

Diana Day

Associate Professor Day is a physical and social scientist with interests in water and environmental policy and futures. She currently works in postgraduate training with Indigenous academic staff at the University of Sydney and researches in Indigenous water issues, science and postgraduate Indigenous education. Diana's experience ranges across the sectors including as academic researcher at the Universities of Newcastle, the University of New England and The Australian National University and also senior policy advisor in regional water planning and natural resources management to the Australian and NSW governments. She holds directorships of several Australian government agribusiness research and development corporations and has contributed to Australian water and land management through directorships of a range of national statutory authorities in the environmental and agricultural fields. Diana also has professional interests and a private practice in career management, executive coaching and mentoring and contributes to related programs within the University of Sydney. Diana is Adjunct Professor, Division of Health and Applied Sciences at Southern Cross University at Lismore NSW.

Privatisation of Australia's freshwater commons: Implications for Indigenous water culture

Much of Australia's freshwater commons are already privatised. Mainly to non-Indigenous interests. Few rivers run free. Most are regulated by storages and have water allocation to 'productive' economic or consumptive uses. Environmental water allocations are few and paltry. Very few aquifers escape commercial water extraction in Australia, the driest ice-free place on Earth.

Australian government decree in 2004, gave in spectacular fashion, big water users direct property capitalization of their water. Property values have always reflected the size of the water allocation held. Now this was clearer. All water 'owners' now have a guaranteed property right for water in law. This new ownership converts mere license holders of water-to-water property owners. Ready to buy and sell and plan water for many years in advance. Including Indigenous landowners. Providing the water is there of course.

The gate is now wide open to further privatization of fresh water and to the diminishment of free environmental water protection and of Indigenous water rights. There is a globalised corporatist shadow growing over our environmental water. While contemporary public planning exposure to traditional Indigenous water and land knowledges is slim, it is now more important than ever that this is sharply made, and soon. As governments push for Indigenous water owners to evaluate and use their water property, there is expectation that this water will be purposefully used for economic as well as cultural needs. But who will benefit?

The importance of unique Australian Aboriginal knowledges about water and its earthly and spiritual significance should be a vital element in contemporary water planning. Yet there is a large reluctance by mainstream natural resources and water agencies to adequately engage Indigenous perspectives. Even though western water values could be construed as extremely narrow in terms of its water statutes and water planning instruments and largely untested over long periods of time and climatic change. Key Indigenous knowledge systems pertinent to a broader strategic view of planning Australia's freshwater are suggested that incorporate wider equity and social good, security, scientific and sustainability contributions. Institutional and social policy responses to incorporation of Western and Indigenous paradigms in water and land are suggested.

Diana Day & Claire McLisky

Claire is a doctoral student at the University of Melbourne, researching Indigenous identity and early colonial history in Australia. She is a First Class Arts /Science graduate and Medalist of the University of Sydney [2003]. Her thesis combined traditional source-based history with oral and survey-based history. In 2004-2004 Claire taught English at the language school, Istanbul Lisan Merkezi in Turkey. She is fluent in Turkish. Claire has wide professional experience of editing and proofreading such as for the NSW English Teachers Association Magazine and for ESL and native English speaking postgraduate students PhD theses.

Claire worked with Diana at the Koori Centre on the Indigenous students and science project and is currently collaborating with Diana in research on the use and assessment of learning or reflective journals in undergraduate university courses. Claire was a key organizer of the February 2005 Freedom Ride in NSW with ReconciliAction. This was a recreation of the original and significant 1965 Freedom Ride where a bus of University of Sydney students led by Aboriginal activist Charlie Perkins, journeyed around NSW to reveal the level of discrimination against Aboriginal people.

Black and White Science: Why Indigenous Australian Students don't do University Science

Indigenous student representation in undergraduate studies in Australia is around 1.2%. For science and technology fields, Indigenous student enrollments at Australian universities drops to 0.31%. In order to better understand low science enrollments at the University of Sydney, a survey was conducted of Indigenous students and staff from the university and externally. Significantly, Indigenous males had lower university wide enrollments compared to Indigenous women. However, excluding health, Indigenous men were found to be more dominant in science and technology compared to Indigenous women.

New data also indicate that Indigenous student identity and schooling and perceived irrelevance of science are overall critical to undergraduate subject choice. Half of secondary and tertiary Indigenous interviewees perceived science and technology as not visible or interesting in their lives- there was no connection. Alienation from university and negative school experiences [including teacher and student ridicule about language and ability] were revealed in our study as disadvantaging Indigenous students in particular.

Right or wrong answers often demanded by Western science, together with its mechanistic philosophy further served to alienate students. Students felt that many school science teachers were hostile to traditional ways of knowing and had little knowledge or interest in Indigenous community dynamics. Other issues for students not choosing to do science included the perception that science would not help their communities. There were also few Indigenous role models in science and technology. Traditional Australian Indigenous role models were more likely to be in sport or entertainment.

40% of Indigenous students thought science was too hard and that it was only for bright students. They did not see themselves, nor were they encouraged to think of themselves, as having science ability.

Most students cited poor information on science careers and indicated that word of mouth was the main information source for future careers and jobs. Poaching of

Indigenous students by employers immediately following their secondary schooling was a further contributor to low Indigenous science undergraduate numbers and overall University numbers generally. Our study shows that for Indigenous males in particular, key issues for not undertaking university studies and science rather than other discipline or subject fields included; lack of male role models, a particular male youth culture that made university and science in particular as 'uncool', the pressure to leave school for work and supporting family, the streaming by teachers and careers advisors towards more 'practical' fields, and self esteem, racism and conflict issues.

