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IN THIS ISSUE

CAST IN COPPER, WROUGHT IN GOLD: METALS IN ANCIENT EGYPT

By
Will Martin

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It is held that the four prerequisites for the development of a complex civilization are a reliable source of water, fertile soil, a warm climate, and natural barriers to help discourage would-be conquerors. Egypt possesses all four, making it an ideal location for the rise of a civilization. Though these four are indisputably vital, one more thing is absolutely necessary to the formation of a civilization: knowledge of metals and how to work them. Metal is such an intrinsic part of every complex culture that few people ever stop to think about it; yet it has defined civilization for thousands of years.

The Beginning. The origin of metalworking as a profession is a bone of contention among archaeometallurgists; the earliest metal artifacts come from the city-state of Çatal Hüyük in Anatolia. For many years, the most widely accepted theory on how metals were originally discovered was the *Open-Fire Theory*. In order to smelt copper, the ore must remain in a "reducing" atmosphere -- starved of oxygen -- with a temperature of at least 1084°C (1983°F) until the molten metal separates into copper and slag.

The scenario runs something like this: *One day, Nigel the Neolithic Hunter-Gatherer built a fire over ore-bearing rocks. Later, after the fire had burned out, a twinkle among the ashes caught his eye. Leaning forward, Nigel brushed the ashes away to reveal a blob of partially melted copper. Still warm, it bent a little in his grasp. It looked pretty, so he decided to experiment with other rocks to see if they would make pretty blobs, too.* Voila! Metals were discovered.

However, this theory is only partially tenable, as Robert Raymond points out: "... 1084° C ... is rarely achieved in an open fire, even with wind assistance. A greater problem is the maintenance of a reducing atmosphere. Burning carbon fuel does produce carbon monoxide gas, thus creating a reducing atmosphere immediately above the glowing coals, but in an open fire this is fitful and intermittent."[1] It is highly unlikely that these two conditions (adequate temperature and reducing atmosphere) could be accidentally met for the appropriate amount of time.

A newer theory, which is rapidly gaining adherents, is the *Kiln Theory*. Pottery and worked metals begin to appear in the archaeological record almost simultaneously. A kiln is an ideal place for intentional, or even accidental, smelting to take place. The fire is kept blazing hot for hours by the potter's apprentices. Also, in an enclosed kiln the fire quickly devours all the oxygen, thereby creating the required reducing atmosphere.

The only other element needed is the copper ore. One of the few practices which is common to the large majority of primitive tribes is the custom of body-painting at times of celebration, war, and, in some cultures, all the time. For example, take *kohl*, the precursor of eye shadow. Fashionable Egyptians used it frequently for the duration of the dynastic period. *Kohl* is made from malachite - the most common form of copper ore. If *kohl* is good for decorating humans, why not pots? Pigments made from metallic ores have been commonly used in pot decorations from the earliest times to the present day.

With all the vital elements in place, here is what the Kiln Theory sounds like: *One fine day, Smitty the Prehistoric Potter was experimenting with a new glaze. Earlier, he had placed a test batch of pots in the kiln. Pulling them out, he smiled with satisfaction -- the pots were all perfect - except, he noticed, for one of them. On this one, there were unsightly blotches of something shiny. Upon*

closer examination, Smitty decided that the shiny parts would be attractive if he could make a pot entirely covered with them. With nothing else to do, he played with the new glaze for a few months and eventually figured out how to make blobs on purpose. Ta-da! Enter metals, stage right.

One strong point in favor of this theory is that the accidental smelting of metals contained in glazes and paints for pots has been observed in the present time. Traditional potters from many cultures still decorate their pots in this same way. One is Kripal Singh, a potter who lives in Rajasthan, India. Singh makes all his own paints and glazes from local minerals. Occasionally, he has to discard a batch of lead-based glaze because prills (small blobs of smelted metal) of lead appear in it during its fabrication. Less frequently, prills appear in the glaze after the pot has been fired, ruining the pattern.[2]

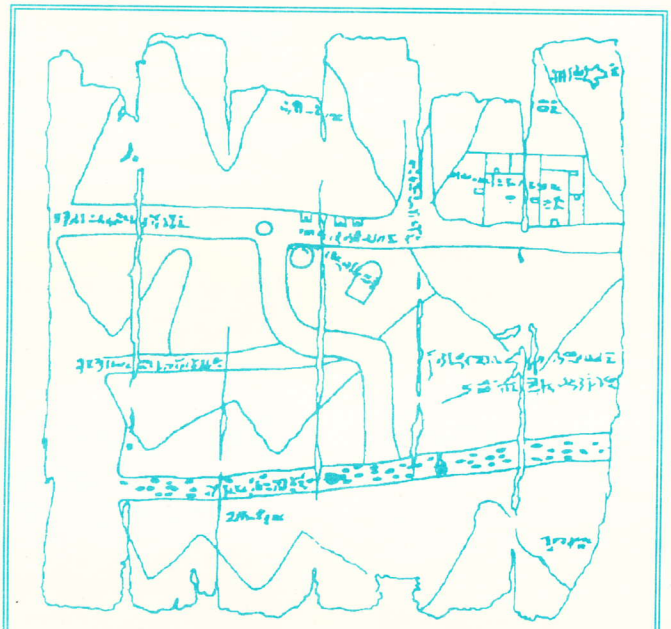

Figure 1: Ancient map of Egyptian gold mining area
(From Clarke & Engelbach Ancient Egyptian Construction and Architecture)

Once metals had been discovered, it was not long before their use as both decorative and functional items became known. The earliest metal artifacts from Egypt are small copper beads found by William Flinders Petrie in burials from the Naqada I culture. Later on, during the dynastic period, uses for metal diversified. The obvious use is edged implements: knives, chisels, swords, and the like. Chisels, in particular, are another point of contention among archaeometallurgists. Chisels of copper, even copper hardened by the addition of arsenic, were too soft to quarry the stones used in building the pyramids and other buildings. Yet, obviously, the pyramids were built. How? Some think that the Egyptians simply didn't mind the tedium of quarrying hard stone with soft metal. Others prefer not to get involved in the debate. Still others roll their eyes and say, "What a silly question! The aliens did it!," or something equally ludicrous.

Digging It Up. However, all that aside, perhaps the best way to tell the story of Egyptian metallurgy is to step through the entire process. The first step is the mining. Egyptian mining techniques were never recorded by a native Egyptian. In fact, the only record of these techniques that still exists is an account of the Greek traveler Agatharchides of Cnidus. During the second century BCE, Agatharchides traveled extensively through the eastern parts of Egypt, including a visit to a gold mine. His record of the working conditions and techniques at the mine has been preserved, along with the rest of his travels, in his book ***ON THE ERYTHRAEAN SEA*** ("Erythraean" derives from the Greek *eruthros*, "red").[3]

Most Egyptian mines were located near the Red Sea (see figure 1), where "gold, copper, lead, and iron, as well as various precious stones"[4] were found. Silver was mined elsewhere, and was considered more valuable than gold for a long time because it was rarer. " ... the first silver in Egypt was obtained from Nubia, but there is no record as to the period in which the Egyptians first learnt to purify their gold, or to separate the silver, though it is fairly certain that later in their history they did separate it as chloride by the action of common salt."[5]

Copper was mined continuously throughout the dynastic period, but was too expensive for commoners to use extensively, so stone was used in conjunction with metal for thousands

of years. Egypt's source of tin remains a mystery as there were no significant native deposits of it. This explains why bronze, an alloy of copper and tin, was never intentionally produced before the 18th Dynasty: The trade network was not sufficiently far flung to give the Egyptians a steady source of tin. There are two artifacts of bronze from before the 18th Dynasty. The first is a small pin from the Third Dynasty, in which the bronze is probably accidental. The second is a life-size statue of Pepi I from the Sixth Dynasty, in which bronze may, or may not, have been used intentionally.

Egyptian gold was found in veins of quartz. The mining process was tedious and difficult. Agatharchides described the miners this way: " ... the Kings of Egypt collect together and consign to the gold mines those condemned for crimes and prisoners of war ... alone and sometimes together with their whole families. Thus, at the same time, they exact punishment ... and obtain great revenues from their labor."[6] Using criminals as miners was done only during the Ptolemaic period. Earlier, the mines had been worked only as needed by groups of prisoners of war and forced laborers under military guard.[7]

Once at the mine, the workers began excavating by lighting fires against the rock face. After the fires had burnt for a while, they were quenched suddenly with water or vinegar. The combination of high temperatures and sudden cooling caused the ordinarily hard quartz to become brittle. Then, workers with hammers smashed it into chunks. "Those who are strongest and young smash the quartz bearing rock with hammers ... They also cut many galleries through the rock, not on a straight line, but ... intersecting like the roots of trees. They excavate wearing lamps fastened to their foreheads, following a sort of white vein."[8]

Following behind the miners, young boys collected the chunks of rock and took them outside, where they were further crushed into gravel by older men called "pounders." After this, the gravel was placed inside a stone mill - rather like a grain mill -- and ground until it was the consistency of flour. The mills were run by the unfortunate wives of the men who had been sentenced to labor in the mine, two or three to a handle. The pulverized quartz was then washed to remove everything but the gold. Agatharchides described the washing apparatus as wooden, but he was probably mistaken. Wood is scarce in the Middle East and has been for most of recorded history. Why waste precious wood when stone is so much more durable and available? In fact, stone washing tables have been found at various sites in Nubia and Egypt.[9]

The gold-bearing dust was put on the washing table, which had a smooth, slightly inclined surface. A worker would rub it as water was poured down the table from the top, carrying away the unwanted dirt but leaving the heavier gold in place. The gold-washers were called *Selangeus* (singular), or *Selangei* (plural).[10]

After repeated washings, including a final rinse with a light sponge, the particles of gold were given to the smelters, who, Agatharchides said, "pack it according to a fixed measure and weight into pottery vessels. They mixed in a lump of lead of a size proportionate to the amount of gold and pieces of salt and, in addition, they add a little tin and barley bran. Having covered it with a close-fitting lid and thoroughly sealed it with clay, they bake it in a kiln for five days and nights continuously. After allowing it to cool, they find in the jars none of the other substances, but they obtain pure gold with only a small amount having been lost."[11] The lead was added to separate any extraneous metals. The salt separated silver, the only metal that the lead missed, which was then absorbed by the crucible. The tin was intended as a hardener, but it actually impaired the process. The barley bran, "a reducing agent, would moderate the rate of the oxidation process,"[12] though it is doubtful that the Egyptians thought of it in those terms.

