Abstract
Given that Lake Condah has recently been declared a National Heritage site and is also going for World Heritage status, I’ve been asked to write about why I think the area is of great significance regionally, nationally and internationally. I answer that question as an archaeologist who has also researched the environmental and social history of south-west Victoria. I trust I can convince you that this is a rather special place and that we all have much to learn from it. For me, the story begins when the European settlers first moved into this part of the continent in the 1830s and 1840s. That was a time of enormous loss for the indigenous people who had evolved a relationship with their environment that resulted in sustainable land management practices. The arrival of the settlers would change everything for them, the Gunditjmara, in a period that became as tumultuous and destructive as the Mt Eccles volcanic eruption that had occurred 30,000 years previously.

Historical Background
The surveyor/explorer Major Thomas Mitchell made his way overland from Sydney surveying the southern part of the Colony of New South Wales. He arrived in this area in 1836 to discover that settlement and trade by British squatters was already underway near the natural sheltered harbour that was to prove Australia’s deepest and which we now call Portland. The port was a major attraction and it has continued to play a significant role in the economic success of the local European settlers. Mitchell and the early colonial authorities were surprised that these people had already found their way here. That part of the colony, which included the future State of Victoria, had been deliberately left unoccupied. However, people are resourceful and tend move into ‘empty places’ where they can recognise an opportunity. After all, these same settlers had already journeyed all the way to Van Dieman’s Land (VDL) from the mother country, Great Britain, to acquire land and commence pastoral enterprises. Unfortunately their journey to VDL was not all they hoped because there was
much competition for the land. However, they soon learnt that sealers and whalers, that had long forayed onto the mainland coast to the north, had brought back stories of a land occupied only by Aboriginal people. The ‘problem’ of Aboriginal occupation of VDL had been ‘solved’ by the use of superior force so the squatters were not deterred by their presence on the mainland.

In November 1834 some people sailed in from VDL to the future harbour of Portland for the specific purpose of establishing pastoral activity. No authority was given and for many years no-one was answerable for their actions in relation to land acquisition. They traded directly with VDL, from where new squatters continued to arrive. It took ten years for all of the local land to be claimed; the final claims being for the stony land of the lava flow from the Mt Eccles (Budj Bim) eruption.

It became apparent that most of the land of south-west Victoria was attractive to the squatters featuring permanent rivers, lakes, fertile grassed areas, woodlands with large trees and there was reliable rainfall. All the bounty of the area was seemingly at the settlers’ disposal. But was it? These newcomers, ignorant of the existing economy and social systems of the Gunditjmara clans, took what they wanted. There was no law governing them and they had some advantages with guns and horses that could carry them at ‘super human speed’ in any contest with the Gunditjmara. Of course, this was the same combination that allowed Europeans to claim the lands of indigenous peoples in other parts of the world even when the resistance was fierce and sustained. In some parts of the world the stories of the resistance and the violence used to suppress it have been told, but in this part of Australia we rarely talk of the massacres even when they are within the living memory of local families, who sometimes feel a sense of guilt about such dark secrets.

The Gunditjmara people talk about fighting for their land during the time of the European invasion. Certainly they see European settlement as an invasion and during the 20 years of what is now called the Eumeralla War they fought for a way of life that had taken thousands of years to perfect. They were fighting for an established economy that demonstrated how much they understood their environment and danced with it. Theirs was a relationship which relied on the natural rhythms of the land and its ecosystems. It was to take many generations of European occupation to begin to realize that the Gunditjmara had a good thing going here and that maybe the initial methods of European occupation could have been better managed to reduce the negative impacts on the land and these people. In 1868 the few surviving Gunditjmara families were corralled into the Lake Condah Mission. It became their home, and despite being officially closed in 1919 it remained the centre of Gunditjmara occupation for many more years. It is still of enormous importance.

