



The Ban Chiang

Newsletter for the Friends of Ban Chiang **UpDATE**

Preserving a **UNESCO** World Heritage Site Issue #20 Fall 2013

From the Director

by Joyce C. White

New Beginnings

Some of you reading this may have already heard the news—at the end of June 2013 Penn Museum downsized its research staff—including me. But for every door in life that shuts, a new door to a potentially even better future can open. Therefore I am actually quite excited to inform the Friends of Ban Chiang that I, along with many supporters, am creating a new non-profit entity: the Institute for Southeast Asian Archaeology or ISEAA, which will be fully operational by the end of 2013.

ISEAA joins a number of non-profits that advance archaeology in specific regions. For example, in the Mediterranean region, several such non-profits have emerged, including the Institute for Aegean Prehistory (INSTAP), the American Research Institute in Turkey (ARIT), and the Ancient Egypt Research Associates (AERA). Southeast Asia needs a similar dedicated entity to help attract and focus human, scientific, and fiscal

resources for the advancement of the region's archaeology.

This Institute will build upon the core of pioneering scholarship in Southeast Asian archaeology undertaken since the 1960s at Penn Museum. With encouragement and help from Elizabeth Lyons (a long time Southeast Asia expert), former Penn Museum Director Froelich Rainey initiated Penn's interest in the region. After Stephen Young's accidental discovery of Ban Chiang, in the mid-1970s Rainey

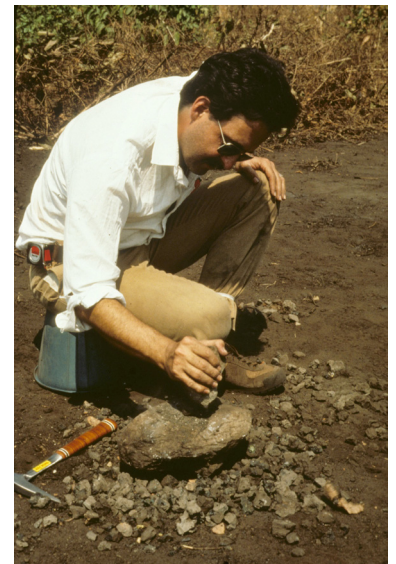
recruited Chet Gorman to co-direct the excavations at the site along with Pisit Charoenwongsa of the Fine Arts Department of Thailand. The site was inscribed by UNESCO in 1992 as a World Heritage Site, "the most important prehistoric settlement so far discovered in South-East Asia."

Many additional research programs were spun off from that start, including the Thailand

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From Left to Right: Debbie Kramer, Doug Anderson, unknown visitor, Fro Rainey, and Chet Gorman viewing a section drawing at the site of Ban Chiang.



Vince Pigott crushing ore.

Archaeometallurgy Project headed by Vince Pigott, and several PhD dissertations. Ongoing research has entailed excavations at ten more sites in Thailand and four in Laos, plus surveys, palaeoenvironmental research, and more. The work



Dr. Lisa Kealhofer, Penn PhD, coring a lake in Thailand to assist palaeoclimate reconstruction.



John Hastings migrated the original Ban Chiang data from a mainframe to a desktop database.

has been supported by many individuals and foundations (e.g., Luce, NSF, NGS) over the years.

The research undertaken from Penn in Thailand and Laos over the past five decades addresses fundamental questions, including the ancient spread of metal technology, the earliest establishment of agriculture in the region, and the adaptation of societies to past changes in climate.

As the Friends know, there remains much to publish from this work, and publication will be our top priority through 2018. The ground-breaking archaeological research undertaken by Penn still has much to teach us about humanity's past in Asia.

Another near term priority is the completion of our Middle Mekong regional database, which includes the original data on the Ban Chiang artifacts that John Hastings meticulously migrated from a mainframe to a desktop computer database in the early 1990s. Dr. Elizabeth Hamilton is currently incorporating these old data into our upgraded, modernized database. The ultimate goal is to post the database online as a digital resource and archive for Southeast Asian archaeology.

Penn Museum, which has appointed me consulting scholar, will continue for the time being to house the Ban Chiang and related collections and our activities, providing that we become 100% self-supporting.

