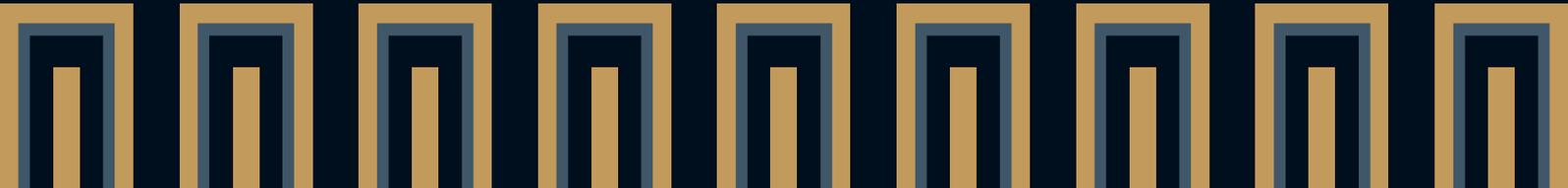


# EGYPTIAN MUMMIES

EXPLORING ANCIENT LIVES

BACKGROUND  
INFORMATION

**MA**  
Museum of  
Applied Arts  
& Sciences **AS**



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in consultation with Dr Daniel Antoine and Dr Marie Vandenbeusch (British Museum)

### ABOUT THE EXHIBITION

- *Egyptian Mummies: Exploring Ancient Lives* is a collaboration between the British Museum and the Museum of Applied Arts and Sciences.
- The exhibition is a world premiere based on the British Museum's 2014-2015 show *Ancient Lives: New Discoveries*.
- The original show comprised eight mummies and around 70 objects. In our exhibition, we have six mummies and around 200 objects. Two of these mummies, **Tamut** and the **young boy from the Roman Period** were featured in the original show. We have four further mummies whose CT scan visualisations are displayed for the first time here.
- The British Museum curators for the show are Dr Daniel Antoine, Curator of Physical Anthropology and Dr Marie Vandenbeusch, Project Curator, Travelling Exhibitions. The MAAS curator is Melanie Pitkin.
- The focus of this exhibition is on the non-invasive use of **Computerised Tomography** (CT) scanning to find out more about these individuals and how they lived, died and were mummified between 1800 and 3000 years ago.

### ABOUT CT SCANNING

- CT scanning can tell you the approximate age of the individual at death, sex, state of health, possible cause of death and different methods of embalming.
- CT scanning has come to replace X-Ray technology. CT scans work by taking thousands of X-Ray slices across the body, which are then volume rendered to create high-resolution 3D visualisations.
- The mummies in this show were all scanned after hours using a Siemens Dual Energy CT scanner at the Royal Brompton Hospital in London.
- With future developments in CT scanning, we hope to be able to see even finer details, such as the hieroglyphs written on the mummy bandages and evidence of disease.

### ABOUT THE PROVENANCE OF OBJECTS

- In close consultation with the British Museum, MAAS has conducted a provenance check on every object in the exhibition. This information is published on our website as part of the requirements for the PCOL scheme (Protection of Cultural Objects on Loan). For more information see:  
<https://maas.museum/about/governance/protection-of-cultural-objects-on-loan/>

