ANCIENT EGYPTIAN FURNITURE

Houses were mostly sparsely furnished. The majority of Egyptians did not have many belongings that had to be hidden away, so a chest or two or a few baskets would furnish plenty of storing...
space. Tables were rarely used. Even scribes, more affluent than the average Egyptian, did not write their scrolls sitting at a table, but generally squatted on the floor, holding a wooden board on which the papyrus was spread with one hand and writing with the other. Kitchen work was done crouching with the cooking utensils laid out on the floor. In many houses there would be a few low stools, but people often sat simply on the ground. And while the wealthy slept on beds, the poor had to make do with a mattress filled with straw or wool, a mat or even the plain floor.

Since the early Dynastic Period at least there existed beds with wooden frames on legs covered with strips of leather or cloth and white linen bed sheets. These frames were put together using tenons and mortices. No mattresses have been found, although pictures exist.

Like many other African peoples the Egyptians used headrests made of stone, ivory or wood, instead of pillows for sleeping on. It has been proposed that little cushions were placed on the headrests to soften them, but this conjecture is purely speculative. They were at times decorated with images of Bes and other gods, seemingly in an attempt to protect the sleeper from evil.

Headrests were connected with the rising sun and had therefore great symbolic importance. They often supported the heads of mummies or were placed in the tomb near the mummy and figure more prominently in graves than any other piece of everyday furniture.

There were tables, which were generally low and had four legs, though three and even one legged dining and gaming tables were known. These round $x\text{Awt}$-tables were mostly made of wood, but a few stone tables have also been found and some were made of metal. Their use does not seem to have been widespread, apart from their being placed in tombs as offering tables.

In funerary depictions these offering tables for the dead are laden with food. Pictures of feasting scenes show similar abundance; the rich liked to spread out their food on tables for all to see, though possibly not for all to enjoy:

Four-legged stools and collapsible stools with seats made from animal skins or woven with leather strips or plant material were provided for honoured guests, while simpler folk had to sit on pillows or mats spread on the floor.

Chairs were known since the Early Dynastic Period at least. Sometimes they were covered with
cloth or leather, were made of carved wood like this chair (on the right) from the tomb of Tutankhamen. They were much lower than today's chairs, with their seats sometimes only 25 cm high.

Chairs were used by important people, as is reflected by the hieroglyph (a man sitting on a chair), which was the determinative for "dignitary". In the households of common people it was generally only the master of the household who sat on a chair, if there were chairs at all. Among the better-off they might be painted to look like the ornate inlaid and carved chairs of the rich, but the craftsmanship was generally poor.

Armchairs, with or without cushions were reserved for the rich and powerful.

Generally speaking, the higher ranked an individual was, the taller and more sumptuous was the chair he sat on and the greater the honour. On state occasions the pharaoh sat on a throne, often with a little footstool in front of it.

The homes of the rich were well appointed. The furnishings of the house of Tabubu, daughter of the prophet of Bastet, in the story of Setne Khanwas and Naneferkaptah were luxurious:

*Setne walked up the stairs of the house with Tabubu. He found the upper story of the house swept and adorned, its floor adorned with real lapis-lazuli and real turquoise. Many*
couches were in it, spread with royal linen, and many golden cups were on the table....Incense was put on the brazier; ointment was brought to him of the kind provided for Pharaoh.

The average Egyptian family did not have many possessions which were not in daily use, but the little there was had to be put away. Baskets were often used for this purpose. They may not have kept rodents at bay for long, but they were cheap to make and light to carry.

Boxes were made of wood, ivory or the like. Being expensive items - more difficult to build and therefore costlier than baskets - they were made for the wealthy and were often elaborately decorated with drawings or inlays. Their construction could be quite sophisticated. From the Middle Kingdom we know of a box covered with veneer which had sliding lids.

Cupboards were not used in the home although the principle of the cupboard was known and applied in religious shrines. The rich kept their utensils and jewellery in storage chests made from alabaster, wood and other materials, sometimes painted or otherwise embellished, like the decorated chest from Tutankhamen's tomb on the right depicting the king riding in a chariot.

The lids of a few of these chests were hinged, but mostly the cover was completely removed when the chest was opened. Flanges or pegs glued to the lids and inserted into appropriate holes in the chests' walls kept them in place. In order to lock the chests strings were tied to knobs on the lid and chest and sealed with clay seals.

Drawers were not unknown but not widely used. Gaming tables for instance might have little drawers for the counters.
The legs of the furniture were often carved in the form of animal legs or the fore and hind-parts of some animal such as the lion. In the first dynasties these were generally legs and hooves of bulls (picture on the left). This bull's hoof is made of ivory and the pronounced muscles point to a Mesopotamian influence.
From the III Dynasty onwards lion paws (and sometimes whole stylized lions) were more popular (see the stool leg on the right).

The walls were mostly just painted white or yellow, at times decorated with painted frescoes, or hung with ornamental textiles or mats. Along with baskets and rope, these were made from flax, papyrus, palm fibre or grass.

There were lamps for lighting the dark, generally shallow pottery containers filled with oil in which a wick was floating. Olive oil or the smellier oil of the kiki, the castor berry, was used. Fat and, possibly, tallow were also used:
At times artisans and scholars must have continued working into the night, especially during the short days of winter; but mostly people went to bed when night fell and rose with the first light.

The wicks were made of linen and the salt was seemingly added to prevent the lamps from smoking.

The less wealthy who could not afford to have a limestone toilet built, made do with a toilet stool, under which a ceramic bowl was placed. Despite of what Herodotus wrote, most people probably relieved themselves outdoors, though.

**HOUSE AND GARDEN**

- **The houses**

According to Diodorus Siculus' somewhat speculative report the first Egyptian dwellings were constructed of reeds, a building technique not completely abandoned by the first century BCE:

> Traces thereof remain among the herdsmen of Egypt who, to these days, do not have habitations but they are made of reeds, which they consider to be sufficient.

He explained the fact that Egyptian housing was made of perishable materials in his *Historical Library* as follows:

> The inhabitants think little of life on earth; while they put greatest value on the continued existence in glorious memory after death. They call the dwellings of the living 'hostels' given that we dwell in them for a short time only. The tombs of the dead they call 'eternal homes' as they assume their eternal continuation in the underworld. This is the reason they invest little effort in the building of houses; but are eager to furnish their tombs with unsurpassable equipment.

