

# Archaeology and Natural History

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## Excavation at the House of Taga

The House of Taga Site in Tinian of the Marianas is amongst the most famous archaeological sites in the Pacific. Its fame centres on the impressive *latte* stone remains, the largest megalithic ruins of their kind erected in the Marianas, and are said to have been built by the most powerful chief Taga several centuries ago. But, there is a deeper story that we can dig from this magnificent location!

In December 2011, **Hsiao-chun Hung** and **Mike Carson** (Visiting Scholar) conducted archaeological excavations at the House of Taga. Previous test trenching more than 50 years ago by Marcian Pellett revealed a deeply buried archaeological deposits with red-slipped and finely decorated pottery. The new excavation was near the prior test trench, where the earliest archaeological layers were found intact. The new findings confirm a finely decorated pottery tradition during the first use of the site, approximately 3500 years ago. Moreover, the decoration shows links with other regions.

The new findings confirm a finely

decorated pottery tradition during the first use of the site, approximately 3500 years ago. The decoration exhibits strong similarities with a tradition that began slightly earlier in the Philippines, as documented by Hsiao-chun and colleagues.

This project was possible through the support of the Historic Preservation Offices (HPO) in Tinian and Saipan, and by Hiro Kurashina (Emeritus Director of MARC, University of Guam). HPO staff Gilbert Borja, Joe Borja, and Lino Villagoomez gained new experience and skills while enhancing the project through their tireless labour and good humour.

Prior to the excavation, **Hsiao-chun** and **Mike** were invited to interview



Mike Carson admires megalithic *latte* ruins at the House of Taga.

with local Power-99 radio station about this research project. They further were invited to give a one-hour public lecture at the Northern Marianas College. Meanwhile, **Hsiao-chun** and **Mike** were assisting in the initial planning stages for the first Marianas History Conference, organised by the Northern Marianas Humanities Council and Guam Preservation Trust.

## In Other News

Welcome to the 2012 incoming PhD students:

Josue Gomez, Helen Cooke, Fenja Theden-Ringl, Billy O'Foghlu and Jonathan Carpenter.

**Sue O'Connor's** recent paper in *Science* has made national and international news.

**O'Connor, S.**, R. Ono and C. Clarkson. 2011. Pelagic fishing at 42,000

BP and the maritime skills of modern humans. *Science* 334:117-1121.

## Reporting from Tonga

“As usual the Lapaha people provided friendly support for the crew and showed great interest in the work . . .”

**Geoff Clark** and **Christian Reepmeyer** just returned from a successful three week field season on Tongatapu, Kingdom of Tonga. They were accompanied by **Ella Ussher** and five undergraduate students who attended the ASIA3050/6050 World Heritage in Asia and the Pacific course in the second semester 2011. The fieldwork was funded through an ARC Future Fellowship grant to **Geoff Clark** and a CHL Development grant to **Christian Reepmeyer**. They were initially invited by the Lapaha town council to assist them in the preparation of the World Heritage nomination of the Royal Tombs of the Kingdom of Tonga and were able to participate in workshops and present introductory information about UNESCO, World Heritage and the project. Fieldwork focused on excavation of three known sites in the north-eastern part of the island, Talasiu, Langi Leka and Heketa, to acquire for the first time a complete picture of agricultural development on Tongatapu through time of human inhabitation of the island. Very successful

additional excavations at several monumental stone features in Heketa will present a new detailed history of construction sequence and development of monumental architecture on Tongatapu. The mysterious fortified village of Kolotau was mapped and the earthen walls were investigated to determine age of the initial construction of the fortification. As usual the Lapaha people provided friendly support for the crew and showed great interest in the work, with the additional benefit of having a tattoo artist as a neighbour.

**Ella Ussher** travelled to Tongatapu to carry out archaeological fieldwork for her PhD research. Three previously identified sites were sampled for micro- and macro-botanical remains using a combination of flotation, wet sieving and bulk



Lauren and Sally field sorting Ella's material.

sampling of sediments from test-pits. The sampled cultural deposits cover a range of dates within Tongan prehistory, from Lapita-associated up to the early stages of the Tongan maritime chiefdom. The sampling strategy implemented was very successful and resulted in the collection of high quantities of charred botanical material. Further analysis will now be carried out in the labs. Planned dating will allow the development of a chronological framework for these sites.

