910.13

Impact ID: IMP00003

Institution: Royal Ontario Museum

Designation: 910.13

Date of Acquisition: <1910

Contact:

Image Modality: CT

KVP:

X-Ray Tube Current:

Acquisition Date:

Manufacturer:

Manufacturer Model Name:

Country: Egypt

Dig Site: unknown

Time Period: Roman

Dynasty: unknown

Date: unknown

Sex: unknown

Age: <6 months old

Figure 1. Painted shroud of 910.13 (Nelson, 2008)

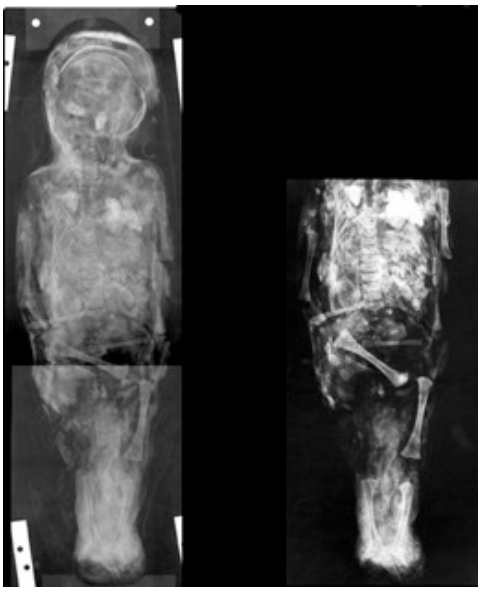

Figure 2. 2008 Digital x-ray compared to UofT x-ray (Nelson, 2008)

Background:

The exact origin of the mummy is unknown, but it has been assigned to the Roman period due to the design of the painted textile it is wrapped in (Nelson, 2008; ROM Media, 2008). The exact time it arrived at the museum is also unknown, but it was donated by the ROM founder, Director C.T. Currelly, some time before 1910 (Nelson, 2008).

On August 15, 2007, the Royal Ontario Museum loaned three mummies to the University of Western Ontario to be studied by Dr. Andrew Nelson of the Anthropology Department (Nelson, 2008; ROM Media, 2007). The CT scans were conducted at the London Health Sciences Centre in London, Ontario (Nelson, 2008). 910.13 was scanned twice, the first time on

October 29, 2007 to assess condition of the mummies and image quality and again on January 29, 2008 to try new imaging protocols to maximize image contrast and minimize signal to noise ratios (Nelson, 2008).

Pathological Features:

Several of the bones of 910.13 are displaced from their anatomical position, meaning the mummy was likely violently disturbed after desiccation when the joints were brittle and not able to hold in place (Nelson, 2008; Nelson et al., 2009; ROM Media, 2007). Bone displacement is not uncommon in Egyptian mummies. A partial x-ray of 910.13 was taken at the University of Toronto approximately 20 years before the 2007-2008 scans (Nelson, 2008). Comparing the scans from 20 years apart the bones seem to be dishevelled the same amount, indicating the bones were violently shaken in antiquity or even when being removed from the tomb (Nelson, 2008).

Sex is not able to be determined since the infant skeletal system does not display sexual dimorphism (Nelson, 2008). Nelson (2008) tried to determine if there was presence of a penis or labia via midsagittal CT slices but this was inconclusive.

Age is also difficult to determine on this mummy. Most of the tooth buds have fallen out of the alveolus, so determining age based on dentition is impossible (Nelson, 2008). On closer examination of the bones, the epiphyses are present on the long bones, indicating the individual has passes the age of birth, but the two halves of the mandible had not fused together (Nelson, 2008). This information means the individual was most definitely born, but less than six months old (Nelson, 2008).

The internal organs were eviscerated and replaced with packing in the thoracic and abdominal cavities to prevent the body from collapsing (Nelson, 2008). The brain also appears to have been eviscerated, but the removal location is not determined (Nelson, 2008).

There also appears to be a dense layer of wrapping above and below the mummy, thought to be a fabric layer covered in gesso (Nelson, 2008). The gesso layer appears to have been applied after the body was desiccated and already flat with only one layer of fabric wrapped on top of the gesso layer (Nelson, 2008).

References

Nelson, A.J. 2008. Preliminary Report on the Radiographic Analysis of Three Egyptian Mummies. Report submitted to the Royal Ontario Museum on June 5, 2008.

Nelson, A.J., Chhem, R., Cunningham, I.A., Friedman, S.N., Garvin, G., Gibson, G., Granton, P.V., Holdsworth, D.W., Holowka, S., Longstaffe, F., Lywood, F., Nguyen, N., Shaw, R., Trumpour, M., Wade, A.D., & White, C.D. 2009. The ROM/UWO Mummy Project: a microcosm of progress in mummy research. Poster presented to the 1st Bolzano Congress on Mummy Studies, Bolzano Italy, March 18-21, 2009.

ROM Media. 2007. ROM Mummies Undergo CT Scans. Royal Ontario Museum Press Release. Published October 20, 2007. https://www.rom.on.ca/en/about-us/newsroom/press-releases/rom-mummies-undergo-ct-scans