**Gunditjmara Land Management**

Gunditjmara land management was something special. It had evolved with the environment. The eruption of Budj Bim had been a mixed blessing. This essentially destructive event had given birth to a new landscape—one which eventually provided the stage for the development of a long-term economic
Local–Global

There are two species of eel that migrate to Australia from an area near Vanuatu and New Caledonia in the Pacific Ocean. These are the long-fin (Anguilla reinhardii), which occupies areas east of the Great Dividing Range to the north and east of the continent, and the short-fin (Anguilla australis) which moves into the south eastern and southern part of the continent. There is an area in the middle where the two species overlap.

These eels are born as a result of the spawning of their parents when they return to the area of the Pacific Ocean which was their own birth place a decade or so earlier. The parents die following spawning. Eels are catadromous species, which means they are born and die in the ocean but grow to maturity in fresh waters. Their growing period can vary between seven and 20 years, depending on the warmth of the water and availability of food. Known as leptocephali and shaped like a leaf, the baby short-fin eels drift with the currents towards the south of the Australian continent while other species travel to their respective destinations on other continents in the southern hemisphere. Over the months they turn into glass eels and eventually elvers as they make their way to estuaries along the coast. They will only enter an estuary if there is sufficient fresh water moving down the rivers to the sea. This fact is important because it allows us to appreciate the impact we may have on the capacity of the eels to continue their migration patterns of thousands, if not millions, of years. What happens in the estuaries will determine if they move up the rivers into lakes and wetlands beyond. Obviously in a drought year, or if too much water is being taken out for irrigation, the eels will not move upstream because it is too risky for them. They need the presence of lakes and wetlands to continue their growing. A reduction in these has led to huge drops in eel numbers since Europeans arrived here. If the eels fail to enter the inland fresh-water ecosystems this is a loss to these system and to human society. Eels are a source of high nutrition; containing valuable protein and essential oils such as Omega 3.

The eels’ role in the ecosystem is to clean up smaller invertebrates, such as snails, and also the bones of larger animals that may have fallen in the water. They are a great animal for cleaning up the waterways. In Victoria old Aboriginal stories tell of Bunyips feeding on eels. This may be a description of one of the now extinct mega-fauna of this continent.

My research on eels and their part in the development of Gunditjmara socio-economy has taken place over the last ten years and is focused on the Budj Bim lava flow. For 30,000 years the lava flow shaped the landscape and it made it difficult for this land to be farmed in the European style. It is still composed of rocks and in these are preserved the archaeological remains of a pre-European Aboriginal society. In other parts of western Victoria there would have been structures made from earth and wood that would have demonstrated the extent and design of technology associated with eel exploitation, but these remains have been lost due to land clearing and ploughing for European farming. And, of course, one of the first things that European settlers did was to drain the swamps resulting in a loss of habitat for the eels and loss of a major resource for Aboriginal families.
However, I am getting ahead of myself here because we left the story of the eel migration back in the estuaries. As mentioned, if they detect enough fresh water in the estuaries the elvers come up the river in their hundreds of thousands — 6,000 elvers make up one kilogram in weight! They are searching for a lake or wetland in which to make their home for the next decade or so. They are highly territorial and like to stay in the same place. If the place dries up the eels go into a state of torpor. If the temperatures are too cold, as in winter in NZ, then the eels also go into a torpor. They resume their growing upon the return of the swampland to ‘normal’ conditions.

In the case of the Gunditjmara on the Budj Bim lava flow — the elvers came up the Darlots River but the people had already prepared an eel-friendly environment for them throughout the area, based on the springs that rose up in the north of the flow. Channels had been excavated from the boundary river, through the stone of the lava flow and directed into penned-off areas of swampland thus preventing the older eels from eating the new elvers. When the elvers were bigger they were channelled into the main swamps that had been dammed to hold water all year round. These wetlands were, therefore, a cultural construction and were interconnected across the landscape. People built their dwellings and storage places around the edges of these wetlands. They were able to live permanently in villages and make use of wetland resources, such as eels, birds, aquatic vegetable tubers and nearby woodland resources. Eels in the swamps could be caught daily by spearing and also during their autumn migration back to the ocean for spawning. During a period of two week or so the mature silver eels make their way back to the rivers with an increase of up to 300 per cent in oil and protein content for the 3,000 kilometre journey to the spawning grounds. Gunditjmara had prepared return channels from the wetlands to the main river and along these were strategically positioned constructed weirs to trap the highly desirable fat eels. By trading their eels and allowing others to share in the harvest, favours could be called in when it suited the eel ‘farmers’. Family groups who owned particular weirs became rich and powerful within their society. Family-owned fish traps were continually used throughout time of the Lake Condah Mission and through to today. Their owners were, until relatively recently, still selling eels and toopong (native trout) locally.

