PUBLIC BENEFITS OF ARCHAEOLOGY:
Results from a Student Questionnaire

Sarah Colley

Abstract

A questionnaire asked students enrolled in second and third year archaeology subjects at the University of Sydney for their opinions about the wider public benefits of archaeology. Most answers emphasised benefits arising from archaeological knowledge rather than those associated with experiences of archaeology. Possible reasons for this trend and some wider implications are discussed.

Introduction

Archaeologists and others have long debated the wider public value of archaeology. In Australia, most discussion revolves around relationships between archaeology, Indigenous rights and heritage practices (e.g. Colley 2002; Lydon and Ireland 2005; Smith 2004). Government policies based on economic rationalism frequently require demonstration of tangible and 'measurable' public benefit outcomes to justify money spent on archaeology. It is hardly surprising that some Australian archaeologists continue to express concern that unless their profession can convince more people of the value of archaeology, they face loss of support and funding (e.g. Connah 1998:6; Mackay and Karskens 1999). The proposed solution to this problem is often more and better public education. Such sentiments are neither new (e.g. Birmingham and Jeans 1983; Bowdler 1986) nor confined to Australia (e.g. Fagan 2004; Little 2002a; Merriman 2004a). In Australia, we face the added challenge of convincing more people that Australian archaeology is worthwhile and interesting compared with archaeology overseas (e.g. Balme and Wilson 2004:19; Nichols 2006).

To design more effective public education programmes, we need to understand more about people's understanding of, and attitude to, archaeology. Merriman (2004b:8) notes that so far few researchers have collected empirical data about what various 'publics' think about archaeology. Most published work in this field relies on anecdotal evidence, theorised literature review or interpretations of popular opinion gleaned through review of media reports, television programmes and other popular cultural products (e.g. Colley 2002; du Cros 1999; Head 1996; Hiscock 1996; McNiven and Russell 1997; Nichols 2006). There is now a significant body of literature on Indigenous attitudes towards archaeology in Australia and elsewhere, but only a few studies present questionnaire or interview data (e.g. Colley 2002; Davidson *et al*. 1995; Field *et al*. 2000). Quantitative questionnaires on public attitudes to archaeology in North America (Ramos and Duganne 2000) and Australia (Balme and Wilson 2004) make very useful contributions but necessarily take a broad approach. Merriman (2004b:8-9) comments that qualitative research focused on different groups within the general public is needed to fill a current research gap. While such a project has not yet been conducted in Australia, the results of the student questionnaire discussed here may be useful in helping design future research in this area.

Department of Archaeology, School of Philosophical and Historical Inquiry, University of Sydney, NSW 2006, Australia

The Questionnaire

Between 1999 and 2004, 53 second and third year undergraduate students at the University of Sydney who were enrolled in a unit of study about public archaeology participated in a questionnaire that asked, 'What are some public benefits of archaeology to society?'

The questionnaire originally aimed to generate in-class discussion for teaching. Participation was voluntary and anonymous. The questionnaire was distributed at the start of the very first class of semester and students were given 10 minutes to write short free-form answers before the forms were collected by the lecturer. It was emphasised to the students that this was not a test or an exam, there were no right or wrong answers, and their personal understandings and opinions on the topic were required. Obviously, each student's prior study of archaeology had some impact on their understanding of archaeology and its benefits to the public. No data were collected on exactly which previous archaeology units of study each student had completed. At a minimum, each student had completed two junior introductory archaeology units of study. Others had also completed a variable number of additional senior level units of study. However, very little, if any, of the content of these other units of study would have involved direct or in-depth discussion of issues associated with public archaeology. The variety of answers to the questionnaire (see below) demonstrates a broad spectrum of understandings and opinions and indicates that most students were not simply repeating 'correct' answers learned from previous study. The kinds of answers the students gave to the 'public benefits' question are slightly different from those that might be expected from other sectors of the public. These students were a self-selected group of primarily young adults with higher-than-average intelligence and education, and who were interested enough in archaeology to chose to study courses in the subject at university. They were positive about archaeology and had a much more accurate and realistic understanding of the subject than a comparable student group surveyed by Balme and Wilson (2004) who were studying non-archaeology subjects at the University of Western Australia.

