

The Koorong Project: experimental archaeology and Wurundjeri continuation of cultural practices

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Abstract

Over the last three years, the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc., in partnership with the Department of Sustainability and Environment, Melbourne Water, Parks Victoria, La Trobe University, the Merri Creek Management Committee and Friends of the Merri Creek, have been involved in the Koorong Project: Koorong is the Woi wurrung word for canoe. The aim of the project has been to scar a tree and cut out and create a bark canoe on Wurundjeri Country; using both traditional and contemporary techniques. This project has been driven by Wurundjeri Elders and given a large amount of support by land owners and managers who have been partnering Wurundjeri on a number of projects, largely as part of the development of Wurundjeri's 'Caring for Country (Narrap) Plan'. As part of the project, traditional greenstone axe blanks were collected from Mount William Greenstone Axe Quarry (Willam-ee-moor-ing) and shaped and hafted to cut the Koorong. The Koorong was cut at a traditional ceremony from a tree located within Plenty Gorge National Park. One of the outcomes of this project was that a range of traditional Aboriginal techniques and procedures were tried and tested as a type of experimental archaeology, including shaping and sharpening greenstone axe blanks, hafting and fixing axe heads to handles using a range of adhesives, cutting and removing the Koorong from the selected tree, as well as heating, shaping, designing and using the canoe.

Introduction

For the Wurundjeri community, there is no separation between 'nature' and 'culture.' The natural world is a

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cultural world; therefore, the Wurundjeri people have a special interest in preserving not just their cultural objects, but also natural landscapes of cultural importance. The acknowledgement of broader attributes of the landscape as cultural values that require protection (encompassing, among other things, a variety of landforms, ecological niches and habitats, as well as continuing cultural practices) is essential to the identity and wellbeing of the Wurundjeri people (Parmington et al. 2012:57). Aboriginal Australians form cultural heritage values through an active social process of identity, cultural beliefs, community and association to Country. Heritage places are not only landscapes that contain tangible archaeological material and link classical society to the present, they are also spaces of contemporary cultural practices.

This paper presents an example where the continuation of just one Wurundjeri cultural practice demonstrates an active social process and the creation of a contemporary space and ceremony linking Wurundjeri stories, artefacts and people across the landscape and through time.

In order to complete the project, greenstone was acquired from the Mount William Greenstone Axe Quarry (Willam-ee-moor-ing) to make edge-ground axes. Adhesives (saps and resins) and wood for hafting the axes to a handle were collected from Willam-ee-moor-ing, Plenty Gorge, Merri Creek, Bundoora and Healesville (Coranderrk). The Koorong bark itself was sourced from the Plenty River and removed from the chosen tree using these implements. By traversing these locations for the Koorong, participants in the project reinstated ancestral movement in Wurundjeri Country. In doing so, places of contemporary cultural significance were created. These traditional practices and their spatial organisation function as modes of cultural reproduction, linking the Wurundjeri community to their history and imbuing the landscape with significance.

Willam-ee-moor-ing

The celebrated spot which supplies the natives with stone (phonolite) for their tomahawks, and of which I had been informed by the tribes 400 miles distant... (Blandowski 1855:56-57).

Willam-ee-moor-ing is located 9 km northeast of Lancefield and approximately 40 km north of Melbourne. The known extent of this Aboriginal place is approximately 18 ha in area, and it is located west of the summit of Mount William along a ridge containing a mixture of exposed and quarried rock. This location was used by Aboriginal people to obtain the hard, fine-grained diabase (locally called greenstone) for making edge-ground tools. Stone blanks were made at the quarry and then traded out of Wurundjeri Country. The blanks were ground down to make handaxes, then hafted onto handles to make axes, adzes and hatchets; they were also used for ceremonial and decorative purposes.

This type of greenstone is rare, not only in Victoria but within the whole of Australia, and axe blanks from this quarry were traded as far away as southern NSW and southeastern South Australia (see McBryde 1978, 1984a, 1984b; although there are unconfirmed reports of Mount William Greenstone axe blanks appearing in northern South Australia and central Queensland, with the latter having a surviving songline that connects this location to Mount William). This makes Mount William the centre of one of the most extensive Aboriginal trade networks in Australia.