Since 3800 BCE rectangular houses of about 100 to 125 m² have been built with sun dried bricks. Mud, dredged from the bottom of the Nile and chaff were well mixed, shaped with wooden forms and the soft bricks were dried in the sun becoming nearly as hard as rock. In the hot, almost rainless climate of Egypt adobe (from *djeb(et), coptic tob* - brick) houses were the most energy and labour efficient buildings.
The mansions of the powerful were palatial, even if they were built of the same materials as the dwellings of the commoners. Metjen, a third dynasty official, received from his king among other gifts

...... a house 200 cubits[9] long and 200 cubits wide, built and equipped; fine trees were set out, a very large lake was made therein, figs and vines were set out.

Foundations were generally non existent. Virgin soil above groundwater level was baked rock hard by the sun and needed just some levelling. In order to build on top of collapsed dwellings, the clay rubble was well watered and let to set and harden.

The wall width was about 40 cm for one storey and up to 1.25m for multi-storey buildings. Beams were let into the walls to reinforce them. Ground storey walls were sometimes built of stone, limestone if there were quarries near-by, granite or anything else, if there were decaying temples or other buildings in the neighbourhood that could be dismantled. (Even kings were not above this kind of scavenging. Ramses II had the granite linings of Senusret's temple at Kahun removed.)

House with small windows close to the ceiling

In substantial houses the rooms were arranged around an inner courtyard or on either side of a corridor. The crenellated wall facing the street often had only one opening, the door, though windows might be let into the upper storey walls. Windows were small and covered with shutters or mats in order to keep out the flies, dust, and heat.[1][11].

Gateways were generally made of stone, even in poorer households. The wooden doors and leaves of double doors could be barred from the inside[6]. Keys have been found dating from 1550 BCE onwards, but not the bars they locked.

Terracotta soul-house with stair

Excavations indicate that a typical worker's house had two to four rooms on the ground floor, an enclosed yard, which acted as a kitchen, and two cellars for storage. Niches in the walls held religious objects.

The flat roof served as additional living space and for storage[3]. It was reached by an open stair case.

The town houses of the common people were usually two to three stories high. The ground floor
was often reserved for businesses, while the upper floors provided living space for the family. Many people slept on the roof during the summer to keep cool. Cooking was also often done on the roof.

Finer houses had reception rooms and private quarters, while some even had bathrooms and toilets. Toilet seats were made of limestone[2]. Others used toilet stools. Households disposed of their sewage in pits, in the river or in the streets[10].

Herodotus claimed that

\[
\text{they ease themselves in their houses and they eat without in the streets, alleging as reason for this that it is right to do secretly the things that are unseemly though necessary, but those which are not unseemly, in public}
\]

The floors in houses were made of packed earth, which wouldn't do for a bathroom. There, a slab of stone was placed in a corner. Often the adobe walls near-by were coated with stone as well. The water could run off into a bowl which was either emptied by hand, or had holes at its bottom, thus draining slowly into the ground.[2]

Copper pipe drains have been found in an Old Kingdom temple[5], but never in a private house. In one mortuary temple at Abusir copper outlets and a lead stopper were found.[2]. The technology existed, but was too expensive for the common people.

Water was drawn from wells, either private or public at least since the New Kingdom. At Pi Ramses a number of public wells have been uncovered, the largest with a diameter of five metres, and a spiral staircase leading to the water. But unless its level was very low, the water was raised with a shadouf into a pond.

Water taken from the Nile, or even worse, from a stagnant canal, caused many health problems,
from diarrhoeas to bilharziasis, but at least it was generally plentiful. But beyond the flood plain, in the desert areas, the water supply was difficult and the control over it critical. At the Dakhla oasis Nesubast claimed possession of a spring.

The legal procedure went on for fourteen years.

In a warm country like Egypt the need for heating is small and there were no big fireplaces. Still, nights could grow chilly, but a store of firewood could make one's home cosier:

- The gardens

From an enclosed yard with a few fruit trees to botanical and zoological gardens with exotic trees, ponds, often stocked with fish, and caged animals and birds, gardens are depicted in many tombs.

At least in tomb depictions these gardens were very formal[7][8] with rectangular ponds and trees and vines planted in straight rows.

Trees and shrubs were grown for shade and for their fruit: date and other palm trees, sycamore fig, pomegranate, nut trees and jujube. But willows, acacia and tamarisk also found favour, about eighteen kinds of trees were grown by the Egyptians. Flowers such as daisies, cornflowers, mandrakes, roses, irises, myrtle, jasmine, mignonettes, convolvulus, celosia, narcissus, ivy, lychnis, sweet marjoram, henna, bay laurel, small yellow chrysanthemums, and poppies grew among the trees, papyrus and lotus in the pond. Grapes and other vines were often planted.

Nature with its trees, plants, flowers was often mentioned and used metaphorically in love poems of the New Kingdom. The mouth of the beloved was likened to a lotus bud, and her breasts to mandragore fruit. Gardens were perfect, ordered and secluded corners of nature, romantic, sensuous places, where lovers could meet.

NILE NAVIGATION AND SHIPPING
• The archaeological evidence

The slow flowing Nile was ideal for transportation and from earliest times Egyptians built boats for transportation, fishing and enjoyment. Their importance in every day life is reflected in the role they played in mythology and religion.

Little is left of actual boats. Remains of Old Kingdom boats were found at Tarkhan and Abydos, and King Khufu's ship is well known and demonstrates best how ships were built during that period.

The first dynasty boats found at Abydos were about 25 metres long, two to three metres wide and about sixty centimetres deep, seating 30 rowers. They had narrowing sterns and prows and there is evidence that they were painted. They do not seem to have been models but actual boats built of wood too much decayed to analyse, some suspect that it was cedar, others deny this. Thick planks were lashed together by rope fed through mortises. The seams between them were caulked with reeds. The boats did not have any internal framing and were twisted when they were uncovered.

Egypt abounds with pictures and models of boats and ships. The walls of temples and tombs at Deir el Bahri and Medinet Habu are covered with them, but very little is known, about how New Kingdom ships were actually put together.

