

Eel farmers of the Mount Eccles lava flow

For landscape archaeologist, Dr Heather Built, piecing together the lives of an unusually large and settled Aboriginal community who established a sophisticated eel aquaculture industry on the Tyrendarra lava flow at Lake Condah in Victoria's Western District has been a challenging task. Today, Lake Condah is a wide, grassy plane strewn with volcanic rocks and surrounded by manna gum woodlands. However, detailed study of the landscape and the patterns of the rocks has shown that it was once a carefully modified system of swamps and wetlands designed to ensure a rich annual harvest of eels. So significant are these findings that they have challenged many common assumptions about Aboriginal societies and have led to this landscape becoming the first place to be listed on the National Heritage List in July 2004. Now there are moves afoot to restore the wetlands and the eel fisheries and have the area inscribed on the World Heritage Register.

BY HEATHER BUILT

THE LAVA FLOW at Lake Condah in western Victoria is a comparatively recent landform. It was just 30,000 years ago – the blink of an eye in the lifespan of our ancient continent – that the land rumbled and shook, and the super-heated, molten core of the earth forced the surface of the land to bulge and swell, creating instant hills. Finally, the pressure of lava reached bursting point, and ash and molten rock was blasted high into the air as the caps of the volcanoes were blown off, and red-hot streams of lava gushed out over the rims of their calderas and down across the landscape.

There were people there to witness this great transformation of the land, and their descendants, the Gunditjmara, know the volcano that is now called Mount Eccles as *Budj Bim*, a creator spirit of the Dreamtime. When the rivers of lava that poured from *Budj Bim* cooled, they created an entirely new landform, now known as the Tyrendarra lava flow. Spring water bubbling up through the volcano's basalt deposits found its way across new paths and formed new lakes and swamps in the rocky landscape.

For thousands of years, the Gunditjmara prospered on the

landscape that *Budj Bim* had created. They built stone weirs, dams and channels to control the water and change the patterns of the streams as they ran down to the sea. They learned the ways of kooyang, the shortfin eel (*Anguilla australis*) that migrated for thousands of kilometres each year from the waters of New Caledonia in the Pacific Ocean to swim up the freshwater streams of south-western Victoria. They learned

PICTURE ABOVE: Lake Condah with Mt Eccles or *Budj Bim* in the distance. Lake Condah was first drained by Europeans in the 1890s.



how to build holding ponds that were essentially drought and flood-proof, and to husband the eels in these complex wetland systems. They made traps to harvest some of the eels before releasing the rest to return to the sea to continue their life cycle.

Large communities grew around this eel farming enterprise, perhaps six or ten thousand strong when the seasonal eel harvesting and processing took place in autumn. Living in villages of permanent stone huts, this was a hierarchical, stratified society ruled by hereditary chiefs and engaging in complex resource ownership and exchange systems.

It is not often that an archaeological study comes up with a completely new interpretation of how Aboriginal people managed the land and organised their society and economic system. Such a discovery was made here



Remains of channels and other infrastructure from eel fisheries (left). Nineteenth century records confirm that the Aboriginal people from this region constructed stone, wood and lattice weirs across waterways to exploit migrating shortfin eels. Eel-trapping weirs were used in association with woven basketry funnels, as depicted in the drawing. Below, a constructed channel feeding out into the main lake is clearly visible.





Jimmy Onus and Heather Bulth on the lava flow, known locally simply as 'the Stones'.

on the Tyrendarra lava flow, some 150 years after this Aboriginal civilisation came to a dramatic halt when the land was taken over by British squatters.

The European occupation with its new farming practices has camouflaged the previous Indigenous activities. Nevertheless, the infrastructure is still there, testament to a human industry of landscape proportions.

Before white settlers drained the land to pursue European farming practices, Lake Condah was a water wonderland – the richest of all biotypes. Lakes, swamps and waterways were separated by lava formations extending into, around and through them. Here, thousands of mound sites were constructed by the Aboriginals making it possible for a large population to inhabit the resource-rich environment. Eels, together with other wetland resources such as the tubers and roots of reeds and other swamp plants, provided their staple nutritional requirements.