Mount William was one of the largest and most intensively worked Aboriginal stone quarries in Australia, and at the time of contact these workings were recorded by numerous European settlers (including Blandowski 1885). Kinship and socio-dialectic delineation were central components of Aboriginal land tenure and spatial organisation. Mount William is featured in an ethnographic account by the nineteenth century anthropologist Alfred William Howitt, in which he describes the importance of inheritance rights to Country and the economic function of greenstone as a trade item:

...the right to hunt and to procure food in any particular tract of country belonged to the group of people born there, and could not be infringed by others without permission. But there were places which such a group of people claimed for some special reason, and in which the whole of the tribe had interest. Such a place was the stone quarry at Mt. William near Lancefield, from which the material for making tomahawks was procured. The family proprietorship in the quarry had wide ramifications... when neighbouring wished for some stone they sent a messenger to Bill-billeri saying that they would send goods in exchange for it, for instance, skin-rugs (Howitt 1904:311–312).

The history and archaeology of this Aboriginal place has been extensively researched (Brumm 2010; Casey 1971; Coutts and Miller 1977; McBryde 1978, 1984a, 1984b, 2000; McBryde and Harrison 1981; McBryde and Watchman 1976). However, what many of these

studies fail to highlight is that the Wurundjeri continue their connection to *Willam-ee-moor-ing*, and have managed this Aboriginal place from pre-contact times to the present day (or as Wurundjeri Elders say, 'from the time Bunjil made the rocks to today'). This includes managing vegetation and pests on-site, taking cultural tours, protecting the artefacts, and passing on the stories and knowledge of the place onto the next generation of Wurundjeri people.

In the 1970s, Casey (1971), Coutts and Miller (1977) and McBryde (1978, 1984a) recorded extensive evidence for large-scale bedrock quarrying and below-ground extraction of greenstone along a 1 km ridge line. This is evidenced by numerous widespread flaking floors, piles of débitage up to 50 m long, circular mounds of knapping debris up to 2 m in diameter and 1 m high, and more than 250 shallow mining pits surrounded by scree slopes of flakes, chips and broken axe blanks. Today the remains of most of these mining pits/quarried rock faces and mounds of debitage can still be seen surrounding the old work stations where the Wurundjeri people made the greenstone axe blanks. This makes *Willam-ee-moor-ing* one of the most important archaeological and culturally significant places in Australia.

In September 1997, approximately 7.5 ha of *Willam-ee-moor-ing* was purchased by the Indigenous Land Corporation (ILC) from the Macedon Ranges Council, on behalf of the Wurundjeri, to preserve this Aboriginal place. In February 2008, the entire area was registered as a heritage place on the Commonwealth National Heritage List (NHL). It was considered to meet the criteria for inclusion because of its outstanding heritage values and the rarity of the site type. As well as being included on the NHL, *Willam-ee-moor-ing* is listed on the Victorian Aboriginal Heritage Register (VAHR) and protected under the Victorian *Aboriginal Heritage Act 2006*. The 7.5 ha of *Willam-ee-moor-ing* owned by the ILC was formally returned to the Wurundjeri by Federal Indigenous Affairs Minister, Jenny Macklin, on behalf of the Commonwealth Government, during a large ceremony held on-site on 19 October 2012.

Members of the Wurundjeri and partners working on the *Koorong* Project visited *Willam-ee-moor-ing* with the approval of the Wurundjeri Elders to collect a limited number of greenstone axe blanks. The purpose of the visit was to continue the cultural practice of making greenstone axe hatchets for scarring trees. As Wurundjeri Elder Bill Nicholson stated (pers. comm. 28 September 2012), this was most likely the first time since the 1840s that greenstone axe blanks had been collected at Mount William by the Wurundjeri in order to produce an edge-ground axe hatchet.

In addition to the greenstone axe blanks, *Garrong* or black wattle (*Acacia mearnsii*) branches were collected from Mount William to be used for the axe handles.