Qualitative analysis of the content of the replies generated 128 separate answers about the value of archaeology, from which it was possible to identify several broad themes and subthemes (Table 1). Figure 1 shows the frequency with which these themes were evident in the answers. The largest group (31.3%) comprised comments about archaeology's value for understanding human and cultural origins linked to issues of identity and socio-politics. The next biggest group of answers (19.5%) comprised ways in that archaeology links aspects of the past, present and future. Answers that described specific kinds of archaeological knowledge (15.6%), explained archaeology in terms of 'material history' (15.6%), and commented on educational, economic

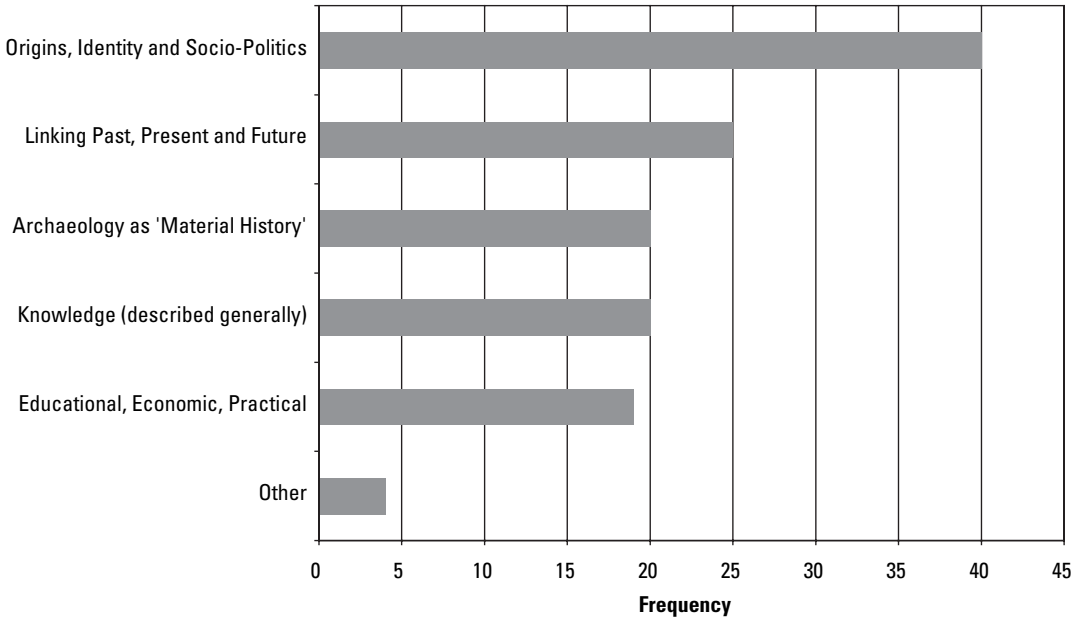

Figure 1 What are some public benefits of archaeology? Themes identified in 128 answers extracted from 53 written questionnaire responses.

Table 1 What are some public benefits of archaeology? Themes identified in 128 answers extracted from 53 written questionnaire responses.

Knowledge (described generally)	
Produces knowledge, understanding and satisfies curiosity	6
Reconstructs how people lived in the past	4
Studies changes in past technologies	3
Understanding cultural variation	3
Contribution to other disciplines	2
Explains processes of change in human past	2
Subtotal	20
Archaeology as 'Material History'	
Unique aspects of prehistory	7
Archaeology more 'factual' than history	7
Archaeology complements history	6
Subtotal	20
Linking Past, Present and Future	
Predicts the future	10
Understanding of the present	9
Learning moral lessons, progressing	7
Subtotal	26
Origins, Identity and Socio-Politics	
Important to aspects of Australian national identity	9
Supports rights of Indigenous Australians	9
Aids self-understanding and self-awareness	8
Important for national or other identity	8
Understanding of human, cultural and personal origins	6
Subtotal	40
Educational, Economic, Practical	
Assists public education	8
Cultural heritage management and conservation	8
Economic benefits	2
Public enjoyment	1
Subtotal	19
Other	
Did not answer the question	3
Don't know	1
Subtotal	4

and other practical benefits of archaeology (14.8%), were only slightly less common and spread fairly evenly across the three themes. Only three answers failed to address the question, and there was one 'Don't know'.

Types of Public Benefit Identified

Knowledge (described generally)

Some answers mirrored commonly stated 'text book' aims of archaeology, such as producing knowledge about the past, reconstructing how people lived, explaining change through time in biological evolution, technologies and economies etc.

Two answers commented on archaeology's contribution to other disciplines including '*historical, environmental and medical knowledge*' and '*areas such as geography and science*'.

