They send.” The item being sent is a boat, *depet*. Next is the mouth “to,” so the boat is being sent to a place. The place is “the city.”

- Next is another verb, *dja*, “to ferry across.” Who is ferrying across? “He” is. Next we have a dependent pronoun, “you,” *tchu*. And then comes *im*, the reed and the owl. That means “in.” Then we have a suffix pronoun, the folded cloth, which is “she,” “her,” or “it.” Given that we are talking about a boat, the feminine form of “it” makes sense because it refers to the feminine *depet*.
- The whole thing would make sense as “They send the boat to the city [so that] he may ferry you across in it.” We insert “so that” to make it smooth.

Lecture 13's Homework


Translate these sentences into hieroglyphs.


1. “Evil is on every road.”
2. “We will stand up and speak to our good lord.”

Names of the Pharaohs



This lecture begins the course's study of how the kings of Egypt wrote their names. The lecture covers the progression of the names of pharaohs: They started out with only one name, but eventually had five. Then the lecture moves on to explain how some specific kings wrote their names down. There's an extended segment on the name of Tutmosis III, who has a complicated but interesting set of names. Finally, the lecture adds some new vocabulary before assigning homework.

Beginning Names

- At the very beginning of kingship, pharaohs had only one name: the Horus name. The Horus name was placed in a *serekh*, a rectangle representing the palace façade. We saw a very early one on the Narmer Palette.
- Later, during the Old Kingdom, when the pyramids were built, pharaohs started to add names. By the Fifth Dynasty, they had five names. Let's look at the names of the builder of the first pyramid ever, King Zoser of the Third Dynasty.
- The first monumental building in stone is the step pyramid of Saqqara, built by King Zoser. His name was probably written something like this: .
- We don't have any monument from his time with this name on it. The name Zoser comes from later sources; an alternate spelling is Djoser.


- If we look at the monuments of Zoser, we find his name written like this: , pronounced *Netcher-khet*. This perhaps means “divine body.” It looks nothing like Zoser, so he probably had two names, Zoser and Netcher-khet. But neither was written in a cartouche. Cartouches were a later development.

Zoser's Statue

- The architect of the step pyramid, Imhotep, honored his king by commissioning a statue of Zoser. The statue is lost, but we have its base, and on it we can see the beginnings of the full five titles of the king.
- Here are the hieroglyphs for Zoser's titles and names: . The actual inscription reads from right to left, but it's transcribed as a left-to-right text here for consistency.
- The first four hieroglyphs—the sedge plant, the bee, and the two loaf t's—comprise the first title. The sedge plant is the emblem of Upper Egypt and the bee of Lower Egypt, so it proclaims Zoser “King of Upper and Lower Egypt.” The whole ensemble was pronounced *Nesewt Bity*.
- Next we have the vulture (representing the goddess Nekhbet) and the cobra (representing the goddess Udjat) on *neb*-signs. They were protective deities of the king and comprise another title. We call this the Two Ladies name. It was pronounced *nebt*, the dual form of *nebt*, “lady.”
- Now we come to Zoser's name, Netcher-khet, but the inscription doesn't end there. There is one additional sign: . This is the word for “gold,” pronounced *nub*. It is a collar or pectoral with the ties hanging down. It means the king is golden. This golden name will later be associated with Horus and become the “Golden Horus” name. The idea was probably that Horus was going to live forever: Gold, which didn't tarnish, was the metal of immortality.

- While Zoser has only one name on his statue base, he also had three titles. Later, by the Fourth Dynasty, the kings would have five names and titles.

Cartouches

- Zoser's three titles—the Horus name, Two Ladies name, and Golden Horus name—were not written in cartouches. Later, the last two of the king's five names would be written in cartouches.
- The word *cartouche* is French and means “cartridge,” like a cartridge shell. Napoleon's soldiers saw upright cartouches carved on temple walls and thought they looked like bullet casings.
- Only two of the king's names are written in cartouches, but they're the most important two. The first name in a cartouche is called the *prenomen*, and it is preceded by the sedge plant and a bee. The last and fifth name is called the *nomen*. It is preceded by the hieroglyphs *sa Re*, “son of Re,” .
- The name that follows this epithet is probably the name the king had before he became king. It's what his mother called him.






The toes and fingers of mummies of pharaohs were placed in gold covers so they would last forever.



Sneferu

- The development from Narmer's one name in a *serekh* to Zoser's three titles to five full names would take centuries, but one intermediary step was done for a very great king, Sneferu.




- Sneferu really showed Egypt how to build pyramids. He comes soon after Zoser, during the Fourth Dynasty. At Meidum he built the pyramid with the first interior burial chamber, and also attempted to make it a true pyramid, with straight rather than stepped sides. But the pyramid had structural problems and was abandoned before it was used.
- He built another pyramid, about 15 miles away, at Dahshur. More than 4,000 years later, in the 1880s, excavators found a stela there, this time with the names of Sneferu carved on it.
- We can see the development of the king's titles on the Sneferu stela. We have four out of the five titles: the Horus name, the King of Upper and Lower Egypt name, the Two Ladies name, and the Golden Horus name. All that is lacking is the Son of Re name.
- Sneferu's son Khufu succeeded him and famously built the Great Pyramid of Giza. Sneferu deserves much of the credit, though: He built the first pyramid with an interior burial chamber, he built the first true non-stepped pyramid, and he built the three largest buildings on the planet at the time.

Successors


- Here is Khufu's cartouche: . Sneferu and Khufu were the first to put their names in cartouches, but these two names did not yet contain the names of gods.
- That would change with Khufu's successor, his son, Djedefre. Djedefre chose to leave the Giza Plateau and build his pyramid about five miles away, at Abu Roash. Here's his name: . It has the *djed* pillar and the name of a god, Re. The name may mean something like "He is stable like Re."
- We see Re in the name of a successor: Khaefre, . The Greeks pronounced this name Khephren, but we can see from the hieroglyphs that Khaefre is closer to the original. It may mean something like "He appears like Re."


- When Djedefre died, he was succeeded by his nephew Menkaure, who decided to return to Giza and build his pyramid alongside his father's and grandfather's. Here's his name:  Again, it's a Re name. This is clearly a religious trend, indicating the increasing importance of the sun god.
- The pharaohs of the Fourth Dynasty were the last to build huge pyramids. The kings of the Fifth and Sixth Dynasties built smaller pyramids, but they continued to include the sun god in their names.
- Unas, the last king of the Fifth Dynasty, is one of the few who did not include Re in his name: . Unas started a tradition that was continued into the Sixth Dynasty. He covered the walls of his pyramid with magical spells to help him resurrect in the next world. Today we call them the Pyramid Texts. These beautifully carved hieroglyphs are the first large body of writing in the world.

Old Kingdom Names

- For practice, let's look at a couple of Sixth Dynasty kings' names.
-  is Meryre, "Beloved of Re." The plough hieroglyph that comes right after the sun is the *m-r* biliteral and means "beloved."
-  is that king's other name. It's pronounced Pepi; he was Pepi I.
- A second king was Pepi II; his other name was: . This is pronounced *Neferkare*, meaning "the beautiful *ka* of Re." The *ka* was the soul of a person, so Neferkare is praising the soul of Re.
- Pepi II was the longest-reigning monarch in the history of the world. He ascended the throne when he was a child, and ruled for about 94 years, a reign that concluded the Old Kingdom.

Middle Kingdom Names


- When the Middle Kingdom began in 2686 B.C., different gods were important, leading to names like this: . This means Amenemhet, translated as "Amun is in the forefront."

-  has the crocodile god, Sobek, in the front. The three hieroglyphs that follow are *hotep*, “to be pleased.” Overall, this name forms Sobekhotep, meaning “Sobek is pleased.” Sobek is a strange god. He is a crocodile, but we don’t know much about his attributes. It could be that because the crocodile was the fiercest creature in the Nile, the Egyptians felt they had to worship him.

New Kingdom: Tuthmosis III

- Let’s jump to the New Kingdom and look at the full five titles of one of the great pharaohs of all time: the great warrior king Tuthmosis III. His titles are below.




- First we have a Horus, followed by a bull, and then an arm holding a stick, which means “strong.” This is followed by a city name we have seen before: *Kha-em-Waset*, “Shining in Thebes.” The name is something like: “Horus, strong bull rising in Thebes.” That is his Horus name.
- Next we see the Two Ladies, which begin the next name. After the vulture and cobra is a hieroglyph that is a twisted fiber. We haven’t seen that before. It is an *s-k* biliteral and is shorthand for “endure.” When the word “endure” was written out it looked like this: . For some unknown reason it was pronounced something like *wah*.
- Next come two hieroglyphs, *nesewt*, which mean “king.” There are also two reed leaves, which makes it the adjectival form, “kingly.” This is followed by the solar disk, Re, and the *mi* biliteral hieroglyph that means “like.” It’s “like Re,” but with the “Re” coming first



for honorific import. At the end we have “in the sky.” The overall meaning: “Enduring of kingship like Re in heaven.”

- Then comes the Golden Horus name. Note that it is preceded by a scepter, the word for “power.” The two lions are pronounced *pehwy*, meaning “strength.” The hand holding a wand was pronounced *djeser* and means “holy.” The hieroglyph after it is the hill with the sun rising behind; this was pronounced *kha* and means “rising” or “shining.” There are three plural strokes after it, so it is a noun, perhaps “risings” or “appearances.” The great translator Sir Alan Gardiner suggested something like “Powerful, holy of diadems.”
- Now come the two main names, those in cartouches. One is preceded by the sedge and the bee, the prenomen: “King of Upper and Lower Egypt, Menkheperre.”
- Of the three hieroglyphs in the cartouche, the easiest one is Re. Here our solar disk ideogram stands for the sun god. The middle hieroglyph is the game board hieroglyph, a biliteral pronounced *men*. It means “monument” or “shape” or “form.” The last hieroglyph, the scarab, is *kheper*. It means “exist.” So this name means something like “The form of Re exists.”
- Tuthmosis III’s last name is the second one that is in a cartouche, the one preceded by *sa Re*, “son of Re.” Inside the cartouche we have the ibis, which in ancient Egyptian was pronounced *Djhuty*. But the Greeks called him Toth, which stuck in classical antiquity, so that’s what we use today.
- After the ibis, we have the biliteral *m-s*, which means “born” or “birth.” Overall, we have “Toth is born.” (Remember, his mother called him Djhutmose.)

Vocabulary







-  has a pestle as the second hieroglyph. It is a biliteral for the sound *ti*. (Add it to your biliteral chart with the other *i* biliterals.)

The whole word was pronounced *ity*. The determinative shows a person of authority, complete with staff, mace, and a crown of some sort. The word means “monarch” or “sovereign.”

-  was pronounced *wy*. The quail chick gives us the w and the two strokes are y. It's an exclamation for “how,” as in, “How beautiful your house is!”
-  is pronounced *ikh* and means “then.” It is quite a useful word showing causation. If one thing happens, then something else happens.


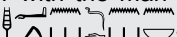
Lecture 13's Homework Answers



Lecture 13 asked you to translate the following sentences to hieroglyphs.

1. “Evil is on every road.” We can use our adjective *djew*, which means “evil,” as a predicate adjective and put it up front as the verb to form “evil is,” . The word for “upon” is the face ideogram, which was pronounced *her*: .
 - Next we need “road,” *wat*, because “every” is an adjective and comes after the noun: . All we have to do now is add the “every,” which has to agree with the noun. *Wat* ends in a *t*, which means it is feminine, so we add a *t* to *neb*, which is “every,” and we have it: . It would be vocalized as *Djew her wat nebet*.
2. “We will stand up and speak to our good lord.” Start with the verb for “stand up,” which is *ehe*, and add the suffix pronoun n for “we”: : There was no real “and” in ancient Egyptian, so we can go directly to our next verb, “speak,” which is *djed*: . Next, repeat the “we” suffix pronoun. It would read as “We will stand up and we will speak.”


The future is understood here. We don't have to do anything special:




- Next we need the “to” which is the n water sign because it is to a person. . Then we need to start with “lord,” which is the *neb* basket, either with the man determinative or without. Here, we'll do it without: .

- It's “our” good lord, so we need the suffix pronoun for “our” again: . Now we just need the “good,” which is *nefer*.  is the final sentence.

Lecture 13 asked you to translate the following sentences to English

1.  has the verb “not to know,” *khem*, followed by a viper, so it's “he” who doesn't know. Then comes *sekher*, “plan,” which is followed by “this” and *iker*, “excellent.” The translation is: “He doesn't know this excellent plan.”

2.  begins with a predicate adjective. It's the word for “great,” *ah*. Then comes “house,” followed by the masculine singular “you” suffix pronoun, so “Your house is great.” Next comes another predicate adjective, the word for “plenty.” It is followed by the dependent pronoun “it,” so “It is plentiful,” referring to the house.

- Next is an owl. It probably means “in.” Then comes the word “thing,” *khet*, followed by the *neb* sign with a *t* because *khet* is feminine. This means “everything.” That's followed by *nefert*, the feminine form for “good” or “beautiful.” Let's go with “beautiful.”
- The sentence is then: “Your house is great; it is plentiful in everything beautiful.”




Ancient Egyptian Numbers



LECTURE






15

This lecture looks at hieroglyphs for numbers and Egyptian mathematics. There is a common misconception that the Egyptians were advanced in mathematics. The truth is that they were not particularly good at math. They couldn't do complicated calculations, especially with fractions, and they often had to approximate rather than get a precise answer to a problem. Still, their mathematical system is interesting. It had many practical uses, including keeping track of the army, monitoring the rise of the Nile, and resurveying the land whenever the Nile overflowed its banks.



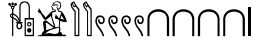


Counting in Egypt

- Much of the impetus to develop a mathematical system came from the fact that Egypt was a great civilization with a large bureaucracy. They had surpluses, soldiers, and huge herds of cattle, all of which had to be counted.
- The hieroglyphs for the numbers from 1 to 9 were simple strokes. If you wanted to say “one boat,” you wrote the word for boat, followed by a stroke: . Note that the stroke is larger than the strokes for ideograms.
- The numbers follow the noun. If you wanted to say “eight boats,” you wrote “boat eight”: . The strokes are arranged in two groups of four, not strung out eight in a row. Just as with other hieroglyphs, the Egyptians wanted the arrangement to be visually pleasing.
- The strokes work for 1 to 9, but when we get to 10 and above, we have a new hieroglyph: the hoop, . Twenty boats would be:



. Twenty-four boats would be: . The larger unit—in this case the 10s—comes first.

- For 100, we use a coil of rope: .
- For 1,000, we use the lotus flower, which is also a biliteral pronounced kha: .
- For 10,000, we use a finger: .
- For 100,000, we use a tadpole: .
- For 1,000,000, we use the god Heh with his arms up: .



Translating Phrases

- To translate , start with the noun, which is “day,” *haru*. Next we have three 100s, six 10s, and five 1s, making “365 days.” That’s how long the Egyptian calendar was.
-  means “1,224 cities.”
-  means “20,441 scribes.”
- 
 means “1,782,588 donkeys.”

Fractions

- Fractions are a complicated story. The Egyptians couldn’t operate with a numerator other than 1. A fraction like $\frac{63}{64}$ would be treated as $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \frac{1}{64}$. This is not easy to work with.
- Usually they used the mouth hieroglyph *r* to indicate a fraction. For example, $\frac{1}{5}$ would be written by the mouth sign with five strokes beneath it: .
- Meanwhile, $\frac{1}{276}$ was written like this: .

Measurements

- The Egyptians had special units for measurements. The basic unit for measuring grain was a *hekat*, which is written in several ways. This is the most common: . The crook is pronounced *heka*. Then there is a hill *q* phonetic complement, the feminine *t*, and then a determinative showing grain pouring out of a barrel.
- A simplified way of writing *hekat* was just the grain barrel, with or without the stroke: .
- There are special signs for fractions of a *hekat*, and they are based on mythology. In the myth of Isis and Osiris, Set killed Osiris. Then, Osiris's son Horus took revenge by battling Set and defeating him. Horus lost an eye during the fight.
- According to the myth, the pieces of Horus's eye were gathered and reassembled, but one small piece was missing. Toth, the

Horus is often depicted as a falcon, which have a unique marking around the eye.







