

ence that quenching from a high temperature makes: it turns it [high-tin bronze] from a bright silver to bright gold. The ancient people of Ban Chiang used this metal for thin wire-like necklaces. I can't quite imagine how they had so much control over this brittle material that was so hard to work with.

Also remarkable to me is the conservatism of the bronze technology. The basic elements of technology were in place from the appearance of metals (c. 2000 BC) and little change occurred over the next 2000 years. Well of course iron appeared, but they used the iron for very similar types of artifacts—bangles and socketed tools. It is also remarkable to me how different the ancient metal technology of both bronze and iron in Thailand is from that of China.

**AA:** *What will you do when the book is finally published?*

**EH:** Sleep until 10am every day AND resume my interrupted search for inner peace—hot tubs and champagne.❖

## MMAP 2005

AN EXPEDITION TO LAOS  
THROUGH MUSEUM  
VOLUNTEERS' EYES

*by Bill Henderson and  
Beth Van Horn*

*MMAP was supported solely by grants from the National Geographic Society and the National Science Foundation's High Risk Archaeology Program.*

Three volunteers—Beth Van Horn and Bill and Barbara Henderson—set off together from Philadelphia on the snowy afternoon of March 9th, 2005 to join the Middle Mekong Archaeological Project (MMAP). Two days later we arrived in balmy Luang Prabang loaded down with technical equipment, satellite phones, GPS devices, surveyors' vests and a very heavy flat-panel computer screen that Beth somehow managed to hand-carry. We were met at the airport by Joyce, who settled us into the Ban Lao guesthouse with Shawn Hyla (Museum IT) and Olivia Given (Penn PhD student).

We had a day to experience Luang Prabang at leisure in the haze of jet-lag, then started our first task of assembling, sorting and labeling field equipment. Beth or Joyce began almost daily runs to the airport via "tuk tuk" (motorcycle taxi) to fetch more archaeologists, and our international team grew. Soon we all moved into the tidy little building behind the Luang Prabang Palace Museum to set up MMAP's lab facilities.

The task of MMAP 2005 was to do rapid surveys of three Mekong River tributaries in Luang Prabang province in search of sites from the Middle Holocene (c.6000-2000 BC) and potential precursors to the Ban Chiang tradition. Because

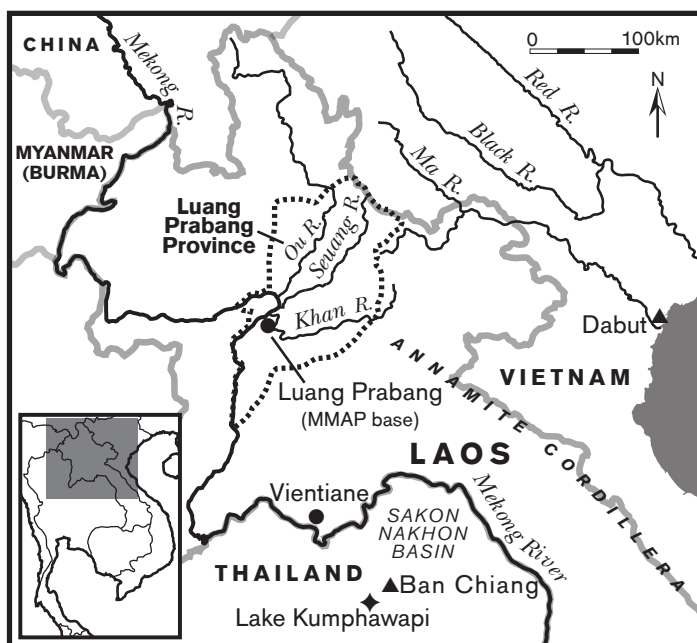


Bill and Barbara Henderson organizing field equipment in the lab at the Palace Museum.

the MMAP teams used mobile GIS (Geographic Information System) and digital photography to record sites, they were able to cover a lot of ground and to bring back a rich dataset and surface artifacts from 56 promising sites. Their productivity led to a lot of volunteer "opportunities."

We spent hours entering data into laptops, downloading

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Middle Mekong Basin and the 3 Mekong tributaries—the Ou, Seuang, and Khan Rivers—surveyed during MMAP 2005.

data from field team hand-held computers, washing and labeling artifacts, and photographing particularly interesting objects. In our “spare” time we worked on entries for the web log that was (and still is) posted to the Museum’s MMAP website *www.museum.upenn.edu/mmap*. Again we had the chance to wander through Luang Prabang, but now we were on the hunt for the best-priced AA batteries and bottled water to keep the field equipment and teams going.

Each of us, in turn, also had the chance to ride with a field team down dusty roads, to see the local villages and to trek to a few of the sites along the Nam (River) Seuang that was being surveyed. Bill went out on a couple of the more daunting hikes with the teams, and shot many hours of video footage to document the project.

Our culture shock was sur-



Beth Van Horn, with MMAP 2005 co-directors Bounheuang Bouasisengpaseuth and Joyce.



Al fresco lunch for a field team, with a spectacular view of the Mekong River.

prisingly limited and was often eased by our Lao colleagues. Luang Prabang is still pretty quiet by Western standards, although it was recently named a UNESCO World Heritage site and is drawing more tourists every year. A quirky sight on the main street was internet cafés full of tourists sitting side by side with Buddhist monks in saffron robes, all intently checking email.

The food was quite good, especially at the restaurants whose main customers were local. One big surprise involved a dinner for five that cost about US\$5.60! Laos is a cash-poor country and it welcomes US dollars, yet prices were low on just about everything. Moneychangers were always convenient, but we learned to change no more than \$20 at a time. Our money belts were stuffed very quickly because we got more than 10,000 Lao kip to the dollar and the largest Lao bill is 20,000 kip (\$2)!

All in all it was a very interesting and pleasant experience. Beth hopes to return for a future season, but Bill and Barbara probably will just follow the MMAP blog from the comfort of home.❖

## Recent Publications

*that use data from Penn Museum's research in Thailand*

**Joyce White, Daniel Penny, Lisa Kealhofer, and Bernard Maloney**

2003 “Vegetation Changes from the Terminal Pleistocene Through the Holocene from Three Areas of Archaeological Significance in Thailand.” *Quaternary International* (2004). 113(1):111-132.

**Joyce White and William Henderson**

2003 “Pottery Anatomy: Review and Selection of Basic Nomenclature as a Step Toward a Searchable Rim Form Database for the Sakon Nakhon Basin.” *Bulletin of the Indo-Pacific Prehistory Association* 23:35-49.

**Joyce White and Chester Gorman**

2004 “Patterns in Amorphous Industries: The Hoabinhian Viewed Through a Lithic Reduction Sequence.” In *Southeast Asian Archaeology: A Festschrift for Wilhelm G. Solheim II* Edited by Victor Paz Quezon City: University of the Philippines Press. Pp. 411-441.

**Joyce White**

2004 “Comment on Dates from a Resin-coated Sherd from Spirit Cave, Thailand.” *Antiquity* 78:184-187.

**R. Alexander Bentley, Michael Pietrusewsky, Michele T. Douglas and Tim C. Atkinson**

2005 “Matrilocal transition during the prehistoric transition to agriculture in Thailand.” *Antiquity* 79(306):865-881.

**Christopher King and Lynette Norr**

2006 “Paleodietary change among pre-state metal-age societies in Northeast Thailand: a study using bone stable isotopes.” In *Bioarchaeology of Southeast Asia*. Edited by Marc Oxenham and Nancy Tayles. Cambridge Studies in Biological and Evolutionary Anthropology (No. 43). Cambridge University Press.❖