**What Has Been Lost**

It was documented in the 1840s that during the autumn eel migration the southern outlet from Lake Bolac, known as Salt Creek, would turn into a busy metropolis as visiting groups managed particular weirs to trap the abundant fish moving south to the ocean. For reciprocal agreements or exchange deals the traditional Djap wurrung owners of the lake would lease out sections of the creek to neighbouring family groups. Sadly, this once-busy area has been degraded and the Salt Creek outlet has not run for the last nine years.

On the Budj Bim lava flow the huge eel harvest had to be processed before the eels decomposed. Scientific testing — using Mass Spectroscopy and Gas Chromatography (GS/MC) — of sediment within particular hollow Manna
(Eucalyptus viminalis) and Swamp (Eucalyptus ovata) gums proved that they had been used for smoking eels. Thus we now know that the seasonally trapped and abundant resource could be preserved by smoking for future storage and trading. This supports a claim for Gunditjmara having a society with all the characteristics of a ‘modern complex’ society; i.e. a valuable and highly nutritious resource with seasonal abundance and an ability to preserve it for storage and trading. This can be described as resource specialization and enabled permanent settlement of the area. The infrastructure associated with the eel aquaculture system shows high productivity with the means to feed large numbers of people.

It is important to learn from the past. Gunditjmara demonstrated the high productivity and sustainability of this wetland-based landscape. Theirs was a system of sustainable aquaculture. It lasted until the Europeans took over the landscape and turned it into one they were more familiar with but one that did not suit the conditions of this country. We need to be aware of the long-term sustainability of our land-use in this region—especially in relation to changing climate patterns. I believe that more people could be fed from growing eels than from grazing cattle on a given area of (now-drained) swampland. We need to restore swamps for our own long-term benefit, not continually drain them. We need to encourage eel numbers back. They are a valuable global commodity desirable for all the qualities that Aboriginal people recognized and pursued by establishing their 100 square kilometre aquaculture system across the Budj Bim lava flow.

The Lake Condah Sustainable Partnership Project

The nature of the initial European occupation meant that the extent of the former Gunditjmara land management could only be deciphered and understood by the use of archaeological detective work across a landscape which has left its stories in stone.

The Lake Condah Sustainable Partnership Project (LCSDP) is an indigenous initiative that has been established to unite indigenous and non-indigenous people interested in a sustainable future for this region. It recognizes the former indigenous land management, which was based on making maximum use of natural ecosystems such as those of the wetlands with their many plant and animal species. Interacting plants and animals created a delicate balance and much of that balance has now been lost. The monoculture of today’s farming restricts biodiversity and risks a no-options future for land use. Maybe this landscape still contains the left-over seeds of a former era and if we act judiciously we can reinstate some of its former biodiversity.

The significance of the Lake Condah area can be summarized in the following points:

- The traditionally constructed aquaculture system of eel and fish traps, channels, races and weirs are outstanding evidence of ancient indigenous technology.
- The remains of the stone dwellings are of international significance,
providing evidence that demonstrate a cultural transition to sedentary (permanent) living.

• The volcanic landforms are internationally significant.

• The Mt Eccles/Budj Bim lava flow is home to many rare and endangered species.

• Lake Surprise at Mt. Eccles is globally significant in providing a high quality record of climate and vegetation change over the past 30,000 years.

• The 20-year Eumeralla War of Resistance is of national significance.

• The Lake Condah Mission site is an impressive historical example from over 400 Aboriginal missions established in Australia.