The reliable and abundant rainfall, combined with the latitude, made this

region the most westerly destination of the shortfin eel. Migrating from near New Caledonia and arriving at the estuaries of the once fast-flowing rivers of the south-west coast, the young eels (elvers) made their way against the current up the creeks and rivers and eventually into the safety the permanent wetlands or lakes that would be their home for the next 10 to 20 years. Should a drought occur, the eels entered a state of torpor and survived in the muds of the swamp until it rained again.

The simple but effective wetland management system used by the Gunditjara across the *Budj Bim* landscape enabled them to enhance and extend the wetlands to suit the ecological requirements of the shortfin eel. However, the sophistication of their aquaculture practices becomes apparent when a spatial analysis of the landscape reveals the complexity of its design.

Using GIS (Geographical Information Systems) information, I have been able to show that water from the local catchment and further upstream was controlled by the construction of dams, weirs and channels along the entire length of the 40 km lava flow. The wetlands and swamps were all interconnected by channels, natural, modified or artificial, which ensured that the water flowed north to south along the entire western arm of the lava flow. In addition, strategically placed channels were excavated along the rivers to guide the migrating elvers into nursery swamps until they were capable of surviving encounters with larger eels and could be moved into the main wetlands. The wetlands on the Mt Eccles lava flow were perfectly suited to the ecological requirements of the eels, and this is no coincidence.

During their outward migration from the wetlands the eels were trapped for harvesting in the interconnecting channels before rejoining the main migration route of the river. In

On the Mt Eccles and converging Mount Napier lava flows, the availability of basalt lava blocks combined with springs, high rainfall, and the water run-off from an extensive lake and swamp complex to the north, enabled the Gunditjara to exploit the wetlands efficiently. Here, a stone enclosure was constructed as part of the aquaculture system.



preparation for this journey their oil and protein content is 50% higher than during their growing period. For the Aboriginal people, this was when the eels were most valued and explains why so much energy was put into their capture during this short stage.

However, harvesting such quantities over a short time would have required efficient processing to prevent wastage. Biomolecular analysis of sediment in the base of culturally modified manna gums has shown that eels were smoked in their hollows, preserving them for storage or for trading in the extensive exchange systems that existed across this part of the continent.

This study has overturned the idea that all Australian Aborigines survived by short-term foraging. It has found that Gunditjmara society permanently occupied, modified and managed a landscape of approximately 100 square kilometres in order to sustainably grow, harvest and preserve the shortfin eel. The social implications of this economic system are significant.

Descriptions of the Indigenous people in the area from the 19th century suggest a highly stratified society governed by hereditary chiefs, or wungit, “whose authority is supreme”. In 1881, the amateur ethnographer and protagonist of Indigenous rights, James Dawson, observed in his book, *Australian Aborigines: The Languages and Customs of Several Tribes of Aborigines in the Western District of Victoria, Australia*, that within these governed groups:

Each family has the exclusive right by inheritance to a part of the tribal lands, which is named after its owner; and his family and every child born on it must be named after something on the property.

This supports the Gunditjmara claim that the separate but contiguous sections of the aquaculture system within this landscape, including the eel traps, were privately owned by different family groups. Nineteenth century writings also suggest that various types and styles of Indigenous housing were constructed prior to the arrival of Europeans, although the use of ‘villages’ as a settlement form seems to have disappeared soon after first contact. The dwelling remains that are found on the Stones today are c-shaped or u-shaped structures built



Darlots Creek, the main migration corridor for eels.

of basalt blocks, with walls sometimes up to a metre high. The houses were dome-shaped, consisting of a vertical flexed wooden structure held in place by the stone walls and interwoven by smaller horizontal boughs. This was overlaid by sod or peat blocks and the whole structure then thatched with reeds to make it water-tight.

After the destruction of their society in the nineteenth century, a small number of the Indigenous traditional owners survived, but the combination of loss of access to their traditional lands, severe population loss and the eventual forced incarceration of survivors into either Lake Condah or Framlingham Missions took its toll. The remaining Gunditjmara families found it difficult to continue their cultural practices and obligations. Their former economic pursuits became impossible

and survival by any means became paramount.

