

Welcome to the second newsletter designed to update you on the happenings in the field of bioarchaeology in Southeast Asia.

***Second Congress on Bioarchaeology in Southeast Asia***

Following our successful inaugural meeting in Siem Reap in January 2004 we would like to propose a second meeting. Initially it was thought a biennial event would be most appropriate, however, in 2006 the Indo-Pacific Prehistory Association will meet in the Philippines. During this conference there will be more than sufficient opportunity to meet with our bioarchaeology colleagues, therefore it is suggested that our more specialised meeting be scheduled for early 2007. At this stage we are considering meeting in Thailand and wish this meeting to be open to all researchers and students with an interest in bioarchaeology in Southeast Asia. We will be applying to funding agencies for associated costs and scholarships for students from various Southeast Asian countries to attend. When the funding position becomes clear we will be calling for registrations from those interested in being funded to attend the congress. Watch this space!

*News*

**From: Korakot BOONLOP**

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**REPORT ON THE PREHISTORIC SKELETONS FROM BAN KHON KHON, NE THAILAND.**

This research focuses on the analysis of 39 prehistoric human skeletal remains excavated from Ban Khok Khon, Sakon Nakhon Province, Northeast Thailand. This archaeological site is one of the Ban Chiang Cultural Tradition sites. Standard methodologies of physical anthropology were applied to the sample. An attempt was made to record the metrical and non-metrical characteristics as well as traces of pathologies existing, if any, on the remains. The comparison of the human skeletons from some Ban Chiang Cultural Tradition sites; Ban Chiang, Ban Na Di, Ban Thatu, Ban Om Kaew, Ban Don Thong Chai, to the specimens from Ban Khok Khon indicates that there are both similarities and differences in traits, while the comparisons between ancient and modern Northeast Thai skeletal remains collected at the Department of Anatomy, the Faculty of Medicine, Khon Kaen University, revealed the same result in human skeletal characteristics. The studies of human skeletons also lead to some socio-cultural implications concerning the prehistoric population and cultures of Northeast Thailand. For example, the present researcher is convinced that the prehistoric population of this site had settled the same location continuously for thousands of years. The life expectancy of the new born cohort increased from early to late periods. The findings on the Ban Khok Khon skeletal specimens from palaeodemography, dental and infracranial pathologies support the theory that the health of ancient populations in this area is generally good. There is also evidence of behavioral stress to support that the social structure was

probably a society with a division of labor. In addition, there is no evidence of severe trauma to indicate interpersonal violence or any warfare.

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## REPORT ON 2005 FIELD SEASON, BAN NON WAT, THAILAND

In 2004 the Origins of Angkor Archaeological Project was very grateful to be awarded permission by the Thai National Research Council and the Thai Fine Arts Department for a further three seasons of excavation at the site of Ban Non Wat, Amphur Non Sung, Nakhon Ratchasima, northeast Thailand.

A fourth field season was held at the site by the project team lead by Prof. Charles Higham of the University of Otago, Dunedin, New Zealand and Dr Rachanie Thosarat of the Fine Arts Department, Bangkok. The season began in December 2004 and continued to the 4th March 2005.

The excavation extended the large square that had been excavated over the first three seasons. This square now extends over an area 20m x 28m, to a depth of about 4m, making it the largest areal excavation to date in Thailand. The deposits contained habitation, workshop and cemetery remains.

As in previous seasons the distribution, preservation and completeness of burials in the new area was variable. The number of burials identified at the site now totals 307, with 106 added this season. Again as in previous seasons, the new burials range in age from neolithic to bronze age, with highly variable richness of grave goods and representation of age and sex groups over that time. The extraordinary richness of the site and the hints it is giving as to changes over time in the nature of prehistoric Southeast Asian society continue to amaze us. Among the exciting new finds this season is a second neolithic adult jar burial. One of these was found in the first season in 2001 and we have been eagerly awaiting further such finds over the intervening seasons. In each case the adult has been interred in a crouching position in a large, delicate, ornately decorated lidded jar. The 2001 adult was a very large male, with biological characteristics that differentiated him from his contemporaries and hint strongly that he was an immigrant to the site. Stable isotope analysis by Dr Alex Bentley of the Institute of Archaeology, University College, London, will, we hope clarify this suggestion.

