MIDDLE SCHOOL TEACHER'S WORKSHOP ON ANCIENT EGYPT

by

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A Master's Research Project submitted in partial fulfillment of the requirement for the degree Master of Arts

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ABSTRACT

The purpose of this study was to develop a two-day inservice program for middle school teachers, on the ancient Egyptian civilization. Content material may supplement the curriculum study of ancient civilizations and provide teachers activities to add interest and excitement for students.

Learning about Egypt encompasses many topics such as geography, a time line of information, pharaohs, pyramids, commoners, mummification and the afterlife, gods and goddesses and myths, curses, legends and theories. Within each of the topics are hundreds of facts that bring ancient Egypt to life for today's students, assisting them in becoming informed citizens of today's world by knowing about the origins of things from the past.

This study and subsequent workshop was designed to be presented to middle school educators who teach ancient civilizations as part of their Social Studies curriculum. However, the workshop may prove useful to any educator who desired to attend. It would be especially useful to teachers of inner-city and at-risk students, as the design includes varied activities useful for gaining and retaining the attention of these difficult-to-reach students.
The workshop is intended to show how to teach a thematic unit on ancient Egypt, lasting from three to six weeks of a school year. Teachers will be able to use Egyptian themes to teach mathematics concepts, language concepts and science, in addition to traditional Social Studies instruction. Use of a thematic unit of study envelopes students actively in a topic and increases both their enjoyment and degree of recall.

It is anticipated that attendance in this workshop will encourage teachers to use the information and suggestions to teach the ancient Egyptian civilization in their classrooms. In this way, the education of students should be improved and expanded.
DEDICATION

This thesis is dedicated to my daughters, Angela and Keri, and my son-in-law, Joel, for their patience and assistance.

Thank you!
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CHAPTER 1

THE PROBLEM

Introduction

The study of social studies, in elementary through high school, is one of the basic core subjects which contributes toward the development of a well-rounded citizen of the world. A citizen who understands and appreciates the variety of cultures on the planet is prepared to take an active role in their continuation and preservation (Hayden, 1998). Understanding social studies connects to, and shows a purpose for, the traditions and ceremonies of life, as well as creating an awareness of, and appreciation for, the diversity embodied on this planet (Beyer, Craven, McFarland & Parker, 1991). An often repeated phrase states that if humanity does not learn history humanity is doomed to repeat it. Thus the study of social studies is the redeeming educational opportunity to the continuation of humankind (Haslam, 1997).

Studying ancient civilizations reveals how ancient people met their basic needs with the resources around them. All human beings need food and shelter, as well as things to look forward to that give their lives hope and meaning. Studying the past reveals how people farmed or found food, how they met spiritual needs, and how they planned for a future (Haslam, 1997). In addition, the study of history as a part of social studies allows an examination of the events
and political changes that occurred over time (Haslam, 1997).

How to develop the desire in students to learn social studies becomes the question for teachers (Toussaint, 1998). One effective method is to teach beyond the text, that is bring in outside materials that students can feel, read, and experience in a variety of ways. In this way, students get a real-life feel for the past, even though they cannot revisit the actual time period (Burns, 1979). A drawback to this approach is the amount of time required to assemble the materials and the research necessary to impart correct information not supplied by the text (Cohen, 1986; Cintorino, 1993).

This research project is designed to facilitate implementation of a workshop for middle school teachers to attend to those issues in reference to the time period referred to as ancient Egypt, approximately 6000 years ago today (David, 1994). After attending the workshop, teachers will have a better personal understanding of the underlying and surface issues faced in ancient Egypt. They will be equipped to impart this information to students in an interesting multi-intelligence manner (Gardner, 1983). Teachers will have a notebook organized with facts and activities they can implement according to their teaching styles (Loutzenheiser, 1994), bringing the richness of ancient Egypt alive into their middle school classrooms (Cintorino, 1993).
Development of the Problem

Generally, a study of ancient civilizations takes place during the middle school years in Arizona, fourth through eighth grade, (AZ Department of Education, 1990). This research project is intended to divulge to students the beginnings of written communication, mathematics, art, geographic awareness, religion, and all the other elements that are intact in a complete culture (Chapin & Messick, 1992).

Geography and history are emphasized because students need to develop an understanding of the earth and its peoples and a sense of the past so powerful that they can enter it with enthusiasm and imagination, (Beyer et al., 1991, p. I).

Incumbent in this study then, is an in depth look at ancient Egypt—the pyramids, the pharaohs, mummification, the beliefs and gods, etcetera (AZ Department of Education, 1990). While this information is covered in textbooks, only the barest of facts are included, a basic outline, as with any subject in a school text covering thousands of years of time (Beyer et al., 1991). Such rudimentary information creates a problem for teachers who truly want to have their students understand, respect, and appreciate the richness of the time and the valuable gifts humanity has retained (Welton & Mallan, 1992). Constraints, such as limited resources and time to gather information, leave teachers and students frustrated and lacking in full appreciation for this rich and important civilization (O’Neil, 1992).
Need for the Study

Students of today are constantly bombarded with information, most of which simply does not penetrate to the level of awareness necessary for retention (Are You Concerned about School Effectiveness?, 1988). Concerned educators search for methods to increase or improve this degree of awareness to a level of concern so students will retain the material (NASSP, 1988). Inherent in that need is the necessity of attending workshops or inservices, to discover new and innovative means of relaying information, and constant reeducation to stay informed of new discoveries (Routman, 1991). This study will ultimately create such a workshop that will provide hands-on activities to capture the attention of all learners and learning styles (Gardner, 1979), provide supplemental reading materials for a wide variety of subject areas all relating to Egypt (Sweet, 1993), and give an easily accessible reference list of books and supplies any teacher can collect to implement the full program (DeGroff & Galda, 1992). All of this will be accomplished at a time and place convenient for the teachers whom the workshop will assist, usually on a school site or at a central district location of convenience.

Purpose of the Study

The purpose of this study was to develop a two-day inservice program for middle school teachers, on the ancient Egyptian civilization. Content material may supplement the
curriculum study of ancient civilizations and provide teachers activities to add interest and excitement for students.

In addition, the workshop will be sensitive to such things as cost of materials and time of preparation making it as teacher friendly as possible to enrich students' lives (Welton & Mallan, 1992).

**Research Question**

What is the content of a workshop for middle school teachers concerning teaching ancient Egypt.

**Significance of the Study**

Educating the young of today has become more and more challenging. Teachers are searching for ways to make education important to students. Education is the only solution to many of the problems facing society that is consistently mentioned by such wide-spread persons as politicians to judges, religious leaders to counselors, jailers to parents.

This research project is designed to give educators an exciting and highly workable method of educating young people, directly applicable to Ancient Egypt, but the ideas and concepts can be applied to teaching many subjects. What is important is connecting with students, making them feel a part of the study, get them doing not just watching, tapping into their inner domains whether they are artistic, oral,
physical, or another style of learners (Gardner, 1979). This workshop will give educators ideas to take away that they can transfer to any subject, in any area, and reach young people.
CHAPTER 2

THE LITERATURE REVIEW

Introduction

Studying ancient civilizations reveals how ancient people met their basic needs with the resources around them. All human beings need food and shelter, as well as things to look forward to that give their lives hope and meaning. Studying the past reveals how people farmed or found food, how they met spiritual needs, and how they planned for a future (Haslam, 1997). In addition, the study of history as a part of social studies allows an examination of the events and political changes that occurred over time (Haslam, 1997).

This chapter contains the topics of geography, a timeline of ancient Egypt, pharaohs, pyramids, commoners, hieroglyphics, mummification and the afterlife, gods and goddesses, and myths, curses, legends, and modern construction theories.

Geography

The position of Egypt geographically in the world, has helped to create a unique civilization. Located in the northeastern corner of the continent of Africa, Egypt lies one hundred percent within the Sahara desert, the driest location on earth, with an annual rainfall of less than three inches (Beyer et al., 1991). Within this inhospitable climate
lies the Nile River, the key component to the beginnings of the Egyptian civilization approximately 6000 years ago (David, 1994). While the rest of Egypt is vast sandy dunes, the area of land resting on either side of the Nile River is filled with rich dark fertile soil thanks to the annual flooding of the Nile (Sterling, 1992).

The Nile begins deep in southern Africa at Lake Victoria and flows to the north, 6720 miles to the Mediterranean Sea. As it reaches the sea, it branches out into a wide fan-shaped delta. Each year between June and November, as the snows in the mountains of Africa melt, run-off causes flooding bringing rich and fertile soil up from the south and spilling it out along the banks of the upper river and finally into the delta (Perl, 1987). Ancient Egyptians referred to their land as Kemet meaning black land and the remainder of the desert as Deshret meaning red land (David, 1994).

