Archaeologists from the ANU made a good showing at the first ever Archaeology Day at the Questacon on 24 May 2014 in conjunction with National Archaeology Week and the Canberra Archaeological Society. Helen Cooke, Billy Ó Foghlú, Iain Johnston, Elena Piotto and Noel Hidalgo Tan were there to introduce kids and visitors to the wonderful world of archaeology.

Throughout the day, the Japan Theatre hosted lectures by the archaeology crew: the rock art nerds Iain and Noel gave lectures about rock art production techniques and Southeast Asian rock art respectively; Helen made sure that people went home knowing about the archaeology of Canberra, while Elena brought us back 7 million years by showing the origins of our species.

Meanwhile at the interactive gallery Q-Lab, kids could experience some hands-on archaeology. Helen had on display a range of artefacts recovered from archaeological sites in Canberra that told the story of the nation’s capital, while Iain, Noel and Elena manned the very messy but very entertaining rock art booth, where kids could grind up various ochres and make their own hand and plant stencils. The highlight was definitely to hear Billy toot his own horn – literally. Kids could also toot Billy’s horns too, in an interactive demonstration of how prehistoric music developed.

The team had a fun time at the Questacon, and the staff were really friendly and helpful as well – it didn’t feel like we were doing much work! Throughout the day we saw heaps of participation from kids and their parents, as well as the occasional visit from students and staff of the ANU archaeological community. This is the first time that the Questacon and ANU archaeology has teamed up for National Archaeology Week, and the effort was a resounding success! Questacon hopes to host another archaeology event next year – so look out for the announcement next year!

An earlier version of this article failed to acknowledge the role of the Canberra Archaeological Society (CAS) in organising the Questacon day. In fact, CAS put together an amazing programme for the annual ACT and Region Australian Heritage Partnership Heritage Symposium and have been doing great work for 50 years! News of their events can be found at www.cas.asn.au.

Pictured: (Top) Elena Piotto; (Centre-left) Noel Hidalgo Tan; (Centre-right) Billy Ó Foghlú; (Bottom) Iain Johnston
“The hidden paintings of Angkor Wat”
Tan, NH; Sokrithy, I; Than, H; Chan, K. “The hidden paintings of Angkor Wat”, *Antiquity*, vol. 88, no. 340, pp. 549-565

This paper details the impressive work undertaken in identifying a series of hitherto unknown images at Angkor Wat, Cambodia. Difficult to see with an unaided eye, these images were enhanced through digital photography and decorrelation stretch analysis. The uncovered paintings highlight a specific phase in the temple’s history in the 1500’s when its use changed from Vishnavaite Hindu to Theravada Buddhist. This important paper received a lot of media attention and highlighted the role new technological advances can play in the interpretation of famous sites and that despite appearances such sites can still yield completely new insights into the culture and people that produced them.

“Food Fit for a Khan”

The paper details the use of dietary stable isotope analysis in assessing whether the expansion of the Mongolian Empire in the 1200’s brought large changes to the diet of the ruling elites or common people in the Mongolian homeland. Carbon and nitrogen stable isotope ratios, measured in bone collagen (both human and faunal) from remains obtained from Tavan Tolgoi, a Mongolian cemetery for the ruling elite, were compared with ratios taken from Tsagaan chuluut, a cemetery for lesser ranked people from this period. These ratios were in turn compared with those taken from the Bronze Age cemetery of Ulaanzuukh, post Empire human remains and modern and archaeological human and faunal remains from the wider region. Altogether the Tavan Tolgoi isotope ratios do differ from those of the other two cemeteries, however comparison with the ratios from the wider region suggests that these differences may be due to differing environmental conditions rather than dietary differences.

“Revisiting the Strontium Contribution of Sea Salt in the Human Diet”

This work investigates whether sea salt is a potential source of strontium in human tissues. An ancient human tooth from a Mayan individual from Tikal, Guatemala revealed strontium levels that did not match the expected local strontium isotope signature of that region. The influence of sea salt in these levels had been proposed in 2005 in a previous study, however this work identifies that a calculating error led to an underestimation of salt levels. Here, a revised mixing model is proposed which increases the amount of salt required by 51 percent. The implications of these findings are considered in relation to the ancient Mayan presence at Tikal and a discussion about the application of this mixing model in a wider setting is presented.
This work reports the discovery of a new obsidian source in northwest Manus, Papua New Guinea. The chemical signature for this new source was obtained using an electron microprobe, ICP-MS, and PIXE-PIGME and these results were compared both with known obsidian sources and obsidian artefacts from this region and the results show a more complex system of obsidian procurement than previously thought. This paper highlights how excavation and survey of Manus is relatively limited and that much more archaeological work is needed so that more early sites can be discovered and analysed in detail. In doing this the distribution of material from Lepong and other obsidian sources can be further expanded upon.

