Premier’s HTA History Scholarship

Digital Teaching And Learning in Australian Archaeology: Project Archaeohub

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Australian archaeology has been undervalued for too long. In teaching and learning programs, tens of thousands of years of vibrant Indigenous cultural heritage, and much more recently, an eclectic colonial cultural heritage, have often run a distant second to the wonder of Old World archaeology. However, teaching and learning of history and archaeology in Australian schools is currently at a crossroads. For the first time the new National Curriculum for History makes explicit reference to the prehistory of the Australian continent. Archaeologists and educators must seize this opportunity to engage young Australians with their rich and diverse cultural heritage and the work of those who uncovered it.

Unfortunately, to-date, little has been done to bring Australian archaeology to the forefront of teaching and learning of history. To be fair, many teachers go to great lengths to bring to life the archaeological process for their students and who celebrate the rich material culture heritage of Australia. However, as identified by Colley (2000, 2005), the vast majority of the teaching and learning in archaeology in New South Wales is heavily focussed in the later years of secondary schooling and generally has popular overseas sites such as Pompeii as its focus. This is due to the structure and content of the Preliminary HSC and HSC courses in New South Wales.

NSW students’ introduction to and learning in the archaeological sciences largely revolves around sites from the Old World and Near East and the work of foreign archaeologists, predominantly from the United States, Great Britain and European nations such as France and Germany. This marginalises the wealth of Australian knowledge and expertise available in the archaeological field and reinforces the misconceptions commonly held by students (and some teachers for that matter) that there is nothing of worth to found in Australia and that archaeology in this country is ‘boring’. This prevailing attitude towards Australian archaeology has also been noted anecdotally in Queensland (Nichols, Prangnell & Haslam, 2005) and in Western Australia (Balme & Wilson, 2004), and extends beyond the years of secondary schooling well into the first years of university. Despite complaints from archaeologists and educators alike, so far little has been done to rectify the situation.

Enter Project Archaeohub.

Archaeohub is a website aimed at providing a digital interface for teachers and students to access information about the latest trends in research and fieldwork by Australian archaeologists both at home and abroad. It is designed to create opportunities for conversation and collaboration between professional archaeologists, professional educators and the professionals of the future (students).

When launched, the website will provide information about the latest discoveries in Australian archaeology as well as provide instruction for both teachers and students in current archaeological field methodologies, laboratory techniques and digital technologies. Archaeohub will create a wealth of archaeological narratives of people, time, and place, and will be an engaging pedagogical foundation upon which to build teacher and student understanding.

In the classroom, which is increasingly the world of the digital native, the Internet has created new opportunities for education in archaeology: redistributing access to cultural resources, generating representations of the past and creating collaborative spaces for those with a common archaeological interest. Via the digital learning tools of Archaeohub, teachers and students will be involved in all stages of the archaeological process. Archaeologists, teachers and students will digitally engage on the Archaeohub website in the following collaborative spheres:

* + TED-style micro lectures on current aspects of Australia’s archaeology and cultural heritage
  + podcasts of interviews with Australian archaeologists discussing their current fieldwork or research areas
  + ‘Walk in My Shoes’, weekly blog entries by archaeologists describing the research/lab/field work they undertook that day providing snapshot in time of archaeological work
  + digital presentations and how-to videos on archaeological methodologies in the field and lab, with a particular emphasis on using the latest technologies
  + ‘Ask an Archaeologist’, an online forum where archaeologists and archaeology students are available to answer questions about all things archaeological
  + virtual site tours and narrated walks through sites at the leading edge of archaeological research in Australia
  + digital pinboards where teachers and students can find out how they can participate in community archaeological projects
  + teacher and student involvement in specially designed activities to coincide with National Archaeology Week

To create such a repository of resources and collaborative spaces, new work needed to be undertaken, both in terms of building teaching and learning resources for teachers and students and in fostering new cooperative relationships between archaeologists and educators. Within this context the Premier’s HTA History Scholarship provided a platform for this work to begin. Under the auspices of the scholarship I was able to attend and present at the combined Australian Archaeological Association/Australasian Society for Historical Archaeology conference in Cairns in December 2014. I was able to ‘spread the word’, so to speak about my Archaeohub project and meet with some of the leading archaeologists in both the commercial and academic fields. The scholarship also enabled me to travel to Western Australia to meet with archaeologists and visit field locations and archaeological laboratories to document work being undertaken. So the travel had a two-pronged objective – collecting data and establishing professional networks with archaeologists.