Within the fertile ribbon of land, approximately 12 miles wide at the maximum, civilization took hold and prospered, at first in upper Egypt, actually the southern end of the river toward its source, and moving into lower Egypt, the northern section (Perl, 1987). At first there were small villages, then regions or provinces and finally two kingdoms, ruled by pharaohs (a word meaning literally royal palace applied to the ruler of Egypt, who was also referred to as a god [Unstead, 1986]), a situation that remained stable for over one thousand years. In Upper Egypt
the pharaoh ruled from the city of Thebes, while the pharaoh of Lower Egypt resided around Giza (Perl, 1987). Over time, Giza became the home of the majority of the pyramids and the Great Sphinx. Located near Thebes (modern day Luxor) is the Valley of the Kings, a renowned ancient burial cemetery. At a point about midway between the two, a third great city grew called Akhetaten (modern day Tell El-Amarna). Located close to the delta and near ancient Giza is the modern city of Cairo, referred to in ancient times as Memphis (Geyen & Varju, 1992).

Egypt today is located between Libya and the Red Sea. Bordered on the north by the Mediterranean Sea and on the south by Sudan, it is also bordered on the northeast by Israel, Jordan and Saudi Arabia (Perl, 1987). In ancient times all these surrounding areas came under Egyptian control at one time or another, except Jordan (Geyen & Varju, 1992).

Students can become familiar with the geography of Egypt by using Geyen and Varju’s (1992) Field Trip Ancient Egypt which contains a colorful map of modern Egypt with ancient Egypt super-imposed over the top. “Follow the Clues to an Ancient Cemetery” is a map puzzle page for students to decipher clues and locate the Valley of the Kings. This page includes information about the area and the Nile as it gives clues. The thematic unit Ancient Egypt contains an outline map of ancient Egypt that students can complete for themselves with cities, seas, fertile lands, deserts, Upper and Lower Egypt and many more items (Sterling, 1992). The
documentary, *Opening the Lost Tombs Live from Egypt* presented by FOX in March, 1999 contains aerial photography of the entire Nile River and excellent visual representations of the stark differences between the fertile areas and the surrounding desert (Gad, 1999). A poster-sized double map of the Nile Valley provided by the National Geographic Society details vividly the proportionate size of the fertile Nile valley areas compared to the surrounding desert. The maps also detail the Nile from source to delta, show relative elevations of lands to standing monuments and reveal the locations of major past and present cities, monuments and other archeological finds (National Geographic, 1994).

**Timeline of Ancient Egypt**

The first Egyptians were stone age hunters who were attracted to the fertile valley around 3000 B.C. They created two Egyptss—Upper Egypt or the valley area, and Lower Egypt or the delta area (Haslam, 1997). During this time period, referred to as the First Egyptian Dynasty (Unstead, 1986), or Early Dynasty (National Geographic Society, 1991; Alarion Press, 1980), the civilization began taking place, calendars were designed and hieroglyphics were invented.

About 3100 B.C., Namen, also known as Menes or Lord of the Two Lands, united Upper and Lower Egypt into one country (Haslam, 1997). This period of time, until approximately 2040 B.C., is known as the Old Kingdom and is signified by the establishment and build-up of Memphis as capital, building of
pyramids and the Sphinx, establishment of the sun god city of Heliopolis and the sun god Re. Pharaohs of this time include Zoser, Sneferu, Cheops and Khafre. This was a time of political unrest as well as great building and accomplishment (Unstead, 1986; Haslam, 1997; National Geographic Society, 1991; Alarion Press, 1980; Perl, 1987).

The Middle Kingdom dates 2040 B.C. until 1550 B.C. This period of time is signified by an early expansion of territory into Nubia, the establishment of Thebes as capital, the rise of the god Amen as the most powerful god, and the creation of colossal temples and statues. The Hyksos, an Asiatic tribe skilled in war, conquered much of northern Egypt introducing the horse and chariot. Egyptian’s assimilated the military training and eventually became a powerful military force themselves. Pharaohs of the time include Mentuhotep II and Ammenemes I (Unstead, 1986; Haslam, 1997; National Geographic Society, 1991; Alarion Press, 1980; Perl, 1987).

The New Kingdom encompasses the times until about 715 B.C. During this time Ahmose I ousted the Hyksos, reestablishing a united kingdom. Often referred to as the Golden Age, this period of time is signified by a vastly expanding empire into Syria, Palestine and the remainder of Nubia. Temples are built at Luxor and the Valley of the Kings becomes the proper burial place. Several vastly different pharaohs are connected to this time period. Queen Hatshepsut becomes the first female ruler, frequently disguising herself
as a man. Amenhotep IV attempts to remove Amen and other gods and establish a religion based on Aten, the sun god. Other important pharaohs of this period were Tutmoses I-IV, Ramses I-VI, and Tutankhamen. This is usually considered as the Golden Age of Egypt with civilization at its height along with power and wealth (Unstead, 1986; Haslam, 1997; National Geographic Society, 1991; Alarion Press, 1980; Perl, 1987).

A final era of ancient Egypt is signified by a crumbling of the great civilization. It is signified by massive tomb robberies, sacking of the great cities, and invasion by several other tribes including the Assyrians, the Persians and eventually the Romans. A once rich country become poor and lawless. Rulers of this time period include several Nubian princes, and Cleopatra. In general, this time period is considered to have ended around the time of the birth of Christ (Unstead, 1986; Haslam, 1997; National Geographic Society, 1991; Alarion Press, 1980; Perl, 1987).

Students can internalize this information by creating their own time lines, drawing pictures of the main events and issues or affixing stickers (The Ultimate Ancient Egypt Sticker Book, 1994). Making the timeline hands-on can be done using onion paper or other thin paper cut into strips and glued to rolls creating a scrolled timeline (Sterling, 1992; Haslam, 1997).
Pharaohs

The chieftains of separate villages gradually grew stronger until within 200 years, one ruler remained in each of Upper and Lower Egypt. Controversy rages concerning this rapid change and some think a race of outsiders came in and took charge. Proof of this is said to be shown in the unusual height of some early kings (Deary & Heplewhite, 1993). The ruler of Upper Egypt wore a white crown and the ruler of Lower Egypt wore a red one (Perl, 1987; Deary & Heplewhite, 1993). As Menes, also known as Narmer (Dowswell, 1996), became the ruler of Upper Egypt he used his power to take over Lower Egypt and declared himself king of the entire country. He set about quickly establishing his rule and role in life, including ordering the city of Memphis to be built as his capital. In addition Menes declared himself the living embodiment of the god Amun, the ruler of all gods, and began building the holy city of Heliopolis as a place for the king to communicate with and honor the god (Unstead, 1986; Haslam, 1997; National Geographic Society, 1991; Alarion Press, 1980; Perl, 1987).

As Menes took power, he and his advisors determined King was not a term of enough reverence for someone so powerful. It was determined pharaoh was a more appropriate term (Deary & Heplewhite, 1993). Pharaoh is defined as royal palace, (Unstead, 1986), referring to a building not a person until the time of Menes. Because Menes was having the largest palace ever built to honor and house him, the decision was
made to call himself Pharaoh, claiming his body was the human house of the god over all Egypt (Deary & Hepplewhite, 1993). Menes also changed the crown of Egypt, beginning to wear a double crown, incorporating the "pear-shaped white crown of Upper Egypt and the boxy red crown of Lower Egypt" (Perl, 1987 p.8). This became a constant reminder to the populace of Egypt of the joining of the two countries and who was in charge (Perl, 1987; Deary & Hepplewhite, 1993).

A pharaoh’s life was filled with leading ceremonies to keep everyday events happening. Each morning he and/or his highest priests would make offerings and ask the sun to rise (Deary & Hepplewhite, 1993). The priests would collect offerings left from the common people to the sun god as pharaoh (Deary & Hepplewhite, 1993; Unstead, 1986). Other ceremonies included commanding the Nile River so the regular flooding would occur ensuring the rich and fertile soil. (Deary & Hepplewhite, 1993).

A pharaoh had to hold court deciding matters of discourse between commoners who were usually represented by closer advisors of the pharaoh (Dowswell, 1996). Most pharaohs were military leaders as well. Some simply watched, some commanded from a distance, and some actually charged into battle with common soldiers (Ramses the Great, 1995; Deary & Hepplewhite, 1993; Dowswell, 1996).

