

Archaeology and Natural History

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Lapita in Vanuatu

Research and fieldwork in Vanuatu is continuing at pace under the directorship of **Stuart Bedford** and Matthew Spriggs and the ARC funded project "Persistence and transformation in Ancestral Oceanic Society: the archaeology of the first 1500 years in the Vanuatu archipelago". It was with much relief that the start of 2011 marked both the completion of the excavations at the Teouma Lapita cemetery site on Efate Island and the return of Lapita pots and other artefacts from the "Lapita Oceanic Ancestors" exhibition held at the musée du quai Branly in Paris. Excavations at Teouma have encompassed six field seasons dating from 2004 and have generated a spectacular collection of over 100 Lapita mortuary vessels. These are currently being analysed and drawn in Vanuatu at the Vanuatu Cultural. Ninety individuals buried in more than 60 grave features have been recorded. This site is the oldest cemetery recorded thus far in the Pacific and has generated worldwide interest and publicity.

The Lapita exhibition in Paris was the culmination of two years preparation for this first international presentation of the Lapita Culture and was very successful and well-received (<http://www.quaibrantly.fr>). Associated with the exhibition were two publications. One a substantial bi-lingual synthesis on Lapita, "*Lapita: Oceanic Ancestors* (C. Sand and **S. Bedford** 2010) with contributions from

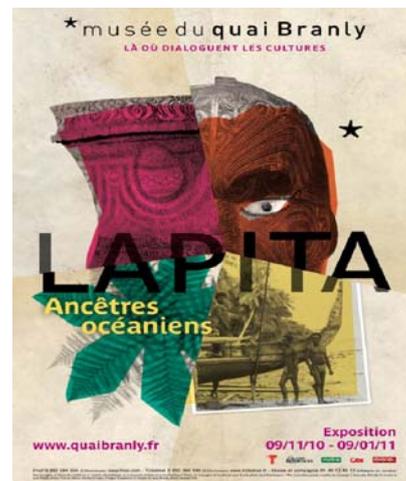
ANU scholars dominating, including from **Atholl Anderson, Stuart Bedford, Geoffrey Clark, Andrew Pawley, Darrel Tryon, and Matthew Spriggs**. A tri-lingual (English, French and Bislama) booklet on Lapita, *Lapita Peoples/Peuples/Pipol: Oceanic Ancestors/Ancêtres océaniens/Bubu blong ol man long Pasifik* (**S. Bedford, C. Sand and R. Shing** 2010) was produced for distribution amongst the wider community in both Vanuatu and New Caledonia.

The fieldwork planned for 2011 in Vanuatu includes a final season of excavation at the Uripiv Lapita and post-Lapita burial site involving collaborators from New Zealand, France and of course our partners in Vanuatu. Thus far, from Uripiv and the nearby island of Vao, 8 Lapita, 18 post-Lapita and 2 Historic burials have been excavated over several seasons. These slightly later burials are providing valuable comparative information for Teouma. Publications relating to this work and a general summary of mortuary practice across Vanuatu over the last 3000 years are appearing in the *Journal of Pacific Archaeology* in July. Fieldwork will also be carried out on the largest island, Santo. Two Lapita sites were identified earlier on Santo and more comprehensive excavations will be carried out at both of them. Vanuatu research will be well represented at the 2011 Lapita Confer-

ence to be held in Apia in late June, having been allotted a dedicated session. In Samoa **Stuart Hawkins** will be reporting on Lapita exploitation of tortoises in Vanuatu where spectacular evidence for their over-exploitation and extinction has been found. A further ABC catalyst TV episode is expected to air in July which focuses on this aspect of his research.

In May **Stuart Bedford** was presented with the Vanuatu General Service Medal by the President of the Republic of Vanuatu, at a ceremony at the Vanuatu Cultural Centre, for contributions to the understanding of the nation's history. He was also made an Honorary Research Fellow at the University of South Pacific, primarily to promote collaborative research and teaching of that part of the Pacific's human history that extends for tens of millennia beyond the historic record.