The work was not only difficult, it was hazardous to one's health. One reason was that the mines had brittle walls which tended

to collapse. Also, the tunnels were so small and cramped that the miners had to work lying on their backs or sides, which made it difficult to run from a cave-in. Agatharchides claimed that the prisoners were bound in fetters, another reason it would be difficult to run. It should be noted that no chains or fetters have yet been discovered in the area Agatharchides described. It is possible he made them up for effect!

It should also be further noted that Agatharchides wrote during the Ptolemaic Period. Given the conservative nature of the Egyptians, however, there is no reason to believe that mines were very much different during any other period of Egyptian history. The main difference was that earlier miners would have used bronze or copper hammers rather than iron ones.

Refining the Raw Material. The second step in the process is the smelting. Not all smelting was like the gold-smelting described above. When Agatharchides wrote, Egyptians had been smelting metal for two or three thousand years - giving them ample time to refine the process. The earliest known smelting pit was excavated in 1965 by Beno Rothenburg in the Sinai at Timna.[13] It is little more than a fireplace -- just a ring of rocks piled around a bowl-shaped dip in the ground on a ridge (similar to figure 2, top left). But for the discovery of other pieces of equipment – like the mortars which the "pounders" might have used -- it might have been over-looked.

This is an example of a simple bowl furnace. A low ring of mud bricks or stones circled the pit, which was lined with loam. The smashed ore was mixed with the burning coals to best utilize the available heat. Chunks of iron were added as flux; the iron facilitated the smelting process. The resulting metal pooled in the bottom. It was very poor stuff, just a few prills of usable copper mixed in with the slag.

As the process was perfected, the bowl furnace changed shape until, eventually, it was a shaft furnace. In a shaft furnace, the wall of bricks is higher, and the furnace was intentionally excavated, rather than just built around a hole. The pit was lined with bricks and loam and was roughly cylindrical in shape. Holes were left in the bricks and lining for the insertion of *tuyeres* - but more on that later. In a pit furnace, the metal was seldom very pure because it was mixed with the slag. After

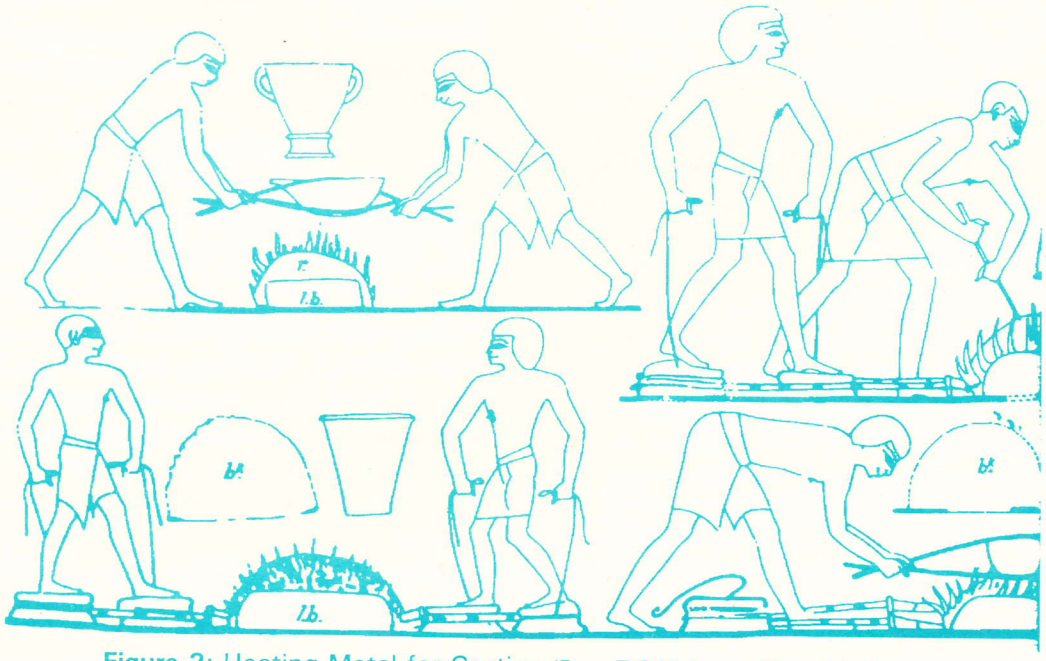

Figure 2: Heating Metal for Casting (From T.G.H. James Pharaoh's People)

enough heat had been applied to the charge (the amount of metal put into the furnace), the slag and the pure metal would separate into two layers with the slag on top. If the same amount of charge was placed into the furnace each time, then the slag would be at the same level each time. Once this was understood, it was simple enough to put a tap into the side of a shaft furnace at the level of the slag. When the tap was opened, the slag drained off into a pit on the ground, leaving the pure copper behind in the furnace.

Figure 3: Three melters at work (from Bernd Scheel Egyptian Metalworking and Tools)

One thing that both bowl furnaces and shaft furnaces needed was a steady supply of air to keep the fire hot. For this, the Egyptians used "tuyeres" (see Figures 3 & 4). Tuyeres were pieces of clay formed in a cylinder or a cone around the end of a hollow reed. The reed carried air to the fire, while the tuyere kept it from igniting. The tuyeres could be used either as blowpipes or attached to bellows. There is no easy way to tell which method was used with a particular tuyere. Dr. Paul Budd, of the Ancient Metallurgy Research Group at Bradford University in the United Kingdom, wrote:

> Tuyeres themselves simply direct the air blast and provide refractory protection for the air delivery system. They are not, in themselves, diagnostic of either blowpipes or bellows - although the diameter of the orifice may give an indication. The idea that blowpipes were used in ancient Egypt comes primarily from tomb paintings (3rd & 2nd millennium) which depict 'metalworkers'. It is likely that what is shown is in fact metal melting in a crucible which is high temp. but relatively small-scale. There has been much speculation in archaeometallurgy generally about the possibilities of early copper smelting on a small-scale in crucibles using blowpipes - it is the best interpretation of some of the South American evidence, for example. In Egypt it is far more likely that smelting (rather than melting) was larger scale and would have involved bellows. The volume of air that is required for large slag-tapping furnaces [shaft furnaces] is too great for blowpipes.[14]

The difference between melting and smelting is minimal. In smelting, the ore is melted for the first time and impurities are removed. In melting, the pure metal is melted preparatory to being poured into a mold.

Blowpipes were used more extensively in the Old and Middle Kingdoms than in the New Kingdom. Blowpipes could be dangerous; air rising from a fire hot enough to melt copper isn't good for lungs if accidentally inhaled. Also, arsenic was alloyed with copper as a hardener fairly often, and the fumes from this aren't particularly invigorating either. Dr. Budd says:

> I have worked with Cu-As (Copper-Arsenic) alloys and I certainly used a respirator! Having said this, it's not as bad as you might think (but don't try it at home!). The fume produced is the oxide As_2O_3, but smelting conditions are usually very reducing [starved of oxygen] so that the oxide is rarely formed when smelting As-bearing Cu ores. The danger arises when air can get at the As at high temperature, when, for instance, adding As metal or As minerals to molten Cu -- this is a very bad idea without wrapping them in Cu sheets first and even then it's very risky, as you have to get it below the surface of the molten Cu very fast. Once alloyed, Cu-As can be manipulated with relative ease without the evolution of fumes in casting

until the composition rises above 10% As. Then you can get fumes in casting. As_2O_3 gives a characteristic white smoke and condenses out as white powder -- the classic poison of the Victorians. You get some warning, as the fumes stink of garlic. About 20 mg of ingested As will cause death. It is probably unlikely that you could get this from a lungful of fumes, but it wouldn't do you any good. Any repeated exposure would almost certainly lead to nerve damage and serious illness. It's also a carcinogen."[15]

Bellows certainly sound better than that! However, the only evidence of bellows is in tomb paintings. No examples of the actual bellows have been discovered. Skin bellows -- the sort of bellows associated with blacksmiths -- were barely used at all. Much more common were dish bellows. For dish bellows, a sack of leather was fixed to two pieces of ceramic, one shaped like a dish. The other was flat, and could have been wood. The dish had a hole in it with a reed leading to the tuyere. An intake valve was placed on the leather, but no one knows precisely how it was made. The dish was placed on the ground and the reed was pushed into the tuyere. Then, someone would put a foot in the dish, and grab a leather pull attached to the top (see figure 2, bottom & right). Pulling up filled the bellows with air, and pushing down with the foot pushed the air out through the tuyere. When a graduate student named John Merkel recreated an Egyptian smelting pit in 1981, he made a set of dish bellows, duplicating the ones in the tomb paintings as closely as possible. There was no upper half to his bellows; they were simply a piece of leather tied around the edge of a dish and pumped up and down. For an intake valve, he cut a hole in each piece of leather, and sewed a flap to the inside which swung aside as air rushed in and was pressed against the hole when pressure built up as the air was forced out. Everything was made using native materials. The result of the experiment was a chunk of slag with veins of pure copper in it, since his furnace was a simple pit furnace rather than a shaft furnace; but it proved that the process shown in the tomb paintings could work.[16] Another advantage of the bellows was that there was no danger of anoxia. (Try blowing through a tube as quickly as possible for a while and see how quickly dizziness sets in!)