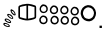
Eye of Horus

ibis-headed god of writing, magically recreated the missing piece and made the eye whole.




- Because the eye was made complete, it became a symbol of health. Often people wore eye-of-Horus amulets for protection. In fact, the modern pharmacy *Rx* symbol contains three elements of the eye. By the Middle Ages, the meaning of the eye had been lost, so the image was misinterpreted as Latin letters.
- In ancient Egypt, the different parts of the eye became fractions used to indicate parts of a *hekat*, the grain measure. The circular pupil is $\frac{1}{4}$, the long curl on the bottom right is $\frac{1}{32}$, the triangular area to the left of the pupil is $\frac{1}{2}$ of a *hekat*, and so on.

Tallying Grain

- When scribes dealt with whole units of grain, rather than fractions, they would use the grain measure hieroglyph followed by circles rather than strokes to indicate the number of *hekats*: .
- The dots are used because grain comes in small pieces. The circles determine things that come in chunks, large or small.

- If you wanted to say *hekats*, you would say use  to indicate 8 $\frac{1}{4}$ *hekats* and then follow it with the pupil hieroglyph, which is $\frac{1}{4}$: .
- Grain was central to the economy of Egypt, and grain taxes were levied not by how much a person grew but by how high the Nile rose. The idea was that the tax collectors didn't want to have to search for hidden grain that the farmer didn't want taxed. So, they measured how high the Nile rose that year, calculated how much grain a farmer should be able to grow, and taxed based on that—whether or not a farmer actually produced that amount.

Measuring Length

- The basic ancient Egyptian unit of length was the cubit. That was originally the length between the king's elbow and his middle fingertip. It was standardized and was equal to about 20 $\frac{1}{2}$ inches. Most monuments were planned in cubits. The word for “cubit” was pronounced something like *meh* and was written like this: .
- Sometimes the word for “cubit” is just written as an ideogram: . Often it is written without the stroke, even though it is an ideogram.
- A cubit was divided into seven palms. The word for “palm” was *shesep*, which was written like this: . A palm would have been just under three inches.
- The hieroglyph is a fence and is a trilateral for *sh-s-p*, so the square is a phonetic complement (*p*) clarifying the pronunciation of the trilateral. We are not sure why the crescent moon determinative is there, but it is important because sometimes it serves as the abbreviation for “palm.”
- Palms are divided into four fingers, or digits. The hieroglyph for “finger” is the ideogram finger. It is the same hieroglyph as for 10,000, but context helps avoid confusion.

have: “You tell it to the sovereign, then he tells it to the maidservant, likewise.”

3.



- Our first word is *kha*, “to appear,” followed by the sun, the owl for “in,” and the horizon. It’s an ideogram: the sun rising or setting in a notch in a mountain. So the sun appears on the horizon.
- Next we have another verb, *weben*, “to shine.” That’s followed by the suffix pronoun viper, “he” or “it.” So, “It shines.” Then comes “in the sky.”
- Now we a predicate adjective, *nefer*, meaning “to be happy.” Next is the heart ideogram above the *neb* semicircle, which means “all” or “every.” That makes “Every heart is happy.”
- Next comes another verb, *maa*, “to see,” followed by the “they” suffix pronoun. That makes “they see.” Following that comes a pronoun, *sew*, which is “it” or “him.” To be consistent, let’s say “it.” Our sentence is something like: “[When] the sun appears in the horizon, it shines in the sky. Every heart is happy when they see it.”

Lecture 15's Homework

Translate these into hieroglyphs.

1. 11,287 scribes

2. 87 donkeys

3. $57 \frac{1}{2}$ *hekats*

4. $4 \frac{1}{4}$ *hekats*


5. A boat 52 cubits, 4 palms, and 3 digits long



6. A house 1 rod, 4 cubits, and 3 palms long

The Egyptian Calendar




This lecture shows one aspect of Egyptian counting that changed the world: The modern 365-day calendar came from the ancient Egyptians. The calendar was crucial to Egypt's success as a nation. The lecture also discusses how the Egyptians created the concept of 24-hour days, as well as the three Egyptian seasons. Near the end, the lecture turns to constellations and a very important discovery: the Dendera Zodiac, which both provided critical information to scholars and ignited a controversy over the age of the world.

Birth of the Calendar

- Egypt was great because of the Nile. Each year, the Nile overflowed its banks, depositing rich topsoil and enabling Egypt to grow more food than it needed. This in turn enabled them to support a standing professional army and rule the ancient Near East.
- The Egyptians observed that the Nile rose each year at about the same time, when the very bright star Sirius began to appear in the sky with the rising sun. This occurs around July 19th on our calendar.
- The Egyptians needed to know a few weeks before this occurred so that they could begin digging the canals in preparation for the flood. The event occurred about every 365 days, so the Egyptians invented a calendar to measure the time.
-  is pronounced *renpet* and means “year.” It was divided into 12 months. The tall, thin hieroglyph is a palm branch and often serves as an ideogram for “year.”

-  was pronounced *abed* and meant “month.” The crescent moon when combined with the star was the *abed* part. The sun determinative tells you it has something to do with time. Often the word for “month” was simply the crescent moon: .
- For the Egyptians, each month was divided into 30 days. There is an obvious problem with this calendar. It adds up to only 360 days while the natural cycle is 365. The Egyptians quickly realized that a 360-day calendar would not do, so they added five days at the end, making 365.
- Even this is not without problems. The natural cycle, the astronomical calendar, is actually 365 $\frac{1}{4}$ days long. Every four years the Egyptian calendar would be one day off from the astronomical calendar. Every 40 years it would be 10 days off, and after a century, it would be 25 days off.
- Today, leap years solve this problem. But the Egyptians didn't do this, and it caused great confusion in written documents. This was especially noticeable with regard to the seasons. There were times when the civil calendar said it was summer, but nature said it was winter.

The Seasons


- The Egyptians had three seasons of four months each.
-  was pronounced *akhet* and meant “inundation.” This was the season when the fields were underwater.
-  followed inundation; it corresponds with winter. This is pronounced *peret* and we call it “emergence.” This was the season when the fields emerged from the water; the root, *per*, can mean “house,” but it also can mean “go forth.”
- , the final season, was pronounced *shemu*. We think it means an absence of water. There are water hieroglyphs, but also



Egyptian seasons were based on the activity of the Nile.

the sun, which may have dried the water out. We just call this season “summer.”

Translating 

-  is a date. Let's take it a word at a time.
- The first word is *renpet*, a “year.” But when we have it in a date it's not called *renpet*; it is called *hat-sep* for “occasion.” The idea is that we are not talking about a year in the abstract; we're talking about a particular date. The circle with all the dots in it is a threshing floor of a granary. It was pronounced *sep*. We still translate the word as “year”; we just know it is a date.
- We can see two strokes after “year,” so it is the second year of something. Next is our month/crescent moon hieroglyph with three strokes, so it is the third month.



- Next we have our season, *akhet*, “inundation.” This is followed by the sun hieroglyph. It has one stroke under it, which might make us think it is the ideogram for “sun.” But since it’s in a date, it means “day” and the one stroke under it means it is “day 1.”
- The next two hieroglyphs, the placenta and mouth, *kher*, mean “under.” The fuller’s club, pronounced *hem*, is “majesty,” as in royalty. The fuller’s club was used by washermen in their work. We have an *n*, which is “of” or “to” with regard to people.
- Next we have the sedge plant and the bee, emblems of the King of Upper and Lower Egypt. Last is the cartouche with the king’s name. It was pronounced *Ne Maat Re*, and we can see all the elements of it. The water sign is the *n*; the goddess with the feather of truth on her head is Maat, and the sun is Re. The sun and the



goddess are written first because of their importance. No matter how it is pronounced, the gods are written first.

- We can now translate it as: "Second year, third month of inundation, day 1 under the Majesty of the King of Upper and Lower Egypt, Ne-Maat-Re." Ne-Maat-Re was also known as Amenemhet III, a king of the Middle Kingdom.
- But what actual year was that? It doesn't tell us. It just tells us that it was the second year of his reign. This creates a problem for Egyptologists who want to figure out dates for events mentioned in Egyptian records.
- There's no consecutive sequence of numbered years in the Egyptian calendar. When Amenemhet III died, the calendar was reset to year 1 of the reign of his successor.
- In order to figure out precise dates that correspond to our calendar, Egyptologists have to look for external events that are fixed. For example, if a text mentions an eclipse, they can calculate when that eclipse occurred and then have a precise date to count from.

Immortality

- The 365-day calendar didn't just influence daily Egyptian life; it affected their plans for immortality.
- In scenes of the next world painted on the tomb walls of the nobles, the deceased are always in their finest linens whether they're seen at banquets, hunting in the marshes, or even working in the fields.
- The ancient Egyptians were buried with 365 ushabtis (workers that would answer for the deceased). That was one for each day of the year. Sometimes there were even more, with an overseer ushabti for every 10 workers. Even what they took with them to the next world was based on their calendar.

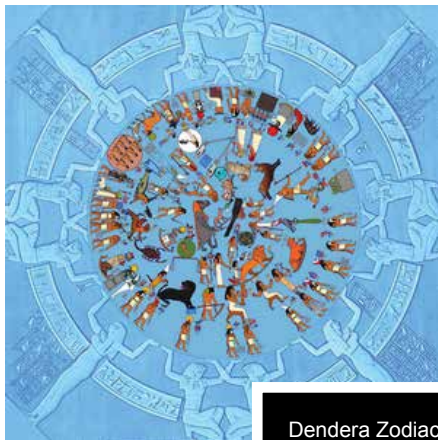
Day and Night

- The 365-day calendar wasn't the only Egyptian contribution to timekeeping. They were also the first to divide the day into 24 hours. There were 12 hours of the day and 12 of the night.
- The word for "hour" was . The hare is the *w-n* biliteral and the water sign *n* is the phonetic complement. Next, the *new* pot is another biliteral, and it is followed by the feminine *t*. So all that is the phonetic part of the word for hour, *wenut*. The star and sun are determinatives telling us the word has something to do with time.
- That's how it was in its full form, but it could be abbreviated. For example, take this sentence fragment: .
- We can recognize most of the hieroglyphs for "hour" followed by four strokes, so it must be the fourth hour. Then we should recognize our word for "night," *gerah*. The water sign and the loaf *t* between "hour" and "night" are the "of." So, it's "the fourth hour of the night."
- Hours were used mainly for religious rituals, not for daily appointments. Egyptians typically ate when they were hungry (not at a set time) and were mainly concerned with whether it was light or dark.

Constellations

- The Egyptians observed their night sky and grouped stars into constellations. Sometimes they painted these constellations on their tomb ceilings. One of the earliest of these ceilings is in the 18th-Dynasty tomb of Senenmut, Queen Hatshepsut's right-hand man.
- Another very famous astronomical ceiling is in the Valley of the Kings, in the tomb of Ramses VI. It features the goddess Nut with her body stretched across the ceiling, her legs hanging down one wall and her arms down another.






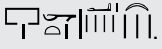
- Knowing there was both a lunar and solar eclipse in the year the Dendera Zodiac was designed allowed 21st-century scholars to determine that the year was 52–51 B.C.
- When the illustration of the Dendera Zodiac was first published in the *Description de l'Égypte*, scholars didn't know the exact date. The zodiac created a great controversy involving the age of the world.
- These were times before the theory of evolution, and no one had the faintest idea of how old the earth was. In the 17th century, Bishop Ussher had used the “begats” in the Bible to calculate that the universe was created 4,004 years previously, and this calculation was still accepted by many in the early 19th century.
- But when astronomers saw the position of the heavens on the zodiac, and how much it differed from the present arrangement, they realized the world must be much older than 4,000 years.
- In 1820, the French antique dealer Sébastien Saulnier hired Claude Lelorrain to go to Egypt and bring the Dendera Zodiac back to France. Using saws and gunpowder, he succeeded, and today the Dendera Zodiac is in the Louvre in Paris. When tourists in Egypt visit the Dendera temple and look up at the ceiling, they now see a plaster copy of the zodiac where the original once rested.



Dendera Zodiac

Lecture 15's Homework Answers

Lecture 15's homework asked you to translate these examples into hieroglyphs.

- 11,287 scribes translates to . That's *seš* for "scribe" followed by the man determinative. The finger makes 10,000, the lotus adds 1,000, the coils add 200, the hoops add 80, and the strokes add 7.
- 87 donkeys translates to . That's the donkey hieroglyph, eight hoops for 80, and seven strokes for 7.
- $57 \frac{1}{2}$ *hekats* translates to . That's the symbol for *hekat*, five hoops and seven strokes for 57, and the special symbol for $\frac{1}{2}$ based on the eye of Horus.
- $4 \frac{1}{4}$ *hekats* translates to . That's the *hekat*, four strokes for 4, and the pupil from Horus's eye for $\frac{1}{4}$.
- A boat 52 cubits, 4 palms, and 3 digits long translates to . That's *depet*, the symbol for "boat," then the whip arm for cubit. Five hoops make 50 and two strokes make 2 for 52 cubits. Then comes the crescent moon with four strokes for 4 palms, and finally 3 digits.
- A house 1 rod, 4 cubits, and 3 palms long translates to . That starts with *per* for "house," then the symbol for *khēt*, "rod," with one stroke since it's a single rod. Then we have the shorthand symbol for a cubit with four strokes to make 4 cubits. Then comes the crescent moon with three strokes to make 3 palms.

Lecture 16's Homework

Translate these phrases into hieroglyphs.






1. Year 8, third month of summer, third day of His Majesty Tutankhamen.
2. Year 36, second month of inundation, day 4 of His Majesty Ramses.

Names of the Gods

Knowing the names of Egyptian gods is important. Being able to read the names of the main gods will increase your enjoyment of Egyptian monuments and art. This lecture covers some mythology that shows why such names are important, and how the mythology impacted everyday Egyptian life. It focuses on the central creation myth of Osiris, Isis, and Set. Along the way, the lecture introduces hieroglyphs related to the gods.


Egyptian Creation






- There were several competing myths of creation in ancient Egypt. This course already discussed the version in which Ptah created the world by first thinking it, and then saying it on his tongue. Priests of Ptah were happy to propagate this myth. But if you weren't a follower of Ptah, you had an alternative that was even more popular.
- According to this version, in the beginning were the primordial waters, and in the waters were four pairs of primordial gods.
 - One pair was Nun and Nunet. *Nun* is the word for "water," so this pair is the water itself. Since feminine words end in *t*, we know that Nunet is the female in the pair.
 - Along with these two were Huk and Huket, "formlessness." Again, we know that Huket is the female.
 - Then there were Amun and Amunet, "hiddenness."
 - Finally, there were Kuk and Kuket, "darkness."

- Note their negative traits: The beginning was scary and chaotic. But there was hope. Out of the primordial waters arose the primordial hill. And standing on that hill was Atum, the “self-created one.” He was the first terrestrial god.
 - Here’s his name: . The name has a new-to-you hieroglyph: It’s a sledge on which blocks of stone could have been pulled during construction.
 - If you look closely, you can see the metal ring to which ropes were attached for the hauling. This hieroglyph is the *t-m* biliteral, and you should add it to your biliteral list.
- The primordial hill on which Atum appeared is central to Egyptian religion. The priests of the various temples each claimed that their temple was built on the spot where the primordial hill emerged from the waters of chaos.
- Atum creates more pairs of gods. One pair was Geb and Nut. Geb represents earth and Nut represents the sky.
 - Nut’s name is written with the *new* pot, the loaf *t*, and the sky determinative: .
 - Geb’s name is written like this: . The bird in Geb’s name looks like the *sa* pin-tailed duck biliteral, but it’s actually a slightly different bird, the white-fronted goose. The Egyptians used them interchangeably because they were so similar.
- Another pair of gods created by Atum were Shu () and Tefnut (). They represented air and moisture. Shu is sometimes shown as holding up the sky, and Tefnut is rarely depicted.

More Pairs

- Isis and Osiris are the children of Geb and Nut. They are both sister and brother and wife and husband. It may appear that Isis’s name doesn’t end in a *t*, but it actually does. Here are the

hieroglyphs for her name: . The main element of her name is a throne, and you will see that it has a *t* next to it. It was pronounced */st*. Later, when the Greeks entered Egypt, they added the *is* ending and it became “Isis.”