There will be a large amount of work to be done and information to be gathered from this splendid collection. This began in July-Oct 2004 when I was on sabbatical and able, with the assistance of Dr Kate Domett and Chanakarn Hongtong (Dang), to spend some time working on the collection from the first three seasons. We were able to clean, reconstruct, and collect data from the neolithic and early bronze age burials from the first three seasons. This work began to hint at the complexity of social structure and population health during this period. As I said last year, any definitive research will take some time to complete but my premise then that the Ban Non Wat collection provides an extraordinary opportunity to address questions of quality of life and relationships within the site and with the neighbouring sites of Noen U-Loke and Ban Lum Khao (excavated by the Origins of Angkor project in 1996-1998), is borne out by the evidence collected to date.

In this work I was ably assisted during the field season by postgraduate students Anna Willis, Diana Leach, and Kasey Robb and Thai archaeologists Chanakarn Hongtong and Bhadrawan Bhongsilpa (Kwan). Dr Rachanie Thosarat generously worked with us when she was able to get away from her

directorial duties. I would very much like to work with more Thai bioarchaeologists and would be pleased to hear from any prospective students who are keen to develop their skills in this field of archaeology.

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#### HALF-DAY SYMPOSIUM ON BURIALS AT UNIVERSITY OF FLORIDA (GAINESVILLE)

A half-day symposium entitled “Coffins, Jars, and Tombs: Prehistoric Burial in East and Southeast Asia” was held on April 16, 2005 at the University of Florida (Gainesville). Participants included John Krigbaum (Anthropology, Univ. Florida), Lindsay Lloyd-Smith (Cambridge Univ.), Sawang Lertrit (Silpakorn Univ., Bangkok), and Kwang-tzoo Chen (Academia Sinica, Taipei).

Various collaborations sparked this event which brought together researchers working in a number of burial contexts in Mainland and Island Southeast Asia. The session presented an opportunity to weave together fieldwork observations, excavation, and critical review of site reports and pertinent literature vis a vis the complexities of funerary archaeology and its interpretation in Southeast Asian prehistory. John Krigbaum discussed differential aspects of burial ritual and mortuary treatment in his talk entitled “Mortuary Patterns in Prehistoric East and Southeast Asia: Setting the Scene.” Lindsay Lloyd-Smith presented his planned Ph.D. research on “Neolithic Burial Practice at Niah Cave, Sarawak, East Malaysia.” After a catered reception, Sawang Lertrit presented “Some Changes in Prehistoric Ritual Behavior in Mainland Southeast Asia: A View from Late Prehistoric Burial Sites in Central Thailand.” Kwang-tzoo Chen capped the event on “Jar Burial Practice in Taiwan and the South China Sea Region: A Comparative Study.” All in all, it was a fruitful session highlighting much potential research to be carried out apart from interpretation of skeletal remains and their important implications. Indeed, Southeast Asia has much to offer the rest of the world in terms of bioarchaeology and beyond. Critical discussion of funerary patterns and process in the past is an important dialogue to nurture.

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#### PHUM SNAY SKELETAL ANALYSIS, CAMBODIA

Over the period of January and February 2005, I undertook the analysis of a large collection of ‘unprovenanced’ human bones from the vicinity of the Phum Snay village in northwestern Cambodia. The bones are stored at Wat Leu in Phum Snay and Wat Rajabo in Siem Reap. All the material to be studied was temporarily transferred to the Ecole Francais d’Extreme Orient (EFEO) where Christophe Pottier kindly loaned us lab space to carry out our work. During this time I was assisted by Dr Hallie Buckley, University of Otago, New Zealand, and Dr Hirofumi Matsumara, Sapporo Medical School, Japan. We also had some very helpful volunteers: Helen Cekalovich, Visoth Chhay, Richard Buckley and Catherine Peters.

The collections of bones are the result of extensive looting by villagers at the pre-Angkorian site of Phum Snay. As it was not possible to match bones to individuals, the analysis of this material was based on bone element only. The results obtained have highlighted some interesting preliminary patterns that were discussed in a seminar presented at the EFEO in February. Of particular note is the number of healed and unhealed (perimortem) cranial depression fractures and other cranial and facial injury. This evidence sits well with the archaeological evidence for weaponry from excavations of Phum Snay. A thorough analysis of all these types of injuries will be undertaken – in particular we will consider the type of injury and possible type of weapon and the association of injury with males and females.