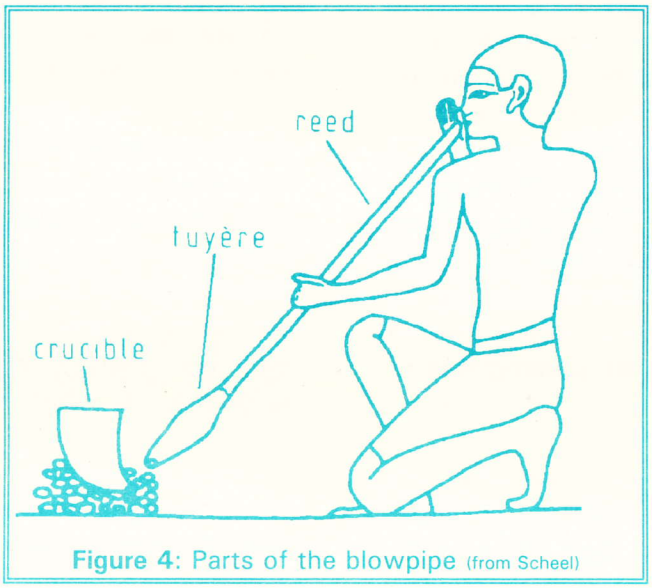

Figure 4: Parts of the blowpipe (from Scheel)

Accomplishing Something Useful. The third step in the process is to actually make something out of the pure metal it took so long to acquire. Early in Egypt's history, the easiest way of doing this was to anneal it. That is, to take a piece of native (naturally pure) copper, and simply beat it into the shape desired. Annealing also hardens the copper, giving it a "skin" of hard metal. Later, the copper was melted down first and poured into an open mold - a chunk of rock or wood into which the basic form of the finished object has been carved. To make a knife, chisel the shape of a knife into a rock and pour in the metal. Once cool, it will be a knife-shaped piece of metal which can be annealed until it has an edge. The surface of a piece of metal made in an open mold will be more or less flat, like the surface of a puddle of water. It might cup a little bit, since the edges cool faster than the center. "The article was first cast approximately to its finished shape, the cutting edges being hammered out afterwards when the metal was cold. This confirms ... that the hardness of the cutting edges of antique copper and bronze implements was due solely to hammering. Some grinding may have been done, but, as this would remove the hard skins

intentionally produced by hammering, it is likely to have been applied to wood-working tools only."[17]

This point is in dispute because, as mentioned above, annealed copper is not hard enough to quarry stone. Yet the Egyptians did so.

Items made in open molds could only have detail on a single side, which was fine for knives, but limited the possibilities for jewelry or statuary. A better method was the closed mold. In a closed mold, two halves are carved in two different blocks, with one or more channels leading to the edge of the block. The blocks were then put together and metal was poured into the hole formed by the channels. This allowed for three-dimensional shapes that could be cast repeatedly (see figure 5, the casting of a bronze temple door). However, it was difficult to do because the edges had to line up perfectly. Also, there was a chance that the sculptor might accidentally carve an undercut edge into the cast which would prevent the finished object from coming free of the mold.

Another casting method is called *ciré perdu*, or lost-wax casting. In lost-wax casting, a model is carved and shaped in wax, then coated with clay or plaster of Paris or something similar. Once the coating is dry, it is turned upside down and heated until the wax melts out, leaving a hollow space the exact shape of the carving. The mold is then filled with metal. When the metal hardened, the coating was smashed, freeing the metal, but destroying the mold. The result was a unique object that required comparatively little working to complete it.

For large objects, such as life-size statues of the pharaoh, a similar method, called cored casting, was used. A core was shaped to the general form of the finished object. The core was then covered with a coat of wax, which was then sculpted into the final form, including minute details. The core remained as a permanent part of the piece. Garland says that the cores were sand or loam. He mentions that the core of an item he personally split and examined was sand, but he does not explain how the sand could have been made cohesive enough to retain its shape during the process. Regardless of its material, the core had to be anchored so that it would not move when the wax was melted off. There is no conclusive evidence of what mechanism was used to anchor it, though Garland found minute iron struts in a piece he examined. An advantage of this method is that the cored products required less metal, and so were both lighter and less expensive than solid metal objects.

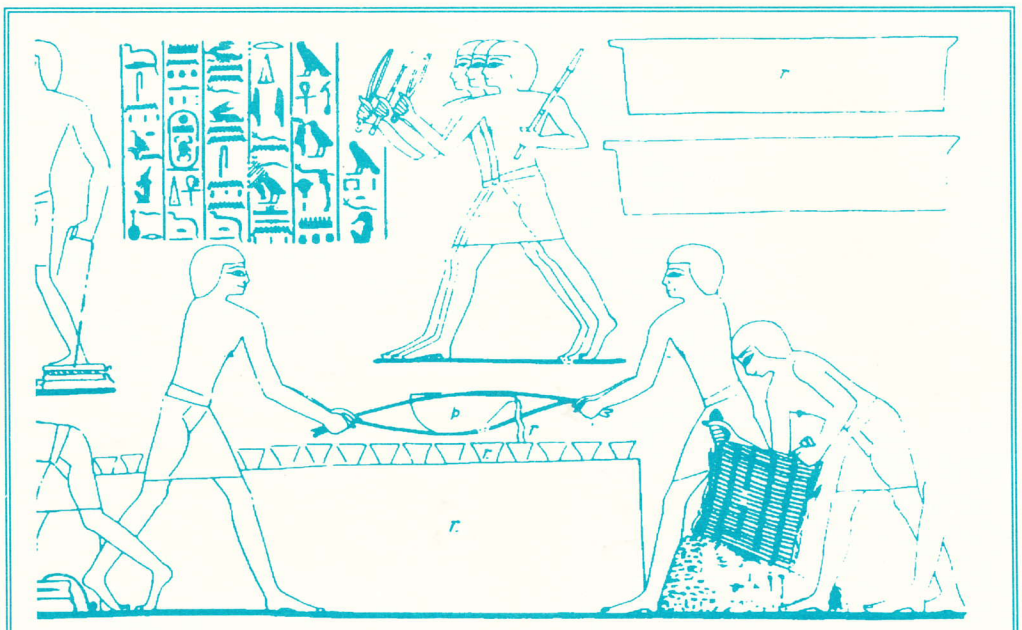

Figure 5: Casting Metal (From T.G.H. James Pharaoh's People)

The final step was polishing. Polishing involves three stages: smoothing, scouring, and buffing. "For polishing, the Egyptian metalworkers used special stones to smooth uneven patches on metal objects. Agate, which was probably used for polishing stones, can be found at several places in Egypt and is still used today for polishing by goldsmiths. Metal surfaces may also have been finished using abrasives like emery or sand. The gleaming surfaces on the pieces were obtained by a final burnishing with small balls made of leather, felt, or other textiles."[18]

Other metals were used in ancient Egypt as well, though on a smaller scale. In an 18th Dynasty nobleman's tomb, a finger ring of tin was discovered. It is the only pure tin artifact from Egypt. The gold/silver alloy called electrum was popular for jewelry throughout the dynastic period. Headdresses of lead were made for statuettes.

So What? *Metal defines civilization*. The four prerequisites -- water, fertile soil, warmth, and natural protection -- provide only the rudiments. Without metal, Egyptian civilization would have left little more than a few stone tools and preserved bodies for us to ponder at. Most people would agree that the Great Pyramid is more impressive than a wood hut lashed together with rope. Moreover, if they stopped to think about it, they would realize that without metal there would be no pyramid - just the hut.

To make it more personal, how much metal is in your house? Not inside the rooms, but in the house itself. How many pounds of steel nails hold your roof on? How many miles of copper wiring are there in your walls? How smooth would the wood be if it had been roughed out with a flint ax instead of cut with a saw? If suddenly you had to make do without any metal, would you be able to survive?

The next time you admire something Egyptian, take a moment to appreciate their metals ... unless you'd rather have lived in that hut!

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AN OVERVIEW OF CIVIL LAW PRECEPTS IN THE OLD AND MIDDLE KINGDOMS

With a brief analysis of how these laws are exemplified and applied in the "Tale of the Eloquent Peasant"

By
Cristin Cochran

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Introduction: Unlike their contemporary neighbors, Egyptians of the Old and Middle Kingdoms do not appear to have drawn up formal legal codes. No codex, no "Egyptian Revised Statutes", and no Magna Carta prototype have ever been found. A brief review of scholarly reaction to this apparent dearth of legal codification ranges from the classically culture-bound, as in "who but the Greeks or Romans could have 'thunk' it?", to rather overreaching interpretations of tomb art, such as forty tubular objects at the hand of a vizier being theorized as legal scrolls. (The consensus now seems to be that the "scrolls" are flogs.)

Given the lack of primary legal sources, current scholars have focused on parables such as the *Tale of the Eloquent Peasant* as a commentary and reflection on both the laws and the legal system of the Middle Kingdom. This paper seeks: (1) to present a rationale for the perceived "lack" of primary legal sources, a set of laws, or a legal code; (2) to summarize a brief outline of Egyptian civil procedure, as appears to have existed; (3) to discuss the status and rights of the individual as revealed by documents relating to probate and contract issues; and (4) to comment on the judicial/legal role of the vizier. Additionally, comparisons to the modern U.S. legal system are offered.

John A. Wilson, in an address delivered in 1954,[1] agreed that Egypt, even from Predynastic times, was a theocracy with three divine attributes of Egyptian law or rule. These three attributes were embodied in the divinely inspired creation of the universe and, accordingly, were renewed and reaffirmed by each Egyptian king in his status as god and ruler. Because the law emanated directly from the king as a god on earth, the law was renewed with each new king and, owing to the king's presence, no codification was necessary or even proper. Although this argument is only theoretical, its logic is at least as persuasive as calling off the search for a code, or some other set of laws, under the assumption that they never existed.