In consultation with an advisory board, a new fiscal structure will be in place by the end of 2013 to support this work. At least initially, we will partner with a larger non-profit entity that helps administer finances of emerging non-profits. In a few weeks, I will write to you more details on who our



Dr. Chureekamol (Soi) Onsuwan Eyre, who received her PhD from the University of Pennsylvania in 2006, conducted a site survey in central Thailand for her thesis.

“fiscal sponsor” will be. This new structure will facilitate reception of tax-deductible donations and grants to support our ongoing work. Once we are on our feet and the publication program is in high gear, in subsequent years we can pursue expansion of our mission to build upon the outstanding track record of field and laboratory research concerning Southeast Asian archaeology undertaken from Philadelphia over the past several decades.

Many museums in the United States and other developed countries are shifting their priorities away from basic research and toward public outreach. It is up to the stakeholders of the earth's archaeological heritage, both archaeologists and laypersons, to develop new institutions that can provide stable sustainable frameworks to ensure the furtherance of the investigation of the earth's ancient cultures.

I hope you will join with me and many others to ensure the successful establishment of ISEAA in the coming year and respond to the forthcoming appeal with a generous, 100% tax-deductible, financial contribution. ❖

MMAP 2013

by Beth Van Horn

The MMAP 2013 season was packed with a flurry of activities and many more “firsts” for archaeology in Laos.

In early December 2012, new MMAP collaborator Nattha Chuenwattana [see the LABnotes section of this newsletter for more information about Nattha] kicked off the 2013 season with Joyce White in Luang Prabang. Nattha, a graduate student at the University of Toronto, is the first Thai working on a PhD in archaeobotany and is now also the first scientist to identify plant seeds excavated from sites in Laos.

MMAP 2013 moved into higher gear on January 2nd, as team members arrived from Laos, Cambodia, Thailand, Europe, Australia, and the USA. Penn Museum IT manager Shawn Hyla set up an MMAP “first” for our lab space—a wireless Local Area Network (LAN) linked to a mini server that hosted the MMAP database and photo archives. It was a huge boost to productivity. For the first time, several Lao team members could simultaneously enter artifact, site, photo, and other data from laptop workstations directly into the MMAP database.

Zooarchaeologists Phil and Iza Campos Piper set up a mini faunal analysis lab, complete with stereoscopic microscope, camera, and laptop database, and undertook the first faunal analysis

for MMAP. Iza (fish specialist) and Phil (animal specialist), a blazingly fast team, processed hundreds of bones from MMAP sites.

Another “first” for MMAP was field collaboration with Dr. Stephen Oppenheimer, a world-renowned Oxford University researcher who studies DNA samples from present-day peoples to help determine origins and migratory patterns of prehistoric people. It was the first time this kind of research had been done anywhere in Laos. In 2 years the analysis will be complete,

and the DNA data are sure to add important new evidence about the population history of this region.

Other 2013 efforts built upon work done in previous MMAP seasons. Elizabeth Hamilton updated the MMAP database with the Lao team. Samnang Kim, our new Geographic Information System (GIS) specialist from Siem Reap, Cambodia, worked with Elizabeth to standardize MMAP GIS data and also updated the

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Shawn Hyla, IT Project Leader of the Penn Museum, set up a wireless Local Area Network (LAN) in the MMAP lab in Luang Prabang, Laos.



Dr. Stephen Oppenheimer and his MMAP team collected DNA samples from more than 600 Lao villagers from 3 ethnic groups in Luang Prabang province.

map projection to the World Map Projection (WGS84) used by Google Earth. The palaeoclimatology team under the leadership of Kathleen Johnson (University of California-Irvine) collected more speleothems (stalagmites in this case) to fill in gaps in their data for the past 50,000 years. Already their study shows definite global warming about 10,000 years ago, a time when the MMAP study area had an active population.

One sad note: on January 6th the team visited Tham An Mah, the cave site of MMAP's 2010 test excavation. We expected to see some disturbance, but it was a jaw-dropping sight to see a huge pit nearly cave-wide and 5-7 feet deep. More than 100 cubic meters of soil had been removed. Only a few pottery sherds, stone tools, bones, and a grinding stone remained on the cave floor. Unfortunately, the destruction of archaeological sites common elsewhere is now a reality in Laos, too. Our takeaway lesson: in the future MMAP will need to find funding sources that will let us follow up a promising test dig immediately with a full excavation.

