Sample Lesson 6: Technical Materials Analysis

Overview:
Many sophisticated analytical techniques are available to yield information about the age, origin, or composition of the materials from which objects are made. Knowledge of such physical properties can contribute distinct insights to many research questions. The Smithsonian’s Museum Conservation Institute provides a range of analytical services in support of object research.

Goals:
- learn about the range of technical analyses that are possible
- gain familiarity with practical steps in the implementation of some analyses
- consider how materials analysis can be of use for research in cultural anthropology

Session outline:
Presentation on the purposes and capabilities of the MCI.
Tour of the analytical labs, viewing instrumentation and tests in progress.

Presentation by MCI staff on:
- raw instrumentation output and how it is correlated with standards to yield results.
- destructive and non-destructive sampling and the size of physical samples.
- examples of recent research projects employing technical analyses

Summary discussion of the types of anthropological research questions to which materials analysis could contribute.