*For more information related to the exhibition please email k.seikel@anu.edu.au



From the Desk of Geoff Hope

Since the February Newsletter I have been spending an inordinate amount of time correcting and editing a major report on the peatlands of the Snowy Mountains. I finally delivered it to NSW Parks at the end of May. Phew! Now to break it into a couple of papers.

I also went to some of the bogs near Tumbarumba and I think I found a bog that Gurdip Singh had taken me to in the 1970's – we were pretty lost but I am now sure it was Paddys River Bog (not to be confused with a *Carex* fen of the same name near Mittagong). It is still a great site but fraying at the edges- a large willow has taken hold and wild horses are on it. On another nearby bog, Tomneys Plain, I worked with

the Murrumbidgee Catchment team led by David Stein to build barriers across an incised stream section to restore the hydrology. Great forest country but not well managed by leaseholders or Forests NSW.

I helped arrange for Fenner School to manage a \$1.3m grant from Dept SEWP&C (formerly DEWHA) to study upland peatlands on Sydney sandstone, as these are threatened by climate change and subsidence associated with longwall mining. To date the formalities have dragged on and the grant is still not up and running.

I am currently working on an-



Tomney's Plain.

other contract from Dept SEWP&C to define the upland peatlands of the Sydney Basin for listing. I am arranging to spend a few weeks in July in Suva as a "Distinguished Visitor" to provide some Quaternary input.



Virginia and Laurie sampling a core from southern Chile

"... until recently, we knew very little about the Lapita People. All that has changed over the last decade ..."

In Other News

ABC CATALYST recently featured the work of Matthew Spriggs, **Stuart Bedford**, **Christian Reep-**

meyer and others on the Lapita people. The link to the program is below.

LAPITA PEOPLE

<http://www.abc.net.au/catalyst/stories/3234011.htm>

It was about **Stuart's** research at the Teouma burial site, one of the most remarkable finds ever made in the Pacific and one of the most informative about the symbolic concerns of the Lapita people.

Welcome to **Tristen Jones** (incoming PhD candidate) and **Reecie Levin** (visiting PhD candidate from U Oregon). Mike Carson (MARC, U of Guam) will be

joining the department as an RSAP visiting fellow later this year.

As part of the [Wildfire PIRE](#) joint NSF funded project ANH hosted two visiting PhD students, Virginia Iglesias and Laurie Stahle, from Montana State University during the months of May-June. Virginia is currently working on a project investigating the 'Holocene fire-climate-vegetation linkages in the western mid-latitude forests of North and South America.' Laurie is starting a PhD program investigating post-glacial vegetation and fire history of Tasmania.

Prof Cathy Whitlock from MSU visited our Department for a week in March. She travelled with palaeoecologists from ANH to Bega Swamp in southeastern NSW.

Dr Marie-Pierre Ledru, IRD Montpellier, was a visiting fellow during May and is collaborating with **Simon Haberle** on the palaeoecology of the Seychelles. The new records show a detailed history of human impacts and plant introductions over the last 2000 years.

Dr Justine Kemp, School of the Built and Natural Environment, Northumbria University has been visiting Earth Sciences March-June. She is writing up her work on the geomorphological history of the middle Lachlan River. During her visit she worked with **Geoff Hope** to prepare her palynology of Micalong Swamp near Tumut, which was part of her 1993 Honours thesis on the transition from Pleistocene to Holocene environments in SE NSW.

Fieldnotes

In April 2011, **Simon Haberle**, **Ulrike Proske** and Karen Bell (Royal Botanic Gardens Melbourne) were on a field-trip in the Wyndham Region, Kimberley. They collected eight cores from a variety of locations, from back mangrove tidal creeks to freshwater lagoon systems. In the following months, **Ulrike** will analyse these cores for their pollen, spore and charcoal content to unravel the region's Holocene palaeoenvironmental history and to investigate whether past catastrophic events, such as cyclones and tsunamis, impacted on the biodiversity development of the major coastal ecosystems.