## Lab Notes



Dwarf hippo humerus with numerous scratch marks.

The Madagascan prehistory research is now at the laboratory stage. Aaron Camens, a palaeontologist at Flinders University and a member of the fieldwork team, has been working with **Atholl Anderson** on bones recovered from natural and archaeological sites in the southwest of Madagascar. They

have been photographing evidence of damage on the bones in order to distinguish between the natural and cultural processes involved. Preliminary findings suggest that while incontrovertible cutmarks occur on the bones of extant lemurs, there are none on the bones of dwarf hippo, giant lemurs or any other of the extinct taxa. Further analysis by SEM or similar technology is needed to test this hypothesis. Many samples have also been sorted out for radiocarbon dating.

Over the last months **Feli Hopf**, **Jay Chin** and **Ulli Proske** have been visiting the Australian National Herbarium they collected pollen reference material for their research. All specimens will be photographed, included in the AustralAsian Pollen and Spore Atlas (APSA, <http://apsa.anu.edu.au/>) and referenced to the National Herbarium. Thanks Jo Palmer and Andrew Thornhill for their ongoing help and support with this work!

## Archaeological Survey near Lake Towuti, Sulawesi

In September and October, **David Bulbeck** participated in an archaeological survey of caves, rockshelters and open sites to the northwest and south of Lake Towuti, which lies near the border of South and Southeast Sulawesi. The purpose was to identify sites with a high excavation potential for “The archaeology of Sulawesi: a strategic island for understanding modern human colonization and interactions across our region” project (funded by the ARC).

Two of the sites have flowstone speleothems containing traces of human habitation. One is the Gua Andomo cave, which has abundant flowstone in both its lower and upper chambers. The flowstone in the upper chamber is particularly interesting because it partially encases the remains of a human skeleton. This skeleton likely belongs to a different era than later secondary disposals. Gua Andomo has seven red hand stencils observed at three different locations along the upper chamber – the only art observed during the survey. The second

site is the Gua Mo’o hono rockshelter. A block of flowstone containing stone artifacts and faunal debris was found beneath a low overhang at the east of the shelter.

Five other rockshelters with high excavation potential were recorded. The Gua Lampetia and the Gua Balia rockshelters were used for mortuary disposals, and in the case of Gua Lampetia there has been extensive looting of the mortuary goods. The associated disturbance to the cave’s habitation deposit has not been severe. The third site, the Gua Sambangowala rockshelter, was likely also used for mortuary disposals, but its mid-twentieth century use for habitation has apparently erased obvious traces of its mortuary use. The other two sites are the Gua Gunung Pumuhau 2 and Gua Pambaladopy rockshelters.

Three other sites were also deemed to have high excavation potential. Two of them, Lengkobale 4 to 6 (a single site divided into three sections for recording convenience) and Kawatan, are situated along the southern margin of Lake Towuti. Both have intact beach ridges with flaked chert artifacts visible on the surface or adjacent exposures. Kawatan, which means ‘place of artisans’, addition-



Survey team at Lengkobale 5 grassed mound.

ally contained iron artifacts and ironworking traces including slag and crucible fragments. Accordingly it has the potential to document historical metallurgy practices in the study area. The third site, Benteng Polihe, is a fort with earthen walls up to 10 metres high. Its dimension are around 180 metres north-south and 160 metres east-west. Chinese Ming and Qing sherds observed at the site indicates contemporaneity with the mortuary disposals in the study region’s caves and rockshelters. Both archaeological phenomena may reflect socio-political reorganisation during the historical period.

For further information on the survey outcomes, contact [David.Bulbeck@anu.edu.au](mailto:David.Bulbeck@anu.edu.au) for a copy of ‘Archaeological Report on Luwu Timur Kabupaten, South Sulawesi and Konawe Kabupaten, Southeast Sulawesi’ written by **David Bulbeck** and **Ambra Calo**.