Another duty of a pharaoh was to procreate to insure a future ruler. The pool of people to marry was very limited as it needed to be a person of royal lineage (Climo, 1989). This
led to frequent marriages between brothers and sisters, cousins, perhaps even fathers and daughters, leading to deformed children and frequent still births. (Davies & Bennett, 1993). To guarantee an heir, pharaohs would marry as many women as possible, choosing one to be the queen, and have as many children as was possible (Deary & Hepplewhite, 1993).

Many pharaohs ruled Egypt with varying degrees of effectiveness (Sabuda, 1994). Each left a mark on Egypt that has lasted for thousands of years. Khafre created the great Sphinx, using his face as the model, and selecting a lion as the body to show a union of the two most powerful forces in the world, the king of the people and the king of the animals. This was considered to be the living image of the sun god and the god of kingship (Lehner, 1991).

Rameses and Seti are remembered for the amount of buildings, monuments and statues they commissioned. Many of these statues stand well over seventy feet high, and some of the supporting columns could support at least sixteen people dancing on their tops (Gore, 1991).

Hatshepsut was the first woman pharaoh. She is believed to have stolen the throne from her stepson through a murder plot (Bond, 1998). In order to be accepted, since the embodiment of the god had always been a man, she dressed as a man in public and even wore a fake beard (Dreary & Hepplewhite, 1993). She was a wonderful military leader who expanded the size of Egypt dramatically (Bond, 1998). Her
chief advisor is believed to have been extremely influential during her rule, and may have been involved in a long term affair. Hatshepsut never married and had only two daughters who did not succeed her to power (Arts and Entertainment, 1998; Perl, 1987; Dowswell, 1996).

Akhenaten is described as the rebel pharaoh (Dowswell, 1992). When he came to power he declared all except the sun god Aten illegal. Temples were closed and worship took place in the open (Dowswell, 1992; Sabuda, 1994). He also claimed his wife, Nefertiti, to be of equal ruling status with him (Nefertiti, 1996). This radical behavior caused great unease during his reign for those who listened, although it is likely that most Egyptians simply ignored the edicts and continued life as before (Dowswell, 1996). Horemheb, his successor, had the names and faces of Akhenaten and Nefertiti nearly completely eradicated upon taking power and put all the old rules back into effect (Perl, 1987; Dowswell, 1996; Sabuda, 1994; Dreary & Hepplewhite, 1993).

Tutankhamen is the most widely known pharaoh, although he ruled for a short period of time, about 9 years (Davies & Bennett, 1993). He was forced into power at the age of nine and is believed to have died from a sharp blow to the top of the head at the age of nineteen (Davies & Bennett, 1993; Sabuda, 1994). He married his half-sister and his two children were still-born (Davies & Bennett, 1993; Sabuda, 1994). When his tomb was discovered it had not been robbed and so contained the tons of golden riches buried with him in
his underground tomb in the Valley of the Kings (Davies & Bennett, 1993; Tutankhamen & Ancient Egypt, 1994). Discovered by Howard Carter in 1922, this discovery has led to a larger understanding by modern man of the great ancients (Perl, 1987; Dowswell, 1996; Sabuda, 1994; Dreary & Hepplewhite, 1993).

Children's direct involvement in the pharaohs can begin with coloring books. Bellerophon Books (1995 & 1996) prints three coloring books filled not only with pictures of activities and costumes of the pharaohs and families, but paragraphs of information to go with the pictures. Some of these paragraphs include translated sections found on temple or tomb walls. The three books are Queen Nefertiti, Ramses the Great, and Tut-ankh-amun and his Friends. National Geographic magazine has a forty page section on Ramses, and the Sphinx (1991). This section is rich with close-up photographs of recently discovered temple walls and artifacts found. Aerial photographs show excavation in progress and allow students to see how an ancient temple monument was laid out. Also included is a detail showing how archaeologists are using computers to recreate the Sphinx and finally discover the secrets concealed there (Gore, 1991; Lehner, 1991). The Egyptian Echo is a book in tabloid newspaper format, which describes products for sale, gossip items, party planning, and help wanted ads, as well as many other sections, all from the prospective of ancient Egyptians (Dowswell, 1996). The Awesome Egyptians presents information in a humorous fashion.
Topic sections such as *Phascinating Pharaohs... The Mystery of the Kings, Is She a Queen ...or a King?, The terrible Tragedy of Tutankhamen...or Would you Marry your Grandfather?, Kingly Kuriosities,* get young people's attention and gets them reading (Deary & Hepplewhite, 1993).

Students can use the details in *See Inside An Egyptian Town* to create their own temple layouts or backdrops for a play. Walls of the classroom can be decorated with information from the book to create the atmosphere of being in ancient Egypt (Unstead, 1986). *Ancient Egypt* has worksheets for learning vocabulary and getting facts about Nefertiti, and comparing Nefertiti and Cleopatra. In addition, this book recommends *The Egyptian Game,* (1967) for students to see modern children getting lost in the facts of ancient Egypt (Sterling, 1992). Students can write and perform a play about pharaohs (Grandinetti, 1999; Meeker, 1999). *Ancient Egypt* has easy directions for creating costumes, wigs, make-up and jewelry. The directions even show how to make an easy false beard and sandals. All these are made with simple to find materials. The directions make interesting Halloween costumes for an entire class also (Haslam, 1997).

*Tutankhamen's Gift* (1994) tells the story of a young King Tut before and as he ascends to the throne of Egypt. The rich illustrations can be translated into designs the children create for themselves. The story in picture book fashion takes young people back to the ancients.
Patterns for the ceremonial headdress and jeweled collar of the pharaoh were created by Meeker as a docent presenter at the Phoenix Art Museum's teachers' workshop, Temples, Tombs and Teachers of November, 1998.

Tutankhamun and Ancient Egypt is an interactive guide to the mystery of Tutankhamun. This set contains a to-be assembled set of all three caskets, a frieze strip of King Tut's life, a collar to wear, and a poster of the finds made by Howard Carter. Also included is a richly illustrated book about King Tut and life in Ancient Egypt (Tutankhamun & Ancient Egypt, 1996).

Pyramids

A person who embodied a god cannot be buried in the same manner as a commoner (Perl, 1987). A pharaoh had great needs to carry into the afterlife all the grandeur he had achieved in this life. This grandeur could not be placed into a shallow grave simply scooped into the sand and open to grave robbers, so a lavish burial site was created (Perl, 1987; MaCaulley, 1975). The earliest solution to this was called a mastaba, a rectangular mud-brick tomb with a flat roof and sloping sides. A deep shaft would be dug into and underneath the mastaba for the body to be carried through after mummification. Menes was most likely buried in one of these at his death (Perl, 1987).

As preceding pharaohs came into power, the mastaba was no longer consider elegant enough for a pharaoh (Perl, 1987).
The burial chamber chosen by the high priests was a pyramid, which may have represented an attempt to copy the primitive concept of a creation mound, or may have been a convenient choice as the pyramid itself has been touted as everything from a calendar, to a calculator, to an astronomy tool (Dreary and Hepplewhite, 1993).

Pharaohs would begin construction of their burial chambers shortly after coming into power, as the building process would take many years and thousands of slaves and faithful commoners (Macaulay, 1975). An appropriate site would be chosen and the loose sand removed down to solid rock (Macaulay, 1975). Then a circular wall was built in the middle of the site and used to locate true north so the pyramid would be oriented correctly (Macaulay, 1975).

Plans were drawn and limestone blocks ordered to be cut and moved to the site (Macaulay, 1975). These blocks could be part of the central core, where only the inner most facing sides were finished. These were set in a sloping fashion creating the basic shape (Macaulay, 1975). Other blocks were packing blocks, set in steps against the core blocks, these were carefully cut and fitted (Macaulay, 1975). The last blocks were the casing blocks, these were of the finest quality and were cut and placed with the greatest precision (Macaulay, 1975). Each part was constructed simultaneously, one course at a time by building dirt ramps wrapping around the forming pyramid (Macaulay, 1975).

The stone were quarried in nearby mountain areas using
simple tools made of copper, wood and a hard stone called dolerite (Macaulay, 1975). Thousands of workers worked for as long as twenty years to complete a pyramid and the surrounding temple and funerary complex areas. (Macaulay, 1975; Dreary & Hepplewhite, 1993). Stones, weighing about 2.7 tons, were tied onto wooden sleds and pulled over a log causeway to ships, floated as close to the site as possible on the river, and then pulled along another causeway to be positioned at the building site (Macaulay, 1975; Dreary & Hepplewhite, 1993). A final, pyramid-shaped stone with a plug cut into the bottom, called a capstone, would be placed during much ceremony to finish the pyramid (Macaulay, 1975; Dreary & Hepplewhite, 1993). The finished size of the great pyramid is seven-hundred fifty-four feet square and approximately three-hundred fourteen tons in weight (Dreary & Hepplewhite, 1993).