- It was the same for Osiris. His name was written like this: . This was pronounced something like *Ausir*, and the Greeks later added their ending to make it “Osiris.”
- Isis and Osiris had another brother and sister, Set and Nephtys. Set is sometimes transliterated as “Seth,” but his name is written like this: . He’s associated with that strange fork-tailed animal, and we aren’t sure what it is.
- Nephtys is written like this: . Her name is a joining of two hieroglyphs. The *neb* sign, , means lots of things, like “all,” “every,” and “lord.” In this case, it’s combined with the hieroglyph for “mansion” or “temple,” . Notice the loaf *t* inside the temple. That makes it feminine, so the *neb* is not “lord,” but *nebt*, “mistress.” Nephtys is mistress of the temple. (Again, the *-ys* ending is Greek.)

Set versus Isis

- Set is elementally evil. According to the myth, Isis and Osiris come down to earth to civilize Egypt. In this context, civilizing means teaching Egypt how to raise crops and domesticate animals.
- Isis and Osiris do such a good job of civilizing Egypt that Osiris goes away to teach the rest of the world how to do these things. Essentially, Egypt is where civilization began.
- While Osiris is away, Set tries to do terrible things to Egypt, but fortunately Isis is very powerful and keeps her evil brother in check. Isis is the goddess of magic and is called “she who knows all the names.” That epithet comes from the ancient Egyptian belief that if you wanted to do a magical spell against someone, you needed to know their name.

- When an Egyptian baby was born, they were given two names. One was their real name, which only their mother knew. The second was the name everyone else knew. As an example: If your real name was Harry, but everyone knew you as Marvin, then when someone tried to cast a spell on you, they would use the wrong name (Marvin) and the spell would fail.
- In Egyptian myth, Isis knows the real names of everyone and thus can control everyone. She keeps evil Set in check.

Osiris Returns

- Osiris returns from civilizing the rest of the world. Set, though, is always scheming, and he lays a plan. While Osiris is sleeping, Set takes his bodily measurements and builds a wooden chest to those exact proportions.
- At a banquet, Set produces the chest and offers a prize to whoever fits perfectly in the chest. Guest after guest tries, but it never seems to fit. Finally, Osiris tries, and it fits him. Set closes the lid and pours molten lead on the chest, sealing Osiris inside. He throws it into the Nile, and Osiris dies.
- The Nile flows northward to the Mediterranean, and the chest washes ashore at Byblos, in modern Lebanon. According to the myth, there is a huge storm and the chest is blown into the branches of a tree.
- The tree grows to tremendous proportions, encompassing the chest in its trunk. The King of Byblos is building a palace and needs large trees, cedars of Lebanon, for the pillars. This tree with the chest inside its trunk is cut down and incorporated into the palace.
- Isis sets out on a journey to recover the body of her husband. She eventually finds out where Osiris is: in the pillar in the palace. She gets a job as the handmaiden to the queen of Byblos and explains the situation. The queen is sympathetic and the pillar is cut down, the chest removed, and Osiris's body recovered. Isis brings the body back to Egypt for a proper burial.

- Set finds the buried body of Osiris, hacks it into 14 pieces, and scatters them up and down the Nile. Isis wants her husband to have a proper burial, so she sets out on a journey with her sister, Nephthys, to recover the parts of her deceased husband. They find all the pieces but one; the phallus is missing. Fish devoured it.
- Isis reassembles the 13 pieces and fashions an artificial phallus so Osiris will be whole. She says magical words over Osiris and breathes life into him. Then, taking the form of a bird, Isis flutters over the artificial phallus and becomes pregnant with Horus.
- Osiris resurrects, and as the first ever to resurrect, he becomes the God of the Dead. It's a long and complicated myth, but absolutely central to Egyptian religion. Myths are not to be taken literally, but we are supposed to learn something important.




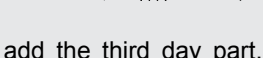
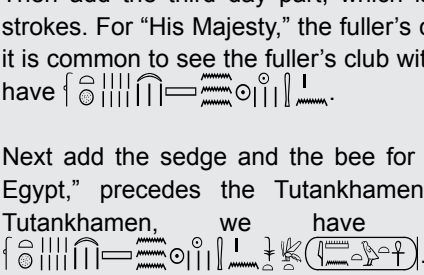


The Myth's Lessons

- Almost every funerary belief of the ancient Egyptians is imbedded in the Osiris/Isis/Set myth. It tells us that there is immortality in the form of self- resurrection (as opposed to reincarnation, where you come back as a different being).
- This is the origin of mummification: The body must be preserved for the next world. This is why it was crucial for Isis to retrieve the body of her dead husband. And this is why she had to fashion the artificial phallus, so Osiris would be complete in the afterlife.
- The ancient Egyptian embalmers followed this practice. If the deceased were missing a limb in life, embalmers would fashion an artificial limb for the mummy.
- Also, we learn the body must be buried on Egyptian soil in order to resurrect. Isis set out on her journey so she could bring Osiris's body back to Egypt for burial. This is part of the reason the Egyptians never colonized: No Egyptian wanted to die away from home.

- The chest that Set fashions to the exact proportions of Osiris corresponds to the anthropoid coffin. Those are the person-shaped coffins shaped that are ubiquitous in Egyptian art.
- A coffin is different from a sarcophagus. A sarcophagus is a stone, rectangular box that holds a body or a body-containing coffin. The myth of Isis and Osiris is not talking about sarcophagi; it puts forward the belief that there should be a special container for the body, the anthropoid coffin.

Lecture 16's Homework Answers

Lecture 16's homework asked you to write two sentences involving dates.

1. "Year 8, third month of summer, third day of His Majesty Tutankhamen" translates to . Start with the word for "year," , with eight strokes. The crescent with three months gives us the third month. Then comes the season of summer, pronounced *shmu*. So far that's .
 - Then add the third day part, which is the solar disk with three strokes. For "His Majesty," the fuller's club is often used; in dates, it is common to see the fuller's club with a water sign *n*. So far we have .
 - Next add the sedge and the bee for "King of Upper and Lower Egypt," precedes the Tutankhamen name. Once we insert Tutankhamen, we have the full sentence: .
2. "Year 36, second month of inundation, day 4 of His Majesty Ramses" translates to . That's the symbol for year, , with three hoops and six strokes for 36. Then comes the crescent moon with two strokes for second month. Next up is *akhet* for season, followed by the solar disk and four strokes for day 4.

- Another sign in dates is the face hieroglyph, which means “under” in the sense of “under the reign of His Majesty.” So far we have .
- Next comes the “majesty” part. We can do either the club followed by a stroke and the water sign, , which is “the majesty of,” or just the fuller’s club and the viper, , which would be “His Majesty.” In this instance, we’ll do the first: .
- Next we add the sedge plant and the bee, since we have the cartouche coming up. Add the name, and we get the final translation: . That’s the abbreviated form of Ramses II’s name.

Lecture 17’s Homework

Translate these sentences into hieroglyphs.

1. “Hathor and Isis descend to the town in a sacred boat.”
2. “Nut is in the sky, and Nephtys is in her house.”
3. “Isis knows all plans.”
4. “Osiris and Isis are in this boat.”



Negation in Ancient Egyptian Sentences

LECTURE

18

The last quarter of this course will focus more on translating real monuments and documents than on learning additional grammar. But before the course moves fully into that section, this lecture teaches you how to say “no” through negation. The lecture includes several exercises to that end. Then, the lecture introduces some new vocabulary words related to death and the afterlife—concepts critical to ancient Egyptian culture. The lecture closes with another important element of ancient Egypt: amulets.

Learning to Say No




- First up in this lecture: how to say “no” in ancient Egypt. To be more precise, it’s really how to say “not.” We had a peek at this much earlier in the course, when we had the word for “not to know,” *khem*: .
- The arms in *khem* are a determinative for the word, indicating “not to know.” The arms are also how the ancient Egyptians indicated negation in general. In most cases, the arms hieroglyph goes in front of the verb; that means “not.” The arms hieroglyph was pronounced *n*, like the water hieroglyph.
- Another negation indicator is the arms combined with a water sign: . This may have been pronounced *nun*, but we don’t know the vowels, if there were any.
- The question is: When do you use each of these? The answer depends on tense.

Examples

- Let's start with something simple, a sentence without negation. means "He hears," pronounced *Sedjem.f*. If we put the arms by themselves in front of the sentence, it negates it, but makes it the past tense: "He did not hear." So if we see the arms alone, it is past.
 - Recall when we learned how to say things in the past by inserting a water sign between the verb and subject: . This is what we called the *sedjem.n.f* form for the past tense. That was "He heard."
 - For negation in the past tense, the arms, *n*, up front do the job. We don't need an *n* in the middle of the sentence also.
- How about negation in the future? This is where you use the arms and water sign: means "He shall not hear."
- What about negation in the present? Take this example: means "He does not hear." This contains the *sedjem.n.f* past-tense form of the verb, but the arms in front cancel that and make it present tense.
- To recap: The arms, by themselves are past negative. The arms plus the water sign, , is the future negative. The arms plus the *sedjem.n.f* form is present negative.





Translating Negations

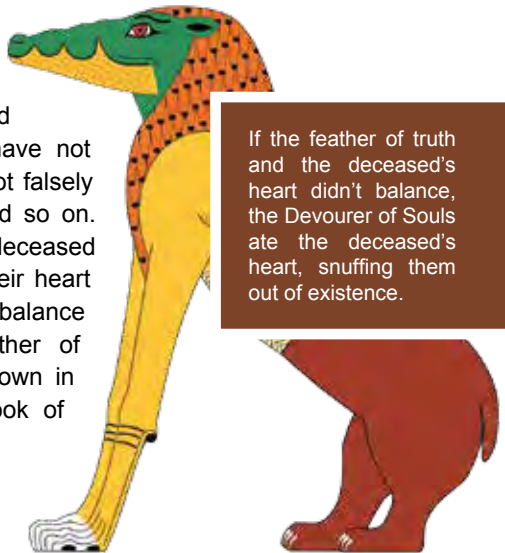
- translates to "The scribe did not send this plan." The verb is *hab*, "to send." The scribe is doing the sending, and he is sending *sekher pen*, "this plan." This is the past negative, because it contains just the arms.
- looks like a *sedjem.n.f* form, but the arms in front will cancel the other *n* of the *sedjem.n.f* form and make it the present negative. The translation is: "She does not remember his name."

-  has the arms and water sign. This is the future negative tense. The verb is *khed*, “to fare downstream,” and *sen* is our suffix pronoun for “they.” The owl is “in,” and they are in a *wia*, a sacred boat. The sentence must be: “They shall not sail downstream in the sacred boat.”
-  is a complex sentence. It starts with the arms but doesn't include the *sedjem.n.f* form—there is an *n* but it's not between the subject and verb. This part must be past tense.
 - The verb is *djed*, “say” or “speak.” The horned viper tells us it is “he” who didn't say or speak. The *n* is probably for “to,” as in “to a person.” The scribe is the person.
 - Then comes the arms and water sign combination. That signals future tense. In the second part, you can see the folded cloth suffix, *s*, or “she,” after the verb, “to speak.”
 - It is probably causal so we could insert the “so.” That gives us: “He did not speak to the scribe, so she will not speak to his father.”
- Let's now do a translation from English to hieroglyphs: “She will not remember his name.” This is the future tense. We need the arms and the water sign together to signify the future, avoiding the *sedjem.n.f* form. That gives us this: , pronounced *Nun sekha.s ren.f*.


True of Voice


- A remarkable number of ancient Egyptian inscriptions involve their belief in immortality. Tomb inscriptions are of course often about the next world, but so are temple inscriptions, Book of the Dead papyri, and even inscriptions found on statues.

- Soon we will be translating these texts, so now is the time to look at vocabulary words that relate to immortality and life after death.
-  was pronounced *djet* and means “eternity” or “everlasting.” The long thin determinative is a spit of land and also determines the word for “estate,” so it may mean “a realm” of eternity.
-  was pronounced *maeh* and means “true” or “just.”
- Often *maeh* is combined with another word for a different and very important meaning. The other word is *kheru*: . The only sign in the word that you haven’t seen is the third hieroglyph, the oar. It is a trilateral representing the sounds: *kh*, *r*, and *u*. Sometimes the word *kheru* was simply written as the oar by itself. 
- It was believed that before the deceased was permitted to enter the next world, they would have to pass a test. He would have to convince the gods in the Hall of the Two Truths that he had been honest and had never harmed anyone.
- The deceased made what was called the negative plea: “I have not diverted the irrigation ditch, I have not killed anyone, I have not falsely adjusted the scale,” and so on. To determine if the deceased was telling the truth, their heart would be weighed on a balance scale against the feather of truth. This scene is shown in chapter 125 of the Book of the Dead.
- On one side of the balance scale we see






If the feather of truth and the deceased's heart didn't balance, the Devourer of Souls ate the deceased's heart, snuffing them out of existence.

the deceased's heart. On the other was the feather of truth. The idea is that if the deceased were a good and just person, the scale would balance. If that happens, the gods would declare the deceased *maeh kheru*, "true of voice": .

- This phrase was so familiar to the ancient Egyptian that it became a euphemism for "deceased." In texts it was usually written in a very abbreviated form: . The statue base is for the *maeh* and the oar was for the *kheru*.

The Next World

- If you passed the test, you went to the next world. Here's the word for "the next world": . The star is another trilateral, pronounced *dua*. The whole word was usually pronounced *duat*. The house determinative shows us it is a place.
- Another word for the next world was *Iment*: . The first hieroglyph is the emblem or standard of the west. By itself it is the ideogram for "west." The t shows us it is feminine and the foreign land determinative shows us it is a place, far away.
- The next world was always associated with the west because the sun died in the west every day and was reborn in the east at dawn. Osiris, the god of the dead, was called Lord of the West, and another euphemism for those who were dead was "westerners." When someone died, people said, "He went west."
- The Egyptians didn't like to talk of death. The death of the pharaoh is rarely recorded. We figure out when pharaohs died by when they stop being mentioned and when the successor starts to be mentioned.
- But there was a word for "death" and "die." It looked like this: . Pronounced *met* (sometimes *mewet*), the determinative is a fallen man with blood coming out of his head. Add these words to your dictionary.

Amulets

- In Egyptian art and jewelry making, aesthetics were important, but there was usually a purpose to items—there had to be functionality. In the realm of wearable art, this is clearest in amulets.
- An amulet is something small that is worn for protection. In modern times, the crucifix is one of the most common talismans, but there are many others, like the Star of David.
- In ancient Egypt, amulets fell into two categories: funerary (those for the dead) and amulets for the living, but there was some overlap. Some amulets were placed on mummies, but also worn by the living.
- Amulets were placed on mummies, and sometimes inside the body cavity itself, to assist the mummy in resurrecting. Often these amulets were no more than three-dimensional hieroglyphs, saying what was desired. One of the most common of these amulets was the *djed* pillar, which ensured the deceased would have stability in the next world.
- Another funerary amulet was the heart. Also placed on the mummy, it protected the most crucial organ in the body. These heart amulets were usually carved out of either carnelian or red sandstone. The idea was that the closer to the real thing you could make the amulet, the more potent, so color was very important.
- One amulet that was used only on mummies, and always wrapped within the bandages, was the headrest amulet. The ancient Egyptians slept with their heads on headrests. In tomb paintings showing the servants bringing daily life objects for burial in the tomb, there is almost always a headrest depicted. There was even a spell in the Book of the Dead that was often inscribed on the amulet, intended to help the deceased raise their head in the next world.

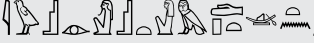


- Some amulets were only used by the living. If you were pregnant, you might wear an amulet of Isis suckling her infant son, Horus. Christianity later borrowed this iconography and transformed it into the Madonna and child motif.
- There was another popular amulet for pregnant women, the goddess Taweret. She's a pregnant hippopotamus who has human breasts and stands on two feet. Her name is made up of two words *ta*, which means “that,” and *weret*, which is “great.” Taweret means “That Great One.”

Lecture 17's Homework Answers

Lecture 17's homework asked you to translate these sentences into hieroglyphs.

