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NATIONAL COLLEGE OF ART AND DESIGN

FACULTY OF DESIGN

DEPARTMENT OF CRAFT (METAL)

# Religious and Symbolic Imagery in Egyptian Metalwork and Jewellery

by

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Submitted to the faculty of  
History of Art and Design and Complimentary Studies  
in candidacy for the degree of

Bachelor of Design

1993

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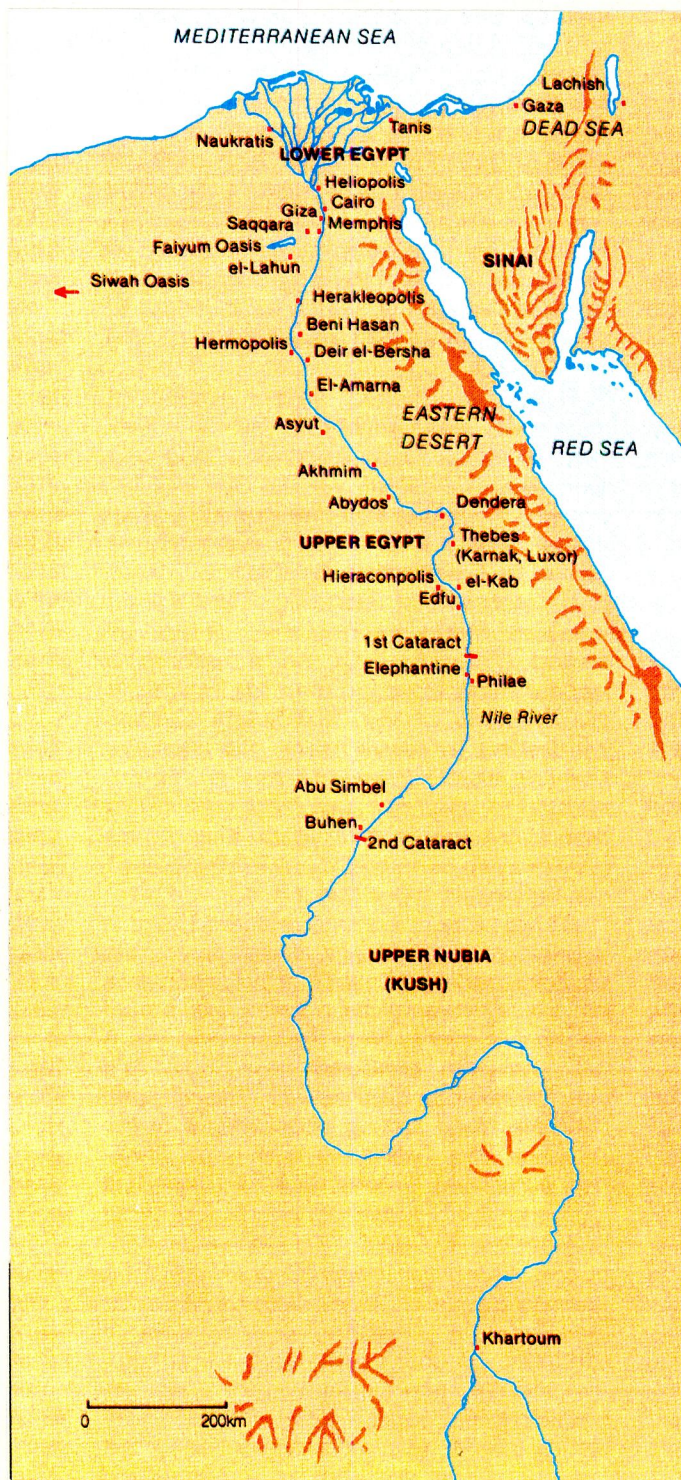
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## Introduction

THE PYRAMIDS and mummies that dominate the popular image of Ancient Egypt leave one with the impression of a people completely obsessed with death. The Ancient Egyptians took great care in preparing for the afterlife. They believed that the next world would be like Egypt in its richest and most enjoyable form. Of all the ancient religions, that of Egypt is probably one of the most complex, having over some thousands of years passed through every phase known to the modern scholar of mythology. The main obstacle to understanding Egyptian religion is the fact that it was not a homogeneous body of beliefs. (Michalowski, 1969, p. 95.)

Herodotus, the Greek historian, who visited Egypt towards the end of the fifth century B.C., called the country the 'gift of the Nile' and the river is indeed the life blood of the country. (Potts, 1990, p. 56.) He was shocked to find gods worshipped in the guise of animals; The Greeks failed to grasp the symbolism attached to such representations. Practices such as the mummification of ibises and cats seemed wildly eccentric. Nor could the Greeks understand crocodile worship, which included the belief that anyone devoured by a crocodile was a special favourite of the Gods. (Michalowski, 1969, p. 95.) Of all the native customs none were more strange than the cults of various gods and goddesses having animal counterparts, and these were found everywhere. Herodotus was deeply impressed by such reverence. 'Egyptians were beyond measure, religious, more than any other nation.'

Our ability to understand and appreciate Egyptian religion, art and architecture has deepened over the last few decades. Immense knowledge has been gained from historical records and tomb paintings. It is vital when dealing with such art and artifacts to have a clear understanding of ancient Egyptian religious beliefs. Even then we can only attempt to reconstruct these ideas and beliefs. Sadly, invaluable information and treasures have been lost in the course of time, especially through the plundering of graves and tombs. We must avoid the pitfall of inserting European conceptions into ancient Egyptian thinking. For this reason we can only hypothesise as to the nature of ancient thinking and creativity, based on a different culture which is very foreign to us and belongs to a different time.

The ancient Egyptian craftsmen created some of the finest jewellery and metalwork the world has seen. It seems incredible that this was done with the simplest and most primitive of tools. Despite this handicap, such was the standard of craftsmanship that some of the work is unequalled today. The technical skills used to produce the jewellery and metalwork of antiquity are amazingly similar to modern techniques, which have been developed and modified to lend the modern craftsman greater ease and control. Because of their religious beliefs, the Egyptians covered the walls of their tombs with scenes from daily life, and it is from these scenes that we can reconstruct how the ancient gold and silversmiths worked, using tools





and equipment for burnishing, soldering, polishing, casting and chasing etc. We can even see scenes depicting the arrival of valuable raw materials like silver and lapis-lazuli, from Nubia, Syria and Asia Minor.

To the Western eye, one piece of Egyptian jewellery looks like another. To some there appears to be little change in style over four thousand years, and it is this continuity of qualities which may be uniquely characterised as Egyptian, both in structure and symbolic imagery. However, there are significant variations throughout history which enable experts to understand the development of Egyptian art, that we may appreciate and understand its beauty more fully.

Ancient Egyptian culture left behind an unbelievably rich inheritance. No other race of people had such a fixation with the production of images and symbols. No other race had such a deep reverence for the dead and the afterlife. They were among the first peoples to try to find answers to questions concerning life, death, nature and God, questions which we are still trying to answer today.

Chapter I sets out the historical background to ancient Egypt's religious, social and artistic achievements. Chapter II looks at Egyptian religion and the symbolism connected with death. Chapter III examines the materials, tools and techniques of the craftsmen. Chapter IV looks at the Egyptian use of symbolism in jewellery and metalwork.

#### ACKNOWLEDGEMENT

I am grateful to Joe McDonnell for his direction and guidance in the preparation of this thesis.





# I

## Historical background

TO HAVE a concise and clear view of Egyptian art and religion, one must study and analyse Egypt's history and development. To begin with, Egypt has clearly defined natural boundaries. Herodotus truly proclaimed Egypt as a 'gift of the Nile'. Along its banks the majority of the people lived and cultivated the land. This narrow fertile valley is flanked by desert – a desert which is always threatening to take over the area of cultivation. (Ogden, 1982, p. 16.) The beginning of Egyptian history is divided into dynasties. Egypt did not develop as a nation until about 3100 B.C.

EARLY PERIOD: 3100–2700 B.C.

Pre-dynasty Egypt was divided into two large states, Upper and Lower Egypt. The geographical and political dualism of the Valley (Upper) and the Delta (Lower) continued to be a dominant factor in the cultural development of this period. The unification of these lands was achieved by King Memes, who conquered Lower Egypt and formed a united kingdom with the capital at Memphis. Memes probably founded the first dynasty, but even after the two lands were united, the Egyptians still called their country the Two Lands. The centralisation of power as a result of unification was undoubtedly a step forward in Egypt's early development.

However, even though the two lands were united, each land still preserved its title and insignia. So the king wore the two diadems, the red crown of the Delta, with the symbol of the Cobra – who was the goddess Buto of Lower Egypt – and the white crown of the Valley, with the symbol of the vulture – who was the goddess Nekhebet of Upper Egypt.

OLD KINGDOM: 2700–2200 B.C.

The 500-year period, from the 3rd to the 6th dynasties is often called the 'age of the pyramids', a period poor in documentation, though rich in funerary monuments, from which the step pyramids derived. (*Encyclopedia of world art*, 1971, p. 575.) The most prominent figure of this period was Zoser, famous for his funerary temple at Saqqara. The massive pyramids of his successors, Cheops (Khufu), Chephren (Khafre), and Mycerinus (Menkure), at Giza (Plate 1) show the profound Egyptian concern with life after death and the consolidation of royal power at the time.

The motivation for this architecture arose from religious and funerary needs centering around the glorification of the divine Pharaoh, the gods, and the preparation for the afterlife.

The history of ancient Egyptian civilisation falls into three main periods, the Old Kingdom, the Middle Kingdom and the New Kingdom. During the Intermediate periods, division of power and land between the rulers led to the territorial break-up





Plate 1: The pyramid group at Giza, Cheops (right) Chephren (centre), Mycerinus (left).  
Old Kingdom.







of the country, but for all this the Old Kingdom reached a high level of civilization, and was efficiently organised under the centralised control of the royal family. However, a progressive weakening of the monarchy and squabbling within the kingdom saw a violent revolt and the collapse of authority with the creation of feudal kingdoms and thus began the First Intermediate period.

FIRST INTERMEDIATE PERIOD: 2200–2060 B.C.

The First Intermediate period was a time of famine and weakness when rival dynasties were established at Thebes (10th dynasty) and Heracleopolis (between the 7th and 8th dynasties). This meant that one was operating in the north and another in the south. The Theban leaders succeeded about 1050 B.C. in overcoming their Heracleopolitan adversaries and re-established national unity. (*Encyclopedia of world art*, 1971, p. 575.) One of the main causes of this separation would have been the religious differences and ideals each dynasty wanted to practice and celebrate.

The religion of ancient Egypt was a synthesis developed over a period of time. The main elements arose from four different cities, Heliopolis, Memphis, Hermopolis and Thebes, and common to all even if they had a different Ennead of Gods and beliefs was the belief that life began on the hill that arose out of the primeval waters of Nun, symbolised by the ancient pyramids. With the strengthening of power at Thebes and the renewal of religion and art, the Middle Kingdom arose.

MIDDLE KINGDOM: 2050–1800 B.C.

Centralisation of power was re-established during the Middle Kingdom and the rebels were reduced to the level of royal officials. The 12th dynasty was one of the most prominent in Egypt's history, in economic, military, artistic and literary endeavours. Because of Egypt's relative isolation and unique nature, Egyptian civilization developed a highly individual character, which won the wonder and admiration of most of its neighbours. (Patrick, 1978, p. 8.) King Amenemhet III was one of the strong kings who established new wealth and expanded trade with other countries. Under his rule, Egyptian influence extended south into Nubia and east beyond the Sinai Peninsula into Palestine and Syria. Sesostri III was another famous king of this period, whose conquests established Egypt as a strong foreign power once again. Such prosperity overflowed on to the arts, especially the minor arts. The jewellery of this period surpassed in quality all previous Egyptian gold and silver work, both in form and in the harmonious colour schemes of inlay with semi-precious stones. It was during this period that the technique of granulation was developed and the substance niello was imported into Egypt by Amenemhet III from one of his expeditions in Byblos.

Some of the finest work from the Middle Kingdom came from the nomes or provinces of the country. In no other ancient people were the strands of belief in the supernatural so closely interwoven with their lives, their art, their personal





relationships, their hopes and fears and their attitude to authority. (Patrick, 1978, p. 7.)

#### SECOND INTERMEDIATE PERIOD: 1800–1870 B.C.

The end of the 12th dynasty brought a new reign of anarchy to Egypt, the Second Intermediate period. This period was again a time of weakness and confusion, from which few material objects remain. Foreigners from nearby Palestine, a largely Semetic race called the Hyksos, invaded Egypt, establishing a state in the Delta with their capital at Tanis. The Hyksos controlled virtually the whole country, and this was a time of little creativity and wealth. Later, a Theban dynasty expelled the Hyksos, leading to a new reunification of the country. With the victory came a glorious era of Egyptian history, the New Kingdom. In the second intermediate period, however, a new factor appeared. The Hyksos invasion seems to have given Egypt her first true awareness of cultures other than her own. (Garbini, 1982, p. 140.) Prior to this development, Egypt was remote from other major urban civilisations of the Near East. Egypt regarded the surrounding semi-nomads and less sophisticated peoples with contempt, peoples such as the ‘wretched Asiatics’ the ‘vile Libyans’, the ‘primitive Nubians’. (Potts, 1990, p. 57.) Without knowledge of the fresh innovations and achievements of these cultures in the Mediterranean and Western Asia, Egypt would have been unable to achieve what she did in the New Kingdom.

#### NEW KINGDOM: 1570–1300 B.C.

The third and most glorious phase of Egyptian history was the New Kingdom. Theban dynasties from the 13th to the 20th dynasties located in Thebes and Lower Egypt, exercised the power they learned from the Hyksos in the use of new weapons. Ahmose I, the first ruler of the 18th dynasty, finally expelled the foreigners and restored peace and strengthened the economy. The expulsion of the foreigners and the reunification of the two lands prepared the way for the most brilliant era in Egyptian history. Under Ahmose I, Egypt grew beyond its former national boundaries. Art also developed and flourished during the five hundred years of the New kingdom.

This development falls into three periods. The first period stretches period from the revival of art to the reign of Amenhotep III, 1550–1370 B.C. This era was one of constant development. It saw the military reign of Tuthmosis III and the reign of Queen Hatsheput and her achievements. The wealth of the country was reflected in the lavish court life and monuments of this period.

Size was a manifestation of the Pharaoh's power and it was no accident that nearly all the largest sculptures were carved during the New Kingdom, when Egyptian civilisation was at its peak, particularly under Ramesses II and Amenophis III. (Potts, 1990, p. 76.) Much of Egypt's wealth was spent on lavish buildings and temples, such as the large sculptured head of Amenophis III (Plate 2).





