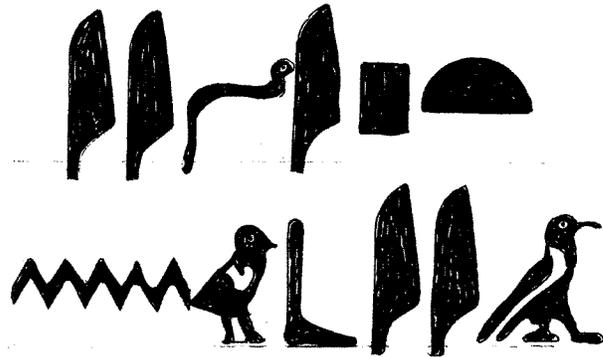


# Integrating Writing with Social Studies

By

James B. Webster, Ph.D.



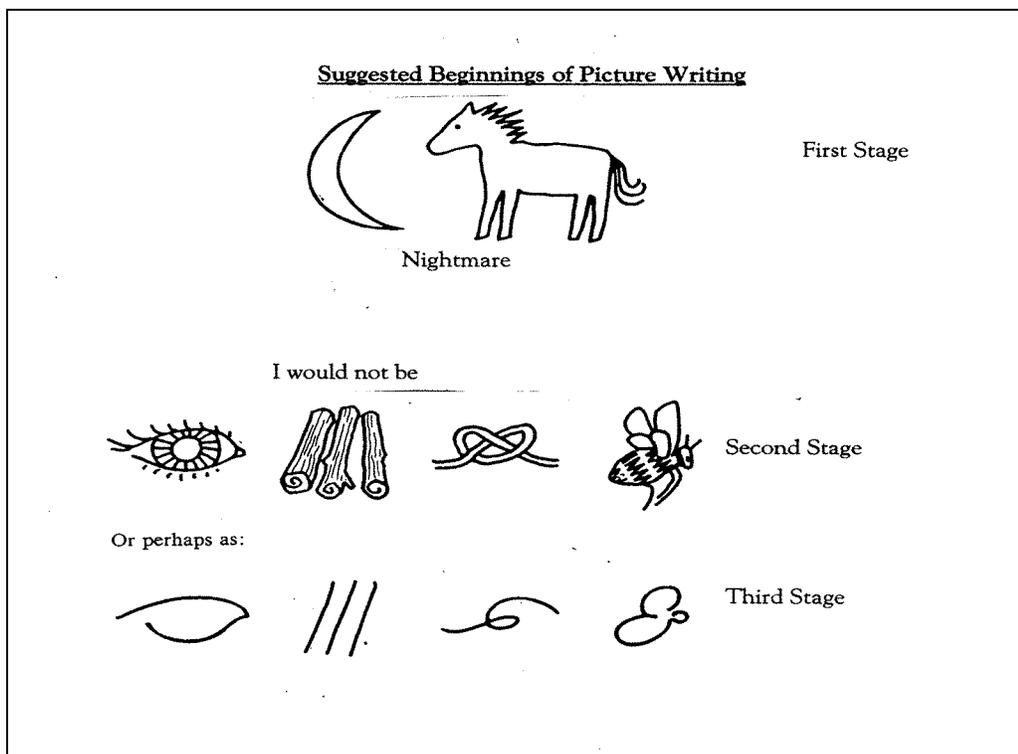
The god of the Nile who is come to make Egypt live, to flood the fields which Ra has created.

Blended Structure & Style in Composition grew out of, and is an integral part of, the Blended Sound-Sight Program of Learning created by A.G. Ingham (C.M.)



Fortunate indeed is the teacher who combines social studies & English in her teaching. My personal experience teaching socials & English in grades seven, eight & nine for four years, was the most productive & enjoyable. Eventually I had students in grade nine who had taken my system of writing during grades seven & eight. Possibly as high as 60% of social studies periods were concerned with writing. Unit VI was completed almost entirely within the social curriculum and over a period of almost three months each year. The same applied to the essay so that in English classes we could devote more time to creative writing & critiques.

In the second edition of Structure & Style in Composition, Unit VI on library reports focused on the mini-series devoted to the study of animals. It was shown how a teacher could instruct students to write a library report from two or more sources. What follows at the end of this handout, is a mini-book series on Ancient Egypt (five booklets) and another on "The Fall of the Roman Republic" in 31 B.C. (four booklets). If you have taught with the mini-book series on animals, you will readily adapt to these booklets on history. There is only one minor difference. In these booklets there is an introductory paragraph. For all other paragraphs they key word or phrase in the topic sentence has been repeated in the clincher. These key words or phrases tell what the paragraph is about. The chart shows the key words for all of the paragraphs in the five books on Ancient Egypt & the four on the "Fall of the Roman Republic."



## Translating the Title

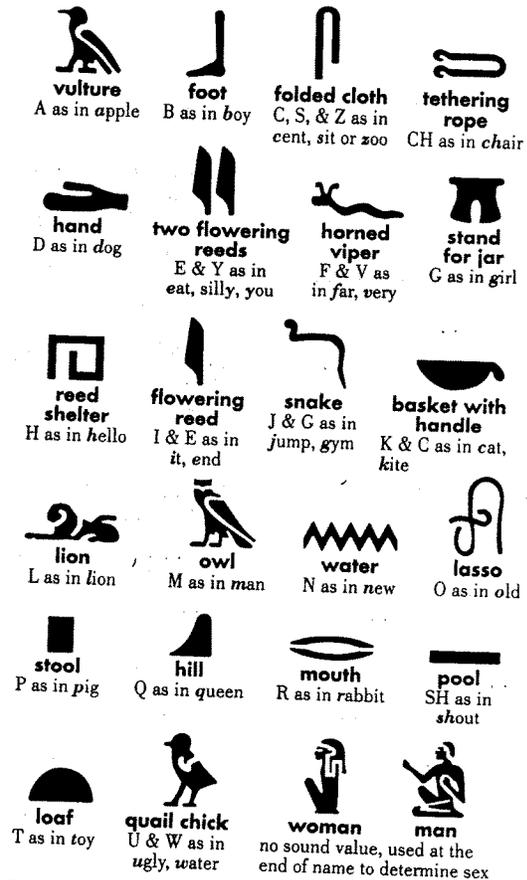
Can you decipher the title using the accompanying key? Hieroglyphics can be written left to right or right to left depending upon the direction the animals are facing.

Read phonetically so "g" as in "girl" is a different symbol than "g" as in "gym." Silent letters such as the "e's" in greater will not appear. In hieroglyphics it would be "gratr."

The author's name is in the cartouche, the oval border or frame. A picture of a man or woman at the end of a name identifies gender.

## Egyptian Hieroglyphs

There are over 750 Egyptian hieroglyphs. The symbols shown here represent the phonetic sounds closest to English.



- You may wish to spell your own name in hieroglyphics. Remember the following:
1. left – right, or right – left.
  2. animals face the direction to read.
  3. Write phonetically. No silent letters. Petr, Valre
  4. End with your gender sign.

## Mini-Book Series on Ancient Egypt & Nubia

Paras.Books	I	II	III	IV	V
1.	Intro	Intro	Intro	Intro	Intro
2.	Nile	Nile	provinces	Nile	location
3.	location	Seth	Nile	provinces	economy
4.	provinces	economy	Nile	Seth	food, drink
5.	Seth?	Pyramids	Seth	cats	measurements
6.	hieroglyphs	provinces	mummification	_____	legacy

In the table below it can be seen that there are ample topics which can be taught in units II & IV using one topic. In the Egyptian series seven paragraphs discuss factors which only appear once. The Roman series has eight. As the class moves into unit six on library reports using two or more sources there are five options in the Egyptian series & four in the Roman. Five paragraphs in four different books have been devoted to the Nile River (I<sub>2</sub>, II<sub>2</sub>, III<sub>3&4</sub>, IV<sub>2</sub>). It would be difficult to fuse the material from five sources into one paragraph. So divide them up so that students write two paragraphs on the Nile.

### Content of the Socials Mini-Series

#### Five Books on Egypt

hieroglyphics, pyramids, cats

mummification, food & drink

measurements, legacy

location, economy

Seth, provinces

Nile River

one

paragraph

each

2 paragraphs

3 "

4 "

5 "

#### Four Books on Rome

peasants, rich-poor, Cicero

citizenship, plebeians, army

code of conduct, Augustus

Paganism

land reform

slavery

generals

Two elements are fundamental to success in social studies & history: the geography of the region being studied and the peculiar vocabulary relative to the region, history or topic under consideration. Without mastery of these, students will flounder in socials. Students

must be able to visualize the Nile flowing from the Ethiopian Highlands to the Mediterranean Sea. Only a map can convey this. A picture of the Nile with a few palm trees conveys almost nothing. Unfortunately in the many study helps available on Egypt, maps are scarce while pictures flourish. In the study of Rome students must understand the difference between the peasantry & proletariat, between aristocracy & commoners & between patricians & plebeians.

Each set of books comes with games designed to teach geography & vocabulary. Teachers may duplicate the games so that all students have them & their answer sheets. Students can play these games without teacher assistance. The games should be played over & over again over the month or time given to writing about Egypt. These games provide drill, that old-fashioned word so abused over the last fifty years. But it is a drill made pleasant. Do modern teachers know about drill, repetition over & over for a lifetime retention. Scientists tell us an average person requires 55 repetitions for lifetime retention. How do you achieve that without boring students and teachers to distraction? Try these games, created by a teacher and used extensively in his classroom. Remember weak students may require more than 55 repetitions. Play 3 or 4 games daily. They take little time.

Let us examine the four games developed for the Egyptian unit. They are designed to fix facts of the Nile Valley in students' mind & expand vocabulary. Students work in pairs. One has the map page, the other the page with lists of geographic features. As student #2 calls out one of the names, for example "fifth cataract," student #1 gives the appropriate number, in this case number 12. Student #2 knows whether that is a correct response because he has the answer sheet before him. Student #2 calls out "famous for its copper mines" & student #1 must find the Sinai Peninsular & reply, #18. When all numbers have been called out the two students reverse roles. Thus the entire class in five to ten minutes can review the geography of the Nile Valley every social studies class.

There are two games – for a total of 40 words – given over to vocabulary development. One is called "Isis," the other "Annubis." Again they are played in partners. For example one has the checkerboard page, the other the list of definitions. Student #2 says "a plant used to make flax," while the other student correctly responds "flax #70." The second student says "a stone box containing a coffin." Her partner correctly replies "sarcophagus, #75." Partners

should continue with the game “Isis” until both get every answer correct, even if this takes five minutes every day for a week. Thereafter they proceed to “Annubis.”