As the pyramid exterior took shape, the interior rooms were formed and decorated by a few trusted and talented craftsmen. The walls were covered with vivid pictures of life as the pharaoh appreciated it. Thousands of hieroglyphics were painted to show the story of the pharaoh’s life and his plans for his afterlife (Perl, 1987; Macaulay, 1975; Dreary & Hepplewhite, 1993). A pyramid was created with many false rooms, doors and walls in an effort to protect the pharaoh for his afterlife (Macaulay, 1975; Dreary & Hepplewhite, 1993). Shafts were created as pathways for his afterlife spirits to travel to the real world (Perl, 1987).
Upon his death, and after mummification, the pharaoh's body was carefully placed in the pyramid along with thousand of pieces of personal possessions, food stuffs, clothing, pets, thrones, boats, other furniture and many other things (Macaulay, 1975; Dreary & Hepplewhite, 1993; Tutankhamun & Ancient Egypt, 1994). All of these were necessary for a successful afterlife, but were also temptations for tomb robbers (Dreary & Hepplewhite, 1993; Perl, 1987).

The book, Pyramid (1973) is a detailed plan for building a pyramid. Each step is carefully drawn and explained. The tools used are shown and their use explained. Students will easily understand the steps and effort needed to erect such a powerful monument. The Ultimate Ancient Egypt Sticker Book (1994) contains vivid pictures of artifacts found in pyramids and tombs along with explanations of their importance and use. The Crazy Ancient Egypt Game (1997) and Mummy Rummy (1996), are card games which allow students to manipulate pyramid paintings and other artifacts. This gives students a chance to closely examine each element in a fun way and begin to appreciate how each item was crafted and used. The video, Opening the Lost Tombs Live from Egypt (Gad, 1999), gives live tours of interiors and exteriors of pyramids.

Using sugar cubes is a way for students to attempt to recreate the building of a pyramid with simulated granite blocks (Sterling, 1992). Paper models of pyramids can be constructed from patterns allowing students to see the square
base shape coming to a pointed triangular shaped pyramid (Sterling, 1992; Geyen & Varju, 1992).

**Commoners**

Social life in ancient Egypt was arranged in a pyramid shape according to a person's importance in life. At the top was the pharaoh, under him was the vizier, or chief advisor. Next came the imakhu, honored ones, who were friends and family of the pharaoh with important jobs such as Keeper of the King's Clothes, Keeper of the Oils and Perfumes, and Keeper of the Secret of the Royal Sayings (Dreary & Hepplewhite, 1993). Next down were the Nomarchs, or local peace keepers, in charge of small districts of the pharaoh's kingdom. Following them were scribes, the only people who could read and write hieroglyphics, then came the priests, usually thousands of them. Moving down again were the hemutiu or craftsmen who were skilled workers such as architects, weavers, jewelers, embalmers, etc. Next down on the social pyramid were 90% of Egyptians, the peasants who paid the taxes, did the work, grew and harvested the crops and served in the armies and as pyramid builders. The only group lower than the peasants were the slaves captured from surrounding countries during war, or in the case of the Christians, tricked into thinking they had asylum and then turned into slaves (Dreary & Hepplewhite, 1993; Beyer et al., 1991).

Commoners, peasants, did not live in palaces but in square mud-brick building usually having four rooms (David,
Cooking was done in an exterior courtyard in a pottery oven by the women. Sleeping was usually done on the flat roofs where the small cool breezes could be found. The interior walls would be decorated with paintings even though the inside would be dimly lit by small uncovered windows placed high in the walls. Inside also would be statues of the gods the family choose to worship, including especially a set of statues of Bes, the jolly dwarf-god, and Tauret, the hippopotamus god of fertility and childbirth (Dreary & Hepplewhite, 1993; David, 1994).

Egyptian men worked outside the home, usually in the armies and fields tending crops and animals. Crops were planted and harvested between floodings of the Nile. Shortly before harvesting, the king's representatives would be around to assess taxes. Once crops were taken care of and the flooding began, men were pressed into service of the pharaoh, usually building pyramids or other monuments. At this time, women and children would have to take over care of the animals (Dreary & Hepplewhite, 1993; David, 1994).

Egyptian women's jobs were care of family and home. In addition an Egyptian woman was expected to keep herself attractive to her husband, including using make-up, perfumes, and wigs. Women based their ideas of beauty on the goddess Isis (Dreary & Hepplewhite, 1993; David, 1994). Women also were expected to bear many children as their duty and to honor their husbands. Women were never alone as female relatives lived and worked closely together, including caring
for the children. These relatives may even include other wives, as there was no law except to limit the number of wives to the number that could be taken care of (Dreary & Hepplewhite, 1993; David, 1994).

Children were considered important people in the family and were well-treated. They had pets, such as cats, and toys like tops and games and musical instruments (Dreary & Hepplewhite, 1993; David, 1994). From age four to fourteen children attended school where they learned some reading, writing, and mathematics using heiretics. If a child was to become a scribe, he or she would learn hieroglyphics (Dreary & Hepplewhite, 1993; David, 1994).

At the age of fourteen, boys would join their fathers to learn their father’s trade or sometimes they were apprenticed to someone in a different business (David, 1994; McGraw, 1961). Girls usually stayed at home and learned to be good wives from their mothers. Many girls were married by age fourteen and had their first child shortly after (Dreary & Hepplewhite, 1993; David, 1994; McGraw, 1961).

Commoners were not buried in elaborate tombs or pyramids. Instead they were preserved as carefully as was financially feasible and were placed in shallow dug graves out in the great desert. As many personal items as could be afforded were placed in the shallow graves with the deceased for the next life, although the shallow unprotected places were usually robbed in short time (Dreary & Hepplewhite, 1993).
Children are interested in how ancient Egyptians lived. Several books bring the past to life. *The Golden Goblet* (1961) tells the story of an apprentice to gold-making who discovers a thief. *Growing up in Ancient Egypt* (1994) breaks commoners' lives into small segments with rich pictures to aide in understanding. Students can recreate board games, such as Senet, Alquerque, Seega and Duat or use commercially available recreations of these games (*Tutankhamun & Ancient Egypt, 1996; Haslam, 1997; Sterling, 1992*). *The Egyptian Cinderella* (1989) tells a familiar story as one of the oldest documented Cinderella stories. The story contains fantasy but is based on facts about the life of a slave girl, named Rhodopis who eventually married a pharaoh, Amasis and became a queen (*Climo, 1989*).

**Hieroglyphics**

The ancient Egyptians were one of the first civilizations to have a formal writing system. Hieroglyphics, or picture writing, have survived nearly 5000 years allowing archeologists to decipher the life of the people of the time. Although the writings were known about for many years, it wasn’t until the discovery and eventual deciphering of the Rosetta stone that the secret of hieroglyphics was discovered (*Dowswell, 1996; Geyen & Varju, 1992*).

The Rosetta stone was found in Rosetta, Egypt by a French soldier. For years it was kept as just a souvenir but after twenty-five years it was translated and the code of
hieroglyphics was broken. This was possible because the stone contained the same message written in Greek, a more modern Egyptian script and hieroglyphics (Giblin, 1990; Geyen & Varju, 1992). Scholars then had a pattern to use to continue studying and deciphering the hieroglyphics found in all the discoveries made in modern times (Giblin, 1990; Geyen & Varju, 1992).

Hieroglyphics were the formal writings, or sacred writings, of ancient Egyptians. Hieretics was later developed as less formal to record the day-to-day activities of life (Manuelian, 1991). In the beginning, one hieroglyphic stood for one word, however as more and more things were to be written about, more complicated ideas needed to be expressed. (Manuelian, 1991). Methods of combining hieroglyphics were invented to express these ideas. Eventually hieroglyphics came to represent sounds and were combined for words, creating hundreds of separate hieroglyphics. Each of these separate styles of hieroglyphics were used together, complicating the deciphering in modern times (Manuelian, 1991; Geyen & Varju, 1992).

