The Willandra Lakes Region (Region) is a series of dry lakes in southwest New South Wales, Australia, set within a semi-arid landscape. The region covers some 240,000 hectares and was inscribed on the World Heritage List in 1981. A fundamental characteristic of the Willandra Lakes Region is its dual listing; the region is inscribed on the World Heritage List for its Outstanding Universal Value (OUV) under both cultural heritage (iii) and natural (viii) criteria.

The World Heritage listing (listing) recognises both the Region's unique late Pleistocene Aboriginal cultural heritage, and its natural values that provide an example of a major stage of the earth's evolutionary history, particularly before and during the last glacial maximum. The Region represents a key archive for the interpretation of late Pleistocene climates in south-eastern Australia and the southern hemisphere. Extensive archaeological evidence in the form of Aboriginal burials, shell middens, fireplaces, fauna, stone artefacts and quarries exist from ca. 47,000 years BP through to recent times (OEH, 2010).

**Mungo Woman & Mungo Man**

The Willandra Lakes, and more specifically the Walls of China at Lake Mungo, were propelled into archaeological fame in March 1969 with the discovery of one of the world's oldest cremated remains, now known as Mungo Woman. The discovery, early in 1974, of another Pleistocene burial, Mungo Man (Bowler and Thorne, 1976), surrounded by ochre stained sands further enhanced the reputation of the region as an outstanding location for understanding the patterns of life, death, ceremony and burial within Australia's earliest Aboriginal people. The antiquity of Mungo Woman and Mungo Man has been hotly debated (Thorne et al., 1999; Bowler & Magee, 2000; Bowler et al., 2003) but the dating of these burials appears resolved at 41-42,000 years BP (Olley et al., 2006). This age indicates the skeletal remains of Mungo Man and Mungo Woman are amongst some of the earliest modern Homo sapiens outside Africa. For Aboriginal people these remains elevate the region as a key place of symbolic value in their claims for self identity, assertions of native title, and ancestral ownership and occupation of Australia (McBryde, 1995).
Tanya Charles, Robert Ritchie and Ernest Mitchell inspecting artefacts at cultural site on Walls of China. Photo © Simon Hughes, OEH NSW.
Aboriginal burials are given high priority for conservation and management. This approach acknowledges the spiritual and cultural significance Aboriginal Elders place on burials. The continuous cultural link and association between Elders and ancestral remains is expressed in acceptance of responsibility to care for, and protect the burial grounds of their ancestors. Aboriginal Elders have a conservative and cautious view on interfering with, or excavating, ancestral remains and the agreement of the Elders is a prerequisite for any such actions under both the Willandra Lakes Region Plan of Management (DEST, 1996) and National Parks and Wildlife Service Act 1974 (NSW). Of continuing concern is the unresolved custodianship of the many human fossil remains removed from the Region particularly during the 1970s, which gives impetus to repatriation efforts.

**Management**

Since World Heritage inscription the region has been transformed. Plans of Management (POM) have been developed at the regional, property and individual archaeological site level. Mungo National Park (Park) has expanded significantly to now encompass many of the key archaeological sites. Between 1995 and 2011 the percentage of the Region managed for conservation rose from 4.2% to 29.9%. Grazing continues on private lands in the Region but the pattern of land use in these areas has been extensively modified to reduce impacts on the fragile soils and the archaeological values they contain.

Since 1993 the Region has been managed by a Community Management Committee (CMC) which receives advice from a Technical and Scientific Advisory Committee (TSAC), the Mungo Joint Management Committee (MJMC) and a Traditional Tribal Groups Elders Council (TTGC). The CMC, TSAC and MJMC are made up of landholders, Aboriginal Elders, scientists and local, state and federal government representatives.

The Region’s first POM, *Sustaining the Willandra*, was prepared in 1996, 15 years after listing, after extensive consultation and input from landholders (DEST, 1996). This was a difficult journey. The 1981 listing was done without consultation with local landholders or Aboriginal people, and these key stakeholders therefore began to participate from a position of scepticism and distrust. Over the period from 1993 to 1998 extensive resources and efforts were put into winning trust and creating a positive view of the future for these stakeholders.

Today, the traditional tribal groups for the area, the Paakantyi, Mutthi Mutthi and Ngyiampaa tribes, are represented on each committee and through their direction the Park has seen an expansion of Aboriginal employment, an expanded Aboriginal Discovery Rangers’ program that provides guided tours of the Park, and extensive changes to visitor information via new educational displays and a website (OEH, 2010).

