FRIEND of BAN CHIANG – a UNESCO World Heritage Site –

The Ban Chiang UpDATE

Newsletter for the Friends of Ban Chiang

*Preserving a **UNESCO** World Heritage Site Issue #13 Winter/Spring 2006*

From the Director ARTIST

by Ardeth Abrams

While Joyce is whipping the Ban Chiang Metals Volume into shape, working on her own Stratigraphy volume, and preparing for a spring trip to Thailand, Laos, and the Manila IPPA Conference, she has again asked me to write the opening statement of this newsletter.

Joyce is honored to have been invited by the Ban Chiang National Museum and the Tourism Authority of Thailand to present her 3 decades of Ban Chiang research at a seminar in February 2006. The meeting is in conjunction with the celebration of Ban Chiang receiving UNESCO World Heritage Site status over a decade ago.

Also in the news is our new Thai Archaeology Challenge Grant (see SPOTLIGHT on this page). Your contributions will be matched dollar for dollar, all supporting the analysis and publication of the Ban Chiang excavations. Currently FOBC funds support our work on the Metals

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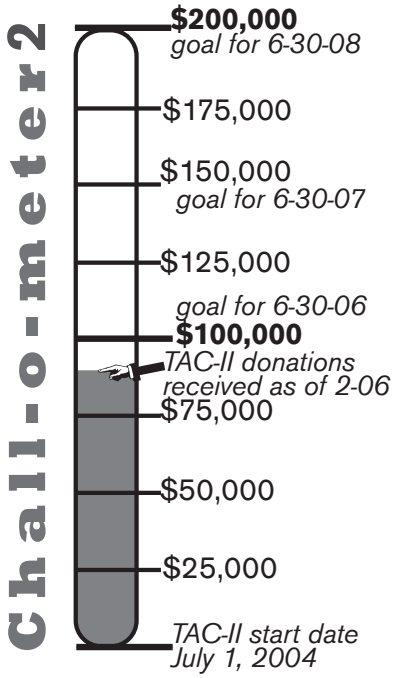
Thai Archaeology Challenge II



July 2004-June 2008
Please help us reach our goal of $200,000 by year 2008!

SPOTLIGHT

on John and Christie Hastings

Thai Archaeology Challenge II was established in July 2004 by long-time museum members and volunteers John and Christie Hastings. Contributions to this new Challenge will be matched up to $100,000. Donations support publications of monographs that document Ban Chiang's metallurgy, stratigraphy, and pottery.

"From our many years of involvement with the Museum, we know that monographs presenting data from excavations are the primary means of preserving and disseminating the Museum's accomplishments."

—John and Christie Hastings

$ Examples of your FOBC dollars at work! $

◆We recently purchased a professional quality flatbed scanner to scan thousands of archaeological photographs, illustrations of artifacts and burials for our monographs and archives.

◆Also, a slide scanner was purchased to digitize thousands of BC slides and negatives for publications, monographs, the web, and our archives.

◆FOBC funds pay the salaries of scientist collaborators such as Elizabeth Hamilton and publications personnel such as Ardeth Abrams.

◆We are currently **saving up** to hire a new editor assistant. This person will replace Christine Sherman and continue the copy-editing and manuscript preparation of the Metals and Stratigraphy volumes.

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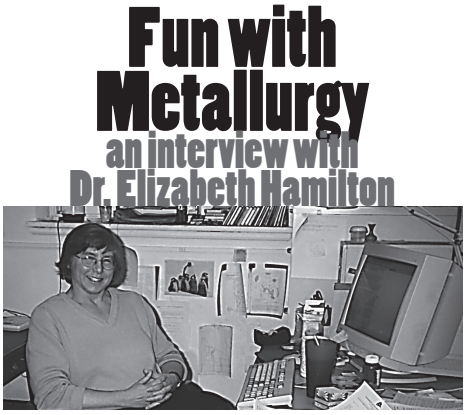
monograph (see Fun with Metallurgy.)

This issue of UpDATE also has volunteer perspectives on the MMAP 2005 expedition to Laos (supported separately from Ban Chiang by grants from the National Science Foundation and the National Geographic Society), new faces in our Lab and, for the first time in UpDATE, a crossword puzzle created by our own seasoned volunteer, Bill Henderson!❖



Dr. Elizabeth Hamilton has been working on the Ban Chiang metals analysis and monograph part-time for the Ban Chiang Project since the summer of 1999. Funds from Friends of Ban Chiang have supported her work since then. Elizabeth received her PhD from UPenn in 1995. Most of her pre-Ban Chiang research focused on the archaeometallurgy of later prehistoric and early historic periods in Europe. She also has research interests in the anthropology of war. Elizabeth has taught a number of courses at Penn and excavated at sites in the U.S., Germany, Egypt, India, France, and Iceland. Her dry wit periodically puts us in stitches.