When most of the class could play “Isis” without error, it was my habit to assign the words in the checkerboard for spelling. When they finished “Annubis,” another spelling lesson followed. Even the map drill. When it had been mastered, it could form a spelling lesson. After all in their writing students may have to write cataract & Sinai, Faiyum & Siwa, and you will want these words correctly spelled.

Finally the game “Osiris” identifies pictures. In my experience I have found reasonably good students who having completed a unit, cannot identify 85% of the pictures in the elaborately illustrated books they have been reading. One wonders if the old texts I used as a child with almost no pictures, were superior. We as children were compelled to use our imaginations when studying ancient Egypt. A picture is not necessarily worth a thousand words. Occasionally it takes a thousand words to explain a picture. “Osiris” is played like the others. Student #2 calls out “god of the necropolis” & her partner points & calls out 52, meaning that the picture in square 52 is Annubis, “the god of the necropolis.” Note that these games can be easily converted into a written quiz which social studies teachers like to spring upon classes from time to time. They take no time to prepare & can be corrected quickly.

## I. The Beginnings of Ancient Egypt

For students of ancient Egypt (from He Ky Ptah – the House of Ptah – and translated by the Greeks as “land of the dark people”), a major problem involves chronology and dating. Making dating easier, the dates have been rounded. There were three great and impressive periods of flowering during which time Egypt was united, the pharaohs were in control, the economy and construction, arts and literature flourished while progress was achieved in irrigation and trade. Consequently, the three periods of progress included the Old Kingdom for 500 years, the Middle Kingdom (300 years), and the New Kingdom (400 years). Between the eras of flowering and progress were times of political disunity and economic decline, called the first, second and third intermediate periods. Each lasted from 100 to 400 years as shown.

Old Kingdom (2700-2200 B.C.)	Dynasties 3-6	24 kings
First Intermediate Period: The Great Catastrophe		
D.9-11	8 Kings	200 years
Middle Kingdom (2000-1700 B.C.)	D.11-14	16 Kings
Second Intermediate Period: Hyksos Confusion		
D.15-17	7 Kings	100 years
New Kingdom (1600-1100 B.C.)	D.18-20	32 Kings
Third Intermediate Period: Libyan-Nubian Wars		
D.21-25	24 Kings	400 years

Following the Lybian-Nubian wars of the Third Intermediate Period, the Late Kingdom pharaohs, who sought to restore the glory which had been Egypt, ruled for four hundred years. While the Late Kingdom was repeatedly subject to invasions from Assyria & Persia, the latter took over & ruled Egypt directly having driven out the ruler of the last dynasty (D.30). The last pharaoh of D.30 took refuge in Nubia. That was not the end. One foreign invader followed another. After the Greeks came the Romans. Then followed Byzantine rule for 200 years which was overthrown by Muslim Arabs & Muslim Turks. Finally the British invaded

because they wished to take over the Suez Canal. In 1922 Egypt returned to independence after 2000 years of foreign rule.

## Ancient Egypt: Dynastic Chronology

### Pre-History: Time of the Gods

#### Isis, Horus, Hathor: Overcoming Matriarchy & the Aboriginals

<b><u>Archaic Period</u></b>	D.0-3 -- 15 Kings
Menes: Uniting Egypt	
<b><u>Old Kingdom</u></b> 2700-2200 B.C. (500 yrs.) --Memphis--	D.3-6 -- 24 Kings
Khufu: The Pyramids of Giza	
The Great Catastrophe: <b>First Intermediate Period.</b> (200 yrs.)	D.7-10 -- 8 Kings
<b><u>Middle Kingdom</u></b> 2000-1700 (300 yrs.) --Thebes--	D.11-12 -- 14 Kings
Economic infrastructure, canals, irrigation, Faiyum	
Karnack, rock cut tombs, Valley of Kings	
Hyksos Confusion: <b>Second Intermediate Period.</b> (200 yrs.)	D.13-17 -- 21 Kings
<b><u>New Kingdom</u></b> 1500-1100 (400 yrs.) --Thebes & Memphis--	D.18-20 -- 32 Kings
Ramessids 19-20. Hatshepsut, Akenaten, Tutankhamun, Ramesses II	
Karnak, Abu Simbel. Imperial Expansion	
Libyan-Nubian: <b>Third Intermediate Period.</b> (400 yrs.)	D.21-25 -- 20 Kings
<b><u>Late Kingdom</u></b> 700-300 (400 yrs.) --Various delta locations--	D.26-30 -- 23 Kings
<b><u>Foreign Invaders</u></b>	
First & Second Persians	
332-30 B.C.	Greek & Ptolemaic
30 B.C. – 395 A.D.	Rome
395-642	Byzantine: Coptic Christian
643-1882	Muslim Arabs & Turks
1882-1922	Britain
1922	Return to independence after 2000 years of foreign rule.

One of the largest & most remarkable rivers in the world, the Nile rises in the heart of Africa & flows over 6,500 km to its mouth at the Mediterranean Sea. Of its many tributaries two are well known, the Blue Nile which rises in the highlands & mountains of Ethiopia beginning in Lake Tana & the White Nile which is fed from large numerous lakes in the Uganda region of East Africa, the most famous being Victoria Nyanza. Remarkably over the length of 6,500 km, the river drops only eight cm per kilometer between Victoria Nyanza & Mediterranean. This is unusually sluggish. While this is the White Nile where water from rain over Victoria Nyanza takes three years to enter the Mediterranean, the Blue Nile is shorter & more explosive. Swelling rapidly as the Monsoon rains fall over the Ethiopian highlands, the Blue Nile changes from a small creek into a raging torrent, plunging down the slopes towards the junction. As it roars, rages and rampages through the junction, the White Nile actually backs up, allowing the Blue Nile to provide almost all the water in the main river. This occurs each spring because this is the Monsoon season in Ethiopia. Consequently it is those rushing waters of the Blue Nile which cause and create the famous inundation or annual floods in Egypt. Since it rarely rains in Egypt, it is the annual inundation carrying loads of nutrient-rich silt which explains why the country has been called “the gift of the Nile.”

Egypt enjoys a strategic location. While it is geographically located on the northeast corner of Africa, it borders southwest Asia & southeast of the Mediterranean – European world. Surely it formed the nexus of three continents, three cultures & three philosophies. Some have argued that when Egypt cultivated its African roots it flourished while it declined & became subjected when it became involved with Asia or Europe. Pharaonic Egypt was clearly African. Economically its water & nutrients for agriculture derived from the heart of Africa. Granite for construction, gold for decoration came from Nubia. By the New Kingdom, “a river of gold,” “like sand” flowed from Nubia while rare luxury articles were imported from Punt on the coast of East Africa. Politically its monarchy probably originated from nomads in Africa since, like the Nubian royal house the Old Kingdom monarchy used the lion as its symbol. Lions were popular royal totems in a cluster of African kingdoms around Victoria Nyanza. Militarily pharaonic Egypt depended upon Nubia for its soldiers & policemen because Egyptians avoided the army. Scribbled on the walls of a school, some graffiti stated: “Be a scribe so you can be saved from being a soldier.” Socially important concepts derived from Africa. One involved the elevated position of women in society more African than either Asian or European if one compares the role of queens in Nubia & Egypt with Asia, Greece & Rome. Religiously the extravagant polytheism & tolerance of diversity

resembled Africa especially the role of animals as symbols of gods, as symbols of people & as symbols of dynasties. God kings & the continuous concern for the deities, the spirit world & afterlife stem from African roots. Not surprisingly, therefore, deities such as Isis & Hathor, Osiris & Horus were frequently painted or rendered in black in Egyptian paintings. When foreign dynasties, foreign invaders & foreign philosophies pulled Egypt towards Asia, it was the Nubians who marched north, attempting to emphasize and revive the Old Kingdom, the one most like them & most African of all the dynasties. It could be argued that stemming from its geographic location Egypt was an African civilization besieged by ideas, forces & influences coming from Asia & Europe which eventually destroyed the pharaohs & their culture.

Historic Egypt was divided into 42 provinces which originally had been independent chieftaincies with their own animal & other symbols. Chieftain animals probably originated as elsewhere in Africa as the totem animal of founding royal families. Among the noteworthy chieftaincies were the Bee & Hippo in the delta, the Reed, Hare & Antelope in the centre, the Crocodile in the Faiyum, and the Oryx & Falcon (Hawk) in the south. [When an animal name refers to people it is capitalized as in the "Bee chieftain" or "The Hippo opposed the king." When not capitalized it refers to an animal as in "The hippo was the sacred symbol."] Each chieftaincy possessed its hierarchy of gods and its royal & noble families. When before 3000 B.C., a couple of Falcon kings – Scorpion & Menes – began their conquest of the other chieftaincies, the most successful resistance came from the Hippos led by Seth. Appearing as hero or villain in Egyptian history, Seth led the Hippos & Crocodiles in their opposition to the pharaohs. Horus (Hawk or Falcon) became the symbol of the conquering monarchy & of Egypt itself. A royal myth portrayed Horus (Hawk) as the son of the god, Osiris whose twin brother was Seth. The evil Seth killed his noble brother. By another tradition Menes had been carried off & killed by a Hippo or follower of Seth. Consequently hunting hippos (the animals) became a religious rite because it symbolized the taking of revenge on Seth, the destroying of evil & the stamping out of the opposition to the central government. Seth appealed to provincial chieftaincies.