A large amount of data was collected from the dentition. Considerable evidence of ritual ablation and filing of the anterior dentition was observed. This adds weight to the evidence from the skeletons from the Phum Snay excavations that also showed this pattern. In addition, Zoe Honan, a JCU Honours student, is currently analyzing the caries lesion data collected from this material and will compare this data from other Southeast Asian samples to determine if any trends through time exist in this dental condition.

Hirofumi Matsumara collected a large amount of data on a subsample of the complete crania and dentition in order to interpret the dental and cranial morphology.

This was a very successful period of analysis with a large amount of data now available for study. This will be undertaken over the next few years, hopefully with some assistance from postgraduate students- so if anyone is looking for projects please feel free to contact me. I will be completing the analysis of the skeletal material from the 2003 Phum Snay excavation during an upcoming trip to Phnom Penh in July. During this time I will also be studying some skeletal material from a site recently excavated by Sovanara nearby to Phum Snay, Phum Krosaing, and will be looking for archaeology students to assist with this analysis to be undertaken at RUFA (Royal University of Fine Arts).

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## RECENTLY TESTED BURIAL SITES IN CAMBODIA

The following commentary briefly discusses five archaeological burial projects conducted in Cambodia in the last decade. These include:

- 1 The Wat Kamnou burials excavated by Miriam Stark in 1997-1999 (?), located within the walled Funan to pre-Funan urban site at Angkor Borei, Takeo Province.
- 2 The Phnom Borei burials researched by Phon Kaseka in 2003-2004, located at the base of the hillslopes of Phnom Borei near the Angkor Borei urban site and the Phnom Da temple sites.
- 3 The Prei Khmeng burial site researched by Christophe Pottier in 2000-2004, located near the Prei Khmeng temple in Angkor, Siem Reap at the western end of the West Baray.
- 4 The N-18 Village site excavated by Heng Sophady and the Memot Center for Archaeology in 2001-2005, located near the plantations in the red earth (*terra rouge*) hill region of

Kampong Cham (which includes many nearby Neolithic Circular Earthwork sites, also referred to as Banteay Kou).

- 5 The Cardamom Mountain jar burial sites, unexcavated but assessed (two jars containing skeletal remains were removed for further research by the National University of Singapore's Osteoarchaeological Research Group (ORG) and the Becker film documentary company with Cambodian Museum support).

Sites of additional interest also include burial sites that are probably early-pre Angkorian to Neolithic recently noted in areas such as Poursat and Stung Treng. However, these will not be detailed in the following paragraphs.

All of the burials from 1-4 date between approximately 1800-2500 years ago. The first few centuries BCE seem to be rather consistent for most. Radiocarbon dating and stylistic artifact analysis from many of the sites (e.g., Dongson drum fragments from N-18) support this late bronze- to iron-age and early protohistoric temporal distribution. However, the Cardamom jar burials apparently date to the post-Angkor period—approximately less than a century or two after the “twilight” of ancient Angkorian civilization.

#### *Wat Kamnou:*

The Wat Kamnou skeletal samples indicate approximately 20 or more burials. However, this estimate is based on a cursory one-day assessment where they are stored at the University of Hawaii, although the assessment is coupled with numerous field observations. Stark (2003:98) lists ‘of at least 18’ burials. There are more skeletal remains currently eroding from the excavation profile and nearby areas at the base of the Wat Kamnou mound. It is likely that a fairly extensive burial ground exists beneath several meters of archaeological overburden. Burials that were observed indicate extended and flexed positions.

The estimated four meters of overburden in some areas includes dense pre-Funan, Funan and post-Funan period artifacts (primarily ceramics). Specific details are unavailable at present. However, the burials appear to have been extended and contained burial goods. Cursory assessment suggests that the remains represent fairly healthy and robust<sup>1</sup> individuals with few signs of death by severe trauma or chronic diseases that would impact skeletal formation. The ratio and position of juveniles, adult men and women is unknown at present.

The complete repertoire of grave goods are also unknown at present, but Stark (2003) noted pig skulls and red earthenware jars included among other burial goods such as beads. EDXRF and petrographic analyses of ceramics and other artifacts have been conducted but not fully analyzed.

#### *Phnom Borei:*

The Phnom Borei burials include six individuals that were removed and three additional individuals identified in profiles. It is likely that the burial site is also much more extensive. Again, there is no physical anthropology report available and there is no physical anthropologists currently working on the material (i.e., anyone interested?).