Hieroglyphics were used to record the life of pharaohs inside their tombs, called the Book of the Dead. These recorded the good deeds and events of life and described the weighing of the heart ceremony conducted at death by the gods to check for worthiness of a continued afterlife (Perl, 1987).
Beautiful hieroglyphics decorate nearly every surface discovered in ancient ruins. They were used to decorate, record taxes and orders, compose songs and stories, write letters and worship gods. When hieroglyphics were not carved into rock they were written on papyrus scrolls using reed pens and ink, or painted on surfaces. Papyrus was an ancient form of paper created from dried stalks of a plant called papyrus cut, woven and pressed in long sheets, and usually rolled into tubes (Perl, 1987; Manuelian, 1991). Color was important to ancient Egyptians so inks and paints were not only in black but many bright colors which have lasted to today (Perl, 1987; Manuelian, 1991).

Strict rules were enforced for hieroglyphics. Each symbol had a definite form that could not be altered, also a definite size in comparison to other hieroglyphics. However, hieroglyphics could be written in one of three directions, which has led to confusion in translations. They could be written left to right, right to left, or top to bottom. To determine which direction they were to be read, examination of the characters needs to take place. They are read facing into the characters faces as if the reader were talking to the characters. A combinations of directions could be used in any one writing sample (Perl, 1987; Manuelian, 1991).

Hieroglyphics were to always look balanced and well-spaced. To accomplish this, straight lines were not always used. Hieroglyphics could be combined above and below each other or pressed close together to achieve this balance, the
choice was to the writer to make the piece look good (Perl, 1987; Manuelian, 1991).

A cartouche is a personal stamp owned by any Egyptian who could afford to have one made. These were unique to the individual and were used to sign documents, as commoners and kings could not read or write. Students can make their own cartouche using clay or carving out a potato. Then using paint or ink they can stamp their assignments or a classroom mural (Geyen & Varju, 1992).

Many pages of hieroglyphics can be given to students to copy and use in regular classroom work. They can use the hieroglyphics for individual sounds or complete words. In addition stencils are available to make the copy work easier (Manuelian, 1991; Geyen & Varju, 1992). Hieroglyphics also extend to numbers. These can be used to do every day math problems in the classroom (Manuelian, 1991; Geyen & Varju, 1992; Dreary & Hepplewhite, 1993). The thematic unit Ancient Egypt contains worksheets of mathematics problems written in hieroglyphics for students (Sterling, 1992).

Afterlife and Mummification

Ancient Egyptians believed this life on earth was only a small unimportant stop to the all important afterlife. In the afterlife, a person was split into two spirits, the Ka and the Ba. The Ka was the body's twin and stayed with the body forever. This spirit would need food and water and all the amenities of life to continue in the afterlife, thus great
stores of goods were placed into tombs and graves. The Ka also needed an exact replica of the body so it would not get lost and die, so mummies were very important. A statue or portrait might also work as the replica but a mummy was preferred. Paintings on walls and other inanimate objects could be brought to life by the Ka so it would have all needs and companionship for eternal life (Perl, 1987).

The Ba could leave the tomb and participate in life by passing magically through rock and sand. It could take any form but is usually depicted as a small bird. The rule for the Ba was to return by dark to the body, so again an exact replica was needed so the Ba did not return to the wrong body and die (Perl, 1987).

The afterlife was considered to be the end product of a long suffering life on earth. The dead were not mourned but celebrated into a better place, a life of leisure and luxury. Before burial, a ceremony called the opening of the mouth was preformed giving the gift of eternal life to the dead. This ceremony was a long and detailed party for friends and relatives with a great deal of feasting and drinking of beer, with dancing and sometimes even orgy like happenings (Geyen & Varju, 1992; Perl, 1987; Dreary & Hepplewhite, 1993). Animals and pets were mummified and buried with family members who were often buried together to be able to appreciate the afterlife together. Infants and children, who were the victims of the high mortality rate, were buried and reunited with their parents for the afterlife (Perl, 1987).
While friends and relatives prepared the body for the afterlife, a ceremony of the gods was taking place to determine if the deceased deserved an afterlife. The soul would travel to the underworld called Tuat, and into the boat of the sun god Re, traveling from east to west and delivered to the god of funerals, Anubis. Anubis would weigh the deceased’s heart on a balance scale against a feather of the goddess Maat, the goddess of justice. The story of the deceased’s life would be read by relative’s spirits while Thoth, the god of writing and records took notes. If the heart was determined to be worthy, the deceased was led by Horus, the god of eternal vision, to Osiris, the god of the dead, who would grant eternal life. If the heart was too heavy, the god Ammit, who is part lion, part crocodile, and part hippopotamus, would swallow the heart and therefore the soul and no afterlife would be granted (Perl, 1987; Alarion Press, 1980).

Mummification was more than a process of dealing with the dead, it was an honorable process creating a vessel for the afterlife’s continued habitation. The Egyptians did not invent mummification, but they raised it to an art form, perfecting a process invented by nature in a dry climate (Perl, 1987). Observation showed Egyptians that a body was nearly preserved when left out to dry naturally, as happened to a buried body. However, this was a long process and they did not want the dead to have to wait before beginning their
afterlife, so they created a process to speed the drying (Perl, 1987; Geyen & Varju, 1992).

Internal organs were a problem, their moisture trapping caused decay, so canopic jars or chests were developed to house these important organs. Usually named for the sons of Horus, the god of the dead, jars would contain the liver, the stomach, the intestines, and the lungs. The heart was removed and replaced as it was considered the center of intelligence and memory and necessary for the afterlife. The kidneys were not removed for unknown reasons but the brain was removed, through the nasal cavity pulled out piecemeal and discarded. The Egyptians could find no true use of the brain (Perl, 1987; Unstead, 1986).

Following organ removal a body was placed on an elevated surface and buried in natron which is a naturally occurring mixture of salts. Moisture would drain out as the body dried and became leathery. Herbs and spices were used to disguise the odors of this approximately 40 days drying process (Perl, 1987).

After drying, the body cavity was packed with natron and spices, or straw, for the discount funeral, the nostrils, filled with wax, and the mouth packed with linens soaked with resin. The incision made was sewn or sealed with resin. Then the body was rubbed down with oil and given a weather-proofed finish (Perl, 1987; Unstead, 1986).

Only when this process was completed could the final processing, wrapping with strips and large pieces of linen or
other cloth, and decorating with jewels and amulets, begin. Finally after a minimum of another 15 days, the true funeral procession could begin (Perl, 1987; Unstead, 1986; Dowswell, 1996).

Students can create their own mummies and experience the process by using chickens or game hens purchased from the grocery. These are packed in a mixture of salt and baking soda, to imitate natron, and left to dry. After drying they can be wrapped in bandages and buried in a mock opening of the mouth ceremony (Temples, Tombs, and Teachers, 1999). Coffins, sarcophagus, can be created using small boxes and decorating with hieroglyphics. Canopic jars for the liver and other parts can be created from baby food jars and clay to create the heads on the top, then painted and decorated (Temples, Tombs, and Teachers, 1999; Haslam, 1997). A book of the dead can be created for each chicken using the hieroglyphics patterns (Temples, Tombs, and Teachers, 1999; Haslam, 1997; Manuelian, 1991).

Coffins, ready to be punched out and assembled, can be purchased from Usbourne Publishing Limited (Tutankhamun & Ancient Egypt, 1996; Make the Model Egyptian Mummy, 1994). These create, upon completion, fully decorated coffins with a mummy inside, two exterior coffins each elaborately decorated, and an exterior coffin decorated with the story of the mummy’s life, in one case an anonymous princess and in the second King Tut. These coffins and mummies nestle inside each other as has been found to be true by archeologists.
Gods and Goddesses

Ancient Egypt was definitely a polytheistic society. A god existed for every object, every occasion, every activity, every animal, and in some cases thoughts and ideas (Dreary & Hepplewhite, 1993). These gods were honored with sacrifices, temples, statues, paintings, ceremonies, and countless other activities. When life went well, gods were praised, when things went bad gods were blamed and an attempt was made to appease their anger (Perl, 1987; Dreary & Hepplewhite, 1993). As archeologists uncover more ruins, more gods are revealed and similar gods are uncovered with different names and spellings of names. Because hieroglyphics is not an exact language, as currently understood, other differences come to light especially in spellings and names of the thousands of gods (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

