

### Queen's Trust for Young Australians Awards to Aboriginal Students in Archaeology

Three Aboriginal students at Flinders University received a Queen's Trust for Young Australians Award at a ceremony at Government House, Adelaide, South Australia, on August 24<sup>th</sup>. The students are Tara Dodd, Jodus Madrid and Brian Marshall. The Queen's Trust Awards to individuals recognise leadership potential and a willingness to contribute to the wider community. The aim of the awards is to provide new opportunities for talented and innovative young people aged between 18 and 28, to further their development in their chosen fields. The three young people from Flinders University are part of a new generation of Australian archaeologists—Indigenous people who research or curate Indigenous cultural heritage.

The Flinders University students were part of a contingent of sixteen Indigenous Australians who attended the recent World Archaeological Congress in South Africa. While they were overseas they undertook individual research projects at the Smithsonian Institution in Washington as well as in London and Geneva.

Ms Dodd said 'Being able to give a paper at the World Archaeological Congress was a huge advantage for ourselves as Aboriginal people but also for the people back home. It gives recognition that Aboriginal archaeology is here and becoming stronger.'

'It gave us a vast amount of the experience necessary to knowing what's happening around the world in archaeology', said Mr Marshall. 'The experience I gained over there will help me with my further studies in the coming years.'

The Queen's Trust aims to be a positive influence on all young Australians by helping them realise their full potential and encouraging them to use their expertise to help others. It channels its support into programs which provide lasting value to the Australian community. Given their innate abilities and commitment to a better world, there is no doubt that the careers of these three young people in Australian archaeology will facilitate a wider and deeper understanding of Indigenous cultures—and that these young leaders will make substantive contributions to the shape of Australia's future.

### Australian's Unsolved Pleistocene Extinctions

The superbly dated extinction of *Genyornis newtonii* is a major breakthrough in Australian palaeoecology. However, I suggest caution before assuming that the research of Miller et al. (8 Jan., p.205) has clinched the megafauna debate as suggested by Flannery (Perspectives, *Science's Compass*, 8 Jan., p.182). Their hypothesis for the cause of the extinctions hinges on the assumed coincidence between the well-dated disappearance of *Genyornis* and the far less certain human colonisation of Australia (O'Connell and Allen 1998). Clearly, new dates for the loss of megafauna, the arrival of humans and new discoveries of the remains of megafauna predated by humans may weaken or strengthen their case.

The most tenuous aspect of their hypothesis is the claim that landscape burning by the early human colonists caused the extinction of the megafauna including *Genyornis*. How could have human induced changes in fire regime caused the continental-wide loss of the Australian megafauna? There are no clear-cut examples where changed fire regimes alone has caused the extinction of wildlife in modern or prehistoric Australia. For instance, the 19th and 20th century extinctions of small mammal species that inhabited the continental interior have not been convincingly linked to changes in fire regime, rather introduced stock and predators were the more likely primary cause (Morton 1990).

Australia's unique flora and fauna has complex ecological relationships with fire—certainly 'one size does not fit all'. For instance, when Aboriginal landscape burning was

disrupted by European colonisation the ecological effects were not uniform, in some places woody vegetation expanded while in others grasslands were favoured (Bowman 1998). Miller et al's hypothesis must be about degrees of habitat change rather than absolute change because of the great diversity of woody species, including fire sensitive types, that occurs throughout all parts of the continent today. Finally, existing palaeobotanical research does not support Miller et al's case, as there is no clear evidence of any 'significant' shifts in vegetation composition due to Aboriginal burning 50 thousand years ago. Rather the evidence for such vegetation change has been dated well before or after this time (Singh and Geissler 1985; Kershaw 1986; Hopkins et al. 1993).

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### The Graduate Certificate in Tertiary Education at Flinders University: Improving Teaching and Learning in Undergraduate Archaeology

A Graduate Certificate in Tertiary Education was introduced by the School of Education at Flinders University in 1995 in order to provide academic staff with a formal introduction to contemporary theories and methods of

teaching and learning. Since its inception, two archaeologists, Donald Pate (Pate 1998) and Mark Staniforth (Staniforth 1998), have completed the course. Two additional archaeology staff members, Bill Adams and Keryn Walshe, are currently enrolled in the program.

One of the central themes of the course is the employment of experiential teaching as a strategy to promote active, independent learning. In comparison to traditional lecture-

based teaching methods involving passive information transfer to students, active and experiential techniques may facilitate deeper levels of understanding and have a greater potential of producing independent, life-long learners (NBEET 1992; Gow and Kember 1993; Modell and Michael 1993; Ramsden 1993; Candy et al. 1994; Lewis and Williams 1994; Bonwell and Sutherland 1996; Sutherland 1996; McKay and Kember 1997).

