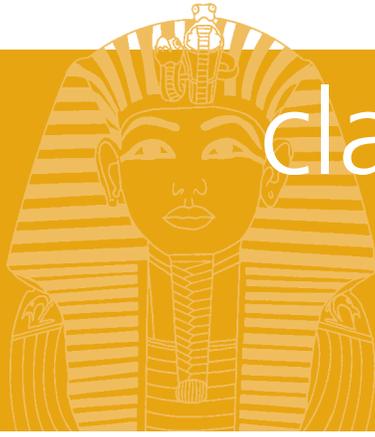




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# classroom TUTORIALS

## Mummification in Ancient Egypt



Gold cobra collar

**T**he mummy of Tutankhamun still rests in his tomb in the Valley of the Kings. He is, in fact, the only royal mummy still in his original tomb. However, many of the objects that decorated the mummy of Tutankhamun can be seen in the exhibition *Tutankhamun: The Golden King and the Great Pharaohs*. Before examining these objects, a brief look at the process of preserving the body is in order.

The practice of mummification begins early in Egyptian history. During the Predynastic Period (around 5000–3000 BC), people were buried in shallow pits in the sand and the dry desert mummified the bodies naturally. When the Egyptians began placing the dead in tombs and coffins beginning in the First Dynasty, the bodies did not dry out naturally, so artificial methods had to be devised to preserve them.

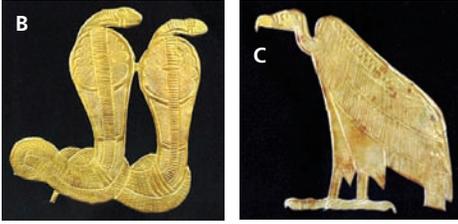
There were many different ways to mummify a body and the process changed over time. By Tutankhamun's time, the mummification process took 70 days. First, an incision was cut in the left flank. The intestines, liver, stomach, and lungs were removed, washed, wrapped in linen, and placed in canopic jars. The heart was left in the body because it was thought to be the center of intelligence and emotion. The brain was extracted through the nose and discarded!

Once the organs were removed, the body was cleaned out with wine and water and dried with linens. It was then immersed in natron, a naturally occurring salt, for 40 days to dry out the body. Next, the body was anointed with oil, spices, and resins. Then the body was wrapped with linen bandages while the priests recited prayers and burned incense. During this ritual the priests also placed amulets (protective charms) within the bandages so that the body would be magically protected.

The many steps in the mummification process were both expensive and labor intensive. So, while the body of Tutankhamun was prepared in accordance with the highest standards, this was not necessarily the case with non-elite individuals in ancient Egypt. Many mummies were made using less expensive materials and less careful procedures, and are therefore not nearly as well preserved as royal mummies.

When Carter unwrapped the mummy of Tutankhamun, he found layer upon layer of beautiful amulets and jewelry in the wrappings. One of the most striking pieces he found is the winged cobra collar (**A**). This necklace is made from one thin sheet of gold with engraved and embossed details. The cobra's wingtips are pierced with tiny holes. Gold wire connects the wingtips to the elongated lotus-shaped counterpoise. The winged cobra represented the goddess of Lower Egypt, Wadjet.

## classroom TUTORIALS **Mummification in Ancient Egypt**



TOP TRIO  
Gold double cobras, vulture, and winged uraeus (snake) with a woman's head

RIGHT  
Papyrus amulet made of gold and feldspar



Three amulets found in Tutankhamun's wrappings are also made from sheets of gold—the double cobras (**B**), a vulture (**C**), and a winged uraeus (snake) with a woman's head (**D**). The double cobras likely represent the goddesses Nekhbet and Wadjet, who could also be represented as a vulture and uraeus. The vulture, then, could either be a representation of the goddess, Nekhbet, or the mother goddess Mut, whose name means “vulture” in Egyptian. The winged human-headed snake may be the goddess Were-hekau or the goddess Meretseger since both goddesses were depicted in this form.