The website portrays the human elements of the Region, including interviews with Elders, time lines, and reconstructed environmental history covering the last 100,000 years. Other initiatives supported by Elders include the biennial Mungo Youth Project and the inclusion of Mungo on the National History Curriculum.
**Individual Property Plans**

Willandra Lakes posed a number of challenges in terms of the existing land use and the conservation of cultural heritage values due to the region’s susceptibility to erosion. Stock movements over fragile lunettes can accelerate erosion and disturb or expose archaeological values. Thus, the development of Individual Property Plans (IPPs) with landholders has provided critical direction for the management of the Region over the last 17 years. These allow sustainable multiple land uses while conserving the World Heritage values through agreed management practices such as fencing sensitive sites, pest control and moving water points away from fragile landforms. The IPPs have also allowed landholders to manage private lands with certainty and with long term planning. They have allowed sustainable grazing through implementation of a more equitable distribution of fences and watering points across the landscape, thereby reducing stock impacts on sensitive landforms.

**Visitor Impacts**

Grazing and erosion are not the only factors that adversely impact archaeological sites. Illegal artefact collection is an on-going management concern within the Park, and while tourists access only a small part of a very large conservation reserve, their impacts cannot be underestimated. In recent years the pattern of tourism at the Walls of China has been modified to mitigate these impacts; the main visitors’ area is now open only to guided tours and park information reinforces the message that collection of artefacts damages the values of the Region. Educating visitors to understand the cryptic values of the Region and the importance of preserving a fragile landscape remain high priorities.

**Research**

The initial study and collection of ancestral remains in the Region was conducted with little, if any, involvement of Aboriginal people. However, the ways in which science and archaeology are conducted have changed dramatically since the 1960s, and extensive Aboriginal Elders consultation, field participation and project direction now takes place in all research. The most exciting recent program of research is a large and systematic project aimed at documenting and increasing understanding of the Region’s environmental and cultural record. Cooperative research projects between NSW National Parks and Wildlife Service, (NPWS) the Australian National University, La Trobe University and the Traditional Tribal Groups funded by the Australian Research Council promise to radically expand our understanding of the late Pleistocene environment and Aboriginal society in the Willandra Lakes Region. (Stern, in press; Stern et al., in press; Tumney, 2011; Kelly, 2011).

**Future Challenges**

Security of funding has been a longstanding concern. The Region is funded primarily by the Australian Government through competitive funding bids applied for and implemented by NSW NPWS. Successful bids have funded projects broadly concerned with protection, presentation, and mitigation of threats to the outstanding universal value of the Region. Damage through erosion from extreme weather events, and the impact of pest species such as rabbits and goats are ongoing concerns which require more strategic management approaches. Partnerships and co-operative working arrangements with key stakeholders, particularly landholders and Traditional Tribal Groups have been central to the successful implementation of planning and project initiatives. Nevertheless, erosion of the landscape and dispersal and damage to the fragile archaeological features continues to occur. The Traditional Owners’ vision for the future is to...“conserve the world of our ancestors and ensure the future of our children” (Sunraysia Environmental, 2008). To achieve this, there is a fundamental need to continue to work in partnerships that allow increased monitoring and research as mitigation actions, including increased recording and collection of vulnerable and eroding archaeological features.

Predominant in the aspirations of the Traditional Owners is the desire to bring Mungo Man and a large number of other human fossil remains from the Willandra Lakes ‘back to Country’. Planning is underway with the support of the Foundation for National Parks, NSW to design and seek funding for an iconic keeping place to be built within the Region. When realised, this facility will provide a respectful final resting place for the remains of Australia’s oldest citizens, a hub for research endorsed by the Elders and an opportunity for immersion in Australia’s deep history.

**References**


The dunes of Willandra Lakes once surrounded lakes where Indigenous people thrived during the Ice Age 40 – 50,000 years ago. Photo © Mark Mohell, Commonwealth of Australia (DSEWPaC)

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Biographies
Harvey Johnston
Harvey is a member of the Willandra Lakes Technical and Scientific Committee. He has worked as an archaeologist in Queensland, New South Wales, South Australia and Western Australia, and has been employed as an archaeologist in various NSW government agencies including the NSW National Parks and Wildlife Service. He is currently with the Office of Environment and Heritage, and has more than 20 years experience in the Willandra Lakes World Heritage Area. His work has involved working closely with many Aboriginal communities on the management, conservation, study and interpretation of archaeological materials at a wide variety of locations in western and southern NSW.

Richard Mintern
Richard Mintern is the Executive Officer of the Willandra Lakes Region World Heritage Area and is responsible for coordination, cooperative management, inception and implementation of the Region’s plan of management. He has a long history of working with indigenous groups on natural resource and cultural heritage initiatives, and is a founding member of the National Centre for Sustainability. In recent years he has created long term employment opportunities for traditional owners and improved the range and quality of cultural heritage interpretation for the Willandra Lakes. He is now working to realise the Elders aspiration to build a Keeping Place to house cultural material and facilitate the return to Country of Mungo Man’s remains. He lives in Mildura on a small farm with a donkey, two alpacas and a carpet python.