Three answers noted archaeology's role in understanding cultural diversity, for example, '*It shows us evidence of people's traditions, values and ways of living*'. This aspect of archaeology is shared with the academic discipline of anthropology, which, in marked contrast to history, was not mentioned in any response. The students' apparent lack of familiarity with anthropology could result from the small sample size, but is also likely a product of high schools' curricula (Colley 2004:190-191).

Archaeology as 'Material' History

In contrast, a significant number of answers explicitly discussed archaeology as a kind of history. This supports other research (Balme and Wilson 2004; Colley 2005) which demonstrates that many university students became interested in archaeology through studying history and ancient history in school.

Seven answers specifically mentioned *prehistory* (defined as human history derived without written records) as a unique public benefit arising from archaeology. Prehistory in combination with palaeoanthropology was also stated by some as being uniquely placed to allow study of human origins and evolution.

Six answers nominated archaeology's contribution to writing different types of history as a public benefit through practices of historical or text-aided archaeology:

> *Shows us the lives of every strata of society rather than just what elite written sources tell us. A better understanding of the human past, reinforcing or debunking historical 'facts' through material evidence. Helps fill in the gaps left by historians.*

Even though the students were studying university courses that stressed the contingency and interpretative nature of archaeological knowledge (Colley 2005), seven responses reflected a commonly-held public perception that because archaeology studies material evidence, it is more factual and objective than history, including:

> *Uncovering the facts of the past to compare against written histories which are rarely impartial or objective. Can reveal an unbiased, impartial view of the past, that can counterbalance contemporary accounts that were largely written by a relatively small section of society. In my opinion, archaeology is one of the major factors in verifying or refuting the historical record by presenting the physical evidence of what actually happened as against what is reported to have happened.*

One respondent expressed some doubts about this view of archaeological interpretation: '*Explains without prejudice our past (I hope)*'.

Nine answers claimed that understanding the past through archaeology was useful for understanding the present, for example:

> *I think it paints a picture of the past so we know how 'today' was shaped by our ancestors. Providing a bridge/link from the mysteries of the past with the modern age.*

Ten answers said that a public benefit of archaeology was its potential to predict the future, for example:

> *It allows us to peer into the future through investigating the past. A way to formulate forecasts based on theories formed through studies of the past.*

Seven answers said that archaeology, as part of history, was useful to society for teaching valuable lessons along the lines of American philosopher George Santayana's oft quoted phrase that 'Those who do not remember the past are condemned to repeat it':

> *Appreciation of the past is important for society to 'grow up' or learn from past ways of life. We are able to see how we have developed and to see if we have actually improved any of our bad habits. Are we becoming more mature? The mistakes of the past can teach us about the future. Making us aware that we will be examined in future.*

A sense of human moral improvement, 'progress' and responsibility towards future generations underlies such comments, with one answer presenting a slightly different perspective:

> *Enables a better understanding of where we came from and genesis of many of the things we do and how cyclical is human experience of life.*

Origins, Identity and Socio-Politics

The largest group of answers (40) were placed into this broad category, with several subthemes apparent (Table 1). There was considerable overlap in the emphasis and focus of individual answers. Many answers did not divide neatly between subthemes and quantification presented here is indicative of relative emphasis only.

Six answers stated that archaeology can usefully contribute knowledge about human and cultural origins but gave no further explanation:

> *It shows us where we've come from. The question 'Where did we come from?' It's our past and history, a reminder of who we are and how we got there.*

That the 'we' could equally well mean humans, nations, groups or individuals clearly demonstrates the importance of such knowledge to identity.

Eight answers commented specifically on archaeology's role in aiding self-awareness and self-understanding. For example:

> *I think that archaeology can empower people to understand themselves. Learning about our past and heritage helps us better understand ourselves.*

Such understanding seems more self-reflexive, philosophical and inward looking than kinds of 'archaeological knowledge' noted above. These answers also include the ambiguous 'we'. They are about a sense of identity but the focus seems more personal than purely national or cultural.

Eight answers explicitly nominated archaeology's association with identity, expressed in general or broad terms, as a public benefit, such as:

> *Reconstructions of the past are very important to cultural notions of social identity. Promote patriotism through pride in national history.*

Australian Archaeology and Identity Issues

The largest group of answers in this theme (18) discussed archaeology's links to aspects of Australian identity and socio-politics. The question only asked respondents to comment on public benefits of archaeology in general and it seems significant that so many chose to discuss Australian archaeology in particular.