The burials that were identified were extended and include adults and juveniles, some of which are coupled in the same burial pit. Grave goods include ceramics, glass beads, and only a few metal objects such as iron and bronze bangles.

A series of radiocarbon results clearly places the burials below a layer that dates to 2000-2200 BP. Pig skull remains were recovered from disturbed upper layers (accumulated from adjacent lower layers during previous agricultural diggings), but have not been identified in association with the intact burials. EDXRF and petrographic analyses on ceramics and other artifacts have been conducted but not fully analyzed.

*Prei Khmeng:*

The Prei Khmeng burials include approximately ten to fifteen individuals identified during excavations. Only a few have been formally removed for study. More burials likely exist in the unexcavated area.

Under the ORG and the direction of Rethy Chhem two of the burials were intensively studied (actually three if the partial mandible fragment from a juvenile not related to either skeleton is included). The study includes exhaustive x-ray, CT scanning, genetic sampling, microscopic anatomical assessment, orthopedic analysis, and a lengthy list of other tests.

The burials were extended and include adults and juveniles. Again, there is no sign of chronic illnesses or death-causing trauma, although the adult (35-50 years old) seems to have survived a distally fractured femur. The latter suggests that the population cared for and treated such injuries but did not have the medical knowledge to appropriately fix the bone in its proper alignment. However, based on the assessment of muscle attachments (quite symmetrical) the possibly broken femur does not seem to have impaired normal physical activities following the healing process.

Grave goods include many glass beads, metal artifacts, pottery and pig skulls. Additionally, a small polished rectangular wooden artifact was recovered from the mouth of the juvenile (approximately 1.0 x 0.7 x 0.5 cm).

Interestingly, the number and variety of grave goods seem to be much more numerous than the Phnom Borei burials. Also, the juvenile grave goods appear to be more ornate and numerous than the adults, although only a portion of the grave goods have been properly assessed thus far.

Both skeletons have completely oxidized iron plates at the back of the neck and nuchal area or the skull. The juvenile's flows into the upper chest area, but it is difficult to determine whether or not this was part of the burial practice or due to post depositional movement of burial artifacts. With: 1) the expansion and contraction of clay-sand soils from seasonal and daily wet to dry conditions, 2) the shear movement of soil on the mound due to slope, 3) the compression force due to the overburden and decomposition of the remains, and 4) post-depositional disturbances in antiquity such as post-hole digging, the remains are highly fragmented and some significant artifact shifts are highly probably. Pottier (pers. comm.) has noted that baskets, such as fish traps, may have been placed in the burials and decomposed at different rates, also causing significant shifts.

The adult's iron plate is thick with a small diameter. The juvenile's is thin with a large diameter, encrusted glass beads, and definite impressions of either plaited mats or plaited basketry. EDXRF, x-ray, CT and petrographic analyses on glass, metal and a few artifacts have been conducted. Reports will be available soon.

As a final note, the CT scans allowed imaging while the skeletons were still relatively complete; encased in large soil blocks. Thus, CT scanning with remains in their soil matrix can preserve the "archaeological condition" better than post-excavation reconstruction. Although the swelling and contracting of the soils during wet and dry seasons add soil deposits between the cracks in bones (in

essence, expanding the burial dimensions), these are easily detected by CT scanning and exact metrical measurements from various multi-dimensional views prior to any handling destruction can be made—useful for physical anthropologists.

#### *N-18:*

The N-18 burial discoveries are based primarily on pottery, metal and glass artifact alignments that conform to oval or rectangular extended burial pits. Most of the bones probably dissolved due to the acidic content of the soil. Only a few pits have been identified thus far and work continues under the direction of Heng Sophady and the Memot Center for Archaeology. It is difficult to provide further information at present. However, some of the deposits date to around 2000 BP.

The N-18 site is extremely important as it may be a vital link to increased understanding of the transition from (or connections to) the numerous proximate “Neolithic” circular earthwork sites to metal age sites and protohistoric sites, both within and outside of the region. It is obvious that some form of exchange within local interaction spheres and distant societies occurred as evidenced by artifacts including exotic Dongson drum fragments, glass beads, stone adzes/axes and pottery. EDXRF analysis and a collection of unprovenanced finds by local villagers in both circular earthwork sites and the N-18 burial site supports local and extra-local trade/interaction. EDXRF and petrographic analyses on neighboring circular earthwork ceramics and other artifacts have been conducted but are not fully analyzed.