Some of the major gods are as follows:

a) Ra or Re, the sun god. In charge of the sun traveling across the sky daily. Also in charge of transporting the dead soul to the weighing. He is also usually considered to be the father of all gods. Usually he is depicted as a human body with a falcon head (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

b) Maat, the goddess of order and justice and wife of Re. She is usually depicted as a beautiful woman with a feather for a headdress (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).
c) Osiris, god of the dead. He is believed to have been killed by his jealous brother, Seth, and brought back to life by Anubis by being wrapped tightly in a cloth (This is considered to be the purpose of the tight wrappings on a mummy [Alerion Press, 1980]). Osiris is usually portrayed as a coffin with a pharaoh's head and crown (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

d) Horus, god of eternal vision. Horus's eyes were torn out by Seth and the pieces regathered by Thoth. One of Horus's eyes became the sun and the other the moon. Horus is depicted by a large stylized eye appearing wherever site is desired (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

e). Thoth, the god of writing, wisdom, and record keeping. Thoth records the deeds of a person's life and records the weighing of the heart ceremony. Thoth was also worshipped by scribes. He is usually pictured as a tall human with the head of the ibis bird, holding writing equipment (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

f) Khnum, the god of creation. He is credited as the shaper of man on a potter's wheel. He is shown as a man with a ram's head, frequently with a potter's wheel (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

g) Amun Re, the most powerful god. It is this that the pharaohs were to embody. He is always drawn as a pharaoh with all the regalia of the position (Perl, 1987; Dreary &
Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980.)

h) Bes, the god of family and marriage and happiness. He is pictured as short and fat and smiling, holding toys or musical instruments in his hands (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

i) Tuart or Tawerett, goddess of fertility and pregnancy. She is shown as a blue hippopotamus sometimes standing, sometimes in a more natural pose (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980). When Tuart was placed in tombs, one of the feet was always deformed because she was considered to be such a strong animal that upon returning to life in a tomb, she needed to be hobbled (Temples, Tombs and Teachers, 1999).

j) Bastet, the goddess of happiness. Always shown as a cat, most households contained a live cat as the symbol of this god. A complete mourning ceremony was performed when a cat died. Cats were found in nearly all tombs (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

k) Nut, the goddess of the sky. She is pictured as a stretched out human arched over as if covering the world (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

l) Min, god of fertility. This god is for men and is depicted as an amply endowed green man (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

m) Sobek, god of water. He controlled the Nile and flooding. He is pictured as a man with the head of a crocodile (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).
n) Anubis, god of the city of the dead or the necropolis and god of embalming. He is depicted as a man with the head of a jackal or as a black jackal (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

o) Khons, god of the moon depicted as a man with the head of a camel (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

p) Hathor, goddess of love and music depicted as a beautiful woman wearing the headdress of bull’s horns and the sun (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

q) Hapy, the god of the flood is shown as a figure with a baboon’s head. Hapy is also the figure placed on the canopic jar containing the lungs (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

r) Qebhesenuef, shown with a falcon’s head, is the god protecting the intestines in canopic jars (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

s) Duamutef, shown with a jackal’s head, was god of the canopic jar containing the stomach (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

t) Imsety, shown with a human head, was the god of the canopic jar containing the liver (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996.)

u) Khepri, was a sun god and the god of immortality. Drawn as the dung beetle, Egyptians felt the beetle arising from dung to be a miracle and felt this represented rebirth. The beetle is drawn with a dung ball in the front legs,
representing the sun. This is an extremely common design for jewelry and tombs (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

v) Isis and Nephthys, goddesses of protection, especially for other gods and goddesses. These goddesses are depicted as large sheltering wings (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

w) Aten, god of the sun, as offered by Akhenaten and his wife Nefertiti. This god is drawn as the sun with rays being long arms and gentle caring hands at the end (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996; Alerion Press, 1980).

x) Hathor, goddess of love and music. She is shown as a woman with a cow horn headdress (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

y) Sekhmet, the goddess of war. She is depicted as a woman with the head of a lion (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

z) Ptah, the god of naming things. Things can only exist if he speaks their name. He is drawn as a wise-looking man (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996).

Thousands of other gods and goddesses exist, some so personal they only applied to a single person or family. Having symbols in life, and in death, of the gods, gave comfort and security to the ancient Egyptians (Perl, 1987; Dreary & Hepplewhite, 1993; Dowswell, 1996). Students can research single gods or a group of gods and write a report.
They can create drawings to represent their god or goddesses and the classroom can be decorated with them, creating the feeling of an Egyptian home and allowing the students to get involved with Egypt no matter where they may look (Temples, Tombs and Teachers 1999; Sterling, 1992).

Myths, Curses, Legends, and Theories

One of the best ways to grab and hold students' attention is to discuss curses or amazing sounding myths and theories (Temples, Tombs and Teachers, 1999). Cable channels, Arts & Entertainment, The Learning Channel, Discovery, and the History Channel run frequent videos on Egypt covering a variety of topics but usually including an eminent Egyptologist and other scientists exploring their theories about the positions or purposes of the pyramids and the Sphinx. Or perhaps expounding on a new interpretation of a panel of hieroglyphics or temple carvings. These presentations can be taped and shown to students whole or in part and used for discussion starters (Temples, Tombs and Teachers, 1999). In addition these type of programs allow a person not connected directly with Egypt to stay abreast of recent discoveries (Patrenos, 1999).

Some of the most popular theories are as follows. First, is the curse of Tutankhamen. This curse comes as a result of the death of Lord Carnarvon, who was the financier behind Howard Carter's finding of King Tut's tomb. As reported by a
newspaper in Cairo, Egypt on April 5, 1923, Lord Carnarvon died mysteriously following a visit to the tomb site. At the moment of his death, his dog also died, and the light in all of Cairo went out. At about the same time, a snake, not native to Egypt, got into the tent of Carter and ate his pet canary. Several others who have entered the tomb have died also (Geyen & Varju, 1992).

The truth, as it is known today, is that Carnarvon died from blood poisoning caused by a mosquito bite that became infected when it was cut by a razor. He did not see a doctor or correctly take care of the cut and infection set in. No explanation can be made for the dog or the lights beyond mere coincidence. As for workers dying, some have, but many have not. It is felt that if a curse were true everyone would die. However Howard Carter lived to be an old man (Geyen & Varju, 1992; Perl, 1987).

Modern scientists believe the true curse may be the fetid air and closed up germs inhabiting sealed tombs for thousand of years and growing in mummified bodied and foodstuffs. This would explain illnesses and deaths of tomb workers and robbers (Geyen & Varju, 1992; Gad, 1999).

Secondly, many theories exist about the true purpose and builders of the pyramids. Some say the pyramids echo the positions of stars in the ancient sky. Others are sure they are a map to outer space travel or buried treasure and the true meaning of life (Gad, 1998; Gore, 1991; Bond, 1998; Powell, 1997). Many scientists are sure the pyramids could
not have been built by mere men in that stage of development, but were created by aliens who came here and will soon return to see what mankind has done with their gifts (Bond, 1998; Gore, 1991).

A more recent theory states that the aliens are really the people of earth. It states earthlings are the descendants of Martians who landed in Egypt after being forced by a cataclysmic disaster to leave Mars. The pyramids, the sphinx, hieroglyphics and the other discovered artifacts are in truth remnants of this advanced civilization, that has lost its advances as it matured on this planet (Gad, 1999).

Movie makers keep the story of Egypt current and shed new ideas on facts and theories. The Disney company's release of The Prince of Egypt in 1998, follows the story of a pharaoh and the slaves of his empire. The Mummy, a Hollywood movie released in 1999, adds another curse and legend to the ever growing arsenal, giving students yet another chance to visualize Egypt as it may have been (Patrenos, 1999).

Summary

Learning about Egypt encompasses many topics such as geography, a time line of information, pharaohs, pyramids, commoners. mummification and the afterlife, gods and goddesses and myths, curses, legends and theories. Within each of the topics are hundreds of facts that bring ancient Egypt to life for today’s students, assisting them in
becoming informed citizens of this world by knowing about the origins of things from the past.
CHAPTER 3
METHODOLOGY

Purpose

The purpose of this study was to develop a two day inservice program for middle school teachers giving valuable information on the ancient Egyptian civilization to supplement the curriculum study of ancient civilizations and give these teachers activities to accomplish with their students to add interest and excitement for students.

Research Design

This research project used the descriptive research method. This method was chosen because the study involves gathering information and organizing it to a purpose, not manipulating variables (Merriam & Simpson, 1995). This study involved gathering information about ancient Egypt and creating a product, the workshop, to implement transfer of the information to other educators. This fits well into the characteristics of the descriptive method which consists of collecting facts, identifying a need or problem, and creating a product to solve the problem (Merriam & Simpson, 1995).

Assumptions and Limitations

This researcher is a sixth grade teacher and tends to examine information as it would apply and be important to a
child between the ages of eleven and thirteen.

Certain assumptions were made during this study, namely that the information presented by Egyptologists and other social studies experts is as correct as possible at this stage of knowledge. Due to the vast amount of chronological time that has passed from the period of the ancient Egyptian civilization, and differences in opinion and interpretations of discovered finds, assumptions were made that each researcher had sufficient background information to reach logical conclusions. Whenever possible at least two corroborating sources were located for each section of information in an effort to overcome the limitation.