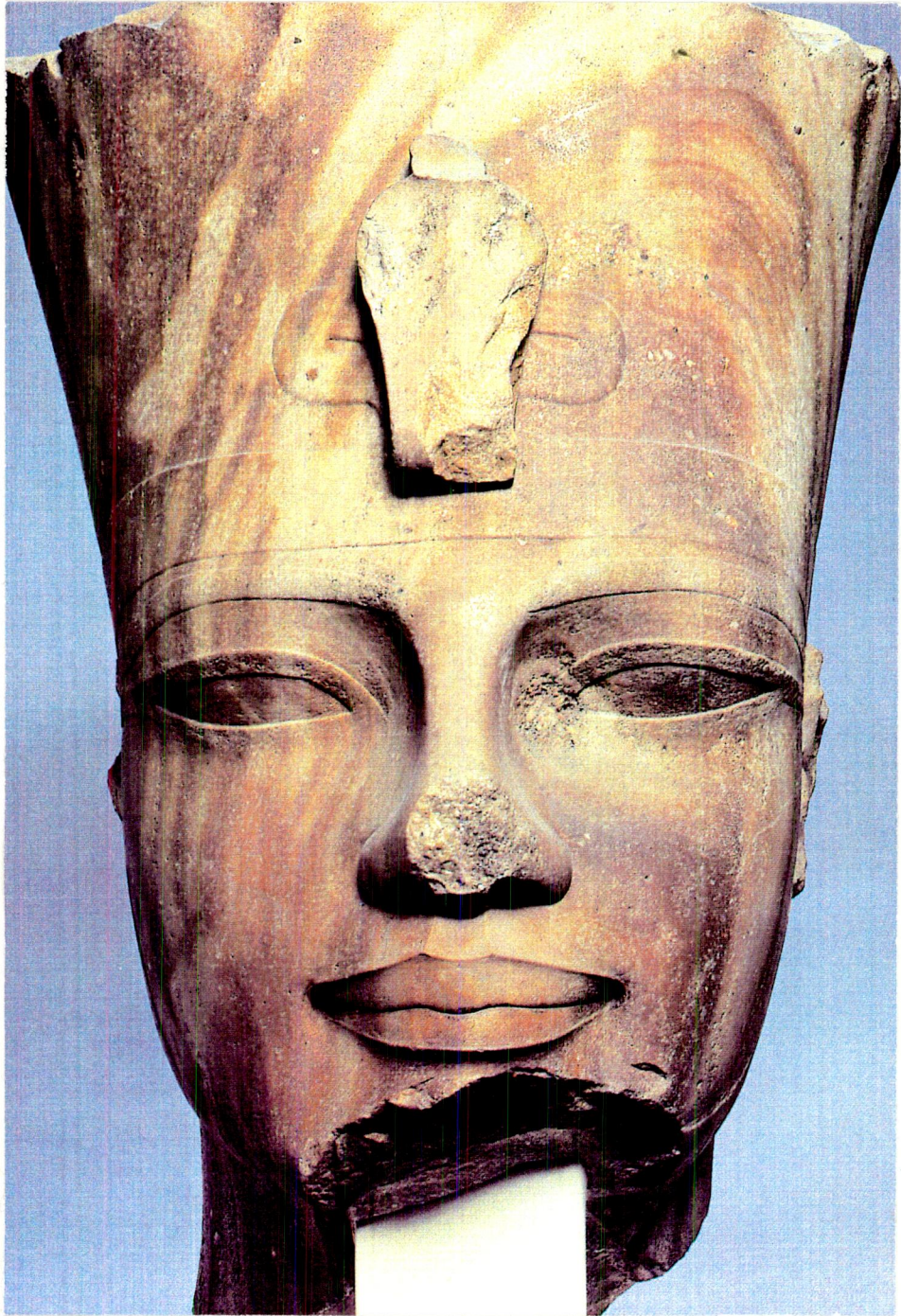


Plate 2: Colossal statue (head) of Pharaoh Amenophis III. 18th dynasty, Mortuary temple, Thebes.







This colossal statue comes from his mortuary temple, which was later destroyed. The plate shows the elegant stereotype of Egyptian kingship, portraying a powerful and confident appearance. The strong fluid lines of facial features portray the flawless technical skill of the artist, but like all such stereotyped portraits of royalty, convey no trace of personality. This is kingship personified, with no real feeling or expression shown. To continue this royal personification and development, one has only to observe the major architectural achievements of the Temple of Queen Hatshepsut. (Plate 3.)

Queen Hatshepsut was the first woman of the early period of the New Kingdom to succeed completely in reigning over Egypt. She achieved this position mainly because of the persistence of a matriarchal system of inheritance. Hatshepsut was the daughter of Thutmose I. Acknowledging that her brother and husband Thutmose II had a right to the throne, she felt that she had a right to succeed him as well as her half-brother, Thutmose III, who eventually reigned after Hatshepsut's term. She declared herself daughter of the God Amon, and the people did not question her. (Patrick, 1978, p. 53.) She had reason to be proud, being the daughter of the first Thutmose, sister and wife of the second – her half-brother was merely the child of one of her other brothers' wives.

In plate 3 we see the striking tomb of Queen Hatshepsut, displaying the elegant and stylistic elements of the temple. This tomb-temple is situated at Deir-el-Bahri, and was designed to fit into its natural environment – a conscious triumph of architectural planning and engineering. The simple geometry of the verticals, horizontals and open squares is beautifully balanced by the simplicity of the individual columns. From this we can observe that the arrangement and form of royal tombs had been in a state of constant change and evolution, from the pyramid form, which had been maintained by the Theban kings of the 17th dynasty but which was abandoned, leaving Queen Hatshepsut's temple a step forward in the development of tomb monuments.

When Thutmose III proclaimed his right to the throne, he ended Hatshepsut's peaceful reign and began a series of military campaigns that lasted twenty years. His armies pushed Egypt's frontiers as far as the River Euphrates in Asia and he conquered Palestine, Syria, and the Nile River. Thutmose created a colonial administration to hold the widespread possessions he obtained. He made Thebes and Memphis the political, commercial and cultural capitals of the world, and colossal wealth flowed in from the conquered lands. (Garbini, 1982, p. 21.) The reign of Amenophis III was one of splendour and wealth and enjoyed the power consolidated by Thutmose III. However, the old order was being slowly eroded despite Amenophis III's adherence to the old ways and Thutmose IV furthered the destruction.





Plate 3: Temple of Queen Hatshepsut, New Kingdom, Deir-el-Bahri.



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Plate 4: Gold Stele, the worship of Akenaton to the sungod Aten, New Kingdom.

#### AMARNA REVOLUTION

The second period, encompasses the time of spiritual and political crisis in the reigns of Amenhotep IV or Akhenaten, son of Amenophis III. The revolution came with the arrival of Amenhotep IV to the throne. When he ascended, the 18th dynasty was at its peak, but by the time he died it had sunk very low, mainly because foreign wealth no longer flowed into the country. Akhenaten developed a religion that appeared monotheistic, outlawing the belief in more than one god and forcing the people to worship the sun-god Ra. He himself became son of the god Aten. Historians call the period of the Amarna, a revolution, not in the military sense, but in the many changes in artistic, literary, religious and social practices. It was also during this reign that the Egyptians began to call their king a Pharaoh (1370 B.C.). Akhenaten moved the capital of Egypt from Thebes, the centre of worship for Amon (god of air and fertility), and established the capital at Akhenaten, about 300 miles to the north, whose ruins lie close to Tell-el-Amarna.

This artistic period is highly significant in the context of world art, since it emanated from the spiritual force of a single man – a man who was not an artist and whose achievement broke through the barriers of tradition. (*Encyclopedia of world art*, 1971, p. 684.) The complex tangle of Egyptian religion was to be replaced by the worship of a single god.









Plate 5: Portrayal of Akhenaton or Amenhotep IV.

Plate 4 shows a stele displaying Akhenaton and his family presenting an offering to the sun-god Ahen, who bestows the breath of life on man. This 'heretical' Pharaoh opposed the Theban officials and their gods and in so doing sponsored a new style of painting and sculpture reflecting the changing attitude at the court of the time.

In the style of this period, the statue in Plate 5 shows a departure from the idealised portrayal of past Pharaohs. Akhenaten was a sickly figure and refused to be idealised or stereotyped in this portrayal, but he still wears the royal emblems of power.

The portrayal of Akenaton's famous Queen Nefertiti (Plate 6) is one of the most acknowledged pieces of Egyptian art in the world. It has grace and delicacy without the harsh stereotyping of the later periods, again displaying new expression and style.

The revolution died with Akhenaton, and so began the renewal of the old traditional methods and spiritual stability of the country. The boy-king Tutankhamun, who succeeded to the throne, was fated to become the most famous Pharaoh in history.



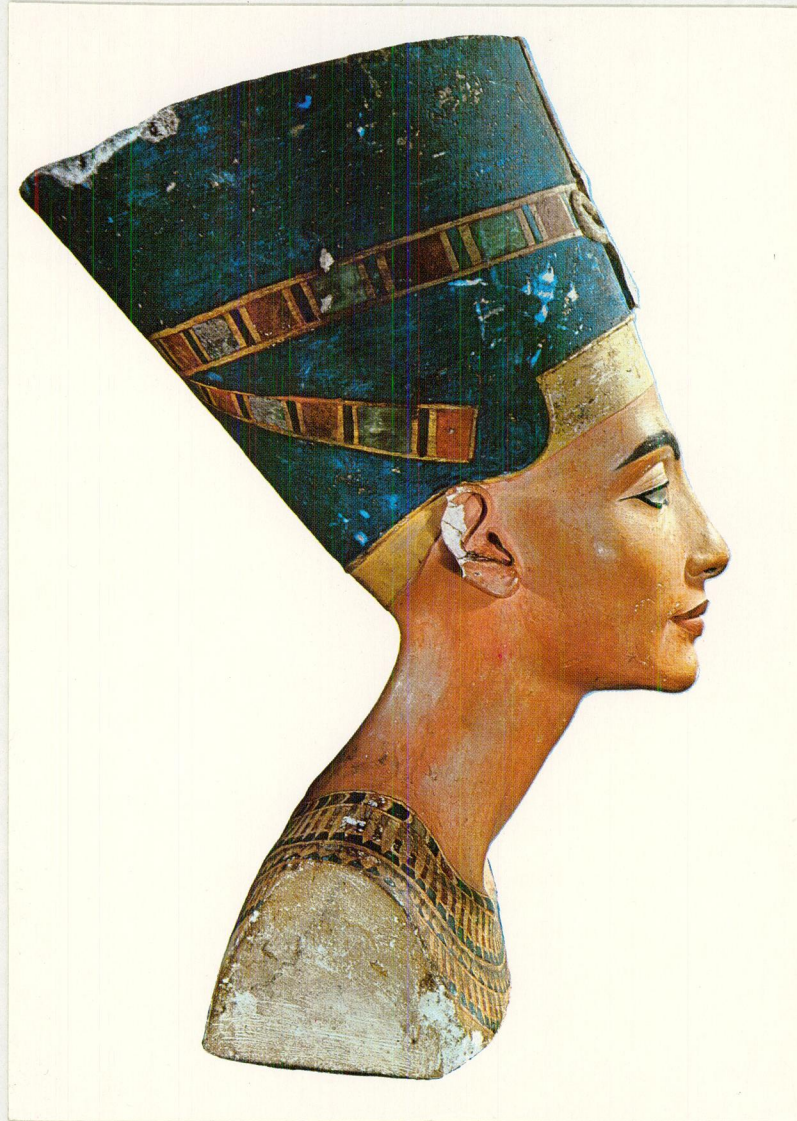


Plate 6: The head of Queen Nefertiti, Amarna Period.







#### THE RAMESSIDE ERA: 1320–1085 B.C.

The third period of the New Kingdom covered the 19th and 20th dynasties, the Ramesside Era. The last works of the New Kingdom, like the earlier period imbued an ideal of colossal splendour and size. This glorious period saw immense buildings all over Egypt, from the temples of Ramesses II at Karnak, to the temple of Seti I, father of Ramesses II, at Abydos and the temple of Amon built by Ramesses II at Luxor and finally the colossal rock carved temple at Abu Simbel in Nubia (Plate 7) also built by Ramesses II. With the great 19th dynasty funerary temple of Ramesses III at Medinet Habu near Thebes ended the final flowering of art in the New Kingdom.

We see the colossal grandeur of Abu Simbel, cut deep in into the rock, showing an amazing combination of creativity and skill. Nevertheless, the form later became somewhat stereotyped and monotonous.

King Seti, father of Ramesses II, was a great military leader and fought the Hittites of Asia and the Philistines and others in the East Mediterranean Sea, thus conquering Palestine and Syria. Ramesses II also fought the Hittites, beginning a glorious reign, which, however, developed inner weaknesses and anarchy.

About 1100 B.C. the civilised world entered the iron age. Egypt had no sources of iron, and found it difficult to import iron from Asia. Egypt's inability to compete with arms made of iron ushered in the Third Intermediate period or the period of invasion.

#### THE THIRD INTERMEDIATE PERIOD: 1075–715 B.C.

The period from the death of Ramesses III (1165 B.C.) in the middle of the 20th dynasty is a low point in the history of Egyptian art and culture. (Garbini, 1982, p. 163.) The Theban artistic traditions survived for several centuries until the 25th dynasty. As a consequence of the general poverty of this transitional, period there was no appreciable architectural activity. This era of political confusion, especially the 20th dynasty, saw the Tanite Pharaohs rule northern Egypt from Tanis, while the south answered to the high priests of Amun in Thebes. The 21st dynasty (1055–935 B.C.) had some of the most prominent rulers of this era at Tanis, such as Psusennes I, Psusennes II, and later, Sheshonq I–IV and Osorkon I–IV.

Plate 8 shows creativity still trying to survive in a poverty-stricken country, sucked of inspiration.





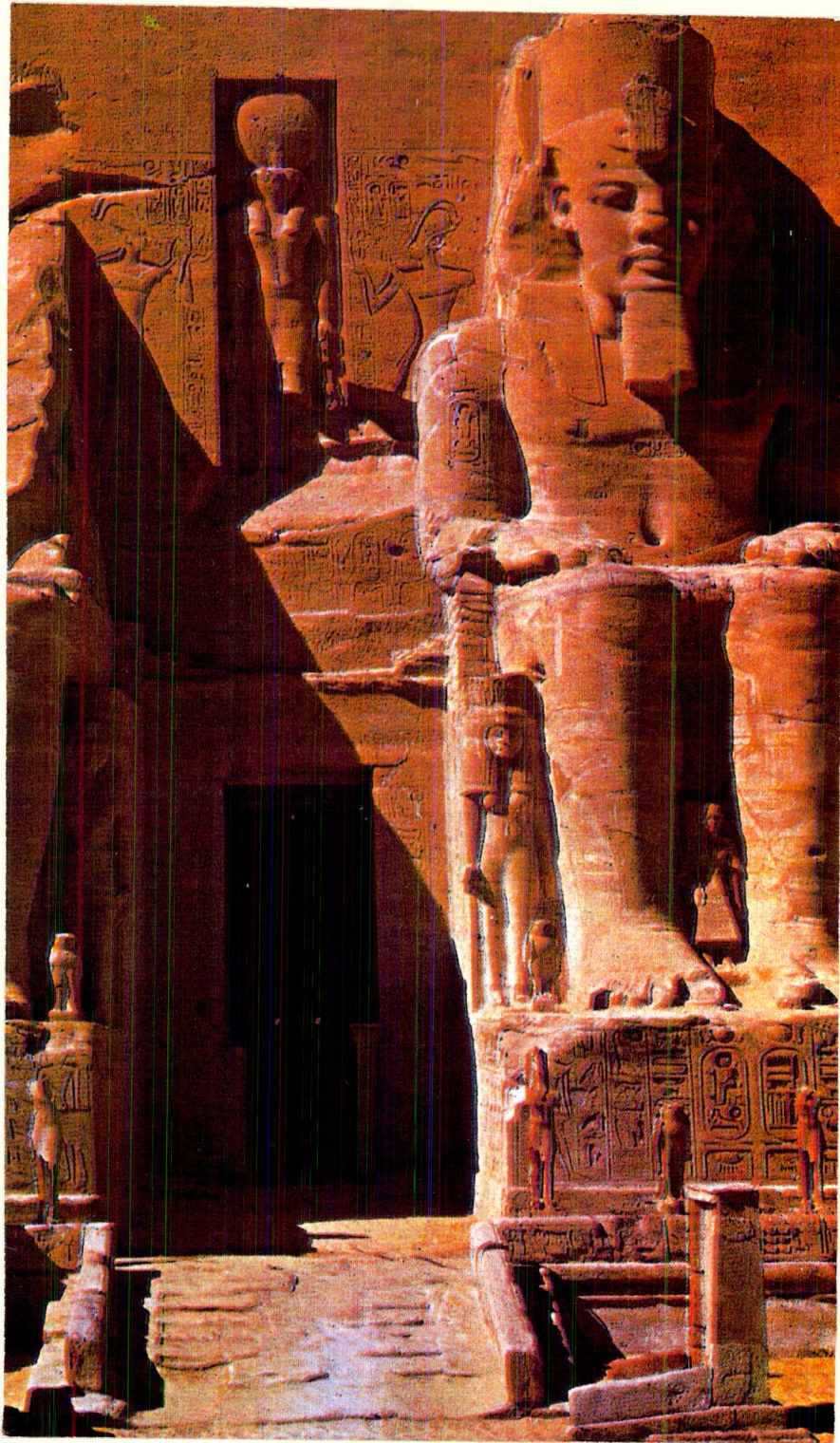


Plate 7: Rock temple of Abu Simbel, Ramesside period, 19th dynasty.