In the time of the gods & according to official myth, the union of Egypt had been accomplished by Menes, the king, & thereafter the land was peaceful. Surely the true story was more complex. The Hawk people – probably nomads, patriarchs & immigrants – who entered the Nile Valley and settled at Abydo since their leaders and Horus were returned

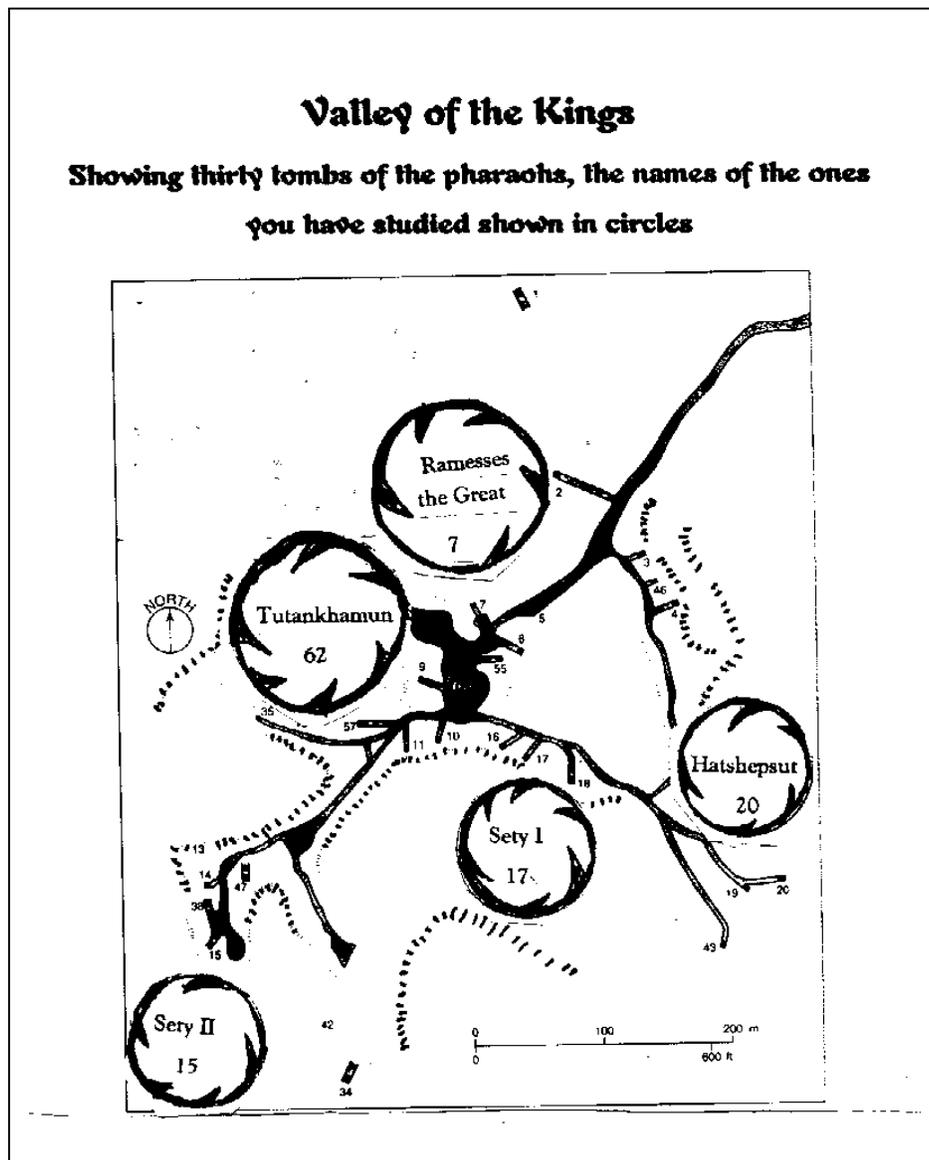
there for burial in their homeland. Opposition to them derived from two sources, one being the female or matriarchal opposition to their patriarchy & the other the indigenous people led by Seth. Symbolized by a lioness, the cause of matriarchy & female rule was championed by a goddess who in Upper Egypt, "slaughtered and devoured mankind until the Nile ran red with blood."

Day by day she stalked through the land of Egypt slaying all whom she met; and by night she hid herself among the rocks on the edge of the desert waiting for the sun to rise so she might hunt some more.

In time the sun god & pharaoh – Ra - bargained & gave her a new name, "Hathor," the lovely lady of love claiming she would become greater than before because "the passion of love shall be stronger than the passion of hate." He promised her. "All shall be your victims." While Hathor's symbol was the cow, her annual festival fell on the first day of the New Year. Hathor had been bought off but the struggle for matriarchy was not over. The patriarchal Hawks found their opposition divided. Unexpectedly they gained Seth's assistance. When the patriarch, Ra, was later poisoned by a woman, when Isis, mistress of the gods, seemed about to be chosen as pharaoh in his place & when matriarchy appeared ready to triumph, Seth exclaimed in dismay, "So you would let Egypt be ruled by a woman!" Isis had been rejected. Patriarchy had triumphed. Matriarchy failed. Despite this set back Egyptian women held a higher status in society as goddesses & queens, as regents & property owners and as traders & mothers, than anywhere in the Mediterranean lands especially if compared to female roles in Greece & Rome. In gender relations, Egypt remained African: compared with Nubia where a queen (Candace) was as likely to rule as a king.

Hieroglyphs (The noun) or the adjective hieroglyphic writing was the written form of ancient Egyptian which belonged to a family of languages called Afro-Asiatic including Hausa, the most widely spoken in West Africa & Amharic & Geez from Ethiopia as well as Hebrew & Arabic in Asia. Beginning as picture writing where a symbol of a bee & leaf meant exactly that "a bee & leaf," hieroglyphs eventually developed a phonic system as well. Some symbols meant sounds. So the symbol of a bee & leaf might mean "belief." Eventually there were about 750 symbols (some say 2,000) of which 25 stood for phonic sounds. The majority stood for ideas. For example X represented the idea of a "crossroads at which a town or village had developed." Below can be found most of the phonic sounds or alphabet of hieroglyphs. Use them to write your name while after it, put the picture of a seated man or woman symbolizing the idea of gender. Hieroglyphs were written left to right or right-left

horizontally or vertically. Right-left horizontal was common. The way the animals faced indicated direction for reading. While hieroglyphs unite the two main streams of writing in the world, Chinese only emphasize picture ideas & European languages only use phonic alphabets. Using the Meroitic script – named after the capital Meroe – the Nubian language depended mostly upon the phonic alphabet although it also employed some picture ideas. Egyptian hieroglyphs is the oldest writing system in the world. Ironically the most ancient example of hieroglyphs comes from Nubian incense burners c.3,300 B.C. found in Nubia which show the Hawk (Horus) as a symbol of monarchy probably because the earliest pharaohs & writing originated in, & came from, the south, from Africa & specifically from Nubia.



## II. Ancient Egypt: Problems and Prosperity

According to the royal tradition in the pre-historic period, Menes and his people of the Hawk probably entered the Nile Valley at Abydos and in time established a chiefdom at Elephantine. Eventually he conquered small states along the river especially the Reed chief of the Memphis area with a white crown & palace & the Bee chief of the delta with a red crown & palace. Consequently the rule of the pharaohs was established over a united Egypt. As part of the royal regalia pharaohs wore a red & white double crown & were called the lords of two lands. Thereafter Horus (the Hawk) became the symbol of a united prosperous Egypt. Menes who founded Memphis, has been portrayed as a bull slaying his enemies which might be linked to that animal being the symbol for Ptah, the creator god of Memphis. While the people of the Hippo did not accept the new order, their animals – hippo & crocodile – became symbols of opposition to the central authority of the pharaoh. Following the archaic period, the Old Kingdom pharaohs built the great pyramids at Giza, laid out their capital at Memphis & revered their main deities, Ptah and Ra (the Sun god) at Heliopolis on the edge of the delta. Their totem was the lion which gave them a special relationship to the Nubian kings because the royal lion in Nubia held a national position similar to the hawk in Egypt. Both were symbols of centralization. The Sphinx with the head of a pharaoh & the body of a lion guarded the burial place of the Old Kingdom rulers at Giza. They were the lion kings, sons of Ra & defenders of Horus (the Hawk), symbol of the united kingdom of Egypt. The Old Kingdom collapsed. The Nile failed. Disaster followed. The government of the Old Kingdom which had ruled for 500 years collapsed in the Great Catastrophe where the inundation was poor for a number of years & eventually failed entirely so that starvation, anarchy & severe depopulation devastated the land. The pharaohs were blamed. While building great pyramids to honour themselves, they had neglected the many gods of the valley who in revenge had slowed and stopped the Nile. Future pyramids – 80 in Egypt & 100 in Nubia – would be small so as not to anger the deities. During the Great Catastrophe the pharaohs had been reduced to petty chiefs. After 200 years it was the son of a pharaoh by a Nubian queen who began the re-construction which led to the second flowering of Egyptian civilization, known as the Middle Kingdom.

Remarkably unique, the annual inundation of the Nile Valley began in May when the Blue Nile & its tributaries came crashing down from the Ethiopian highlands which were

being soaked by the monsoon rains. Given the force of the Blue Nile vast amounts of soil, silt & nutrients called alluvial deposits, were carried along by the currents, spread over the Nile Valley and left behind to fertilize the crops when the waters of the inundation had gone. Thus Egyptian farms are renewed & fertilized every year by nature. What a gift. The Nile snakes through the red desert sands like a ribbon pinched together every once in awhile at one of the six cataracts. Moving north on the Nile from the sixth cataract, one passes through the Kingdom of Meroe until the fifth cataract, passes around the great bend to the fourth cataract and the third cataract. The cataracts are swift flowing rough water broken into numerous rocky channels. Navigation of the cataracts is impossible because of these conditions. The cataracts are treacherous. Between the third & first cataracts was located the Kingdom of Nubia. Passing the first cataract, one enters Egypt as the river stretches 1200 km to the Mediterranean, a stretch of water serenely placid, easily navigable & ideally suited for sailing. As the flood comes down the river, it begins to inundate the land after the second cataract where the narrow flood plain extends on both sides for a few yards to as wide as six kilometers. While at Thebes the valley is ten km, it becomes wider at Memphis before spreading out in the fan-like delta which reaches 240 km at the Mediterranean coast. The river normally reaches full flood in mid-August. Since in myth the inundation was caused by the weeping of Isis, at her festival “Night of the Tear Drop” worshippers prayed:

When thou comest the whole land rejoices...  
Thou art the creator of all good things...  
Thou fillest the storehouses,  
Thou heapest high with grain the granaries  
And thou hast care for the poor & needy.

Clearly without it, Egypt would have formed part of the Sahara Desert but because of it, the Nile fostered one of the most remarkable cradles of civilization. Very occasionally the Nile failed to flood or the inundation was extremely high. In either case deaths were massive & destruction total like the “time before creation.” The Nile god became angry.

He symbolized opposition. Seth who became a god & leader of the opposition to the pharaohs seems to have emerged among the Hippo people of the delta. Surrounded by myth & animal symbolism, Seth provides the reader with more fun than all of the other gods. Seth could be man. He could be animal. He could be deity. Those who worshipped Seth opposed the monarchy. While Seth could be associated with the animal symbol of any dissident people, he was at times the crocodile, at times the cobra and at other times scorpions or pigs

but mostly hippo. Supposedly Seth's followers were aboriginal because he once claimed, "My followers own all the land & if anyone tries to take it from me, I shall lay it waste with fire & water." Seth was indestructible. Associated with nature worship, an early religious form, Seth was believed the child of the sky mother & earth god. Osiris represented a more developed religion. Seth had killed Osiris, the father of the Hawks, who after death became the high god of the afterlife. According to tradition the great hero unifier of Egypt, King Menes was carried off & killed by the Hippo, certainly a reference to Seth or his followers. Seth took many guises. Numerous battles occurred, one where Seth "took upon himself the shape of a black pig... fierce to look at, with tusks to strike terror." Upon another occasion Seth's armies came,

Wearing the forms of crocodiles & hippopotami... The Hawks tore them into pieces with their mighty talons – all the followers of Seth – whether they were in human form or in the guise of hippos & crocs.

