Mummification

The ancient Egyptians mummified the dead bodies of those who could afford such an elaborate and costly procedure. It is important to remember that this was a practice followed only by the royal family and the wealthiest classes of Egyptian society. The word used to describe an embalmed and wrapped body is of course ‘mummy’, but this is in fact a misnomer because it comes from the Arabic mummiya, meaning pitch or bitumen, neither of which were actually used in Egyptian mummification. However, bodies mummified during the Late Period (c.747–332 BC) were often so badly embalmed that they were blackened and brittle, and as they were found to burn well it was assumed that they had been dipped in bitumen.

The Greek writer Herodotus made a slightly erroneous account of the mummification process in c.450 BC, and two damaged papyri have survived from the first century AD outlining the final stages of the process. Unfortunately no embalmer’s handbook has survived from the Pharaonic Period. Consequently, our understanding of the procedure, and how it developed, is based mainly on examination of the bodies themselves.

In the Early Dynastic Period (c.3100–c.2686 BC) dead bodies were tightly wrapped in strips of resin-soaked linen. This did not prove to be wholly successful, because although the bandages hardened in the form of the body, the body itself decayed, so during the Third Dynasty (c.2686–c.2613 BC) methods of preserving the body itself were explored. The ancient Egyptians came to realize that if they wanted the body to survive they had to dehydrate it from the inside and the outside at the same time, and that to do this effectively they had to remove the internal organs. Up until this time, the dead had been buried in a contracted foetal position, but it was found to be easier to reach the internal organs if the body was stretched out, so the dead came to be buried in this position.

The oldest surviving mummy dates to the late Fifth Dynasty (c.2400 BC), but it is known that the ancient Egyptians were removing the internal organs, and embalming and burying them separately, at least as early as the Fourth Dynasty, because the internal organs of Queen Hetepheres, the mother of the Great Pyramid builder, Khufu (c.2589–c.2566 BC), were found in a canopic chest.

Purifying the body

Once a successful procedure was arrived at, it appears to have been as follows.

The body was taken to a ‘place of purification’ (ību). This would probably have been located on the west bank of the Nile, the bank associated with the setting sun and thus the place of the dead. It would need to be sited close to the river for easy access to a good water supply, and undoubtedly as far away as possible from populated sites owing to the nature of its business.

The initial washing of the naked corpse had both a ritual and a practical importance. The body was washed, as was the cult statue in a temple each morning, and as was the sun god Re in the waters of Nun each morning before
being ‘reborn’ at dawn. The washing was done using a solution of natron, so it would have aided the first stage of preservation. Natron is a salt (a natural compound of sodium carbonate and bicarbonate) that the ancient Egyptians found as crystals along the edges of lakes in the Wadi Natrun, 65km (40 miles) north-west of Cairo. One of the ancient Egyptian names for natron was neterj (“belonging to the god”), presumably because of its use in ritual purification. It was particularly useful in the embalming process because it is a mild antiseptic as well as being an effective dehydrating agent (it absorbs water; thus drying out the body but leaving it flexible).

Preparing the body
The purified body was then removed to the actual place of embalment (wabt or per nefet), which was originally an enclosure containing a tent or booth. By the Late Period (c.747–c.332 BC) far more bodies were being embalmed than ever before, so for the first time permanent embalming houses were built of mudbrick. The chief embalmer was known as ‘He who Controls the Mysteries’ (hery seshta), and it is very likely that he would have worn a jackal mask during the rituals accompanying the embalming process in order to imitate the jackal-headed god of embalming, Anubis. His deputy bore the title ‘God’s Seal-Bearer’ (hetemu netjer), which had originally been a title held by priests of Osiris, the god of the dead and the Afterlife. According to ancient Egyptian mythology, Osiris had been the first person to be mummified, after his death at the hands of his brother Seth.

Once in the embalming house, the body was stretched out on four wooden blocks on a wooden board (an example of which was found at Thebes). The first priority was to preserve the face, and so the head was probably coated with molten resin. From the Eighteenth Dynasty (c.1550 BC) the brain was removed and discarded, because it was considered to be merely stuffing for the head. Sawdust, resin or resin-soaked linen was pushed inside the skull to ensure that it kept its shape. The ancient Egyptians really had no idea about the function of the brain; they thought that the heart was the seat of thought and emotion in the human body.
The major internal organs were removed, but they were embalmed separately and kept safely because the Egyptians believed they were necessary for the continued functioning of the body in the Afterlife. The stomach and intestines were removed through an incision in the lower abdomen (usually on the left side), then the diaphragm was punctured so that the lungs and liver could also be extracted. According to Herodotus and the Sicilian-born historian Diodorus Siculus (c.40 BC), a knife of Ethiopian stone or obsidian was used to make the incision.