The three attributes of Egyptian "law" are *hu*, translated as "authoritative command;" *sia*, translated as "perception" and *ma'at*, translated as "justice." (However, *Ma'at* can also mean "truth," "rightful," or "righteousness") Because these three attributes were set up by the gods at the creation of the world, they represent universal principles. Conformance with these principles is an inherent responsibility of the king. They also define the essence of the social contract which preserved Egyptian cultural society up through the Ptolemaic period.

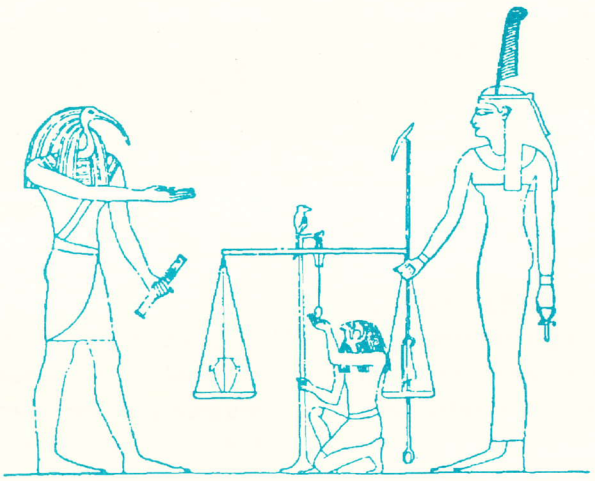
Hu, *sia*, and *ma'at* can be compared to the branches of our own and similar modern governments:

executive	*hu*	authoritative command
legislative	*sia*	enacting into rules and regulations (the essence of the law)
judicial	*ma'at*	justice

In ancient Egypt, all of these principles were embodied in one entity, the king, rather than being spread about, as in the modern, checks-and-balances sort of system.

The king was required to conform with the principles of *hu*, *sia,* and *ma'at* because, as a god, it was presumed that he had created these principles as part and parcel of the creation of the universe. (He was personified there, right?)

As a god, as well as a king, he was the ultimate authority on the law: dispensing *ma'at* as he perceived it through his divine knowledge, *sia*, with his enforcement powers, *hu*.



Celestial Judgment - Horus weighs the heart of the deceased in the Netherworld
(From Erman Life in Ancient Egypt)

As early as the Second Dynasty, the Palermo Stone shows that these three principles of law (*hu*, *sia*, and *ma'at*), had been extended to an administrative system that undertook such legal and governmental functions as the recording of the annual Nile flood level, a regular population census, and a biennial census of gold and fields. The Palermo Stone's reports on gold and fields imply the existence of some system that recorded private ownership of both real and personal property, as well as tracking the transfer of that ownership. (A modern equivalent is the county clerk and recorder. She has copies of all the real estate deeds and that's also where you register your car.) Government protection of private property rights requires a fairly elaborate record keeping system, including the establishment of forms of ownership, and the enforcement of agreements to transfer property between individuals.[2]

The government of the Second Dynasty continued to develop into a strong centralized bureaucracy that was so strongly entrenched that by the Fourth Dynasty arbitrary acts on the part of the king were largely inhibited. Note that occasionally the king may have "forgotten what he had done at the creation of the universe" as documentary evidence does indicate that the king sometimes rescinded decisions made by his administration in opposition to established laws.

Note also that Egyptian-style "established laws" does not imply a codification but, rather, the collective social contract conceived of as infinite expressions of ideal justice. A legal system perhaps based on some universally agreed upon set of principles that were so broadly recognized and accepted that they became laws unto themselves. Possibly, a system akin to the English legal system's courts of equity.

Procedural issues. There is no evidence that the now vaunted occupation of "lawyer" was known to Old or Middle Kingdom Egyptians. There were, however, specialized scribes who offered particular legal services.[3] These services may have included support with the civil procedure system that is the absolutely required rigamarole that must be followed, then and now, to gain access to the justice system. The Old and Middle Kingdom's civil procedural system appears to have been similar to our own. A cause of action was first plead by submission of a petition. The petition was admitted before the vizier's court (in essence filed, just as one now files a civil complaint with the clerk of the appropriate court to initiate a legal action). Once the petition was admitted, the opposing party (the modern term "defendant" will be used as a convenience only) was "served" or somehow notified of the pending complaint. The defendant could answer, the plaintiff could then respond, and, finally the defendant could reply to the response. Once all the answers and responses and replies were complete, the matter was set for hearing.

Our notions of venue (making sure a hearing is held in the most appropriate place) or jurisdiction (whether the court holding the hearing actually has the authority to hear the matter and render judgment) do not seem to have been pertinent. Perhaps everybody in

Egypt knew whom to petition for what, and where. No detailed rules for filing in national or local courts have been preserved.

Likewise, we can only presume what subjects were possible areas of inquiry by the vizier's councils. The scope and range of disputes, as evidenced by the written record, seems to be quite limited. This writer has found no evidence of personal injury claims, stockholder derivative actions, or any sort of tort action at all. The record does contain a fair amount of evidence involving probate and estate issues, in addition to questions of property transfer and related contract issues. (To be treated in a future report are disputes involving criminal complaints. This paper deals only with civil issues.) Finally, in civil cases, there was simply no appellate level court. If one was dissatisfied with the ruling of the vizier's council, one just applied again, preferably with some new piece of evidence, and hoped that the petition for hearing was granted. Although the membership of the council might change in the interim, the actual hearing body remained the same.[4]

Title to Real Property. Land registration was clearly within the vizier's jurisdiction. Although today we don't give much thought to registering or recording deeds, the system that must have been in place in Egypt to recognize, track and then enforce claims of legal title had to be very complex and wide-spread. Much of the world today, especially those nations using the Roman system of land title (as opposed to the English system we use), can't offer a landowner as much security as seems to have been the norm in ancient Egypt. Much of the known "case law" involves issues involving property conveyance. In the Old Kingdom, the term "*imyt-pr*" referred to a certified deed of conveyance, similar to that piece of paper which proves that you own your house, assuming, like the ancient Egyptians, you made it down to the courthouse to have it recorded. Later, *imyt-pr* came to be a more generic term covering all sorts of conveyance, including personal, as opposed to real property.[5] *Imyt-pr* were documents in the form of a declaration to the local council, or the *srw*, of the transaction. The *srw*, who consisted of representatives of local authorities operating under the command of the vizier, registered the *imyt-pr*, and made a copy for the archives. To this end it is interesting to remember the relatively short history of photocopying in the recordation of deeds. Before photocopy machines, deed copies were still made by hand in this country, just as they had been in Egypt 4,500 years earlier.

There are numerous examples of deeds of conveyance ranging from outright sale or grant to the ancient equivalent of a land sales contract. A particularly noteworthy example involves a contract for the sale of a small house near the Khufu pyramid.[6] This Fourth Dynasty agreement was apparently registered in part to help insure that the terms of the sales contract would be memorialized. It is reasonable to presume that such a record would carry with it some element of authority. To what degree the Egyptian state stood behind registered deeds is not known. The fact that registration was possible and appears to have been an ordinary undertaking certainly suggests that Egyptians could rely, at least to some degree, on the authority of the state to enforce the validity of transfers of private property. This, in turn, evidences not only the existence of privately held property in the Old and Middle Kingdoms, but also indicates the level of administration and continuity of that administration over time which allowed the state the authority to grant registered deeds.

Contract issues. Since at least the Fourth Dynasty, Egyptians could arrange for their contracts to be prepared before the local council. The procedure seems to have involved registering the contract with the council after the signing parties to the contract had executed the contract in the presence of witnesses. No special status was required to be a witness. Indeed, just about anyone who was handy seemed to suffice. In addition, judging from the penmanship versus the written content of some surviving contracts, literacy was not a precondition to either

making or witnessing a contract. It appears that many contracts were dictated to a scribe who directly transcribed the language of the parties, including a statement as to the names of the witnesses.[7]

Earthly Judgment - Uerchuu, Judge and Superintendent of the two Courts of Justice. (From Erman Life in Ancient Egypt)

Subject matter for contracts included terms and conditions for the services of slaves.[8] Such an agreement frequently took the form of a sort of guarantee: Should the slave Henry not perform as agreed, recompense in the form of animals, grain, metal, fabric, or cloth would be paid as compensation. The Stele Juridique, found at Karnak and dated to the 17th Dynasty, specifically referenced a sales contract in which the parties had one year to perform the terms and conditions required with an option to renew the time allowed.[9] That a body of contract law could develop independent of any written code is probably more surprising to those accustomed to legal systems that do not rely on prior history. *Stare decisis*, the proposition that the ruling on an earlier, similar case, controls the decision on a later case, is the basis for the U. S. (and all other English-style) legal systems. This is the "common law." The French don't have it, and the Romans didn't either. However, it appears that, like us, the ancient Egyptians did have it, too. In fact, the starting point for the ancient Egyptians, the creation of the world, (although not contemporaneously recorded on any known ostraca), makes for a more logical beginning than that which the U. S. courts enjoy!

Probate issues. Many examples of wills and trusts have survived from the Old and Middle Kingdoms.[10] In addition, it appears that a general understanding of probate issues, such as who would inherit how much and when, existed independent of any testamentary directions. This separate body of "law" is inferred from references in the wills that distinguish the intention of the person making the will from established practice. This established practice appears to have treated both sexes equally and provided that, unless otherwise arranged, all children inherited equally. Spouses inherited a share equivalent to each child's. Deviations from the norm certainly occurred. Documentary bequests abound that alter these "principles" to achieve the varying objective of the person making the will.[11] Papyrus Berlin 9010 concerns a probate issue where the validity of a will is questioned by the eldest son and apparently, the legal heir. The court required that the primary beneficiary of the will, apparently some trustee, prove the validity of the will through sworn affidavits of the witnesses to the will. The actual outcome of this case is unknown, as the only surviving portion of the record is the court order that directs the primary beneficiary to respond with affidavits to the legal heir's protest on the will. The case is significant, however, because it shows that the court had the power to compel the production of evidence, render judgment on the basis of that evidence, and provide the forum for the resolution of the dispute in the first place.