“The flowstone in the upper chamber . . . partially encases the remains of a human skeleton.”



Ambra Calo and company at Gua Sambangowala.

## Teaching Chinese Archaeology

**Hsiao-chun Hung** taught “Chinese Foundations of Civilization: Prehistory to Early History (ASIA 2203)” this semester. Students learned a new appreciation and deeper understanding of Chinese archaeology. Many students became particularly interested in the rise and mysterious collapse of the Liangzhu civilization in southern China (3500-2500 BC). The Liangzhu civilization is known for having the largest

*hangtu*-type of city wall so far discovered in China, as well as the most highly developed jade production in the world, flourishing for 1000 years yet eventually meeting its demise for presently unknown reasons. Another course, “Archaeology in China (ASIA 3051)”, will be taught in the second semester of 2012 as an intensive field study.



Excavation of 5000-year-old rice paddy field at Maoshan, Liangzhu cultural phase in the Lower Yangtze Valley .

## Recent Publications



Islet of Nahndauwas at Nan Madol, Pohnpei, FSM.

**Cameron, J.** 2011. Fibre Technology depicted in Archaic Art from south-eastern Kalimantan, Indonesian Borneo. *Antiquity* <http://antiquity.ac.uk/bulletin.html>

**Litster, M.** and L. Wallis. 2011. Looking for the proverbial needle? The archaeology of Australian colonial frontier massacres. *Archaeology in Oceania* 46:105-117.

Miksic, J., G.Y. Goh and **S. O'Connor** (eds), 2011 *Rethinking Cultural Resource Management in Southeast Asia: Preservation, Development and Neglect*. London: Anthem Press.

**O'Connor, S.**, R. Ono & C. Clarkson. 2011. Pelagic fishing at 42,000 BP and the maritime skills of modern humans. *Science*

334:117-1121.

**O'Connor, S.**, S. Pannell & **S. Brockwell.** 2011. Whose Culture and Heritage for Whom? Exploring the Limitations of National Public Good Protected Area Models in East Timor. In *Rethinking Cultural Resource Management in Southeast Asia: Preservation, Development and Neglect*. (Miksic, Goh and O'Connor, eds). London: Anthem Press. Pp. 39-66.

Perera, N., N. Kourampas, I. Simpson, S. Deraniyagala, **D.**

**Bulbeck,** J. Kamminga, J. Perera, D. Fuller, K. Szabó and **N. Oliveira.** 2011. People of the ancient rainforest: Late Pleistocene foragers at the Batadomba-lena rockshelter, Sri Lanka. *Journal of Human Evolution* 61: 254-69.

**Seikel, K.** 2011. Mortuary Con-

texts and Social Structure at Nan Madol, Pohnpei. *Journal of Island and Coastal Archaeology* 6 (3):442-460.

Sukkharn, A., P. Taçon, & **N. Tan.** 2011. Rock art of Phrayanaga (Viking) Cave, southern Thailand: the illustration of ancient vessels. In *Proceedings from the Asia-Pacific Regional Conference on Underwater Cultural Heritage, 8-12 Nov 2011, Manila, Philippines*. The MUA Collection, <http://www.themua.org/collections/items/show/1214>.

**Theден-Ringl, F., J. Fenner, D. Wesley,** and Ronald Lamilami Buried on Foreign Shores: Isotope Analysis of the Origin of Human Remains Recovered from a Macassan Site in Arnhem Land. *Australian Archaeology* 73:41-48.

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"Appeasing the Spirits"

## AAA Recap

This years AAA conference was held in Toowoomba. Haunted by the tragic events of the floods we were de-

lighted to see that, to the visitor's eye, not much damage remained in the city. The conference was well attended with over 350 participants and the overall number of excellent papers presented was impressive. From ANH, four postgraduate students, **Mirani Litster, Tristen Jones, Daryl Wesley** and **Noel Tan**, and one staff member, **Christian Reepmeyer**, attended the conference and all their presentations were well received. A big thank you to the conference and session organisers for a great conference!