Of key relevance here is the current situation where more Australians seem to be more aware of, and interested in, overseas archaeology, especially that involving Ancient Egypt and classical Old World civilisations, than either Indigenous Aboriginal prehistory or colonial-period Australian historical archaeology (Balme and Wilson 2004; Colley 2002:126-139, 2005; du Cros 1999; Hiscock 1996).

The importance of Australian archaeologists working overseas is reflected in an answer that values archaeology as a way of promoting Australians and Australian interests internationally:

> *Increased worldwide recognition, therefore providing employment to home-grown archaeologists abroad (bigger players on the world stage).*

In contrast, another respondent was keen that more Australians placed value on working in Australia:

> *Teaching students, introducing them early to the benefits of looking at your local areas as opposed to always looking overseas for opportunities.*

Another answer was concerned to assert the worldwide significance of Australian archaeology:

> *Show nationally and internationally that Australia's deep past had the leading edge on technology! e.g. grinding stones, waisted axes, etc.*

This refers to Pleistocene dates for Indigenous Australian stone-grinding technologies, which were invented earlier in Australia than in most other parts of the world (Mulvaney and Kamminga 1999:221-222). The statement opposes Eurocentric and colonialist understandings of human history where anything important must have happened first in Europe, and which represents Australia's Indigenous people as technologically backward and Australia itself as insignificant to worldwide archaeology.

This response is equally an example of non-Indigenous Australia appropriating elements of Indigenous culture to bolster national identity and pride, with which some Indigenous Australians would disagree (see Colley 2002; McNiven and Russell 2005; Smith 2004 for further discussion). Such are some contradictions raised by aspects of Australian Indigenous archaeology practised under conditions of post-colonialism (e.g. Byrne 1996; Head 1998).

Other answers grouped with this theme concern archaeology's contribution to writing Australian histories that seek to acknowledge the rights of both Indigenous and non-Indigenous people, recognise multiculturalism and assert Australia's unique and independent national identity in the contemporary world. For example:

> *Can add to/correct the mostly patriarchal authoritative colonial perspective of Australia's history since 1788 which our multicultural society would appreciate. It is of national interest to be aware of our post-colonial history. Historical site recovery and restoration of significance to black and white Australia. So we can all acknowledge and celebrate the past as part of our future.*

Nine answers argued for the public benefit of archaeology in promoting Indigenous rights, with archaeology being a vehicle for educating non-Indigenous Australians about the complexity and value of Indigenous culture and history:

> *It is important that we understand the history and culture of our Indigenous people. Useful for changing the still much believed view in the general non-Aboriginal public that Aboriginals [sic] had a very simplistic day to day lifestyle. Political and social - help eliminate misconceptions of Australian aborigines [sic].*

Other answers stressed the benefits to Indigenous Australians in understanding and promoting aspects of their own culture as an aid to self-determination, for example:

> *Empowerment of Aboriginal people through ownership of their own cultural heritage. Providing Aboriginal communities with information on their own past and enabling them to pass that information on to further generations. Furthering a better understanding of the relationship Aboriginal people have to place. Allow Indigenous people to say how long they have been in the region.*

This last answer makes implicit reference to the role of archaeology in supporting land rights claims based on length of prior occupancy. Such comments depict archaeology as strongly beneficial to Indigenous Australia, which in turn is considered to be of broader public benefit.

Educational, Economic and Practical Benefits

Answers in this category were primarily about the benefits of archaeology as a means of public education and the role of archaeology in cultural heritage management and conservation. Several respondents commented on the value of conserving sites, monuments, artefacts and ancient artworks for future generations. Strictly speaking, these are benefits of heritage management and cultural conservation rather than just archaeology.

One answer linked Australian archaeology to economic benefits gained through cultural tourism:

> *Economic – increased domestic and international tourism to important sites and $$$ to local and greater economy.*

Promotion of Australia as a tourist destination overseas is strongly linked to symbols of national identity, which include reference to both Indigenous culture and landscape (Byrne 1996; Ireland 2002, 2003). While there is currently no obvious connection between Australian archaeology and the way international tourism is promoted, historical archaeology plays a role in tourist promotion of key national places such as Sydney's historic Rocks area and Tasmania's Port Arthur convict site (e.g. Lydon and Ireland 2005).