Plate 8: Stele of King Osorkon II between Isis and Horus, Late period, 889–866 B.C.





#### THE LATE PERIOD AND REMAINING PERIODS

The Late period saw the rule of successive dynasties of foreigners – Libyans, Negroes from Sudan, Assyrians and finally Persians, leaving Egypt totally void of inspiration and struggling against taxation. (Patrick, 1978, p. 8.)

Persian rule ended in 332 B.C. with the death of Alexander the Great, who had been greatly impressed by the culture and history of ancient Egyptian civilisation. In 305 B.C., Ptolemy was crowned King of Egypt. Under the Ptolemaic dynasty, Egypt developed resources and culture and trade with other countries. Large numbers of Greek settlers made the country their home and Alexandria rapidly became the greatest city of culture in the Hellenistic world. In 30 B.C. Egypt was added to the Roman Empire.

Roman rulers plundered the country for grain, bringing food shortages and poverty. The adoption of Christianity by the Roman Empire saw the advent of a new exclusive religion to Egypt. Christianity, a faith less tolerant of polytheism than any pagan religion had been, finally brought about the demise and disintegration of Pharaonic Egyptian culture. (Potts, 1990, p. 56.) The Egyptians who followed the teaching of Christ became known as Copts and increased rapidly between 300 and 500 A.D. As Christianity became the major religion of the empire, the temples fell into disuse and were destroyed. Images of the gods were defaced and mutilated to render them impotent. Byzantine rule broke the deadlock and Arab conquerors took over the Egyptian empire, and Egypt gradually became a Muslim nation.

The culture which arose five thousand years ago left behind an unbelievably rich and luscious inheritance of treasures, architecture, jewellery and religious beliefs. No other race had conferred so much importance and dignity upon the cult of the dead. The afterlife was of supreme importance to the ancient Egyptians, and no other race had devoted most of their wealth and labour to the preparation of their dead. One can observe their very literal belief in a life after death. But even the impressive pyramids offered inadequate protection against grave-robbers and plunderers, resulting in the loss of some of the most beautiful and glorious artifacts the world has ever known.



## II

### Egyptian religion

TO UNDERSTAND Egyptian culture, art and literature one must study the ancient mythology of the country, which was so interwoven with daily life and with existence, here and hereafter.

In modern society we would find it ridiculous for artists to represent the sky as a cow or to have a beetle revered as a sun-god, but the ancient Egyptians had a magical rather than a logical outlook. (Lurker, 1980, p. 7.) When discussing the religion or beliefs of Ancient Egypt, it is of importance to note the astonishing rate at which the deities multiplied, making it next to impossible to relate the symbolic significance of each god and goddess. Texts from the early dynasties give us the names of some 200 deities. Later, from The Book of the Dead we learn that they number 500 and with other mythological beings make a total of 800 deities. To add to the confusion, national gods may be known by different names in each province. Even the legends may assume a different form, so a god or goddess may have more than one name.

The main problem with Egyptian religion to the Western mind is that it is not a homogeneous body of beliefs. Numerous aspects of the ancient ethnic beliefs were incorporated into Judaism and Christianity. In fact some of the ritual symbolism of Christianity may be traced to the Egyptian religious system. (Michalowski, 1969, p. 95.)

It seems clear that Egyptian art tends towards abstraction, but not to the extreme. For example, the scarab or the ankh may have more meaning than is apparent. Hieroglyphics are an integral part of Egyptian art. Without proper knowledge of hieroglyphics, no proper evaluation of Egyptian art is possible. The symbolism and magic of hieroglyphics is interwoven with everything, especially in conveying the religion and legends of ancient Egypt. The spirit and attitude towards animals was what the Hellenes viewed with astonishment and respect and the Romans could not understand. 'I worship only gods, not oxen' was Emperor Octavian's reply on a state visit in Egypt in 30 B.C.. (Michalowski, 1969, p. 36.)



#### RELIGION, GODS AND GODDESSES

The Egyptians believed that the gods and goddesses took part in every human activity and that each person was judged on the day of judgement by Orisis according to the rules laid out by the gods. They also believed that the king could keep the country prosperous by his divine powers. The king or Pharaoh was a god and apart from all other mortals. He was the child of the sun-god Ra (Plate 9), begotten by Amon-Ra, who had taken the form of the reigning king at the time of his conception.

The origins of Egyptian religion are obscure. To ensure success in mythological elucidation a special training is necessary and a prolonged familiarity with the phenomena of early religions in its many forms is essential. (Morkot, 1988, p. 3.)

There are several Egyptian accounts in existence which deal with the creation of man and of the world. These accounts can be seen in the pyramid texts and in the legends of gods associated with the creation of life and the universe. Basic to many popular legends and ideas is the belief that Egypt emerged from the primeval ocean, Nun. The oldest god Atum, who dates back to the pre-dynasty period, appeared on a hill at Heliopolis from that ocean. It was during the Old Kingdom that the cult of the sun-god Ra began to spread. As the people of Thebes, worshipped Atum or Amon as supreme god for a period, the people after a time identified Atum with the sun-god Ra and Atum became known as Atum-Ra.

The god Atum-Ra could be known by different names or be interchangeable with other gods, and so became the deity of fertility. As Khepera, he went on to create the universe. According to legend, Khepera begot Shu and Teknut, god of air and goddess of moisture and darkness, who also arose from the primeval ocean. After these followed the earth-god Geb and the sky-goddess Nut, begotten of Shu and Tefnut. To create the light of the world, the eye of Nu, symbolising the sun, followed Geb and Nut to create what the Egyptians considered the world. From this Khepera wept madly and from his tears sprang forth men and women. He then created another eye which was to symbolise the moon. These eyes are symbolically represented as the 'wedjat' eye or the 'eye of Horus'. Khepera then proceeded to create plants and herbs, reptiles and other creatures, while from Geb and Nut came forth two daughters and two sons, Isis, Nephthys and Osiris and Seth. These nine deities together formed the great Ennead of Heliopolis. Horus was later considered to be the son of Osiris.

The mystical number nine recurs frequently in Egyptian beliefs, though sometimes the Ennead could extend to as many as fifteen deities. According to Egyptian belief, the human body was made up of nine individual parts. For example, the body was known as the 'khet', the soul was called the 'ba', the name was called the 'ren' and so on. The priests of Heliopolis recognised lesser-known deities, such as Thoth, Ma'at (the female goddess of truth), and the jackal-headed Anubis, who had a very important position as the patron of the dead.



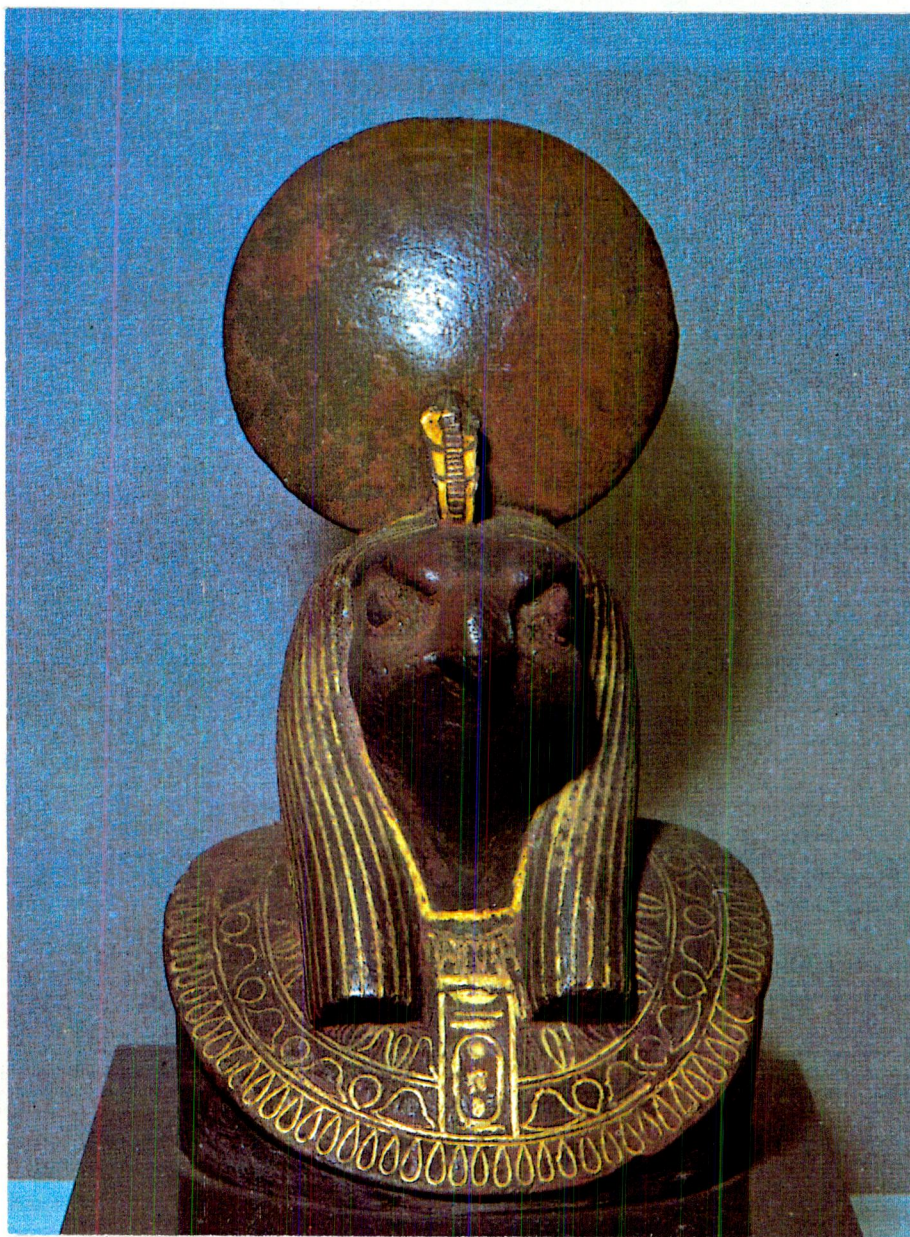


Plate 9: The sun-god Ra, father of the gods presented as with a falcon's head and a solar barque.







The Egyptians believed that each god and goddess held some special animal sacred and this animal was represented as a manifestation of the deity. For example, Thoth was an incarnation of the baboon and ibis. Sobek was thought to travel the waters as a crocodile (Plate 13). Herodotus did not exaggerate in stating that 'To the Egyptians, animals both wild and tame are without exception held to be sacred.' (Potts, 1990, p. 108.) In the creation of time, Atum formed himself out of his own will and created more gods by mating with himself, which suggests that he was regarded as bisexual. Thus, the Egyptians saw the creation of the universe in sexual terms, where the first god logically was of both sexes.

It was during the Old Kingdom that the Memphite priests became jealous of the Heliopolitan priesthood and worshipped Ptah as their chief god, the patron god of artists and craftsmen. Ptah in turn produced eight other Ptahs, thus forming an Ennead and philosophy to himself. In Heliopolitan theology Atum was the father of the gods, and at Memphis Ptah was the creator of both gods and men. Ptah was one of the few examples of an Egyptian god who was created by spiritual rather than physical means. Ptah never ceased to command the respect of the people but was never a favourite with them. (Michalowski, 1969, p. 56.) The people did not see him on the same level as Atum physically.

It is nearly impossible to list all the gods of ancient Egypt, each of whom has a strictly defined form in art. Egyptian religion sometimes gave rise to new deities by combining the characteristics of two existing ones. The new gods usually preserved the characteristics of the other two, e.g. Atum-Ra. (Michalowski, 1969, p. 100.)

#### THE MYTH OF OSIRIS

The god Osiris and his wife and sister Isis figure prominently in tomb painting and metalwork, probably because of Osiris's connection with the dead and with mummification.

One must study the legend of Osiris to appreciate his significance. Many versions of the Osiris myth exist, including the brief account given by the Graeco-Roman writer Plutarch. (Michalowski, 1969, p. 101.) Osiris was a good king who ruled from the Delta and governed all of Egypt. His jealous brother Seth, viceroy of the South, invited him to a banquet. At the banquet, he tricked Osiris into climbing into a wrought chest specially made to fit Osiris. The moment Osiris sat into the box, Seth shut the lid and cast his body into the Nile. Heartbroken, Isis travelled the whole land in search of the body. This she recovered, but Seth stole it from her and cut it up into about fourteen pieces and scattered it over Egypt. Isis, however, with the help of her sister Nephthys and her own magical powers managed to bring her husband back to life for a brief period and even conceived a child by him (Plate 10).

The child was called Horus and was hidden from Seth, who in revenge later gorged out the eye of Horus and cut it up. Thoth reassembled the pieces and joined them together and gave the 'whole' eye back to Horus (which provides





Plate 10: Isis and Horus, Bronze statue (sculpture).







another explanation for the symbolism of the 'wedjat' eye). After many battles, Horus defeated Seth and became the rightful heir to Egypt.

This legend has a deep religious significance. Seth became the god of evil and violence and was defeated by justice and goodness. Greeks identified Seth with the monster Tyhon. Osiris's resurrection was seen as the symbol of vegetation, connected with the earth and the renewal of life. Since this process takes place underground, Osiris entrusted power to Horus to become god of the underground. Isis was one of the most revered of all the goddesses. Her magic was allied to wisdom and the skill of healing. To many, her strongest appeal would be the image of a sorrowing wife and a devoted mother. Every mother can identify with her, in the manner that Christians adopt Mary as their role model.

#### SPIRITUALISM

Egyptians believed that objects and humans had a soul and personality, a mysterious second self. As the subconscious is active in sleep, so they believed that the personality would continue to exist after death. The Egyptians were basically realists and imagined the afterlife to be very much like life on earth. Scenes were drawn on the tombs depicting every day life and customs. Many physical items such as chairs, clothes, furniture, jewellery, food, luxuries etc., were buried with the person for use in the afterlife.

The soul or 'ba' is represented as a symbol of a man-headed bird. This concept is not unusual, especially among primitive peoples. The bird symbolises the magical power of flight and close proximity to the gods dwelling in the sky. (Maorkot, 1988, p. 5) Many American Indian tribes believed that birds are the visible spirits of the dead. Other peoples, such as the Aztecs, the Aztecs of Brazil etc, have had similar beliefs.

#### ANIMAL WORSHIP

One of the strongest aspects of Egyptian religion was its apparent obsession with animals. Cats, dogs, crocodiles, birds, beetles, rams, snakes and countless other creatures were revered with lavish ceremonial, at which the Egyptians excelled. A well-known historian has stated that 'Egyptian animal worship provoked the merriment of cultured Greeks and drew down upon the Egyptians the ridicule and abuse of early Christian writers.' (Morkot, 1988, p.270.)

Probably the most popular and oldest of Egyptian animals was the cat, the sacred animal of the goddess Bastet (Plate 12). Her origins may relate to the fact that the people of the Delta, a region infested with rats and snakes, welcomed a wild cat, a killer of snakes. A number of cat-mummy cemeteries have been discovered in Saggara, containing millions of mummified cats, indicating the reverence the Egyptians had for these animals.

Anubis is represented as a black jackal with a bushy tail (Plate 12). The jackal is represented as a despoiler and therefore very much associated with the dead, and came to be regarded as the messenger from the other world. He could be heard





Plate 11: The cat-goddess Bastet, bronze statue, 2nd dynasty.









Plate 12: Anubis, jackal-god, connected with death and the afterlife.



Plate 13: Sobek, a crocodile-god.

howling at sunset west of the Nile, which represents the area where the dead were buried and where the Jackal was ready to take the 'ba' over to be judged by Osiris.