1. “Isis and Hathor descend to the town” translates to . That's *ha* for “to go down” followed by the throne, feminine *t*, and woman determinative for Isis. Hathor is the falcon in the shrine. The mouth *r* is the “to” for place, and the sentence closes with *niwit* for town—it has a loaf *t* because it is feminine and a stroke because it's an ideogram. The sentence would have been pronounced something like *Ha Ist Hathor r niwit*.
2. “Nut is in the sky, and Nephthys is in her house” translates to . The bird and reed leaf at the start are the verb *yew*, “is.” That's followed by “Nut,” which has the *new* pot biliteral and a feminine *t*, along with the sky determinative.
 - Next comes “in the sky,” formed by the owl, two phonetic hieroglyphs and the sky determinative. We have a compound sentence, so we can repeat the verb, *yew*. Then we need to add Nephthys. She is the *neb* sign on top of a shrine and a goddess determinative.

- “In” is the owl, and “house” is *per*. For “her,” we use the folded cloth suffix pronoun. That completes the sentence, which may have sounded something like: *Yew Nut m pet, yew Nebt m per.s*.

3. “Isis knows all plans” translates to . The verb, “to know,” is *rekh*, followed by Isis. “All” is the word *neb*, but it follows the noun, so we write “plans” first. That’s *sekher*. Three strokes indicate it is plural. Then we can add the *neb* sign for “all.” This would have sounded something like: *Rekh Ist sekheru neb*.
4. “Osiris and Isis are in this boat” translates to . It starts with the verb, *yew* () , then adds Osiris and Isis. The owl is there for “in” and *depet* is there for “boat.” Since it ends in *t*, *depet* is feminine, so we use *ten*, the feminine form. The sentence would have been pronounced something like: *Yew Ausir Ist m depet ten*.

Lecture 18's Homework

Translate these sentences into hieroglyphs.

1. “She will not go forth to the house [if] he does not remember the road.”
2. “The man did not speak in the office of the scribe.”
3. “Behold! It will not be good [if] she tells everything.”

Reading Hieroglyphic Jewelry


LECTURE

19

Starting with the Old Kingdom, royal workshops produced spectacular jewelry for the kings and queens of Egypt. These high-status items were crafted of gold and semiprecious stones. (There were no precious stones in Egypt.) They were beautiful, but they had a second purpose: to protect the wearer. Visitors to museums marvel when they see the craftsmanship, but few realize they were also texts telling a story.


Jacques de Morgan

- Some of the jewelry this lecture discusses was discovered by Jacques de Morgan, one of the legendary excavators of the 19th century. De Morgan had an eye for where to dig, and during his career he made several spectacular discoveries. The first was at Dahshur.
- Dahshur was where Sneferu built two large pyramids, the Bent Pyramid, the only pyramid still with its white casing stones, and the Red Pyramid, where he was buried. Middle Kingdom pharaohs built their pyramids at Dahshur so they could share in the glory of Sneferu.
- De Morgan figured that although these pyramid complexes of the Middle Kingdom were far smaller than Sneferu's, they could still hold treasures. In 1894 he began to excavate. He dug a vertical shaft within the complex of Sesostris III, father of Amenemhet III.
- After descending 30 feet, de Morgan found himself in a series of underground galleries containing the burial chambers of princesses and queens of the Middle Kingdom.

- The underground chambers had clearly been robbed in antiquity. However, in a small pit, de Morgan discovered a wooden box with this name inlaid in silver: .
- The name means “daughter of Hathor,” with “Hathor” coming first for honorific purposes because Hathor is a goddess. Sat-Hathor was the daughter of Pharaoh Sesostris II.
- Further in the gallery, de Morgan found another pit, again containing jewelry, this time of Meret, wife of Sesostris III. There were rings, pendants, pins, necklaces, and pectorals, all of wonderful craftsmanship.
- These jewels of the ladies of the court became known as the Treasures of Dahshur. The finds were trumpeted in British newspapers, such as *The Illustrated London News* and *The Graphic*. This was an era before photos could be reproduced easily, so newspapers had talented artists on staff to illustrate the discoveries.

Queen Meret's Pectoral

- The beauty and richness of the jewelry captivated the public, but few knew that aside from their beauty, they told a story. Queen Meret's pectoral is an example; to see it, refer to the video for the remainder of this section.
- The Middle Kingdom was perhaps the highpoint of Egyptian jewelry. We can look at the hieroglyphs in the cartouches to see who the king was.
- The first hieroglyph is the solar disk, Re. Next we have a water sign *n*. That's followed by the word *maat*, “truth.” It's *N-maat Re*, one of the names of King Amenemhet III.
- Look between the cartouches. We can tell that it reads from right left to right from the *netcher* sign, which means “god.” The other sign is *nefer*, meaning “good,” so this part reads “the Good God.”

- Next is the *neb* sign, which means either “lord” or “all.” Since we have just had “the good god,” it’s probably “lord.” The two thin lozenges are the “two lands.” So our king, the “Good God,” is also “Lord of the Two Lands.” This is a traditional title.
- Under the two lands are three foreign land signs. And under that is another *neb* sign. This time “all” makes the most sense for the meaning of the *neb*. So Amenemhet III is “Lord of the Two Lands, Lord of All Foreign Lands.”
- The two symmetrical representations of Amenemhet show him holding a foreign enemy by the hair; he’s about to smite him with a mace. There are quite a few hieroglyphs above the king, but the central figure is the vulture goddess, Nekhbet. She’s a protective deity associated with the pharaoh.
- If we look above Nekhbet, we can see two more hieroglyphs. The *neb* is easy to spot, but you have to look closely to see what the other hieroglyph is. It’s the sky, *pet*. The two hieroglyphs form her title, “Mistress of the Sky.” It really says “Lord of the Sky.” There should be a feminine loaf *t* under the *neb* signs, to make it “mistress” rather than “lord.” But the craftsman didn’t have room.
- Let’s look at one more area on the pectoral, just beneath the tips of Nekhbet’s wings. Let’s see if we can figure out what it says. The two lozenges are the “two lands” that we’ve seen before.
- The hieroglyph above the two lands is problematic. It isn’t familiar, but it could be a misshapen *kha* hieroglyph: . It’s the sun’s rays behind a hill and means to “rise,” “shine,” or “appear.” If it is the *kha* hieroglyph, the image would make perfect sense. Amenemhet is shining or rising above the two lands.

Sesostris III

- Sesostris III was a pharaoh related to all the royals we’ve been talking about today. His statue depicts him with a tired, weary face, which marks him as a Middle Kingdom pharaoh: During the Middle

Seostris III




Kingdom, pharaohs were portrayed that way. We really don't know why.

- One of Sesostris's names looked like this: . It starts with the Re solar disk. Next is our *kha* hieroglyph, and then there are three *ka* hieroglyphs, which together are the plural of “soul.” They would have been pronounced *kau* since –u is the plural ending. The name might mean something like “The souls of Re shine.”
- Sesostris's name on his statue is in a *serekh*, the rectangle representing the palace façade. On top of it is Horus. The first two hieroglyphs are in the upper right corner, the *netcher* (“god”) sign and *kheper*, the beetle, meaning “to exist.” This means Sesostris exists. Fine.
- The rest of the hieroglyphs are the name. There's a quail chick, which is the /u/ sound in *kau*, the plural of *ka*.
- But there is also a *kha* hieroglyph missing the sun's rays behind the hill. The sculptor wrote a loaf *t*, misspelling the king's name. This is an indication that often these craftsmen were illiterate.

Flinders Petrie

- De Morgan's Treasures of Dahshur were unique at the time, and they fascinated the public. But they did not remain unique for long. Twenty years after de Morgan's find, Flinders Petrie made a similar discovery of jewelry decorated with hieroglyphs.
- Flinders Petrie is credited with putting Egyptology on a scientific footing. In the early days of Egyptology, everyone—even de Morgan—was excavating primarily to find beautiful objects. Petrie was different; he was excavating for knowledge.
- He was the first to realize that pottery fragments, the least glamorous but most ubiquitous of objects found, were important and could be used to date an archaeological site. If one site had

pots with handles but another didn't, it was a good bet the less fancy pots were earlier.

- Petrie excavated for more than 70 years and made many important finds. In 1914, he decided to return to El-Lahun, a town near Dahshur, where he had excavated before.
- During his 1889–1890 excavation season, Petrie had excavated the pyramid of Sesostri II. Now he wanted to excavate some of the subsidiary burials. Petrie was working with a team of excavators from the British School of Archaeology, an organization he had founded some years earlier. They decided to clear the tomb as completely as possible.
- In one tomb Petrie found a pink granite sarcophagus, with the lid slid off by robbers. The mummy was gone. There was also a set of alabaster canopic jars intended to hold the internal organs of the deceased, removed by the embalmers during mummification.
- As the clearing proceeded, a sharp-eyed Egyptian workman noticed that there was a recess in a wall that was packed almost to the ceiling with mud. The workman was put to work clearing the mud. Soon he found some gold beads and alerted Petrie and his assistant Guy Brunton.
- Brunton now took over the clearing of the recess. For eight days, he scraped away the mud, centimeter by centimeter, carefully recording where he found everything. As the work progressed, he found the remains of a jewelry casket. The wood had rotted away, but the casket's inlays were still embedded in the mud, and slowly the gold and ivory bits were freed.
- Soon Brunton found other caskets. The chests once held all manner of objects: bracelets, necklaces, mirrors, and vases that once contained cosmetics. The objects belonged to a princess named Sat-Hathor-lunet, .

- All the objects painstakingly removed from the mud by Brunton had to be cleaned and carefully reassembled, as all the threads that had once held the bracelets and necklaces together had disintegrated. But once that was done, it was clear the excavators had discovered a fabulous treasure. It would become known as the Treasures of Lahun.
- Usually such a find would stay in Egypt as a national treasure. In the old days of de Morgan and Petrie, excavators were permitted to keep a portion of their finds for their sponsoring universities or museums. But if the finds were unique, everything stayed in Egypt. (That's why all of Tutankhamen's treasures, discovered by Howard Carter and Lord Carnarvon, are still in Egypt.)
- But Petrie got lucky. The Director-General of the Egyptian Antiquities Service, Gaston Maspero, felt that the Treasures of Lahun were similar enough to the Treasures of Dahshur that he could permit Petrie to keep most of the treasure.
- Petrie felt that the Treasures of Lahun were so important that they should remain together and go to the British Museum. He offered them the entire find or £8,000, but they weren't particularly interested.
- However, New York's Metropolitan Museum of Art was interested. Today, if you want to see the treasures of Sat-Hathor-lunet beautifully restored and reconstructed, go visit the Metropolitan Museum and translate some jewelry.

Lecture 18's Homework Answers

For Lecture 18's homework, we had three negated sentences to translate from English to hieroglyphs.


1. "She will not go forth to the house [if] he does not remember the road" translates to . The first part is in the future, hence the arms and water sign as negators. Next is our verb, "go forth." That's *per*. The "she" part is the suffix pronoun folded cloth.

- Next, the "if" is understood. But the second part of the complex sentence is a different tense: present. For the present, we have that complex situation where we need the *sedjem.n.f* construction with the single negator in front of it all.
- So this part of the sentence begins with the negator arms. The verb for "remember" is *sekha*. Then comes the *sedjem.n.f* construction, as if it were past tense. We add the *n* for the past before we add the subject, "he," the viper *f*. All that remains to complete the sentence is "road," which is *wat*.

2. "The man did not speak in the office of the scribe" translates to . It's past tense, so we need the arms in front of the sentence. Next is "speaks," *djed*, and the "man" hieroglyph. The owl is "in," followed by *kha*, for "office." We can just attach "scribe" to "office," almost like a suffix pronoun. That completes the sentence.

3. "Behold! It will not be good [if] she tells everything" translates to . We can start with "Behold!" which is *mek*, . The next sentence is future tense, and we need both negators, so we add the arm and water sign.

- For "It will not be good," we can employ a predicate adjective by putting *nefer*, "good," up front. That's . The "if" is understood, so next is "she tells." That's "say" or "speak," *djed*, with the folded

cloth suffix pronoun attached to it. So far we have


- Now we need “everything.” “Thing” is *khet*, and the adjective “all” or “every” follows the noun. “All” is *neb*, but adjectives agree with their nouns. *Khet* is feminine since it ends in *t*, so “all” will be *nebet*.
- Now we can add “everything,” *khet nebet*. That leads to the solution, which is pronounced *Mek! Nun nefer djed.s khet nebet*.

Lecture 19's Homework

1. Translate Sat-Hathor-lunet's bracelet. Refer to the video to see what the bracelet looks like.

Palimpsests: When Scribes Make Mistakes

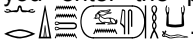
Scribes, craftsmen, and carvers all made hieroglyphic errors. This lecture talks about what happens when someone realizes a mistake has been made. How did the ancient Egyptians erase, especially when it was carved in stone? You'll learn how, and see how that process created some confusing jumbles. The lecture also discusses a Fifth Dynasty king whose pyramid gives us a window into the Egyptians' treatment of magic. Near the end, the lecture introduces some new vocabulary for important place names.

King Unas

- The pharaohs of the Fifth Dynasty had less wealth than the Fourth Dynasty kings and built smaller pyramids. For instance, the Great Pyramid is 480 feet tall, while Fifth Dynasty pyramids are about 150 feet high.
- The last king of the Fifth Dynasty, Unas, built one of these smaller pyramids at Saqqara, about 20 miles from Giza. He introduced a real innovation: The interior walls are covered with hieroglyphs, thousands of them.
- The walls are faced with sheets of limestone into which the hieroglyphs were carved. Then, to make them stand out, the hieroglyphs were colored blue. The hieroglyphs are written inside long narrow columns carved in the wall from floor to ceiling, each column forming a separate unit called an utterance. These inscriptions are known as the Pyramid Texts and are magical spells intended to ensure Unas's immortality.

- The principle of magic is that saying it, under the right circumstances, makes it true. When the magical spell says, “Unas flies up to heaven, Unas ascends the ladder,” this makes it happen.
- The spells deal with three stages in the king’s resurrection: first, his awakening in the pyramid; second, his ascending through the sky to the next world; and third, his admittance into the company of the gods.

Translating a Spell

- Magic is so important in these texts that one of the first spells as you enter the pyramid talks about Unas’s magical powers: . The language is Old Egyptian, a little different from what we’ve been learning, but we can make it out.
- The outstretched arms are like our determinative for “not to know” and also the way to negate sentences. The mouth *r* is a way of indicating the future. It’s the negative future.
- The next word is the *di* biliteral, the cone of incense, and is the word “to give.” With the negative future, that makes “not give.” Next we have a couple of *n*’s, a tethering ring, and another *n*. One the *n*’s is “to” for people. Then we can make out a pronoun. It’s *n tchn*, which is “you” in the plural. That makes “... not give to you.”
- Next we have the cartouche, so we know it’s the king’s name. Sure enough, it says the name Unas. The rabbit is the *u-n* biliteral, and the *n* under it is the phonetic complement. Then there’s the reed leaf *i* followed by the folded cloth *s*, which makes Unis, or Unas as it is more frequently written. So far, we have “Unas does not give to you.”
- The next word is the twisted flax *h* and the *ka* biliteral, making *heka*. That’s the word for “magic.” A viper suffix pronoun makes it “his” magic. The final sentence: “Unas shall not give to you his magic.”