The material aspects of archaeology were viewed by some respondents as useful for teaching the public about history and heritage. For example:

> *An opportunity to educate the wider public to their own history and heritage through artefacts, objects and remains in a way which increasingly becomes interactive i.e. Web, Media, TV etc.*

However, there was some confusion in these answers about the ultimate aims of such public education. For example:

> *Teaching the general public about the importance of learning about the past. Education [in] schools. Education – training specialised professionals who in turn create awareness and educate the mass public about Australian prehistory and post-colonisation.*

Enjoyment and Interest

Only one answer said that archaeology was of benefit to the public because:

> *Some people in society find it interesting and enjoy having more information about the past.*

Archaeological Knowledge and Practice

The questionnaire identifies a variety of reasons why archaeology may be valuable to the public. A significant pattern is that most answers given by the students are about benefits associated with archaeological knowledge. There is almost no mention of benefits deriving from experiences associated with doing or being involved in archaeology. This emphasis on knowing rather than doing or experiencing could result from the way the original question was phrased. However, given its open-ended nature, this seems unlikely to be the only reason. Significant emphasis on 'knowledge' reflects a kind of professionalised or academic understanding of archaeology that introductory level university education may already have started to instil in the students. Shanks (1992) comments at length on the way scientific or academic archaeology separates itself from experiential aspects of the subject that make the past human and attractive to wider publics, and that attracted many people to take up the profession in the first place. Even though the students had not been explicitly taught that public benefits of archaeology in an academic context are primarily about knowledge rather than experiences, it seems they had already absorbed this message. Ironically, further university learning about public benefits and public archaeologies may encourage students to deconstruct such understandings.

This trend in the data is supported by another study of why the same students were attracted to archaeology in the first place and their learning experiences at university (Colley 2005). Primary and secondary education, popular media, books and visits to overseas archaeological sites were major factors in developing students' interests in archaeology. A few had participated in archaeological fieldwork. While some students expressed interest in archaeological knowledge, most said they were first attracted to archaeology by processes and experiences such as discovery, solving mysteries, adventure, travel and visits to old sites, seeing and touching ancient objects and imagining themselves living in past cultures. Before university, few were aware of or particularly interested in Australian archaeology and the majority of archaeology mentioned was from overseas, especially Ancient Egypt and Classical Greece and Rome. The main impact of university study was to increase students' awareness of the broad scope of archaeology, archaeology's contemporary relevance, the contingency of archaeological knowledge and the complexity of method and practice. No student said that university study had made them aware that the main public value of archaeology lay in the knowledge produced rather than archaeology's experiential processes. However, some students did comment that they found archaeology at university to be 'less fun' and 'more mundane' than anticipated (Colley 2005).

Public Participation and Australian Archaeology

Another possible reason why knowledge rather than experiences featured so strongly in the student questionnaire may be that the students, in common with other Australian publics, have only limited practical experience of archaeology. In contrast, Little's (2002b:8-9) detailed discussion of public benefits of archaeology in North America places strong emphasis on both archaeological *knowledge* and *practice*. She comments on the large community of avocational (non-professional) archaeologists who actively participate in excavations, field surveys, and restoration of historic structures for reasons of interest, personal enjoyment and social interaction. Compared with Australia, there seem to be more opportunities for non-professionals to participate in archaeological excavations, fieldwork projects and site visits (Little 2004b; Smardz Frost 2004). More Australians may go overseas for such experiences, which limits participation to those with the means to do so.

Earthwatch and similar organisations offer some opportunities for volunteers to participate in Australian archaeological projects, and excavations may include volunteer programmes open to the general public, schools and university groups, but these are sporadic and limited. Geography and socio-political issues surrounding archaeology on Indigenous projects often preclude general public volunteer participation in the work (Colley 2002:126-153). Most archaeological excavation of both Indigenous (pre)historic and colonial period sites is conducted by private consultancy companies for environmental planning purposes using paid professionals who can work efficiently to meet tight deadlines and budgets. Occupational health and safety regulations and insurance costs preclude volunteer participation on many excavations.

Australian heritage legislation typically provides blanket protection for all 'relics' and recognised archaeological sites over 50 years old and government permits are often required for excavation or other actions that will physically impact on archaeological resources. In most states, people without requisite archaeological qualifications, experience and a permit cannot run their own excavations, collect artefacts or even, in some circumstances, record sites. These conditions apply on both state and privately owned land.

