

## Center for Archaeological Materials/Center for Materials Research in Archaeology and Ethnology

The mission of the [Center for Materials Research in Archaeology and Ethnology](#) (CMRAE), a consortium of eight Boston-area educational and cultural institutions, is to advance our understanding of prehistoric and nonindustrial societies through analysis of the structure and properties of materials associated with human activity. Plant and animal food remains and human skeletal material, as well as metal, ceramic, stone, bone, and fiber artifacts, are the objects of study, along with the environments within which these materials were produced and used. At the Center for Archaeological Materials (CAM) at MIT, investigators concentrate on the materials processing technologies that transform natural materials into cultural objects.

CAM is administered by the Office of the Provost. In 1998–1999, the Department of Materials Science and Engineering (DMSE) established a new undergraduate major in archaeology and materials, Course 3-C, as well as an interdisciplinary doctoral degree program in archaeological materials. These are the only academic degree programs of their kind in the United States. The graduate students enrolled in the PhD program, as well as the undergraduate Course 3-C majors who participate in the Undergraduate Research Opportunities Program, all carry out their dissertation and senior thesis research in the CMRAE laboratory facilities.

Ten students have graduated from the 3-C program and one PhD degree in archaeological materials has been awarded by DMSE. In AY2012, one PhD student, one master of science student, and three Course 3-C undergraduate majors were enrolled in the DMSE/CMRAE programs.

In AY2013, CMRAE offered its annual two-term graduate subject 3.984 Materials in Ancient Societies. The subject was metals and metallurgy in archaeological contexts. Three graduate students enrolled: two from Boston University and one from MIT. These students had the privilege of carrying out substantial portions of their laboratory investigations at the Museum of Fine Arts, Boston, where they studied and sampled ancient Nubian metal artifacts. They worked under the guidance of the museum's curators of the ancient Egyptian collections, as well as under several of the museum's objects conservators and conservation scientists.

Archaeological Science—the CMRAE/CAM undergraduate subject offered jointly by DMSE, the Department of Chemistry, and the Department of Earth, Atmospheric, and Planetary Sciences—continues to enjoy high popularity among students from CMRAE institutions. Of the 53 students enrolled, 48 were from MIT, two from Brandeis University, one from Harvard University, and two from the University of Massachusetts. Ten faculty members from six CMRAE institutions lectured in the subject. During the spring term, 40 undergraduate students in subject 3.094 Materials in Human Experience were engaged in lecture and laboratory sessions that explored the development of

metallurgy among Andean societies in prehistory. The students were also introduced to materials science and engineering as well as to the environmental hazards of “critical” materials that are used globally at increasing rates. Subject 3.094 continues to recruit many first-year students to Course 3, Materials Science and Engineering, as their major.

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