Once removed, the internal organs were dried out in crystalline natron, rubbed with sweet-smelling unguents, coated in molten resin and wrapped in linen bandages in four separate packages. These packages were usually then placed in special jars that accompanied the body to the tomb (see Canopic Jars), but from the Twenty-first Dynasty (c.1069 BC) they were often placed back in the original positions of the internal organs inside the body. During the Ptolemaic Period (332–30 BC) they were usually placed between the corpse's legs before wrapping.

**Embalmimg**

The body, without its internal organs, was packed with temporary stuffing, and covered over with natron for forty days, after which time it would have turned a much darker colour and have become as much as 75% lighter in weight. The temporary stuffing was removed, and the corpse was rinsed out, washed down, dried to prevent mould forming and re-stuffed with wads of linen, linen soaked with resin, bags of natron crystals, sawdust and other materials to help the body keep its shape. During the Late Period (c.747–c.332) bodies were often filled completely with resin.

For both ritual and functional reasons, the body was anointed again, this time with juniper oil, beeswax, natron, spices, milk and wine. The abdominal incision was stitched up, and often covered with gold foil or wax. It was adorned with a protective 'Eye of Horus' – the udjat or

**Networks of beads arranged over the entire body of the mummy are typical of the end of the Third Intermediate Period and Sain Era. Images such as winged pectoral scarabs and the Four Sons of Horus were often woven into them. 25th Dynasty.**
wadjat-eye (see Funerary Amulets). The nostrils, ears, and mouth were usually plugged with linen, wax, or sometimes onion skins or whole bulbs. Today people use onion to soak up nasty smells, and in folklore it is believed to help combat infection. In ancient Memphis, during the festival of the hawk-headed funerary deity Sokar, his devotees were accustomed to wearing strings of onions. Depending on the wealth and extravagance of the deceased’s family, a piece of gold leaf might be placed over the tongue. The whole body was then coated with resin in order to toughen it and make it waterproof.

As well as the practical measures taken, at all times the emphasis was also very much on creating a pleasing appearance to the body. The soles of the feet and palms of the hands might be stained with henna; the cheeks might be rouged; and the lips and the eyebrows might be painted. Sometimes the body was dressed in cloths, sandals and a wig. The bodies of men were often painted with red ochre and that of women with yellow ochre, because these were the standard pigments used to create the skin colour of men and women in art. The bodies of wealthier people were covered in jewellery before the bandaging began. Mummies have been found, dating to the Graeco-Roman Period, with gold leaf on their faces, chests and nails.

Bandaging the body
At last the body was ready for bandaging. This intricate process was carried out by the bandagers (wetyw) and took 15 days, beginning with the fingers and toes. It was accompanied by the recitation of magical spells by a Lector Priest (hery heb). The bandages were linen and were often made out of old clothes, towels, and so on. The most sought-after bandages would have been recycled from the cast-off garments worn by divine statues in the temples and shrines. A vast quantity of linen — up to 375 sq m (450 sq yd) — was used to wrap one body.

The embalmed body was enveloped in a yellow shroud before being bandaged. Each stage was painted with melted resin. Every attempt was made to ensure that the body looked as perfect as possible so if, for example, a hand was missing, an artificial hand would be inserted into the bandaging. Men were usually wrapped with their arms extended and their hands crossed over their genitals, whereas women’s hands were usually placed on their thighs. From the early New Kingdom (c.1550 BC) onwards, kings were wrapped with their arms crossed over their chest, in the manner of Osiris, the god of the Afterlife.

The bandaged body was then inserted into one or more shrouds (usually dyed red), which were knotted at the top and bottom and held in place by several more bandages. An interesting feature can be found on top of the bandaging (or just below the surface) of mummies dating to the Twenty-first and Twenty-second Dynasties (c.1069–c.715 BC): two red leather straps crossed over the chest, resembling a pair of braces. A peculiarity of many of the mummies dating to the Twenty-fifth Dynasty (c.747–656 BC) and later is a shroud of blue faience beads, very like the Fifth-Dynasty bead net dress from Qau, now in the Petrie Museum of Egyptian Archaeology, London. Finally, a mummy mask was fitted over the head and shoulders of the body. The mask was usually made of cartonnage — linen or papyrus stiffened with plaster. In the case of royalty it would have been made of gold, and the upper classes sometimes imitated the costliest of masks by having their cartonnage ones gilded.

Funeral preparations
The entire, complicated process of mummification, from the arrival of the corpse at the ibu, lasted 70 days. This was the time permitted for the funeral preparation. It is likely that a period of 70 days was chosen deliberately in connection with the 70 days when the dog star Sirius (divinely personified as the goddess Sopdet) could not be seen because of its alignment with the earth and the sun prior to its heliacal rising. This annual astronomical occurrence heralded the inundation of the Nile and marked the start of the ancient Egyptian New Year (wep renpet).