Ella Ussher travelled to Taveuni Island in Fiji for two weeks in May. In conjunction with **Matt Prebble** and botanist Bee Gunn (Research School of Biology), she collected plant specimens pertinent to her study of micro and macro-botanical remains in archaeological sediments. These included a range of economic cultigens and famine foods that could have

been eaten in prehistory such as taro (*Colocasia esculenta*), sweet potato (*Ipomoea batatas*), yams (*Dioscorea spp.*) and various ferns. Plants were collected from current and abandoned plantations near the coast, and the surviving rainforest at higher altitudes in the centre of the island. A trip was also made to sample the flora at the edge of Lake Tagimaucia, an amazing crater lake located at an altitude of 820m in the northern end of the island. A total of 39 species were collected and will be added to the ANH starch, phytolith and parenchyma comparative collection.

In June **Noel Hidalgo-Tan** attended the Rock Art Field School in Gumbalanya (Oenpelli), Arnhem Land. The field school is run by the ANU Rock Art Research Centre under the direction Sally May. This was an opportunity to compare methods of rock art study and recording in Australia with **Noel's** experience in Malaysia and Thailand.



Gemma Boyle recording rock art using an iPad

During the field school he was also able to conduct a first trial for recording rock art using an iPhone/iPad, with quite promising results.

Ben Keaney has been making great advances in studying Bogong Moth deposits and associated peat sequences in the Tinderry and Brindabella Mountains. He is firming up his hair identifications and has established that the moth deposits probably span at least 1-2000 years, or at least incorporate charcoal of this age.

“A total of 39 species were collected and will be added to the ANH starch, phytolith and parenchyma comparative collection.”

Lab Workshops and Teaching

ANH Undergraduate Laboratory Workshops - Report

Daryl Wesley ran a series of laboratory workshops for archaeology undergraduate students with assistance from **Tim Maloney** and **Katherine Seikel**. Following on from last year's successful laboratory workshops, undergraduate students worked with materials from **Sue O'Connor** and **Daryl's** Anuru Bay – Wellington Range ARC Project. The lab workshops were held twice weekly and provided an opportunity for students to experience archaeological laboratory conditions and work practices. Some of the participants are continuing work on the Wellington Range materials on a voluntary basis.

From Angkor Wat to Rapa Nui: UNESCO World Heritage in SE Asia &

the Pacific (ASIA3050/ASIA6050) - Semester 2

Christian Reepmeyer designed this course to give students the opportunity to learn about concepts and challenges of World Heritage in the SE Asian and Pacific region. It builds on the recognition of the 2005 UNESCO World Heritage workshop that World Heritage is underrepresented in the Pacific region. Central focus will be to understand the process of nominating properties to the World Heritage List. Specialists with long-term experience in World Heritage will share their knowledge about projects in Vanuatu, Tonga, Cambodia, Micronesia and Central Australia.

The acquisition of a new Olympus

digital camera and teaching microscope has been funded by SCHL and will be available for 2nd Semester classes in our teaching lab. The new Video-capable Teaching Microscopes (stereo and transmitted light) will allow us to expand how we are using the teaching labs and provide interactive learning opportunities for students. Images and video can also be captured and uploaded to teaching websites.



Rock Islands of Palau—World Heritage Nominated

Archaeological Textiles



Excavations in Sri Lanka.

The analysis of archaeological textiles for the ARC Indian Textile Project continues to be the main focus of **Judith Cameron's** research. Her identification of the earliest Indian textile tools in the Southeast Asian archaeological record is now published ("Iron and Cloth in the Indian Ocean littoral: New evidence from Tha Kae" *Antiquity* 85(328): 559-567).