Active public participation in Australian maritime archaeology projects is more frequent, although diving is restricted to those able and is subject to stringent safety regulations. There is also popular interest in historic buildings and the remains of Australia's industrial heritage. The public can visit and explore Aboriginal rock art and other Indigenous sites while visiting national parks, or attend guided tours offered by government agencies, private tourism companies and Indigenous groups. Balme and Wilson's (2004) study of Australian public attitudes to archaeology suggest that while many people value such experiences and participate in them, they regard them as being about history, heritage and the environment rather than archaeology. Also relevant here is Ireland's (2002) discussion of the history and relationship between Australian historical archaeology and growing popular interest in historic buildings, industrial heritage and 'Australiana' in the 1960s and 1970s in the context of Australia's 'new nationalism'. Because Australian archaeology merges into a range of other cultural practices, its identity is not always clear or recognised by the wider public.

Discussion and Conclusions

Australian archaeologists already engage in a lot of public education. For example, National Archaeology Week, instigated a few years ago by the Australian Archaeological Association Inc. in collaboration with other major archaeological associations, has been successful in coordinating and publicising a range of popular public outreach activities promoting archaeology to the wider Australian public (Australian Archaeological Association Inc. 2007). Some archaeology is now taught in primary and secondary schools (e.g. Nichols *et al.* 2005; Owen and Steele 2005), archaeology can be studied in at least 17 of Australia's 38 public universities – many of which also run adult and continuing education programmes (Colley 2004:190-191). Australian museums in all states include archaeology in their exhibitions and public programmes. Private consultancy companies and government heritage agencies, who conduct most archaeological excavation and fieldwork, often include public outreach and education programmes in their activities and produce public exhibitions and educational products as part of their work (e.g. Johnson 2003; Mackay 2003).

But how effective are such efforts in promoting our discipline to the wider public? Without publicly available evaluation of such programmes we simply don't know. If we do still need to convince some groups of the public to be more understanding and supportive of Australian archaeology, as is suggested by the results of Balme and Wilson's (2004) survey, then some existing public education and outreach programmes may need to be more carefully designed and targeted to specific audiences and educational contexts. For example, arguments that an uneducated public needs to be taught about the correct way to interpret the past through professional archaeology are discussed by Merriman (2004b:5-7) in terms of a deficit model drawn from science education in the United Kingdom. While such an approach may be appropriate in some circumstances, it is incompatible with the contested nature of much archaeological knowledge and practice and is unlikely to produce quality learning outcomes that are student-centred, focused on learning rather than teaching, and aim to promote understanding. Merriman (2004b:6) argues that constructivist approaches to public education, which are about 'equipping people with a set of tools with which to evaluate different forms of evidence and competing claims, and allowing them to come to their own conclusions', are usually more appropriate for archaeology. Australian archaeologists have an advantage here from years of experience working closely with Indigenous people in negotiating archaeology projects (e.g. Davidson *et al.* 1995; Greer *et al.* 2002; Harrison 2004; Torrence and Clarke 2000), which provide useful models and examples of constructivist approaches to public education. Also important is placing more value on education and teaching and learning as a key area of archaeological practice with its own set of theories, methods and skills that mesh closely with existing archaeological research and professional practices (e.g. Burke and Smith 2007; Colley *et al.* 2005).

Although limited in scope, the questionnaire results reported here provide insights useful for development of future strategies aimed at increasing public awareness and understanding of archaeology in Australia. It seems likely that public interest could be enhanced by providing more opportunities for members of the Australian public to gain direct experience of archaeology by participating in excavations and fieldwork and visiting local archaeological sites. The questionnaire also provides examples of very different reasons why archaeological knowledge is valuable to sectors of the public. We already know much about Indigenous community values and archaeological knowledge. Future research could usefully investigate attitudes of publics with direct interests in archaeology, such as members of industry groups whose activities frequently impinge on heritage places and archaeological sites (e.g. developers and those involved in mining, forestry and related industries). Other key groups include professionals working in areas of environmental and urban management; members of the cultural tourism industry; school teachers; and amateurs with interests in archaeology, history, palaeontology and the natural environment.

The students in the questionnaire suggested a range of reasons why archaeological knowledge was regarded as useful or valuable to themselves or others. Their answers reflect differing personal values and varying depths of understanding of archaeological practice and interpretation. Future study could usefully assess what individual members of other key groups already know and understand about archaeology, the context in which they acquired this understanding, and some assessment of personal beliefs and values thought likely to impact on the way individuals regard archaeology (whether positively, negatively or in some other way). It would also be useful to assess the range and variation of individual values and understandings of archaeology held by members of these key groups. For example, we may suspect that more high school teachers have a better

understanding and higher regard for Australian archaeology than members of the development industry. Without any data, we don't know. Such base knowledge is essential for designing targeted public education programmes aimed at increasing public understandings of archaeology and raising the profile of our discipline and hopefully persuading more people that archaeology is valuable and worthwhile.

