

CAT. 2.: Mummy of a Woman

IMPACT ID: IMP00095

Institution: Leiden Museum

Designation: 2

Date of Acquisition: 1826

Contact: Dr. Maarten Raven

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Image Modality: CT

Country: Egypt

Site: Thebes

Time Period: Third Intermediate Period

Dynasty: 21st to 22nd

Date: 1070-712 BCE

Sex: Female

Age: 52-60 years

Background:

The Leiden museum acquired this mummy from J. B. de Lescluze in 1826 with an associated wooden coffin and painted cartonnage (Raven et al., 2005). Inscriptions on the cartonnage and coffin for Panesy, singer of Amun and son of Padimut and Djedmutesankh, suggest that these items were not originally meant for this mummy, and were either repurposed for her in antiquity or were placed together by art dealers (Raven et al. 2005). Based on mummification technique, the mummy is dated to the 21st to 22nd dynasties of the Third Intermediate Period in Egypt (c. 1070-712 BC) (Raven et al., 2005). She is thought to have come from Thebes due to the title of singer of Amun which is inscribed on the associated cartonnage and coffin, a title which would have been associated with the city's temple of Amun (Raven et al., 2005). The coffin and cartonnage themselves have been dated to the early to mid-22nd Dynasty (c. 900-800 BC) based on the iconography present (Raven et al., 2005). X-rays and CT scans have been taken of the mummy. Anteroposterior x-rays were taken in April of 1965 and anteroposterior and later x-rays, as well as spiral CT scans were taken in September of 1999 (Raven et al., 2005).

Pathological Features:

The mummy is an adult female with a calculated age interval and final assessed age interval of 52 to 60 years (Raven et al., 2005). Her stature has been estimated as 152.6 +/- 3.51 cm (Raven et al., 2005). Overall the mummy is in pretty poor condition with both damage to the mummy itself and its wrappings.

Wide, pale bandages cover the abdomen and legs, wrapping them in a spiral pattern (Raven et al., 2005). The arms, which lie extended with the hands face down on the thighs, and the legs were initially wrapped separately, before being wrapped with the rest of the body in the general wrappings. Additional material has been added around the parietal regions of the skull, the neck, between the thighs and knees, and on the front of the legs as filling (Raven et al., 2005). The head and thorax in comparison is enclosed in linen sheet, held in place by two of the abdominal bandages, which cross diagonally over the chest anteriorly and posteriorly (Raven et al., 2005). It is possible that these diagonally-crossing bands had once been a stola, but it is difficult to tell in their current incomplete state (Raven et al., 2005). The right-sided bandage possesses a self-band which leads into a long warp fringe (Raven et al., 2005). All of the linen used to wrap the mummy is medium-fine warp-faced tabby weave (Raven et al., 2005). The linen cloth which surrounds the head has a fourfold self-band and shows both damage to the wrapping and evidence for some conservation work (Raven et al., 2005). The back side of the linen wrapping the head includes darker areas and holes which revealing resin beneath it. Additionally, there is a very white section of cloth suggests a modern restoration (Raven et al., 2005). The bandages wrapping the front and the left sides also show some of the darker spots (Raven et al., 2005). There is a small region which appears to be stucco on the right side of the mummy's outer wrappings. This area appears very dense on the x-rays which have been taken of the mummy (Raven et al., 2005). A significant amount of damage is present to these wrappings, and those which encompass the head and the anterior aspect of the thorax and abdomen are not very tight, which has permitted the skull to move around (Raven et al. 2005).

A layer of resin over the skin was the main source of this material used in the wrapping process (Raven et al., 2005). The resin has been applied in thicker layers over the torso and legs, and areas which show clumped resin on the skull suggest these to be areas where the individual had long hair (Raven et al., 2005).

There is also a homogenous, medium-to-low density substance, thought to be sand or mud, which fills many of the individual's cavities (Raven et al., 2005). This material has been observed within the skull, along with remains of the individual's brain (Raven et al., 2005). Severe damage to the cervical spine indicates that excerebration was likely attempted by way of the foramen magnum, and the filling was probably introduced to the skull in the same manner (Raven et al., 2005). The granular sand or mud material is also visible within the vertebral canal, as well as the thoracic and abdominal cavities (Raven et al., 2005). The material within the thorax and abdomen, however, shows cracks and fissures, as well as some slightly resin-soaked linen plugs which are concentrated mostly within the right side of the mummy's thorax (Raven et al., 2005).