AA: *Elizabeth, in your best estimation, what is the current status of the Metals Volume?*

EH: It's about 93% finished—but what we *REALLY* need to do is chain Joyce to her desk for a few months to finish writing *HER* chapters!

AA: *Give us an idea of your work experiences at the Ban Chiang Lab.*

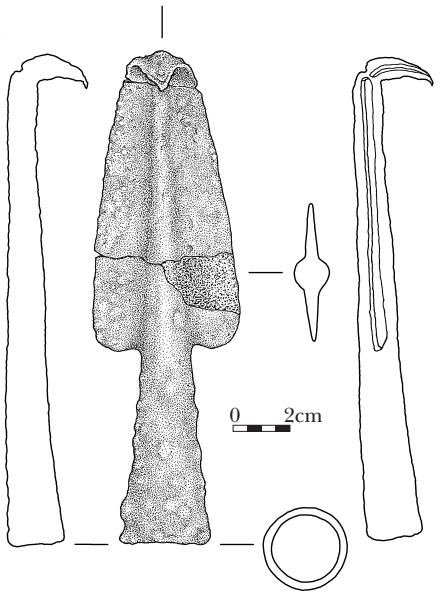
EH: Studying ancient metals may sound like the height of tedium, but I have had a life-long fascination with the ingenuity of human technology. That fascination (and my Addams family view of life) help me to endure a lot of tedious things—like gluing together fragments of a corroding iron artifact to discover a spear point; individually boxing, storing with silica gel, and labeling hundreds of amorphous bronze fragments (probably casting drippings); and endless writing and more writing in my office, my concentration perhaps aided by its cinder block enclosed windows. It all seems worthwhile when Sam Nash (MASCA volunteer metallurgist) and I can have a great discussion over the meaning of a Jackson Pollock-like pattern on one of Sam's spectacular photomicrographs of a 3500 year old bronze sample.

The journey of the Ban Chiang Metals volume—from sitting down in front of a blank computer screen to the end product of 15-40 pages per chapter and a total of eight chapters in the book—has given me a great feeling of accomplishment. Even cleaning up and rearranging the databases, and finally learning how to create graphs with the Ban Chiang data in Excel, have been rewarding!

AA: *As a scholar of metallurgy what were the highlights of your work with Ban Chiang Project?*

EH: Finding out about high- tin bronze. It's an amazing alloy—copper with over 20% tin—found in the Late Period of Ban Chiang (300 BC–AD 200). It has remarkable properties and is physically a beautiful metal.

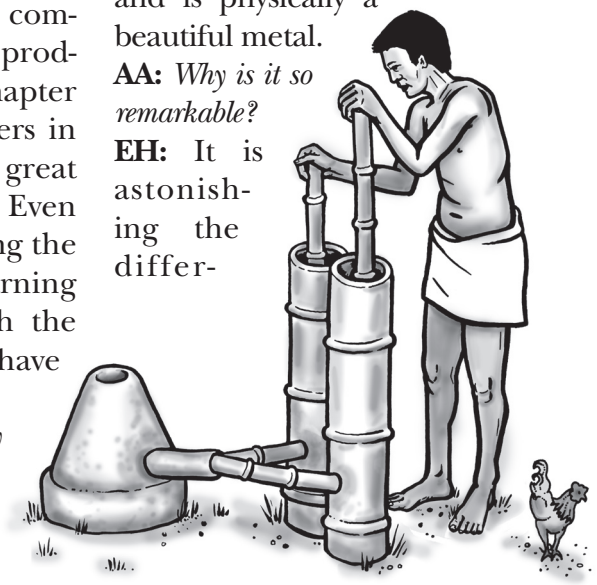
Copper-base bangles from Ban Chiang.



Artist rendering of a socketed copper-base spear point from Ban Chiang.