• The Commonwealth legislation for the hand-back of the Lake Condah Aboriginal Mission site in 1987 is of national historical significance and was the consequence of a High Court win by the Gunditjmara.

With all this in mind, the LCSDP\textsuperscript{2} aims to:

• Build a strong partnership of active members supporting the project.

• Restore the water levels of Lake Condah to revitalize the wetlands and to reactive the traditionally constructed aquaculture system.

• Restore the Lake Condah Church site as a place of reconciliation and healing.

• Develop land management plans for future sustainable land use.

• Develop an international learning centre at Lake Condah.

• Develop employment and enterprise activities focused on tourism, accommodation, aquaculture, bush tucker, and supporting industries.

• Gain National and World Heritage listing for the Budj Bim landscape.

The restoration of a long-drained icon, Lake Condah, is the central aim of LCSDP. On 6 May 2005 the Victorian Government announced a ‘whole-of-Government commitment’ to protect the natural and cultural heritage of southwest Victoria. Economic activity in the region is to be boosted by an allocation of $9.6 million in the most recent state budget for Aboriginal Land and Economic Development initiative. The Victorian Environment Minister John Thwaites also announced a commitment to assist in Lake Condah’s restoration. This included the appointment of a part-time Lake Condah Project Officer, the establishment of a Lake Condah restoration facilitation group and an agreement between the government and the Indigenous Land Corporation to purchase land of high cultural significance in the area. It also included support for the establishment of a regional indigenous tourism trail.

On the research front there are a number of projects currently being undertaken. These include the further development of a high resolution climate record at Lake Surprise and more work on understanding the land use practices of the indigenous people in the area so that this can provide a basis for better
land use practices in the future. The ongoing research involves the application of a high resolution Digital Elevation Model of the Mt Eccles lava flow to further understand the wetland systems enabling restoration of Lake Condah. The model will also help identify critical sites for further palaeoenvironmental and archaeological research. Research is also focusing on making an inventory of the ecological attributes of the wetlands and on assessing damage caused by the population of koalas across the lava flow that is probably posing a threat to the endangered Tiger Quolls. An aim is to also prevent further damage of the landscape by earthmoving activities undertaken by land owners in the area. Of course, a working model of the past aquaculture system would be great for future tourism and it helps in the development of the land/wetland management plans needed for World Heritage listing.

Learning for the Past to Build a Better Future

Perhaps the relationship between settlers and the indigenous people in this region in the past was seen as an ‘us or them’ scenario. There were no compromises in the early days, but maybe there can be compromises today and in the future. Maybe we can all gain something from a better understanding of indigenous land management practices. That is certainly the belief that underpins the formation of the LCSDP. As a community, we have not dealt with the past very well and there is unfinished business. A heaviness hangs over the landscape. The Gunditjmara see it as the spirits of their ancestors. I see it being a result of a history of conflict that has not yet been properly acknowledged and put to rest. Perhaps we need suitable ceremonies that can achieve that aim.

As an archaeologist I believe we all need to care for the physical remains of the past that still exist. There should be funding provided for this purpose—perhaps a kind of ‘cultural credit’. After all, this history belongs to us all now and it needs our protection. Those of us who live near the Mt Eccles/Budj Bim lava flow live in a special place. It has a unique past in the way it was managed by Gunditjmara and it still has so much to offer. We must learn all the lessons for the past—the gains and the losses—if we are to build a broad and inclusive vision for a sustainable future.

Endnotes

1. Mt Eccles is Budj Bim in the Dhauwurd wurrung language of the Gunditjmara.
2. See www.lakecondah.com

Dr Heather Builth is a Research Fellow at the Monash University School of Geography and Environmental Sciences, who began her research in the Lake Condah area in 1992. She completed her PhD on Gunditjmara land use at Flinders University in Adelaide in 2002 and has continued living in the area since. She has worked for the Winda-Mara Aboriginal Corporation and is a Director of the Glenelg-Hopkins Catchment Management Authority Board. Her ongoing research focuses on designing best management practice for the Budj Bim lava flow.