The results of **Judith's** analysis of archaeological textile fragments

excavated from the Deliwala Stupa in Rambukkana (2nd century BC) were a central feature of a paper presented by Nimal Perera (Deputy Director-General of the Sri Lankan Department of Archaeology) entitled 'New Evidence for Indian Ocean Trade based on recent excavations in Sri Lanka' at the conference on Ports of the Indian ocean from the Red Sea to the Gulf of Bengal organised by the Archaeological Survey of India in Kolkata 22-24 February, 2011. The identification of silk in the Deliwala assemblage was significant as it extends the maritime silk route to Sri Lanka and was widely reported in the Sri Lankan press and *Archaeonews* 30-30-2011. Further analysis is currently underway to determine if the silk is wild or the domesticated *Bombyx mori* species of Chinese origin. The analysis involves com-

parisons of SEM images of securely provenanced silks from dynastic sites in China.

Cameron, J. 2011 Iron and Cloth in the Indian Ocean littoral: New evidence from Tha Kae. *Antiquity* 85(328): 559-567.

Cameron, J. 2011 Textile Crafts in the Gulf of Tongking: The Intersection between Archaeology and History. In N. Cooke, Tana Li and J. Anderson (eds.), *The Tongking Gulf through History: Soundings in Time and Space*. Pennsylvania: University of Pennsylvania Press. pp.25-38.

Cameron, J. 2011 Notes on the 19th Congress of the Indo-Pacific Prehistory Association, Vietnam Academy of Social Sciences, Hanoi, 29 November – 5 December 2009, *Antiquity* 85(328): 490-491.

Conferences and Workshops

In May, **Noel Hidalgo-Tan** attended a two-week workshop on the rock art of Southeast Asia

hosted by the Southeast Asian Ministers of Education Organisation's Regional Centre for Archaeology and Fine Arts, the first of a series of workshops planned for the coming

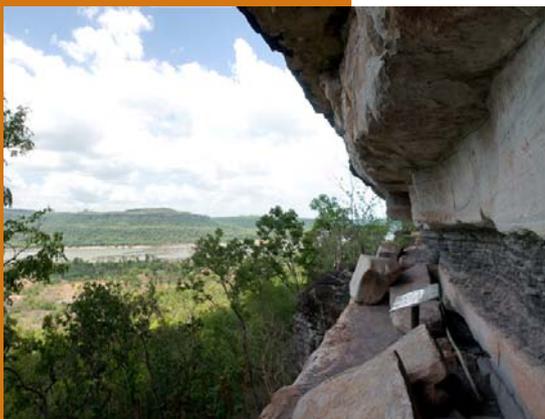
years. Most of the countries in Southeast Asia were represented, including Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand, Timor Leste, the Philippines and Vietnam. During

the workshop the participants heard reports on rock art sites in the region, and learnt techniques for the recording and analysis of rock art. In many parts of Southeast Asia, rock art has been largely ignored and much more needs to be done in this region.

For the second week of the workshop the participants visited several sites in northeast Thailand including Pha Taem National Park (Ubon Ratchathani Province) which contains the longest panel of rock art in the country, and Phu Phra Bat Historical Park (Udon Thani Province), which contains numerous rock art sites located amongst sandstone boulders.

Jay Chin attended Quaternary Techniques Short Course run by GNS Science, held 19-20 May in Lower Hutt, New Zealand. The

broad theme of the workshop was "Techniques of Palaeoclimatic and Palaeoenvironmental Reconstruction." The workshop presented 20 speaker sessions covering a wide range of topics, including various dating methods, marine and terrestrial microfossils, stable isotopic analyses, ice cores, palaeomagnetism, numerical modelling and pedology. The occasion also provided a lively meeting and discussion venue for Australian and New Zealand students in different fields of study. The travel and accommodation costs were supported by AINSE.



Pha Man Noi rockart site in Thailand

Grants and Awards



South Alligator River and floodplains, late dry season.

Sally Brockwell and Janelle Stevenson were awarded an ARC linkage grant for their project “From prehistory to history: landscape and cultural change on the South Alligator River, Kakadu National Park.” This project explores the archaeology, history and palaeoecology of the Kakadu floodplains to better understand social and environmental changes that have taken place in this landscape from the mid-Holocene to historical times. The outcome will be a contextualised understanding of potential climate change impacts against a history of past change.

