

New health scans provide data on ancient mummies

October 15 2014, by David Hunn, St. Louis Post-Dispatch

A mummy rolled down hospital hallways here on Sunday. Amen-Nestawy-Nakht, a 3,000-year-old Egyptian priest, was getting a CAT scan at Barnes-Jewish. It was probably his second. The last one was a couple of decades ago, when technology wasn't what it is now.

A team of art museum officials and university doctors hoped this round could reveal new information: His cause of death. New data on his health. And, perhaps, a few artifacts left inside the cartonnage - that elaborately painted hardened wrapping that often covers a [mummy's](#) body - after grave robbers made off with the bulk of the valuables, probably thousands of years ago.

The St. Louis Art Museum hired a company of art movers to pick up Amen-Nestawy and two other mummies on Sunday, load them into specially made foam cases, truck them to the Siteman Cancer Center in the city's Central West End, and slide them onto gurneys. A team of Washington University professors, doctors and radiologists donated their time; Barnes donated its space and the 3-D X-ray scanners.

"This is really the best way to look at these mummies," said Michelle Miller-Thomas, a radiologist who specializes in head, neck and brain imagery. "There's no other way without unwrapping them and permanently damaging their remains."

Results, she said, could help the team better understand Egyptian health - and, correspondingly, modern-day health. For instance, some mummies

still have arteries in their mummified remains, Miller-Thomas said. And, sometimes, scientists can tell if those arteries had hardened.

Moreover, said Lisa Cakmak, assistant curator of ancient art at the St. Louis Art Museum, the video and images taken during these CT scans soon will become part of the exhibit at the [art museum](#).

"This allows you to actually reimagine the individual," Cakmak said.

Amen-Nestawy, who probably lived in the ninth or 10th century B.C., is owned by the St. Louis Art Museum. The two others - Pet-Menekh, a priest from the third or fourth century B.C., and Henut-Wedjebu, a 13th-century-B.C. upper-class woman - are owned by Washington University's Mildred Lane Kemper Art Museum but are on long-term loan at SLAM.

By Sunday afternoon, the team had scanned Henut-Wedjebu and Pet-Menekh (who stunk - doctors weren't exactly sure what caused the odor), and wheeled Amen-Nestawy into C.T. 5.

"This one is tall," one of the technicians said.

"And the feet are really tall," said another. "This is going to be interesting."

But the mummy fit just fine into the circular scanner opening. The doctors crowded into the control room and stared at the computer. And then Amen-Nestawy's insides came up on the screen.

Doctors will be analyzing results for a few months still. But there were some curious details: The priest's body was shorter than his wrappings; his head had slipped down and his spine so severely fractured it could not have happened before his death, doctors said. It may have been the

result of an early grave robbery.

And as the giant machine scanned the mummy, and the computer displayed morphing Rorschach blotches in black-and-white, it picked up a circular object, in the middle of his chest, that robbers didn't get. Doctors said it looked like a two-centimeter-wide amulet.

The scan will plot the exact size and shape of that object, and doctors will take it to be printed on Washington University's 3-D printer. And that, Miller-Thomas said, means that soon someone will hold the likeness of an ancient Egyptian amulet, for the first time in 3,000 years.

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