The water-god Sebek was associated with rivers and waterways. He was widely worshiped after his rise to prominence in the 12th dynasty, 2000–1790 B.C., when the Pharaohs favoured the lakes and marshes of Lower Egypt. (Patrick, 1978, p. 45.) As a state god, he became identified with the supreme god Amon-Ra, after the rise of the Theben priests. Plate 13 shows him with 'Amon's' royal head-dress of the solar barque or sun-disk, with the ram's horns and plumed feathers.

The cobra like the cat was a sacred animal to the Egyptians and the penalty for deliberately or even accidentally killing these animals was serious, with punishment meted out by the high priests. On the funerary mask of Tutankhamun (Plate 14), the crown incorporates the cobra and the vulture, symbolising the union of Upper and Lower Egypt.

Mut, the goddess of fertility and marriage was represented as a female figure. Taueret, the goddess of childbirth and expectant mothers, was associated with the hippopotamus. She was deeply revered by women. Thoth, the ibis-headed god, was revered as the moon-god and the inventor of speech. He also invented writing, which gave him enormous power and wisdom. (Michalowski, 1969, p. 45.) He was also present at all the funerary rites, where his function was to record the deeds of the dead man before they were placed on the scales with the feather of truth.



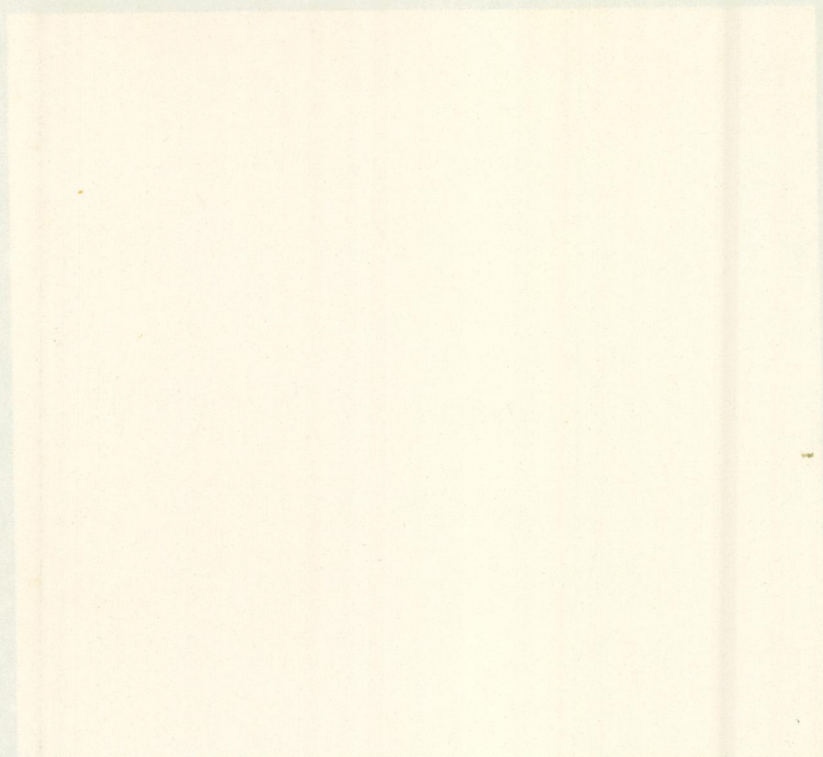






Plate 14: The funerary mask of Tutankamun. The Pharaoh's crown, representing the goddesses Buto (cobra) and Nekhebet (vulture) symbolising the union of Upper and Lower Egypt.





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The idea of animal transformation was evidently a very old tradition in Egypt, where both the gods and men were able to assume the form of animals, birds and plants. (Potts, 1990, p. 106.) In contrast, the Greeks perceived their gods in their own image and could not grasp the symbolism of animal transformation.

#### MUMMIFICATION

Nothing personifies ancient Egypt more than the popular image of the mummy. This macabre burial practice derives from the belief that the dead person's survival in the afterlife depended on the preparation of the physical body, in which the 'ka' (personality) as distinct from 'ba' (soul) would again reside, so that it could again eat, breathe and see just as in life. (Potts, 1990, p.92.)

Egyptians began experimenting with treatments and techniques during the pyramid era (2600 B.C.). During the New Kingdom, mummification was perfected. Owing to carelessness and poverty during the Later Period many mummified bodies had fallen into a shrivelled mass of black dirt before they were discovered in the nineteenth century.

The actual embalming process was a long and complicated one with prayers and rituals incorporated into every stage. The first phase was to wash the corpse and cover it with molten resin to keep it supple. A special instrument was then inserted through the nose to extract the brain. It is important to note that the Egyptians considered the heart the centre of intelligence, not the brain. The intestines, lungs and liver were removed. The cavities were then cleaned up and stuffed with clothes and various vegetable and mineral substances. The corpse was then buried for forty days in natron, a naturally occurring salt, leaving the body dehydrated and reducing its actual weight by 75%. The whole body was then washed and dried and the four organs already mentioned were dehydrated and placed in canopic jars. The body was then coated with a molten resin to toughen and preserve it. Finally, the skin was coloured yellow on women and red on men. The terrible wound that had been inflicted on the deceased in the removal of the viscera was closed up, as seen in Plate 15.

The plaque (Plate 15) was used to restore the body's integrity. (City of Edinburgh Museums . . . , 1988, p. 51.) The plaque or amulet shows the decoration of the 'wedjat' eye of the sun-god. Next to it can be observed the divine quartet known as the sons of Horus. The rectangular sheet of gold with hieroglyphics and images stamped on it was then sewn to the bandages at each corner, where eyelets were pierced out. Such splendour and wealth did the Egyptians place upon their dead.

Of particular interest are the finger stalls and toe stalls (Plate 16) found on the mummified body. These stalls were used to prevent the digits coming loose when the body was treated with natron. They were also worn to guarantee the deceased use of his fingers and toes in the afterlife. Toe stalls were made from rolled gold sheet, with the shape of the nail engraved on them. A gold ring was slipped on to each of the ten toes and fingers.





Plate 15: Gold Plaque, placed on the mummy's embalming incision, Tanis, Psusennes, 1000 B.C.









Plate 16: Finger and toe stalls of Psusennes, Tanis, 1000 B.C. Gold.





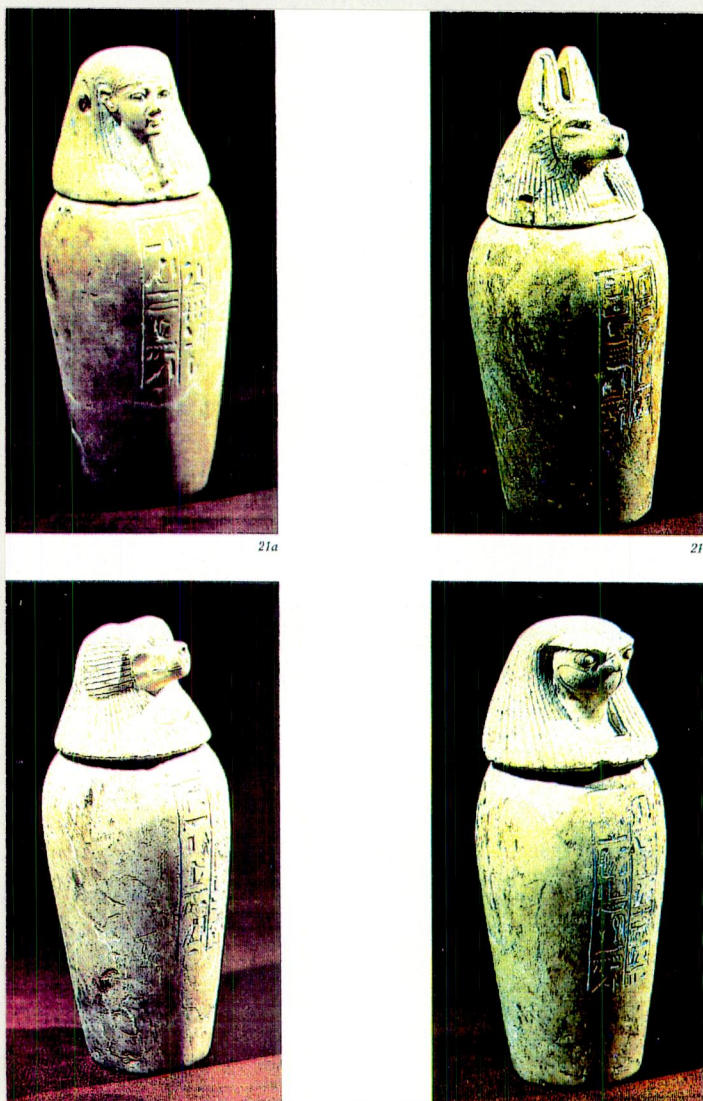


Plate 17: Canopic jars of Prince Hornakht, 860 B.C., Tanis, 22nd dynasty. (a) Hapi (baboon), (b) Duametuf (jackal), (c) Imnesty (man), (d) Qebehsenuf (falcon).







The four classic receptacles held the embalmed liver, lungs, stomach, and intestines of the deceased, which were identified with the divine quartet called the Sons of Horus. These entities, which personified the vital functions linked with breathing and eating, together guaranteed the afterlife. Plate 17 shows (a) the baboon Hapi as being associated with the lungs, (b) the jackal Duamutef with the stomach, (c) The man Imsety with the liver, (d) the falcon Qebehsenuf with the intestines. Each of these four gods was placed on the lid of the appropriate canopic jar to identify their association. Also each god was placed under the protection of the great goddesses Isis, Nephthys, Neith and Selkis, again demonstrating the interaction of gods and animals.

The last stage of the mummification was the bandaging, which could take up to fifteen days and use up to 400 metres of linen bandages. (Patrick, 1978, p. 95.) Sometimes within the bandages could be found jewellery and amulets to ward off evil spirits. From this elaborate and time-consuming procedure, one can only bow in admiration and respect to Egyptian creativity and determination. Even the coffin itself had an ocean of symbols and hieroglyphics.

#### THE BOOK OF THE DEAD

The Book of the Dead provided a programme to guide the spirit in overcoming the obstacles to achieving a desired status in the afterworld. (Scranton, 1964, p. 51.) At first this ceremony was a privilege reserved only for the Pharaoh and his family, but by the end of the Old Kingdom, the hope of eternal life was extended to every man.

The act of Osirification was a long and elaborate ritual in preparation for the afterlife. It involved a number of ceremonies, such as the 'opening of the mouth'. This consisted of the resurrection of the soul of the person involved, to ensure that the way was open for the rebirth of the soul of the dead person. The Book of the Dead was then placed in the coffin, with its instructions for answering questions put by the forty-two deities attending the trial.

In the ceremony called the 'weighing of the heart' (Plate 18), the dead man's heart was placed on the scale, which was watched by Anubis, the jackal. The other side of the scale held an ostrich feather, the symbol of Ma'at, the goddess of truth and justice. If in the course of the trial, the deceased was found innocent and pure the scales would remain balanced, and he would join Osiris, and his spirit would have eternal happiness in the afterlife. If however, the scales indicated that the man's heart weighed more than the ostrich feather, he was then thrown to the monster Ammit, 'the devourer of the dead', who was represented by the jaws of a crocodile and the body of a half-lion and half-hippopotamus. But the deceased was nearly always found innocent, mainly due to the lavish and time-consuming effort made by the family, priests, and slaves who prayed that the soul might have eternal happiness. The Ancient Egyptian religious belief was that life on earth was but a brief episode in comparison with the infinite time spent in the beyond.





Plate 18: A page from the Book of the Dead.





(Michalowski, 1969, p. 47) In order to attain eternal happiness, man had to live in harmony, respect and obedience to the power of the gods and their teachings.



### III

## Materials, tools and techniques

**J**EWELLERY was man's answer to the profound need to adorn himself. The materials used and developed by the Egyptians were vitally important in creating some of the most beautiful pieces the world has ever seen. One such material was gold, its natural colour and untarnishable lustre have constantly been loved and admired by the ancient craftsman.

#### GOLD AND OTHER METALS

Gold has always been the ornamental metal par excellence, either as a means of decoration or as a means of ostentation. Egypt was fortunate in having immense deposits of gold, the richest by far in the ancient world. Gold was a metal that could be worked with comparative ease. It did not decay or tarnish in use, it was indestructible, and its warm colour seemed to reflect the fire of the sun. The Egyptians knew of gold before silver, which at first they called white gold. Egyptian gold contained a high percentage of impurities, mostly in the form of silver. Electrum was a naturally occurring alloy of gold and silver imported from the Egyptian desert and was classified as a separate metal, until it began to be produced artificially in the New Kingdom. This high percentage of silver in the gold produced a white metal indistinguishable in appearance from silver. The gold also contains other varying percentages of metals, chiefly copper iron and sometimes platinum. This explains the grey, reddish brown or plum-purple patina in many ancient gold-works especially in the tomb of Tutankhamun, where the gold has radically changed colour with the passage of time, owing to the tarnishing of the copper, iron and silver components which were deliberately introduced into the gold. This was why the Babylonian rulers were not adverse to casting into the furnace the gold they received from Egypt to see whether it was as pure as it was claimed to be. (Aldred, 1971, p. 32.)

The early Egyptian goldsmiths strove for the highest possible purity, as a means of working gold more easily. The separation of gold from silver was not practised until the 11th dynasty, around 2000 B.C. Until that time the purity of the gold depended on its content of silver. (Sutherland, 1959, p. 32.) The method of cupellation or refinement as described by Diodorus records how craftsmen

collect it and weigh it and put it into earthenware pots [i.e. cupels], and in proportion to the amount, they put in a piece of lead and lumps of salts and also a small quantity of tin, adding some barley bran too. Then they make a well-fitted cover, and having laboriously smeared each pot over with mud they bake them in the kilns for five days and five nights running. They then let them cool, getting the gold in a pure state though slightly reduced in mass,

the impurities having been absorbed in the cupel. (Sutherland, 1959 p. 33.) In conjunction with the development of this refining, advanced methods of mining developed, involving the extraction of gold from the veins in quartz rock, which had to be fractured by quenching an area previously heated by fire. The broken sections were ground down, and the powder was panned to separate the heavier metal particles, from the pure gold-dust.

This type of mining required an abundance of forced labour. Diodorus paints a very bleak picture for thousands of unfortunate slaves and labourers involved in this task:

There is absolutely no consideration nor relaxation for sick or maimed, for aged man or weak woman: all are forced to labour at their tasks until they die, worn out by misery amid their toil. (Sutherland, 1959, p. 30.)

Silver was rarer in Egypt than gold and was more highly prized until the Middle Kingdom, when supplies from Asia began to arrive. Egyptians called silver 'white gold', mainly because it was in fact a low grade of gold containing so much silver that it actually looked grey-white in appearance. Even in the tomb of Tutankhamun little silver was used in funerary jewellery. Originally far greater amounts of silver objects were buried. Apart from losses due to plundering, silver unlike gold corrodes in contact with salt-impregnated soils and cannot be restored if mineralization is complete. (Aldred, 1971, p. 33.) As a result, vast technical knowledge and vital decorative pieces have been lost.

#### GEMSTONES

The jeweller would choose a stone for practical and aesthetic considerations. The ancient Egyptians seem to have found and used softer alternatives for stones that were unavailable. For example, the lack of red rubies is counterbalanced by the frequent use of bright red garnet. Citrine yellow was used instead of topaz. There was, however, no common softer transparent stone of similar colour to the blue sapphire. The Egyptian gemstones would today be classed as semi-precious. The Egyptians chose from very rich colours, especially from the classic trio that formed the basis of their colour-scheme for jewellery, the blood-red carnelian, the vivid blue-green turquoise and the deep cerulean blue lapis-lazuli. (Aldred, 1971, p. 33.) The carnelian and the turquoise could be got without much difficulty, but the lapis-lazuli was a rare commodity, not found within Egypt's borders, and had to be imported from the Euphrates in Afghanistan.