Seth escaped when "he entered into a poisonous black snake" which crept away into the desert in the south where he gathered allies & began sailing north up the Nile. At Elephantine, Seth stood on the island as a "gigantic red hippo." Further north the menacing red hippo stood straddling the stream. Horus (Hawk or Falcon) the king slew Seth at Edfu. Who could kill a deity? As the god of rebellion he continued to be worshipped for 2000 years in Egypt. Seth triumphed eventually.

Primarily the economy of Egypt depended upon agriculture, so the amount of cultivable land & its intelligent use was crucial to prosperity. In the Old Kingdom for an estimated population of 350,000, it has been suggested there was about 16,000 square kilometers of good agricultural land giving a ratio of 22 people per square km. While the Great Catastrophe probably reduced population by half, the Middle Kingdom pharaohs paid considerable attention to flood control & the development & fostering of farming. By the New Kingdom, population had reached three million & the cultivable land 23,000 sq. km. or 130 people per. While in the Old Kingdom farmers raised crops – barley, wheat & vegetables – and animals – cattle & sheep, goats, pigs & geese – for food, flax was cultivated for clothing & papyrus collected for the making of paper. Old Kingdom cattle were particularly fat & beautiful because there was much land available for grazing. Unsuccessfully men had tried to domesticate oryx, hyenas & ibex. Successfully women in the middle Kingdom had domesticated cats thereby saving up to 30% of stored grain from being eaten by mice & rats. Cats earned their keep. Fishing supplemented the diet. During the Middle Kingdom horses, a new breed of wool-bearing sheep & zebu cattle (hump-back oxen) were introduced while the

Shaduf which lifted water from the rivers & reservoirs to the fields was invented. Adopted to the shrinking area of land as population grew, the dwarf or zebu cattle ate less & had the added advantage of being work animals. Hence they replaced the large cattle. The Shaduf probably permitted production to double by encouraging two crops each year. Cultivable land expanded by the opening up of the Faiyum while wine production began in the delta & papyrus collection substantially increased. In the New Kingdom wine production significantly expanded in the delta & in the seven major oases of the western desert. Even as late as Roman occupation, agriculture flourished so successfully that Egypt was known because of her exports of grain as the “granary of the Roman Empire.” Consequently New Kingdom Egyptians possibly enjoyed the highest standard of living in the world because of the flourishing agricultural economy. Egyptians were prosperous.

When thinking of pyramids, people visualize the three great ones, guarded by the Sphinx & located at Giza. The three largest pyramids were built at Giza as burial chambers by three generations, father, son & grandson of D.4. Constructed as the mightiest work of ancient architecture, the largest was built by Khufu. The second which is smaller but appears taller because it was constructed on higher ground, was built by Khephren who also had carved the Great Sphinx with a portrait of his own head on the body of a lion, possibly a hint at the royal totem which linked pharaohs to Nubia. The smallest was designed as the burial chamber of the grandson.. While others were significantly smaller, there were 80 pyramids in Egypt & up to 100 in Nubia where the lion kings felt close to the pharaohs of the Old Kingdom. While Egyptians used limestone, Nubians employed sandstone in their pyramids. How were these mighty structures built? Covering 12 square acres, the Great Pyramid was built of 2.5 million blocks about two tons each. They were moved from Nubia down the Nile on barges during the inundation to the escarpment near Giza. Using ropes & wooden rollers, the labourers shifted the blocks up the escarpment to the plateau, lubricating the sledge runners with oil to make them easier to move. Labourers were paid, housed in worker villages & fed by the government. Farmers during most of the year, thousands turned out in a communal religious effort to prepare the tomb of their divine pharaoh or work on other government projects. Graffiti in worker villages complained: They ridiculed their bosses. Food was lousy. Pay late. Nevertheless the salaries were a welcome addition to their income from farming. In construction the burial chambers were either built inside or under the pyramid. Antechambers were filled with treasures because the pharaoh must enjoy a comfortable

afterlife. Other chambers could be for the mummy of the queen or other royals. Especially during the Great Catastrophe & other times of stress, tomb robbers sacked the chambers so that by the Middle Kingdom pharaohs were buried in rock caves in the Valley of the Kings. The rare example of a king's tomb found intact & not robbed & sacked was that of Tutankhamun discovered in 1922 in the Valley of the Kings. Robbed thoroughly, no king's mummy has been discovered in a pyramid, only that of a queen at Giza. Three coffins inside each other, the last of pure gold, kept the mummy of Tutankhamun – wearing a solid gold mask inlaid with jewels – inside a granite sarcophagus. An antechamber was piled high with priceless treasures. Near the Great Pyramid at Giza was buried the boat (43 meters long) which had carried the pharaoh to his funeral. While Giza has been famous for Egyptian pyramids, in Nubia the largest number were located at Meroe, the capital of Kush, a Nubian city located between the fifth & sixth cataracts.

Forming the 42 provinces of Egypt, the subdued prehistoric chiefdoms remained a constant threat to the Falcon monarchy. While suppressed under the Old Kingdom, they rose to prominence during the Great Catastrophe only to be abolished under the revived & flourishing Middle Kingdom. They might have been abolished officially but their old royal families remained ambitious & tended to re-surface in the intermediate periods because central rule was weak. They seized the chance. Normally it was one of these subdued royal families which eventually reunited the country. Note the dynastic gyrations in the Second Intermediate Period of Hyksos Confusion when some of them seized the throne. D.14 obscure chiefs in the central delta. D.15 the Asiatic immigrants – the Hyksos – centred in the eastern delta. D.16 a vassal Hyksos house from the Memphis region. Finally D.17 chiefly rulers of Thebes who expelled the Hyksos, who restored Egyptian unity & who issued in the flowering of the New Kingdom. Notably the Hyksos established their capital at Avaris in the delta along with the cult of Seth. Seth had arrived. Many New Kingdom pharaohs felt it necessary to buy off & cater to the Hippos until eventually Seth became elevated to the main triad in the national pantheon. Thus by the time of the Hyksos Confusion suppressed royal families dating back to the provinces were struggling to & succeeding in seizing the throne of the pharaohs.

### III. Middle and New Kingdom Egypt

While D.11 restored Egypt to a functioning state after the Great Catastrophe, D.12 initiated its second period of cultural flowering known as the Middle Kingdom. Establishing their capital at Thebes, elevating the creator god – Amun – of that ancient chiefdom to national status, & embarking on major constructions, Middle Kingdom pharaohs had learned the lessons of the past. As a consequence of the Great Catastrophe the pharaohs of the Middle Kingdom paid attention both to the irrigation system especially in Faiyum & the building of temples, notably that of Amun-Ra at Karnak. The southern frontier was pushed south to the second cataract where a temple and Nilometer were constructed. A canal nine meters deep was dug to bypass the first cataract, another linked the Mediterranean & Red Seas while a string of fortresses were built in Nubia. Slaves from Asia became numerous. Thereafter followed & for 100 years the Hyksos Confusion or second period of decline when Semitic Hyksos (who were) settlers from the delta founded a dynasty, ruling from Avaris & elevating the god Seth because he had been the symbol of Hippo-Crocodile opposition to the pharaohs. Introducing horse-drawn chariots, the Hyksos “those wretched Asians,” seemed invincible. Eventually a Theban family began recruiting Nubian soldiers & with the support of Kush finally overthrew the Hyksos. D.18 of Thebes united Egypt & inaugurated the third flowering, called the New Kingdom. The pharaohs established viceroys in the delta, in Nubia and competed with each other in adding temples & halls at Karnak. Their new necropolis involved rock-cut tombs in the Valley of the Kings. With cavalry units added to, & strengthening the army & with a strong fleet in the Mediterranean, the pharaohs of the New Kingdom embarked on a vast imperial expansion south into Kush & east into Syria & Palestine, the Tigris & Euphrates valley. Their administration centred at Memphis. They lived in Thebes. They were imperialists. Truly the New Kingdom including the Ramessid dynasties (D.19-20) carried out imperial conquests which eventually created powerful influences from, & enemies in, Asia. These would haunt Egypt.

Provincial chiefdoms had been important even central in the life of everyday Egyptians. While offices were hereditary, holders administered justice & collected taxes, organized the military & supervised temples. In addition they supervised the digging of canals & were responsible for flood control. While there were 42 provinces the strongest were in four power centres, around the first cataract, near Thebes, at Memphis & in the delta. Arriving from the first cataract, the original dynasties of Egypt established and maintained their capital at

Memphis while Middle Kingdom pharaohs came from Thebes. Initially the gods had been provincial – an estimated total of 2000 – but certain ones were adopted by the monarchy & elevated into natural deities. The god Ra who supposedly lived in the sun had his temple in the delta & was patronized by Old Kingdom dynasties while the creator god Ptah at Memphis had been raised to prominence by kings of the Middle Kingdom & Amun – king of all the gods – the ancient chiefdom deity of Thebes. Eventually Amun combined with Ra became the imperial deity of the New Kingdom. Temples & shrines to Amun-Ra dominated Karnak, possibly the largest architectural complex in Egypt. Locating their residences in Thebes & with the administration in Memphis, New Kingdom pharaohs sought to please everyone. By the time of the Ramessids of the New Kingdom & continuing into the Late Kingdom the triad of the most favoured deities of the national pantheon were: Amun, king of the gods. Seth, controller of evil. Ptah, the creator. Ra, the sun. Dedicated to serving these gods, Temples consequently had replaced the provinces as the new local power centres because they combined, religion, resources and politics. While the goddesses Isis, Hathor & Bastet were wildly popular – possibly even more so than their male counterparts – the pharaohs were patriarchs who ensured their main patronage favoured the male Triad, Ptah, Amun-Ra & Seth.