Sometimes we know what the boats looked like without knowing what they were called, at others we have their names but do not really have much of a clue what they looked like. On the coffin of the 4th dynasty prince Minkhaf, which was found in a mastaba in the eastern Giza cemetery, there are inscriptions of offerings and among them a list of boats:

W.S. Smith surmised that the nHbt with its determinatives of 'lotus-flower' and 'boat' was probably a light reed boat.

Models of logboats from a Giza tomb and from a site in the Delta have survived, but dugouts were probably very unusual, as trees of suitable size and timber quality were rare in Egypt.

• The state involvement

A number of pharaohs saw the need for a strong navy, i.e. Snefru who according to the Palermo Stone built 100-cubit ships of meru wood and 60 sixteen-barges before hacking up the land of the Negro, bringing of 7,000 prisoners, and 200,000 large and small cattle, Thutmose III, the architect
of the empire in Asia, Necho II struggling with the Babylonians and Ramses III, who had to contend with the Sea Peoples. Ramses wrote a 'report' to Amen.

The royal fleet was supervised by the Chief of the Royal Ships, an important administrative rather than military position, which under the 26th dynasty seems to have included the responsibility for the taxation of merchandise transported on the Nile.

Under Thutmose III the butler Nebamen and under Amenhotep II another butler, Suemniut, were given the office; and in a later era of economical and political growth, the Saite Period, the Overseer of the Scribes of the Magistrates Tjaenhebu, and, under Ahmose II, Hekaemsaf and Psammetik-mery-Ptah filled the post. A like title, Chief of the Ships of the Lord of the two Lands, was bestowed upon one Paakhraef.

Temple fleets were similarly organized: The priests of Amen appointed a Chief of the ships of Amen, the servants of Ptah a Chief of the Ships of the House of Ptah.

Egyptian seagoing ships were inferior to those used by other peoples, despite remarkable feats achieved, among them the expeditions along the eastern coast of Africa during the reign of Hatshepsut at the beginning of the 15th century BCE and the crossing of the Indian Ocean with seventy metre long ships in the times of Ramses III 300 years later. From the 20th dynasty onwards the Egyptians began to copy ships used by their rivals.

Many trade and exploration ventures were initiated by the administration, such as the voyages to Punt under Hatshepsut and the circumnavigation of Africa by Phoenician sailors under Necho.

Private ownership of ships existed at least during the First Intermediate Period, documented by biographical inscriptions. The weakness of the state and its consequent inability to build ships needed for the transportation of people and goods stimulated private enterprise.

During the Late Period Greeks and Phoenicians spread along the Mediterranean coast, building colonies. The Ionians and Carians settled in the Delta and their centre of Naukratis became an important port and was encouraged by a number of pharaohs.

- **Ship construction**

As there was very little wood available, the first vessels were made of bundled papyrus reeds. Simple rafts in the beginning, they grew into sizable ships and were, as Thor Heyerdahl proved
with his ocean crossing, seaworthy. They had a sickle shaped hull and often masts and sometimes
deck houses.

Small papyrus rafts served the population throughout much of Egypt's history, for as long as the
raw material was readily available. They were cheap to make and did not require great expertise to
build. Papyrus died out in Egypt and was reintroduced in the 20th century.

Transportation of heavy loads, international trade and war required stronger ships than could be
built from papyrus. These wooden vessels were similar in form to the old reed boats, had a flat
bottom and a square stern. As they were without a keel onto which it could be stepped, the mast
was often bipod, fastened to the gunwale. Later, under the influence of Byblos, with which they
were in close contact, the Egyptians adopted a single central mast, which sometimes was topped
with a bronze finial to which the ropes were tied.

Instead of fitting rowlocks on the gunwale to keep the oars in place, rope was used to serve as
fulcrum. Smaller boats were paddled.

Ships were constructed in ship-building yards (wxr.t), first mentioned in the Old Kingdom. During
the New Kingdom the main ship yard was at Memphis. Specialized carpenters were charged with
building the ships. A thirty metre long transportation barge took seventeen days to build. The
techniques do not seem to have changed over time.

Cedar wood, imported from Lebanon as long ago as the Early Dynastic Period, was much more
suitable for shipbuilding than the local acacia. Sometimes figureheads were affixed to the bow of
the ship. Interestingly, in contrast to European usage, Egyptian figureheads faced backwards.

- Sailing the ships

The river ships were propelled either by oar or sail, sometimes they were towed or just left to drift
downstream.

During the Old Kingdom, ships were steered with two large unsupported oars held by helmsmen in
both hands. Later the oars were connected to tillers. Even with this improvement steering was hard
work. Amenhotep II, a powerful man according to experts who examined his mummy, was
described thus

_His arms were strong and didn't get tired holding the oar and steering in the stern of the king's ship,
heading a crew of 200 sailors. When the ship stopped after these men had traversed half an atur (about_
they were left without breath; their limbs were weak, they choked. But His Majesty's strength didn't fail him steering with an oar twenty cubits long. When he dropped anchor and tied up the ship with a cable, he had traversed three atur steering the ship without resting during the preparations. The hearts of the people were glad seeing his achievements.

In ancient Egypt sails were always rectangular. During the Old Kingdom only the top of the sail was tied to a spar, while the bottom was tied to the bulwarks. Later the sail was fastened between a top and bottom spar. In Akhenaten's time the advanced brailed sail with small ropes on its edges for trussing came into use, making the furling of the sail easier.

There is archaeological and other evidence that Egyptians adopted many practices of other seafaring nations, such as the Phoenicians and Greeks. In the Late Period Egypt came to depend to a high degree on foreign ships and sailors.

- Constructions facilitating navigation

While the Mediterranean region was easily accessible to Egyptian maritime traders, Eastern Africa was less so. Under Senusret III (1850 BCE) and a number of other pharaohs, the last being Ptolemy II, a canal was being dug and re-dug connecting the Nile to the Bitter Lakes, falling into disrepair during times of trouble.

When no canal was available ships had to be built so they could be dismantled, carried overland through Wadi Hammamat to the Red Sea and reassembled. During the times when these ships were not in use, they were apparently taken apart and stored: in the Wadi Gawasis man-made caves were found which served for storage of timbers, cordage, and other ship's stores.