Red jasper and garnets were suitable for taking high polish and required little work in carving into bead. An alternative used for turquoise was green feldspar, a stone easier to use and softer in chemistry. Amethyst, which is a purple variety of quartz, occurs naturally in cavities in granite rocks, and was exclusively used for pendants and beads. Other stones used in Pharaonic times were yellow, green and brown jaspers, emeralds, jade, rock crystal, banded chalcedony, calcite and



malachite. Obsidan, a natural volcanic black gem, was extremely rare and was a coveted luxury among the Egyptians.

The way in which they used gemstones in rings, bracelets, necklets, pectorals, scarabs, earrings, etc., varied, but without doubt the most popular characteristic of Egyptian jewellery was its cloisonné work, in which metal was shaped, placed on its edge and soldered to a base plate so as to form cells or cloisons. In these cells the coloured inlays or stones were cut to shape and cemented into position and the entire surface was then polished over. This technique reached its greatest perfection in the Middle Kingdom, but it is still very much in evidence in the tomb of Tutankhamun. (Aldred, 1971, p. 43.)

Because of the difficulties of cutting and carving stones, the Egyptians tried to find natural and artificial substitutes for their classical gemstones. Glass eased the laborious task of carving and shaping, and the substitution of green and blue glass (grit) for the rare and costly feldspar, turquoise and lapis-lazuli proved invaluable.

#### GLASS

Ancient glass or glaze was usually made from a mixture of silica, calcium carbonate and an alkali containing sodium or potassium. The source of silica was usually sand, and the alkali could come from two sources, from plant ashes or natron, a naturally occurring sodium carbonate (salt). (Ogden, 1982, p. 128.) The Egyptians found that in glass they could produce a substance in close imitation of the natural gemstone and they used glass in jewellery and metalwork with fire and enthusiasm. The first stage of glass manufacture consisted of fusing the ingredients together, with the addition of a colouring agent. The 'gritting operation' was carried out at a relatively low temperature and the colouring agent was added when the mixture became molten. It must be emphasised that Egyptian glass, despite its brilliant colours, lacks the surface sparkle of modern glass. The minute air bubbles in the glass gave a texture to the substance which often makes it difficult to distinguish from natural stones in funerary metalwork and jewellery.

Malachite, a green copper carbonate produced a green or light green glass. The oxidising effect of copper produced shades ranging from turquoise through azure to green, the green tinges indicating the presence of iron. The darker navy and royal blue glass imitating lapis-lazuli, was frequently produced by the colouring agent cobalt. Manganese was used to produce the amethyst colour purple in glass during the 18th and 20th dynasties. Iron was deliberately added to produce a jet black glass. In contrast, tin oxide was used to produce an opaque white glass, while decolourisers such as manganese were used to create a colourless transparent glass. The minute presence of iron gave a greenish tinge typical of much of Egyptian transparent glass. Red was obtained by the presence of iron oxide in the body of the materials. The use of colouring agents reveals the ancient Egyptians' thirst for knowledge and creativity.

#### FAIENCE

Faience is a fused mass of ground or crushed quartz. Sand or crushed quartz could be mixed with natron solution, which could be hand-shaped, pressed into moulds, and, once dry, fired into a solid. (Ogden, 1982, p. 124.) This method made intricate forms more easy to produce than by carving stone or solid rock. There were various methods of producing coloured faience. The colouring agent was added during the initial quartz natron mixture stage, or, alternatively, the faience substance was covered with an alkaline glaze. Faience was used for making beads, necklaces and bracelets. The colours usually imitated those of lapis-lazuli and turquoise, and therefore varied from dark blue to a light blue-green. Faience declined and disappeared completely after the fall of the New Kingdom

#### EGYPTIAN BLUE

The ancient Egyptian craftsman's greatest need was for a dark blue substance which would imitate the expensive import, lapis-lazuli. From the second to the third millennia, we find beads and amulets, made of powder blue or royal blue materials which had a chalk or granular texture and had the same colour throughout, unlike faience, where the colour is merely a surface layer. (Ogden, 1982, p. 136.) 'Egyptian Blue', differs from ordinary grit in being a crystalline rather than non-crystalline vitreous mass, where the grit is fired with some additional time added.

#### BEADS

Beads in the early neolithic period were made from natural objects such as shells, teeth, pebbles and seeds, demonstrating the powerful need the Egyptians felt for personal adornment. Egypt's special contribution to the art of jewellery was its bead jewellery, which they produced with stone, gems, glass and faience. They used single and multiple strings, and threaded them in warps to form patterned textures. The art of the beadmaker reached its zenith in the Middle Kingdom. From this period, stone beads have survived of minute size and extraordinary finesse in which perforations of great length occur. How these beads were produced is not clear, but it is suspected that the hole must have been first drilled and the body afterwards rubbed away until the desired degree of thinness was obtained. (Aldred, 1971, p. 116.) In many pieces of gold jewellery, beads are now missing, although the wire on which they were strung is still intact. This is usually an indication that the beads were made of glass or pearl, materials that tend to crystallise or decompose with time.



## ENAMEL

The use of enamelling in Egypt is debatable, but some use of enamel occurred during the Amarna period and the following dynasties, when glass-making technology reached a high level of craftsmanship. On the basis of the fused masses of air bubbles, Aldred surmised that some of the Tutankhamun jewellery was indeed produced by enamelling. Glass was substituted for natural stone in the Middle Kingdom, the powdered glass being packed in the wire cells or cloisons and heated until it fused into a compact mass. This is virtually the process of enamelling, even though the art of enamelling is generally denied in Egyptian metalwork and jewellery. This technique is similar to the technique known in enamelling as cloisonné. In *champlevé*, another technique used in ancient Egypt, a depression was gouged or carved in bronze or copper sheet leaving a raised field to form the design. The enamel was first melted and then poured into the depressions until level with the surface of the exposed metal. Another basic technique was to give an overall coating of enamel by dipping the entire object into molten glass. This can be observed on many early Egyptian pieces of jewellery.

## CRAFTSMEN AND THEIR TOOLS

The goldsmiths and silversmiths were a privileged community, working mostly in royal works with the finest materials available. Their techniques and knowledge would have been handed down over the centuries from father to son as a closely guarded mystery, so that the craft of the jeweller remained in the hands of a limited number of families working in one or two favoured localities. (Aldred, 1971, p. 46.) Today, the only glimpse we can get of the ancient craftsmen and their workshops is in reliefs and tomb paintings, where we can see that the tools used by the jewellers were of the simplest and most primitive kind.

In Plate 19 we can observe jewellers working, side by side with the metalsmiths and joiners. This was probably because close supervision was exercised over all the workers who had to use gold or silver. (Aldred, 1971, p. 66.) Gold is being carefully weighed out, recorded and given to the craftsmen. We can observe the tools used by the goldsmith and silversmith, the worker of precious stones, and the faience maker, each craftsman having his own area of speciality. Their furnace was a pottery bowl, filled with glowing charcoal, which could be used for soldering, granulation and smelting. If, however, a large mass of metal had to be melted, a squad of men would use several pipes to bear upon the fire beneath a clay crucible. By the New Kingdom, a blast furnace had been invented which was worked by leather bellows operated by the feet. This bellows-operated blast furnace was invaluable – not only was it able to melt copper, bronze or gold, but it also was responsible for the ambitious glass-work produced during the New Kingdom. The blowpipes were reed-tipped with a clay nozzle, which needed to be renewed frequently. Yet even with such crude instruments, the craftsmen were well aware of the various melting points of different solders and carefully selected them for the size and nature of the job required. They were able to raise the temperature





Plate 19: Wall painting of goldsmiths at work. Beni Hassan grave relief, 2000 B.C.







of a metal object to a critical point which was sufficiently high to make the hard solder melt and run and even fuse the metal being used if insufficient heat or skill was exercised. (Aldred, 1971, p. 67.) The jewellery created with such primitive tools is astonishing.

The gold found in the form of granules or dust were first made into sheets by using a blast furnace so that it could be used for making jewellery. It was then poured onto a surface plate and hammered out to form a sheet of the required thickness. It was reheated from time to time in order to anneal it. This created a springy effect, which prevented the metal from getting too hard from the constant hammering. The main difference between the techniques of the jewellers and those of the metalsmith is one of degree rather than of kind. Raising and sinking of metal plates on wooden stakes were used to hammer out beaker and dish shapes. These would be techniques seldom used by the jeweller. Casting, chasing, repoussé and soldering would be among the skills that would be practised daily by the jeweller. Plate 19 demonstrates the versatile communion of craftsmen working together to create the majestic jewels of the Pharaoh.

The ancient craftsmen must have been constantly handicapped by the absence of a cutting device, such as a modern-day shears or snips for cutting and trimming metal and wire. In antiquity the metal sheets had to be cut by scoring several times with a sharp implement such as a flint or copper chisel, and if the metal was thick, it was bent to and fro until it fractured along the score lines. The holes were usually made by an anvil into the gold or silver sheet, though a bow-drill was used for drilling stones. (Aldred, 1971, p. 69.) The modern file would have been unknown in ancient goldsmithing. A variety of abrasives could have been used, such as pumice, magnetite, sandstone or pottery. These abrasives would generally have been used with some type of oil or viscous resin and would have been applied by means of a small piece of wood or stiff brush. Sand, however, with its varying degrees of fineness, was the universally available abrasive.

#### SOLDERING

In most Egyptian jewellery soldering was used to join gold. The join would be made with an alloy having a melting point lower than that of gold. The Egyptians realised early that alloys with a naturally high content of silver (electrum) could be used to solder yellow gold. (Ogden, 1982, p. 59.) Heat would have been applied by means of a brazier, a small furnace or even an oil lamp in conjunction with a blowpipe. It is uncertain whether flux was used by the Egyptians. It is not clear that they used less rich metals to join nobler metals such as gold or silver. The hard soldering of metals, whether natural or artificial alloys, would have required the use of an oxide-removing flux to achieve good results. Today, borax is used in allowing the solder to flow, but there is no evidence that borax was ever used in antiquity. No name for the mineral has been found in ancient Egyptian lexicography, nor has the element been traced in analyses of ancient jewellery. (Aldred, 1971, p. 97.)



Natron, a mixture of sodium carbonate and bicarbonate, would be used as a flux as well as burnt lees of wine (potassium tartrate) or even salt. While it is clear that alloys of silver and copper using natron as a flux were used in soldering works of gold, doubts exist about the means of soldering these joints with gold alloy, mainly because in ancient gold jewellery, the joins are usually undetectable. If the join had been soldered by a gold alloy with a lower melting point than the component parts, the soldered join with its silver or copper content would have a slightly different colour. After a lapse of two millenia, a distinguishing patina would have developed due to the tarnishing of the foreign metal content. This lack of distinction in colour has been ascribed by some authorities to the use of welding, a technique impossible to produce with the crude tools of that time. The ancient metalworkers soldered their work by a process known as collodial hard soldering, which was rediscovered by H. A. P. Littledale in the 1920s. (Aldred, 1971, p. 99.)

In collodial hard soldering, powdered malachite was used. This substance was mixed with glue or gum, and the adhesive was then used to stick the wire or metal into place. The work was then heated on a charcoal brazier with a blowpipe. At 100° C the carbonate changes to copper oxide and by 600° C the glue is completely carbonised. At 850° C the carbon combines with the oxygen and vaporises as carbon dioxide, leaving only the slightest traces of copper adhering to the gold parts. Finally, at 880° C, a strange occurrence takes place. The gold in contact with the copper forms a welded joint. This is possible because the gold and copper melt at nearly the same temperature 1083 and 1063° C respectively. The simplicity of Littledale's techniques has led to the assumption that granulation and soldering in general were produced by such means.

The soldering of hollow objects such as beads can lead to the piece exploding due to the expansion of trapped air. One way to avoid this was to make air outlets. Another alternative, seen in many Egyptian beads and amulets, was to fill the enclosed space with non-expanding material such as mud, sand, clay or even magnetite – a black substance commonly used in many beads and jewellery pieces.

#### GRANULATION

Granulation was a technique perfected in ancient Egypt, where granules of uniform size were fused together on a base metal. The actual manufacture of the individual grains has aptly been called casting without a mould. (Ogden, 1982, p. 66.) Small metal chippings were first placed on a charcoal block and heated with a blowpipe. As they melted, the surface tensions of the liquid metal caused the metal to form into tiny spheres. For the production of thousands of these spheres, which were sometimes needed for jewellery pieces, a version of mass production was used. One such method involved placing numerous small gold chippings in layers in powdered charcoal and then heating them in a furnace.

The ancient Egyptians used granules to form patterns of all degrees of complexity, from simple linear designs to complex and detailed ones. Some workers were thought to have used saliva, or burnt lees of wine, organic glue or even resin, to



hold the granules in place during soldering. W. T. Blackband, however, working at the same time as Littledale, reproduced some fine works of granulation, using a filament of solder laid on the surface of the metal and then placing the grains against this with the aid of a suitable flux. On heating, the solder 'disappeared between the grains and the base, leaving no trace. . .'. (Ogden, 1982, p. 65.)

#### CHASING AND REPOUSSÉ

Traditionally, work carried out from the back of the sheet is termed 'repoussé' while that from the front is called 'chasing', but often today all raised work is termed repoussé. In chasing, a chisel-like tool with a rounded rather than a sharp edge is tapped with a hammer to form an indented line, the metal being merely displaced, not removed. With repoussé, the design drawn on the metal is placed on a bed of some firm yielding substance, such as wood, wax, or a mixture of mud and resin. The outlines and interior linear detail are pressed into the mounted metal with a punching tool of bronze or bone by a hammer, so that the lines appear on the reverse side of the plate as raised contours. Repoussé is the complimentary process to chasing, being worked on the back of the plate instead of its face. By alternating the two processes the metal can be pressed and hammered into a relief which may be observed in many of the beautiful Egyptian pectorals and amulets.

#### ENGRAVING

Engraving was little used in Egypt. It involved ploughing out a furrow in the metal with a sharp pointed object. Stone tools may have been used in antiquity. Engraving weakens the metal would have been impossible to use on thin metal. It was not until the importation of iron that the Egyptians really began to engrave. Before then most fine detailed work was produced by fine chasing lines. True engraving was not carried out in antiquity, mainly because tools were not strong enough to gouge out the metal. Many so-called engraving designs were produced by a combination of lost-wax casting and chasing, where the basic design was cast and the details were incised later. (Ogden, 1982, p. 46) Another reason for not engraving extensively was the waste of metal involved. In chasing there was no loss in weight, but in engraving precious metals such as gold or silver would have had to be gouged out to incise the design, proving very costly for the client involved.





Plate 20: Ring of Wen-djeba-en-djed, 21st dynasty, Tanis, 1000 B.C.

#### CASTING

Once the Egyptians learnt that metals could be melted to produce solid pieces of jewellery casting was used by them in a variety of ways.

The ring in Plate 20 may have been produced by the lost-wax process, which dates back almost to the fifth millenium. Lost-wax casting was nearly always used in the manufacture of gold jewellery, especially finger-rings, bracelets, pendants, and amulets. Rings were among the commonest of ancient cast items, as strength was important and detail could be added later by chasing or punching. This can be observed in the delicate inscription of hieroglyphics on the outside of the ring.

A wax model of the ring was probably first carved and moulded and then coated with a layer of fine clay or plaster, this stage being called the investment. When the plaster became hard and dry a hole was pierced into the wax core. The investment was then heated, the molten wax poured out and the molten gold poured in. Once it was cool, the investment was broken and the ring was extracted from the casting. When the piece was removed, it was in a raw state, but the basic form was intact. The ring had to be cleaned, filed and shaped. In another method, once the molten metal was poured into the mould it was spun around on the end of a cord. This primitive method is still used today and is called 'centrifugal casting'. (Ogden, 1982, p. 73.) This procedure ensured the flow of molten metal, thus filling the wide cast and preventing air cavities from forming. A 'slush-cast' was



Dec. 1891

William K. Hearn



one where molten metal was poured into the mould and immediately poured out again. A sufficient skin of metal would have hardened around the cold wall of the mould to produce a hollow cast. This technique was extremely useful for producing earrings, especially because of the impracticality of wearing heavy solid pieces.