In search of archaeological riches

My travel plans were admittedly ambitious. Originally, I was to start my scholarship travel in Cairns, at the joint Australian Archaeological Society/Australasian Society for Historical Archaeology (AAA/ASHA) Conference, at which I was delivering a paper about the Archaeohub project. In the months following that, my hope was to visit Canberra, Willandra Lakes in western New South Wales, Brisbane, Melbourne, Adelaide and various sites throughout Western Australia.

My aim for my travels was to visit as many archaeological sites and as many places of archaeological research as possible throughout the country so that the resource being developed would be as relevant and inclusive as possible for all Australian school students. Teachers would be able to choose a site or research centre that was culturally and geographically relevant to the students they were teaching to use as a case study or example in the context of their teaching about the pre-history of the Australian continent. It would also create an opportunity for teachers to examine a cultural or geographic area of Australia that contrasted with their own.

That ultimately proved to be over-ambitious.

My visit to the AAA/ASHA conference in Cairns was a major success. I delivered a paper that outlined my objectives and plan for the project to a room of archaeologists and educators keen to be involved in developing such a valuable resource for teachers. The paper was delivered in the context of a plenary session on archaeology and education, along with a variety of papers dealing with the new National curriculum, resources that had been developed or were being developed on Australian pre-history, pre-service teacher education in Australian history and archaeology, and others on a variety of outreach programs available for school aged children.

Listening to the delivery of the other papers reinforced in my mind the necessity of developing something broad like project Archaeohub, which is aimed to be comprehensive and available to every teacher and student in Australia, regardless of their location or the funding level of the school. There was only one textbook-type resource in production which dealt with Australia’s prehistory in the context of the National curriculum (which is an excellent resource, but still a stand-alone text). The outreach programs that were showcased were of a very high standard, but unfortunately suffered from the tyranny of distance and were only available to those students who were within easy travel distance of their location.

Meeting with individual archaeologists during the conference also proved fruitful. There was overwhelming support in principal for the initiative. I discussed my project in person with a number of archaeologists from around the country to garner their support for both the project itself and for an offshoot initiative I was also hoping to get off the ground.

In conjunction with the Archaeohub digital resource project, I was also hoping to establish a biennial conference called Archaeomeet. That conference would be an opportunity for teachers and other educators to hear about Australian archaeology and the work of those who bring it to life, directly from the professionals themselves, with practising archaeologists being asked to deliver papers on a variety of topics related to the National and NSW BOS curricula. Again, the conference initiative was widely praised, and many archaeologists agreed then and there to participate. The first Archaeomeet conference is slated to be held in Sydney at the end   
of May 2016.

At the AAA/ASHA conference, I also sought in-principle support and funding for the associated costs from the executive of the Australian Archaeological Association and the Australian National Committee for Archaeological Teaching and Learning (ANCATL), a subcommittee of the AAA.

ANCATL generally deal with teaching and learning in archaeology at a tertiary level, but with the introduction of the National curriculum, they saw a need to become more proactive in the teaching of Australian archaeology to school aged children. At the AAA Annual General Meeting, there was unanimous support for the AAA to become involved in financial and non-financial support of Archaeohub, though any financial support for the project would have to wait until at least 2016. A similar level of support was expressed at the ANCATL meeting, and all members of the committee were interested in being closely involved in Archaeohub and doing whatever they could to support the project.

Due to time constraints, work commitments, and the availability of academics and commercial archaeologists at the time (mid field season in northern Australia), the only travel I undertook as part of the scholarship was to the AAA/ASHA conference and to a number of sites and academic institutions in Western Australia. Following is a summary of the sites I visited.