The Nile cataracts were obstacles that had to be dealt with. A canal cut through rock enabled navigation beyond the first cataract, and a slipway near the fortress of Mirgissa at the second cataract has been found by archaeologists.

Dams were built too, sometimes with military or commercial aims in mind, at others probably serving for flood protection or irrigation. Herodotus claims that Menes built a dyke diverting the Nile in order to protect Memphis from inundations. The Sadd el-Kafara in Wadi Garawi, the oldest known dam in the world, collapsed not long after its erection in the early Old Kingdom. Its purpose is unclear. Another dam was constructed at Semna probably during the reign of Amenemhet III (1841-1796 BCE) and was in use until the times of Amenemhet V, as the unusually high readings of the river level - 8 metres above normal - seem to bear out. It was apparently constructed in order to facilitate navigation. The dam of Senusret II in the Fayum was built to control the level of Lake Moeris.

The Pharos lighthouse of Alexandria, perhaps not the first Egyptian lighthouse, though no records of any earlier ones have been found, was built under Ptolemy Soter from about 290 BCE till 270 at
the entrance to what was to become one of the most important ports of the Mediterranean. Its height of more than 100 metres made it visible at distances of about fifty kilometres. During daytime a mirror was used to reflect the sun, at night a fire was lit.

The island of Pharos was later connected to the mainland by the Heptastadium, an artificial isthmus which afforded better protection for the Port of Pharos, later the East Harbour.

Harbours and quays were built along the Nile and the Mediterranean and Red Sea coasts. Especially important were well constructed quays in places where heavy loads were shipped, near Qasr el Sagha on the shore of Lake of Moeris for instance. From the quarry at Widan el Faras blocks of basalt were transported to the quay on a road with flagstone pavement.

Often harbour constructions were rudimentary or non-existent. The Ionians settled at first on the Pelusian arm of the Nile, where they beached their ships with the help of windlasses as they were accustomed to do.

THE ANCIENT EGYPTIAN PORTRAITURE

- The artists

The role of the painter and the sculptor (sanx) was to help in the continued existence of the dead, sanx meaning to make come alive. In the beginning seemingly only serving the pharaohs, these artisans began portraying nobles, officials and their families as early as the Old Kingdom. Sometimes a King's servant received a funerary statue from his master, but many of the richer elite could afford to pay by themselves.

Craftsmanship varied widely throughout the country and history. The provinces had generally less gifted artists than the capital, where the king resided and power and wealth were concentrated. While artists were seemingly not viewed as special geniuses above normal mankind in the romantic fashion of the 19th century, excellence was recognized and rewarded.

The identity of the artists is generally unknown. They appear to have worked in workshops, quite possibly dividing the labour among themselves according to their abilities. The ancient Egyptian sculptor most famous today is Thutmose, who had an atelier at Akhetaten and created many works in the innovative Amarna style, and we know of Maya, a late 18th dynasty scribe and painter living at Deir el Medine, because he also decorated his own tomb.

Thutmose was part of an ancient tradition of humanizing statues. An unknown 4th dynasty sculptor created Prince Ankh-haf's likeness, another Ka-aper's a few generations later, or a third Amenemhet III's during the 12th dynasty. While many statues are idealized, it seems that quite a few of the ancient Egyptian artists attempted to render their subjects as faithfully as they could.

- The purpose

The portraits that have survived to this day, had religious, funerary purposes. They served to immortalize the dead, just as the mummification of the body was supposed to and the inscriptions bearing his name.

Statues of pharaohs represented more than just the man. They embodied the idea of divine kingship. They were generally carved from harder material than statues of ordinary mortals, carved for eternity. Seemingly, the artists tried to express how the pharaoh wanted to be seen and
remembered - or at least that is how we interpret it:

- Characteristics and conventions
  - Applicable to statuary, reliefs and paintings

The image was frequently identified by inscription. Resemblance with the depicted was not necessary, though seemingly often attempted in statuary and to a lesser extent in reliefs. How important resemblance was can be estimated:

- By comparing portraits of the same person by different artists: Menkaure, Senusret III, Amenemhet III, Hatshepsut, Amenhotep III etc.,

- By comparing figures belonging to the same group, where the differences between the individuals should be noticeable: Nofret and Rahotep, Menkaure and Queen Kha-mere-nebty II,

- Or by likening physical remains to contemporary depictions, e.g. Tutankhamen, a process fraught with difficulties and uncertainties: kings re-used old statues, one person might be buried with the funeral mask or sarcophagus of another, and mummies are still wrongly identified at times.

Statues of figures with almost identical features like the ones of Katep and Hetep-heres or Memi and Sabu may point to the unimportance of resemblance, to a lack of ability on the part of the artist, to catering to an expanding, not very affluent audience, or to family ties between the partners in a society where marriages between close clan members was not frowned upon.

1. Infirmities and old age are rarely shown. Most images are glowing examples of prosperity, youth, and good health.

2. Relative sizes of persons in group depictions:
   1. According to importance - servants are depicted smaller than their masters
   2. Natural differences - husbands are taller than wives, children much smaller, often to an unnatural degree

3. Colour: Men are painted red, women yellow
Statues

- The classical posture, above all during the Old Kingdom, is rigid, facing straight ahead, arms held close to the body, standing or pacing, sitting, more rarely kneeling or squatting. This may be an expression of the solemnity of the occasion, i.e. being confronted with the afterworld, its gods and demons, or perhaps mostly the result of the stone working techniques of the day. Wooden statues, where limbs could be added and the basic block form was not adhered to, were more animated.

- The faces are, on the better statues at least, even if often idealized, individual and recognisable.

- Representations are realistic: relative sizes and positions of body parts are natural, though rarely very individualized. Heads are sometimes too small or too big relative to the body, cf. the Gizeh sphinx or one of the Menkaure statues, feet too big and necks too short.

- The arms are generally kept close to the body, resting on the thighs in sitting sculptures, hanging down by the side in upright representations. Women when part of a couple, often touch or hug the man, sometimes the embrace is mutual.

- The body proportions of children, their relative head and limb sizes, are often unnaturally similar to those of adults. Dwarfs seem to have been rendered more faithfully.