Responsibilities of the Vizier. In an attempt to bring the Egyptian legal system more in line with our own, many writers have attempted to overstate the role and responsibilities of the vizier in the administration and adjudication of justice. This writer prefers to rely on the oft quoted (both in Egypt during the 12th through at least the 18th dynasties) "*Duties of a Vizier*," as inscribed in the tomb of Rekhmire: a vizier to Thutmose III and to Amenhotep I. Rekhmire's elaborately inscribed tomb included

a glowing autobiography that conveniently included what now appears to be the standard job description for a Middle Kingdom vizier:

1. Adjudicate in conformance with the principles established by the king (which were, by definition, those established at the creation of the world).
2. Hold open court, regularly and formally.
3. Walk forth daily so that the poor and timid could still reach the vizier.
4. Act in conformance with the regulations and be sure that everything is done in conformance with precedence.
5. Act with strict impartiality.[12]

A number of interesting precepts can be gleaned from this job description. The first is that the vizier clearly works under the authority of the pharaoh. The vizier's authority derives from his boss, the pharaoh, whose authority derives from the fact that he's a god who created the earth and consequently, established the laws that, in this Egyptian society, were universal and unchanging.

The requirement to hold open court seems rather ordinary by modern U.S. standards. Remember, though, that opening court sessions to all was a radical concept in this country in 1776. This particular element of the vizier's job description can be absolutely dated to the 12th Dynasty and was probably standard operating procedure for many years before that. The requirement for regular and formal hearings also speaks to the level of civil rights accorded under the universally understood Egyptian socio-legal contract of the time. Further guaranteeing unfettered access to the courts is the vizier's required daily stroll, trolling, as it were, for litigants who were unable to make it to the regular court sessions. Implying some precursor to the Americans with Disabilities Act, in terms of supplying some means of alternative access, seems a little prescient, but the emphasis remains the same: Everybody was entitled to access the court, and through the vizier they could exercise their god-given rights as Egyptians to the full protection of the pharaoh's law.

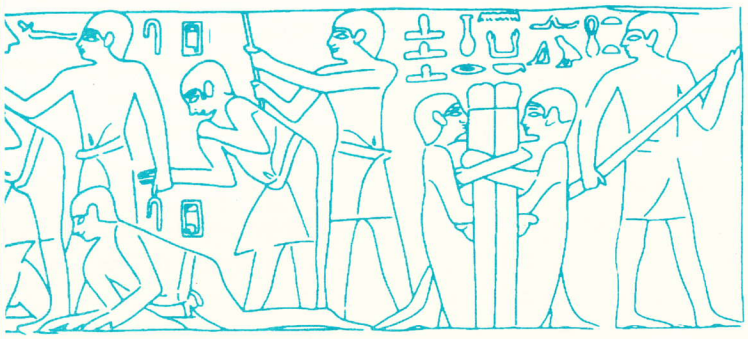
Students of the U.S. legal system will be interested to note that the concept of *stare decisis*, that is, rendering decisions in conformance with precedent, was a serious component of the vizier's duties. Closer analysis reveals the logic in this legal precept. Since the law itself was established at the creation of the universe, all legal disputes must harken back to that original law.

Finally, the requirement to act in strict impartiality is, probably like any other human administered system, a goal rather than a practically achievable accomplishment. As discussed below, in the analysis of the *Tale of the Eloquent Peasant*, one of the parties in that dispute came to the table with a lot more status and power and tried to use it to the detriment of the peasant. Then, as now, a special effort on the part of the less empowered party was required to bring about justice. Justice, if we are to believe our ostraca, was done, and furthermore, must have been done on a regular basis for the Egyptian system to function with as much continuity as did.

From various other documentary evidence, as well as slight variations in the vizier's job description that appear in sources other than Rekhmire's tomb,[13] it is known that records of judgments were kept and that the court could be expected to enforce judgments. Procedurally, complaints and answers, petitions and responses, had to be in writing. Diodorus said that writing was required to avoid influential rhetoric.[14] Luckily Diodorus was writing long after the aggrieved eloquent peasant had gone home happy and long before the creation of the Egyptian Bar Association!

Individual rights of ordinary Egyptians. Over time, the level of individual freedoms enjoyed by ordinary Egyptians appears to have varied somewhat by gender, birth order, and socio-economic standing. It is difficult to reliably chart any sort of trend owing to the length of time involved and due to the relative scarcity of documentation. However, it appears that early in the Old Kingdom, and certainly during

the Third and Fourth Dynasties, all children, regardless of gender, enjoyed legal equality.[15] This lack of legal differentiation based on gender seems to have diminished over time. By the Sixth Dynasty, it appears, at least in so far as the noble class was concerned, that the consolidation of money and power resulted in a diminution in the legal status of women.[16] Evidence for this decline in feminine legal status appears in wills and trusts of the period where a wife, who is clearly old enough to have produced a son who has reached majority, is treated as a legal incompetent with a guardianship in the form of her son being established over her. Further evidence appears in the rise of the concept of primogeniture at about this same time. This concept, that the eldest son was entitled to certain advantages as well as being burdened with certain responsibilities, also seems to have emerged in the 6th Dynasty. The status of "Eldest Son" could devolve upon the next in age, owing to infirmity or inability to meet the requirements of the job, so long as the next in age was a son.[17]



Tax defaulters receiving justice
(From T.G.H. James Pharaoh's People)

The good old days, however, were back by the 12th and 13th Dynasties, when the rights of primogeniture again fell into disuse and the status of women returned to its earlier level. The Papyrus Brooklyn 355.1446, dated by some to circa 1785 BCE, involves a case in which a married woman brings a lawsuit against her father in order to protect strictly private property interests. This document implies that married women once again enjoyed legal rights by the 13th Dynasty. The right of a married woman to sue in her own name, let alone contract or hold property, was unknown to many U.S. citizens of the female gender, up through the First World War.

One class of the population that doesn't currently correlate to U.S. society involves prisoners of war and slaves. While prisoners of war were bought and sold like chattel; they could hold property in their own names and bear witness at law. As such, their status was more akin to that of a European serf.[18] Slaves' rights were fewer. However, they could marry free individuals or be adopted and emancipated. Interestingly, it is contracts for the labor of slaves (or contracts guaranteeing the quantity or quality of their work) that provide much of the documentary evidence of contracting terms and styles during this period.

How *The Eloquent Peasant* demonstrates the existence and application of the universally understood precept of Egyptian Law. The *Tale of the Eloquent Peasant*[19] is an especially popular Middle Kingdom fable pieced together from four incomplete papyri copies. The eloquent peasant is a fairly average fellow by the name of Khun-Anup, [hereafter called "Joe"], who has set off to market with a donkey train carrying a large quantity of goods which he intends to barter for food. Joe is literally cut off at the pass by a noble property owner, Nemtynakht, who forces Joe to trespass onto his property. In the course of the trespass, one of Joe's donkeys takes a bite, at "a wisp" of Nemtynakht's barley. The penalty for theft of the barley is the seizure, by Nemtynakht, of all that Joe has brought with him. In addition, the nobleman beats Joe up.

The fable is quite factual: The quantity and quality of Joe's goods, as well as Nemtynakht's covetous nature and social status are clearly stated. Nemtynakht's acts in response are also laid out in a factual matter. No values are expressed or implied.

Consequently, a reader could simply presume that the penalty fit the crime by the standards of the time and move on to the next interesting story. Such a response is certainly logical. It is not, however, persuasive or satisfying. The fable evokes an emotional response; what this writer will call a natural reaction to an unfair act. The reader automatically roots for Joe, the good guy, and condemns the acts of the noble, Nemtynakht. Not now, and not 4,000 years ago, was it fair to seize another's property, or assault him under these circumstances. The source for the abhorrence of Nemtynakht's acts lies in the universal concepts of fairness and justice, *ma'at*, that also formed the basis of Egyptian legal theory. Modern readers, just like ancient Egyptians, know that this is not the way their world is supposed to function. The ancient Egyptians had a good explanation for this: *ma'at*, one of the precepts established when the world was created, made it so. *Ma'at,* and the power of the pharaoh to make things right, *hu*, means Joe is going to come out right in the end, and, of course, he does.

Joe, deprived of his property and injured unjustly, spends the next ten days trying to talk Nemtynakht into returning his things. Unsuccessful, he heads into town to file his complaint with, Rensi, the local vizier's representative, who is just stepping out of his house on the way to his courthouse barge when Joe meets up with him. Joe asks to file a complaint and is given leave to do so. Unbeknownst to Joe, Rensi accepts the validity of Joe's complaint even in the face of opposition by his magistrates who attempt to explain away Nemtynakht's actions by suggesting that Joe is actually one of Nemtynakht's serfs. In accepting Joe's complaint, Rensi indicates that he has the authority to compel Nemtynakht to repay Joe but is so taken with Joe's oratory that, while making provisions for Joe's wife and kiddies back home, he forces Joe to return to court nine times to plead his case. Joe ultimately triumphs, as the good guy always should. The fact that Joe's social status was far lower than Nemtynakht complicates achieving the desired end, but does not change or diminish what that outcome should be: the restoration of Joe's wrongfully seized property. *Ma'at* is satisfied.

The difference in social status between the two parties clearly gives Nemtynakht a significant advantage, one that he was probably cognizant of when he initiated the conduct complained of. Rensi's own magistrates appear to dismiss the matter out of hand with little more to go on than the difference in the parties' social standing. One can also take some affront at the prospect of Joe being forced to continue his performance when, unbeknownst to him, his cause is already won. Were the issues reversed, one can wonder if Nemtynakht wouldn't have had a far easier time in court. The hurdles that Joe must overcome as a result of his low status call into question the true universality of justice espoused in both the concept of *ma'at* and the vizier's job description that requires strict impartiality.