M. Felgate, C. Lentfer, C. Tochilin,

W. Dickinson, **Simon Haberle**, P. Sheppard, J. Specht and H. Bader - *Progress Report on Archaeological Work at Lizard Island: A summary of work to date and revised implications for near-Oceanian archaeology.*

**Tristen Jones** - *Battle Scenes, Weaponry and Material Culture: The rock-art of Red Lily Lagoon*

**Mirani Litster** - *Investigating the potential ritual use of semi-precious stones and beads in the Maldives.*

**Sue O'Connor** and **Daryl Wesley** - *Understanding the Complexity of Cultural Change during the Contact Period in Northwestern Arnhem Land.*

**Christian Reepmeyer**, T. Erofeev and **Daryl Wesley** - *Urrmarning (Red Lily Dreaming): A Case for the application of nondestructive geochemical pXRF technique on rock art pigments.*

D. Shine, D. Wright, S. May, T.

Denham, **Matiu Prebble** and P. Taçon - *Calendars, Chronologies and Past Environmental Change in the North: Rock art, archaeological and palaeoecological perspectives.*

**Noel Tan** - *Using the iPad for Rock Art Recording: User experiences and reflections.*

**Daryl Wesley** - *Red Lily Lagoon: Revisiting a rock art precinct on the East Alligator River, Arnhem Land.*

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**Noel Tan** won the best fieldwork photo with: "Appeasing the Spirits - Cambodian monks offering prayers and food to the spirits for blessings and permissions prior to excavations. It is a local belief that spirits inhabit the world around, and they must be respected and appeased lest there be dire consequences... Angkor Wat, Cambodia, Greater Angkor Project 2010 season."

## Recent Publications Continued

Bellwood, P., G. Chambers, M. Ross and **H. Hung**. 2011. Are Cultures Inherited? Multidisciplinary Perspectives on the Origins and Migrations of Austronesian-Speaking Peoples Prior to 1000 BC. In *Investigating Archaeological Cultures: Material Culture, Variability, and Transmission* (Roberts and Vander Linden, eds.). New York: Springer. pp. 321-354.

Bellwood, P., **H. Hung** and Y. Iizuka. 2011. Taiwan Jade in the Philippines: 3000 years of trade and long-distance interaction. In *Paths of Origins: The Austronesian Heritage in the Collections of the National Museum of the Philippines, the Museum Nasional Indonesia, and the Netherlands*

*Rijksmuseum voor Volkenkunde* (Benitez-Johannot, ed.). Singapore: ArtPostAsia. pp. 31-41.

**Haberle, S.G.**, C. Lentfer, S. O'Donnell, and T. Denham. 2011 The palaeoenvironments of Kuk Swamp from the beginnings of agriculture in the highlands of Papua New Guinea. *Quaternary International*, *Quaternary International* DOI:10.1016/j.quaint.2011.07.048

Holz, A., **S. Haberle**, T. Veblen, R. De Pol-Holz and J. Southon. 2011. Fire history in western Patagonia from paired tree-ring fire-scar and charcoal records. *Climate of the Past Discussions* DOI:10.5194/cpd-7-1-2011

**Hung, H.** et al. 2011. The first settlement of Remote Oceania: from the Philippines to the Marianas. *Antiquity* 85:909-926.

Mooney, S.D., S. Harrison, P. Bartlein, A.L. Daniu, **J. Stevenson**, K. Brownlie, S. Buckman, M. Cupper, J. Luly, M. Black, E. Colhoun, D. D'Costa, J. Dodson, **S. Haberle**, **G. Hope**, P. Kershaw, C. Kenyon, M. McKenzie, N. Williams. 2011. Late Quaternary fire regimes of Australasia. *Quaternary Science Reviews* 30: 28-46.

Sniderman, J.M.K. and **S. Haberle**. 2011. Fire and vegetation change during the Early Pleistocene in south-eastern Australia. *Journal of Quaternary Science* DOI: 10.1002/jqs.1547

## Fieldnotes



Boating through Nan Madol, Pohnpei.