### ABOUT THE CARE AND TREATMENT OF HUMAN REMAINS

- The British Museum is very conscious of the need to treat human remains with care, respect and dignity. Using modern medical techniques has enabled us to allow visitors to understand the diverse lives of these ancient individuals whilst ensuring the integrity of the human remains.
- Regardless of age, origin or state of preservation, human remains in the British Museum are treated with great care and full consideration of the ethics associated with their curation. As stated in the British Museum Policy on Human Remains (2013), during handling, storage or display, human remains should always be treated with respect, care and dignity. The policy also outlines the principles governing the respectful and lawful holding, display, study and care of human remains in the Museum's collection:  
[http://www.britishmuseum.org/about\\_us/management/human\\_remains/policy.aspx](http://www.britishmuseum.org/about_us/management/human_remains/policy.aspx)  
See also the British Museum web pages on human remains:  
[https://www.britishmuseum.org/about\\_us/management/human\\_remains.aspx](https://www.britishmuseum.org/about_us/management/human_remains.aspx)  
and:  
*Regarding the Dead: Human Remains in the British Museum*, edited by Alexandra Fletcher, Daniel Antoine and JD Hill (2014) available online as a PDF: [https://www.britishmuseum.org/research/publications/research\\_publications\\_series/2015/regarding\\_the\\_dead.aspx](https://www.britishmuseum.org/research/publications/research_publications_series/2015/regarding_the_dead.aspx)

## ABOUT EGYPTOLOGY IN AUSTRALIA

- Macquarie University and the Australian Centre for Egyptology are the leaders in Egyptological studies and research in Australia. MAAS has an educational partnership with them for this exhibition. Egyptology is also taught at Monash University and the University of Melbourne.
- There are a number of Egyptology collections in Sydney – MAAS has a small collection (see Level 3 display near the cloaking desk). The largest collection in Australia is held by the Nicholson Museum at the University of Sydney. The Museum of Ancient Cultures at Macquarie University also has an important collection, as does the Australian Museum.

## ABOUT THE MUMMIES

The six mummies in our exhibition are:

### NESTAWEDJAT

A married woman from Thebes. She was about 35-49 years old when she died. Originally thought to be a man based on X-rays conducted in the 1960s, her CT scans reveal she is actually a woman. She is displayed alongside her inner, middle and outer coffins. Her CT scans clearly show her heart which has been left in place. Her internal organs, which were removed and dehydrated, have most probably been re-packed and placed on her legs. She has two unusual amulets on her neck.

### TAMUT

A Chantress in the Temple of Amun at Karnak, who was about 35-49 years when she died. Tamut's body is covered with many beautiful protective amulets, some of which have been 3D printed for the exhibition. Tamut's scans show she has traces of calcified deposits in her left femoral artery, which suggests she may have suffered from cardiovascular disease. Her internal organs appear to have been placed inside her abdomen and chest with wax figures of the Four Sons of Horus inside each organ bundle.

### IRTHORRU

A Priest from Akhmim, who was about 35-49 years when he died. Like most mummies in this exhibition, Irthorru's teeth show signs of dental disease and the loss of teeth. In fact, it was quite common for ancient Egyptians to develop dental abscesses, possibly due to high dental wear caused by an abrasive diet. Staple foods, such as bread, for example, often contained a high degree of sand, chaff and even small stones. Irthorru also has spinal lesions (which can be caused by heavy lifting and/or age and degeneration).

### TEMPLE SINGER

A Temple Singer from Karnak, who was about 35-49 years when she died (the mummy who features in the Museum's marketing campaign). Her CT scans reveal that she has small pellets - of what is probably gold - scattered over her body. Her feet are detached from the rest of her body. Their good preservation suggests it did not occur during the mummification phase, but perhaps in modern times.

### YOUNG CHILD

Unfortunately, we do not know his name, but he was about 2 years (+ or - 9 months) when he died. He comes from Hawara in the Faiyum (northern Middle Egypt) and lived during the Roman Period. He is the only mummy in the exhibition to have an excavation history (see below). His internal organs have been removed, but his brain - though desiccated and shriveled - is intact.

### YOUNG MAN

Aged about 17-20 years, he also lived during the Roman Period and comes from Thebes. Although he has a painted mummy portrait showing him looking quite thin and graceful, his CT scans reveal that he was actually very overweight. His internal organs have all been left in place (resin appears to have been poured over his brain via an opening in the back of his neck).