AA: *Why is it so remarkable?*

EH: It is astonishing the differ-


Tin production: during smelting, air is provided by two bamboo bellows. *Illustrated by Ardeth Abrams.*

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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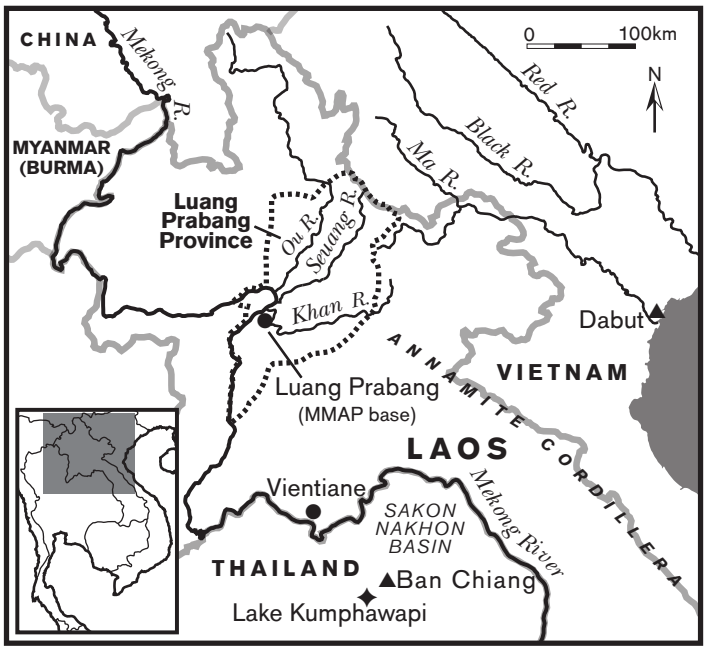

Middle Mekong Basin and the 3 Mekong tributaries—the Ou, Seuang, and Khan Rivers—surveyed during MMAP 2005.

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 surprisingly 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.❖

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.

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 "Matrilocality 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.❖

LAB notes

❖From March 20-26, Joyce and Olivia Given will be attending the **Indo-Pacific Prehistory Association** meetings (IPPA) in Manila, Philippines. Joyce has organized a symposium on current archaeology in Laos.

❖On September 21, 2005 Joyce spoke at the Museum "**Research and Refreshments**" (R&R) forum. More than thirty-five came to hear her talk, "Don't Step on the Bombies! Exploratory Survey in Laos," in which she covered highlights of MMAP 2005. **Shawn Hyla** (Museum IT) and **Olivia Given** also spoke of their MMAP experiences. *Thanks to all who attended!*

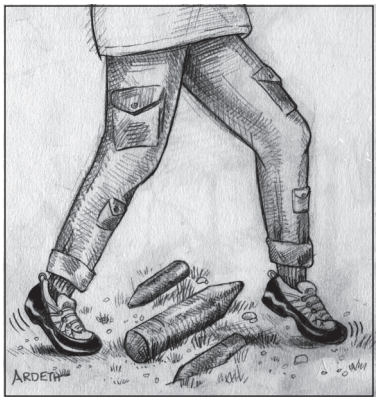

image from the talk

❖In March 2004, Joyce was the guest speaker for **Thai Night**, sponsored by the Thai Students Association at Penn.

❖Joyce visited the village of Ban Chiang during the celebration of **UNESCO World Heritage Day** in 2003. She was thrilled to see that the **Ban Chiang: Discovery of a Lost Bronze Age** exhibit that she put together with the Smithsonian Institution in 1982 was still being studied by Thai students and visitors!

❖**Chureekamol 'Soi' Onsuwan** married fiancé Pete Eyre in a *fifteen hour ceremony* in Bangkok, Thailand on March 9th, 2003. It was a beautiful wedding attended by **Joyce**, **Vince Pigott**, **Judy Voelker**, **Chris King**, and **Rasmi Shoocongdej**. Soi is finishing her PhD dissertation as this newsletter goes to press.

❖**Christopher King** collected edible plants near Ban Chiang with **Joyce** in March 2003 for his dissertation on Ban Chiang ancient diet. Reading chemical signatures (such as isotopes) that are passed from the foods consumed to the skeleton allows the documentation of the ancient diet. He is nearly finished his study of bone chemistry of Ban Chiang skeletons for his PhD at the Department of Anthropology, University of Hawai'i at Manoa.

❖In July 2005, we said a reluctant goodbye to assistant editor of the Ban Chiang monographs, **Christine Sherman**. She has resettled to Peoria, IL with her husband Garry and their daughter Mary Margaret, so she can be closer to her family. *Good luck, Chris, we miss you!*

❖**T. Oliver Pryce**, a.k.a. Oli, a Ph.D student from the Institute of Archaeology University College, London visited the Ban Chiang lab in December 2005. He was here to look at the Phu Lon slag in MASCA for later study in London. Oli is doing his Ph.D under **Vince Pigott**. He also gave some very helpful feedback for the Metals Volume.

Is it time for you to renew your support of the Ban Chiang Project? Every contribution is gratefully received!