<b>Dynasties</b>	<b>Origin</b>	<b>Capital</b>	<b>National Deities</b>
Old Kingdom	First cataract	Memphis	Ra
Middle Kingdom	Thebes	Thebes	Ptah & Amun
New Kingdom	Delta	Memphis & Thebes	Amun-Ra & Seth
Late Kingdom	Delta	Various in delta	The Triad

Nile levels controlled Egyptian life. They were measured & recorded monthly at a Nilometer at Elephantine Island near the first cataract and other places. Water levels indicated the state of the economy because all production depended on them. Possibly levels determined tax rates. In good years farmers could pay more. After poor floods, less. When Egypt occupied lower Nubia during the Middle Kingdom another Nilometer was built & manned at the second cataract and a canal (which was) nine meters deep was constructed around the first cataract. Constructing the canal, the pharaohs made the Nile navigable to the second cataract & strengthened the Egyptian hold & influence over Nubia. Nilometers consisted of a series of measured & numbered steps going down into the river. During a good inundation the Nile would rise fourteen meters at the first cataract and one meter at the coast. Examining the floods from a small nilometer at Memphis the following table demonstrates the effects of variable levels:

<u>Nile Levels at Memphis</u>
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<u>Levels in Meters</u>	<u>Harvests</u>
6	disastrous
7	tolerable
9-10	good to excellent
11	ruinous

A series of low flood levels caused hardship & about once every thousand years: there was no inundation at all as in the Great Catastrophe which overthrew the Old Kingdom monarchy and created unspeakable misery among the peasants. Very high inundation could cause extensive erosion, destruction of canals & reservoirs with the overwhelming of the dikes around villages & the consequent destruction of homes, people & animals. During the Nubian dynasty (D.25) the waters rose to thirteen meters at Memphis – the highest inundation in ancient history – while causing massive destruction followed by plagues & diseases which devastated the population. Clearly the gods could become angry & show their displeasure. Egypt might be the gift of the Nile. It could be its ruination.

Egyptians grievously suffered whenever Nile levels rose or fell too high or too low. In times of scarcity the inundation might be low for five to ten years creating a series of poor harvests & famines. The pharaoh's granaries became exhausted. Occasionally there would be no inundation at all when the monsoon failed in Ethiopia. Disaster then struck. Since Egypt turned into a desert, domestic animals died in their thousands, food supplies became exhausted & millions of humans perished. Such a disaster which destroyed the Old Kingdom caused the First Intermediate Period. Called the Great Catastrophe, it created 200 years of lawlessness or anarchy, so chaotic one argued it became "like the world before creation," where armed bands raided neighbours for food, where trading ceased, homes had to be walled & where social taboos gave way to unspeakable acts such as the catching & eating of people. Population declined by half. Bandits looted royal tombs. Dynasties rose & fell. In D.7 seventy kings each ruled for a day. D.8 consisted of five pharaohs in ten years while D.9 went searching abroad for seed grain. Following this catastrophic drought, the inundation returned to ruinously high levels of water which swept everything before it. Too little water. Then too much. Sadly not until D.11 of the Middle Kingdom did law & order return & a centralized government fully function again. The Great Catastrophe caused many profound changes because every belief & institution of ancient Egypt had been shaken. Gods were angry. Pharaohs were blamed. The Old Kingdom vanished.

Seth personified evil. For 2000 years many of the pharaohs encouraged the denunciation of Seth who had been a member of a group of gods at Heliopolis. According to royal myth, Seth & his worshippers were agents of confusion, violence & brute force. Opponents of the pharaohs were mythologized as a threat to national morals & therefore to social stability. A Sethian man or follower drunk and leched to satisfy lustful demands. He loved beer & women. While Sethians were prone to drinking & quarreling, they were also much loved by women. Seth was an alluring attractive lover but he had no emotion in his love making because he was impotent. His seed was poison. Annually royal supporters went hippo hunting & when they killed the animal, they ritually cut it up to demonstrate the cleansing of the Sethian spirit from the land. Propaganda publicly portrayed Seth as debauched. In the New Kingdom a drama called the "Triumph of Horus (Hawk)" was performed annually. Scenes & texts from the play have been discovered in paintings on the Temple of Horus at Edfu, where the mortal Seth had been killed. Act I ended with Horus stabbing a hippo with ten harpoons. Act II showed the rejoicing and crowning of Horus as king while Act III depicted the hippo being ritually dismembered. Horus was always shown as a man. Seth an animal. Thus he was demonized. Probably this was the oldest drama in world history. As propaganda, it was effective. Depicted as a hippo, the god Seth was not only a traitor to the pharaohs but he was an evil spirit, a bringer of anarchy & confusion and a terrible tyrant & terrorist. The message was clear. However the intensity of the propaganda alone, indicated the widespread Sethian opposition to pharaonic rule in Egypt.

Mummification by Egyptians & Nubians was performed to ensure the body of the deceased would be preserved until the soul united with the afterlife. Without the body the soul would wearily wander the underworld, never finding peace. At death the pharaoh became a deity, so the corpse was that of a god who had joined Osiris & to which worshippers at his valley temple – earthly home – might worship. Mummification could be expensive. Obviously mummification of a pharaoh & his family was elaborate. All soft organs such as the stomach, liver & lungs were removed, mummified separately & placed in a canopic jar which often sat in the tomb with the corpse. The heart was left inside because upon final judgment, it was weighed by Osiris, prince of the dead & god of the afterlife, to see whether the individual had been worthy or "big hearted." Packed with crystal salt (natron) & the nostrils stuffed with beeswax, the corpse was left for 40 days to dry & thereafter to be bandaged & wrapped with many dozen layers of linen cloth with amulets for good luck hidden between the folds.

Prayers accompanied each stage of the process while the body was anointed with wine, olive oil & spices. Thereafter the bandaged body was covered with a thick resin to keep out air & moisture. When laid to rest in a golden coffin along with collections from the Book of the Dead for guidance, it was placed inside four or five boxes & finally in a stone sarcophagus. All humans wished to be mummified at death but many animals were also done. Small mummy – shaped figures called Shabits were also placed in the tomb representing field hands expected to work for the king in his afterlife. Mummification of a pharaoh took place in a mortuary temple near his tomb, connected by a lengthy causeway to the Valley Temple where priests performed rituals. Common people were excluded but could pray at the gates. To be ritually pure priests had to bathe four times a day & provide two meals each twenty-four hours for the mummy. While mummification was designed for all, the process for ordinary citizens was limited & rarely effective.

#### IV. Pharonic Egypt: New & Late Kingdoms

Three pharaohs – Hatshepsut, Akhenaten & Tutankhamun – of the New Kingdom are noteworthy & relatively well known. Hatshepsut was a queen who became a regent for a young heir to the throne but refused to step down when he had become a man. Reigning for twenty years, she was the first to appoint Asiatics to government office, build additions to the Amun-Ra complex in Karnak and a spectacular mortuary temple for herself in the necropolis of Thebes. She also revered the goddess, Hathor and was buried in the Valley of the Kings. However, after her death, there was a backlash of male chauvinism against her memory when her statues were destroyed, her figure hacked out of reliefs & her name erased from king lists. In the same dynasty Pharaoh Akhenaten turned on the entire tradition of Egypt by introducing monotheism, a one & only god, the Aten or rays of the sun. Like most monotheistic faiths it was intolerant, claiming a universal truth, demanding total submission and seeking to erase all of the other gods from the pantheon. Akhenaten moved the capital out of Thebes, building a new city at Amarna which became the cult place of the Aten. While the main feature of his reign was the persecution of Amun-Ra & elimination of all animal deities, gangs of iconoclasts swarmed over the land even in Nubia chiseling out the name of Amun-Ra, the state god of the New Kingdom. Fundamentally the philosophy could be summed up as “There is no god but Aten and Akhenaten is his prophet.” The third noteworthy pharaoh was son-in-law to Akhenaten, called Tutankhamun. His reign was short. While he tore down the Amarna temples & Aten, he brought all the gods back. His tomb in the Valley of Kings was the only one modern Europeans have found untouched by robbers. His golden sarcophagus & the magnificent funerary equipment of his tomb are the wonders of modern museums & probably makes King Tut the most well known of all the pharaohs. Two of the three pharaohs fought a monopoly, male domination, and tomb robbers. Only Akhenaten sought to create one, the monotheism of a single god. Monotheism probably indicated Asian influence because it played a major role in his administration.

Did the Nile determine history? Following the Great Catastrophe there were fewer people & land lay vacant so the peasants could take what they wanted. Peasants became uppity & often refused to take orders. Many land-owning families had been wiped out – the rich having lost their wealth while the poor flourished. Society was upside down. The pharaohs of D.12 took advantage of the weakness of the wealthy & abolished the hereditary

chiefdoms which frequently had challenged pharaonic authority. Learning lessons from the Great Catastrophe, the greatest achievements of D.12 of the Middle Kingdom involved a hydraulic revolution whereby the Nile was regulated & a new region, the Faiyum opened up for settlement. While the second cataract Nilometer was repaired, Middle Kingdom pharaohs devoted much energy to new dams, barrages & canals to improve & control the inundation. Substantially cultivable land was improved in the largest Egyptian oasis, the Faiyum. Filling the depression, a large lake with no outlet was fed by a branch of the Nile. While the surface of this salt lake lay 50 meters below sea level, the marshes were drained, dikes & canals built until the lake became only a quarter of its original size. Many areas were irrigated. Pharaohs Senwoset II & his son Senwoset III were the main architects of the Faiyum which they transformed into one of the most prosperous provinces in Egypt where the father opened a sanctuary at Crocodilopolis for the region's main Crocodile deity, Sobek, where he laid out his personal tomb & where his son lovingly erected a hall of granite pillars for the god as well as temple for the Serpent goddess. Such policies helped to reconcile the Crocodiles which raised Sobek to the national pantheon. Clearly the concentration of D.12-13 on regulating the Nile arose because of the fear engendered by the Great Catastrophe which had ruined Egypt before the Middle Kingdom & destroyed the image of the pharaohs as living gods. Henceforth at death they would "become" gods, a much-reduced status. Never again would pharaohs build ostentatious tombs such as The Great Pyramids of Giza because the gods disapproved. Thus the Nile shaped pharaonic power, politics & theology as well as the social order. It determined Egyptian history.