Amulets made of different materials were also found on the royal mummy. A papyrus amulet made of gold and feldspar was found at King Tutankhamun's throat (**E**). In Egyptian, the name for this type of amulet was *wadj* (green). These amulets were associated with life, youth, and Lower Egypt.

Anubis was the jackal-headed god of embalming and Horus was the falcon-headed protector of the living king. Like the papyrus pendant, the Anubis amulet (**F**) was made of feldspar, a material that the Egyptians associated with the “life-giving” waters of the Nile. The falcon-headed Horus amulet (**G**) is made of lapis lazuli, a highly prized luxury material imported from Afghanistan. Its deep blue color might have reminded the Egyptians of the night sky. Both were inlaid into a gold background and were suspended on the neck of King Tutankhamun by a golden wire.

One of the most popular types of amulets in ancient Egypt was the *djed* pillar (**H**). This symbol was closely related with the god of the Underworld, Osiris. It symbolized endurance and stability and may have symbolically represented the backbone of the god. This *djed* pillar was placed on the neck of King Tutankhamun's mummy, suspended from golden wires. Though it looks like lapis lazuli, it is made of dark blue faience, a man made material very similar to glass.



OPPOSITE  
Feldspar Anubis amulet and Horus amulet

BELOW  
*Djed* pillar amulet



## classroom TUTORIALS **Mummification in Ancient Egypt**



These gold finger and toe stalls (I) were found in place, adorning King Tutankhamun's digits. These sandals (J) were also made of solid gold and created for funerary use. Other shoes were also found in the king's tomb, usually made from leather or plant fiber, such as rush or papyrus. In fact, the golden sandals are decorated with a pattern that resembles woven rush work.

King Tutankhamun was also buried with a beautiful pectoral (K), laid across his chest. It had two major components, the pectoral and the counterpoise. The pectoral has three large scarab beetles carved from lapis lazuli that sit upon *neb* baskets of green feldspar. Above the scarabs, discs of gold represent the sun. In hieroglyphs this composition spells out Tutankhamun's throne name, Nebkheperure. Underneath this motif is a band of rosettes. Gold and glass lotus flowers and buds hang below.

The other major component of this piece is the counterpoise, which is attached to the pendant by 10 strings of golden beads. When the necklace was worn in life, the counterpoise balanced the pectoral so that it did not weigh too heavily on the king's neck. The main figure in the counterpoise is either Shu, the god of air, or Heh, the god of eternity. Above this figure's head, hieroglyphs inside a cartouche read "the good god, Nebkheperure, chosen by Amun-re." The god is framed by a *djed* pillar (endurance) and a *was* scepter (dominion and power) on his left and a uraeus (snake) wearing the white crown of Upper Egypt on his right.

These objects demonstrate the extravagance bestowed upon an Egyptian pharaoh in death to protect his body, both physically and spiritually.

In addition to the objects from Tutankhamun's burial, the exhibition includes information about recent scientific testing on the mummy of the boy king. Under the supervision of Dr. Zahi Hawass, Secretary General of Egypt's Supreme Council of Antiquities, doctors at Cairo University's School of Medicine scanned the mummy using a non-invasive CT (or CAT) scanner. The CT scanner uses computed axial tomography to scan thousands of two-dimensional cross sectional images, which are combined to produce a three-dimensional image of the entire mummy.

The scans indicate that Tutankhamun was 19 years old at the time of his death and in good health. They also have debunked the popular idea that Tutankhamun was murdered by a blow to the head and point instead to a serious leg injury, and perhaps a subsequent infection, as the most likely cause of the young king's death.

TOP  
Gold finger and toe stalls

MIDDLE  
Gold sandals

BOTTOM  
Pectoral with three large scarab beetles carved from lapis lazuli

RIGHT  
CT scan of Tutankhamun

