Smithsonian Center
for Materials Research and Education

Topics in Conservation Science
Lecture

AMS Radiocarbon Dating for Museum Collections

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Most archaeologists have a working knowledge of radiocarbon dating. This knowledge is less common among museum curators, conservators and scientists whose collections may not be defined as archaeological, but nevertheless contain dateable materials. This talk will outline the method of radiocarbon dating by accelerator mass spectrometry, including a discussion of calibration, the process by which 14C measurements are translated into calendar dates.

In addition to its conventional uses, 14C measurements can also be used to detect 20th Century forgeries of art and artifacts purportedly created before 1955. Examples, both extant and potential, will be discussed. The presentation will conclude with a discussion of new sample handling methods potentially applicable to objects within museum collections.

SCMRE Theater • Museum Support Center • 4210 Silver Hill Road
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