#### WIRE

The production of wire in antiquity was very important, but the means by which this was done remain obscure. Tomb-paintings give no clue as to production methods. The modern method of wire production is 'drawing', that is the pulling of a metal rod through successively smaller holes in a steel draw-plate, making the rod longer and thinner. Drawing leaves the wires with longitudinal striation due to sometimes forced pulling. Arthur H. Kopp, who examined Egyptian wire-production (Aldred, 1971, p. 86), reported that

microscopic examination showed . . . plain evidence that this wire had been cut from sheet and then drawn, square edges are seen here and there and even shear marks . . . while longitudinal streaks plainly show the evidence of drawing.

Strips of sheet gold cut from beaten sheet were rolled between two flat surfaces and then drawn in a stone draw plate. This is called 'strip-drawn' and is identified by the seam line which runs along the axis of the wire, though sometimes turning slightly. This method is still used today especially in the production of tubing.

Another method shows gold wire characterised by 'seam-lines' that follow a spiral path. The starting point for such wires was obviously spirally twisted, which could have been done, either by coiling a strip of metal into a tube or by twisting a strip of gold about its own length. (Ogden, 1982, p. 49.) Such strips would then be converted into solid round wires by rounding them between the two surface plates or by drawing.

#### STONE-SETTING AND INLAY WORK

These two procedures are entirely distinct from each other. There are various techniques by which gemstones can be set in jewellery, but in general it is usually by one of three main methods, wire setting, bezel setting or claw setting. In wire setting a wire passes through a perforation in the stone. This is a common feature of swivel rings, and also where necklaces consist of a series of beads threaded through on wire links, with the ends twisted back on themselves. Bezel settings are stones which are not pierced but held in place in a box or cell. In the simplest case the stone is cut to fit the bezel exactly and held in place by some form of natural adhesive. In later variations the bezel or edge of the cell was burnished or rubbed over the edge of the stone. Claw setting was not widely used and was not very pleasing aesthetically. It was usually used for faceted stones which were held in place by a series of wire claws formed around the stone.



The inlaying of one metal with another was rarely used in antiquity. It involved chasing a design on to the metal and then filling with a metal alloy of a contrasting colour or texture. Niello, a black metallic compound, was a suitable substance for inlay work. Basically inlay work needed a reasonable thickness or gauge of metal to work on, which explains the reluctance the ancient Egyptians had for this method, when most of the craftman's goldwork was produced from thin gold sheet.

#### OXIDISATION

The oxidisation or cleaning methods for pieces during and after making is vitally important. After fabrication, metal jewellery usually required some final work, abrasive polishing, burnishing to remove tool marks, sulphur solder etc. Evidence has shown where solder seams appear to have been scraped to remove the unwanted solder. Very importantly, some type of chemical pickling operation was necessary to remove incrustations of flux or oxides. (Ogden, 1982, p. 86.) The modern pickling agent is usually sulphuric acid added to water. In antiquity, some of the pickling recipes were not just used for cleaning but also for colouring gold. The acids most frequently used for cleaning were natural ingredients such as vinegar, alum brine and human urine which though impure would have been strong enough to do the job in hand.

An understanding of these techniques helps one to appreciate the craftsmanship and ingenuity of the jewellery pieces fashioned by the ancient Egyptians.

Plate 21 highlights a wide variety of the techniques discussed in this chapter. This is one of the few gold pectorals surviving from the tomb of Tutankhamun, and is purely funerary in function. The architrave is inlaid with solid blocks of colour cloisonné alternating with narrow strips of colour cloisons. Carnelian is inlaid in the cells as well as rock crystal and quartz. Red, light blue, and dark blue glass is cut to shape and cemented into position. The gold was probably applied to wood or stone, a technique similar to plating, allowing extreme thinness of gold leaf to be used. In this case the object had a thicker coat in order to withstand more technical work, such as chasing and stone setting. The gold foil was wrapped round the underlying article, which was usually held in place by animal glue, and the gold leaf was pressed into place and then chased. Jewellery plated by this means was unsuitable for daily wear and tear and was usually limited to funerary use.

Within the frame one can observe the superb craftsmanship and wonderful refinement. The frame is almost completely filled by the huge hanging wings of the goddess Mut, protectively spread over the mummy. The vulture's wings are beautifully inlaid with a profusion of coloured glass and faience against a glowing mass of delicately incised gold panel. Her face, arms and feet are worked in a light opaque glass, while her thick long hair is modelled in a darker shade of blue glass, resembling lapis-lazuli. Her highly patterned shift dress was delicately chased in plain gold in contrast to the superb profusion of colour. Finally, the incised text around the female figure was also lightly chased into the gold. The text is purely



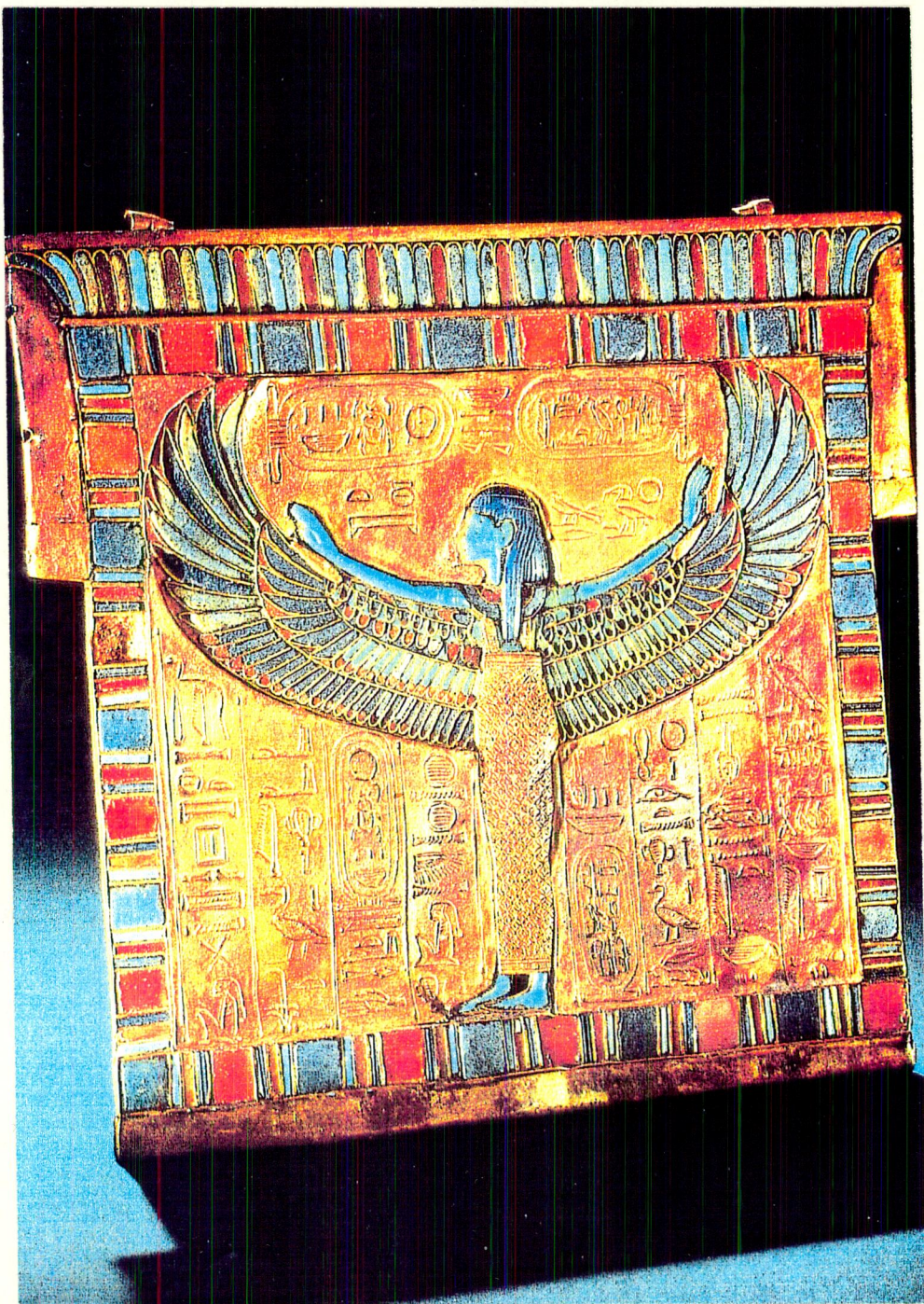


Plate 21: Tutankamun's sheet – gold pectoral with a winged Mut, Valley of the Kings, 18th dynasty, 1336–1327 B.C.







funerary and most interestingly the cartouches within the text have been changed, apparently from those of Akhenaton.

The beauty of this find, the variety and complexity of colour, the technical perfection these ancient craftsmen attained, allied to their own natural grace and taste, demand a long and thoughtful appreciation of their art, culture and religion.

## IV

### The Egyptian use of symbolism

ANCIENT Egyptian religion, with its superb images and symbols, has always been a source of study and mystery to the monotheistic world. When discussing the colour and vitality of their metalwork, one must realise that to the Ancient Egyptians the images and colour created by the artist were a subconscious effort towards symbolism. Our logic differs completely from theirs. They did not live in a world of concepts but in a world of images. (Lurker, 1980, p. 7.) To the people of antiquity, Egypt appeared as the mother of magic.

In trying to understand Egyptian thinking, one has to realise their strong sense of their own superiority. They believed that the valley of the Nile was the cradle of civilisation. They were not the first metalworkers, potters or even agriculturalists. Nevertheless, the brilliant use to which they put their newly acquired skills, placed them to the forefront of ancient civilisations. The Greeks recognised the uniqueness of Egypt. When Herodotus visited in the fifth century B.C. he was astonished by what he saw, and wrote:

Just as the Egyptians have a climate peculiar to themselves, and their river is different in its nature from all other rivers so they have made themselves customs and laws of a kind contrary to those of other men. (Patrick, 1978, p. 8.)

The Ancient Egyptians were a very sensitive and intuitive race. I will look at some symbols and images used by their craftsmen for their religious and amuletic significance. One must acknowledge that the fine arts and craftsmanship of Ancient Egypt had religious origins. In discussing Egyptian art one must not use the Western viewpoint and understanding, for these art pieces were not seen as reproductions of reality, or copies of nature, but symbols of divine greatness.

From very early times in Egypt, the sun and the moon were regarded as the eye of the falcon-god, Horus. This familiar representation of a falcon personifies the sun-god Ra. The two eyes eventually became differentiated, the left eye often being regarded as the 'eye of Horus', symbolising the moon and the right eye 'the eye of Ra', symbolising the sun. The name 'wedjat' was given to this symbol and it was probably the most common amulet found in Ancient Egypt. 'Wedjat' translated means 'the whole or restored one', whose meaning relates exactly to the myth related in chapter II.

The beautiful bracelet in Plate 22, with the magic 'wedjet' eye, was found on the mummy of Sheshenq II. The eye itself has a distinctive stylized spiral 'tear line' below the eye, this marking is familiar on the face of a cheetah, which was also associated with heaven in early Egyptian mythology. This bracelet is one of the finest examples of Egyptian jewellery from the Tanis period. The outer face of the





Plate 22: Bracelet of Shoshenq II, 22nd dynasty, Tanis, 1000 B.C.





piece is decorated with inlays of lapis-lazuli. The eye itself is a symbolic motif in black and white colouring, placed on top of a beautifully chequered basket or boat. Using the cloisonné technique, the artist has fashioned a stunning piece which is surprisingly modern in graphics and colours. The 'wedjat' eye was a protective device. This is seen in countless representations, in jewellery, wall scenes, tombs, and amulets. To the Egyptian the 'wedjat' eye was a very important image or symbol, it signified the protective window on the world for the deceased. In this piece of jewellery the fabulous detail reflects the artists' taste for symmetry.

The sun-god Ra was called the father of gods, and once ruled the earth, but in time he had yielded to Amun. The Amarnia period of spiritual renewal saw the supreme revival of Ra. The famous heretical king, Akhenaton, completely reorganised Egyptian religion. It is important to understand the religious significance of the sun, which symbol is frequently used in Egyptian jewellery. The following myth explains why the sun-god is so connected with death and burial.

The solar barque of the sun-god would enter into the night with the powers of darkness and evil. During the darkness, a nightly struggle would ensue. The rising of the sun symbolised the triumph of good over evil, and the continuation of life after death. Often in jewellery the solar-disk is carried on a boat, symbolising passage to the afterlife. The 'eye of Ra' was one of a host of symbols, which came into existence with the invention of hieroglyphics.

Plate 23 shows amuletic signs and symbols. The 'sa' sign, which can be observed on numerous art pieces, was worn as a symbol of protection against the evil forces. (b) shows the popular 'ankh' sign, a very positive amulet, promising 'life' welfare, and endurance. (c) shows the 'djed' sign, a symbol of protection and wealth. The 'djed' sign and the 'shen' symbol connected with death and were sometimes placed within the chamber of the tomb.

Gods and their animal counterparts are often depicted carrying symbols or fetishes. 'Fetish' is a term applied to an object, large or small, natural or artificial, regarded as possessing consciousness and supernatural qualities – 'a fetish object is the home of a wandering spirit which has taken up residence there'. (Lewis, 1990, p. 7.) Amulets which were worn by the Egyptians against evil could be called fetishes. Egyptian women regarded the cowrie shell with reverence. The necklace of Princess Sit-Hathor in Plate 24 shows the incorporation of this shell in jewellery. The cowrie shell was held to have amuletic significance, mainly because of its resemblance to female genitalia. Women would have sewn these shells to their aprons to protect their pelvic organs against malevolent gaze from evil forces and to prevent abortion. They were also worn by non-pregnant women to prevent them from danger and evil.

Plates 25 and 26 show two unique and beautiful ring-shaped bracelets from Psusenne's burial chamber, which are unique. They convey a clarity of design and form foreign to the overly decorative style that preceded them.

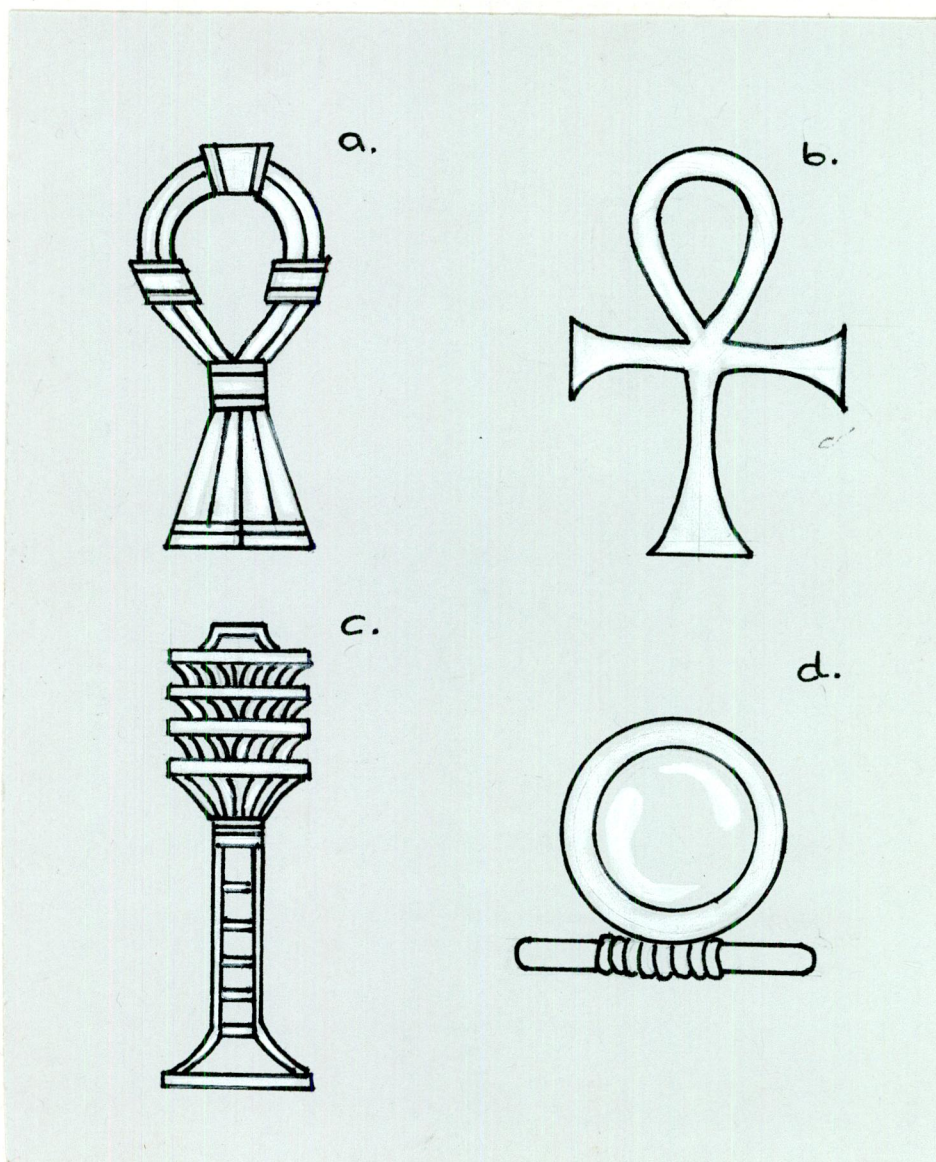


Plate 23: Amuletic signs and symbols. (a) 'sa' sign, (b) 'ankh' sign, (c) 'djed' sign, (d) 'shen' sign.