Deep approaches to learning are associated with students who have an intrinsic interest in the subject matter and search for personal meaning in learning activities. Teachers act as facilitators with goals to produce independent learners who can critically evaluate dynamic knowledge systems. In contrast, surface learning involves passive reproduction of information or a direct transfer of knowledge from teacher to student. Students are extrinsically motivated, minimise work by focusing on assignments set by teachers, and memorise information that might occur on examinations (Gow and Kember 1993).

Employing the results of research carried out by Biggs (1992) and Gibbs (1992), McKay and Kember (1997:64-66) provide an overview of the aspects of a tertiary course that encourage a deep learning approach. These include:

1. *A well-structured knowledge base*

Learning is a cumulative experience. The learning process is enhanced when past learning is relevant to progressive experience. Basic principles should be reinforced throughout each level of progression in the course.

2. *An appropriate motivational context*

If students have a positive reaction to the learning process, they will tend to develop a sense of 'ownership'. A stimulating process facilitates student motivation.

3. *Learner activity*

Active rather than passive learning is associated with a deep approach to learning.

4. *Interaction with others*

Both student-teacher and student-student interaction.

Due to the field and laboratory orientation of Archaeology, the discipline offers a range of learning environments in which active, experiential methods can be employed to teach basic principles and to provide students with a better understanding of the relationships between material culture and human behaviour.

However, because prehistoric and historic archaeological sites are non-renewable resources that are destroyed by excavation and analysis, opportunities to employ these sites in undergraduate teaching are limited (Judge 1977; Meighan 1977; Joukowsky 1980:159-61; Wilk and Schiffer 1981; Stone and MacKenzie 1990; Smith and Ehrenhard 1991; Smith 1996). One means to overcome this limiting factor is the use of simulated archaeological sites constructed in sandboxes, swimming pools, or similar structures (Chilcott and Deetz 1977; Hawkins 1987, 1991). Site simulations are supplemented by material culture teaching kits consisting of artefact reproductions and genuine artefacts excavated in relation to staff archaeological research projects. Alternatively, contemporary material culture provides an unlimited source of case studies to address relationships between artefacts and human behaviour in dynamic living societies (Salwen 1973; Ascher 1974; Rathje 1974, 1979;

Kavanaugh 1978; Wilk and Schiffer 1981; Gould and Schiffer 1981; Crabb and Bielawski 1994; Yee 1996). Modern archaeology is not restricted to studies of past societies but addresses relationships between material culture, human behaviour, and ideas in all space and time, including contemporary societies.

Rathje (1979:4) lists the following benefits associated with the involvement of undergraduate students in archaeological investigations of their own society:

1. An analytical perspective of an ongoing society makes students aware of the systematic relation between material culture and behaviour;
2. Students can most easily learn the strengths and weaknesses of archaeological methods and theories by applying them in familiar settings;
3. Data for study are available locally in an unending supply, and there is no destruction of older, scarcer sites;
4. During their studies of material culture, students gain practical experience in the research process, including project design, data recording, analysis, and reporting;
5. Modern material culture studies generate a great deal of enthusiasm among students.

Over the past 20 years, archaeology programs have been incorporated in numerous primary and secondary school curricula throughout North America as a means of implementing experiential, learner-centred educational goals (Devine 1990; Kehoe 1990; Hawkins 1991; McNutt 1991; Rogge 1991; Smardz 1991). Other regions of the world are also realising the value of archaeology in achieving these educational goals (Stone and MacKenzie 1990).

According to Hawkins (1991:149), educators support and endorse archaeological projects as components of the curriculum because of their 'hands-on, interdisciplinary nature and their ability to develop skills in reasoning, problem solving, critical thinking, and social interaction'. Furthermore, 'they provide highly stimulating enriching experiences that cannot be replicated in other settings'. These school-based archaeology programs incorporate demonstrations of basic archaeological principles (e.g. stratification, seriation, spatial and temporal distribution of artefacts), identification of various archaeological materials, hypothesis formulation and testing, construction and/or excavation of simulated archaeological sites, and field trips to museums and ongoing excavations.

