River Archeological Survey (1980-2004) and did extensive CRM work for the Pennsylvania Avenue Commission that revived the area between the Capitol and White House. Moving to Baltimore in 1987, she became research scholar in ceramics at the Maryland Institute College of Art, and was a real estate investor and general contractor. She conducted research on contemporary potters in Mexico, Central America, Spain and Italy, and wrote extensively about present-day studio potters and ceramic artists in the United States, Canada, Nepal, South Korea, Latvia, Finland, Italy, and Britain.

From 1980 to 2005 she published 49 articles, presented 38 papers, authored *The Pottery of Acatlán: A Changing Mexican Tradition* (1982), based on her dissertation, and a biography of a Montana ceramic artist, *Rudy Autio* (2002); and co-edited *A Pot for All Reasons: Ceramic Ecology Revisited* (Kolb and Lackey, 1988). A contributor to *Ceramics Monthly* (12 articles), she also authored chapters on Mesoamerican Thin Orange ceramics in two volumes of *Research in Economic Anthropology*, and was co-organizer of the Ceramic Ecology symposia held annually at AAA meetings since 1986.

Louana was a long-time member and a board member of the National Council on Education for the Ceramic Arts (NCECA); a member of the Society of Women Geographers, AAA, SAA, SHA, and AIA. She served as president of the Association of Senior Anthropologists (1994-1996) and wrote the "seniors" column for *Anthropology News* (1990-1994). She was elected to the Académie International de la Céramique in 1994, one of only 80 Americans so honored.

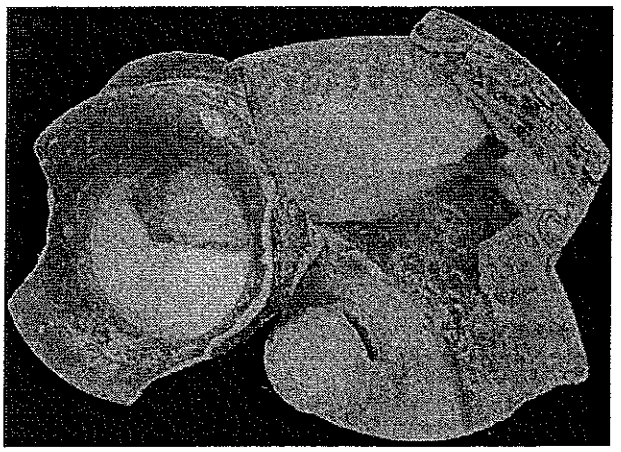
Louana was predeceased by her husband, Melvin Lackey (1987), the editor of publications for the Joint Chiefs of Staff; on May 17, 2005, she married Dr. Michael Salovesh, a social anthropologist and linguist, who died December 7th. Although she never held a full-time teaching position, her writings and the mentoring of young anthropologists and art historians will long be remembered.

Charles C. Kolb

Implications of Volcanic Ash in the Maya lowlands: Glass Shards in the Pottery Sherds

Anabel Ford
ISBER/MesoAmerican Research Center
University of California Santa Barbara
ford@marc.ucsb.edu

The primary objective of this recently NSF funded research is to identify the source or sources of volcanic ash used as ceramic temper in everyday-use pottery by the central lowland Maya in the Late Classic period (AD 600-900). Correct identification will enable us to recover evidence of cultural, ecological and environmental influences. Archeologist Anna O. Shepard first identified volcanic glass in Maya pottery sherds and struggled for 30 years to solve the mystery of its source(s) -- the lowland Maya lived on carbonate bedrock outcrops and clay deposits with the closest volcanic sources 350 km away. How did relatively large volumes (~106 m^3) of volcanic ash become available for manufacturing of ceramic products before the introduction of draft animals? This question has never been answered. We propose to



Ash-tempered (so-called "Tinaja" paste) sherds

apply 21st century geochemical and volcanological tools including Laser Ablation-Inductively Coupled Plasma Analysis (LA-ICPA), Thermal Ionization Mass Spectrometry (TIMS), Electron Microbeam Analysis (EMA) and models for the transport and dispersal of volcanic ash to study: (1) The effects of ceramic starting material (clay plus small fraction of carbonate lithic inclusions) and firing on the composition of volcanic glass shards found within the pottery sherds, (2) The major, minor, trace elements (including REEs) in and isotopic ratios of 87Sr/86Sr, 206Pb/204Pb and 207Pb/204Pb of glass shards within the pottery fragments, (3) The spatial and temporal matches for the elemental composition of glass shards and phenocrysts in the pottery sherds to candidate volcanoes of the Central American Highlands (CAH) and the Mexican Volcanic Belt (MVB), (4) Patterns of ash fall dispersal into the carbonate lowlands for the candidate volcanoes based on models of eruption cloud dynamics and the vertical structure and variability of the winds and (5) The consequence of volcanic ash fall on the Maya lowland soil, plant, and animal life. We also will address the implications of volcanic ash on Maya cultural development and on refining lowland Maya chronology.

The study centers on the implications of the presence of volcanic ash in the Maya lowlands in both the development of the Maya economy and impact on the ecology of the Maya forest. Pristine, fresh volcanic ash has been known as a dominant tempering agent in the Late Classic Maya ceramics. While it has been accepted that the ash was of non-local origin, this anomaly has never been explained. Identification of the source of the volcanic ash used by the ancient Maya has implications for the economy of ceramic production as well as the ecology of the Maya forest. Resolving the origin of the unexplained appearance of volcanic ash in the Late Classic, coincident with the apex of Maya civilization, will contribute directly to our understanding of the development of the Maya society and address the impacts of volcanoes at a distance.

The research will contribute to our understanding of the impacts of volcanic eruptions in prehistory. The isolation of the source or sources of the volcanic ash in the Maya lowlands will impact the knowledge of the facets of volcanoes, identifying major eruptions that would have inevitably presented hazards locally but produced benefits at the distal end of its distribution. The resolution of the source or sources of the volcanic ash could have far reaching implications with respect to the rise and collapse of the ancient Maya civilization. Importantly, this project demonstrates the potentials of collaboration between archaeology and volcanology, where divergent fields bring their assets to a common problem. The results will represent an innovation in science with the full involvement of distinct fields in problem-oriented research to solve an ancient problem but one with implications for modern societies and how such societies interact with their environments and especially with natural geologic hazards.

Newsnotes

Kaddee Vitelli reports: "My volume on the Neolithic pottery from Lerna I and II (Greece) is in press with the American School of Classical Studies at Athens Press in Princeton, NJ. I was able to make a few interesting observations about differences in the manufacturing procedures from the contemporary potters at Franchthi Cave, but because of excavation procedures (the site was excavated in the '50s) was frustrated on most fronts, so I ended up talking as much about appropriate excavation and recording procedures as about pottery."

"I'm still looking for good clay in Maine—though I have finally found a good source of manganese: when I cleaned clay from the vicinity of an old brick works, in what is now a swampy woodsy area, I was about to throw out the pile of little rounded nodules that came from the clay when something clicked. I tried grinding the nodules and sure enough, they are manganese oxide and produce a lovely velvety brown-black pigment when fired,