Plate 24: Necklace of Princess Sit-Hathor, daughter of Sesortris II, Dahshur, Middle Kingdom, 2000–1786 B.C.



Plate 25: Ring-bracelet of Psusennes, gold and lapis-lazuli, Tanis, 21st dynasty, 1000 B.C.









Plate 26: Solid gold bracelet of Psusennes, Tanis, 21st dynasty, 1000 B.C.

In Plate 25, the plainness of the inside of the first bracelet is in great contrast to the decoration of gold spirals intertwined on a background of lapis-lazuli which covers the upper and lower parts of the outside. The symbols on the bracelet convey a wealth of religious information. The bracelet in Plate 26 is somewhat similar, in its simplicity of style and form. This solid gold bracelet, with its obvious weight, could not have been worn in everyday life, and was essentially reserved for ritual and funerary purposes. On the inside of the bracelet, a hieroglyphic inscription, words spoken by Amun-Ra, is engraved with great delicacy.

The symbolism of the materials used by the Egyptians in jewellery and metal-work production is extremely important. Egyptians loved to use colour, texture and contrast in their work. One Egyptian writer described the heavens as gold, the sky as lapis-lazuli and the earth as being overlaid with malacite. (Ogden, 1982, p. 6.) Lapis-lazuli was regarded as having protective powers and a close relationship with the holy realm of the sky. Carnelian, the colour of the lifeblood, signified good health, while turquoise like malacite symbolised the fresh green of springing vegetation.

Gold was a metal deeply revered by the Egyptians. The most abiding image of ancient Egypt is reflected in gold, the material of the flesh of the gods, the colour of divinity. (Andrews, 1990, p. 52.) Gold was a metal that seemed to retain the fire and magnificence of the sun. Symbolically silver was linked with the moon, as can be seen in many jewellery pieces, and was often used as the material for







the lunar disc. Silver was the substance from which the bones of the gods were made. It is unique that the gods should be associated with metal in appearance and colour.

Animals and their transformation into gods were a prominent theme in jewellery and metalwork and were revered with an Egyptian lavishness of skill and craftsmanship. Animal worship attained its highest level of development in Egypt. In all localities or nomes certain sacred animals were protected by taboo and regarded as gods. These sacred animals were 'the eternal soul' of the gods associated with it, for example, the ram was the soul of Atum-Ra, the falcon the soul of Horus or Ra, and the bull the soul of Ptah. (Patrick, 1978, p. 26.) The often-used scarab was a symbol of new life and regeneration, and was a particularly powerful amulet, but like all representations of living animals, the scarab was capable of doing harm to the dead.

Plate 27 shows one of the finest examples of Egyptian jewellery. This gold openwork pectoral was inlaid with chalcedony, calcite, lapis-lazuli, turquoise, cornelian, jasper and polychrome glass. It is magnificent in symbolism and imagery. The central motif consists of a bird with upturned wing of cloisonné whose body and head have been replaced by a fine scarab in translucent chalcedony. It represents the sun about to be reborn. This pectoral is unique in that an ocean of symbols and techniques are at work together. In the claws of the bird are the shen signs with an Upper Egyptian lily and a three lotus flower flanked by buds. The craftsmanship is exquisite. The scarab instead of the popular pose of holding a ball is pushing a boat, a symbol in which the soul ('ba') of the deceased is carried into the night. The boat contains the sacred 'wedjat' eye of Horus, upon which is mounted a gold crescent and a silver moon-disc, with applied gold figures of the king being blessed by Thoth and Horus on either side of him. Uniquely, the king is also crowned with the lunar elements. On either side of the 'wedjat' eye and the central piece of falcon/scarab are four cobras, a symbol of Lower Egypt and royalty. The cobras wear sun-disc on their heads, a symbol of power. Heavy tassels of lotus and composite bud forms hang from the central bar at the base of the pectoral. This pectoral is without doubt one of the finest examples of New Kingdom jewellery. It personifies the symbolic natural and religious elements of the era.

The scarab is one of the craftsman's favourite motifs and Plate 28 shows a version which is unique. This popular motif, derives from the beetle's habit of rolling a ball of dirt across the ground. The ball is meant to symbolise the sun-disc, which is often associated with the scarab. (Potts, 1990, p. 27.) The scarab in this pendant is made of lapis-lazuli, with falcon wings of cloisonné-work inlaid with turquoise, green feldspar, lapis-lazuli and calcite. Between its forelegs and wing, it holds the red carnelian disk of the new-born sun, symbolising also the lifeblood of the god. On the falcon's head is the dark red of the rising sun. In its talons, it holds the 'shen'-signs, which are also attached to the wings by the 'ankh' sign, one being slightly damaged. This falcon jewel, represents the King as the newly risen Horus.





Plate 27: Tutankhamun's gold rebus pectoral, Valley of Kings, Thebes, 18th dynasty, 1000 B.C.









Plate 28: Scarab and falcon pendants, Tutankhamun's treasury, 18th dynasty, Thebes.









Plate 29: Winged scarab pectoral of Psusennes, gold inlaid with red jasper, black, blue and red glass beads, 1000 B.C., Tanis, burial chamber of Psusennes.

The fundamental purpose of this jewellery was to protect the wearer against the mysterious forces of evil and darkness. These amulets may represent noxious animals, crocodiles, snakes etc., or they might take a less visible shape and appear as disease, accidents and such natural calamities as flood, storm or drought. (Aldred, 1971, p. 15)

Tanis was not a city of the dead – it was hardly even a funerary precinct. However, King Psusennes had no less than four splendid pendants representing winged scarabs. Plate 29 depicts the scarab beetle in green jasper, holding a cartouche enclosing Psusennes name, which the god carries off on his eternal journey. The design is centered on the scarab, which spreads out in the shape of unusual wings, displaying large geometrical pieces which are highlighted by the play of the inlays in gold cloisonné. Behind the scarab is the 'shen' symbol of protection and safety.

In Plate 30 we see another pectoral of Psusennes. It uses completely different symbols to convey the body to eternity. The beetle's body is sculptured from magnificent pieces of lapis-lazuli, in the same layout as Plate 29. Between the









Plate 30: Pylon-shaped pectoral of Psusennes, Tanis, burial chamber of Psusennes, 1000 B.C.







wings, the beetle is holding a gold cartouche of the king's name. It seems to be carrying it off towards the sky where a winged sun hovers, from which spring forth two uraeus cobras. There are two women kneeling on either side of the scarab, assisting the ascension. They are the goddesses from the Osirian myth or legend, Isis and Nephthys, who are granting the same protection to the deceased, as to their brother and husband Osiris. The whole scene takes place within a very stylised architectural design of gold inlaid with stones, including lapis-lazuli, cornelian, feldspar, and red jasper.

We see a variety of gold amuletic deity figures in Plate 31, typically cast in gold. These are but a few examples of the charms worn against the powers of evil. (a) depicts the squatting Amun, king of the gods; (b) shows Ptah, patron of craftsmen and artists and the creator-god of Memphis; (c) shows Mut, the wife of Amun at Thebes, divine mother of all the gods; (d) depicts the jackal, Anubis, who was the patron of embalming and the god most connected with death; (e) Thoth the ibis-headed god, the patron god of wisdom and speech and the national scribe; (f) depicts the kneeling headed ram as an archer ready for combat, one of the ancient gods of prehistoric people and was deeply revered; (g) the goddess Bastet. This plate is a classical image of the dangerous powers of the gods if provoked, which is here captured in a female entity, the eye of Ra, whose anger unleashes disasters, but who, once appeased, becomes the effective protectress. She is shown here with the body of a woman and the head of a cat or with the solar disc mounted on her head. The uraeus cobra, a symbol of the power of the sun and the king (Lower Egypt), stands out in front of the disc; (h) depicts the graceful goddess Isis, in solid gold. On her head she is wearing the sun-disc held by the horns of a cow, the popular and traditional appearance of Hathor, goddess of the sky. Hathor was believed to suckle the dead, to sustain them on their journey to the afterlife. This example shows the merging of the ancient sky-goddess with Isis, which was a standard iconography to the Egyptians, because in some myths Hathor was often confused as being the mother of Horus, not Isis.

Totemism may be defined as 'the recognition, exploitation and adjustment of the imaginary mystic relationship of the tribal to the supernatural power or spirit which surrounds them'. (Lewis, 1990, p. 8.) For this reason, sacred animals could not be killed, because they were seen as gods, or as symbols of deities. Bastet, who was worshipped in the form of a cat was originally a cat totem. Ancient Egyptians, viewed certain creatures as fully-fledged deities. In some nomes, Egyptians were not allowed to eat or harm specific animals, another example of totemism.

Costume or minor jewellery was everyday jewellery, as distinct from the very elaborate funerary jewellery of the Pharaoh. Egypt had no fixed caste system, a person of the poorest caste could rise to the highest office of the land. Every Egyptian, male and female, from the meanest peasant to the richest Pharaoh, wore jewellery. Earrings appeared late in Egyptian culture, during the Second Intermediate period. It has been suggested that the practice of wearing earrings dates from the occupation of the Hyksos, and the Nubian grave-people, who helped the



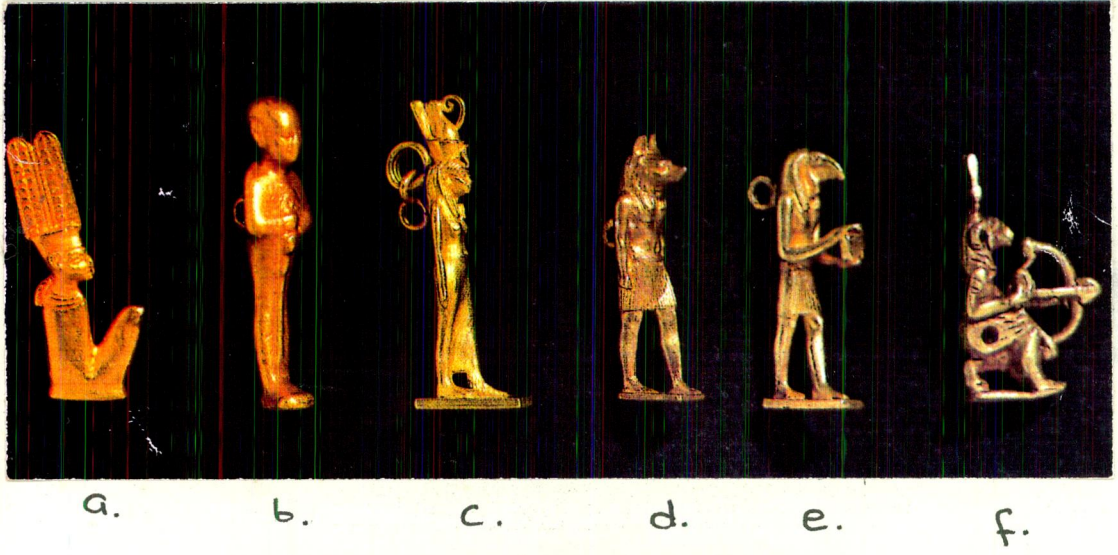


Plate 31: Gold amuletic figures of the deities.







Theban princes to expel the Hyksos. The Pharaoh was never depicted wearing ear ornaments, although the queen was rarely shown without them.



Plate 32: Gold earrings, tomb of Tutankhamun, Valley of the Kings, 18th dynasty, Thebes, 1336–1327 B.C.







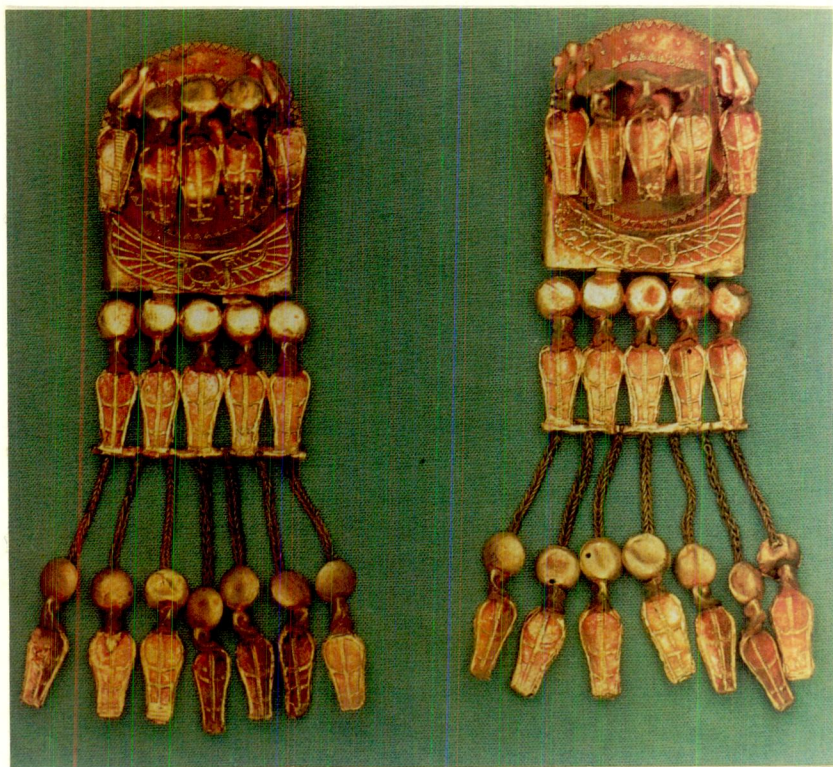


Plate 33: Gold earrings, Temple of Sety I, Valley of the Kings, 18th dynasty, Thebes. 1336–1327 B.C.

Plates 32 and 33 show two pairs of elaborate earrings in very different styles of craftsmanship. Plate 32 shows a very elaborate pair for pierced ears, having stud-capped tubes, each screwed through the earlobe into a second capped tube. The motif is unique, depicting the falcon emblem with winged cloisonné of coloured glass. A duck's head is attached to the bird body. From the tail hangs a flexible appendage decorated with gold and blue glass inlay, ending with five pendant uraei at the end of each ear. These beautiful earrings were found in a box in Tutankhamun's tomb.

Plate 33 depicts a unique pair of earrings far different in style and skill to the previous pair. These earrings were found on a female mummy buried below the temple of Seti at Abydos. On the top section are soldered five gold uraei, with granulation. Three of the uraei are wearing the sun-disc and the outer two are wearing the royal atef-crown. The middle section is composed of five further uraei, each crowned with the divine sun-disc standing on a bar. From this bar hang seven loop-in-loop gold chains, ending in seven more uraei wearing the sun-disc surmounted on their heads.