Life is different now. Despite successive government policies that worked against it, there are still Gunditjmara families in the area, although many have had to move to regional or capital cities for economic reasons. But, until very recently, it has been impossible for them to revisit or resume their customary practices on traditional land due to the present regime of land use and ownership.

In the late 1970s and early 1980s, an archaeological investigation by the state government’s Victorian Aboriginal Survey of Lake Condah and its immediate environs, as well as an area on the Mt Napier flow to the north, found the remains of numerous stone houses that were acknowledged to be of Aboriginal origin, as well as extensive fish-trapping systems around



The remains of the Lake Condah Anglican Mission, established in 1867 about 3 km from the lake. Bluestone buildings, including a church were built around a central 'village green'. In 1886, a new law forced people of mixed racial origins – around half the population – to leave the mission and numbers there dwindled until 1919 when it was closed, although Aboriginal families continued to use the site for many decades after. The bluestone church was destroyed by explosives in 1957.

the southern part of Lake Condah. These presented an intriguing challenge to the accepted nomadic hunter-gatherer view of Aboriginal societies. This is a model that applies to groups living in semi-arid or arid environments. It is completely out of place in the well-watered and resource-rich environment of south-west Victoria.

In the late 1990s, for the first time, some landowners allowed their properties to become part of this archaeological investigation. Over the last three years, under the supervision of Professor Peter Kershaw, my team from the Monash University School of

Geography and Environmental Science has been reconstructing past environmental changes in relation to the complexity and extent of the previous Aboriginal occupation. One of our long-term aims is to fully comprehend the dating and chronology of construction phases of the aquaculture system.

What makes the archaeological study particularly important is its relevance to the Gunditjmarra community today. A partnership has been established, known as the Lake Condah Sustainable Development Project (LCSDP), which has incorporated our study into a long-

term plan to regain control of country and reactivate Gunditjmarra resource and land-management practices. The partnership, involving Indigenous, non-Indigenous, government and non-government organisations, was initiated by descendants of the previous Gunditjmarra land managers and aims to ensure that never again will they lose control of their historical connections.

Today, the Gunditjmarra are involved with their traditional lands in a variety of ways. There is direct involvement with the LCSDP through Winda-Mara Aboriginal Corporation (WMAC); other families are continuing their own special relationships with their cultural heritage in a less overt way; and some individuals continue to develop connections with their country and its spiritual influences.

I share with you the words and feelings of one such person, Jimmy King Onus. Jimmy and some of his family have returned to live at the Lake Condah Mission to be closer to their ancestral lands.

Jimmy King Onus is the direct descendant of King Billy of Yigar. Born in 1827, King Billy gained

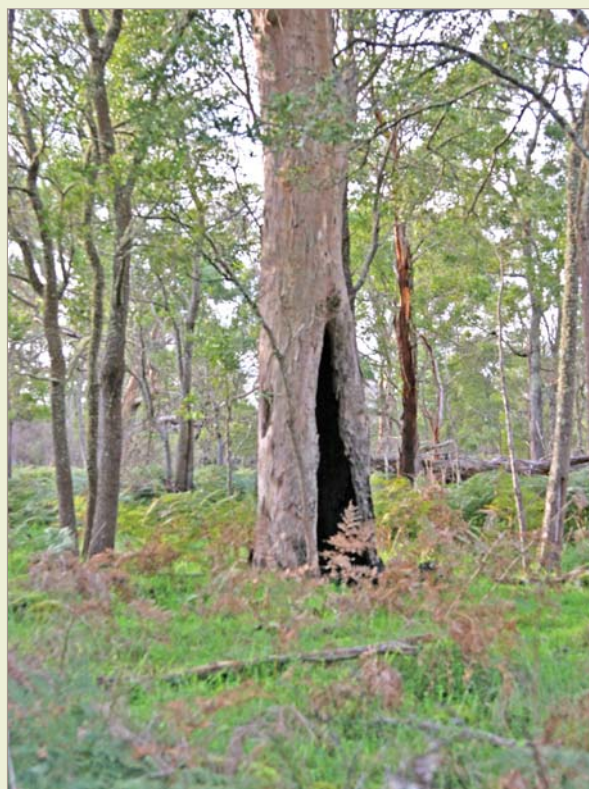


Jimmy Onus stands near the overgrown remains of his great-great-grandfather's house on the Stones. A tree has grown up in the middle of it.

leadership of the Lake Condah and neighbouring people by the last and only historically recorded spearing of an existing hereditary Chief. His successful challenge and survival of the consequent 'trial by arms' guaranteed that his direct descendants were also recognised as princes and princesses by their peers throughout their time at the Lake Condah Mission. The great-granddaughter of King Billy, Aunty Betty King, passed away earlier this year. She was recognised as princess at her funeral.