In contrast, the new MMAP exhibit we put together this year looks to a promising future. This bilingual exhibit presents the scope of MMAP's 2001-2013 field and lab work and its efforts to build Lao capacity in archaeological research and heritage management. Another "first": Lao officials committed scarce resources to host the exhibit for a 4-month run on the grounds of Luang Prabang's most popular tourist destination, the Palace Museum. As of May 24th, 1500 people had seen the exhibit, including 500 Lao. We're very proud that MMAP is helping to interest local, national, and international audiences in Lao prehistory.

Our field season ended in early February, but this and previous MMAP seasons continue to energize Southeast Asian archaeology and to produce results at international standards. Ten MMAP scholars will join ten other archaeologists to present research results in a session dedicated to Lao archaeology at the January 2014 IPPA congress in Siem Reap, Cambodia. (Compare this to only 1-2 papers on Lao archaeology at the IPPAs 12 years ago.) Plans are also in the works to synthesize the cross-disciplinary results of MMAP research in a book. *Not too bad for our little project!* ❖



Dr. Andrea Borsato collecting a stalagmite for palaeoclimate research.



Phousavang Vorasing discusses his shell research with Dr. Phil Piper.



Visitors give feedback on the mockup of the new MMAP exhibit. One unexpected visitor was Pisit Charoenwongsa (center), the Thai co-director of the Penn Museum's original Ban Chiang excavations!

Publications

Helen Lewis, Joyce White, and Bounheuang Bouasisengpaseuth

In press. A buried jar site and its destruction: Tham An Mah cave, Luang Prabang province, Lao PDR. *Proceedings of the First SEAMEO-SPAFA International Conference on Southeast Asian Archaeology, Burapha University, Chonburi, Thailand, 7-10 May 2013.*

Joyce C. White

2013 Review Article: Ban Non Wat: new light on the Metal Ages of Southeast Asia. *Antiquity* Vol: 87 (337): 909-911.

Conferences

❖ At the **European Association of Southeast Asian Archaeologists** 14th Conference in Dublin September 2012, Joyce gave the *Keynote Address*: “Changing Paradigms in Southeast Asian Archaeology: Where do we go from here?”; Marie-Claude Boileau and Joyce: “Social Meanings of Technological Variability: Insights from the Ban Chiang Ceramic Assemblage”; Natta Chuenwattana, Gillian Thompson, and Joyce: “Preliminary Archaeobotanical Results from Four Cave Sites in Laos”.

❖ **Helen Lewis** attended the first *SEAMEO-SPAFA International Conference on Southeast Asian Archaeology* that took place in Chonburi, Thailand, in May 2013. She presented on MMAP excavations in a paper “A buried jar site and its destruction: Tham An Mah cave, Luang Prabang province, Lao PDR”.

❖ Joyce attended the **SAA (Society for American Archaeology)** conference in Honolulu, Hawai'i April 3-10, 2013.

In the session “The Origins, Spread, and Development of Metal Production in Southwest China, Southeast Asia, and Beyond.” Joyce presented “Where did the early bronze technology in Thailand come from?”

In the Lab

❖ A new MMAP collaborator is a PhD student from the University of Toronto, **Nattha Chuenwattana**. Nattha is a Thai archaeologist who became interested in archaeobotany, the study of plant remains found in archaeological contexts. She visited Penn Museum [see photo below] in May 2012 to check out if working with the MMAP project would be right for her. She looked at our collections of plant remains from Ban Chiang, and the ethnobotanical collection Joyce made in 1979-1981.

Seven months later she met up with Joyce in Luang Prabang to sort through sediments MMAP excavated at 4 sites in Luang Prabang province. There she found some *Canarium*, an edible nut, among other seeds. She took the samples back to Toronto for further study, possibly with the SEM (Scanning Electron Microscope). This work will help MMAP determine some of the foods eaten 11,000 years ago in northern Laos. She reported on her findings in a joint paper (with Joyce and **Jill Thompson**) at the April meeting of the Society for American Archaeology in Honolulu, Hawai'i.

