

Hetep-Bastet

Impact ID: IMP00009

Institution: Universite de Quebec a Montreal

Date of Acquisition: 1927

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Image Modality: CT

KVP: 120

X-Ray Tube Current: 10

Acquisition Date: 2008/11/18

Manufacturer: GE Medical Systems

Manufacturer Model Name:

LightSpeed VCT

Country: Egypt

Dig Site: Unknown

Time Period: Late Period

Dynasty: 26th Dynasty

Dates: 664-500 BC

Age: Old Adult, 40+

Sex: Female

Background:

Mummy and coffin were donated to École de Beaux Arts in 1927 from the Cairo Museum (Nelson, 2008). The mummy dates to the 26th Dynasty, which means it is about 2600 years old (Nelson, 2008; Sellier, 2018). The text on the coffin reads that the name of the mummy inside is 'Hetep-Bastet'. While at the museum the mummy was involved in a violent incident from a student in the 1970s (Nelson, 2008). After this incident the mummy was hidden in storage (Nelson, 2008).

The mummy was first x-rayed in 1997 with the purpose of examining the dental health and healed femur (Collier, 2009; LaFlamme, 1997). This report concluded the poor dental health



Figure 1. Hetep-Bastet Coffin (Sellier, 2018)



Figure 2. Coronal Section, Hetep-Bastet (Nelson, 2008)

being due to excessive consumption of beer (LaFlamme, 1997). Hetep-Bastet was on loan to the Canadian Museum of Civilization from December 19, 2008 to August 16, 2009 for an exhibit called “Tombs of Eternity – The Ancient Egypt”. While on loan the mummy was examined by a interdisciplinary team including members from the Canadian Museum of Civilization, the Ottawa Hospital, the University of Ottawa Heart Institute, UQAM, and the University of Western Ontario to create a detailed osteobiography, examine condition of the mummy, understand how the mummy was mummified, and examine wood samples with a CT machine (Collier, 2009; Nelson, 2008).

Pathological Features:

The mummy is not in perfect condition. The body is positioned with arms extended and legs on the inner thighs. The head has been separated from the body, the thoracic skeletal components are all out of place, and the feet are missing. All the vertebrae are out of position above the lumbar region, including all the ribs, clavicle, sternum, and manubrium (Nelson, 2008). It is not uncommon for mummies to have misplaced bones for varying reasons, but this dishevelment is due to the attack from a student in the 1970s (Nelson, 2008).

The mummy is easily identified as a female from the skeleton. The pelvis has a wide sciatic notch and gracile cranial features, both clear features of females. The age is difficult to be precise with, but an age of 40+ is most likely. Some joints show degenerative features, there is advanced dental wear and tooth loss, and mild osteopenia throughout the skeleton. An original age of 65+ was given in 1997 (LaFlamme), but these skeletal conditions are also seen in middle aged Egyptian mummies (Nelson, 2008).

The dental health is very poor; she only has one mandibular tooth intact and seven intact upper teeth (Nelson, 2008). The CT scans also show extensive remodelling of the mandible from bone loss where posterior teeth fell out long before death (Nelson, 2008). It is impossible to confirm that the poor condition of teeth was due to heavy beer consumption (Collier, 2009; Nelson, 2008). Similar poor dental condition is seen in many mummies, but its due to diets high in carbohydrates and sand mixed into the bread dough, not beer consumption (Nelson, 2008).

The mummy was excerebrated with the brain completely removed, except a small portion at the back of the cranial vault, but no resin was added (Nelson, 2008). During the 26th century, mummies were typically excerebrated through the nasal passage, but in this case the ethmoid, sphenoid, and nasal bones were all intact (Nelson, 2008). Instead, the excerebration was likely carried out through the foramen magnum of the skull, but its impossible to be confirmed due to the head being detached from the rest of the body, negatively effecting the ability to know where damage to the bones in from exactly (Nelson, 2008).

Due to the poor condition of the abdomen and thorax, it is impossible to know the exact conditions of the evisceration. During the 26th century mummies were typically eviscerated through an opening created in the left abdominal wall, but this cannot be seen due to the condition the mummy is in (Nelson, 2008). There is evidence of linen packing in the upper abdominal area, but it is impossible to know exactly which organs were removed (Nelson, 2008).

The arms are positioned in the same way as most mummies from the 26th dynasty, extended with hands on the inner thighs (Nelson, 2008). While wrapping, the limbs were wrapped separately and then together (Nelson, 2008). The healed leg fracture on the femur could not be confirmed (Collier, 2009; Nelson, 2008). Although artifacts are generally found with 26th dynasty mummies, none were associated with Hetep-Bastet (Nelson, 2008).

References

Collier, R. 2009. Radiologists virtually unwrap mummy's secrets. *Canadian Medical Association Journal*. 180(9): E24-E25

LaFlamme, C. 1997. Réf: Momie de l'École des Beaux Arts de Montréal de demande de visite de la momie par le Dr. Peter Lewin. Letter from Claude LaFlamme to Madame Chantal Bouthat, May 20, 1997.

Nelson, A.J. 2008. Preliminary report on the radiological examination of Hetep Bastet. Prepared for Audrey Genois of Galerie de l'Université du Québec à Montréal (UQAM).

Sellier, G. 2018. Hetep-Bastet, the unknown mummy of UQAM. *Memoirs of Montrealers*. [Internet] Available from: <https://ville.montreal.qc.ca/memoiresdesmontrealais/hetep-bastet-la-momie-meconnue-de-luqam>