September to November, **Katherine Seikel** completed fieldwork on Pohnpei, Federated States of Micronesia. Time was spent documenting and mapping architectural features in three locations at and near Nan Madol. The fieldwork was designed to augment extant datasets from Pohnpei in order to discuss Pohnpeian socio-politics in relation to architectural construction. In addition to work on these sites, **Katherine** visited twenty islets at Nan Madol to complete a status survey on the preservation of the site. Nan Madol incorpo-

rates a hundred artificial islets, impacted by the coastal mangrove and tidal weathering, at various stages of documentation. **Katherine's** fieldwork was part of a joint project with William Ayres and Maureece Levin, University of Oregon.

**Jack Fenner** visited the National University of Mongolia in Ulaanbaatar during September to meet with archaeologists and look at their archaeological collections. This led to establishing a joint research pilot project in which **Jack** and Professor Tumen (Head, NUM Department of Anthropology and Archaeology) will investigate past diet using stable isotope analysis of archaeological human and animal remains from eastern Mongolia. This project is funded by an RSAP Research Development Grant. In addition, Prof. Tumen traveled to Canberra in November for further discussions and to present a paper at the inaugural Mongolian

Studies Open Conference organized by the ANU CAP Mogolian Studies Centre. Tumen's presentation, titled "Some Results of Archaeological Research in Eastern Mongolia," was included in the Archaeology and Paleo-Linguistics session chaired by **Jack**.

**Noel Tan** will be a Visiting Associate with the new Archaeology Unit at the Nalanda-Sriwijaya Centre in the Institute of Southeast Asian Studies at the National University of Singapore in January. Using Singapore as a base, he will be conducting fieldwork in Cambodia, Thailand and Laos between February and July. **Noel** will be recording rock art and hopes to present some preliminary results at the 14th Conference of the European Association of Southeast Asian Archaeologists in Dublin before returning to Canberra in October.



Professor Tumen with Jack Fenner.

"Noel Tan will be a Visiting Associate with the new Archaeology Unit . . ."

## Grants and Awards



Sue O'Connor with her Rhys Jones Medal.

On December 3rd, it was announced that **Sue O'Connor** has been awarded the 2011 Rhys Jones Medal by the Australia-

lian Archaeological Association. This is the AAA's highest award. The Medal recognizes **Sue's** outstanding and sustained contribution to the field. In a sense, this represents a homecoming for the award. It was established in honour of ANH archaeologist Rhys Jones (1941-2001) to mark his enormous contribution to the development and promotion of archaeology in Australia. **Sue** is the ninth recipient of the Medal and the third from ANH, following John Mulvaney in 2004 and Rhys Jones himself in 2002. No other organi-

zation has won the award more than once. Congratulations to **Sue** on this high honour!

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Congratulations to our successful ARC Discovery and DECRA Grant applicants:

**Sally Brockwell** - *Earth mounds in Northern Australia: archaeological and environmental archives of the mid to late Holocene.*

Earth mounds, created and occupied by humans, are a common feature of Australia's northern coastal plains. They can offer unique insights into the formation of this recent landscape, and shed light on climatic and environmental change, and human/environmental interaction. This study will provide important new data for climate change models.

**Geoff Clark, Christian Reepmeyer, Simon Haberle, J. Sachs, and K. Nero** - *Climate change in the abandonment of islands: a high-resolution case study from*

*the tropical Pacific.*

Climate change in the last 1000 years is thought to have had negative environmental and societal consequences in the Pacific, particularly in Palau through the occupation and abandonment of limestone islands. This project uses high-resolution data to establish the palaeoclimate and the cultural mechanisms used to cope with climate events.

**Ambra Calo** - *The archaeology of the north coast of Bali: a strategic crossroads in early trans-Asiatic exchange.*

New archaeological excavations on the north coast of Bali and a comparative study of materials across Southeast Asia aim to document the growth of Trans-Asiatic exchange networks during the Late Metal Age, and particularly the strategic significance of Bali and eastern Indonesia for the trade in spices that linked Asia with the Mediterranean.