A Skinner Fund Grant has been awarded to **Ella Ussher** to cover flights to Tonga for archaeological fieldwork and further plant reference sample

collection in November. The Royal Society of New Zealand awards grants of around NZD\$1000 to 2-3 recipients each year to “promote the study of the history, art, culture, physical and social anthropology of the Māori and other Polynesian peoples, particularly through the recording, survey, excavation and scientific study of prehistoric and historic sites in New Zealand and the islands of the South-west Pacific.”

ANH was particularly successful in the recent round of Research Development Grants:

Geoffrey Clark: Funding for three AMS Atomic Mass Spectrometry (AMS) dates on extinct tortoise bone at the Oxford Radiocarbon Accelerator Unit.

Jack Fenner: Funding to establish a joint ANU-National University of Mongolia project focused on the archaeology of eastern Mongolia.

Janelle Stevenson: Funding for a Research Assistant for project on landscape and biodiversity change through time and the impacts of climate change in the Central Cordillera of Luzon, Philippines.

Susan O’Connor: Funding for copy editing and lay out for *Transcending the Culture-Nature Divide in Cultural Heritage: Views from the Asia-Pacific Region* (edited volume).

Sally Brockwell: Funding for book indexing for *Deadmen and Dreamings: The Archaeology of Angatcha-Wana*.

Christian Reepmeyer: Funding for a consultancy workshop for a World Heritage cultural site dossier for the Heketa and Lapaha sites in the Kingdom of Tonga. This includes additional fieldwork designed to produce detailed digital GPS maps of these sites.

“This seminar will discuss proposed research to study the newly-discovered rock art near Phnom Kulen ...”

Upcoming Rock Art Seminars

The Rock Art of Phnom Kulen, Cambodia

Noel Hidalgo Tan, PhD Candidate

Coombs Seminar Room B, Thursday 23rd June 11.00 am

This seminar will discuss proposed research to study the newly-discovered rock art near Phnom Kulen, or the Mountain of Lychees, a holy mountain since Angkorian times. . . The Phnom Kulen sites, and a single site noted elsewhere in Cambodia in 2007, represent the first and only documented instances of rock art in the country, and none of them have been recorded in detail or described in any academic literature. Besides

recording the known sites, my research will survey the foothills of Phnom Kulen and the mountain itself for more rock art. . .

Disentangling the styles and chronologies of north Australian rock-art

Tristen Jones, PhD Candidate

Hedley Bull Seminar Room 3, Friday 24th June 3.00pm

. . . This research project aims to investigate the poorly understood and often overlooked pre-estuarine period, the period dating from the Pleistocene to the mid-Holocene, and populated with assemblages of stylis-

tically dissimilar yet concurrent rock-art styles. The pre-estuarine period of Aboriginal occupation in western Arnhem Land is characterised as a period of significant change with the introduction of new stone tool technologies and massive shifts in economic resources, coupled with environmental change. The project will aim to establish greater clarity to the already established chronology of Arnhem Land rock-art through both a relative and absolute dating program, through a number of geographic case studies, the first of which is the Red Lily Billabong site complex.

Ben Keaney entering a granite cave to check on his moth deposit, summit of Mt Gingera, NSW ACT border. February 2011



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 or
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 ...

Morning Teas

5th July: ANH morning tea provided by Janelle Stevenson and Geoff Hope at 10:30 am.

9th August: ANH morning tea provided by Ella Ussher and Jean Kennedy at 10:30 am.

Conferences

27 June-1 July: Lapita Pacific Archaeology Conference, Samoa

<http://www.lapita.co.nz/index.php?conference=IPLAC&schedConf=Lapita2011>

12-14 July: 11th Australasian Environmental Isotope Conference and

4th Australasian Hydrogeology Research Conference, Cairns, Qld

20-27 July 2011: INQUA Conference, Bern, Switzerland.

<http://www.inqua2011.ch/?a=next>

1-3 December 2011: AAA Conference, Toowoomba, Queensland