Sharpening the axes

The shaping and sharpening of the axes was carried out on a number of separate occasions by members of the Wurundjeri and partners working on the Koorong Project. A workshop was held at the Wildlife Sanctuary, La Trobe University (Bundoora) on 27 May 2012, which members of the Wurundjeri and partners working on the Koorong Project attended (**Figure 1**).

A number of different grinding surfaces were tested to identify a suitable surface onto which the hard greenstone could be ground, so that the axe blanks could be shaped and sharpened. Whetstone, construction blocks, besser blocks and sandstone slabs were all tested with limited success. After experimenting with a number of surfaces, the best grinding surface was found to be a concrete pavement – together with a small amount of water to keep the surface wet. The composition of this material most closely resembles the consistency and abrasiveness of the sandstone and siltstone outcrops where archaeological grinding grooves have been recorded. Most of these grinding grooves have been recorded on outcrops within rivers and creeks, but a number of them have been identified in locations well away from water sources, for example at Mount Macedon (Macedon Axe Grinding Rock VAHR 7823–0003; **Figure 2**). This suggests that the consistency of the outcrop was the most important factor in determining suitable locations for grinding down and shaping greenstone, and that water was carried to these places in order to assist with the grinding process.

Adhesives

Traditionally, the adhesives used to haft the greenstone axes onto handles comprised different resins and gums mixed with various binding agents. While some of the knowledge regarding these resins and the mix and ratio of binding agents has been passed down to some Wurundjeri people, a large amount of the contemporary knowledge of traditional adhesives comes from modern researchers carrying out experimental archaeology. Some of this contemporary knowledge has been shared and combined with the traditional knowledge still held by the Wurundjeri.

In addition to these sources of information, the Wurundjeri knew that *Garrong* or *Acacia mearnsii* (black wattle) gum and *Moy-yan* or *Acacia dealbata* (silver wattle) gum were traditionally used in combination with *Toolemerin* or *Xanthorrhoea minor* (small grass tree) resin as adhesives. In classical society, the gum from *Garrong* and *Moy-yan* was mixed with ash to make a waterproof cement-like paste, and the *Toolemerin* resin acted as a hardening agent to make the resin strong; *Toolemerin* resin by itself is often very brittle. This process involved heating the resin and gum, to melt them in water, and slowly adding grass fibres as an additional binding agent. Other binding agents such as charcoal/ash, sand, saliva, and blood were also used in different mixtures. A number of different tree species were traditionally used as adhesives across Victoria, including one of the *Pittosporum* species, but the gum and resins from the



Figure 1. Grinding the greenstone axe blanks at the Wildlife Sanctuary, La Trobe University (Bundoora). The greenstone axe blanks can be seen in the foreground and a section of Toolemerin (*Xanthorrhoea minor*, small grass tree) can be seen to the right. Photograph taken by Phillip Wierzbowski on 27 May 2012.

Garrong, *Moy-yan* and *Toolemerin* were the primary adhesives used on Wurundjeri Country (see also Angelis 2005; Gott 2008, 2010).

The gum and resin were collected from these sources at a number of locations – primarily where other axe-making activities took place – including *Willam-ee-moor-ing*, Plenty River, Merri Creek and Bundoora. *Toolemerin* resin was also collected from Chum Creek in Healesville.

Binding the axes

During a workshop held by the Wurundjeri and Friends of the Merri Creek at the Nioka Bush Camp, Plenty Gorge on 28 September 2012, and at another workshop held at the Wildlife Sanctuary on 25 September 2012, the shaped and sharpened greenstone axes were hafted onto wooden handles using the gums and wood collected during the project. After experimenting with a number of different hafting and binding techniques, two different hatchets were constructed. The first one incorporated a strip of *Moy-yan* branch that was soaked and bent to wrap around the shaped and sharpened greenstone axe. String made from *Toolemerin* fronds and the adhesive made from the techniques described above were used to fix the axe in place and bind the two strips of wood together to make one solid handle. The second handle was made using solid *Garrong* wood from a tree located at Mount William, and it was notched at the head of the handle. The corresponding greenstone axe was also shaped with a notch so that it could be fitted into this handle. The traditional adhesives were once again used to fix the axe into place (Figure 3).