Burrup Peninsula

In the far north-west of Western Australia, north of the mining township of Karratha, is an important heritage area on the Burrup Peninsula. I visited two specific areas during this trip, the Yaburara Heritage Walking Trail and the Murujuga National Park. The Yaburara Heritage Trail is a 3.5-km grade 4 walking trail, which was quite steep at some points and very rocky, passes through Ngarluma country. The following features along the way clearly indicated Indigenous use:

* + Petroglyphs are scattered amongst the rocky outcrops, including one of a kangaroo/wallaby.
  + Numerous stone tool scatters can be seen, including tools themselves, retouched tools, some point and debitage from the making process. In some areas the tool scatters were sparse; in other areas there was a concentration of tools and debitage. One particular area at the base of a large rocky outcrop had quite a dense concentration of evidence of stone tool making, with many of these tools showing evidence of use wear. There were also a number of grinding stones along the trail.
  + A number of Talu sites (ceremonial sites) are located in the environs of the walking trail. A Talu site relating to the fruit bat (Warramurangka) is associated with a rocky outcrop on the hillside where, according to the Dreaming, it formed part of the path of Warramurangka from the Burrup to the Fortescue River.
  + Large shell midden is evident, with a significant quantity of discarded shells and stone tools used to extract the meat from the shellfish. This area was located close to a dry creek bed, which would have had excellent water supplies.

After completing the Yaburara Heritage Trail, I headed up the Burrup Peninsula to the Murujuga National Park to document the petroglyphs and other Aboriginal sites found in that newly designated national park. The area has the largest concentration of rock art in the world, and it is suspected that there are more than a million petroglyphs in the wider Dampier Archipelago, and more than 10,000 petroglyphs in the Murujuga National Park. This national park is an excellent example of the tensions that exist between commercial interests such as mining and those of the traditional owners of the land, the Ngarda-ngarli people (Department of Environment and Heritage, 2013). The area of greatest density of these petroglyphs is in an area called Deep Gorge.

There are numerous petroglyphs on both sides of the gorge, some quite far back on the hillside. Some were quite easy to spot in the afternoon sun, others were more difficult, and some (due to their position on a suitable rock face for carving) could only be seen from particular angles, not necessarily from ground level. It took no small measure of climbing skills to not only reach some of those petroglyphs, but to ensure that site was not disturbed or damaged in any way.

Some of the motifs were quite common, such as kangaroos, people, emus, arrow shapes (tracks?), and circles, often depicted quite large and in prominent positions. Other motifs include totemic shapes, other animals such as emus, a sugar glider (?), dot and circles (either singly, or in a cluster), other animals that looked more like bush rats or bandicoots, goannas, a very strange depiction of what looked like a dingo attacking a person. In one particular area in the gorge, a significant quantity of shell (rock art is hungry work) is scattered alongside stone tools at the base of the rocky hill amongst the petroglyphs.

Historic town of Roebourne

After completing the basic recording and note-taking on the Burrup Peninsula, I paid a visit to the historic town of Roebourne. It was the first town to be established in the north-west of Western Australia, settled in 1866 by John and Emma Withnell (and named for Western Australia’s first surveyor general, John Roe). The town will be celebrating its 150th anniversary in 2016.

A number of historic buildings in the township include the original Trinity Church on top of Mount Welcome. A visit to this church late in the afternoon proved to be very fortuitous, as I encountered a delegation from the local historic society and the Western Australian branch of the National Trust, together with a number of specialist craftsmen including a specialist heritage carpenter and a stone mason. They were discussing the historic society’s proposal for restoration of the Church for the town’s anniversary celebrations. The CEO of the National Trust, Thomas Perrigo, was part of the delegation present, and I initiated a discussion with him about the Archaeohub project. He was very interested in involving the National Trust in the project, in particular sponsoring the initiative, and passed my details on to the head of the educational division. A fortuitous meeting indeed!