- Sculpted figures are rarely depicted in the nude, though the dresses of women are often unnaturally clinging, revealing as much of the body as they are hiding.

- In block statues the body of a squatting person is turned into a block of stone, the vertical sides of which are often inscribed. Only the head receives realistic treatment. There are varying degrees of abstraction: Roy’s feet are well defined while his arms have merged; the body and limbs of Inebny are completely fused together. Compare these block statues with the statue of Ramses II as a squatting, finger sucking child.

- The materials statues were made of included clay, wood, copper, bronze, ivory, many kinds of stone, plaster of Paris and paint. Gesso was often used to hide defects in wooden and stone statues.

- Anthropoid sarcophagi (from the Middle Kingdom onwards) were at first made of wood, later increasingly of stone. They show little individualisation.
Funerary masks were generally made of painted carton and in the case of pharaohs, of gold.

Paintings and reliefs

- In order to be able to show all essential features the human body was depicted as a collection of body parts seen from varying viewpoints.
- Heads are generally turned right or left, in tombs often facing a divinity, and therefore seen in profile, the eye is always shown in full frontal view, not as disconcerting to us who grew up with cubist pictures as it was to the first Europeans to see this,
- the shoulders in frontal view, which causes at times awkward depictions of arms when both arms are stretched forward,
- breasts are shown in profile (cf. Hapi) or in frontal view.
- The lower body is again represented in profile and often shown striding.
- Limbs, hands and feet had until the Amarna Period the same handedness or perhaps rather no handedness at all. But even under Akhenaten limbs were often represented traditionally.

Paintings

- Stereotyped, cartoon-like drawing of contours
- Characterisation and personalization through inscription rather than likeness.
- Roman style drawings after the demise of pharaonic Egypt. More lifelike, but still often formulaic and repetitive.

THE ANCIENT EGYPTIAN ARMED FORCES

The army

Until the takeover of Lower Egypt by the Hyksos, most conflicts the Egyptians had fought had been civil wars, where mainly armies of conscripted peasants and artisans led by noblemen opposed each other, or relatively short campaigns south into Nubia extending the southern borders of the realm, or east and west into the desert regions.
From the Old Kingdom on foreigners were incorporated into the army. The Egyptians possibly even signed contracts with foreign potentates to insure the supply of mercenaries.

Nubian Medjay entered Egypt during the turmoils of the First Intermediate Period, formed mercenary archer units and served in the armed constabulary. They are known to have fought under Kamose against the Hyksos.

Draftees fought in regional contingents, led by local noblemen. Ameni, son of Khnumhotep I led his men on several campaigns against Nubia.

- The changing army of the New Kingdom

The equipment was basic at the beginning of Egyptian history: something to throw at the enemy or hit him with (see a predynastic battle scene) and a heavy shield to hide behind, and the need to improve the weaponry remained small for a long time.

After the Hyksos had taken control of the Delta [2], the Theban pharaohs of the 17th and 18th dynasties adopted new weapons and strategies, a prerequisite for empire building in the Middle East, a region where the constant development of new and better weapons was necessary for survival. Their presence also caused changes in the role of the military in Egyptian society. As the length of the campaigns grew, the use of conscripts became impractical, and the army turned professional, with the nobility in the role of officers and charioteers, and the king fighting among them, generally in closed ranks.

Many specialized troops evolved, such as sappers with heavy shields using battering rams and scaling ladders, trench digging pioneers and, after the reconquest of Nubia, Kushite shock troops and Nubian archers.

This new army did not have all the centuries old traditions other social institutions had. It was therefore relatively easy for talented individuals to rise through the ranks. They could move into other segments of society and maintain exalted positions thanks to the gifts of land and slaves they received from the pharaohs, from Ahmose I onwards. Appreciation for this new nobility, its courage and achievements, was often expressed in inscriptions.

A number of army commanders reached kingship, among them Horemheb and Ramses I (XIX Dynasty) and many kings surrounded themselves with former soldiers whose loyalty and self-sacrifice they had experienced. Didu, a professional soldier, was appointed to the post of responsible for the deserts east of Thebes, then became the king's envoy to foreign countries, later standard bearer of the king's guard, captain of the ship Meri-amen and finally commander of the police force. After a long and blameless service Neb-amen, another standard bearer, was appointed chief of police of western Thebes.

Amenhotep IV (Akhenaten), whose bodyguard consisted mostly of foreigners -Syrians, Libyans and
Nubians - used the army to break the power of the priesthood and the bureaucrats. But after his death the military establishment made peace with the civil service and the clergy. Subsequent pharaohs had to take into account the interest of all three sectors.

Apart from the regular infantry and the chariotry which under Seti I's reign appears to have been separate from the rest of the army already, there were apparently less professional units as well. The king speaks of the DAm.w, interpreted as militia, in a stela:

With the expanding empire and the need to find capable soldiers, the Egyptians began to induct prisoners of war into their army, such as Sherden captured during the incursions of the Sea Peoples.

Their loyalty to the throne was such, that Sherden only were chosen for the bodyguard of Ramses II.

It was probably during the reign of Ramses II that the first regular mounted cavalry—as opposed to horse-drawn chariots—was introduced in any army, but it was only the Persians in the 6th century BCE who realized its full potential.

The XIX and XX Dynasties saw some of the most spectacular exploits of Egyptian power but also its decline, with Egypt barely able to defend its frontiers and relying heavily on mercenaries. By the middle of the 12th century sixty percent of the soldiers were non-Egyptians.

Sheshonq I (XXII Dynasty) recreated the royal army after years of neglect

- The army of the Late Period

The resurgence of Egyptian power after the occupations of the country by Libyans, Kushites and Assyrians was mostly based on the hiring of foreign mercenaries from the east and north: Ionians and Carians, Jews, Aramaeans, Phoenicians and others. They were deployed when native forces were considered to be unreliable. Jewish contingents were stationed at Elephantine and Aramaeans at Syene after Egyptian troops had deserted and fled into Nubia.

These mercenary troops were often officered by foreign commanders, at times of a different ethnic group, and their obedience was not always ensured. They and their families lived in communities which upheld traditional values to a large degree and cultivated their connection to their home countries by participating financially in the erection of public edifices "back home", or by appealing to the authorities for support, as did the Jews who asked the government in Jerusalem for help after their temple at Elephantine had been destroyed.

