

The Archaeological Chemistry Laboratory at Arizona State University is one of the few facilities in the world dedicated to using techniques from chemistry and geology to understand archaeological and bioarchaeological questions, such as:

- How and why do people migrate?
- What was the role of migration in political integration and expansion?
- What did people eat in the past, and how did diet vary according to age, sex, status or other identities?
- How did the organization of subsistence activities change over time?

School of Human Evolution & Social Change

The School of Human Evolution & Social Change exists to address the most fundamental questions and complex issues facing society today. The faculty specialize in diverse disciplines along with the school's core focus of anthropology, offering a rich curriculum and abundant opportunities to conduct interdisciplinary, policy-relevant research. Organized around six dynamic research themes, faculty and students—engaged with scholars around the globe—study the complexities of human societies over the very long term, often from their origins to the present, to discover long-term trends, recent variations, and new ways to imagine and construct the future.

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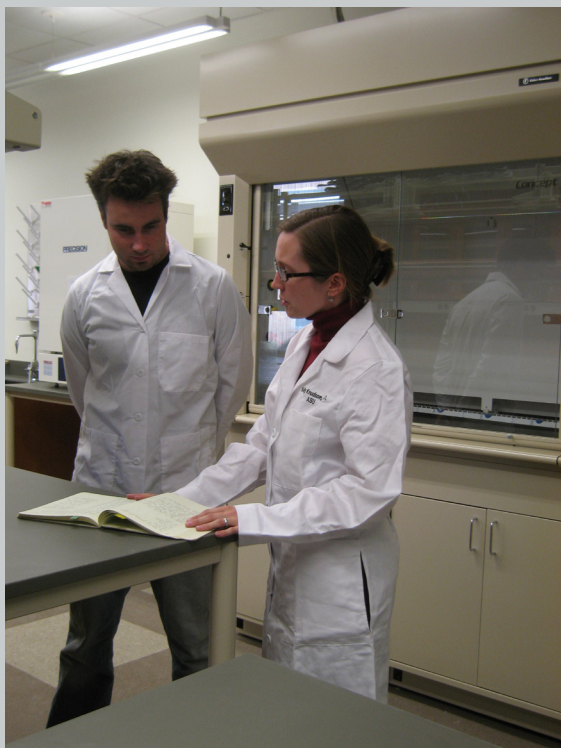
Archaeological Chemistry Laboratory

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ACL RESEARCH PROJECTS

At the ACL, we use geochemical techniques to better understand our human past. Much of our work focuses on archaeological migration and residential mobility through heavy and light stable isotope analyses (e.g., strontium and oxygen isotope analyses) of archaeological tooth enamel and bone in South America, Africa and Europe. We also examine elemental signatures in ethnoarchaeological and archaeological soils in western Alaska to investigate past subsistence activities.



Archaeological Chemistry Laboratory

ACL FACILITIES

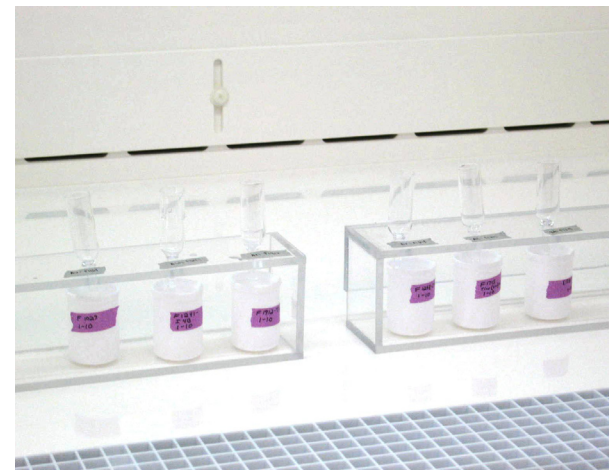
The Archaeological Chemistry Laboratory (ACL) is part of the Center for Bioarchaeological Research in the School of Human Evolution & Social Change at Arizona State University. The ACL has over 1,000 square feet of newly renovated laboratory space dedicated to archaeological sample preparation. Elemental and isotopic composition of archaeological and modern samples are then analyzed on the mass spectrometers in the W.M. Keck Foundation Laboratory for Environmental Biogeochemistry in the School of Earth and Space Exploration at ASU. The Archaeological Chemistry Laboratory is located on the third floor of the Anthropology Building on the Tempe campus. Come and visit us anytime!

Student Participation and Training

Both undergraduate and graduate students from Arizona State University and other institutions are an integral part of the ACL. Through independent projects and laboratory employment, students can gain laboratory experience in research design, sample



Processing archaeological teeth



Preparing strontium isotope samples

selection, preparation, analysis, and data interpretation. Students are also encouraged to take Human Behavior through Bone Chemistry, an upper-level undergraduate and graduate course that emphasizes hands-on laboratory experiences.

Contributing to the ACL

If you would like to volunteer your time or help support research at the ACL, please contact Kelly J. Knudson.

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