

ARCHAEOLOGICAL AND PALEOENVIRONMENTAL RESEARCH IN THE NDALI CRATER LAKES REGION OF WESTERN UGANDA

PETER SCHMIDT AND JULIUS LEJJU

During the summer of 2014, faculty and students from the University of Florida participated in a collaborative research project in western Uganda with faculty, staff, and students from Mbarara University of Science and Technology (MUST), Kyambogo University, Rollins College, and the National Museum of Uganda. The overarching goal of our research was to inquire into the history of human settlement among the crater lakes east of the Ruwenzori Mountains, with the subsidiary goals to assess anthropogenic change to the environment as well as climatic change. The geographical setting—several score of small crater lakes within a small 12 x 15 km core zone—provides an ideal set of conditions for studying environmental change from lake cores. Prior research in the regions by Peter Schmidt in 1995 showed that there was significant early settlement along the margins of lakes and throughout the crater lake zone. This suggested a high potential for fine-grained analysis of human-induced environmental change vis-a-vis climate change.

Prior paleoenvironmental research shows that there was a significant burning episode about 1000 BC, an event that we speculated could possibly be tied to early human activity. The modest archaeological testing program of 2014 documented distinct burning strata in two sites, both associated with Late Stone Age (LSA) materials—one dated to the 4th millennium BC and the other to the 2nd century AD. This suggests that possible intensification of hunting and gathering activities may be associated with these locales in a humid,

forested landscape. The more recent site holds diverse lithic resources used in stone tool production, moving from a quartz-based industry to one that incorporates a wide range of chert resources alongside quartz. A high frequency of LSA remains across the landscape suggest strong possibilities for fruitful inquiry pertaining to the mid to later Holocene period.

Our program of survey and test excavation showed a pattern of population growth and diminishment during the Iron Age in several major cycles: 1) the Early Iron Age, starting about 500 BC with significant impact on forest resources; 2) the turn of the millennium at 1000 AD, marked by the incursion of a second group with a distinctive stamped and carved roulette pottery; and 3) a significant presence of large villages during the so-called Ntusi/Bigo period which, further to the West by 200 kms, started about 900 AD and ran until approximately 1400–1500 AD. The growth of large communities in the mid-second millennium AD may have been a response to the drying episodes associated with Little Ice Age in dryer central Uganda—inducing communities to move west into the wetter crater lakes region. Finally, a new chronological chapter has been added to Ugandan history with documentation of the Boudiné culture. Ambiguous in its chronological attributions (ranging from early first millennium AD to the 18–19th century AD) over the last five decades, there is now evidence for Boudine-associated sacred sites—numerous cemeteries—on crater rims spanning the first millennium BC. The presence of this cultural component may allow more viable explanations environmental perturbations observed in the paleoenvironmental from

the late 2nd millennium BC to the late first millennium BC.

Paleoenvironmental Research: We succeeded in obtaining a number of deep cores from Kabata swamp dating back 13,000 years, where other researchers laid out the first known patterns of landscape change. Using phytolith analysis with pollen analysis we hope to produce a more fine-grained environmental record that is tightly correlated with results from a number of test excavations along the western, southern, and eastern rims of this caldera. Moreover, several deep cores taken from marshy contexts in the Lake Rwakenzi basin, provided paleoenvironmental records over the last 6800 years.

Community Outreach: The Uganda National Museum staff worked with other members of our team to effect outreach to schools, churches, local governmental authorities, and the major local employer—the Ndali Vanilla Factory. School outreach focused on upper primary (5–7) and the only secondary school. Presentations of our research goals and scientific methods in both archaeology and paleoenvironmental research were followed up by distribution of permanent posters in English and Lutoro, the local language. These were very well received and used the principle that a trickle-up approach from kids to adults is more effective in communicating our research goals. Presentations to local churches occurred on several occasions, sending teams of investigators along with our outreach personnel to answer questions that arose from a population very sensitive to land issues, given court-affirmed claims by expatriate land owners for land lost during the Idi Amin regime.

Peter Schmidt is professor of anthropology and former director of CAS. Julius Lejju is associate professor of biology at Mbarara University of Science and Technology (MUST). Research was funded by the National Science Foundation, the Paleontological Scientific Trust (PAST) and Scatterlings of Africa Programme, MUST, and the Foundation for African Prehistory and Archeology and its donors.