The *Tale of the Eloquent Peasant* also illustrates some of the procedural aspects of the Egyptian legal system. Joe files his complaint with Rensi, the vizier equivalent. He is given his day in court -- in fact, nine days in court -- as he returns each day to appeal the decision of the previous day. No appeals courts were known to exist in ancient Egypt. From the *Tale of the Eloquent Peasant* and other records, most authorities believe that the appellate process consisted of returning to the same court or council, hopefully with new evidence or a better argument, for as long as they'd let you in. Finally, Rensi indicates that he has both the authority to render judgment and the power to enforce it, indicating that both venue and jurisdiction were sufficient in him.

Conclusion. Much ado has been made about the lack of a codex, a set of laws, or some written documentation of ancient Egyptian law. This writer suggests that the only lack is that of understanding of the basis of ancient Egyptian law. Just as we harken to the somewhat abstract concept of the "common

law", so did ancient Egyptians refer to the set of laws established by the pharaoh at the creation of the world. Both systems rely on the principle of precedent, *stare decisis,* or the rendering of decisions in conformity with earlier decisions. In our system, the common law is recorded in the written decisions of courts. Arguably, the ancient Egyptians recorded their set of laws in the same way - by writing up the facts, arguments, and rationale of various cases. In this light, the *Tale of the Eloquent Peasant*, emerges as ancient Egyptian case law. *Ma'at* was done as it was universally understood to be. Then, as now, social and economic standing, sometimes hasten the speed with which justice is rendered. The hope remains, then as now, that average Joes will get their day in court just as nobles like Nemtynakht do.

ENDNOTES

1. Wilson, John A. "Authority and Law in Ancient Egypt," a paper delivered at the Symposium on Authority and Law in the Ancient Orient held at the 164th meeting of the American Oriental Society in New York City, April 14, 1954, and reprinted as a pocket part in the Journal of the American Oriental Society, Supp 17 (1954).
2. From transcripts of court proceedings and legal documents of the time, it appears that the Egyptian government's recording system was reliable enough to form the basis of decisions upholding or denying claims of ownership, and that the act of registering or recording a deed or will was considered an important element in insuring the validity of the conveyance. Although such a system seems ordinary by contemporary American standards, many modern nations, especially those that adhere to the Roman rather than English system of laws (Brazil for example), still do not track titles and conveyances with the level of effort demonstrated in the Old Kingdom.
3. Harris, J.R. ed. The Legacy of Egypt, 2d ed., 1971 Oxford University Press, p. 311. Also, T.G.H. James, in an address to the Denver Egyptian Study Society, recalling the descendants of these specialized legal scribes, who are nowadays perched on the curb outside governmental buildings in Egypt equipped with typewriters, seals, and a marvelous array of very official looking forms, all ready for fill-in-the-blank legal work.
4. Ibid. p. 310.
5. Ibid. p. 298.
6. Shupak, Nili. "A New Source for the Study of the Judiciary and Law of Ancient Egypt: The Tale of the Eloquent Peasant," University of Haifa, Israel, Journal of Near Eastern Studies, 51 no. 1, 1992 University of Chicago, p. 9.
7. Harris, op. cit., p. 312.
8. Papyrus Berlin 9784, 9785 and Papyrus Gurug, ii.I and ii.2.
9. Harris, op. cit., p. 293.
10. Ibid. p. 292.
11. Ibid. p. 293, 311. Also note the Fourth Dynasty will of one Hrti, in which he established a family trust, endowed his mortuary cult, and named his eldest son as trustee. The will created a trust designed to preserve the corpus while funding the deceased's mortuary cult and his kiddie's legacy with trust revenues only. Another estate case, this one from the 19th Dynasty, involved the will of Mes, a scribe of the Treasury of Ptah at Memphis. Mes' estate, with the permission of the court, had been broken up amongst his heirs. Irregularities, including false documents, had resulted in the dispossession of Mes' mother from her share. In this case, the council (court) sat as a probate court, taking into consideration the validity of documentary evidence and the statement of witnesses in rendering a decision that restored to Mes' mom her original share.
12. Wilson, op. cit., p. 4.
13. Shupak, op.cit., footnote #34.
14. Shupak, op.cit., p. 10.
15. Harris, op. cit., p. 297.
16. Ibid., p. 293.
17. Ibid., p. 296
18. Ibid., p. 307.
19. The three principal copies are Papyrus Berlin 3023, Papyrus Berlin 3025, Papyrus Berlin 10499, plus the more partial Papyrus Butler 527 = Papyrus British Museum 10274. This writer used a translation in Miriam Lichtheim's book Ancient Egyptian Literature, Volume 1: The Old and Middle Kingdoms, University of California Press, 1975.

THE GRANVILLE MUMMY

By
W. Benson Harer

About the author: W. Benson Harer *is a physician in San Bernardino, CA. He is interested in scientific methods for the study of mummification practices in ancient Egypt. Harer also serves on the Board of Governors for ARCE (American Research Center in Egypt).*

Augustus Bozzi Granville is a little-known but important figure in both Egyptology and obstetrics and gynecology. He championed health care for women in the early 1800's, a time when most English physicians and surgeons disdained OB-GYN as unworthy of their attention. Granville was a pioneer gynecologic surgeon who is credited with performing the first operation to remove a fibroid tumor of the uterus. He was also a founder of the organization which evolved into the Royal College of Obstetricians and Gynecologists.

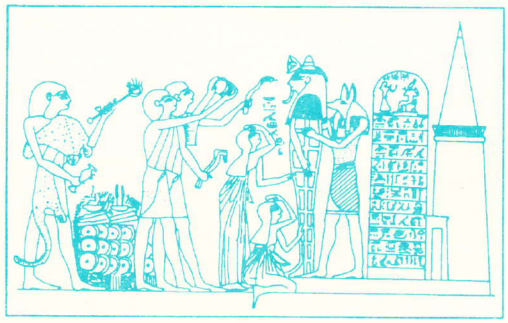
Anubis, god of embalming
(From Grafton Egyptian Designs)

Granville, born in Milan in 1783, led an exciting life. When in medical school in Pavia at age 19, he was arrested and jailed for his republican sentiments. Family clout got Granville released, but after he obtained his degree, it could not save him from conscription into Napoleon's army. Granville could not obtain a passport to flee. With characteristic initiative, he auditioned for the lead role with a touring opera company -- and got the part! At that time, the opera company traveled under a single group passport and he was, thus, able to leave Italy.

Ultimately, Granville reached Venice and abandoned his operatic career. He then traveled through the Middle East for several years. Granville had an extraordinary ear for languages and learned the language of every country he visited! He was fluent in French, English, German, Russian, Turkish, Greek, Latin, and Arabic.

Granville finally enlisted as a surgeon in the British navy where his experiences included surviving a shipwreck. After nine years, he was retired on a partial pension, and went on to London, where he rapidly became a prominent physician and surgeon.

It seemed quite appropriate that when he was unwell, Sir Albert Edmiston should call for Granville's services in 1822. Sir Albert, a wealthy and adventurous nobleman, had visited various oases in Egypt in 1819. When passing through Qurna, he purchased a sarcophagus, complete with mummy, for $4.00. Sir Albert brought it home and it became an interesting conversation piece in his drawing room.

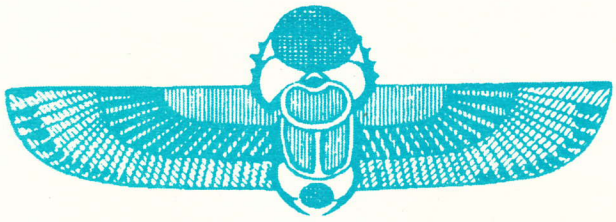


The Opening of the Mouth Ceremony
(From Chadwick First Civilizations)

The female mummy attracted Granville's attention. Sir Albert was mainly interested in the decorative case, so he offered the mummy to Granville to see what information might be gleaned from an autopsy. For the next six weeks, Granville dissected the mummy in his drawing room for one to two hours daily. The intelligentsia of London were invited to observe. Ultimately, his results were presented to the Royal Society and published in ***The Transactions*** in 1825. His most important finding was evidence of an ovarian mass from which he concluded she died of "ovarian dropsy."

Granville's work and the results of a modern re-evaluation of his mummy were presented to the ESS on April 25, 1996. A book on the subject is currently in preparation for the British Museum Press. To relieve the suspense of waiting for the book's publication: Granville was correct that she had an ovarian tumor, but it was benign!

WHO'S WHO IN ANCIENT EGYPT



From Newberry, Ancient Egyptian Scarabs

FEATURED PHARAOH

SENUSERT III

(Ruled 1878 - 1841 BCE)

By
David Pepper

About the Author: David Pepper *is a professional engineer and commercial pilot and has a BS in Physics, an MS in Aerospace Engineering, and a Masters in Business Administration. He has served on the ESS Board as treasurer and is currently chair of the publications committee.*

The Middle Kingdom rulers of ancient Egypt brought stability and prosperity back to the country after the chaotic years of the First Intermediate Period. The 11th Dynasty king, Mentuhotep II, had re-unified the two lands, and a few years later, Amenemhet, probably his vizier, seized the throne and founded the 12th Dynasty and its line of powerful kings.

