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CREATURES OF THE GODS: ANIMAL MUMMIES FROM ANCIENT EGYPT

by *Salima Ikram*



If you're a pet lover, you might want to take a time machine back to Ancient Egypt where you could arrange to keep your pet with you – forever! Although mummies are synonymous with ancient Egypt, few people realize that the ancient Egyptians also mummified animals, including their pets.

Pet mummies are the kind of mummy that resonates most closely with us now. From the Old Kingdom (c. 2663-2195 BC) onward, Egyptians are pictured in their tombs with their beloved pets, thus ensuring their continued joint existence in the Afterlife. Occasionally the pets would even have their names carved above their image, providing further insurance for their eternal life. This was particularly true of hunting dogs that were immortalized with their names such as “Swifter than the Gazelle” or “Slayer of Oryx”.

Devoted pet-lovers buried their animals with them. If the animal died during its owner's lifetime, it was mummified and kept safely until the owner's death, perhaps even in the tomb that was begun quite early in a person's life. If the animal died after its owner's demise, it could be mummified and placed in the tomb with its master, or in the courtyard just outside, as was the case with a pet monkey excavated outside a tomb in Thebes or a horse associated with the family of Senenmut, the architect of the magnificent funerary temple of Queen Hatshepsut built at Deir el-Bahari. Some pets, like hu-

mans, enjoyed splendid burials, complete with elaborate coffins and food offerings.

Pets were only one of several kinds of animal mummies, which actually far outnumber human mummies. Mummification was carried out in order to preserve the body for eternity so that the soul (*ka* and *ba*) could inhabit it in the Afterlife. A large range of animal species were mummified, including cattle, baboons, rams, lions, cats, dogs, hyenas, fish, bats, owls, gazelles, goats, crocodiles, shrews, scarab beetles, ibises, falcons, snakes, lizards, and many different types of birds. Even crocodile eggs and dung balls were wrapped up and presented as offerings.

Animals were mummified throughout Egyptian history; however, the majority of animal mummies date to the Late and Graeco-Roman Periods. These periods saw an upsurge in animal cults perhaps because this was a time when Egypt was being invaded by other world powers. Such invasions caused the Egyptians to seek a variety of ways in which to express their own sense of identity, individualism, and nationalism. Animal cults might also have been a call to local divinities to provide succour during times that were difficult for the Egyptians. [For a discussion of chronology and a list of Egyptian dynasties and dates, go to page 23.]