Archaeology and oral history have successfully pieced together some important parts of the cultural landscape jigsaw on the Stones. From his grandfather, Jimmy knew of the existence of the house of his ancestor, King Billy. Five years ago, I found the remains of a dwelling of extraordinary proportions with additional rooms and a large cleared circle adjacent. I was excited at the discovery as it was obvious that this place performed a specific function in the community. It reflected the social complexity of this society. Ros Stirling, Jimmy and I set out to relocate this house site. Between us we found it and Jimmy decided to share his knowledge of it. All of a sudden this archaeological site took on a new dimension. It became a real place with a human presence. We all felt it.

Jimmy was told by his grandfather Jacko that his (Jacko's) grandfather's house was large as it needed to accommodate various gifts of food and other items that people of the various clans, and his own clan, would make when they wished to speak to him about certain matters. They waited in the special area outside until they had permission to approach. The house was strategically located with a clear view all around, including of the houses of other clan members and across the surrounding area for anyone approaching. It also looked directly across to *Budj Bim*. Around the house were the dwellings of single warriors who kept watch over their Chief and who dealt with anyone wanting an audience with him.



Hollow trees were used as smoking chambers to preserve the harvested eels for storage or trade.

A large population had congregated there at this time following the loss of traditional lands outside the Stones area. The existing aquaculture system and adjacent woodland could feed large numbers of people. The area could also be defended because of its difficult terrain and was safe ground for quite a number of years until the Native Police finally breached the defences. The drop in population from the 1830s through to the late 1860s is not known but oral history recounts a heavy death toll at the hands of the new settlers. When the Lake Condah Mission was opened in 1868, only 80 Aboriginal people could be identified from the Glenelg River and east to the Port Fairy area and 70 of these joined the Mission. King Billy and his family were among them.

Jimmy King Onus had not previously shared his knowledge of his great-great-grandfather's residence for fear of it leading to the desecration of this place. In the late 1970s he had worked with the Victoria Archaeological Survey including in his own country at Lake Condah.

In the past there have been a lot of archaeologists who have worked in my country but I have not been pleased with a lot of the work that has been done in the name of science and the preservation of our sites. I feel a lot of

their work has been without the consultation of us traditional owners which has resulted in a lot of our sacred sites being misinterpreted as being not of cultural significance. This has left them open to farmers and others to destroy them and rape our culture, which is so spiritually painful. People have not respected our sites in the past but things will be different in the future. With Heather Buihlth, there is now respect in the consultation. Each and every Gunditjmara site has a cultural and spiritual meaning attached and there are spirits who watch over these places. They are able to make people who abuse them sick and also heal people who take care and respect them. They can take you on the most beautiful spiritual journey that will stay in your mind heart and soul forever.

(personal correspondence, Jimmy King Onus, July 10, 2006).

The story today is one of hope. Hope to restore drained wetlands and Lake Condah again, thereby resurrecting the eel fisheries. Hope for further recognition of the relationship between the present community members and their traditional lands. Hope to gain official recognition of former cultural affiliations by an anticipated Native Title claim settlement with the Victorian state government. Hope to proceed with private land acquisition on the lava flow by the Indigenous Land Corporation for all Gunditjmara. Hope that, subsequent to gaining National Heritage Listing in July 2004, World Heritage listing will come for the Stones landscape. And, most importantly as stressed by Jimmy, hope by the Spirits of this country that its people, their culture and their heritage will be reunited forever.

The Author

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Jimmy King Onus in particular, but all traditional owners of the Gunditjmara cultural heritage. Also to Fred Wilson, former landowner. ♦