Choosing the tree

The selection of the tree for bark removal took the longest amount of time, and was a good demonstration of how



Figure 2. Macedon Axe Grinding Rock (VAHR 7823-0003), Mount Macedon. Photograph by Emily Edwards on 9 July 2010.



Figure 3. The two greenstone axe hatchets made during the Koorong Project. The handle on the hatchet on the left is made from silver wattle bent around the edge-ground axe, and the one on the right is notched into a solid piece of black wattle. Photograph taken by Phillip Wierbowski on 10 October 2012.

this type of project can be achieved in the modern world when traditional and contemporary land owners and land managers work together for a common purpose. The best type of tree to scar for a large *Koorong* is a river red gum or *Be-al* (*Eucalyptus cameldulensis*); however, this tree also has to be the right age and girth, with a curved shape in the mid-trunk section to provide a good canoe bough, and sufficiently healthy to survive the cutting of a large scar. There are limited numbers of *Be-al* that satisfy all of these criteria and are currently growing on land owned and managed by either Wurundjeri or the project partners, so a number of field trips were organised to locate potential trees. A small number of trees meeting the criteria were selected across areas managed by Parks Victoria, La Trobe University Wildlife Sanctuary and the Department of Sustainability and Environment (DSE). There were no appropriate *Be-al* located on Wurundjeri properties. A number of trees were removed from the list if they did not meet other conditions such as accessibility. The tree that was eventually selected was a large *Be-al* growing in the Plenty Gorge National Park (NP), adjacent to a small tributary that flows into the Plenty River, and next to a traditionally scarred *Be-al*. DSE and Parks Victoria arranged the necessary permits so that a large canoe could be cut from the bark of this healthy *Be-al*.

The Plenty Gorge NP is significant to the Wurundjeri for a range of other reasons. As well as the archaeological and cultural significance of this stretch of the Plenty River, this area is currently managed by Barry Coombes, 'Ranger in Charge' of the Plenty Gorge NP, and a Wurundjeri man. Other Wurundjeri members and Elders have contemporary connections to this area, as they were taken there when they were younger and taught how to catch, cook and eat bushtucker, and were also told traditional Wurundjeri stories in this area.

Cutting the Koorong

The ceremony to cut the *Koorong* from the tree took place on 10 October 2012, and was attended by all the project partners and their guests. A traditional *Tanderrum* ceremony was conducted at the start of the day to officially welcome all participants to the space where the *Koorong* was to be cut. As part of the smoking ceremony, the tree itself was cleansed as well as the people. This part of the ceremony is central to the Wurundjeri belief that while the bark of the tree is to be used, the tree itself should not be harmed. This demonstrates a respect for the tree and an acknowledgement of the resource that it provides. It is also a reminder of how the Wurundjeri believe they managed the land and its resources in a sustainable way for 30,000 years, or since Bunjil made humans on the banks of the *Birrarung* (Yarra) River and gave them the knowledge to properly care for Country. As Wurundjeri Elder Bill Nicholson states:

We believe it was a birthright to care for this land and it was constantly taught to you by your extended family as you grew up so as an adult you were a responsible, educated person on how to survive on this land and benefit your community and Country. We were part of the Country, why wouldn't we care for it? (pers. comm. 31 July 2013)

The ceremony was therefore also an expression of how the Wurundjeri are connected to their Country, by performing ceremony, using resources on Country and imbuing the landscape with stories, memories and archaeological markers.