Still, there was a feeling of loyalty to their employer, to their officers and to each other, which all soldiers need to be able to function in the battle field; and when their trust was betrayed their reaction could be savage: after Phanes of Halicarnassos had deserted to Cambyses his troops punished him by killing his children before his eyes.

- Deployment

Deploying an army in ancient times was laborious business. Inside Egypt soldiers and their provisioning could be moved by ship, the fastest mode of mass transportation until the advent of the railway.
Marching an army to its destination took much longer, even when depots of food and water were available. On his way to Megiddo Thutmose III crossed the Sinai Desert from Tharu on the eastern border of Egypt to the closest major Canaanite town, Gaza, a distance of about 200 km in 9 days [8], at a speed of about 22 km per day.

His progress through Canaan was much slower, about 10 km per day [8], probably mostly due to the fact that in ancient times armies in enemy territory generally provisioned themselves by looting the countryside which slowed down their advance.

At the end of a marching day a camp surrounded by a shield wall had to be set up when one had to spend the night in the open. Into this protected space the pack animals could be herded and unloaded, tents could be erected there, skilled craftsmen could look after broken equipment and grooms tend the animals.

- **The army organization**

Ancient armies were generally small compared to modern mass armies [5]. The Egyptian army of the New Kingdom was composed of three divisions under Seti I on his Canaan campaign, named Suteh (Set)–"the heroic archers", Amen–"the mighty archers" and Re–"the many-armed", [4] and of four under Ramses II on his Kadesh campaign, the forth being named Ptah.

A division numbered several thousand men, typically 4000 infantry and 1000 chariotry, organized into ten battalions of about 500 soldiers, which were subdivided into companies 250 strong, platoons of fifty men and ten men squads.

The overall command lay in the hands of the pharaoh himself or one of his close relatives, generally a son. Similar to the administration of the whole kingdom, the army was divided into a northern and a southern corps overseen by Chief Deputies. The line of command included ranks corresponding to the modern generals, battalion commanders, standard bearers and adjutants at the company level, lieutenants leading the platoons, and non-commissioned officers in charge of squads. [1]

The chariotry was led by marshals (jmj-rA ssmwt - Ami-Re-sesemut). It was divided into brigades, each of which was comprised of two or more squadrons. Five companies of ten chariots each made up a squadron. Egyptian chariots were manned by two soldiers, a driver and an archer.

Parallel to the combat line of command there was a scribal administration organized on hierarchical lines and distinct from the combat officers.

- **The aftermath of battle**
Egyptian leaders sometimes prided themselves on that nobody had died during their expeditions. But battles, even victorious ones, cause victims, wounded and dead. The dead had to be buried close to where they fell which was generally in foreign soil, a fate many Egyptians dreaded. Thutmose, a scribe serving in the army during the reign of Ramses XI, was clearly worried. He kept up a lively correspondence with his friends back home, and to one named Hafy he wrote fatally: Today I am alive, but the morrow is in god's hand. In many of his letters he asked his friends to beg the gods to intercede on his behalf: And you shall get water for Amen of the thrones of both lands and tell him to preserve me!

The treatment of the injured was generally haphazard until the introduction of medical corps in modern times. Little is known about how the Egyptians prepared themselves for dealing with expected casualties, but some measures were taken; the above mentioned Thutmose, also called Tjari, for instance, received the following order:

The survival chances of the wounded were probably slim despite the Egyptian physicians' extensive knowledge of how to treat serious injuries, knowledge collected in scrolls such as the Edwin Smith papyrus.

The Egyptian army units

- Behaviour after victory

While the Egyptians were perhaps less cruel than the Assyrians who erased cities and destroyed whole peoples in order to frighten others into submission, they still let the conquered know who was master, at times killing them as the depictions on the Narmer Palette and decapitated bodies discovered near Middle Kingdom fortresses in Nubia seem to indicate, often by enslaving survivors both civilian and military, or plundering their possessions and destroying their means of livelihood:

Sometimes sizable parts of the population were displaced. Snefru carried off thousands of Nubians after a victory in ca. 2599 BCE. It has been suggested that they were settled in Egyptian villages (domains) founded the following year:

Sometimes the bodies were shown to the public, often in a demeaning manner. Thutmose I displayed a killed Nubian hanging head down from the prow of his ship, Amenhotep II did likewise to Syrian enemies:

After the conquest of Megiddo by Thutmose III the surviving princes surrendered to the pharaoh, and after accepting the Egyptian king as their overlord, they were allowed to continue ruling their cities.

Behold, the chiefs of this country came to render their portions, to do obeisance to the fame of his majesty, to crave breath for their nostrils, because of the greatness of his power, because of the might of the fame of his majesty the country came to his fame, bearing their gifts, consisting of silver, gold, lapis lazuli, malachite; bringing clean grain, wine, large cattle, and small cattle for the army of his majesty. Each of the Kode among them bore the tribute southward. Behold, his majesty...
appointed the chiefs anew.

Booty was important as a source of remuneration of one's followers and was sometimes the reason for not achieving military success. During the battle of Kadesh the Hittite charioteers seem to have abandoned the pursuit of Ramses and the remnants of his forces in order to plunder the Egyptian camp, which gave the pharaoh time to reorganize his forces and drive the Hittites back towards Kadesh.

Thutmose III exercised better control over his troops at Megiddo. Plundering started after the victory over the enemy chariotry was complete, though it prevented, according to the chronicler, the taking of the town by assault. The booty belonged to the king who distributed it to those he deemed deserving.

Some conquered territories like Nubia and the Sinai were annexed, administered by Egyptian officials and controlled with the help of the army, while in others, like Canaan, local kings subservient to the pharaohs ruled with armies of their own.

After a victory was achieved the plunder was distributed, the deserving were honoured and the gods were thanked.

In a Luxor relief Ramses II depicted an unidentified Asiatic fortress which had been taken, with six pigeons rising from it, seemingly sent forth to announce the victory [7]. Victories were dedicated to the gods by reliefs and inscriptions on temple walls [10], by offerings of hacked off limbs of enemies and by donations of a part of the booty to their temples.