Acknowledgements

Thanks to all the students who participated in the questionnaire. Write-up of this research was supported by a Special Studies Leave grant from the School of Philosophical and Historical Inquiry, University of Sydney. I wish to thank Yvonne Marshall, Tracy Ireland and Mac North for their comments on an earlier version of the paper.

References

Australian Archaeological Association Inc. 2007 *National Archaeology Week*. Retrieved 4 October 2007 from http://www.archaeologyweek.com.

Balme, J. and M. Wilson 2004 Perceptions of archaeology in Australia amongst educated young Australians. *Australian Archaeology* 58:19-24.

Birmingham, J.M. and D.N. Jeans 1983 The Swiss Family Robinson and the archaeology of colonisations. *Australian Historical Archaeology* 1:3-14.

Bowdler, S. 1986 Recent directions in Tasmanian prehistory and the role of cultural resources management. *Australian Archaeology* 23:3-10.

Burke, H. and C. Smith (eds) 2007 *Archaeology to Delight and Instruct: Active Learning in Tertiary Education*. Walnut Creek, CA: Left Coast Press.

Byrne, D. 1996 Deep nation: Australia's acquisition of an Indigenous past. *Aboriginal History* 20:82-107.

Colley, S.M. 2002 *Uncovering Australia: Archaeology, Indigenous People and the Public*. Sydney: Allen & Unwin.

Colley, S.M. 2004 University-based archaeology teaching and learning and professionalism in Australia. *World Archaeology* 36(2):189-202.

Colley, S.M. 2005 'Consumer Choice' and public archaeology in and beyond the academy. *Australian Archaeology* 61:56-63.

Colley, S.M., S. Ulm and D. Pate (eds) 2005 *Teaching, Learning and Australian Archaeology*. Australian Archaeology 61. Canberra: Australian Archaeological Association Inc.

Connah, G. 1998 Pattern and purpose in historical archaeology. *Australasian Historical Archaeology* 16:3-7.

Davidson, I., C. Lovell-Jones and R. Bancroft (eds) 1995 *Archaeologists and Aborigines Working Together*. Armidale, NSW: University of New England Press.

du Cros, H. 1999 Popular notions of Australian archaeology. *Journal of Australian Studies* 62:190-197.

Fagan, B.M. 2004 Epilogue. In B.J. Little (ed.), *Public Benefits of Archaeology*, pp.253-263. Gainesville, FL: University of Florida Press.

Field, J., J. Barker, R. Barker, L. Coffey, E. Coffey, L. Crawford, T. Darcy, G. Fields, G. Lord, B. Steadman and S. Colley 2000 Coming back: Aborigines and archaeologists at Cuddie Springs. *Public Archaeology* 1:35-48.

Greer, S., R. Harrison and S. McIntyre-Tamwoy 2002 Community-based archaeology in Australia. *World Archaeology* 34(2):265-287.

Harrison, R. 2004 *Shared Landscapes: Archaeologies of Attachment and the Pastoral Industry in New South Wales*. Sydney: New South Wales University Press.

Head, L. 1996 Headlines and songlines. *Meanjin* 55(4):736-743.

Head, L. 1998 Risky representations: The 'seduction of wholeness' and the public face of Australian archaeology. *Australian Archaeology* 46:1-4.

Hiscock, P. 1996 The New Age of alternative archaeology in Australia. *Archaeology in Oceania* 31(3):152-164.

Ireland, T. 2002 Giving value to the Australian historic past: Historical archaeology, heritage and nationalism. *Australasian Historical Archaeology* 20:15-25.

Ireland, T. 2003 'The absence of ghosts': Landscape and identity in the archaeology of Australia's settler culture. *Historical Archaeology* 37(1):56-72.

Johnson, W. 2003 Archaeology and the heritage manager: The perspective of the Sydney Harbour Foreshore Authority. In T. Murray (ed.), *Exploring the Modern City: Recent Approaches to Urban History and Archaeology*, pp.175-181. Glebe, NSW: Historic Houses Trust of New South Wales. Melbourne: Archaeology Program, School of Historical and European Studies, La Trobe University.

Little, B.J. (ed.) 2002a *Public Benefits of Archaeology*. Gainesville, FL: University of Florida Press.