Procedure

Recognizing the need to hold the interest of students, data was methodically collected from a wide variety of sources. Desiring to create a thematic unit covering all subject areas normally taught in a middle school classroom, areas of study were established and information was pursued to fill those needs. Teacher information stores proved to be rich sources for curricular based information related to Egyptologists' disclosures. Further research included the examination of National Geographic magazines, videos, selected television documentaries, and many other items. Also, this researcher attended a workshop presented by the Phoenix Art Museum, in conjunction with the Florida International Museum's tour of the Roemer-Pelizeus Museum's
traveling Egyptian artifacts show of 1998-1999 entitled The Splendors of Egypt. Other sources were suggested by each of the mentioned resources and were researched to provide a well-rounded picture of ancient Egypt, factual, and on a level accessible to the intelligence level of a child in middle school.

**Product Design**

This study and subsequent workshop was designed to be presented to middle school educators who teach ancient civilizations as part of their Social Studies curriculum. As social studies is a common thread in most of the states of the United States, the workshop may prove useful to any educator who desired to attend. It would be especially useful to teachers of inner city and at risk students as the design includes varied activities useful for gaining and retaining the attention of these difficult to reach students.

The workshop is intended to show how to teach a thematic unit on ancient Egypt, lasting from three to six weeks of a school year. Teachers may use Egyptian themes to teach mathematics concepts, language concepts and science, in addition to traditional Social Studies instruction.

The workshop will be implemented in a two day format of six hours with a one hour lunch and a morning and afternoon break. Attendees will receive information, hand-outs and reference lists of easy-to-obtain books, maps, games and posters. In addition, those who attend will create several
hands-on projects such as a headdress and a game. Attendees will also receive certificates of clock hours and/or continuing education credits to be used for career development plans.

Each daily session will conclude with a brainstorming and question/answer time period used for clarifications and sharing ideas that may have occurred as a result of the workshop presentation. At the end of the workshop, attendees will be asked to complete a short opinion survey on the value of the presentation, the need for the presentation, the success of the presentation, and a section to write any comments desired. These will be reviewed as a means of perfecting future workshop presentations.

The researcher will remain available to attendees by phone and/or mail to answer questions and provide support for implementation of this curriculum extension information in the attendees' classrooms.
CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

This chapter provides the curriculum for the two day workshop for middle school teachers with the hopes that after attending they will implement the material into their classrooms.

Demographics

The workshop will be offered to middle school teachers of districts primarily considered inner city. Each workshop will have a maximum capacity of twenty teachers. The workshop can be repeated to accommodate need and interest. Workshop location will be selected by district personnel but will best be accomplished in a large room with tables for group work.

Flyers, with a registration form, will be distributed to advise teachers of upcoming workshop dates. The flyer will also mention bringing a sack lunch to eat during the lunch break of thirty minutes. Teachers will receive a confirmation card to affirm selection for attendance.

At sign-in for the workshop, each attendee will be given a three-ring binder containing a brief outline of information to be covered each day, a schedule, blank paper, and a set of dividers and labels with directions on setting up the notebook to prepare for materials that will be
distributed during the two day workshop. All materials
distributed will be hole-punched for the binder. One
additional page of information will be included with
biographical information about the presenter/researcher and
the objectives of the workshop;

a. create excitement for learning about ancient
civilizations, specifically Egyptian civilization

b. inspire teachers to use a thematic unit method of
presentation to show students the inter-connectedness of all
learning

c. consolidate and distribute pertinent information
about ancient Egypt in an easy to understand and use manner

d. inspire teachers to use activities and projects along
with traditional teaching methods as a positive way to
inspire at-risk students to learn and get involved

e. share a comprehensive bibliography of materials
appropriate for middle school students

f. share a passion for the Ancient Egyptian’s rich and
varied civilization

g. share, commune, and discuss the subject with other
teachers to add to the growth of attendees and the presenter.

Workshop attendees will hear brief lecture pieces
accompanied by visual aides, then they will participate in
creating a project as a small group which will be shared. The
project will be one recommended to assign to students. Each
of these units will last approximately one hour and fifteen
minutes, allowing for two ten minute breaks, a thirty minute
lunch, fifteen minute introduction and fifteen minute closing
discussion time. Recommended times for the workshop are 8:00
a.m. to 2:00 p.m. or 9:00 a.m. to 3:00 p.m.

Outline of Workshop

Day One

1. Introduction and overview
   a. introduce presenter include very brief bio.
   b. review schedules and outlines, lunch and break
      procedures, restroom and snack machine locations
   c. explain lecture-activity unit progression
   d. affirm distribution of materials throughout day
      as topics are covered, and complete bibliography at
      end of workshop

2. Geography of Egypt
   a. map posters on easel displays, large detail map
      on overhead
   b. discuss location, surrounding countries and
      bodies of water
   c. discuss climate, including rainfall and average
      temperature
   d. discuss Nile River, direction of flow, source
      and delta, feeder rivers, annual flooding
   e. discuss upper and lower Egypt, first settlement,
      growth of settlements to regions to kingdoms
   f. discuss cities of ancient Egypt comparing
locations to modern cities and landmarks

g. distribute blank maps of Egypt, 2 per person

h. allow 5 minutes for attendees to create maps for themselves.

i. distribute chapter section on geography of Egypt

3. Timeline of Ancient Egypt

a. length of butcher paper displayed with time line from 3000 B.C. to 5 A.D. inscribed

b. discuss and label first 100 years as Early dynasty, note creation of upper and lower Egypt, calendars and hieroglyphics

c. discuss and label 3011 B.C. Egypt united by Menes

d. discuss and label 3100 B.C. to 2040 B.C. as Old Kingdom, note significant details such as building of Memphis and pyramids

e. discuss and label 3040 B.C. to 1550 B.B. as Middle Kingdom, note significant details such as military conquests, building of huge temples and statues, rise of god Amen

f. Discuss and label 1550 B.C. to 715 B.C. as New Kingdom, note significant details such as empire expanding, building of Valley of the Kings, Queen Hatshepsut, and Tutankhamen

g. Discuss and label 715 B.C. to 5 A.D. with tomb robberies, attacks by outside tribes, total decline of Egyptian civilization
h. distribute length of paper to each group with markers and Egyptian stickers
i. have each group create a section of timeline using drawings and stickers
j. have group leader describe their section, then post on wall and put all sections together
k. suggested student assignment--create as groups were requested to complete
l. alternate student assignment--create individual timelines on thin paper, fasten ends to paper rolls to create scrolls
m. distribute chapter section on the timeline of Egypt

3. 10 minute break

4. Pharaohs
   a. display pictures of crowns, pharaohs, other artifacts and monuments of pharaohs
   b. discuss progression from chieftains to unified ruler, Menes
   c. discuss reason for and creation of title pharaoh
   d. discuss daily life of pharaoh, duties, marriage possibilities and need
   e. discuss accomplishments of Ramses and Seti
   f. discuss accomplishments of Hatshepsut
   g. discuss accomplishments of Akhenaten
h. discuss accomplishments of Tutankhamen
i. read to group *Tutankhamen's Gift*

j. display and share books, pictures, posters on pharaohs, monuments, tomb discoveries

k. distribute patterns for ceremonial headdresses and jeweled collars

l. suggested student assignment--use bright markers create personal headdress and collar

m. alternate student assignment--write and perform play about pharaohs complete with costumes and scenery

n. class activity suggestion--decorate room as tomb, make costumes, celebrate an Egyptian Halloween

o. distribute materials and directions for each group to create a wig in the style of Nefertiti

p. model wigs

q. distribute chapter section on the pharaohs

5. 30 minute lunch--materials and books available to examine

6. Pyramids

   a. display poster of internal sections of pyramids

   b. use overhead to show various progressions in building of pyramids

   c. discuss reasons for pyramids, who could have one
d. show and discuss mastaba
e. show and discuss next attempts at grander pyramids
f. discuss in detail construction methods of pyramids, step by step
g. display and discuss drawings of interior structures of pyramids and surrounding buildings display and discuss pictures of burial chamber finds and walls
h. discuss *Pyramid* by David Macaulay as wonderful source for understanding pyramid construction
i. distribute patterns for creating paper pyramids, 2 copies to each person
j. suggested student assignment--make personal pyramid from construction paper
k. alternate student activity or group activity--build a pyramid from sugar cubes and white glue
l. have attendees cut and fold paper using patterns to create a pyramid
m. distribute chapter section on the pyramids