Skeletal trauma is very prominent in this mummy. The parietals of the skull are slightly fractured, while the first four cervical vertebra are so damaged by fracturing that it is no longer possible to identify the ways in which the pieces relate to each other (Raven et al., 2005). Where the cervical and thoracic vertebrae meet, there are additional fractures and dislocations (Raven et al., 2005). The second to third until the sixth thoracic vertebrae are fractured and partially

dislocated, while the eighth to ninth thoracic vertebrae show evidence of compression, and the first lumbar vertebra is fully compressed (Raven et al., 2005). Ribs 1 through 5 on both the right and left sides are fractured and displaced from their costovertebral attachment sites (Raven et al., 2005). Fractures of the lower ribs, the right clavicle, and both scapulae are also present (Raven et al., 2005). Additionally, displacement of both sterno-clavicular and humero-clavicular joints are apparent (Raven et al., 2005). Due to all of the damage to the individual's thorax, antero-posterior compression of the chest is visible (Raven et al., 2005). The upper extremities are also fractured and displaced at their proximal ends, and the surfaces of the bones surrounding the joints show thin cortical and trabecular bone (Raven et al., 2005). As for the lower extremities, the proximal aspects of both tibias are fractured, as is the left ankle. The ankle fracture has been classified as a pylon fracture (Raven et al., 2005).

In terms of other tissue pathology, an abnormality has been identified in the upper aspect of the individual's left eye socket. However, the other features in this region, such as the ethmoid bones and the cribriform plate, are undamaged. The skull's maxillary bone is missing, and the mandible is atrophied and completely edentulous (Raven et al., 2005). Additionally, Raven et al. (2005) suggest potential osteoarthritis of the temporomandibular joints. The individual's vertebrae and their flat and long bones are lacking in density and display some areas of thin trabecular bone and others of significantly thickened trabecular bone. These findings suggest that the individual was older and suffering from osteopenia (Raven et al., 2005). Spondylosis and spondyloarthritis of the spine are also present (Raven et al., 2005). Likewise, the pelvic bones demonstrate pathological changes, with osteopenia and fracturing of the pubic and, potentially, ischial bones present. Sclerosis of the iliosacral joints has also been observed (Raven et al., 2005). Additionally, osteoarthritis of both the hips and knees is observable, as is osteopenia of the femurs and tibiae. The osteopenia is revealed by thin cortical bone (Raven et al., 2005). Spinal, pelvic, and upper leg muscle remains have been identified, but these muscles are atrophied (Raven et al., 2005).

It appears that the individual was eviscerated – her heart, lungs, stomach, intestines, liver, and kidneys were removed, and the heart was not replaced with a scarab or any other object (Wade & Nelson, 2012). While an embalming incision was not observed during Raven et al.'s (2005) examinations, they did note the presence of a rectal plug in the mummy's pelvic area, suggesting that she may have been transperineally eviscerated (Raven et al., 2005). Despite lacking her other internal organs, it is possible that there are remnants of the trachea and bronchi in the thoracic cavity, visible on x-rays as air-containing linear structures behind the sternum (Raven et al., 2005).

As for mummification artifacts, cylindrical objects present in the left and right parieto-occipital region of the skull, as well as the one over the chest, suggest the presence of beads (Raven et al., 2005). Linen plugs have been inserted into both eye orbits and a high-density artificial eye on the left side (Raven et al., 2005).

Resources

Raven, M. J., Taconis, W. K., & Maat, G. J. 2005. Egyptian mummies: Radiological Atlas of the Collections in the National Museum of Antiquities at Leiden. Turnhout, Belgium: Brepols.

Wade, A. D., Nelson, A. J. 2012. Radiological evaluation of the evisceration tradition in ancient Egyptian mummies. *HOMO – Journal of Comparative Human Biology*. 64(1): 1-28.