Jewellery similar to funerary jewellery was worn in life, based on magical symbols and images. This may be the explanation for the lizards, a rare motif in Egypt, which form the main element of this necklace. The crocodile, similar to the lizard, was honoured as a very sacred animal and embodied the water-god Soberk. He







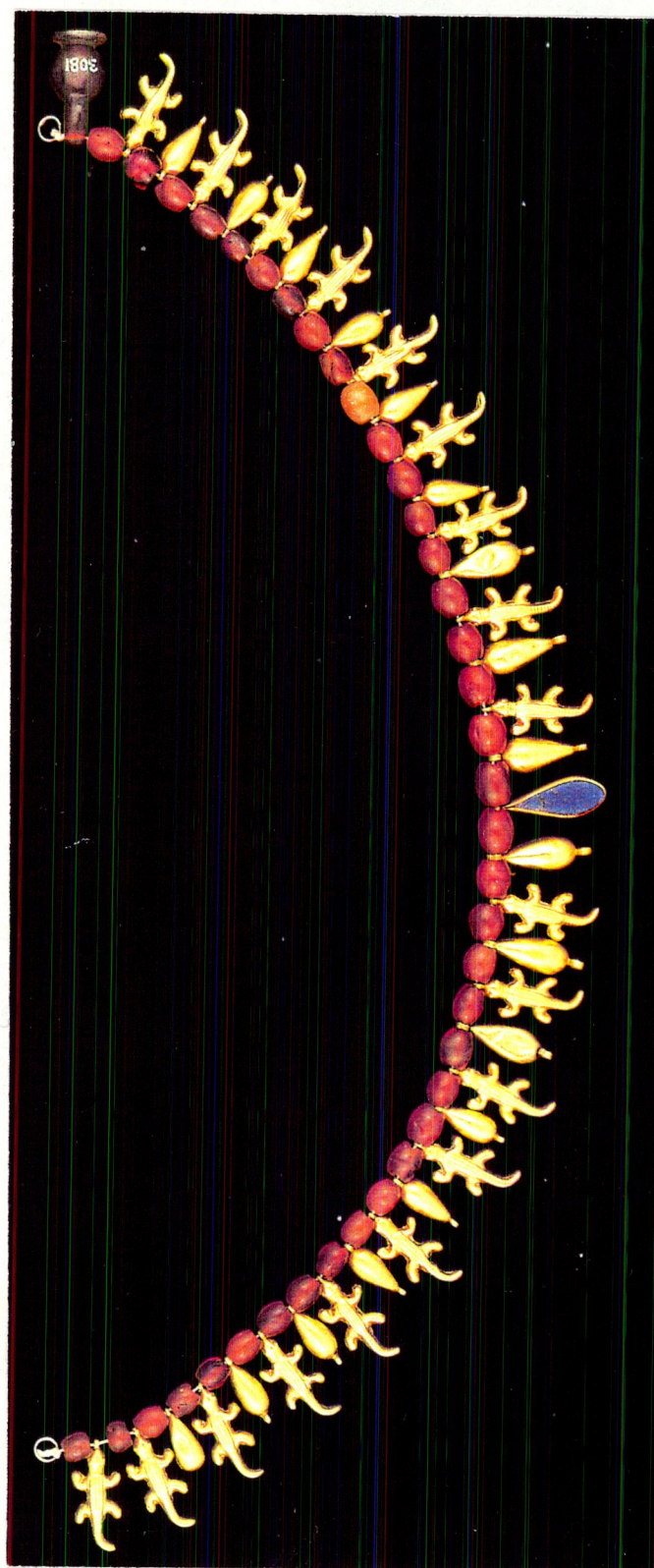


Plate 34: Necklace, gold, lapis-lazuli and cornelian, New Kingdom, 1550–1300 B.C.







may have been seen as a symbol of regeneration in the funerary context. The use of the motif here may be connected with rebirth and longevity or some other mystical concept.

It is uncertain to what extent the people followed the example of the nobility in their vigorous religious programme. By studying records and accounts of the period, we can deduce that the ancient Egyptians were a superstitious race and regarded themselves as fit subjects for the same otherworld that the aristocracy hoped to enter. Everyone who could afford a burial expected to be laid out in his finery, however modest. Even the poorest had a string or two of beads around the arm. At the necropolis at Saqqara the ground is so rich in 'mummy beads' of disturbed burials that stringing them to make bracelets and necklaces became a lucrative business. The people thought that by wearing them they might find some niche in the dark realm of Osiris and not be utterly annihilated by Ammit, the devourer of the dead, and offerings would be presented by their offspring and relatives. (Lewis, 1990, p. 43.)

The ordinary people lived at a level little better than serfdom and all privileges were in the hands of the Pharaohs and later of the Greek settlers. In Greek mythology there was interaction between the gods and the mortals of the earth, but in Egyptian art and religion the only major link with heaven was through the Pharaoh. He served both the earthly and divine order of life. The ordinary person lived in an oval hut of reed and clay and the material culture consisted of stone tools with jewellery of stone beads, bone, ivory and hand pottery. The dead were sometimes buried within the settlement, sometimes under the floors of the dwelling in a foetal position.

The dual nature of Egypt can even be seen into their funerary beliefs. The Pharaoh was king of two lands. The mode of burial in the north differed from that in the south. In Lower Egypt, at the western edge of the delta, the dead were buried within the village, sometimes within their huts. Symbolically the dead remained within the community of the living. In Upper Egypt, the dead were interred in cemeteries at the edge of the desert away from the settlement, and consequently had to be fitted out with food and drink and personal adornment.

The New Kingdom saw a high point in art and craftsmanship. The tomb of Tutankhamun exhibits numerous examples of the exceedingly rich development of the goldsmith's art. A later great discovery, the necropolis at Tanis, yielded the most important series of funerary masks ever to be seen in Egypt, and only the masks of Tutankhamun can be compared to them.

Surprisingly little is known of the Pharaoh Tutankhamun. His parentage is unclear, but he was probably related to the heretic Pharaoh Akhenaton. We also know that he came to the throne at the age of nine and ruled during a wealthy period of Egyptian history. Yet he was not the most important or significant of Egyptian rulers.

The death mask of Tutankhamun is probably one of the finest examples of craftsmanship found in the world, as can be seen in Plate 35. This mask appears to have





Plate 35: Tutankhamun's funeral mask, Valley of the Kings, New Kingdom, 18th dynasty, Thebes, 1336–1327 B.C.







been an exact lifesize likeness to the young Pharaoh and it was placed immediately upon the bandaged face. At the time of death, according to classical rites and rituals, the earthly body of the deceased was transformed into a divine incorruptible image. In the inviolable world the king's personality would unite with this imperishable material protection, which possessed the properties necessary to take place in the harmonious movements of the cosmos. (Noblescourt, 1963, p. 216.)

The artist who created the beaten gold mask has skilfully portrayed the delicate and rather melancholy features of Tutankhamun. The two small detailed lines at the corner of the mouth enhance the life-like expression of the face. His eyes and eyebrows are inlaid with blue glass paste. The beard of Osiris was a royal symbol of power connected with the gods. On his head-dress or nemes appear the royal creatures symbolising Upper and Lower Egypt. A unique feature for this period was the goldsmith's reproduction of pierced lobes on the king's ears.

In discovering the magnificent chamber and treasury of Tutankhamun, the searchers were about to make an even greater discovery. Within the sarcophagus were two other mummiform coffins, both beautiful, as one sarcophagus was not enough protection for the Pharaoh. The second and third sarcophagi both depicted the mummified figure of Osiris. The second (Plate 36) presents him with his arms crossed on his chest holding his royal insignia. The face is impressed with an expression of pain and suffering in facing death. The artist skillfully emphasised this agony by the yellowish colour of the cornea in Plate 36.

The upper section of the third mummiform sarcophagus (Plate 37) displays a greater delicacy than the previous sarcophagus, or even the death mask itself. Again it is an image of the god Osiris; a symbol of rebirth and regeneration to the afterlife. It is beautifully inlaid with semi-precious stones and glass like the previous sarcophagi. However, on this mask, the face gives an impression of great serenity and its majestic air is heightened by the frame of gold formed on the side parts of the nemset head-dress, no longer striped blue and gold, which lends the eyes a unified symbol of calm and grandeur. This third coffin of solid gold, suggests a triumph over death and human suffering.

Plate no 35 shows the actual mask placed on the mummy, with its finely-featured face wearing an expression of complete peace on reaching the final stage of reconciliation. It glows with eternal youth, which was greatly enhanced in the company of the divine gods. It symbolises the phoenix, which according to Egyptian legend arose shining from the water at the break of day radiant with light, recreating itself as does the sun. (Noblecourt, 1963, p. 237.) This symbolism of the sun and the dead Osiris, according to Egyptian religious theory, did not present Osiris and Ra as two separate entities, the dead and the living, but as one single force.

Finally, the funerary mask of Psusennes (Plate 38) is without doubt the most impressive of those discovered at Tanis. It has preserved the idealised features of the deceased king, radiant with eternal youth. This full face, radiant with regal solemnity, is framed by the nemes or head-dress. On his crown he wears the





Plate 36: Detail of second mummiform sarcophagus of Tutankhamun, New Kingdom, 18th dynasty, Thebes, 1336–1327 B.C.







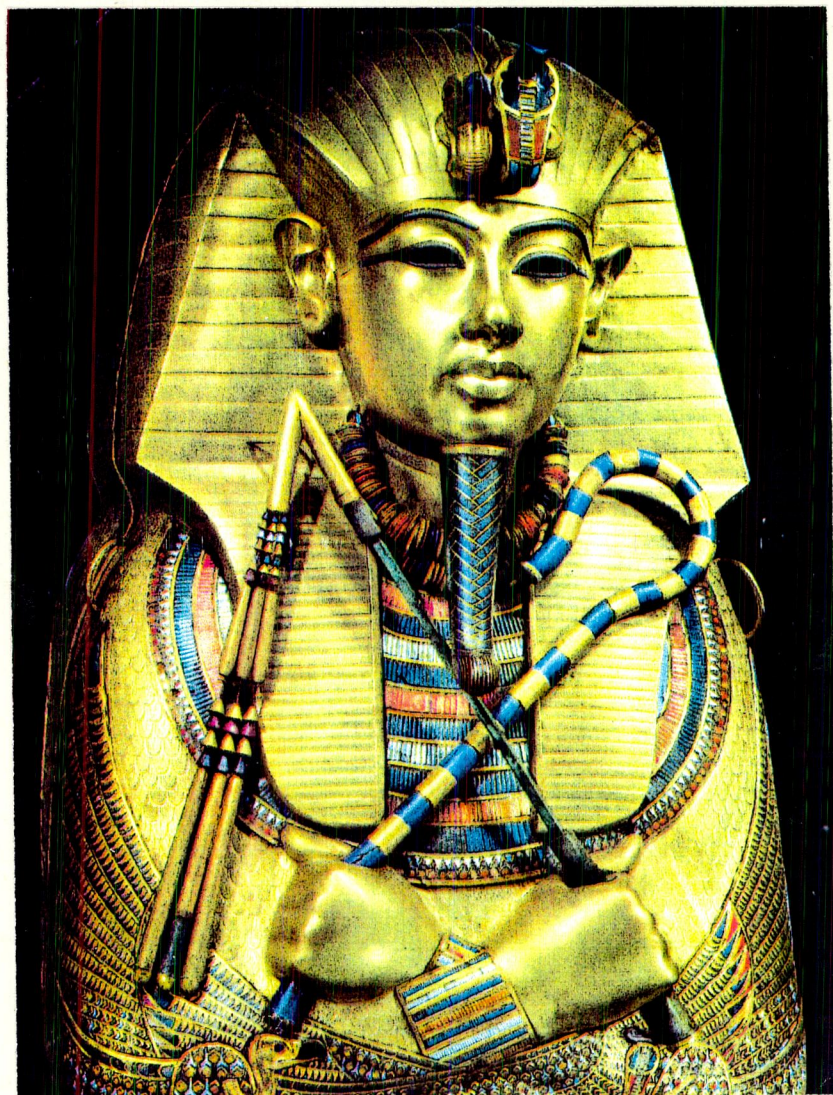


Plate 37: Detail of third mummyiform sarcophagus of Tutankhamun, New Kingdom, 18th dynasty, Thebes, 1336–1327 B.C.









Plate 38: Funerary mask of King Psusennes, Tanis, burial chamber of Psusennes, 21st dynasty, 1000 B.C.







uraeus-cobra, rearing itself, ready to strike its enemies. The goldsmith has decorated the edge of the Pharaoh's chest with many rows of incised lines alternating with floral motifs, leaves, petals, and lotus flowers. The virtuosity of the engraving and the marks of the folds with its minute detailed ornamentation command admiration and respect.

Comparisons with Tutankhamun's funerary mask inevitably arise. The significance of the mummy's mask, endowed with its individual face, is that it would be a glorious stamp of the person in the hereafter. The features of Tutankhamun are not very different from those of Psusennes. Each mask radiates the strength and power of the materials created. Some may prefer the refined simplicity of Psusenne's mask to Tutankhamun's dazzling contrasts of colours and textures, but one cannot deny the religious and symbolic significance of these glorious and magnificent objects, which is represented by this inscription, translated from the Book of the Dead:

... your right eye is the boat of the night, your left eye is the boat of the day ...  
you are on the forehead of the deceased, who is endowed with great honours  
by the great god, and he sees by means of you. (City of Edinburgh Museums  
..., 1988, p. 88.)

This guaranteed the triumph of the deceased on his journey to the afterlife. It was not considered as an end, but as an inevitable almost welcoming transformation towards the true and eternal life of happiness, thus enriching our knowledge and ability to understand and appreciate the magnificent wealth of art, religion, symbolism, and culture, so interwoven within Egyptian civilisation.



## Conclusion

THE ANCIENT Egyptians conferred enormous importance upon the cult of the dead. Both commoner and aristocracy prepared reverently for death. As a race they did more than any other to uphold the fabric of order and decency and they developed spiritual superiority over other ancient civilisations. Their concern with death and the afterlife provided an element in the development of the arts which was not present to such an extent elsewhere. Egyptian art, architecture and metalwork was exclusively religious – it was a glorification of the pharaoh, the living link between heaven and earth.

The Egyptians referred to their land as 'the black land and the red land'. The black land symbolising the fertile area flooded annually by the Nile. The red land was the name given to the infertile sunbaked desert. This contradictory element of the Nile, is perhaps reflected in their mythological duality, as well as their funerary beliefs and symbols.

Ancient Egyptian mythology or religion was a very complex system which used symbols and images to direct the individual away from the superficial every day life of the person and direct the soul or spirit toward the very existence of the universe. To this end, symbols and motifs were interchangeable in art, music, literature and drama etc. In general, the content and form of Egyptian art was at no time actually fixed, but was capable of modification owing to this intertwining. (Lurker, 1980, p. 9.)

The Egyptians perfected the art of metallurgy, stone cutting and the brilliant use of colour in jewellery at a very early stage in their development. The crude and primitive nature of their tools were compensated for by skill, the quality of the raw materials and the time taken to complete works of art which were astonishing in both design and technique. Egyptian craftsmen allowed expressive forms to develop and consolidate, producing magnificent works of art, surpassing what had been achieved before and amazing the world even today.

Egyptian jewellery and art may be described as a three dimensional hieroglyphic. Every work is fundamentally a written representation, pointing to a higher spiritual relationship with the gods. The craftsman rearranged reality so that it became a symbolic quality of line and form. Symbols and images served not alone a decorative function but played a vital role in the narrative power of metalwork and jewellery. It was this role that made Egyptian art unique and individual.

In studying ancient Egypt, specialisation is inappropriate. All aspects of Egyptian culture are so closely intertwined, e.g. hieroglyphic writing, art, religion and social history that it comes under a single science, Egyptology, dealing with and examining the whole.



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