Provinces were abolished. While the old federal system of which they were a part, was dissolved in a single decree, the nation was divided into & administered through three districts under governors appointed by the pharaoh & responsible to a vizier or prime minister. Inflating the civil service significantly, the new system gave the pharaohs much tighter control over the country. Centralization had been enhanced. The old system had been very African as in Nubia, while the new one was more Asian. The change from a federal to unitary system of government reflected the rise in importance of Asian influence & the decline of African-Nubian among the pharaoh's policy makers. This was especially pronounced during the New Kingdom when pharaohs hired Asians in the civil service, when Egypt expanded into the Tigris & Euphrates valley & when the high priest of Karnak became addicted to Asian tributes. Asian ideas flowed in. During the imperial expansion of the New

Kingdom, vast riches from tributes poured in to the temple of Amun-Ra at Karnak. Thus the high priest became both a supporter of imperialism & Asians in general. While the Asians supported Seth as the equivalent of their god Baal, it is hardly surprising that Seth was lifted into the national pantheon along with Ptah and Amun-Ra & that the divisions of the Egyptian army were named after these four deities. Demographic changes favoured Seth. By the New Kingdom the population was shifting southward so that the delta became more important politically than the valley. The delta was Seth country. Capital cities too, were located there. Given tracts of land, temples grew rich, receiving revenues & offerings of produce & animals. The Amun-Ra temple in Karnak owned a third of the land in the Valley & combined with Asian tributes was rapidly becoming an over mighty subject. Assuming the role of power broker, the high priest of Amun-Ra decided & determined who would & who would not become pharaoh. Obviously the abolition of the provinces did not end opposition to the pharaoh's government because it merely found new powerful outlets of expression in the temples, originally expected to support the pharaohs but becoming overly ambitious & upon occasion challenging them.

Some tried appeasement. Over the centuries some pharaohs sought to appease the god, Seth by worshipping him as a means of tamping down resistance to the government. In D.2 one king worshipped Seth as his main deity while others combined his name with Horus. In D.4 of the Old Kingdom, a charm was placed on the three great pyramids of Giza to keep them safe from the weapons of Seth – lightning, earthquakes & weathering – from which they might crumble to dust. In the Middle Kingdom D.12 which had rehabilitated the Faiyum, favoured the Crocodiles, (which were) often associated with Sethians. Ending with a Crocodile queen-regent, she helped shift the royal house so that D.13 came from her Crocodile people. Feeling insecure & needing all the political support they could find, some pharaohs quickly turned in desperation to attract Sethians. Appeasement arose from weakness. D.18 was the first of foreign origin – the Hyksos being Asiatic settlers from the delta – who found Seth much like their traditional deity, Baal. Seth triumphed under the Hyksos. Queen Hatshepsut (D.18) – the first female pharaoh – of the New Kingdom was crowned by high priests of the gods, Horus & Seth. Eventually Hatshepsut condemned Seth. She had not forgotten his opposition to matriarchy & his shock at the very idea of an Egyptian queen. When the Ramessidas came to power (D.19-20) Seth became more powerful than ever because the pharaohs were from the delta with their capital at Avaris in the heart of Sethian support. Seth became the “Lord of

Avaris" as shown on a stele commemorating his cult. When Sety, who had been a high priest to Seth, became pharaoh, he revived & promoted the worship of the deity. Like his grandfather, Sety II was named after the god, served as his high priest & added his name to the ranks of the triad in the national pantheon, Amun-Ra & PTah. As a consequence finally & successfully, but probably 2000 years after his death, Seth had become respectable & had been elevated from evil villain deity into one of the powerful Egyptian gods. Appeasement had succeeded.

Originally toms and tabbies were wild desert cats which developed a symbiotic relationship with humans when both discovered how profitable mousing could be in the granaries & silos of early villages along the Nile even before the Old Kingdom. Lured into the villages by humans, possibly first in Nubia, by the Middle Kingdom cats had become fully domesticated as useful economic partners & companion animals. Evolving into manifestations of deities, many temples kept catteries in the New Kingdom with staff for mummification & burials in cat cemeteries. While the wild cat had been a symbol of the earliest national deity, the sun god Ra, tamed toms & tabbies primarily were associated with the goddess Bastet. Dogs had been portrayed under the chair of a man for 1,000 years before the cat in the Middle Kingdom was shown under the chair of the mistress. Dogs had been domesticated long before cats. In the hunting culture dogs were useful, as for example, the royal Nubian basenji and the "hound of the pharaohs," the saluki, not only as a pet but also as a sniffer dog to catch criminals. Some cats in Egyptian reliefs & wall paintings sported multi-strand beaded necklaces & long dangling earrings. Some were comical. Egyptians would never harm a cat or ape, crocodile or any other sacred animal. As with humans, so with cats & other animals, the body had to be mummified if one expected life after death. Clearly Egyptians wanted their tabbies in the afterlife. Millions of cats were mummified. To show piety, pilgrims to the temples of Bastet would pay to have cats mummified which explains the catteries & cemeteries. Cats were profitable to temples. When the gods were suppressed in the interests of monotheism during the Amarna period, cats disappeared from all sculpture, reliefs & wall paintings. Quietly they came back with the failure of monotheism, with the return of the gods. Cat mummification became profitable again. The popularity of the cat reached its peak in Ptolemaic times when during a house fire Egyptians were more concerned with their tabbies than other possessions, when a Roman visitor was lynched for killing a cat & when an estimated 700,000 turned up to celebrate at one temple for the annual festival of Bastet. From

Ptolemaic Egypt cats spread to Greece 300 BC to Italy when Egypt came within the Roman Empire where they replaced ferrets as mousers. In the Middle Ages in Christian Europe cats suffered because of their association with Paganism especially as companions of witches where at certain festivals they were placed in wicker baskets & burned. In most European languages the word cat came from the Latin "catus" which, in turn, derived from the Nubian "kadis," suggesting domestication may have occurred earlier in Nubia than in Egypt. Follow Egyptian advice, "Never laugh at a cat."



## V. The Foreigners and The Legacy of Pharonic Egypt

The latter part of the New Kingdom was dominated by the Ramessids in two dynasties 19 & 20. Ramesses became the throne name, eleven pharaohs took it but the most outstanding of them was Ramesses II called “the Great” because of his military victories & massive building projects. Ramesses the Great pictured himself as a warrior pharaoh. Reigning for 66 years & fathering more than 50 sons, the buildings of Ramesses could be seen at all the main temple & tomb sites. However it was his two rock-cut temples at Abu Simbel with the four mighty statues of himself which remain his greatest legacy. After the Ramessids, Egypt headed downhill. Libyan invaders & two Assyrian incursions brought devastation which the Nubian dynasty (D.25) & its clients (D.26) were able to halt only temporarily. In revenge for its imperial conquests in Asia, two Assyrian & two Persian invasions so weakened Egypt that the people rejoiced at the arrival of Alexander the Great who became a convert to Amun-Ra when visiting his temple in the Siwa oasis. Appropriately the last Egyptian pharaoh fled into exile in Nubia. Alexander founded Alexandria in 331 B.C. It became the capital of the Ptolemies & was enlarged & decorated by the looting of Memphis, Thebes & Karnak. While fifteen Greek pharaohs – the Ptolemies ruled for nearly 300 years, the final ruler Queen Cleopatra lost in her diplomatic love games with Julius Caesar & Mark Anthony. The country fell under Roman rule for 400 years, one emperor claiming that “Egypt had become a mere appendage of Alexandria.” From being the most prosperous people in the world, Egyptians became exploited colonial subjects, among the poorest in the Mediterranean lands.

As an African state, Egypt eventually was overwhelmed by Asian & European culture, because of its geographic location. From the Middle Kingdom forward, Asians continued to settle in the delta, along with increased Asian slaves & Asian traders. The pharaohs were not only influenced by their Asian citizens but also by the high civilizations of the Tigris-Euphrates Valley. The experiment in monotheism by Akhenaten clearly was a product of Asian influence. While the New Kingdom pharaohs foolishly created an empire stretching as far as the Tigris & Euphrates, they later suffered for it when the Asians retaliated. Hyksos, Assyrians & Persians in turn converted Egypt into a colony. When the New Kingdom rulers tried to eliminate animal symbols from religious worship they clearly were under Asian influence. Greek settlers & traders were followed by the conquests of Alexander the Great & 300 years of Greek rulers – the Ptolemies – followed again by 700 years of Roman-Byzantine

exploitation & yet again by Muslim & Asian, Arabs & Turks. Finally England took her turn. Thus in 1922 Egypt achieved her independence after 2,300 years of foreign rule. It was the Ptolemies who realigned Egypt away from Africa & toward the Mediterranean world. Built by the Greeks, Alexandria had been designed as an engine of European influence & imperialism, to bring in the goods & ideas of Europe. During the Roman period Christianity spread as the imperial & official religion. Eventually the emperor closed all Pagan temples & ordered adherence to the Christian faith. Temples became Egyptian churches. Muslim Arabs later joined the Christians in the war on the pharaonic legacy. Arabs built Cairo as a counter to Alexandria stripping the decorative stone from the pyramids to build their own Muslim monuments. Consequently Egypt lost the African anchor of its geographic location, becoming first European, then Asian-Arab.

The secondary economy – outside agriculture – involved workers all the way from rock miners to scribes. When farming was impossible, large numbers of farmers worked as paid labourers during the four months of inundation. While they worked for wages, moving the building blocks by barges, others laboured in the granite quarries of Elephantine & the limestone quarries near Memphis, in the alabaster mines across from Amarna & the copper mines of Sinai. Large gangs of men laboured as builders, carvers & painters in the construction projects of the pharaohs. The ruins of worker villages near major project sites demonstrate the numbers employed because up to 100,000 for 20 years worked on the Great Pyramid, for example. By the time of the New Kingdom thousands were employed in the temples & thousands more for government as police, soldiers & administrators for which schools educated scribes. Others toiled in industries, making linen cloth from flax, papyrus scrolls & yet others brewing, bottling & labeling beer & wine. The secondary economy embraced many. By the time of the New Kingdom, population was shifting to & expanding in the delta. Fuelled by Asian & Libyan immigrants & migration from up river by accelerated commercial activity related to the shipping trade with Greece & Lebanon, the new demographics created social upheaval. Late dynasties came from the delta, capital cities shifted to the delta, government work projects concentrated in the delta while the valley suffered depopulation, economic stagnation & the loss of political control. Concentration of wealth took place particularly in the temples of Amun-Ra, the high priest being a strong proponent of empire. Unfortunately by the time of the Ramessids, Egypt's economy might have become deeply & dangerously dependent upon tribute & revenues from empire.

Specially precarious were workers in the secondary economy. When the empire fell apart & alien invaders arrived one after another, government finances dipped & declined disastrously such that the secondary economy collapsed throwing thousands out of work from the quarries, mines & construction and from the wine, cloth & artisan industries. Little wonder Egyptians welcomed Alexander. The economy was ruined. The unemployed suffered.