#### *Cardamom Mountain Jar Burials:*

The Cardamom jar burials are an archaeological enigma. Scores of jar burials have been identified in the overhangs in the mountainous slopes of the Cardamom Range. These seem to slightly post-date the decline of the Angkor period. The generally inaccessible large jars usually contain several complete individual remains, including some artifacts such as metal rings, bangles, glass beads, etc. Some jars contain only long bones, while others contain skulls, etc.—as if the bones were intentionally sorted. However, the artifactual remains seem to indicate no highly significant wealth at that time (i.e., there are no outstanding “high-wealth” objects). EDXRF analyses on glass beads has been conducted but not fully analyzed.

One jar has been CT scanned under Rethy Chhem’s and ORG’s direction. This process is useful in order to preserve a multi-dimensional image of the remains before they are removed.

Rethy Chhem has published on the conditions of the remains and has noted a high rate of thalassemia, perhaps a response to a long-term malarial infested environment, although the “environmental vs. possible genetic family conditions” possibilities have not been researched. I would assume that the Cardamom environment would be no less suspect and probably less prone to high incidences of malaria than many surrounding environs. Incidentally, oral history suggests that the remains were those of the last kings of Angkor, although the burial goods and formal dating suggest otherwise.

#### *Summary:*

Clearly there are an increasing amount of ancient burial sites being identified in Cambodia, including the site of Phum Snay reported above by Kate Domett. Dougald O’Reilly and I have also recently visited a few possible burial sites that remain unrecorded and under-researched. There is ample opportunity and a serious need for increased physical anthropological work in Cambodia.

Burial sites such as the Prei Khmeng, Wat Kamnou and Phnom Borei sites also reveal that the classic “historic” sites contained ancient settlements of sizeable numbers prior to the classic architectural

features and inscriptions that later define them. Obviously, Angkor (Siem Reap) and Funan (Angkor Borei) were inhabited by populations prior to their temple building, urban center, and political-prominence heydays. Groslier's work and recent surveys indicate the same for Chenla (Sambor Prei Kuk) and other sites (e.g., Ba Phnom).

Burial practices occurred frequently in Cambodia and neighboring areas at a certain period in the "bronze and iron" ages and then seem to have subsequently declined. This remains a mystery and is probably due to religious shifts, preservation and sampling. Hindu and Buddhist influences in the first millennium AD likely pushed cremation practices over burials. Nevertheless, with finds like the Cardamom jar burials, this is certainly not 100% true. Additionally, sites such as Phum Snay may suggest burial practices in the first millennium AD. And, the jar burials suggest that different burial practices beyond subsurface extended and flexed burials and cremations existed in the past. Nevertheless, most of the burial sites seem to be temporally fixed to the first few centuries BCE.

It is too early to discern with the limited analyses, but preliminary assessment patterns suggest that there may be intrasite and extrasite wealth differences if indeed the amount and type of grave goods reflect status/wealth differences. The beads, pottery and metal artifacts suggest that these objects were of importance yet common enough for relinquishment to the deceased that they could be presumably replaced if needed for ritual and utilitarian needs amongst the extant population. The objects and animal remains are presumably valuable and meaningful to individuals and societies. It is also apparent that the deceased were decorated and provided with objects of utilitarian as well as non-utilitarian value including possible food remains (e.g., pig skulls). This suggests by ethnographic analogy: 1) forms of respect for the deceased presumably with some form of burial ritual, 2) attachments to the objects (pre- and/or post-mortem, 3) a belief in an afterlife or post-mortem transformation that may require the included objects, and 4) a possible connection to the earth/soil. The latter may be related to agricultural societies' earth/soil connections, but it may also be a simple matter of making sure a rotting corpse doesn't pollute your immediate environment.

The glass beads are likely of foreign origin (perhaps Indian for most of the burials and Chinese for the Cardamom burials). Interestingly, two of the beads from the Cardamom burial samples had similar EDXRF profiles and stylistic traits compared to the Prei Khmeng beads. This may indicate similar technologies, multiple origins or the recycling of ancient beads for trade, etc. (not uncommon in the modern antiquities markets in Cambodia). EDXRF analysis clearly distinguishes the cluster of blue beads from the Cardamom burials and the variously colored smaller beads from the Prei Khmeng burials. The orange, yellow, blue and black beads from Prei Khmeng are also separately clustered, probably due to the coloration technology.