- While all of these individuals were elite (i.e. wealthy), they were not royal.
- The British Museum acquired all the mummies in the 19th century via a number of different sources. Nestawedjat, for example, was transferred from the India Museum in London in 1880. Tamut and the young man from the Roman Period were both acquired from diplomats (a French and British one respectively). Irthorru was purchased in Egypt in 1888 by Sir Wallis Budge, a Keeper in the Department of Ancient Egypt and Sudan at the British Museum, while the temple singer was purchased at an auction house in 1894.
- Only the young boy from Hawara has an excavation history. He was discovered by famous British archaeologist, Flinders Petrie in 1888. He was discovered in a simple pit along with two other child mummies, one adult woman and perhaps one other adult (as described by Petrie, but whose whereabouts is unknown to us today). It is unclear whether or not they were all related.

## ABOUT ANCIENT EGYPT

- The word 'mummy' is a bit of a misnomer. It comes from the Arabic 'mummiya' which means 'bitumen'. The name was applied based on the blackened appearance of some mummified remains, as well as from the powdery effect after mummies were ground down for medicine (from Medieval times).
- Preservation of the body was central to the ancient Egyptians belief in the afterlife. Mummification halted the process of decomposition, enabling the body to look as lifelike as possible. This was imperative so that the ba (soul) of the deceased could recognise and re-inhabit the body after death.
- Our most important ancient source on mummification is the Greek historian, Herodotus who visited Egypt in c. 450 BC. Written over a thousand years after the development of mummification, it provides useful insights. He describes three different standards of mummification. Most of our mummies have been mummified to 'best practice' standard (less than 5% of the ancient Egyptian population could afford this).
- The process of 'best practice' mummification (which took about 70 days altogether) involved the following (although note there are always exceptions to the rule!):
  - Ritually washing and purifying the body
  - Removing the brain through the nose using a hook. The brain was then generally discarded.
  - Cutting an incision in the left side of the abdomen through which the stomach, lungs, liver and intestines were removed, while the heart was left in place. The viscera were then dehydrated and either placed back inside or on top of the body or stored in canopic jars.
  - Dehydrating the body using natron salt for around 35-40 days
  - The body cavities were then rinsed with palm wine and aromatic spices before being packed with sawdust, lichen, textile bundles and other fillings to restore the original form of the body. The outside was anointed with fragrant oils and resin
  - Sometimes the eye orbits were filled with textile bundles and stone. Hair and makeup might also be applied.
- The body was then ritually wrapped in bandages before being placed in a coffin
- A funeral and more rites, including the 'Opening of the Mouth' Ceremony were then performed to magically restore the senses of the deceased and enable him to eat and drink again.
- Mummification reached its peak during the Third Intermediate Period to Late Period (around 900-600 BC). Four of our mummies date to this time period (Nestawedjat, Tamut, Irthorru and the temple singer).
- Apart from the young boy, we do not know exactly where our mummies were originally buried. However, they did not have pyramids! Pyramids were built as tombs for kings between the reigns of Djoser (about 2667-2648 BC) and Amenemhat III (about 1831-1786 BC) – at least 800-1700 years before the mummies in our exhibition!
- The ancient Egyptians were polytheists (i.e. they worshipped many different gods – more than 2000 are known). The only possible exception is in the time of King Akhenaten (about 1352-1336 BC), the heretic king, who introduced the worship of only one god – the solar god – called the Aten. However, it seems at least amongst the lower levels of society, many of the traditional gods were still being worshipped.
- Jean François Champollion deciphered hieroglyphs in 1822, while Thomas Young made decisive discoveries. One of their tools for decipherment was the Rosetta Stone – a decree of Ptolemy V written in Greek, Egyptian hieroglyphs and Demotic. The Rosetta Stone is today housed in the collection of the British Museum.
- There is a difference between a cartonnage, a coffin and a sarcophagus! Cartonnage is a technique like papier-mâché, which uses linen, plaster and glue. It was a form of funerary covering, which was decorated with imagery and inscriptions. A coffin is square or anthropoid in shape and is usually made of wood. They could also be nested to sit one inside the other. A sarcophagus, on the other hand, is rectangular, usually made of stone and would house the smaller wooden coffins.