❖**Levels of Giving:**

over $1000	Bronze Castor
$500-999	Pottery Painter
$100-499	Iron Smith
$25-99	Stone Carver

❖**Send to:**

Friends of Ban Chiang
University of Pennsylvania Museum
of Archaeology and Anthropology
3260 South Street
Philadelphia, PA 19104-6324

Renew or **Join FOBC**
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❒ Enclosed is my tax deductable contribution of $ ____.

❒ I would like to renew my support with a $ ____ contribution.

please make checks payable to the
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name

address

city, state, zip

email

❒ I would like more information about the Ban Chiang Project.

❒ I have changed my address. See new address above.

New Faces in the Ban Chiang Lab

Olivia Given is a PhD student in the Anthropology Department at the University of Pennsylvania. Her research interests include the prehistoric archaeology of mainland Southeast Asia, landscape and settlement organization, computer applications in archaeology, GIS, cultural heritage management, and using archaeology and IT to promote economic development. Olivia also has a professional background in database programming, IT support, and international development.

Beth Van Horn has volunteered with the Ban Chiang Project for two years. She retired from Verizon in 2003, where she was a new product manager in the Marketing department. Beth was responsible for the MMAP website and the internet 'blog' that followed the team's progress, www.museum.upenn.edu/mmap. *A special thanks to Beth for all of her help with this newsletter!*

Rita DeAngelo is a junior at Penn. She was pleased to land the position of Ban Chiang small finds artist last year. Currently, clay spoons are her priority. One by one, Rita makes a precisely measured drawing of each artifact using pencil on graph paper. Then, she uses that drawing to make an illustration in ink with the "stipple" method (using dots to illustrate an object in three dimensions). When Rita is not in the Ban Chiang lab, chances are she is in Addams Hall, working on her fine arts major or designing scenery for various Penn theater groups.

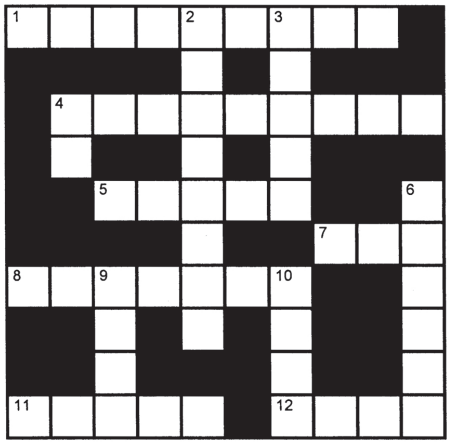
Russell Woo started working with "the Gang" last year as a freshman. He is currently scanning photomicrographs of metal specimens that will be put on a CD and included with the Ban Chiang Metals Volume. Born and raised in Texas, Russell came from afar to pursue his studies at Penn and the Wharton School, under the joint degree Huntsman Program for International Studies and Business.

Sasha Renninger is a freshman in the College at Penn. She plans on majoring in Anthropology with a concentration in Archaeology. Sasha is the Ban Chiang Project Bibliographer. She enters new and looks up old resources on Southeast Asia and compiles them in the bibliographic database. Sasha's other school activities include the Penn Marching Band and the Ancient Studies House program. She is from Farmington, PA, 40 miles south of Pittsburgh. Both of her parents work for the National Park Service, and she has volunteered at 3 different parks during the last six years, most recently as an interpreter specializing in the archaeology at Fort Necessity, PA.

Amanda Pollock is currently a junior at Bryn Mawr, majoring in Classical and Near Eastern Archaeology. Originally from Ventura County, CA, Amanda thinks she will probably end up on the east coast after graduation. In her second year as a BC volunteer, she says "it continues to be a great experience, not only for the opportunity to see the practical side of a career in archaeology and anthropology and work with some amazing people, but also to improve my copy editing skills and memorize the ASA bibliography rulebook."❖

A Ban Chiang Crossword Puzzle

by Bill Henderson



Across

1. Type of decoration on pottery made by pressing things into wet clay
4. UNESCO World Heritage Site in Thailand
5. Another word for "stratum"
7. Children were buried in this type of container at Ban Chiang
8. Some pottery was decorated this way
11. Many of these human/animal remains were uncovered at Ban Chiang
12. Location with archaeological remains

Down

2. The process of uncovering a site
3. A painted pattern found on pottery at Ban Chiang
4. Abbreviation of Ban Chiang
6. Important alloy found at Ban Chiang
9. Some tools were made of this metal
10. One thing an archaeologist does

Crossword puzzle answers
ACROSS 1. impressed 4. BanChiang 5. level 7. jar 8. painted 11. bones 12. site
DOWN 2. excavate 3. swirl 4. BC 6. bronze 9. iron 10. digs

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