Most Egyptian victories were achieved over enemies of little significance, bedouins in the eastern desert, tribes in Nubia or ill organized city states in Canaan. When Egypt came up against major powers its military performance was less admirable. Against the Hittites or Mitanni during the New Kingdom the Egyptians managed to come to understandings which preserved their sphere of influence in Canaan, but during the first millennium BCE they repeatedly collapsed under the onslaught of foreign armies, be they Kushite, Assyrian or Persian, and their country was occupied.

- The navy

Egyptian squadrons composed of speedy keftiu [3], kebentiu from Byblos and Egyptian transports patrolled the eastern Mediterranean.

Unlike the later Greeks who developed special naval techniques (used also by Late Period Egypt), maritime battles by New Kingdom Egyptians and their opponents, the Sea Peoples, were fought by seaborne land troops. The Egyptian deployment of archers and the fact, that Egyptian ships could both be sailed and rowed, gave them a decisive advantage, despite the inferiority of the vessels themselves, which were at times quite sizable carrying up to two hundred and fifty soldiers.

But often the navy was little more than a means for getting land troops to where they were needed. Senusret III reached Nubia by ship

Soldiers could also be transported at great speed to the Asiatic coast where they came upon the rebellious Canaanites without warning. Thutmose III employed this technique with great success.

Egypt lost its role of maritime superpower after the end of the New Kingdom. Phoenicians and Greeks became the main players in the Mediterranean. Continental powers like the Persians used
these sea-faring nations to impose their control on the seas.

Egypt renewed its navy under Necho II, investing heavily in the development of biremes and was possibly among the inventors of the more powerful triremes in its attempt to fight off the Persians. It was unsuccessful and thereafter its fleet was at the behest of the foreign power controlling the country. Dozens of Egyptian ships were incorporated into the Persian fleet fighting the Greeks.

The last of the Ptolemies, Queen Cleopatra VII joined forces with the Roman Marc Anthony, in an attempt to preserve Egypt's independence. But her fleet was defeated at Actium, which spelled out the end of pharaonic Egypt.

PARTIES AND CEREMONIES 4000 YEARS AGO

- **Music**

Music in all its forms, be it simple clapping, singing or playing instruments had an important place in ancient Egyptian life. It was heard in temples as part of worship, during processions and holidays, at parties, and, as one may suppose, in the evenings when the light had become too low to do any work and people continued to sit together for a while. It also had economic importance: Boring drudgery was made more bearable by chanting or by listening to music, making workers more efficient.

Workers harvesting flax are being accompanied by a fluteplayer. The overseer Iankhef leaning on his staff of office exhorts the musician: "O fellow, blow and do not oppose our officialdom!"

- **Musical instruments**

Egyptian musical instruments were well developed and varied. They included string instruments such as harps, lyres, lutes, percussion instruments like drums, rattles, tambourines, bells (first used during the Late Period) and cymbals (Roman Period), wind instruments like flutes, clarinets, double pipes, trumpets, and oboes.
Wind instruments

Flutes were among the first musical instruments used. Double flutes were at first made of two parallel pipes, but later the two pipes were separated and set at an acute angle. They are still used in Egypt today.

Double oboes were known since about 2800 BCE. They had two pipes of unequal length, the longer was used as a drone or to play notes that the shorter pipe couldn't hit.

String instruments

Harps, developed from the hunting bow and used since the Old Kingdom, were triangular or arc-shaped. They usually had eight to twelve strings made of animal gut; and both men and women played them - sitting, standing or kneeling. At times their soundbox was tapped or beaten, described in inscriptions as sqr bn.t - striking the harp. They were generally made of wood and probably did not project very far. Harps were often decorated and could be expensive works of art.

During the New Kingdom there were harps of various shapes and sizes, the number of their strings was increased, and their sound boxes were improved. Some of the harps had columns, but these were rare.

The large sized instruments were often covered with flowery or geometrical ornamentations. In one picture on a tomb, a harp is shown with a jaguar's skin, an instrument for rich people. Harps were played at parties, social gatherings, and ceremonial events, often in conjunction with other
instruments, such as double pipes and rattles.

The marks on the instrument's neck have been interpreted by some as being frets.

The New Kingdom lute consisted of a small oblong wooden sounding box, flat on both sides, with six or eight holes, and a long neck, often decorated with ribbons, from which two to four strings were strung. It was played with a plectrum or bare fingers. Similarly to modern string instruments different notes were played by pressing the strings against the neck of the instrument at various spots seemingly marked by frets.

Another string instrument classified as a guitar because of its flat back and curving sides, may not have looked much like a modern guitar. It was improved if not invented by the Egyptians.

String instruments
  - Percussion instruments
Sekhmet and Bes were sometimes associated with percussion instruments, in particular with frame drums. The sistrum and the menat, two small flat slabs of wood or ivory similar to a castanet, were generally dedicated to Hathor, the goddess of banquets and music making. But the sistrum was also used in the worship of the other gods, the Aton during the Amarna Period.

Tambourines were either round or square, played by hand, and were mainly used during popular or religious festivals. They came into use during the New Kingdom.

- **Singing**

Music was part of religious ceremonies and musicianship was highly valued.

  - **The sound**

Ancient Egyptian music was based on a minor pentatonic scale of five full tones without halftones. This fact can be inferred from the positions of the holes on flutes.
During the New Kingdom, when foreign conquest brought Egyptians into closer contact with Asiatic peoples and their music and many new instruments and with them new sound qualities were introduced, they also encountered the scales prevailing in the Near East. On the whole they seem to have preferred keeping their traditional tonality, although some musicologists think that during this period they began to use a heptatonic scale.

The Greeks who settled first in the Delta, and since the third century BCE in many places upstream, above all in the Fayum, must have had an even greater impact on Egyptian music. These influences were mutual. Pythagoras (c.580-500 BCE) who created a musical theory based on mathematics, was brought up in Egypt.

Egyptian music must have changed a great deal during the last couple of millennia. We have even less clues to what the music sounded like than we have to how the Egyptian language was pronounced. One should therefore be very wary when extrapolating.

- **Dancing**

There were many occasions for ancient Egyptians to display their joy of life, one of them was the enthronement of a new king:

Mixed gender pair dancing as we know it today was unknown. Egyptian dancing may have been influenced by the Nubian tradition, which became very popular in Rome during the days of the empire, and is still alive in parts of the Sudan today. Dancers from the south were brought to Egypt and seemingly much admired.