University of Western Australia

I’d organised meetings with Dr Carly Monks and Professor Jane Balme at UWA. Carly showed me around the archaeological laboratory, and we discussed the various projects being undertaken by honour and PhD candidates at the university. Many of these projects were documented to showcase a range of different scientific and investigative techniques used in archaeological research.

My meeting with Professor Balme was to discuss her research and fieldwork at some of the earliest occupation sites on the Australian continent. The earliest occupation of Australia forms an important part of the National Curriculum (looking at the prehistory of Australia). She was also extremely supportive of the Archaeohub initiative, though less willing to share resources that involved her archaeological research.

Old Farm, Strawberry Hill (Albany)

I undertook a day visit to the oldest farmstead in Western Australia, at Strawberry Hill. This site is protected and operated as a tourist destination by the National Trust. I was not only given access to the normal areas for visitors, but I was able to examine areas that had been recently excavated by students from UWA as well as artefact collections in storage onsite and at UWA.

Tunnel Cave and Mammoth Cave

These two caves (along with Devil’s Lair) are three very important prehistoric sites in Australia. Mammoth Cave has evidence of a range of megafauna that inhabited the Sahul (the continental area encompassing Australia and Papua New Guinea) tens of thousands of years ago. Some megafauna bone is still embedded in the cave. I was given special access to areas of the cave that are not open to the public, and I was able to examine some of the megafauna evidence personally.

The Tunnel Cave and Devil’s Lair sites contain evidence of some of the earliest human occupation on the continent. Neither site is open to the public. Unfortunately, as Devil’s Lair is situated on private property, I was unable to organise the necessary permissions to visit. Through the good will of Dr Joe Dortch from UWA, I was able to arrange a special visit to Tunnel Cave and view the surroundings and areas that had been excavated. The site, whilst not being situated in plain view, and being relatively inaccessible via any normal walking tracks, is still under some threat. When I reached the site, there was evidence that people had been there recently, leaving rubbish behind as well as evidence of a fire.

Historic town of Freemantle

I visited various historic sites around Freemantle, such as Freemantle Gaol. I also visited the Western Australian Maritime Museum to view the collections, in particular the wreck of the Batavia, as this is an especially important piece of Australia’s maritime history. This was an important museum to visit, as there are considerable maritime archaeological sites along the coastline of Western Australia. I was also fortunate enough to be in Freemantle at the time of the monthly meeting of the Maritime Archaeological Association of Western Australia. I was able to learn about recent maritime archaeological work that had been undertaken, future projects which are about to begin, and some for which funding is being sought. I was even offered an opportunity to participate on a wreck dive being run by the association the following day, but was due to fly back to Sydney, more’s the pity!

Meeting with Gavin Jackson Cultural Heritage Management

On the final day of my trip, I was fortunate to meet with a ‘high flying’ commercial archaeologist and his colleagues. Gavin Jackson has worked with both BHP Billiton and Rio Tinto on cultural heritage projects, in addition to a wide variety of other archaeological projects in Western Australia and the Northern Territory. The firm was very interested in being involved in the Archaeohub project, and Gavin gave me a number of contacts in the large mining firms with whom he suggested I establish a relationship. This was a very fruitful meeting.

Directions from here

There is much more work to be done to bring Archaeohub to reality. More travel needs to be undertaken to other parts of Australia to build up a bank of curriculum-related resources that can be used by teachers and students. Having said that, I’ve made a good start towards bringing the project to life.

The Archaeomeet conference in May 2016 will also be very useful in starting a conversation between archaeologists and teachers, one which will hopefully develop, be ongoing, and flourish on the Archaeohub website, as well as creating resources in the form of lectures and related teacher resources. Partnerships with companies with mining interests, and/or commercial archaeological or environmental firms will also be sought to share information and potentially seek sponsorship for the ongoing costs associated with maintaining a web resource.

Putting together the digital resource of Archaeohub

In conjunction with IT educators involved in educational web design and corporate web designers, a comprehensive map of the Archaeohub website has been developed.

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