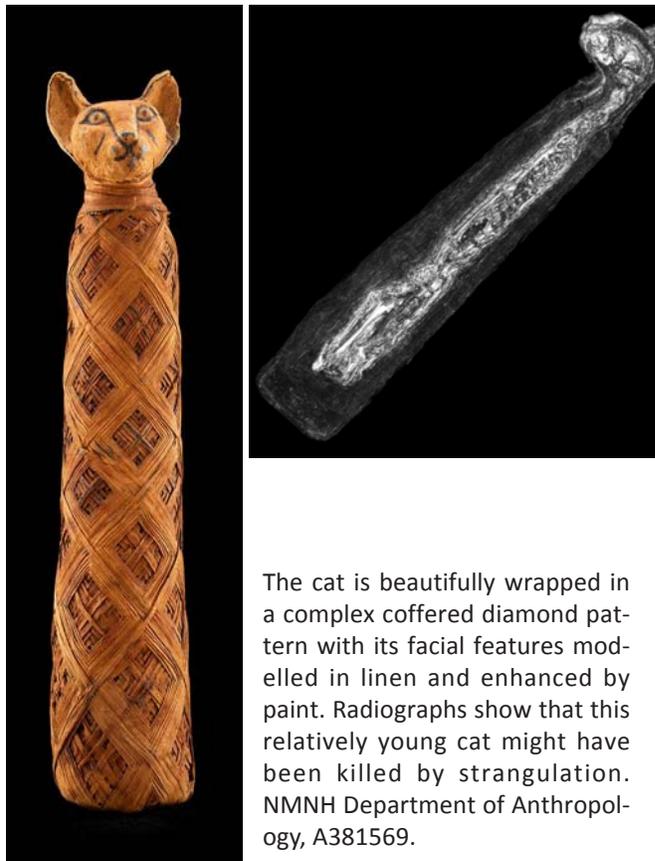


Animal Mummies: Five Categories

Pets occupy one clear category of animal mummies; food, sacred, votive, and ‘other’ make up the four other basic animal mummy categories. Food mummies are very peculiarly Egyptian. These consist of mummified foods or victuals, such as beef ribs, steaks, ducks, and geese, which were placed in tombs so the tomb owners would never go hungry. The meat and poultry were prepared as if all ready to be cooked: meat was skinned, poultry was plucked and eviscerated, wing tips and feet removed. After desiccation the liver and giblets were returned to the body cavity. Some of the mummies are colored brown; it is possible that a roasted appearance (browning) was given to such mummies by the application of very hot resin on the bird that slightly cooked/seared the mummy’s exterior surface. Tests show they were preserved using salt and natron similar to the way in which beef jerky is prepared. Most of these bandaged meats were placed in individual sycamore-wood ‘coffinet’ shaped to the meat’s form and dimensions — all ready to be consumed by the deceased. Tutankhamun had more than 25 such meat mummy coffinet buried with him.

Some animals were worshipped during their lifetimes as sacred animals, the third mummy category. It was believed that certain gods would send their ‘essence’ into the body of a chosen animal that was distinguished by being patterned or colored in a specific way. After the animal’s death, the god’s spirit would enter the body of another similarly marked animal. This idea is similar to the idea of the eternal soul of the Dalai (and other) Lama whose soul is eternal, but remains on earth in a series of different bodies. During the animal’s lifetime it was worshipped and treated as a god, and after its death, it was mummified and buried with great pomp. The most famous sacred animals are Apis Bulls and the Rams of Elephantine. The Smithsonian’s collection includes two sacred bull mummies — the only such in all of the Americas. However, these bulls are probably not Apis Bulls that were dedicated to the god Ptah, but rather, were sacred to the sun god, Re.

The fourth category, votive animal mummies, are the most plentiful of all mummies. These consist of mummified animals that were dedicated to specific deities. Each god had a specific animal that was his or her totem or symbol: cats were sacred to the goddess Bastet, goddess



The cat is beautifully wrapped in a complex coffered diamond pattern with its facial features modelled in linen and enhanced by paint. Radiographs show that this relatively young cat might have been killed by strangulation. NMNH Department of Anthropology, A381569.

of self-indulgence and pleasure; ibises and baboons to the god Thoth, god of writing and knowledge; raptors and shrews were given to the diurnal and nocturnal manifestations of the sun god Re. These mummified animals were purchased and offered by pilgrims at shrines dedicated to these gods, a custom that was particularly popular during the first millennium BC. The mummified animals would present the pilgrim’s prayers to the god throughout eternity, much in the way that votive candles are purchased and burned in churches. Once consecrated, during a special festival, the mummified animals would be taken in procession, and buried en masse in vast catacombs that housed millions of such creatures. Many of these animals were deliberately killed due to high demand and because they were considered sacrifices to the god — i.e. they were going to a better, eternal life, united with their deity. The majority of animal mummies in museum collections today belong to this category of animal mummy. Some of these were also placed in his/her own coffin. For example, the Smithsonian has a hawk mummy housed in a wooden image of a hawk. Among this group

one might also place the ‘false’ mummies. These were mummy bundles that appeared to contain a bird or cat or dog, but when examined have proven to be formed around a bit of mud or a bone from some other creature, or even to be filled with feathers or bits of fur. The priestly embalmers might have made them to deceive pilgrims intentionally; to be less cynical, these mummies could have been made when there was a scarcity of the appropriate animals. In the latter case, the priests may have used the idea that a part symbolized the whole, and with the correct spells and incantations, the fragments of an animal would become complete offerings for the gods. Alternatively, these bundles might actually contain the detritus of mummification, and as that too was sacred, it had to be interred in a holy place.

The fifth and final category of animal mummy, ‘other,’ covers those animal mummies that do not fit comfortably into any of the other four categories. A group of five ducks and geese, which were mummified and placed as a foundation offering at the funerary temple of King Thutmose III (1479-1424 BC) in Thebes, represents an example of such mummies, as does another group of animals (ibis, dog, and monkey) found in a tomb surrounding the body of the deceased. It is hoped that future work will allow us to better understand and decode this group of mummies.