Mistakes

- Often, carvers were illiterate. They were artists, skilled at forming the hieroglyphs, but they couldn't read what they were copying. Priests would give them the texts to carve on the wall, and they would go to it. But sometimes they copied the same phrase twice, and sometimes they left something out.
- Then the head priest would come in to check the work and he'd discover the error. To correct problems, the ancient Egyptians would fill in the incorrect hieroglyphs with plaster so the wall was smooth, and then re-carve the wall and plaster with the correct inscription. We know this happened often because over the course of thousands of years, some plaster has fallen out and we can see the errors beneath the correct texts.
- As an example, take this spell:





- It starts off OK. On the top is the bottom part of an *ankh* sign. Underneath it is the suffix pronoun viper. So we have “He lives.” Next is another *ankh* followed by Unas’s name in a cartouche. That makes “Unas lives.” This spell is ensuring Unas has life.
- But right after this is a jumble of hieroglyphs. Below Unas’s cartouche are two hieroglyphs we can recognize: the water sign and the reed mat *p*.
- Now the question is: Which way does this text read? Is it right to left or left to right? The rabbit on Unas’s cartouche is facing right, so this is a right-to-left-reading text. That means the two hieroglyphs are *pen*, which is “this” in the masculine.
- The spacing of the *p* and *n* is unusual. The *n* almost always takes up a full space width-wise. It alone should be under the cartouche. With the *p* next to it, things seem crowded. This is a clue that something went wrong.
- The hieroglyph below the “this” is the outstretched arms. This is the negation hieroglyph. Beneath it is what appears to be an *n* water sign over an owl with a *t* in front of the owl. Beneath that, very crowded, is a viper suffix.
- We can recognize one word within the jumble, the word for “death,” *met*. But this is a right-to-left-reading text, so it really says *tem*, which doesn’t make sense. The word for “die” would, however, make sense here. If we read from the top of the column, we should have “He lives, this Unas lives. He does not die.” This is likely what was intended, but the scribe made a mistake. The error had to be plastered over and something else was carved over it.



Palimpsests






- The writing of one text over another is called a palimpsest, from the Greek *palimpsestos*, which means “scraped again.” The Greeks wrote on both papyrus and parchment. Papyrus was made from the papyrus plant and parchment from animal skins.

- Both were expensive, so when a text was no longer needed, you scraped the ink off so you could reuse the writing surface. Almost always, these scrapings left traces of the original texts, and often the original text is more important to modern scholars than what was written on top of it. With modern infrared photography and computer enhancement, often these earlier texts can be reconstructed.
- The palimpsests in Unas's pyramid are far from the only ones in Egypt. They can be found on temple walls throughout Egypt, and one example is often presented as support for the ancient astronaut theory: the idea that an advanced civilization came from outer space and showed the ancient Egyptians advanced technology.
- The palimpsest in question is the temple at Abydos. Seti I started the construction of the temple but died before it was completed. His son, Ramses the Great, finished the monument.
- The temple originally had seven entrances, so Ramses bricked up six of them so he would have additional surface area to carve his own inscriptions, proclaiming what a great son he was for completing his father's temple. But that wasn't enough for Ramses. Inside the temple he carved out many of his father's titles and cartouches and replaced them with his own.
- Just inside the entrance to the temple is a hypostyle hall (a room where columns support a ceiling). The ceiling rests on lintels, blocks spanning the columns. One of these lintel blocks has become a pilgrimage site for ancient astronaut theorists.
- On the block is a palimpsest created when Ramses re-carved the hieroglyphs on his father's monument. Now that the plaster and over-painting has fallen down, we have a jumble of overlaid hieroglyphs that happens to look like machines.

- The hieroglyphs that make up the spacecraft are actually an overlay of the Two Ladies names of Seti I and Ramses II. The crucial part of Seti's name for us is the part that forms the flying machines: . This translates to "Smiter of the Nine Bows."
- If you look closely at the carving of the helicopter, the rotor blades are the top of the bow hieroglyph. The submarine is basically the hand hieroglyph for *d*. Beneath it, the flying saucer is given its shape by the mouth *r*.
- Beneath that, the airplane is composed of the arm hieroglyph, with the shoulder forming the tail. The remaining details of the spacecraft are made up of the overlay of Ramses's Two Ladies name: . His name means that he protects Egypt but oppresses foreign lands.
- Back to the carving: The tail of the helicopter is supplied by the arm hieroglyph's shoulder. The flying saucer's tail is made up of the shoulder from the *eh* arm hieroglyph. Dropping down to the airplane in the lower right, we see its cockpit is the *t* in *Kemet*.

Place Names

- Now the lecture will show you the hieroglyphic names for some of the places this course has been talking about.
-  means Egypt or the "Black Land." Egypt was called the "Red and Black Lands," meaning the desert and the land along the Nile. The rich, dark topsoil along the Nile, where everyone lived, was the Black Land.
-  is the word for the "Red Land," the desert. The bird is a flamingo and is a trilateral, *d-sh-r*. The word for "red" was *desh-r*, so the Red Land is just the word for "red" feminized with a loaf *t* and determined by a "foreign land" sign.

-  means Waset, which was also called “Thebes” by the Greeks and “Luxor” by the Arabs when they invaded Egypt.
-  means Abydos.
-  was pronounced something like *lwnu*. The first hieroglyph, the column or pillar, is the *lwn* trilateral. This was the city On of the Bible. In Genesis 41:45 we are told, “Pharaoh gave Joseph ... Asenath, daughter of Potiphra, priest of On.”
- Once there were more obelisks standing there than in any other city in ancient Egypt. The Greeks called the city Heliopolis, meaning “Sun City.” It’s just outside modern Cairo, and there’s one obelisk still standing. It’s a Middle Kingdom obelisk of Sesostris I.
- Sometimes Heliopolis would be written with a sedge plant at the end: . This is a different city and means “Southern On.” It’s the other great sacred city, Thebes, or Waset.
- Here is one more, *lwnu*: . We still have the column, but now we have a water sign *n* as a phonetic complement for the column hieroglyph. But most important, it is feminine; it has a *t* at the end. This is Dendera. Dendera was the city of Hathor with her fabulous temple.

Lecture 19's Homework Answer

Lecture 19’s homework asked you translate the bracelet of Sat-Hathor-lunet. Refer to the video to see what the bracelet looks like.

- The first two hieroglyphs are *netcher* and *nefer*, the “good god.” Next we have a *neb* sign for “lord,” and that’s followed by the “two lands.” Then comes the name in a cartouche: N-Maat-Re.

An Ancient Egyptian Prayer for the Dead

This lecture will show you a few more names of places in the ancient world mentioned in Egyptian texts. Most of the examples come from hieroglyphs carved on mortuary temples. After learning the places names, you'll use them to look at the differences between the inscriptions on temples and tombs. Then, at the end of the lecture, you'll translate some inscriptions in a tomb. Specifically, you'll learn a version of the *Hotep-dinesu*, a prayer for the dead.



Hatshepsut's Temple



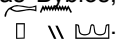
- One of the most famous monuments in all of Egypt is Queen Hatshepsut's mortuary temple, called Deir el-Bahri. That's Arabic for "Place of the Northern Monastery" because in early Christian times monks built a monastery there. In Hatshepsut's time, her temple was called *Djser Djseru*: "Holiest of Holy Places."
- Mortuary temples were where priests would make offerings to the *ka*, or soul, of the deceased pharaohs. On the walls of these temples, the pharaohs carved texts and scenes describing the events of their reigns they were most proud of.
- On Hatshepsut's temple, she boasts that she erected two tall granite obelisks in only seven months. There is also a record of an expedition to the incense-bearing land of Punt; on the temple walls, we see Egyptian sailors loading incense trees on board, their roots protected in baskets. Hatshepsut was moving to grow her own incense back in Egypt.




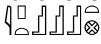
Deir el-Bahri

Other Foreign Lands


- In almost every mortuary temple, there are foreign place names on the walls. On the mortuary temple of Ramses the Great, we hear how he defeated the Hittites, ancient inhabitants of modern Turkey. The name of their land was written like this: , which was pronounced something like *Khatti*.
- Ramses also subdued the Nubians, the people to the south of Egypt, in modern Sudan. “Nubia” is a relatively modern term, from Roman times. In ancient Egypt it was called *Kush*: .

- The largest building ever constructed by one pharaoh is the mortuary temple of Ramses III. During his reign, Egypt was invaded by a confederation of foreigners from several countries. Some came from the Palestine-Syria region, and their land was called *Retchynu*: . Other members of this confederation came from Crete, and they were called the *Kheftiu*: .
- Now for a non-battle-related foreign land. Recall where the chest containing the body of Osiris washed ashore. That was Byblos, modern Lebanon. This is how it looks in hieroglyphs: . The hieroglyph that looks like a spitting fish is a *k-a-p* trilateral. The word was pronounced something like *Kapny*.

Other Places Names



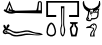

- Memphis was a very important city. In the north, for many centuries, Memphis was the administrative capital. We know Thebes better because it was in the dry south, where papyri, temples, and tombs are all better preserved.
- Memphis was written  and was pronounced *Men-nefer*, which means “the beautiful monument.” It even has a pyramid determinative.
- Most of the major cities in ancient Egypt had a triad of patron deities. At Memphis, it was Ptah, the creator god; his wife, Sekhmet, the lion-headed goddess; and their son, Nefertum. At Thebes it was Amun, Mut, and their son, Khonsu.
- We need one more place name for this lecture: Karnak, which was a temple. In hieroglyphs, it was . That's pronounced *Ipetsewet*, “the most select of places.” The throne hieroglyph also meant “place.” The name suggests that Karnak was the most important of all the temples in Thebes.



Temples



- To be accurate, Karnak isn't a temple; it's a cluster of temples, built over centuries, with successive pharaohs adding their temples to gain favor with the gods.
- This group of temples was situated on the east bank of the Nile in what the Greeks called Thebes and the ancient Egyptians called Waset. The other large Theban temple complex was about a mile and a half away and is today called Luxor Temple.
- Sometimes "temple" was written *netcher per*. . These temples were viewed as the god's house. This is a very important concept, one that made prayer in ancient Egypt very different from prayer today: One did not want to disturb a god in his house by praying there.
- Many of the temples at Karnak were devoted to Amun, so many of the buildings were viewed as his house. Ordinary people were not expected to go to visit him.
- The temples on the east bank of the Nile have religious scenes carved on their walls. The pharaoh is shown making offerings of beer, wine, or incense to the temple's god.
- Although the pharaoh was a god, pharaohs weren't par with the gods who were in the next world. That's why pharaohs had to make offerings to them and please them with gifts after a military victory. Pharaohs weren't in the same class as Amun, Ptah, or any of the others in the Egyptian pantheon.

Tombs

- While temples are places of prayer, tombs are places of burial, and this affected what texts were placed on the walls. In tombs, there are prayers for the dead. To a great extent, the prayers and traditions of the funerary cult of ancient Egypt were established during the Old Kingdom and remained relatively unchanged for 3,000 years.




- From the Old Kingdom on, there was a standard prayer for the dead called the *Hotep-di-nesu*. There are three words there: *Hotep*, *di*, and *nesu*. *Hotep* means “to be pleased.” *Di* means “to give.” *Nesu* means “king.”
- Here are the hieroglyphs for the phrase: . *Nesu* comes first: It's the sedge plant, and was called the *sut*-plant in ancient Egypt. Thus, we have a non-feminine word, “king,” with a *t*, which is usually not pronounced.
- Then comes *hotep*. Though *hotep* usually means “to be pleased,” here it really means “an offering.” The last hieroglyph is the *di*, “to give.” So the phrase meant something like: “May the king make an offering.”
- Here's that phrase with the next section of the prayer: . The next part includes the name Osiris, the *netcher* flag (which means “god”), and the *ah* hieroglyph (which means “great”). The *neb* hieroglyph for “lord” is then followed by the city Abydos. So far, that means we have: “May the king give an offering to Osiris, the Great God, Lord of Abydos.”
- Here's the section of the prayer: . It starts with a verb, “to give,” and the suffix pronoun *viper*, which makes “He gives.” The arrangement of four hieroglyphs around the house translates as “vocal offerings of bread and beer.” The house hieroglyph represents the tomb. The tall thin hieroglyph within it is the oar that is part of the word for “voice,” *kheru*. This is an abbreviation for “voice.”
- The next two offerings are ideograms for “oxen” and “fowl.” The loop of cord is an *sh-s* biliteral and means “alabaster,” so one of the offerings will be alabaster jars of oils. The other hieroglyph, what looks like two vertical poles, is supposed to be a strip of cloth with fringes. This is a shorthand for “clothing.” The full word was pronounced *menkhet* and was written like this: 

- So far we have, “May the king give an offering to Osiris, the Great God, Lord of Abydos. May he give a voice offering of bread and beer, oxen and fowl, alabaster and clothing.”
- Now for the next line of the prayer: . The first word is *khet*, “thing,” which is followed by *neb*, which probably means “all” or “every” since it’s following “thing.” The loaf *t* under the *neb* sign is there because *khet* is feminine and the adjective “all” has to agree with it.
- The next word is the *nefer* sign meaning “good” or “beautiful.” Here, “good” is the best choice, for reasons you’ll see.
- After that comes a monogram—a word made up of two conjoined hieroglyphs. This one is a water jar on top of the foot *b*. The word was pronounced *wab* and means “pure.”
 - There was an order of priests called the *wab*-priests. If you want to write “*wab*-priest,” put the man determinative at the end: . A *wab*-priest is a man who purifies. Since the deceased was now a god, everything he ate (the offerings) had to be purified.
 - As part of the *wab*-priest’s duties, he would purify the altar on which the offerings were placed. He’d also purify the food and the dishes containing the food—everything had to be pure. The priest did this by pouring water over everything while a prayer was recited.
- Back to the prayer: The next word is *ankh*, “to live” or “life.” Then comes *netcher*, the flag meaning “god.” The last word is *im*, meaning “therein.”
- So far, the prayer translates to: “May the king grant an offering to Osiris, the Great God, Lord of Abydos. May he give a voice offering of bread and beer, cattle and fowl, alabaster and clothing, all things good and pure upon which the god lives therein.”

- The hieroglyphs for ka-priest are hem-ka: , meaning “servant of the ka.” The plural was hemu-ka, “servants of the ka”: . The three strokes under the man determinative make it plural.
- Ka-priests would make the offerings at the tomb every day. And as long as they did, they could farm the land deeded to them. This could pass on down to the priests’ descendants as long as the descendants said the prayers.

Lecture 20's Homework

Lecture 20's homework included three non-verbal hieroglyphs-to-English sentences.

1.  translates to “Osiris is in his sacred boat in Abydos.” The first hieroglyph is the name Osiris, followed by the owl for “in.” Next up is *wia*, “sacred boat,” which ends in the boat determinative. Beneath it is the suffix viper, so it must be “his sacred boat.” That’s followed by another owl, “in.” Finally comes the place name, Abydos. To complete the sentence, we add the verb “is,” and we have “Osiris is in his sacred boat in Abydos.”
2.  translates to “Amun is Lord of Thebes.” The first word is the name Amun; the *neb* sign comes next and means “lord” in this context. Next we have our owl, and here it will mean “of” since what follows is Waset, or Thebes. So, if we supply the verb, we have, “Amun is Lord of Thebes.”
3.  translates to “Hathor, Mistress of Dendera.” We recognize the name Hathor right up front. She too is followed by a *neb* sign, but beneath it is a feminine loaf *t*. So it’s “mistress” rather than “lord.” Next we see the *Iwnu* pillar and the town sign, but we have the feminine *t*, so it isn’t Heliopolis, it’s Dendera, where there’s a fabulous


Translating the Tomb of Perneb

LECTURE


22

During the Old Kingdom, the offering of prayers was done in the chapel room, known as the *mastaba*. The central feature of these chapels was what Egyptologists call the false door. This was a stone door that was a portal between this world and the next, through which the soul of the deceased could pass. It was in front of this door that the *Hotep-di-nesu* was recited. In this lecture, you'll learn how to translate the *Hotep-di-nesu* from a preserved mastaba.

A Complete Mastaba

- The Metropolitan Museum of Art possesses a complete mastaba. They bought it from the Egyptian government in 1913.
- The mastaba the museum bought belonged to an official of the Fifth Dynasty named Perneb. The *per* is the word for “house,” but it could also mean “to go forth.” The second word in his name, the *neb*, could be “all” or it could be “lord.” Since it is in a name, it is almost certainly going to be “lord.”
-  is how he wrote his name. Since the *per* is first, it is probably the verb “to go forth,” even though it doesn't have the little feet determinative. So his name means: “The lord goes forth.” Sometimes he wrote it with phonetic complements.

Vocabulary

- Perneb built his *mastaba* at Saqqara, the preferred cemetery for the elites of the Old Kingdom. These officials had a variety of titles. Most common was this: , pronounced *emer*, or sometimes *emyer*. It practically means “overseer” but literally means “in the

mouth,” probably deriving from the idea that the overseer gives the orders.

- This title of “overseer” is generic and doesn’t really tell us specifically what the person did. Consequently, it is usually followed by the specific job description.