With food & drink it is easier to tell what Egyptians did not have, than what they did. Growing, eating & enjoying most modern foods, Egyptians lived well. Bread was the staple, baked in 50 varieties, the loaves occasionally in animal shapes. "I'll have a crocodile loaf please." Naturally they did not have the American crops, those domesticated by New World Natives such as potatoes, corn & tomatoes but otherwise they ate everything you would find in your vegetable shop including some you wouldn't such as papyrus shoots which tasted like bamboo shoots. Onions & cucumbers were the most popular vegetables. While they did not have chicken, they enjoyed all other meats – beef, lamb & pork – as well as gazelle, antelope & goat. If they didn't have chicken they made up for it with duck & geese. Roast goose was expected & enjoyed on the five-day festival which ended the year. Fish were plentiful. Pork was not consumed by priests because it was the wretched animal of Seth, but most people didn't care. Cheese & eggs were eaten. Food could be grilled, fried or roasted, baked, boiled or barbecued. All the fruits were available except citrus – lemon, oranges & grapefruit – but pomegranates, figs & dates were enjoyed, the latter harvested by trained baboons which climbed the trees & tossed down the fruit. Wine & beer were popular. Beer was sipped through straws, a custom still prevalent in Africa. Both genders brewed it. Seventeen brands of beer have been discovered in the tombs as well as expensive "imports" from Nubia & Asia. Some school texts have been found which warned students about beer halls. However everyone was served free beer at the annual & uproarious festival of Hathor. Festival feasts were fun & filled with merriment. Wine from grapes came in bottles, labeled with brand, date & estate while liqueurs were made from honey & pomegranates. In the Faiyum priests had tamed a crocodile, feeding him cakes & honey wine. Apparently a drunken croc was a happy docile croc. While the elite were not gluttonous like Romans in their heyday, but if the inundation was good, Egyptians ate & drank well. Compare with any other people in the world in 1500 B.C., none probably enjoyed such variety in food or drank as well as Egyptian peasants, not to mention the elite.

Measurements were important to famous & skilful builders such as the Egyptians. While the royal cubit - length of the pharaoh's forearm – was about 50 cm, it was divided into four palm widths or c.12 cm each. A hundred cubits (or 50 meters) equaled a rod. If one Egyptian asked another to build him an enclosure one rod, two cubits, two palms by 15 cubits, three palms, how long & how wide in metric would that be? Based on 12 months of thirty days each, the calendar was marked & divided into three seasons of four months each: inundation, summer & winter. Each day was divided into 24 hours, half day & half night which has come down to us as they calculated it. To make 365 days, five were added at the end of the year, a time of festival for the New Year when Egyptians awaited the inundation. Since they did not have a leap year, the Egyptian calendar slowly fell behind the seasons. However the basics were borrowed & adapted by the Romans who added a leap year. Eventually it came down to us from them. While Egyptians did not use zero – invented in India – they did calculate on the basis of ten, a system which via the Romans we also inherited. The table shows their numbering system. Use it to calculate your birth year. Egyptian measurements of time & size consequently have come down to enrich our modern world.

The most viable legacy of pharaonic Egypt included writing, the calendar, wine & the cat. While papyrus gave our word for paper, “cat” derived from Nubian. Introduced in 4,241 BC, the calendar originated in the earliest fixed date in world history. The Egyptian Book of the Dead, the oldest illustrated book in history is available in modern libraries & bookstores. Much of the legacy came to us via Greece & Rome, even the lowly cat. For example, Julius Caesar adopted & added to the calendar which spread all over Europe & eventually the world. Looked upon as the cradle of European civilization, the Minoan culture of the Aegean which flowered during the Middle & New Kingdoms was heavily influenced by Egypt, if not an offshoot of it. Greek travellers, visitors & thinkers studied in Egypt and carried back new ideas in medicine, the mechanical arts, architectural structures, geometry & mathematics & applied them to the impressive building projects of Greece & Rome. Linked to Greco-Roman gods, the Roman legions carried the worship of Egyptian deities to the farthest provinces of the empire, especially Isis. Rapidly the belief in faith healing & immortality along with Isis spread everywhere in the Roman world. Not surprisingly 200 years after the Christian abolition of the gods in Egypt, Isis was still worshipped at Elephantine close to the border & presumably under the protection of Nubia. The legacy influenced the Jews. Many Jewish kings sought refuge in Egypt as well as Mary, Joseph & the baby Jesus. Most well known

involved the Jewish sojourn in Egypt during the New Kingdom & the exodus during D.19 of the Ramessids. Annually the Jewish Passover memorializes this event. Finally the legacy in Africa. Pharaonic Egypt has been a source of pride among Africans whether on the continent or in the diaspora because of its ancient high civilization & heritage. Spreading to West Africa via migration from the Nile Valley, animal symbolism was adopted; the royal lion so often opposed the snake. The pig taboo was widespread long before Islam & in regions today where Muslims have never penetrated. Even the rock cut temples of Ethiopia reflect those in Egypt. For the wonder & enjoyment of Egyptians & modern tourists, four outstanding structures which reflect the great periods of flowering, leave a legacy of gigantic beauty & stunning grandeur. 1) The Great Pyramid of Giza of the Old Kingdom, 2) The Temple of Amun-Ra at Karnak of the Middle Kingdom, 3) The mortuary cliff Temple of Hatshepsut near Thebes of the New Kingdom and 4) The Rock-cut temples of Abu Simbel by the Ramessids. Hence the legacy of the pharaohs leaves shadows spreading over Egypt & Africa, over Europe & the New World.

### EGYPTIAN NUMBERS

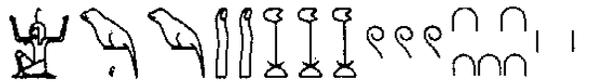
One's = |    Ten's = ∩    100's = ∩∩    1,000's =     10,000's = 

100,000's =     Million's = 

Examples:

436 = 

1,223,353 =



Write the following in Egyptian numbers. Add the Egyptian numbers to find the total. Fill all spaces with Egyptian numbers.

241    \_\_\_\_\_

313    \_\_\_\_\_

1,144    \_\_\_\_\_

Total    \_\_\_\_\_

<p> one part of ten, or 1/10</p> <p> one part of seven, or 1/7</p> <p> one part of nine, or 1/9</p>	<p></p> <p></p> <p></p>
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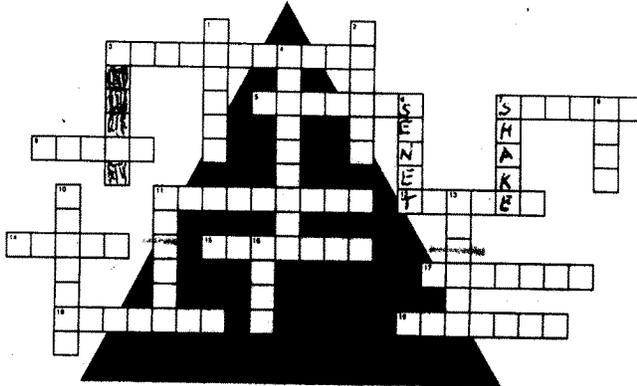
Write the following Egyptian fractions

1/5    1/8    1/2    1/6    1/3

\_\_\_\_\_

# A Great Pyramid Puzzle

Review the words you have learned in your studies of ancient Egypt. You may want to work with a partner to complete this crossword puzzle.

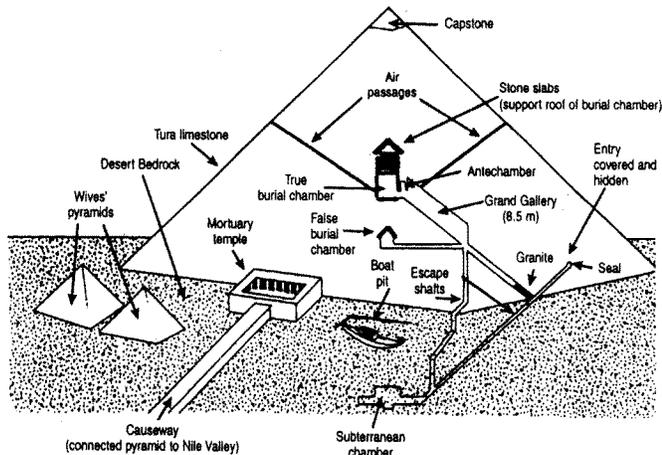


## Across

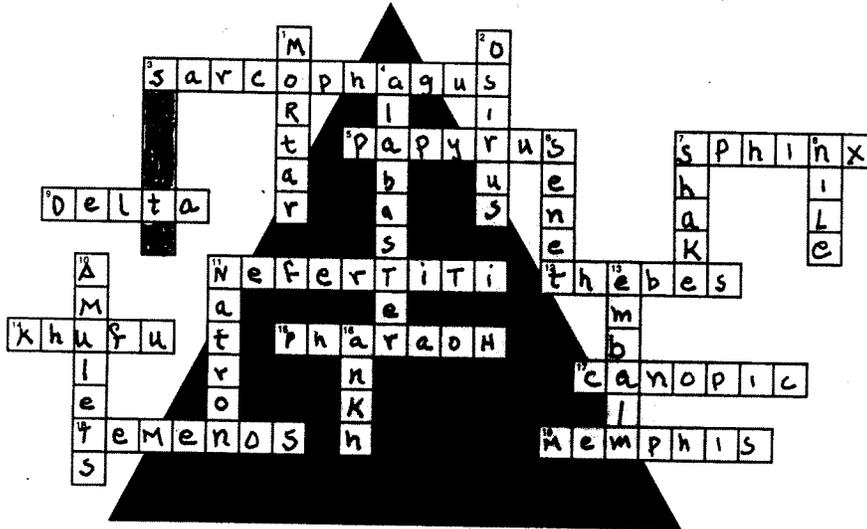
3. stone coffin in which wood coffin was placed
5. thin paper made from reeds
7. huge sculpted lion with a man's head
9. the fertile mouth of the Nile River
11. queen who helped her husband set up the cult of the sun god Aten
12. ancient capital of Egypt
14. the Great Pyramid at Giza was built for this ruler
15. name given to Egyptian kings
17. jars that held the embalmed organs
18. thirty-foot wall surrounding the base of the pyramid
19. the old capital of Egypt