7. Commoners
   a. display model of social pyramid
   b. discuss each section of social pyramid, who was there and duties
   c. discuss life and duties of men in Egypt
d. discuss life and duties of women in Egypt
e. discuss life and duties of children in Egypt  
f. discuss homes, cities, burial activities  
g. distribute blank copies of social pyramids, 2 to each attendee  
h. share books about Egyptian life  
i. distribute instructions for making and playing various games of Egypt such as Senet and Duat  
j. allow time to create personal copy of social pyramid filled in with details  
k. distribute chapter section on commoners

8. Discussion group, questions, dismissal for the day

Day 2

1. Brief reintroduction and overview  
   a. review daily progression and procedures  
   b. look over schedule for the day  
      1. not all topics today will allow for activities as last time but there will still be a variety to the day  
   c. ask for any questions or concerns  
   d. review briefing what was covered on previous day

2. Hieroglyphics  
   a. define hieroglyphics and hieretics  
   b. discuss Rosetta Stone
c. discuss operation of hieroglyphics
   1. first one word for one picture
   2. later combining pictures for more complex expression
   3. one picture for sounds in a word
   4. combinations of all styles make modern deciphering difficult

d. discuss uses for hieroglyphics
   1. record events and life of a pharaoh
      a. Book of the Dead
   2. decorate inside of tombs with processes and needs of afterlife
      a. figures on wall would come to life in afterlife
      b. food and other items on walls would be real and useful
   3. decorate homes and public places
   4. record public records
   5. songs, stories, letters, worship gods

e. discuss papyrus and scrolls
   1. how it is made, ingredients
   2. importance of color

f. discuss rules for writing hieroglyphics
1. directions of reading and writing—3 choices
2. read into the faces of the characters
3. balance and spacing
4. acceptable ways to combine and show balance
g. distribute pages of hieroglyphics, letters and numbers
h. distribute examples of cartouches
i. discuss cartouches
j. suggested student assignment—create personal cartouche from clay or a potato
k. suggested alternate assignment—write spelling words and name in hieroglyphics
j. suggested alternate assignment—do everyday math assignments and translate into hieroglyphics
   1. give basic math fact problems in hieroglyphics, have students translate, solve and write solutions in hieroglyphics
k. distribute examples of math worksheets
l. distribute chapter section on hieroglyphics
m. distribute paper and markers, have each attendee write their name in hieroglyphics
n. share cartouches

3. 10 minute break

4. Afterlife and Mummification
   a. discuss reasoning of afterlife
b. discuss Ba and Ka
   1. Ba—world wanderer, returns at night
   2. Ka—needs sustenance, remains with body in burial sight

c. discuss importance of an exact replica of the living body
   1. show pictures of mummies

d. discuss funeral ceremony—not a mourning
   1. celebration of movement into a better place
   2. opening of the mouth ritual
   3. party, feast, orgy for family and friends
   4. reunion of other deceased family members

e. discuss ceremony of the dead performed by the gods
   1. determine if deceased deserves and afterlife
   2. travel to underworld with Re to Anubis
   3. weigh deceased's heart against a feather
   4. deceased life read and recorded
   5. if determined worthy, led to Osiris who granted eternal life
   6. if unworthy, heart was eaten by Ammit and no soul was left, so not afterlife

f. discuss purpose of mummification

g. discuss processes of mummification
   1. remove internal organs
   2. place in canopic jars
a. discuss canopic jars—shapes, gods
3. elevate and slant body to dry
   a. discuss natron—ingredients
4. discuss packing, sealing, weather-proofing
   of dried body
5. discuss wrapping of body
   a. materials used
   b. decorating, jewels, amulets

h. discuss creating mummies in the classroom
   1. materials needed
   2. process details
i. discuss creating canopic jars
j. discuss creating Book of the Dead for classroom
   mummies
k. discuss creating coffins or ready made ones
   available
l. distribute detailed directions for mummification
   of chickens and making canopic jars
m. distribute chapter section on mummification and
   the afterlife
n. allow 10 minutes for attendees to share and
   examine student examples of mummified chickens,
   canopic jars, coffins, and Books of the Dead

5. 30 minute lunch—materials on display for examination
6. Gods and Goddesses

a. discuss polytheistic society
   1. importance of gods
   2. reasons for gods
   3. honoring and sacrificing to gods
   4. problems of understanding a theology of thousands of years ago

b. discuss individual gods
   1. names and various spellings of names
   2. purpose or job
   3. how pictured
   4. stories associated with god creations or purposes

c. share pictures and models of gods

d. suggested student assignment--research one or several gods and write a report

e. alternate suggested assignment--draw and label pictures of gods, use to decorate classroom to make it look like an Egyptian home

f. distribute pictures and descriptions of gods

g. distribute chapter section on gods and goddesses

h. play match game with attendees
   1. 2 teams, large playing board with 16 numbered cards showing
      a. 8 cards have name on back
      b. 8 cards have purpose on back
2. teams take turns selecting cards and trying to find the two that match

7. 10 minute break

8. Myths, Curses, Legends, and Theories
   a. discuss how myths and curses really grab student attention
   b. discuss using cable TV shows on video
      1. keeping current on new ideas
      2. effective method of getting information to students
      3. inspire students to tune in better TV for themselves
   c. discuss curse of King Tut
      1. mysterious death of Lord Carnarvon
      2. simultaneous events added to curse theory
      3. the truth as known about the events
      4. modern theories about curse and explanations for some of the happenings associated with King Tut
   d. discuss theories of the pyramids
      1. who really built them
         a. aliens
         b. relocated Martians
      2. positioning purpose
         a. map for space travel
b. map to huge wealth

c. explanation of the true meaning of life

d. echo star positions of ancient times

e. calendars

f. hold group discussion on other theories ever heard about

g. distribute copies of news article on death of Carnarvon

h. discuss Hollywood's treatment of ancient Egypt

i. distribute names of movies and cable TV channels including internet addresses

j. distribute chapter section on myths and curses

9. Summary and closure of workshop

a. general overview of preceding discussions

b. reiterate importance of getting students involved and excited

c. distribute researcher's numbers and address for future contact

d. distribute reference list

10. Group discussion, questions, opinions

a. other information from attendees to share

b. clear up anything confusing

c. was workshop understandable

d. was workshop worthwhile

e. suggestions for changes
f. other comments, criticisms

11. Complete survey form for district

12. Dismissal for home
   a. researcher and materials available for short period of time for discussion one-to one
CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to develop a two day inservice program for middle school teachers, giving valuable information on the ancient Egyptian civilization to supplement the curriculum study of ancient civilizations and give these teachers activities to accomplish with their students to add interest and excitement for students.

Learning about Egypt encompasses many topics such as geography, a time line of information, pharaohs, pyramids, commoners. mummification and the afterlife, gods and goddesses and myths, curses, legends and theories. Within each of the topics are hundreds of facts that bring ancient Egypt to life for today’s students, assisting them in becoming informed citizens of this world by knowing about the origins of things from the past.

This study and subsequent workshop was designed to be presented to middle school educators who teach ancient civilizations as part of their Social Studies curriculum, however, the workshop may prove useful to any educator who desired to attend. It would be especially useful to teachers of inner city and at risk students as the design includes varied activities useful for gaining and retaining the attention of these difficult to reach students.
The workshop is intended to show how to teach a thematic teach mathematics concepts, language concepts and science, in addition to traditional Social Studies instruction. Use of a thematic unit of study envelopes students actively in a topic and increases both their enjoyment and degree of recall.

The two day format allows for a ample time to assimilate information and have discussions. The organizational notebooks and hand-outs that are distributed will allow teachers to take this information back to their classroom, ready to implement.

Keeping the workshop attendance to a group of twenty will increase the opportunity to make the material understandable and keep the energy and enjoyability level high.

The workshop will be offered first to the researcher's school district and then to other inner-city school districts. As many sessions will be held as there is interest in attending.

It is anticipated that attendance in this workshop will encourage teachers to use the information and suggestions to teach the Ancient Egyptian civilization in their classrooms. In this way, the education of students should be improved and expanded.

Conclusions and Recommendations

No immediate conclusions can be made as the workshop has not yet been presented, but it is anticipated that based on
experience and the suggestions and opinions of attendees, refinements and adjustments will be made and the workshop will become a work of continued development.
REFERENCE LIST


Make This Model Egyptian Mummy. (1994). Great Britain: Usbourne Publishing Ltd.


Mummy Rummy Game. (1996) Boston; Gamewright, Inc.