- means “overseer of the work.”

- means “overseer of the scribes of Ptah.”

- Perneb was one of highest palace officials. If you worked in the palace, you could put this on your tomb wall: . This means “known by the king.”

- was a more elevated title. Again, we have the word for “king,” but the next word is *semer*. We can see the *mer* chisel biliteral; with the *s* in front of it, it was pronounced *semer*, and meant “companion.” This title meant “king’s companion.”

- There could be any number of officials with that title, but Perneb had something even higher: . The hieroglyph that resembles a gear shifter is a harpoon with a rope attached. It was pronounced *weh* and means “one.” When combined with “companion,” it means “king’s sole companion.”

- This is as close to the king as a servant can get, and probably means “royal valet.” Perneb was responsible for robing the pharaoh, making sure his meals were to his liking, and just about anything else the king wanted.

Moving the Mastaba

- For his tomb, Perneb chose a site just outside the enclosure wall of King Zoser’s step pyramid. By Perneb’s time, the step pyramid was already centuries old, a venerated monument, and Perneb wanted to be associated with its glory.

- His mastaba was built out of more than a thousand fine white limestone blocks, so after the purchase was completed, the Metropolitan Museum of Art sent its team of archaeologists to Saqqara to photograph, dismantle, and ship the monument to New York. It was a massive project with constant camel caravans bringing packing supplies from Cairo and returning during the night with the crated blocks.
- Whenever a temple, tomb, or chapel is dismantled, it is a learning opportunity. For the first time in thousands of years, all six sides of each block will be seen. Often the hidden surfaces reveal instructions written at the quarry to make sure the blocks were delivered to the right building site.
- Sometimes there are mason's marks, indicating the positioning of the block. So, when the museum moved Perneb's mastaba, a great deal was learned about construction in the Old Kingdom. An extra bonus was that the tomb was not completed at the time of Perneb's death, so we can see different stages of how the chapel was decorated.

Inside Perneb's Tomb (Refer to Video)

- The false door in the main chamber of the chapel depicts Perneb four times, twice on each side. He's in his official garb, with a starched kilt and an authority-signaling staff.
- Above his head, hieroglyphs give his titles. The text reads from left to right. The first word in the left column is *imachy*, "venerated one." Next is the word "king," followed by the title "sole companion."
- Now to the column on the right, which starts with *imachy* again. Then we see *netcher ah*, the "great god." Then comes his name, Perneb.
- Above the doorway is a rolled-up reed mat that could be lowered in the doorway of a house to keep the sand and dust out. Here, it is only symbolic, carved in stone forever.



Perneb's Tomb

- The lintel above the roller reads right to left. It's a *Hotep-di-nesu* to Osiris in a standard formula: "May the King grant an offering to Osiris. [May he] give a voice offering of bread and beer" Above it is Perneb, seated in front of an offering table piled high with ritual bread.
- The column on the right of the lintel is another *Hotep-di-nesu*, this time to Anubis. Perneb wasn't taking any chances. He's depicted in front of an offering table that has on it what we think is a kind of ritual bread.
- Beneath the table, by his legs, are lotus hieroglyphs, the symbol for 1,000. Around the lotuses are geese, cattle, and bread. Those are the thousands of offerings that Perneb will receive.
- On the right wall is Perneb again, wearing a leopard skin, the sign of a high priest. So among all his titles, he's also a priest. In front of his knee there's the thousands of geese, cattle, and bread. On a table is the ritual bread. Above the ritual bread is a large rectangle, divided into smaller sections. Each small rectangle lists an offering for Perneb.
- On the right wall, there's also a wonderful scene of *ka*-priests at work. One priest is pouring out water; it's almost like a living enactment of the hieroglyphs for purification. They are purifying the ground.

Air Shafts

- Perneb's false door may help us solve a mystery that puzzled Egyptologist for more than a century: What is the function of the two mysterious air shafts in the king's chamber of the Great Pyramid?
- Perneb's chapel and false door were directly above the shaft that led down to his burial chamber. The idea was that the *ba* could leave the body, fly up the shaft, and exit through the false door.

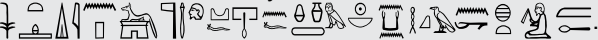
- The purpose of the Great Pyramid airshafts was to give Khufu's *ba* access to the world of the living. That's why the queen's chamber—which was actually Khufu's plan B for burial, in case he died before the king's chamber was complete—also had shafts.

Another False Door

- Another false door resides at the Metropolitan Museum. It is of a contemporary of Perneb, named Metchetchi.
- On the square panel in front of the lintel is Metchetchi, seated in front of an offering table piled high with ritual bread. There are also offerings, each preceded by the hieroglyph for 1,000. Metchetchi will have 1,000 cones of incense, 1,000 cattle, 1,000 geese, 1,000 alabaster jars of oil, and 1,000 articles of clothing. In front of the table are two more offerings, probably bread and beer.
- On the lintel spanning the doorway, reading right to left, is a *Hotep-di-nesu*. There is a jackal, so the god is probably Anubis, but it could also be another jackel god, Wepwawet. The prayer's hope is that the king will give offerings to Anubis (or Wepwawet) so that Metchetchi will be able to walk upon the beautiful paths to the west.

Lecture 21's Homework Answer

Lecture 21's homework asked you to translate this version of the Hotep-di-nesu:

nesu: 




- The first four hieroglyphs are easy: “May the king give an offering.” The offering is going to go to a god, probably associated with the dead. Here, the god is Anubis. The Egyptians called him Inupu, but the Greeks added their *-is* ending and changed the *p* to a *b*, giving us Anubis. Anubis was the jackal-headed god of embalming.


- Next up is *netcher ah*, marking Anubis as the “great god.” Then comes an epithet we haven’t seen before. Our first hieroglyph is the head, in profile. Pronounced *tep*, it usually means “first” or “foremost.” It can also mean “upon.”
- Next we have the hieroglyph for mountain, *dju*, followed by the viper suffix pronoun. So the epithet means something like, “He who is on his mountain.” This is a common title for Anubis, as is “He who is in his tent.”
 - Both epithets have to do with the practicality of mummification: Because of the smells involved with working on a dead body, mummification took place out of doors, on a hill so the breezes could take the smells away.
 - And rather than a permanent building, a mummification tent was used, again for circulation of air.
- Back to the translation: The house and oar mean “voice offering.” Next we have “to him,” *n f*. So a voice offering is made to him, meaning Anubis. The offering is of bread and beer.
- Next we have an owl, who could mean “in,” “from,” or “of.” *Re neb* follows it, meaning “every day.” Therefore, the owl means something like “in every day” or “at every day.” We can leave it out and just say, “every day.”
- Then we have “for the *ka* of.” Next comes the name Heqanakht. The determinative of the god with a flail is often used to determine the names of the deceased. The prayer ends with the traditional *maeh kheru*, “true of voice.”
- The entire text reads: “May the king give to Anubis, the great god, he who is foremost on his mountain, a voice offering of beer and bread for the *ka* of Heqanakht, true of voice.”

Translating Tutankhamen's Tomb

The discovery of Tutankhamen's tomb is probably the most famous find in all of archaeology. When the excavator, Howard Carter, first discovered the tomb in 1922, the world followed the excavation via newspaper accounts. Black-and-white photos of the objects often accompanied these reports as they were removed from the tomb. Nothing like these objects had ever been found, and they were historically important. This lecture looks closely at the inscriptions on some of the objects to see what they reveal.

Tutankhamen's Time

- Most Egyptologists believe that Tutankhamen's father was Akhenaten, the heretic pharaoh. Akhenaten was born Amenhotep IV, , meaning "Amen is pleased." This was a traditional name honoring the most important god in Egypt, Amun.
- But early in his reign Amenhotep IV changed his name to Akhenaten, meaning "It is beneficial to the Aten." The Aten was a minor solar deity shown as a solar disk with the rays of the sun coming down. Written out, it looked like this: .
- Akhenaten next declared that there is only one god, the Aten, and closed all the temples dedicated to other gods. Akhenaten's monotheism was so unpopular that he was forced to move out of the religious capital, Thebes, to a deserted spot in the desert about 200 miles north, which he dubbed Akhetaten, .
- In his isolated city in the desert he wrote hymns to the Aten, built temples for the Aten, and raised a family with his wife Nefertiti and

his minor wife Kiya. Egyptologists generally agree that Tutankhamen is the child of Akhenaten and the minor wife Kiya. When Tutankhamen was born, however, his name was Tutankhaten, , honoring the Aten rather than Amun.

- In the 17th year of his reign, Akhenaten died. Without its spiritual leader, the new religion quickly died, and the followers of the Aten moved back to Thebes. The 10-year-old Tutankhaten and his 10-year-old half-sister, Ankhesenpaaten, were married, and Tutankhaten became king of Egypt.
- When everyone returned to Thebes, Tutankhaten's name was changed to Tutankhamen and Ankhesenpaaten became Ankhesenamun. The boy king ruled for about nine years, then died mysteriously and was buried in his now-famous tomb in the Valley of the Kings.

Excavation

- In the early 1890s the great British Egyptologist Flinders Petrie began excavating at Akhetaten. Petrie discovered that there was a pharaoh named Akhenaten who worshipped the Aten. And he also discovered small objects with the name of a previously unknown king, Tutankhaten. Petrie set the ball rolling toward the discovery of Tutankhamen, but it was Howard Carter who made the great find.
- Carter got his start in archaeology by copying hieroglyphs. Later he worked for Flinders Petrie at Amarna where Petrie was uncovering evidence of Akhenaten, the heretic pharaoh. Carter learned excavation techniques, and at the age of 26 became the Chief Inspector of Antiquities for Upper Egypt and was based in Luxor.
- Carter did this job well. He installed iron gates at the entrances to the tombs to protect them from vandalism and even brought in electric lighting to the Valley of the Kings, an impressive step forward in the early 1900s.

- But it would be a winding road to Tutankhamen. An incident occurred at a Saqqara tomb in which a group of inebriated French tourists pushed a native guard aside. The guard defended himself. The French group lodged a complaint with the Head of the Antiquities Department, Frenchman Gaston Maspero, who asked Carter to apologize to the French group. Carter refused, pointing out that his guard had every right to defend himself. Carter was forced to resign.
- While Carter was in a holding pattern, a wealthy American, Theodore Davis, obtained the concession to excavate in the Valley of the Kings. Davis had more money than excavation experience, so he hired an archaeologist to do the real digging. While working with Edward Ayrton, they found a faience cup under a rock in the Valley of the Kings.
- The top hieroglyphs say *nefer netcher*, “the good god.” The bottom is *di ankh*, meaning “given life.” The cartouche contains the name Nebkheperure, which was one of the names of Tutankhamen. This was the first connection of Tutankhamen with the Valley of the Kings. But by 1914, Davis became convinced he’d exhausted the Valley of the Kings and gave up his concession to excavate in the area.
- Meanwhile, Carter was getting himself back on his financial and archaeological feet. He had formed a partnership with Lord Carnarvon, a titled and wealthy Englishman. Once Davis gave up his concession, Carter and Carnarvon intended to excavate down to bedrock every inch of the Valley that hadn’t been excavated.
- Yet after several frustrating years, Carnarvon suggested they call it quits. Like Davis, he was convinced the Valley was played out. In an emotional meeting, Carter asked for one more excavating season. There was only one small triangle of ground that they hadn’t excavated, and Carter was sure the tomb must be there. Carnarvon, knowing Carter had no money, agreed to fund one more season.

- On November 4, 1922, Carter found the first step leading down to the tomb. At the end of the steps was a sealed wall. Carter stopped the excavation and wired Carnarvon in England to come quickly; he wanted his patron to share in the discovery.
- Carnarvon came over, and the two continued the excavation. They took down the plastered wall and came to a short descending passage. They cleared the rubble in the passage and came to a second plastered wall. The wall was sealed, so something good was ahead of them.
- Carter cut a small hole in the wall, and that's when they made the famous discovery. Carter was looking into what is now called the antechamber, the room before the burial chamber. It was piled high with furniture, chariots, the beds used for Tutankhamen's funerary rituals, and boxes containing linens and personal objects.
- It took a year to clear the first room. They had to photograph everything in place first and objects had to be conserved before they could be moved. Some of the 3,000-year-old wood objects were quite fragile.
- The discovery of Tutankhamen's tomb fascinated the world, but nearly overwhelmed Carter. It was far too much for him and Carnarvon. They needed help, and the Metropolitan Museum of Art came to the rescue.
- One of the difficulties was photography. Each item had to be photographed *in situ* so there would be a permanent record of where exactly in the tomb it had been found. The Metropolitan Museum of Art had excavated in Thebes for years, and had a full excavation team. They graciously loaned Carter their photographer, Harry Burton.
- Burton was a superb and experienced archaeological photographer and produced thousands of iconic photos of the treasures of Tutankhamen. He was even sent to Hollywood to

learn how to operate a movie camera and shot footage of the objects being brought out of the tomb.

- Alfred Lucas, the Antiquities Service's chemist, supervised the conservation of all the objects, both in the tomb before they were brought up the steps and after they were out of the tomb. Once out of the tomb, a nearby tomb served as the laboratory for conserving objects.

Entering the Tomb

- In the back of the antechamber was another plastered wall, bearing the seals of the necropolis guards. Undoubtedly, behind this wall was the burial chamber.
- The official entry into the burial chamber was February 17, 1923, but the day before the opening, Carter, Carnarvon, and Lady Evelyn Herbert (Carnarvon's daughter) secretly made a small hole behind a basket that was propped up at the bottom of the wall, crawled in and had a peek at what lay in store for them the next day. None of them ever openly admitted the secret entry, but there is ample evidence in their diaries.
- In any event, the official opening was just as spectacular as the opening of the antechamber. Carter made a hole in the wall, inserted his electric torch, and found himself staring at a gilded wooden shrine.
- Inside were three more shrines, one nested inside the other. Inside the innermost shrine was the sarcophagus, and inside that were three nested coffins, one solid gold. Inside the gold coffin was the boy-king who had escaped history for 3,300 years.

The Shrines

- The hieroglyphs on the right side of the golden shrines have much to say. On the vertical panel are the symbols for "King of Upper and Lower Egypt"; "Lord of the Two Lands"; one of Tutankhamen's names, Nebkheperure; and sa Re, "Son of Re."








- However, the next few hieroglyphs are not quite so easy. There is a strange-looking hieroglyph in the middle of the group. It is an animal's belly and tail and is the *khet* biliteral, and by itself means "body."
- The loaf *t* under it confirms that the word is feminine. The water sign *n* can be translated as "of" and the viper *f* as "his," so the phrase is "of his body." Tutankhamen is saying that he really is the "Son of Re, of his body."
- Next is the *m-r* biliteral, the irrigation channel followed by two reeds, pronounced like a double e. That's *merry*, "beloved." The stroke between them goes with the *m-r* sign. After "beloved" we

have “his.” That means Tutankhamen is the “Son of Re, of his body, his beloved.”

- Next is “lord,” with the *kha* hieroglyph, meaning “crowns,” with three strokes, so it is plural. That makes Tutankhamen “Lord of the Crowns.”
- Then comes his name, Tutankhamen, spelled out. At the end, inside the cartouche, we have three familiar hieroglyphs: the crook, *heqa*, for “ruler,” and then two others two meaning “Southern On,” or the place name Waset. Today we translate it as either Thebes or Luxor.
- The inscription ends with two more familiar hieroglyphs. They mean something like, “May he be given life.”

Instructions

- The gilded shrines were inscribed with religious texts, but there were also inscriptions in black ink, left by the carpenters who constructed them. The shrines were so large that they had to be carried in in pieces and reassembled inside the burial chamber.
- On the front of the side panels was the front of a lion, meaning “front”: . It was pronounced *hat*. On the rear was the hindquarters of a baboon, meaning “rear”: . This was pronounced something like *peh*. These hieroglyphs match those inked on the roofs of the shrines that were to be aligned.
- Sometimes there were additional instructions as to how the shrines were to be oriented in the tomb: which side faced west and which faced east. This was important because Tutankhamen was going west, so the doors of the shrines had to open to the west.
-  was the hieroglyph for “west.”
-  was the hieroglyph for “east.” It’s a spear with streamers and was pronounced *iabet*.