## Down

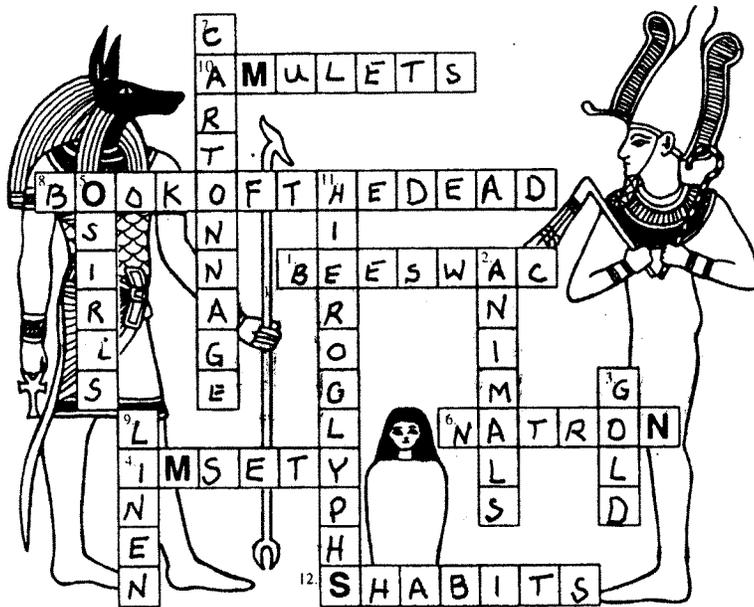
1. mixture of sand, lime, and water
2. Prince of the Dead
3. mummy-shaped amulet that held farm tools
4. translucent stone used in floor slabs
6. board game played with counters and throw sticks
7. an early board game in which players moved their counter around the squares
8. river which runs through Egypt
10. figures tucked in between the mummy's layers of wrappings
11. chemical used to preserve bodies
13. another word for mummify
16. Egyptian sign of life



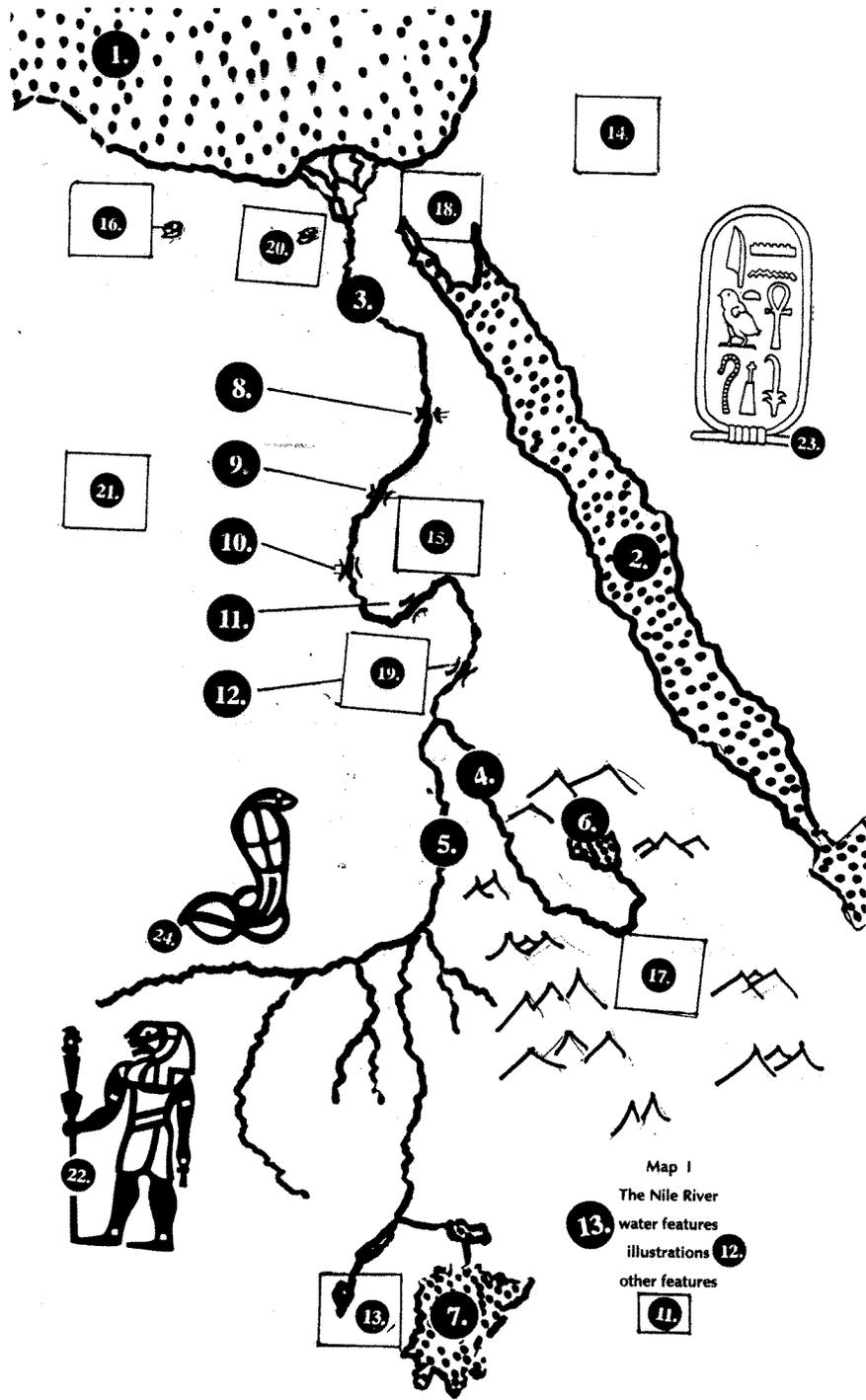
# A Great Pyramid Puzzle



# The Mummification Process



Answer Sheet



Map 1  
 The Nile River  
 water features 13.  
 illustrations 12.  
 other features 11.

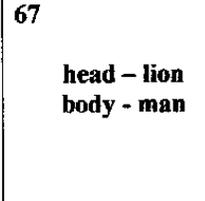
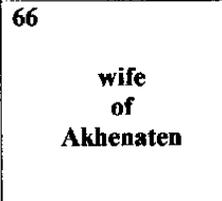
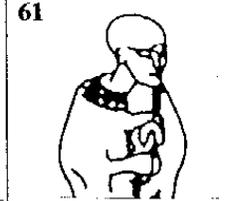
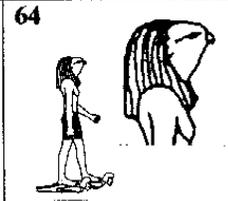
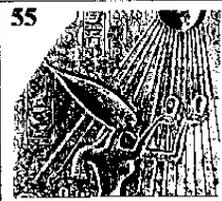
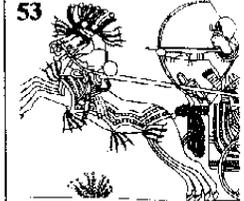
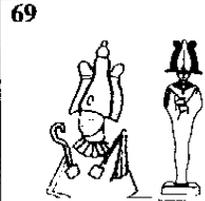
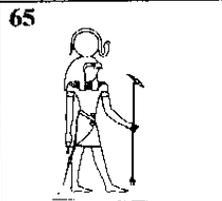
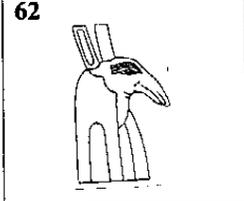
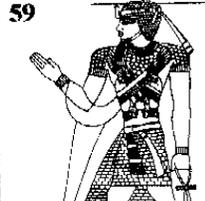
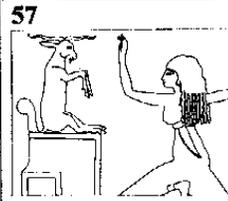
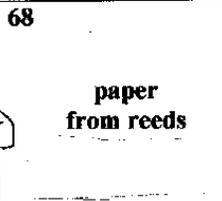
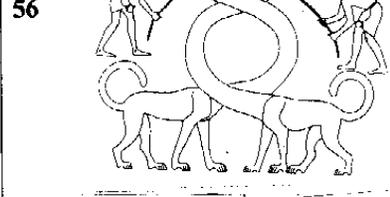
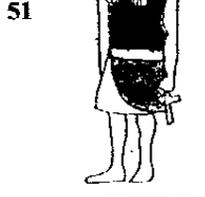
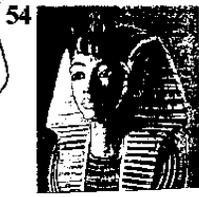


### Map I: The Nile River

1. Mediterranean Sea	Egyptians called it the Green Sea
2. Red Sea	The route to Punt
3. Nile River	6,500 km in length
4. Blue Nile	Source of inundation
5. White Nile	
6. Lake Tana	Source of Blue Nile
7. Victoria Nyanza	Source of White Nile
8. First Cataract	Site of earliest Nilometer, at Elephantine
9. Second Cataract	Site of later Nilometer, entrance to Nubia
10. Third Cataract	
11. Fourth Cataract	Furthest expansion south of Egypt
12. Fifth Cataract	In the Kingdom of Kush
13. Inter-Lake region, Uganda	Source of the White Nile
14. Asia	
15. Kingdom of Nubia	Capital at Napata
16. Siwa Oasis	Where Alexander the Great was converted to Amun-Ra
17. Ethiopian Highlands	Monsoon rains flood into Blue Nile
18. Sinai Peninsula	Famous for its copper mines
19. Kingdom of Kush	Capital of Meroe
20. Faiym Oasis	Developed during the Middle Kingdom
21. Western desert (Sahara)	
22. Apedemack, lion god of Nubia	Main symbol of the Nubian monarchy
23. A cartouche	Oval shaped border around a name
24. Uraeus (cobra)	Featured on the crowns of Nubia and Egypt

Played like vocabulary development game, Anubis, except that the second player holding this note sheet may call out either "Mediterranean Sea" or "Egyptians called it the Green Sea." The first player correctly responds to either with number one.

# Osiris



## Osiris



51. Khons – god of the moon
52. Anubis, god of the necropolis (cemetery): dog deity
53. Tutankhamun as warrior
54. Golden death mask of Pharaoh Tutankhamun
55. Akhenaten worshipping the sole god, Aten or sun's rays
56. King Namer (Menes) uniting upper & lower Egypt
57. Worshipping Amu-Ra
58. Amun, originally god of Thebes
59. Nubian Pharaoh, D.18
60. Bastet, the cat deity or catmother
61. Ptah, creator god of Memphis
62. Seth, deity of opposition to pharaonic rule
63. Isis: matriarchal mother. Represented early female rulers
64. Horus (Hawk) founder & god of the Pharaohs
65. Ra, deity of the sun. The sun god
66. Queen Nefertiti
67. A sphinx
68. papyrus
69. Osiris: god of the Afterlife
70. Thoth: deity of the scribes and knowledge. The Ibis god

