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Dating a Mummy: Determining Background on Museum Objects With No Provenience

Analysis by: Shannon Wood

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Background

In 1994, a donor gave an Egyptian falcon mummy to the Museum of Peoples and Cultures at Brigham Young University with the supposition that the mummy was cursed and he never wanted to see it again. The donor provided little information on the mummy besides that he had purchased it from an antiquities dealer in California for a large sum. When I came across research in my studies on the contents of Egyptian animal mummies at the Cairo Museum, it piqued my curiosity about the contents of the one owned by the MPC.

The mummy was taken to Utah Valley Regional Medical Center in Provo, where it was x-rayed and scanned with a Computed Tomography (CT) scanner. The results from the scans showed that the mummy did not have a bird inside—not even a part of a bird. Instead, it contained a dense mass of material in the center of the casing. This discovery pointed to the possibility of the mummy being a case of ancient fraud, as hastily manufactured animal mummies were common in Ptolemaic Egypt, when the popularity of animal mummies being used as votive offerings was at its height.

Comparative analysis on the wrapping style with the intent of dating the mummy by seriation indicated a unique form, in which the mummy displayed human feet, a bird head, and was covered in cartonnage instead of displaying the cloth wrapping itself.

Discovery of a Fake

Since the CT scan and x-rays did not produce any concrete information on the mummy’s background, and the comparative research on the wrappings proved only that the style was unusual, I began to prepare for obtaining a bit of the cloth wrapping for carbon-14 sampling. It was only after expending the noninvasive research methods available that carbon-14 dating was considered.

A small incision was made at the back of the foot of the mummy and a small portion of the cartonnage removed. After pulling a bit of the cloth for the sample, a white substance was apparent beneath the wrapping. Under a microscope, the substance looked very like styrofoam. To be certain of this supposition, a bit of the material was placed in acetone, a chemical known to dissolve the compounds in styrofoam and other industrial foams. It dissolved. This observation concluded that the mummy was a modern fake.

Using Modern Technology to Build a Background

Often, museums will receive donated objects from donors who do not know the origins of the object(s) they donate. It is important to attempt to build a background for these unprovenienced objects, particularly if the object is one to be of great cultural or public interest, or if the object will be displayed.

Hospitals are very willing to assist in research where scanning technology (such as CT scanners or x-rays) is utilized. These important resources can and should be utilized as they are noninvasive research methods, and objects without provenience should be researched not only to determine authenticity, but also to build a general knowledge in order to enlighten the community and potential researchers.