❖ Collaborator **Dr. Helen Lewis**, a lecturer from the School of Archaeology at

the University College Dublin, visited the Ban Chiang Lab this past June 19-24. She worked with our team on MMAP reports and publications, including the Tham An Mah publication and section drawings for the final report.

Public Outreach

❖ Joyce spoke about her work in Ban Chiang and Laos to the Penn Museum's docents in March and to the Women's Committee at their meeting in April.

❖ Joyce was interviewed by a **Bangkok Post** reporter who wrote the article: *Dwelling on the past: Archaeologist Joyce White talks about her passion for Southeast Asia's rich prehistory*, published April 30, 2013.

❖ Joyce presented the talk “New Perspectives from Ban Chiang” at Ban Chiang National Museum in Thailand on February 7th, 2013.

❖ Joyce presented the talk “What do we want from the past? Lessons from archaeological management in Laos and Thailand” in Bangkok at Thammasat University's prestigious Institute for Thai Studies on the 8th of February.



From left to right: Dr. Joyce White, Dr. Naomi Miller, and Nattha Chuenwattana, an archaeobotany graduate student from the University of Toronto, discuss rice and millet specimens in the Ban Chiang Lab.

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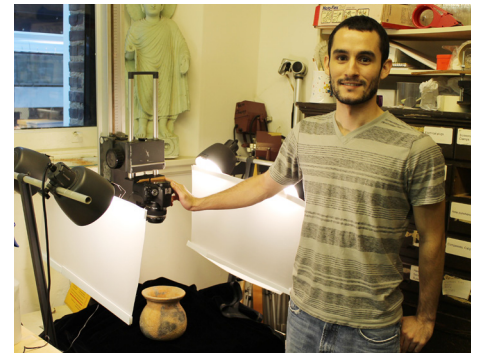
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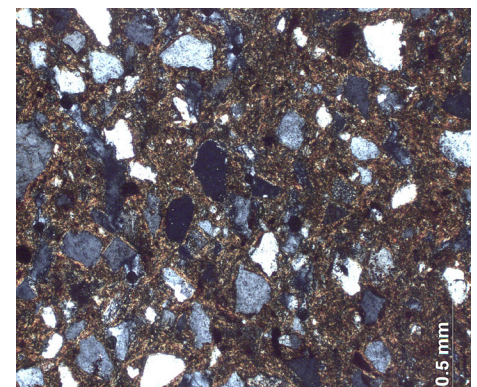
New Faces in the Ban Chiang Lab



Vivian Wolovitz has volunteered at the Ban Chiang Project since March 2013. She is currently working on Ban Chiang artifact drawings and has finished labelling cave section drawings from three MMAP excavations in Laos. Vivian is a painter and former Professor of Fine Arts at Moore College of Art, where she taught drawing, painting, and printmaking for 30 years. She has exhibited her work in numerous regional and national shows. Vivian has traveled extensively in Western and Eastern Europe, North Africa, West Africa, and Mexico. She lives with her family in an old farmhouse in Chester County, Pennsylvania.



Dan LoMastro has volunteered for the Ban Chiang Project since May 2013. He is currently assisting Elizabeth with the Southeast Asian Archaeology database, which includes photographing artifacts, digitizing old slides, and then linking the images to their respective artifact entry in the database. Dan also organized and labelled our collection of hundreds of pottery thin sections [see image below]. He graduated from the University of Pittsburgh in 2010 with an undergraduate degree in Anthropology and a second major in Psychology. In the summer of 2009, he took part in a month-long archaeological dig in Tuscany, Italy, as part of the Lorenzo de' Medici Archaeology Field School. His primary areas of interest in archaeology are the Mediterranean and East Asian regions.



A thin section of BCES Burial 20 Pot C.

Leila Bolce-Schick is a Junior at Bard College, Annandale-on-Hudson, NY. She is working towards a BA in Classical Studies; her field of interest is language and literature. She began volunteering for the Ban Chiang Project in May 2013. During her time here, Leila completed collecting sherd samples from every pot from all four archaeological sites to facilitate future chemical analysis.