## Prebble's Travels



Matiu and Rose collecting cores in the Punaruu Vally.

In late November **Matiu Prebble** and **Rose Whitau** attended the Palaeo and Neoeology symposium at the Berkeley Gump Station, Moorea, exploring the integration of archaeological,

palaeoecological and modern ecological data from French Polynesia. A field excursion was run by Pat Kirch and Jenny Kahn to the Opunoho Valley on

Moorea. More details of the Symposium can be found at <http://jymeyer.over-blog.com/pages/>

As part of a new project running in collaboration with the Délégation à la Recherche de Tahiti (French Polynesian Government) **Matiu** and **Rose** visited the Papanoo and Punaruu Valleys on Tahiti in order to locate late Holocene sedimentary deposits from high elevation wetlands. Surprisingly little is known of the ecological history of this iconic Pacific Island.

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**Geoff Hope** and **Matiu Prebble** were recently helicoptered into the only Sphagnum Bog known from Northern Australia, located in the upper Jim Jim of Kakadu National Park. There has been buffalo damage on the periphery of the bog. Peat cores obtained from the bog will hopefully reveal the late Holocene vegetation history of the bog, a rare record of environmental change from the Arnhem Land Escarpment.

# Conferences and Workshops

**Sue O'Connor** attended the Dual Symposium "The Emergence and Diversity of Modern Human Behaviour in Palaeolithic Asia" and the "4th Asian Palaeolithic Association Meeting" Tokyo Nov. 26-Dec. 1 at the National Museum of Nature and Science Tokyo.

Peter Hiscock and Peter Bellwood (Arch

and Anth) also presented at the invited symposia. **Judith Cameron** was also in attendance.

**Simon Haberle** and **Ulli Proske** attended the annual Kimberley Foundation Australia Science Advisory Committee workshop on Thursday November 17th at the University of Western Australia, Perth.

The one day workshop included presentations and discussions on projects currently funded through the KFA ([www.kimberleyfoundation.com](http://www.kimberleyfoundation.com)), with **Simon** and **Ulli** presenting on the recent outcomes of palaeoecological investigations in the Mitchell Plateau and Ord River region.

Archaeology and Natural History  
School of Culture, History & Language  
College of Asia & the Pacific  
ANU

HC Coombs Building 9  
Australian National University  
Canberra, ACT 0200  
Australia  
Website: <http://chl.anu.edu.au/archaeology/>

For newsletter inquiries and contributions  
please email:

[Mark.Burrows@anu.edu.au](mailto:Mark.Burrows@anu.edu.au) or  
[K.Seikel@anu.edu.au](mailto:K.Seikel@anu.edu.au)

Research in Archaeology and Natural History at the ANU School of Culture, History and Language aims to understand prehistoric human societies, the environments in which they developed and the environmental consequences of human presence. Departmental research ranges from southeast Asia and the Pacific, through the tropical forests of New Guinea and the savannahs of Australia, to the islands of Oceania.

Field research in ANH is supported by well-equipped laboratories that were fully updated and refurbished during 2009. Our laboratories support research into prehistoric textiles, archaeobotanical remains, rock art, prehistoric environments, zoological material and ceramics. ANH houses the largest pollen reference collection in Australia, as well as plant, bone, shell and ceramic collections. We also have access to world-class ANU facilities for archaeological dating, stable isotope analysis, and electron microscopy.

## Upcoming Events ...

### Lunchtime Talks

2nd February: Katherine Seikel on Pohnpei Fieldwork at 12:30 pm.

23rd February: Matiu Prebble on Solomons Fieldwork at 12:30 pm.

22nd March: Sally Brockwell, Janelle Stevenson, Jack Fenner and Ulli

Proske on Weipa Fieldwork at 12:30 pm.

Please sign up for empty time slots with Janelle.

### Conferences

31 January-3 February 2012: The Australian Meteorological and

Oceanographic Society Annual Conference, U NSW, Sydney

13-17 February 2012: The Australasian Quaternary Association Biennial Conference, New Zealand

18-22 April 2012: SAA Conference, Memphis, Tennessee