-  was the hieroglyph for “north.” It’s a whip and was pronounced *meh*.

Carter's Work

- Carter had a difficult time dismantling the shrines. He had very little space to work in, the wood was dry and fragile, and the workmen who assembled the shrines didn’t always follow the inked instructions, so sometimes the roof was forced onto the sides of the shrine.
- Still, he disassembled the shrines, removed them from the tomb, and had them conserved. Today you can visit them in the Egyptian Museum in Cairo. When you do, look for the inked workmen’s instructions. Very few people know they are there.

King Tut's Magic Mirror and Sarcophagus

This final lecture wraps up translating with two objects from Tutankhamen's tomb: a mirror case and a sarcophagus lid. Then, the lecture provides suggestions on how you can continue your studies of hieroglyphs, including places to visit, organizations to join, and things to read. Translating hieroglyphs is a skill that will erode if you don't continually practicing it. Luckily, there are many ways to do so, even thousands of years after the ancient Egyptians' time.

A Mirror Case

- There were many cosmetic and toilet objects in Tutankhamen's tomb. One of the most beautiful was a mirror case in the shape of an ankh. There were hieroglyphs running down the left and right sides of the mirror case. Let's translate the hieroglyphs on the right side. They were:



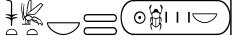

- The first three hieroglyphs are easy. The *ankh* is “life,” the banner hieroglyph is “god,” and the *nefer* is “good.” The next hieroglyph is new; it's part of the eye of Horus. This was pronounced *teyet* and means “likeness.”

- Next we have the solar disk, but no stroke, so it's not "day." It's Re, the sun god. The god determinative is missing because the edge of a mirror is quite small.
- Next we have a word that looks familiar, but in a form slightly different from what we're used to. It looks like *per*, "to go forth." This new word has the same root, but with some extra hieroglyphs. One is the little circle, which usually means "something that comes in chunks." And there are some plural strokes. We also have a loaf *t*, so it's feminine. The word means "seed" and would have been pronounced something like *peret*.



King Tutankhamen

- This is followed by the god sign, and the hieroglyphs after that tell us it's the adjectival form of "god," *netchery*, meaning "divine." Together, it's "divine seed."
- Then we have the water sign *n* and the tethering ring *netch* that means "of." Then there is a god: Atum. Tutankhamen is being called "the divine seed of Atum." If we take this section from the top, we have "The good god, living, likeness of Re, divine seed of Atum."

- Now for the second section, . First is the sedge plant, the symbol of Upper Egypt. This is followed by a bee, the symbol of Lower Egypt. Then we have *neb*, which means “every,” “all” and “lord.” Since we’re dealing with a king’s name, “Lord of the Two Lands” is the best bet for the overall translation. Finally, we come to the king’s name, Nebkheperure. This may have meant something like “The Lordly Manifestation of Re.”
- Now for the king’s second name, . The duck, *sa*, means “son.” The solar disk here means the sun god Re. Overall meaning so far: Tutankhamen is the son of Re.
- As for the cartouche: The Amun part comes first because of honorific positioning; the god is always written first, no matter how the name was pronounced. Then we have the “Tut” part: the loaf, chick, then loaf. Finally, there’s the *ankh*. That makes Tutankhamen, the “living image of Amun.”
- But there are still some hieroglyphs in the cartouche to translate. The crook was pronounced *heqa* and means “ruler.”
- The next two hieroglyphs answer that. The first one, a pillar, was pronounced *iwnu* and is the symbol of the city called On in the Bible and Heliopolis by the Greeks. So Tutankhamen is ruler of On, but not the one in the north. The next hieroglyph, our sedge plant, is the word for “south.” Tutankhamen is here called “Ruler of Southern On,” which is Thebes or Luxor.
- The cartouche is followed by two more hieroglyphs we’re familiar with. The first is *di*, “to give,” and the last is *ankh*, “life.” And we can read it as “given life.”
- Putting the whole thing together we get: “The good god, living likeness of Re, divine seed of Atum. King of Upper and Lower Egypt, Lord of the Two Lands, Nebkheperure. Son of Re, Tutankhamen, ruler of Thebes, given life.” That’s the inscription on the right side of the mirror.

The Sarcophagus Lid

- The lid of Tutankhamen's sarcophagus broke in half in ancient times, perhaps when it was being lowered onto the sarcophagus box. There was an attempt to repair it, but in the end, the two halves were slid on top of the box until they met and the crack filled with plaster and painted to hide the break.
- Three elegant bands of hieroglyphs run down the lid. The center band contains a long sentence, spoken by Anubis and translated as:

There shall exist, the Osiris, the king, Nebkheperure, in among the gods, the lords of the next world, who shall enter and go forth like a living *ba*, to see Re when he rises and he sets in the sky and land, every day. Son of Re, Tutankhamen, true of voice, with the great god, the lord of the sacred land.

- For a more detailed breakdown, refer to the video.
- The point of the inscription was Anubis guaranteeing that Tutankhamen can come and go like a *ba*. He will be like a living *ba*—one who will see Re and be with the sacred land's lord.

Further Study: Museums

- Understanding hieroglyphs is a skill you shouldn't lose. This course will close with some suggestions for how you can continue your study of hieroglyphs.
- The most important tip is to keep translating. You either use this knowledge or lose it. Visit museums that have Egyptian collections. Look for false doors, sarcophagi, and anything else with inscriptions and see what you can figure out.
- In America, there are quite a few major Egyptian collections. New York has two: the Metropolitan Museum of Art and the Brooklyn Museum. Although the Brooklyn Museum's Egyptian collection is not generally well known, it is spectacular.

- The Museum of Fine Arts, Boston has a very large collection with many pieces from the Old Kingdom. It's worth a trip. Likewise, the University of Pennsylvania's museum has a large and interesting collection with lots of pieces to translate.
- Chicago has two major collections. One is in the University of Chicago's Oriental Institute. The other major Chicago collection is the Field Museum, another important collection that is not well known.
- These are just the major collections in the United States. There are many smaller collections all over the country that deserve a visit.

Further Study: Books and Organizations

- Books are another tool for keeping your hieroglyph skills sharp. The crucial book is Sir Alan Gardiner's *Egyptian Grammar*. It has almost everything you'll need to continue your studies: There's a good dictionary in the back to look up words you don't know. There's also a sign list that includes almost every hieroglyph you'll ever come across.
- The Gardiner book also provides you with a series of grammar lessons, each with exercises at the end. Unfortunately, the book doesn't give answers to the exercises, and isn't an easy book to learn from on your own.
- A more user-friendly recommendation is Dr. Janice Kamrin's *Ancient Egyptian Hieroglyphs: A Practical Guide*. It also has grammar lessons with exercises to do, but the answers are in the back. It has objects to translate and a dictionary.
- To feed your general interest in ancient Egypt, there are two organizations to join. First is the American Research Center in Egypt, called ARCE. This is an organization of professional and amateur Egyptologists. If you join, you'll get their journal and newsletter. You can become a member of a local chapter, and you can attend lectures.

- The British counterpart, the Egypt Exploration Society, also has a journal and newsletter that make joining worthwhile. They publish lots of excavation reports and other books on Egyptology, and members get a significant discount on these. They also have lots of back issues free on their website. They too have lectures.
- One last suggestion is *Kmt* magazine, named after the ancient Egyptian word for Egypt. It is a popular magazine of Egyptology, with articles written by leading Egyptologists for a popular audience.

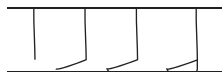


The Egyptian Alphabet

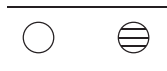
A Egyptian vulture



B Foot



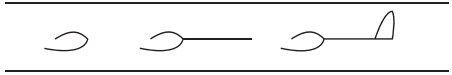
Ch, Kh Placenta



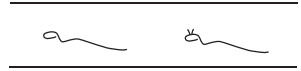
D Hand



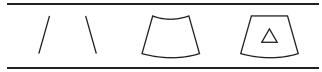
E Arm



F Horned viper



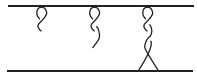
G Jar stand



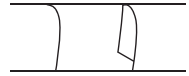
H Reed hut



H Twisted flax



I Flowering reed



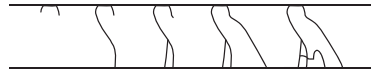
J, Dj Cobra



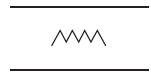
K Basket



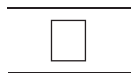
M Owl



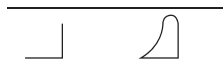
N Water



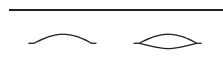
P Reed mat



Q Hill



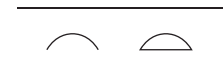
R Mouth



S Folded cloth



T Loaf



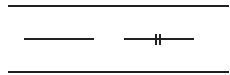
U, W Quail chick



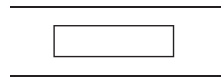
Y Double reed



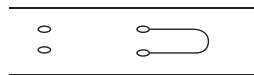
Z Door bolt



Sh Pool



Tch Tethering ring

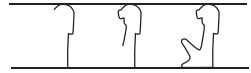


Some Difficult-to-Draw Hieroglyphs

Man



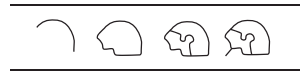
Seated woman



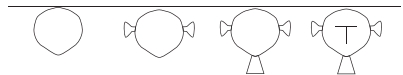
God



Face



Head



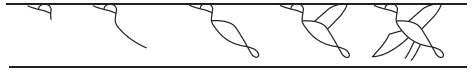
Pintail duck (*sa*)



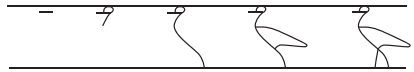
Duckling (*tcha*)



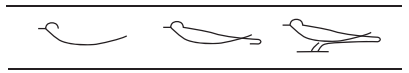
Flying duck (*pa*)



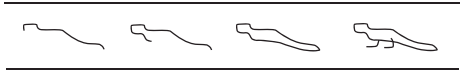
Jabiru (*ba*)



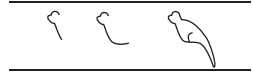
Sparrow (small, bad, etc.)



Crocodile



Tadpole



Lizard



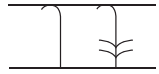
Rabbit



Bee



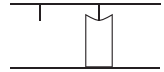
Sedge plant (*sew*)



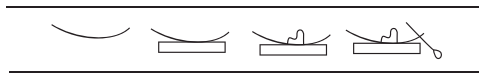
Column (*eha*)



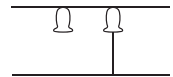
Column (*iwen*)



Boat











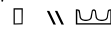








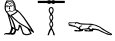






Chisel (*mer, ab*)















English	Hieroglyph	Pronunciation
Abydos		Abdju
alabaster		<i>shes</i>
all, every		<i>neb</i>
among		<i>khenu</i>
another		<i>ket (f.)</i>
another		<i>key (m.)</i>
answer		<i>usheb</i>
Anubis		<i>Inup</i>
appear		<i>kha</i>











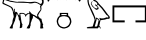

are		yew
arise, stand up		ehe
Atum		Atum
bad, miserable		bin
beautiful		nefer
beer		hket
behold		mek
Black Land		Kemet
boat		depet
body		khet
Byblos		Kopny
clothing		menkhet


commoner, poor man		<i>nedjes</i>
companion		<i>semer</i>
concerning		<i>her</i>
counsel		<i>secher</i>
Crete		<i>Keftiu</i>
Crocodile		<i>mezeh</i>
cubit		<i>meh</i>
daughter		<i>sat</i>
day		<i>heru</i>
Dendera		<i>lunut</i>
descend		<i>ha</i>
desert		<i>desheret</i>







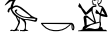






Die, death		<i>met</i>
donkey		<i>eha</i>
Duametef		<i>Duametef</i>
east		<i>iabet</i>
Egypt, Black Land		<i>Kemet</i>
emergence, season of		<i>peret</i>
empty		<i>shew</i>
endure		<i>wah</i>
enter		<i>ahq</i>
eternity, forever		<i>djet</i>
every		<i>neb</i>
evil, sad		<i>djew</i>


excellent		<i>iker</i>
exist		<i>kheper</i>
face		<i>her</i>
fare downstream		<i>khed</i>
father		<i>it</i>
ferry across		<i>dja</i>
first		<i>tep</i>
foremost		<i>tep</i>
forever		<i>djet</i>
from		<i>em</i>
front		<i>hat</i>
Geb		<i>Geb</i>

give		<i>di</i>
glad		<i>resh</i>
go down, to descend		<i>ha</i>
go forth		<i>per</i>
god		<i>netcher</i>
gold		<i>nub</i>
good		<i>nefer</i>
grain, measure of		<i>heqat</i>
great, large		<i>eha</i>
hall, office		<i>kha</i>
happy		<i>nefer</i>
Hatti		<i>Khatti</i>

hear		<i>sedjem</i>
heart		<i>ib</i>
Heliopolis		<i>lunu</i>
Hittites, land of		<i>Khatti</i>
horizon		<i>akhet</i>
hour		<i>wenut</i>
house		<i>per</i>
How!		<i>wey</i>
ignorant of, not to know		<i>khem</i>
in, from		<i>em</i>
interior, among		<i>khenu</i>
inundation		<i>akhet</i>











is		<i>yew</i>
Isis		<i>Ist</i>
lunu, Heliopolis		<i>lunu</i>
joy, gladness		<i>reshwet</i>
Ka-priest		<i>hem-ka</i>
Karnak Temple		<i>lpet-Sewet</i>
know		<i>rekh</i>
Kush, ancient Nubia		<i>Kush</i>
lake		<i>she</i>
land		<i>ta</i>
life		<i>ankh</i>
like, as		<i>mi</i>

likeness		<i>mitet</i>
likeness		<i>teyet</i>
lord		<i>neb</i>
maid servant		<i>baket</i>
man		z also 
man servant		<i>bak</i>
many		<i>esha</i>
Memphis		<i>Men-nefer</i>
miserable		<i>bin</i>
month		<i>abed</i>
moon		<i>yeah</i>
name		<i>ren</i>










Nephtys		<i>Nephtys</i>
Netherworld		<i>duat</i>
night		<i>gereh</i>
north		<i>meh</i>
not to know		<i>khem</i>
Nubia		<i>Kush</i>
Nut		<i>Nut</i>
obelisk		<i>tekhen</i>
office		<i>kha</i>
one, sole		<i>weh</i>
Osiris		<i>Ausir</i>
Overseer		<i>em-r</i>













Palestine		<i>Retchenu</i>
palm, a unit of length		<i>seshep</i>
People		<i>retchu</i>
place		<i>bew</i>
plan, counsel		<i>secher</i>
pleased, to set sun		<i>hotep</i>
plentiful, many		<i>esha</i>
pool, lake		<i>she</i>
poor man		<i>nedjes</i>
power		<i>was</i>
priest		<i>hem-netcher</i>
Ptah, god		<i>Ptah</i>

Punt		<i>Punt</i>
pure		<i>wab</i>
Re, sun god		<i>Re</i>
rear		<i>peh</i>
Red land, desert		<i>Desheret</i>
rejoice, glad		<i>resh</i>
remember		<i>secha</i>
rich, plentiful, many		<i>esha</i>
rise, shine		<i>weben</i>
river		<i>iteru</i>
road		<i>wat</i>
rod, unit of length		<i>khet</i>

sacred boat		<i>wia</i>
sacred, holy		<i>djeser</i>
sad		<i>djew</i>
scribe		<i>sesh</i>
secret		<i>sesh</i> <i>ta</i>
see		<i>maa</i>
seed		<i>peret</i>
send		<i>hab</i>
servant of the god, priest		<i>hem-netcher</i>
servant statue		<i>shabty</i>
Set		<i>Set</i>
set sun		<i>hotep</i>

shabti, servant statue		<i>shabty</i>
shine, appear		<i>kha</i>
Shu		<i>Shu</i>
sight		<i>her</i>
silent		<i>ger</i>
sole		<i>weh</i>
sky		<i>pet</i>
son		<i>sa</i>
soul		<i>ba</i>
soul		<i>ba</i>
Southern Heliopolis, Thebes		<i>lunu Sut</i>
sovereign		<i>ity</i>