The Encyclopaedia of Global Archaeology is a multi-volume work that provides a comprehensive and systemic coverage of archaeology; including all periods and regions of the world. The entries in this encyclopaedia range from summaries of specific sites and scientific techniques to detailed dissections and descriptions of archaeological concepts, methods and theories. This work covers all social, ethical and political dimensions of archaeological practice including biographies of important archaeologists, different forms of archaeology, and the challenges and issues archaeologists are facing today. Scholars submitted entries to this encyclopaedia in their own language and over 300,000 words have been translated from eight separate languages, this is the first time many of these entries have been published in English. This compendium is both a printed reference and an interactive online work, the latter of which is particularly important because by continuously updating and revising all relevant entries, it can be a definitive reference work for archaeology and archaeologists.

"Sailing Sinbad’s Seas"

Judith Cameron was quoted in Science 27 June 2014, Volume 344, 6191. In a Feature article called Sailing Sinbad’s Seas, Andrew Lawler reported on a number of key papers presented at the SEALINKS Conference, held at Oxford University, 7-11 November 2013. In her paper entitled Archaeological Traces across the Bay of Bengal, Judith demonstrated the diffusion of iron and cloth across the Bay of Bengal during the Iron Age between 300 BC and 300 AD. Science drew attention to her argument that because spinning tools have no intrinsic value and are not generally traded, they provide good evidence for the movement of craftspersons in the prehistoric period.
Excavations at Ruapekapeka

Jono Carpenter spent five weeks in February-March excavating part of the British military camp at Ruapekapeka, in the south east Bay of Islands in Northland, New Zealand. This ‘camp of attack’ was occupied by approximately 1500 British soldiers, sailors, colonial volunteers and allied Maori for three weeks in the summer of 1845-46, as they brought up heavy artillery from Bay of Islands to attack Chief Te Ruki Kawiti’s artillery hardened pa or fortification, Ruapekapeka (the Bat’s Cave). The Ruapekapeka campaign was the final action of the first New Zealand War, ending with an ultimately successful assault on the pa and the fighting retreat of Kawiti and Hone Heke’s forces into the dense bush at the rear of their position.

Assisted by volunteers from the University of Auckland, Jono uncovered a 95m long defensive trench fronting the camp and the associated artillery and rocket batteries. This feature was known from historic sources but no longer visible on the surface, having been filled in and repeatedly ploughed from the mid-1880s onwards. An initial 30m section of trench was located with the aid of GPR provided by Matt Watson of Scantec Ltd, with the balance located by machine assisted stripping of the ploughed out topsoil (as it the balance of the trench was not visible in the GPR survey).

Few artefacts were found in the trench but notable finds include two clusters of unfired musket balls, black beer and aerated water bottle fragments, barrel hoops and a small fragment of wood with a clenched copper nail, possibly from a powder keg or naval accoutrements. The lack of artefacts is consistent with both military hygiene and the daily policing of refuse, and more than a hundred years of fossicking and the removal of artefacts turned up by ploughing. Wood species identification of charcoal, burned and partially burned wood from a layer of charcoal-stained soil at the bottom of the trench and found along most of its length was largely from kauri (Agathis australis) and totara (Podocarpus totara) and may have been from duckboards and/or fascines placed in the trench and burned during the British withdrawal.

A single, large post-hole several metres within the defences is in the approximate location of a flagpole illustrated in several contemporary paintings of the camp, and contained fragments of kauri, the straight growing trunks of which were often used for flagpoles. An area of outcropping clay stone near the flagpole appears to have been levelled, and this is in the vicinity of the artillery battery which is also illustrated in several sources.

A sporadically updated project blog with an Instagram feed (see pictures below) from the excavations may be visited at:

www.arakiteruapekapeka.wordpress.com
Fieldwork in Kakadu National Park

On July of this year Dr. Sally Brockwell, Dr. Annie Clark, Lotty Feakins, Bethune Carmichael, Iain Johnston and Billy Ó Foghlú journeyed into Kakadu national park to continue our various fieldwork projects that have been ongoing in the area.

Lotty Feakins, whose work involves a forensic investigation of a number of Buffalo Camp sites of historic importance, carried out a number of excavations that will provide new and valued insight into the past use of these sites.

Bethune Carmichael, whose work is dedicated to understanding climate change adaptation did a lot of scoping work and Billy was able to excavate two earth mound sites as part of his own project, as well as continue his ethnographic surveys and interviews into the use and curation of modern earth mound sites. Iain Johnston provided valued help to everyone, both on site and after work every day, and kept the night air alive with the delta-style thunder of his guitar.
Calling for submissions for the next edition of the ANH Newsletter

If you would like to submit an article, notice, letter or anything of any kind to ANH Newsletter, please contact the Newsletter Editorial Team (see below).

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.

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Upcoming Events ...

Morning Teas
Please sign up to host ANH Morning Teas (or indeed Afternoon Teas) on the form attached, by pin (or tape, depending on the day in question), to the ANH Notice Board.

Lunchtime Talks
Please sign up for empty time slots with Janelle.