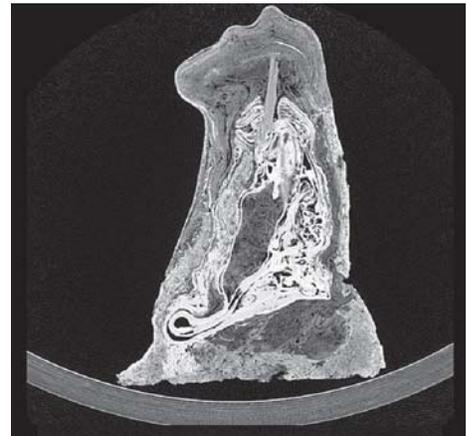
Methods Used for Mummification

Mummification methods varied, but perhaps the most colorful was saved for large mammals. In the case of a cow, for example, its internal organs might have been dissolved by a cedar oil enema that was introduced into the body via the anus and the hole then plugged up. The cow would then be buried in natron for at least 40 days and, once dry, flushed of the cedar oil by pressing the dissolved internal organs out of the anus, which were then wrapped in the usual manner. But this was only one of a large number of different approaches.

The variety in the methods used might be due to the different requirements for various creatures (differences engendered by fur, feathers, or fins), economic constraints, the preferences of specific embalming houses, preferences of different towns/cities/villages, or changes in technology over time. Insufficient research has been carried out to explain fully and satisfactorily the reasons for these variations in mummification.



When this bundle that is wrapped in the distinctive form of a baboon was CT-scanned (see below), it was found to be an ancient fake (filled with linen rags and a stick). By the Late Period baboons and other primates had to be imported into Egypt from sub-Saharan Africa. Thus monkey mummies were expensive and prone to being falsified. NMNH Department of Anthropology, (A542222).



The main purpose of mummification was to preserve the body so that it could act as a vehicle for the soul. Thus, the central focus of the preparation was to dehydrate and de-fat the body, particularly relevant for mammals. Natron, a naturally occurring mixture of sodium carbonate and sodium bicarbonate, was the key ingredient in both animal and human mummification. The body was eviscerated through a cut (generally) in the ventral surface; the body cavity was then packed with packets of natron wrapped up in linen; and the body was buried in the powdered natron. For humans this lasted for 40 days; for animals this probably varied with the type of animal. It is also possible that mass immersions of creatures took place in order to fulfil the demand for votive mummies. Once desiccated, the animals were removed from the natron, dusted off, and rubbed with sacred oils

in order to provide some flexibility to their limbs prior to being wrapped. In some instances hot resin mixed with oil was applied to the animals. This mixture sometimes burned through the fur/feathers/scales and fixed itself to the bones. After the anointing with oils and resins, the animal was wrapped in linen. During the Graeco-Roman era the outermost wrappings could be very elaborate, taking the form of varied shapes or different color stripes. Some raptors and cats even had masks made of cartonnage (a sort of papier maché) placed over their heads. Sacred animals were adorned with amulets prior to being wrapped, with more amulets spread throughout the wrappings.

Some of the bird mummies might have been produced in a simpler way: the bird was eviscerated, dipped into a mixture of oil and resin, or resin and bitumen, and then wrapped up. A few bird mummies that have obviously been treated with resin and oil mixtures were gilded, either entirely, or on the heads. No doubt this stressed the association of these birds with the sun god, Re. Other birds show no sign of any application of oils — they simply were desiccated and then wrapped.

Mummification as a Business

The production of animal mummies — from obtaining the animals to mummifying them — was a major part of the Egyptian economy, particularly during the first millennium BC. Masses of animals had to be bred and cared for, engendering ibis, puppy, and kitten farms. Specific priests were assigned to care for the votive animals, and a higher rank of priests cared for the Sacred Creatures; all these priests had to be supported by temple income. The embalmers enjoyed a booming business, and skilled workers, such as those who mixed the resins and oils or created the elaborately patterned bandaging, had to be paid



This wooden case carved in the shape of a raptor contains a mummified falcon. NMNH Department of Anthropology, A423000.