<p>speak</p>		<p><i>medu</i></p>
<p>stability</p>		<p><i>djed</i></p>
<p>stand up, arise</p>		<p><i>ehe</i></p>
<p>summer</p>		<p><i>shemu</i></p>
<p>sun</p>		<p><i>re</i></p>
<p>sun, day</p>		<p><i>re</i></p>
<p>Syria, Palestine</p>		<p><i>Retchenu</i></p>
<p>Tefnut</p>		<p><i>Tefnut</i></p>
<p>temple</p>		<p><i>per-netcher</i></p>
<p>Thebes</p>		<p><i>Waset</i></p>
<p>Thebes</p>		<p><i>lunu Sut</i></p>
<p>then</p>		<p><i>ikh</i></p>

therein		<i>im</i>
thing		<i>khet</i>
this		<i>pen m</i>
this		<i>ten f.</i>
thousand		<i>kha</i>
to for people		<i>en</i>
to for place		<i>er</i>
to be, is, are, etc.		<i>yew</i>
together with		<i>heneh</i>
town		<i>niwit</i>
truth		<i>maat</i>
upon		<i>her</i>

upon		<i>tep</i>
vizier		<i>tchaty</i>
voice		<i>kheru</i>
wab-priest		<i>wab</i>
Wepwawet		<i>Wepwawet</i>
West, the next world		<i>lment</i>
Woman		<i>zet</i>
words, speak		<i>medu</i>
year		<i>renpet</i>
year, as in date		<i>hat-sep</i>









Hieroglyph

Pronunciation

English





 - A








	<i>abed</i>	month
	<i>Abdju</i>	Abydos
	<i>ahq</i>	to enter
	<i>akhet</i>	season of inundation
	<i>akhet</i>	horizon
	<i>ankh</i>	life
	<i>Atum</i>	Atum
	<i>Ausir</i>	Osiris


𐀀 - B

	<i>ba</i>	soul
	<i>ba</i>	soul
	<i>bak</i>	man servant
	<i>baket</i>	maid servant
	<i>bin</i>	bad, miserable
	<i>bew</i>	place

𐀁 - C, KH


	<i>Khatti</i>	Hatti, land of Hittites
	<i>khed</i>	to fare downstream
	<i>khem</i>	to be ignorant of, not to know
	<i>kheru</i>	voice





	<i>khet</i>	thing
	<i>kha</i>	1,000
	<i>kha</i>	hall, office
	<i>kha</i>	shine, appear
	<i>khenu</i>	interior, among
	<i>khet</i>	body
	<i>khet</i>	a rod, unit of length

 - D

	<i>depet</i>	boat
	<i>Desheret</i>	the red land, desert
	<i>di</i>	to give
	<i>Duametef</i>	Duametef

	<i>duat</i>	netherworld
---	-------------	-------------

 - E

	<i>aha</i>	great, large
	<i>eha</i>	donkey
	<i>ehe</i>	stand up, arise
	<i>esha</i>	rich, plentiful, many

 - G

	<i>Geb</i>	Geb
	<i>ger</i>	to be silent
	<i>gereh</i>	night








𐀀 𐀁 - H

	<i>ha</i>	to go down, to descend
	<i>hab</i>	to send
	<i>hat</i>	front
	<i>hat-sep</i>	year, as in a date
	<i>hem-ka</i>	Ka-priest
	<i>hem-netcher</i>	servant of the god, priest
	<i>heneh</i>	together with
	<i>hotep</i>	to be pleased, to set sun
	<i>heqat</i>	a unit of grain measure
	<i>hket</i>	beer
	<i>her</i>	face, sight, upon, concerning




	<i>heru</i>	day
---	-------------	-----

4 - |


	<i>iabet</i>	east
	<i>ib</i>	heart
	<i>yeah</i>	moon
	<i>ikh</i>	then
	<i>iker</i>	excellent
	<i>im</i>	therein
	<i>Iment</i>	the west, the next world
	<i>Inup</i>	Anubis
	<i>Ipet-Sewet</i>	Karnak Temple
	<i>Ist</i>	Isis








	<i>it</i>	father
	<i>iteru</i>	river
	<i>ity</i>	sovereign
	<i>lunu</i>	lunu, Heliopolis
	<i>lunut</i>	Dendera
	<i>lunu Sut</i>	Southern Heliopolis, Thebes
	<i>yew</i>	to be is, are, etc.

𐐇 - J



	<i>dja</i>	to ferry across
	<i>djed</i>	stability
	<i>djeser</i>	sacred, holy
	<i>djet</i>	eternity, forever










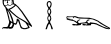


	<i>djew</i>	evil, sad
---	-------------	-----------

 - K











	<i>Kush</i>	Kush, ancient Nubia
	<i>Keftiu</i>	Crete
	<i>kheper</i>	to exist
	<i>Kemet</i>	Egypt, the Black Land
	<i>Kopny</i>	Byblos
	<i>ket f.</i>	another
	<i>key m.</i>	another

 - M

	<i>em</i>	in, from
	<i>maa</i>	to see

	<i>maat</i>	truth
	<i>medu</i>	words, speak
	<i>meh</i>	north
	<i>meh</i>	cubit
	<i>mek</i>	behold
	<i>menkhet</i>	clothing
	<i>Men-nefer</i>	Memphis
	<i>em-r</i>	overseer
	<i>met</i>	die, death
	<i>mezeh</i>	crocodile
	<i>mi</i>	like, as
	<i>mitet</i>	a likeness

𐎃 - N

	<i>en</i>	to for people
	<i>neb</i>	all, every
	<i>neb</i>	lord
	<i>Nephtys</i>	Nephtys
	<i>nefer</i>	happy, good, beautiful
	<i>nedjes</i>	commoner, poor man
	<i>netcher</i>	god
	<i>nub</i>	gold
	<i>niwit</i>	town
	<i>Nut</i>	Nut







□ - P

	<i>peh</i>	rear
	<i>pen m.</i>	this
	<i>per</i>	house
	<i>per</i>	to go forth
	<i>per-netcher</i>	temple
	<i>peret</i>	season of emergence
	<i>peret</i>	seed
	<i>pet</i>	sky
	<i>Ptah</i>	Ptah, god
	<i>Punt</i>	Punt

☉ - R

	<i>er</i>	to for place
	<i>Re</i>	Re, sun god
	<i>re</i>	sun
	<i>re</i>	sun , day
	<i>rekh</i>	to know
	<i>ren</i>	name
	<i>renpet</i>	year
	<i>resh</i>	to rejoice, to be glad
	<i>reshwet</i>	joy, gladness
	<i>Retchenu</i>	Syria, Palestine
	<i>retchu</i>	people

ꜥ - S

	<i>sa</i>	son
	<i>sat</i>	daughter
	<i>secha</i>	to remember
	<i>secher</i>	plan, counsel
	<i>sedjem</i>	to hear
	<i>semer</i>	companion
	<i>sesh</i>	scribe
	<i>seshep</i>	a palm, a unit of length
	<i>seshta</i>	secret
	<i>Set</i>	Set

— - SH

	<i>she</i>	pool, lake
	<i>shabty</i>	shabti, servant statue
	<i>shemu</i>	season of summer
	<i>shes</i>	alabaster
	<i>Shu</i>	Shu
	<i>shew</i>	empty

◐ - T


	<i>ta</i>	land
	<i>tchaty</i>	vizier
	<i>Tefnut</i>	Tefnut
	<i>tekhen</i>	obelisk

	<i>ten f.</i>	this
	<i>tep</i>	first, foremost, upon
	<i>teyet</i>	likeness

 - U, W

	<i>usheb</i>	to answer
	<i>wah</i>	endure
	<i>wab</i>	pure
	<i>wab</i>	wab-priest
	<i>was</i>	power
	<i>Waset</i>	Thebes
	<i>wat</i>	road
	<i>weben</i>	rise, shine

	<i>weh</i>	one, sole
	<i>wenut</i>	hour
	<i>Wepwawet</i>	Wepwawet
	<i>wey</i>	how!
	<i>wia</i>	sacred boat

 - Z

	<i>z</i>	man also 
	<i>zet</i>	woman



A family



ba



dja



eha



ha



ka



kha



ma



pa



sa



sha



ta



tcha



wa

B family



ab



neb

D family



djed

Eh family



weh



kheh

I family



mi

M family



gem



kem



tem

N family



hen



men



sen



shen



wen

P family



kep



wep

Q family



aq

R family



her



ir



mer



mer



per

S family



mes

T family



met

W family



djew



new



new



sew



shew



ankh



hotep



kheper



nefer



sedjem



Dependent Pronouns

English

Hieroglyph

Pronunciation

Singular

I, me		<i>wi</i>
you masculine		<i>tchu</i>
you feminine		<i>tchen</i>
he, him, it		<i>su</i>
she, her, it		<i>sey</i>

Plural

we, us		<i>n</i>
you		<i>tchen</i>
they, them		<i>sen</i>



English

Hieroglyph

Pronunciation




Singular

I, me, my		i
you, your masculine		k
you, your feminine		tch
he, him, his, it, its		f
she, her, it, its		s

Plural

we, us, our		n
you, your		tchen
they, them, their		sen

Dual

we two, our		ney
you two, your		tcheny
they two, their		seny









Hieroglyph

Pronunciation







English




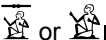

Lecture 3 Vocabulary

	<i>bew</i>	place
	<i>khet</i> (f.)	thing
	<i>key</i> (m.)	another
	<i>ket</i> (f.)	another
	<i>im</i>	therein
	<i>em</i>	in, from
	<i>en</i>	to (for people)
	<i>pen</i> (m.)	this
	<i>pet</i>	sky







	<i>er</i>	to (for places)
	<i>Re</i>	Re, sun god
	<i>Re</i>	sun
	<i>re</i>	sun, day
	<i>ten</i> (f.)	this
	<i>weben</i>	rise, shine




Lecture 4 Vocabulary

	<i>khem</i>	to be ignorant of, not to know
	<i>ger</i>	to be silent
	<i>heneh</i>	together with
	<i>yew</i>	to be is, are, etc.
	<i>Ptah</i>	Ptah, god
	<i>rekh</i>	to know

	<i>ren</i>	name
	<i>retchu</i>	people
	<i>usheb</i>	to answer
	<i>z</i>	man
	<i>zet</i>	woman

Lecture 5 Vocabulary

	<i>depet</i>	boat
	<i>ha</i>	to go down, to descend
	<i>hab</i>	to send
	<i>khed</i>	to fare downstream
	<i>niwit</i>	town
	<i>sedjem</i>	to hear
	<i>reshwet</i>	joy, gladness

	<i>secher</i>	plan, counsel
	<i>tekhen</i>	obelisk
	<i>wia</i>	sacred boat

Lecture 6 Vocabulary





	<i>akhet</i>	horizon
	<i>gerh</i>	night
	<i>heru</i>	day
	<i>yeah</i>	moon
	<i>nedjes</i>	commoner, poor man
	<i>sesh</i>	scribe
	<i>she</i>	pool
	<i>ta</i>	land

Lecture 7 Vocabulary

	<i>bak</i>	manservant
	<i>baket</i>	maidservant
	<i>cha</i>	hall, office
	<i>dja</i>	to ferry across
	<i>eha</i>	donkey
	<i>maa</i>	to see
	<i>maat</i>	truth
	<i>sa</i>	son
	<i>sat</i>	daughter
	<i>secha</i>	to remember
	<i>seshta</i>	secret
	<i>tchaty</i>	vizier

	<i>wat</i>	road
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Lecture 8 Vocabulary

	<i>ankh</i>	life
	<i>djed</i>	stability
	<i>her</i>	face, sight, upon, concerning
	<i>it</i>	father
	<i>iteru</i>	river
	<i>mezeh</i>	crocodile
	<i>er</i>	mouth, magical spell
	<i>resh</i>	to rejoice, to be glad

Lecture 9 Vocabulary

	<i>kheper</i>	to exist
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Lecture 10 Vocabulary None

Lecture 11 Vocabulary

	<i>mek</i>	behold
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Lecture 12 Vocabulary

	<i>bin</i>	bad, miserable
	<i>djew</i>	evil, sad
	<i>di</i>	to give
	<i>di</i>	to give
	<i>eha</i>	great, large
	<i>heket</i>	beer
	<i>ib</i>	heart
	<i>iker</i>	excellent
	<i>mi</i>	like, as
	<i>mitet</i>	a likeness

	<i>neb</i>	all, every
	<i>neb</i>	lord
	<i>nefer</i>	happy, good, beautiful
	<i>shew</i>	empty






Lecture 13 Vocabulary

	<i>ehe</i>	stand up, arise
	<i>esha</i>	rich, plentiful, many
	<i>kha</i>	shine, appear
	<i>netcher</i>	god
	<i>was</i>	power
	<i>waset</i>	Thebes/Luxor

Lecture 14 Vocabulary

	<i>ikh</i>	then
	<i>ity</i>	sovereign
	<i>neb</i>	gold
	<i>wey</i>	how!
	<i>wah</i>	endure

Lecture 15 Vocabulary






	<i>heqat</i>	a unit of grain measure
	<i>kha</i>	1,000
	<i>meh</i>	cubit
	<i>seshep</i>	a palm, a unit of length
	<i>khet</i>	a rod, unit of lengths

Lecture 16 Vocabulary






	<i>abed</i>	month
	<i>akhet</i>	season of inundation
	<i>peret</i>	season of emergence
	<i>renpet</i>	year
	<i>hat-sep</i>	year, as in a date
	<i>shabty</i>	ushabti/shabti, servant statue
	<i>shemu</i>	season of emergency
	<i>wenut</i>	hour

Lecture 17 Vocabulary

	<i>Atum</i>	Atum
	<i>Geb</i>	Geb
	<i>Ist</i>	Isis







	<i>Nebt</i>	Nephthys
	<i>Nut</i>	Nut
	<i>Ausir</i>	Osiris
	<i>Set</i>	Set/Seth
	<i>Shu</i>	Shu
	<i>Tefnut</i>	Tefnut

Lecture 18 Vocabulary




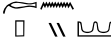
	<i>djed</i>	eternity, forever
	<i>duat</i>	the next world
	<i>lment</i>	the west, the next world
	<i>kheru</i>	voice
	<i>met</i>	die, death












Lecture 19 Vocabulary
None

Lecture 20 Vocabulary








	<i>Abdu</i>	Abydos
	<i>Desheret</i>	the red land, desert
	<i>Iunu</i>	On, Heliopolis
	<i>Iunut</i>	Dendera
	<i>Iunu Sut</i>	Southern Heliopolis, Thebes/Luxor
	<i>Kemet</i>	Egypt, the Black Land

Lecture 21 Vocabulary

	<i>hem-netcher</i>	servant of the god
	<i>hem-ka</i>	ka-priest
	<i>Ipet-sewet</i>	Karnak Temple
	<i>Kapny</i>	Byblos


	<i>Kush</i>	Kush, ancient Nubia
	<i>Khatti</i>	Hatti, land of the Hittites
	<i>Keftiu</i>	Crete
	<i>Men-nefer</i>	Memphis
	<i>per-netcher</i>	temple
	<i>menkhet</i>	clothing
	<i>Punt</i>	Punt
	<i>Retchenu</i>	Syria, Palestine
	<i>shes</i>	alabaster
	<i>wab</i>	pure
	<i>wab</i>	<i>wab</i> -priest

Lecture 22 Vocabulary

	<i>Duamutef</i>	Duamutef
	<i>Inup</i>	Anubis
	<i>em-r</i>	overseer
	<i>semer</i>	companion
	<i>tep</i>	first, foremost, upon
	<i>weh</i>	one, sole
	<i>Wepwawet</i>	Wepwawet

Lecture 23 Vocabulary

	<i>hat</i>	front
	<i>iabet</i>	east
	<i>khet</i>	body
	<i>meh</i>	north

	<i>peh</i>	rear
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Lecture 24 Vocabulary

	<i>ahq</i>	to enter
	<i>ba</i>	soul
	<i>djoser</i>	sacred, holy
	<i>hotep</i>	to be pleased, to set sun
	<i>khenu</i>	interior, among
	<i>medu</i>	words, speak
	<i>peret</i>	seed
	<i>teyet</i>	likeness



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