Since Donald Pate's appointment as foundation lecturer in Archaeology at Flinders University in 1990, Archaeology has developed into an independent department of six academic staff that offers a range of undergraduate and postgraduate awards. A one year Graduate Diploma in Archaeology was introduced in 1991, Archaeology major sequences within the Bachelor of Arts and Bachelor of Science awards were launched in 1995, and a three year professional Bachelor of Archaeology degree program commenced in 1997. Flinders is the only university in South Australia that offers undergraduate and postgraduate programs in Archaeology, and the Bachelor of Archaeology is the first undergraduate professional degree of its kind in Australia.

Field and laboratory based experiential learning are primary components of all undergraduate archaeology teaching at Flinders University. Undergraduate students are

introduced to the practical and methodological aspects of Archaeology in the first year, and teaching in subsequent years, including Honours, maintains a strong emphasis on the integration of theory and practice accompanied by reinforcement of basic principles (cf. HERDSA 1992; Ramsden 1992; ECS 1995). Due to the strong practical components associated with Archaeology teaching, other disciplines at Flinders employ Archaeology topics within their major sequences and degree programs as a means of achieving active, independent teaching and learning goals. Areas at Flinders that employ Archaeology topics include Australian Studies, Education, Environmental Studies, Geography and Women's Studies within the Bachelor of Arts, the Bachelor of Cultural Tourism, Bachelor of Education, Bachelor of Technology (Ecotourism) and Bachelor of Technology (Forensic and Analytical Chemistry).

Primary and secondary students from various schools in the Adelaide region have also been involved with a range of interactive learning programs sponsored by the Department of Archaeology at Flinders University. These include museum-based archaeological exhibitions, simulated archaeological sites, i.e. 'dig boxes' and work experience placements associated with undergraduate field and laboratory methods topics and staff research projects.

The Flinders University Graduate Certificate in Tertiary Education is providing academic staff with a foundation in the basic principles of teaching and learning that can be employed to improve undergraduate and postgraduate curricula in various discipline areas. Upon completion of the Graduate Certificate, staff may continue studies in Education at the Masters and Doctoral levels as a component of the university's staff development and continuing education program.

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## LEO FLEISCHMANN VISITING FELLOWSHIPS IN PACIFIC ARTS AND MATERIAL CULTURE

### AUSTRALIAN MUSEUM, SYDNEY

#### Call for applications for 2000/2001

Applications are invited for the 2000/2001 Australian Museum Leo Fleischmann Visiting Fellowship in Pacific Arts and Material Culture. The Fellowship was established in 1995 by Ms. Senta Taft-Hendry in memory of the late Leo Fleischmann of Galleries Primitif, Woollahra. It is designed to encourage research into the arts and material culture of the Pacific Islands. Preference will be given to self contained projects that address the Australian Museum's interests and focus on the Museum's collections.

**Eligibility:** Applicants should be Australian citizens or Australian permanent residents. They should have at least an Honours degree or other appropriate research or experience qualifications. Students are not eligible and the fellowship is not meant to support or supplement thesis work.

**Terms:** We expect the value of the Fellowship to be AUD\$2500 as a grant-in-aid for the approved research project. This may be used as a contribution toward living costs, travel, purchase of essential research materials and field costs.

**Conditions:** The award will be taken up on or after 3 July 2000 and before 1 May 2001. The Fellowship will be paid in

two instalments: the first after signing acceptance, the second (10%) on receipt by the Museum of a written report on the work achieved. The Fellow will be expected to spend a substantial part of the Fellowship time at the Australian Museum and to give at least one seminar. All publications arising from or assisted by the Fellowship must include acknowledgment to the Leo Fleischmann Visiting Fellowship scheme and the Australian Museum. The Fellow will sign a standard data license agreement for use of Australian Museum collection data and will adhere to copyright conditions associated with data and imagery.

**Facilities:** The Fellow will be provided with basic office facilities. Library access and photographic services will be under the same conditions and rates as are offered to staff.

**Application:** It is highly recommended that potential applicants discuss their projects with Anthropology Division staff prior to submission. **Closing date 25 February 2000.**

**Information:** For application procedure see the Australian Museum's web page (<http://www.austmus.gov.au>) or contact Ms. Yvonne Carrillo, Anthropology, 6 College St., Sydney, NSW 2010 (Fax: 02-9320-6040;

email: [yvonnec@amsg.austmus.gov.au](mailto:yvonnec@amsg.austmus.gov.au)). For information about the Australian Museum's ethnographic collections contact Ms. Liz Bonshek (Fax: 02-9320-6040; email: [lizb@amsg.austmus.gov.au](mailto:lizb@amsg.austmus.gov.au)).

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