EDXRF results on Angkor Borei and Phnom Borei pottery and other artifacts related to burial and non-burial layers are interesting. The Angkor Borei material includes three very distinct sources while the Phnom Borei material suggests a single local source. Results will be published in the near future, but it is important to note that the Angkor Borei urban area likely received influence and artifacts from many very distinct non-local sources. It is highly possible that "exotic" materials including pottery and beads were likely considered valuable and were intentionally added to the burials.

In summation, it is clear that Cambodian burial sites are important for understanding the history and prehistory of Southeast Asia. Several sites in Thailand have received considerable attention. Sites in Cambodia need equal attention by both archaeologists and physical anthropologists. Sites are being discovered more rapidly with increased development. For example, a Heritagewatch team will soon be dispatched to a newly reported burial site uncovered by road construction in the northeast province of

Rattanakiri. At present, it is relatively easy to conduct physical anthropological and archaeological work in Cambodia. The burial sites, as with all archaeological sites, are non-renewable resources. They are being destroyed rapidly and need professional attention; for local historical preservation, academic research and non-local appreciation (e.g., tourism) as a means of inter-cultural education.

*Notes:*

1. To clarify, I define “robust” as comparatively prominent muscle attachments areas on various bones vis-à-vis modern skeletons from SEA and elsewhere in the anatomy lab and anatomy records at the National University of Singapore. The robustness likely indicates a high level of muscularity, probably due to comparatively higher levels of continuous physical exercise coupled with sufficient basic nutrient contribution to daily diets (i.e., diets were likely sufficiently variant to counteract skeletal developmental disorders). How this compares with remains from other contemporaneous sites in mainland SEA is unknown. The University of Hawaii team is currently reconstructing and analyzing the remains from Angkor Borei.

*References:*

Stark, Miriam 2003 “Angkor Borei and the Archaeology of Cambodia’s Mekong Delta” in (ed., James C. M. Khoo) *Art and Archaeology of Fu Nan*, Orchid Press, Bangkok.

***Recent Publications***

- PALEORADIOLOGY OF MUMMIES, SKELETAL REMAINS AND HOMINID FOSSILS.

Guest Editors: Rethy K Chhem and Frank Ruhli

Canadian Association of Radiologists Journal, Vol 55, 4, October 2004

[http://epe.lac-bac.gc.ca/100/201/300/cdn\\_medical\\_association/carj/](http://epe.lac-bac.gc.ca/100/201/300/cdn_medical_association/carj/)

This is a special issue on the use of X-rays and CT in the investigation of human past. It is made of eleven chapters dealing with the most cutting edge applications of medical imaging technologies in bioarchaeology. In putting together the history, the current status and the future challenges of paleoradiology, the editors wish to present to the readers the excitement of paleoradiology as a non-destructive modality that can unveil the mysteries of human past and suffering. Each chapter falls either into the study of ancient skeletal or tooth anatomy or the study of ancient diseases. The articles cover a large and diverse geographical area and time period: from ancient Egypt to Angkor, from the Australopithecus to Ramsesses II mummy. This volume was written for physical anthropologists, paleopathologists, anatomists, historians of medicine and bioarchaeologists.

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- Oxenham, M.F., Nguyen Kim Thuy, Nguyen Lan Cuong (2005). Skeletal evidence for the emergence of infectious disease in bronze and iron age northern Vietnam. *American Journal of Physical Anthropology* 126 (4): 359-376.

- Tayles, N. and Buckley, H.R. (2004). Leprosy and tuberculosis in Iron Age Southeast Asia? *American Journal of Physical Anthropology* 125 (3): 239-256

- SOUTHEAST ASIAN BIBLIOGRAPHIC DATABASE

<http://seasia.museum.upenn.edu/>

- Useful Journals to check regularly:

- American Journal of Human Biology  
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-AJHB.html>
- American Journal of Physical Anthropology  
<http://www3.interscience.wiley.com/cgi-bin/jhome/28130>
- Antiquity  
<http://antiquity.ac.uk/>
- Asian Perspectives  
[http://muse.jhu.edu/journals/asian\\_perspectives/](http://muse.jhu.edu/journals/asian_perspectives/)
- Current Anthropology  
<http://www.journals.uchicago.edu/CA/home.html>
- International Journal of Osteoarchaeology  
<http://www3.interscience.wiley.com/cgi-bin/jhome/5488>
- Journal of Anthropological Science  
<http://www.sciencedirect.com/science/journal/02784165>
- Journal of Archaeological Research  
<http://www.springerlink.com/app/home/journal.asp?wasp=afc299293ee44e70b946e34eb29f3165&referrer=parent&backto=linkingpublicationresults,1:104889,1>
- Journal of the Siam Society  
<http://www.siam-society.org/others/jss2004.asp>
- Siksacakr, Centre for Khmer Studies  
<http://www.khmerstudies.org/publications/siksacakr/siksacakr.htm>
- Udaya, Journal of Khmer Studies  
[http://www.auteuriteapsara.org/en/apsara/about\\_apsara/publication/udaya.html](http://www.auteuriteapsara.org/en/apsara/about_apsara/publication/udaya.html)
- World Archaeology  
<http://www.jstor.org/journals/00438243.html>

### *Upcoming meetings*

- Indo-Pacific Prehistory Association

2006 Meeting: University of the Philippines, Diliman, Quezon City in MetroManila, March 20-26.

This meeting will have a session devoted to **BIOARCHAEOLOGY IN SOUTHEAST ASIA**.

Contact either Fabrice Demeter: [fabrice.demeter@college-de-france.fr](mailto:fabrice.demeter@college-de-france.fr); Hirofumi Matsumura: [hiromura@sapmed.ac.jp](mailto:hiromura@sapmed.ac.jp); Marc Oxenham: [marc.oxenham@anu.edu.au](mailto:marc.oxenham@anu.edu.au); or Kate Domett: [Kate.Domett@jcu.edu.au](mailto:Kate.Domett@jcu.edu.au) for further information or abstracts.

- Paleopathology Association

<http://www.paleopathology.org/>

2005 South American Meeting: Rio de Janeiro, Brazil, 27-29 July.

2006 North American Meeting: Anchorage, AL, March 4 – 5.

- American Association of Physical Anthropologist

<http://physanth.org/>

2006 Meeting: Anchorage, AL, March 5 – 12.

- European Association of Southeast Asia Archaeology  
2006 Meeting: Bougon, France 14-16<sup>th</sup> September.

It is likely that this meeting will include a bioarchaeology session.

If you wish to submit a paper title and/or wish to receive the future announcements of conference details : Please send the joint registration form prior to the 1<sup>st</sup> September 2005, by e-mail to [euraseaa2006@club-internet.fr](mailto:euraseaa2006@club-internet.fr), or post to EurASEAA2006 Conference, Musée des Tumulus de Bougon, lieu-dit la Chapelle, F 79800 Bougon, France or fax : 33 5 49 05 14 05

### ***Funding***

- Ford Foundation:  
<http://www.fordfound.org/about/guideline.cfm>
- Toyota foundation  
<http://www.toyotafound.or.jp/etop.htm>
- National Geographic Research and Exploration grants  
<http://www.nationalgeographic.com/research/grant/rg1.html>  
Also includes link to Earthwatch – a source of volunteers.
- Nippon Foundation  
<http://www.nippon-foundation.or.jp/eng/index.php3>
- Wenner Gren Foundation for anthropological research  
<http://www.wennergren.org/>
- ASEAN fellowship in National University of Singapore  
<http://www.nus.edu.sg/registrar/prospective/graduate/gsa.html>

### ***Interesting weblinks***

- Centre for Khmer Studies  
<http://www.khmerstudies.org/>  
Includes all the abstracts from our recent Bioarchaeology conference.
- Pre-Angkorian Archaeology project  
<http://www.khmerstudies.org/programs/preangk.htm>
- Heritage Watch  
<http://www.heritagewatch.org/>
- Origins of Angkor Project  
<http://www.otago.ac.nz/Anthropology/Angkor/index.html>
- British Association of Biological Anthropology and Osteoarchaeology  
<http://www.soton.ac.uk/~babao/links.htm>  
Includes a list of postgraduate courses on biological anthropology in United Kingdom
- Biological Anthropology resources on the web  
<http://www.geocities.com/CapeCanaveral/Lab/9893/index.html>
- Human Osteology  
<http://medstat.med.utah.edu/kw/osteo/osteology/>
- Khmer time map  
[http://www.timemap.net/epublications/2003\\_khmer\\_animation/](http://www.timemap.net/epublications/2003_khmer_animation/)
- Angkor Borei Skeletal remains  
<http://www.anthropology.hawaii.edu/faculty/pietrusewsky/angkorborei/angkorborei.htm>