Egyptian choreography appears to have been complex. Dances could be mimetic, expressive - similar to modern ballet with pirouettes and the like, or gymnastic, including splits, cartwheels, and backbends.

A few pictures of acrobatic dancers have been found, generally depicting a number of dancers performing the same movement in unison.

For sociable banquets the dancing girls were often selected from among the servants or the women living in the harem of the nobleman in whose house the party was held; possibly professional dancers were also hired for these occasions. Pictures of such gatherings show girls performing slow elegant dance steps, which may have alternated with wild acrobatic movements.

Public celebrations were accompanied by dancing, be it spontaneous or orchestrated.
Dancing was also part of religious functions. According to tomb depictions staid ritual dances seem to have been performed by the muu, men wearing crowns of reeds.

The dancing women at the festivities of Hathor were less restrained, if depictions are anything to go by. One of the highpoints of these celebrations were energetic dances similar to those depicted in the tomb of Nenkhetifkai at Sakkara (see picture in the left margin).

**KING TUTANKHAMEN**

The story of king Tutankhamen

Also spelled Tutankhamun original name Tutankhaten king of Egypt (reigned 1333–23 BC), known chiefly for his intact tomb discovered in 1922. During his reign, powerful advisers restored the traditional Egyptian religion and art, both of which had been set aside by his predecessor Akhenaton, who had led the “Amarna revolution.”

Medical analysis of his mummy shows that Tutankhaten was probably a brother of Smenkhkare, his immediate predecessor, and son-in-law of King Akhenaton, with whom Smenkhkare was coregent. As suggested by a docket from Tell el-Amarna (Akhenaton's capital Akhetaton) and other circumstantial evidence, young Tutankhaten probably became king after the deaths of Akhenaton and Smenkhkare. Seals from Tell el-Amarna suggest that Tutankhaten resided there during his first year or two as king. He was married to Ankhesenamen, Akhenaton's third daughter, probably the eldest surviving princess of the royal family, to solidify his claim to the throne. Because at his accession he was still young, his vizier and regent, Ay, who had ties with the royal family, and the general of the armies, Horemheb, became his chief advisers.

Under their tutelage, Tutankhaten moved his residence to Memphis, the administrative capital, near modern Cairo, and restored his father's Theban palace. He also changed his name to Tutankhamen—at the latest by the fourth year of his reign—and issued a decree restoring the temples, images, personnel, and privileges of the old gods and also admitting the errors of Akhenaton's course. In spite of these capitulations to the Amon priesthood, no proscription
or persecution of the Aton, Akhenaton’s god, was undertaken. Royal vineyards (up to the king’s death) and elements of the army still remained named after the Aton.

During the ninth year of Tutankhamen’s reign, perhaps under Horemheb, the Egyptians marched into Syria to assist Egypt’s old ally, the Mitannian kingdom of northern Syria, which was embroiled in hostilities with vassals of the Hittites. As reinforcements sent by the Hittite king hastened to aid his vassals, Tutankhamen unexpectedly died, aged about 18 years. Because none of his children survived, Ay succeeded him, perhaps marrying his widow.

Sometime after his death, Tutankhamen's tomb in western Thebes (not his original, which Ay had appropriated for himself) was entered twice by plunderers who, however, were caught after doing only minor damage. The burial chamber was not entered and remained intact until it was discovered in 1922 by Howard Carter, the English Egyptologist who excavated the tomb. When in the 19th dynasty the “Amarna kings”—Akhenaton, Smenkhkare, Tutankhamen, and Ay—were stricken from the royal lists and publicly condemned, the location of Tutankhamen's tomb was forgotten, and his relatively few monuments were usurped, primarily by his former general, Horemheb, who subsequently became pharaoh. In the 20th dynasty, when the tomb of Ramses VI was cut immediately above that of Tutankhamen, the stone rubble dumped down the side of the valley covered the young king's tomb with a deep layer of chips. The workers of the 20th dynasty came close to Tutankhamen's tomb and clearly had no knowledge of it. The tomb escaped the great series of robberies at the end of the 20th dynasty and was preserved until a systematic search of the Valley of the Kings revealed its location.

Inside his small tomb, the king's mummy lay within a nest of three coffins, the innermost of solid gold, the two outer ones of gold hammered over wooden frames. On the king's head was a magnificent golden portrait mask (see photograph), and numerous pieces of jewelry and amulets lay upon the mummy and in its wrappings. The coffins and stone sarcophagus were surrounded by four shrines of hammered gold over wood, covered with texts, which practically filled the burial chamber. The other rooms were crammed with furniture, statuary, clothes, a chariot, weapons, staffs, and numerous other objects. But for his tomb, Tutankhamen had little claim to fame; as it is, he is perhaps better known than any of his longer-lived and better-documented predecessors and successors. His renown was secured after the highly popular “Treasures of Tutankhamun” exhibit traveled the world in the 1960s and ’70s. The treasures are housed at the Egyptian Museum in Cairo.

- **Additional Reading**

References

2. Lionel Casson Ancient Egypt, Time-Life Books 1975
3. Diodorus Siculus Library of History
5. Alan H. Gardiner Egyptian Hieratic Papyri, Series I: Literary Texts of the New Kingdom, Part I, Leipzig 1911
6. R.Gonen Klay nesheq qdumim (Weapons of the ancient world), Keter, Jerusalem 1979
7. Labib Habachi, The Two Rock Stelae of Sethos I in the Cataract Area Speaking of Huge Statues and Obelisks, BIFAO 73 (1973), pp.113-125
8. Herodotus, Histories II,
11. Kraus, Jürgen, Die Demographie des alten Ägypten, Göttingen 2004
12. Lichtheim M., Ancient Egyptian Literature , University of California Press, 1976
14. Pierre Montet Haiey yom-yom bemitzrayim (La vie quotidienne en Egypte), Am Hassefer Publishers Ltd., Tel Aviv 1963
17. W. M. Flinders Petrie Kahun, Gurob, and Hawara, London, 1890
21. Serge Sauneron, La manufacture d'armes de Memphis, BIFAO 54 (1954)

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