Although Amenemhet's son, Senusert I, was a powerful ruler, it was his great-grandson, Senusert III, who is remembered as the greatest pharaoh of the Middle Kingdom. He was most likely the famous Sesostris, the legendary Egyptian king spoken of in the writings of Classical authors such as Herodotus, who stated that this king sailed into the Indian Ocean and then marched through the Levant into Europe, defeating the Scythians and Thracians along they way.[1]

Senusert III chose *Khakaure*, "appearing as the soul of Re," as his throne name. Manetho described him as a great warrior, and mentioned that the king was very tall at four cubits, three palms, and two fingers (6' 6"!) in height.[2] His statuary depicts him as a middle-aged man, his pose more brooding and reflective than god-like as most previous royal statues had been. Senusert may have wanted to be remembered as a ruler concerned for his people, for his many inscriptions dwell on this subject. He wrote:

> "I am a king who speaks and acts. My heart's intentions are carried out by my arm. I am one who is aggressive in order to seize, impatient to succeed, and who does not allow a matter to lie in his heart."

This was written on a boundary stela at Semna in Nubia. He goes on to say:

> "I am one who considers claimants and am gentle, but I am not gentle towards an enemy who attacks."

Senusert III was the fifth king of the 12th Dynasty, and he is credited with finally reducing the power of the local nomarchs, who had seized authority at the beginning of the First Intermediate Period. At the time of his coronation, Senusert's regional governors were using epithets and titles that had previously been strictly royal prerogatives. They were even dating the years according to each nomarch's reign! By the end of his rule, these nomarchs had apparently lost power, and they no longer built provincial tombs. Senusert's centralizing of the administration was a brilliant stoke of genius, for he apparently relocated the hereditary governorships back to his capital at Lisht, where he could keep closer control on the royal bureaucracy.[3]

Senusert III is best known for his campaigns against the Nubians. Sobekhu, one of his soldiers, also took part in these campaigns, and stated in his autobiography:

> "His majesty proceeded southwards to overthrow the Bowmen of Nubia."[4]

In a statue now located in the Brooklyn Museum, Senusert III is shown seated upon a low backed throne (see Figure 1). His name, "Khakaure," is engraved on his belt, and on the

throne base is a depiction of the nine bows, representing the traditional enemies of Egypt.[5]

To allow for swifter passage of his army towards the south, in year eight of his reign Senusert had a canal dug to bypass the rocks on the First Cataract. On an undated inscription at Sehel Island it says:

> "[Senusert III] made (it) as his memorial to Anukis, Mistress of Nubia, making for her a canal whose name is 'Beautiful are the Ways of Khakaure'."

Chief Treasurer Senankh stated the canal measured 250 feet long, 83 feet wide, and 20 feet deep.[6]

In years 12 and 15, he recorded his campaigns against the Nubians on a giant stela at Semna (now in Berlin):

> "I carried off their women, I carried off their subjects, went forth to their wells, and smote their bulls."[7]

Semna was the southern boundary that Senusert established to keep the Nubians at bay. He ordered the construction of huge forts to garrison troops at Semna, Kumma, and Uronarti Island. At Semna he erected a stela that said:

> "Southern boundary, made in year eight, under the person of King Khakaure, ... to prevent any Nubian crossing it by water or by land, with a ship or any Nubian herds, except for any Nubian who shall come to trade at Mirgissa, or with a commission."

At Uronarti a second stela was erected which states,

> "I have established my boundary further south than my fathers, I have added to what was given to me ... A coward is he who is driven back from his border, since the Nubian listens, to fall at a word: To answer him is to make him retreat; Attack him: he will turn his back; Retreat: he will start attacking."[8]

Senusert then goes on to say of the Nubians:

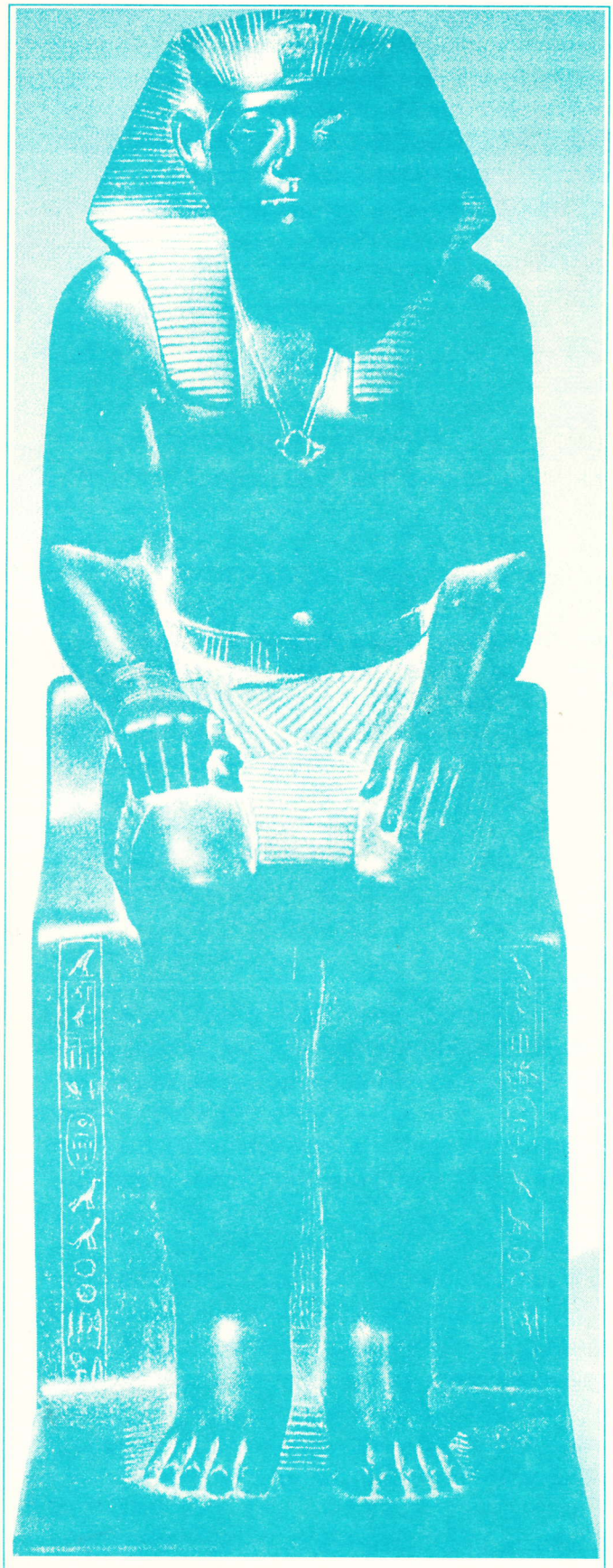


Figure 1: Senusert III (from *KMT* Vol. 6 No. 2)

"They are not people worthy of respect. They are wretches, craven-hearted! My person has seen it: it is not a lie!"[9]

Much of the wealth acquired in the Nubian campaigns was directed towards the temples in Egypt and their renewal.[10] An inscription from Abydos chronicles the refurbishment of Osiris' barge, shrine, and chapels with gold, electrum, lapis lazuli, malachite, and other precious stones. Fine jewelry made from these gems was discovered in 1894 by de Morgan in the tombs of Senusert's queen Mereret, and his sister, the princess Sit-Hathor, at Dashur.

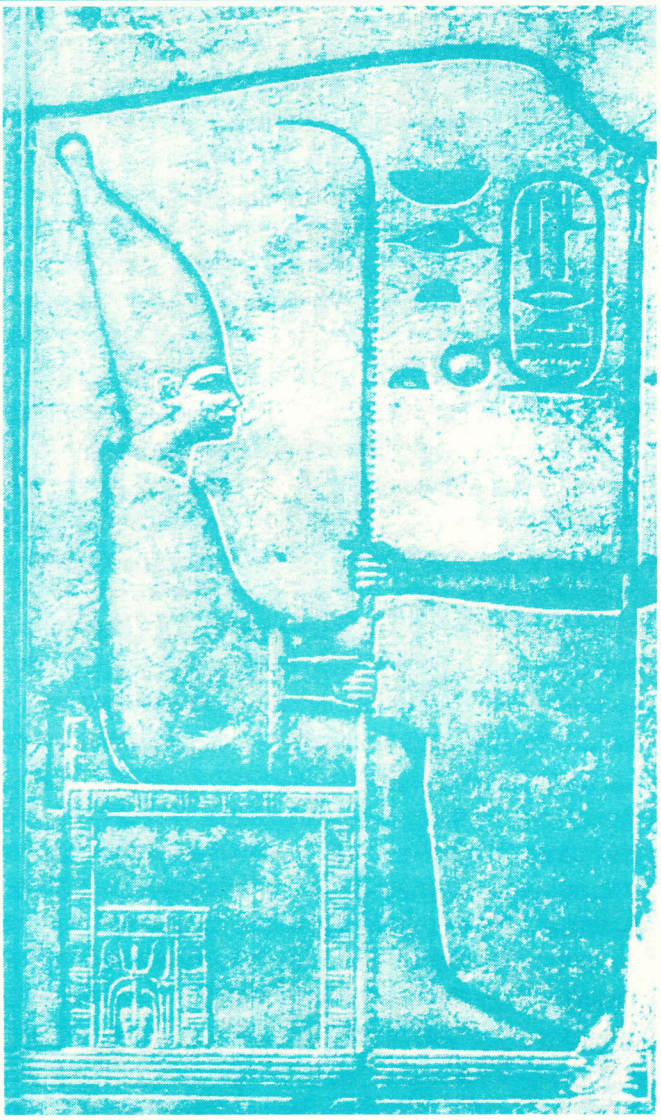


Figure 2: Senusert III (from *KMT* Vol. 6 No. 2)

Senusert's own tomb at Dashur was the largest of the Middle Kingdom pyramids, but the removal of the limestone casing left a mud-brick core which deteriorated rapidly. There is only a rubble mound left today. The entrance to this pyramid was concealed under the paving of the surrounding court on the west side, but it was discovered and robbed in antiquity.