Little, B.J. 2002b Archaeology as a shared vision. In B.J. Little (ed.), *Public Benefits of Archaeology*, pp.1-19. Gainesville, FL: University of Florida Press.

Lydon, J. and T. Ireland (eds) 2005 *Object Lessons: Archaeology and Heritage in Australia*. Melbourne: Australian Scholarly Publishing.

Mackay, R. 2003 Whose archaeology is it, anyway? In T. Murray (ed.), *Exploring the Modern City: Recent Approaches to Urban History and Archaeology*, pp.169-173. Glebe, NSW: Historic Houses Trust of New South Wales. Melbourne: Archaeology Program, School of Historical and European Studies, La Trobe University.

Mackay, R. and G. Karskens 1999 Historical archaeology in Australia: Historical or Hysterical? Crisis or Creative Awakening? *Australasian Historical Archaeology* 17:110-115.

McNiven, I.J. and L. Russell 1997 'Strange paintings' and 'mystery races': Kimberley rock-art, diffusionism and colonialist constructions of Australia's Aboriginal past. *Antiquity* 71:801-809.

McNiven, I.J. and L. Russell 2005 *Appropriated Pasts: Indigenous Peoples and the Colonial Culture of Archaeology*. Lanham, MD: AltaMira Press.

Merriman, N. (ed.) 2004a *Public Archaeology*. London: Routledge.

Merriman, N. 2004b Diversity and dissonance in public archaeology. In N. Merriman (ed.), *Public Archaeology*, pp.1-17. London: Routledge.

Mulvaney, J. and J. Kamminga 1999 *Prehistory of Australia*. Sydney: Allen and Unwin.

Nichols, S. 2006 Out of the box: Popular notions of archaeology in documentary programmes on Australian television. *Australian Archaeology* 63:35-46.

Nichols, S., J. Prangnell and M. Haslam 2005 Hearts and minds: Public archaeology and the Queensland school curriculum. *Australian Archaeology* 61:71-79.

Owen, T. and J. Steele 2005 Perceptions of archaeology among primary school aged children, Adelaide, South Australia. *Australian Archaeology* 61:64-70.

Ramos, M. and D. Duganne 2000 *Exploring Public Perceptions and Attitudes about Archaeology*. Retrieved 15 September 2005 from http://www.cr.nps.gov/aad/pubs/Harris/index.htm.

Shanks, M. 1992 *Experiencing the Past: On the Character of Archaeology*. London: Routledge.

Smardz Frost, K.E. 2004 Archaeology and public education in North America. In B.J. Little (ed.), *Public Benefits of Archaeology*, pp.59-84. Gainesville, FL: University of Florida Press.

Smith, L. 2004 *Archaeological Theory and the Politics of Cultural Heritage*. London: Routledge.

Torrence, R. and A Clarke (eds) 2000 *The Archaeology of Difference: Negotiating Cross-Cultural Engagements in Oceania*. London: Routledge.

australian ARCHAEOLOGY

The official journal of the Australian Archaeological Association Inc.

number 65 December 2007

australian ARCHAEOLOGY

Australian Archaeology, the official publication of the Australian Archaeological Association Inc., is a refereed journal published since 1974. It accepts original articles in all fields of archaeology and other subjects relevant to archaeological research and practice in Australia and nearby areas. Contributions are accepted in six sections: Articles (5000-8000 words), Short Reports (1000-3000), Obituaries (500-2000), Thesis Abstracts (200-500), Book Reviews (500-2000) and Backfill (which includes letters, conference details, announcements and other material of interest to members). *Australian Archaeology* is published twice a year, in June and December.

Subscriptions are available to individuals through membership of the Australian Archaeological Association Inc. or to organisations through institutional subscription. Subscription application/renewal forms are available at http://www.australianarchaeologicalassociation.com.au.

Graphic Design: Lovehate Design
Printing: Printpoint Australia Pty Ltd

Cover: *Photograph:* Muralag 1, two sets of Five Vertical Line motifs. *Background Painting:* Mid-1840s painting of the Kaurareg canoe, Kai Marina, by Oswald Brierly showing similar vertical line motif painted on the hull (Methven 1854).

All correspondence and submissions should be addressed to:

Australian Archaeology
PO Box 6088
St Lucia QLD 4067
AUSTRALIA
Email: journal@australianarchaeology.com
URL: http://www.australianarchaeologicalassociation.com.au

ISSN 0312-2417

TABLE OF CONTENTS