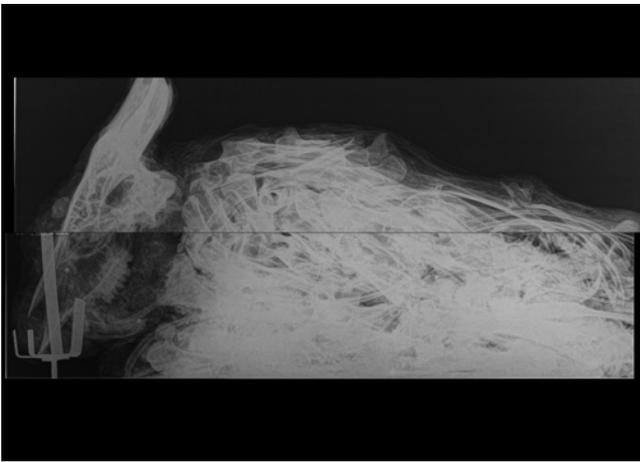
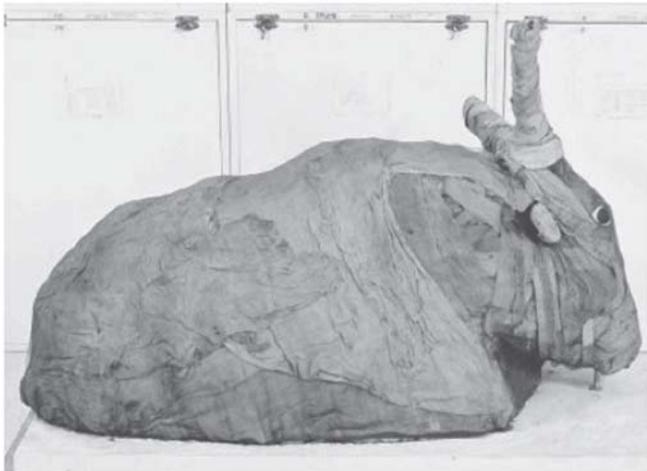


This ceramic vessel is roughly made in the shape of an egg and contains a mummified ibis that is handsomely wrapped. In this way, the ibis can hatch from its 'egg' and then be reborn and live forever. NMNH Department of Anthropology, A279283.

especially highly. Resins, including frankincense and myrrh, were imported from distant places, such as Syria, Ethiopia, Somalia, and Arabia, which contributed to international trade, while the trade in the tons of natron needed to mummify large numbers of animals fostered the local economy. Certainly animal mummification contributed to the wealth of the temples, the embalmers, and all those involved in animal cults.

Despite the vast number of animal mummies found in Egypt, they have only been studied in a holistic way at the end of the 20th century. For much of Egyptology's history, most scholars viewed animal mummies as mere curiosities and collected them more as conversation pieces or as manifestations of strange religious rituals than for any more scientific purpose. However, there were some exceptions to this.

Naturalists were very interested in animal mummies and from the very end of the 18th through the 19th and early 20th centuries, they collected mummies in order to analyze their bones and identify the species that were found. The late 20th century saw a resurgence of interest in animal mummies when scholars realized just how much information they could glean from these artifacts if they were studied holistically. By identifying species, mode of death, method of mummification, and signs of disease,



The Radiograph of the bull, below, shows that it contains a somewhat jumbled skeleton of a bovid. The animal was relatively young when it died. NMNH Department of Anthropology, A413942.

one can obtain a wealth of information on ancient Egyptian environment, religion, veterinary practices, mummification technology, trade, and culture. Scholars started to use sophisticated imaging technologies on animal mummies, including x-rays and CT-scans, hitherto reserved for human mummies. These scans are used to identify and examine the animals within the wrappings without disturbing the contents, while embalming materials can be identified using high temperature gas chromatography (HTGC) and gas chromatography-mass spectrometry (GC-MS) GCS. Large-scale DNA studies are being undertaken to find and trace changes in the genome of certain animals, such as ibises; or to trace the geographic dispersal of animals, such as cats; or to document multiple sites for the domestication of cattle.

These and other studies emphasize the impor-



A lizard coffin that was probably suspended in the temple or in catacombs. The lizard was sacred to the god Atum, one of the creator gods. NMNH Department of Anthropology, A129627.

tance of animal mummies, not just to the ancient Egyptians, but also to us today. Such studies provide not only sources of information about animals, the ancient environment, and Egyptian technology and culture, but also serve as a window into the complex and close relationship between humans and animals in ancient Egypt.

Further Reading

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Daressy, G. and C. Gaillard. 1905. *La Faune Momifiée de l'Antique Égypte*. Cairo: IFAO.

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The recently opened exhibit, *Eternal Life in Ancient Egypt*, at the National Museum of Natural History, was developed under the leadership of Melinda Zeder, senior scientist and curator of Old World Archaeology in the Smithsonian's Department of Anthropology. Physical anthropologist David Hunt co-curated the exhibit with assistance from Bruno Frohlich and guest curators Salima Ikram (American University, Cairo) and Lana Troy (Uppsala University, Sweden). Visit the exhibition website at <http://www.mnh.si.edu/exhibits/eternal-life/>.