Senusert III's son, Amenemhet III, was the last great ruler of the 12th Dynasty. He also built a pyramid at Dashur, the so-called "Black Pyramid", which appears to have been abandoned in favor of another pyramid at Hawara in the Faiyum. Next to this pyramid Amenemhet III built the famous Labyrinth which was described by Herodotus.[11]

Senusert III ruled for some 37 years, according to the Turin Canon. He was a ruler who wanted to be remembered as an individual, as can been seen on the facial features of his many statues that still remain today. Supported by a powerful bureaucracy and a competent army, his successful rule was one that was remembered for many generations afterwards. Senusert truly lived up to his birth name: "Man of Power."

ENDNOTES

1. Dodson, Aidan. Monarchs of the Nile, London, Rubicon Press, 1995, p. 64.
2. Clayton, Peter. Chronicle of the Pharaohs, London, Thames & Hudson, 1994, p. 84.
3. Delia, Robert D. "Khakaure, Senwosret III, King & Man," KMT Vol. 6 No. 2, Summer 1995, p. 30.
4. Delia, p. 25.
5. Delia, p. 28.
6. Delia, p. 21.
7. Clayton, p. 85.
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9. Dodson, p. 62.
10. Clayton, p. 86.
11. Clayton, p. 88.

FEATURED GOD/GODDESS

NEITH

By
Linda Engel

About the Author: ***Linda Engel*** *is a long-time member of ESS who has been fascinated with ancient Egypt since she read a book about the discovery of Tut's tomb at the age of 11. As co-owner of Engels' Jewels of the Nile (an import business) since 1988, she makes annual trips to Egypt and Greece. Her vast collection of photos of archeological sites in Egypt includes many shots of "weird or unusual" subjects which caught her interest. Engel then attempts to research their origins and/or purpose by questioning Egyptologists or checking various reference books. She said many of her photos still remain a mystery!*

The protective goddesses of the four sources of the Nile each guard one of the four gates of the underworld. They are widely recognized from a gilded wooden canopic shrine in the Tutankhamun collection. The shrine contains a delicately carved and gilded figure of a different goddess on each of its four corners. Each of these goddesses is associated with an organ of the body and with a cardinal direction:

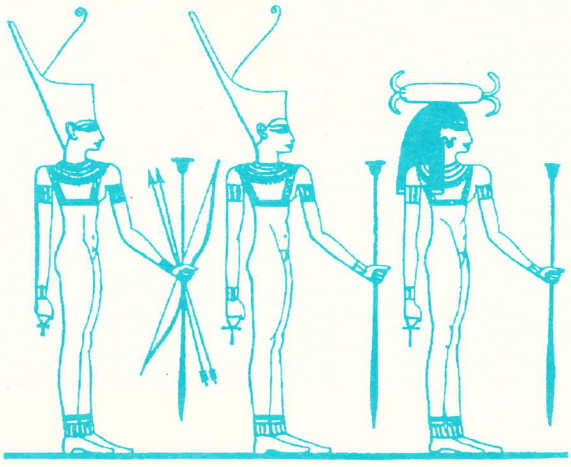
Isis	liver	south
Nephthys	lungs	north
Selket	intestines	west
Neith	stomach	east

These four goddesses were also frequently depicted in pairs on the heads and feet of coffins. Isis, Nepthys, and Selket are usually easily identified. However, many people remain relatively unfamiliar with Neith although she has a history of worship extending back to Predynastic times.

Non-animal fetishes were often carried in the hand of a god or goddess. Such is the case with Neith, who is often shown carrying her cult signs, a shield and crossed arrows - which were also the symbols of her nome. These symbols have lead to a general belief that Neith was originally either a goddess of hunting or of war. She was worshipped from Predynastic times onward at Sais, capital of the Fifth Nome of Lower Egypt, in the western Delta. It is almost certain that her cult was already old at the beginning of the First Dynasty. Sais claimed to be the burial place of Osiris, and Herodotus described the great annual festival in honor of Isis-Neith in his writings as a "feast of lamps" because torches and lamps were burned continuously until daybreak.

Neith is also frequently shown wearing the red crown of Lower Egypt. It has been theorized that she may have had her beginnings as a goddess of a confederation of nomes in the north. Her titles included "Great Goddess," "Mother of the Gods," and "Daughter of Ra." Neith was said to have borne Ra before her own creation out of the primordial waters (Nun). Association with the primordial ocean led to her being thought of as the personification of the Waters Of Chaos. The similarity of the words Neith and Nun has been cited as additional proof of her connection with the primordial beginnings of mankind.

At various times during later dynasties, Neith's attributes incorporated those of Sekhmet, Bast, Mut, Nekhbet, Isis, and Hathor. During the 18th Dynasty, she became identified with Hathor as a protectress of women, especially in light of her



Forms of Neith (from Grafton Egyptian Designs)

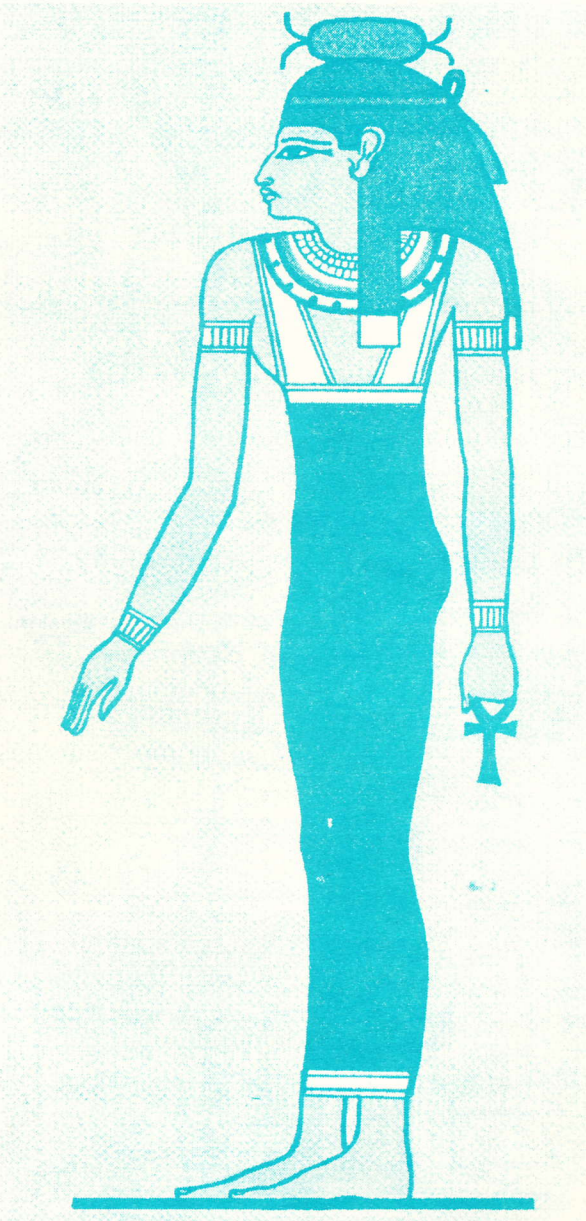
portrayal as a cow with 18 stars on her side and a collar around her neck from which hangs an ankh. In another scene, she is shown with a crocodile suckling from each breast, in her personification as mother of the crocodile god Sobek.

Neith gained her greatest following during the Saite Period (26th Dynasty) when Egypt was reunited after invasion by the Assyrians. This period brought a yearning for the past glories of Egypt. Great new temples and tombs were built at Sais by 26th Dynasty pharaohs. Nectanebo II claimed divine birth by naming Neith as his mother, and Neith evolved into a universal mother figure and guardian of both men and gods. As a creative goddess, Neith became worshipped as the consort of Khnum at Elephantine.

It has also been theorized that it was during the Saite Period, when the importance of wool as a trade good increased, that one of Neith's headdresses (an oval figure with curved appendages) began to be viewed as a weaver's shuttle. This led to her being considered the patroness of domestic arts. Further credence is lent to this theory because her name is very similar to the ancient Egyptian root word *ntet* which means "to knit" or "to weave." However, it is clear that the oldest and most characteristic symbols of Neith were two crossed arrows and a shield.

Great powers of sorcery were also attributed to Neith. She was appealed to for her great wisdom, as demonstrated in the myth of the great quarrel between Horus and Set. In this myth, Horus and Set battle to gain control over the slain Osiris' throne. Eventually, Set decided he might gain advantage by bringing the matter to arbitration before a tribunal of gods. When the tribunal is unable to come to a decision, Thoth is instructed to write a letter to Neith as "goddess of Sais and the oldest of the goddesses," requesting her wisdom in resolving the dispute.

Neith's association with the realm of the dead goes far back in antiquity. Text at Saqqara in the tomb of Unas, last ruler of the fifth Dynasty, indicates that Neith was believed to perform important ceremonies in connection with the preservation of the dead. One passage from Unas' tomb identifies Neith as being the "Protective Power of the Eye of Horus." The funerary ceremonies with which Neith was associated were magical in nature; and mummy wrappings, bandages and shrouds were considered to be magical gifts from Neith that provided for the protection of the mummy. Neith was also sometimes referred to as "Opener of the Ways," giving her a "female Anubis" characterization.



Neith (from Budge The Gods of the Egyptians)

Although not as well known as some of the other goddesses, clearly Neith was no minor deity. Her worship extended far back into Predynastic Egypt. She was regarded as the oldest of the goddesses and was venerated as a protector of the dead throughout Egyptian history.

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Wilkinson, Richard H. Reading Egyptian Art, London, Thames and Hudson.

DID YOU KNOW?

"Although the word ba is usually translated as 'soul' or 'spirit,' ... for the ancient Egyptian of New Kingdom and later times, the ba was a spiritual aspect of the human being which survived - or came into being – at death, and which was imbued with the fullness of a person's personality ... This ba bird is often shown in tomb paintings and in the vignettes of funerary papyri hovering over the mummy of the deceased, or entering and leaving the tomb at will." Wilkinson, Reading Egyptian Art.

Ba *bird*

(from Mertz Red Land, Black Land)

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