The cutting of the *Koorong* took approximately 3 hours, which was well under the time it was predicted to take based on collective experiences of cutting other canoes, bowls, shields, et cetera. An outline of the *Koorong* was drawn on the section of the *Be-al* to be cut, on the north-facing side of the trunk, using white ochre. The two hatchets made during the project were then used to cut into the layer of bark around this outline. The bark was a deep red colour and was approximately 0.1 m thick in this section of the trunk. The dimensions of the *Koorong* are around 2.4x0.8 m, and the bottom of the scar is approximately 0.6 m above the current ground surface. The top of the scar is around 3 m from the ground. A cherry picker was used so that the participants could reach the upper sections of the *Koorong* safely. Once the traditional hatchets had cut a line around the dimensions of the *Koorong* down to the hardwood, long wooden wedges were used to slowly prise the bark away from the trunk. Straps were used to hold the canoe against the tree once it felt like it would 'pop' away from the hardwood, so that it was not damaged once it came away from the *Be-al* (Figure 4).

The *Koorong* itself 'popped off' the tree trunk relatively easily. The ease with which the bark was removed seems to relate to the growing phase of the



Figure 4. The *Koorong* being cut from the *Be-al*. The outline has been cut using the traditionally made hatchets, and wooden wedges have been inserted under the *Koorong* in order to pry it away from the hardwood. Photograph taken by Darren Griffin on 10 October 2012.

tree, usually determined by the time of year and/or local climatic conditions. It was a cold morning, so the hardwood and bark of the *Be-al* retained a high amount of moisture. As the removal of the *Koorong* was taking place, the weather warmed significantly. Because the scar was on the northern side of the tree, the sun heated up the bark, but not the hardwood underneath, so that by the time the *Koorong* was ready to be removed, it came away from the *Be-al* easily. If the bark and tree are too wet or too dry at the same time, the bark can stick to the hardwood or split easily.

After the *Koorong* was removed, it was covered with white ochre and placed on a metal stand that had been prepared by La Trobe University. It was then placed over a fire to start the drying process (Figure 5). The *Koorong* has since been moved to the Wildlife Sanctuary to continue the drying process and repair the splits and cracks using traditional adhesives and white ochre.

Launch of the Koorong

It is proposed that the *Koorong* will be launched on the front lake at La Trobe University in the near future. This will be the culmination of the first phase of the project,

but it is only the beginning in terms of the overall aims of the project. The longer-term aims of the *Koorong* Project include building upon the existing stakeholder relationships to access traditional Wurundjeri Country and resources for future projects, increasing local awareness of Wurundjeri cultural heritage and cultural places, building Wurundjeri project management skills and experience, utilising the images captured during each stage of the project as an educational tool for cross-cultural training presentations, and using this project as a way of encouraging similar experimental projects to be conducted by Wurundjeri people and others.

The *Koorong* Project has highlighted the importance of partnerships between traditional owner groups and land owners and managers. As most traditional owner groups do not have the resources to run projects like this, they rely on the formation and continuation of strong partnerships, such as those demonstrated during the *Koorong* Project, to provide these resources. These resources include time, money and staff, as well as knowledge of land and processes. As the continuation of cultural practices is central to the wellbeing and identity of the Wurundjeri community, establishing partnerships is vital for bringing projects such as the *Koorong* Project to fruition, and therefore for keeping the traditional owner groups healthy and functioning. When the community is healthy and proactive, the traditional owner groups are more able to meet their cultural heritage responsibilities and statutory requirements.

Monitoring the *Koorong* and scarred tree

One month following the *Koorong* cutting ceremony, members of the Wurundjeri visited the location of the

scarred tree within Plenty Gorge NP in order to inspect the scar and general health of the tree. This included measuring the regrowth of the bark around the scar and taking pictures of the scar and tree, to compare the process of the bark healing around the scar. The Wurundjeri will conduct regular inspections of the scarred tree to take these measurements, which can be used by archaeologists when assessing traditionally and historically scarred trees. It is also intended that the Wurundjeri will work with Parks Victoria to improve the environmental and ecological health of the surrounding area, further extending the local cultural values.

Both the scarred *Be-al* and the *Koorong* will be registered as Aboriginal places. The place around the scarred tree has now become a ceremonial space. The project is not linear; there will be ongoing aspects of the project such as the continual monitoring of the scar that will enhance archaeological knowledge of scar-healing processes, and the location will continue to be visited by the community as a place of significance.

Conclusions

Spaces of land are conceptually neutral until culture, historical memory and society in general inscribe that space with meaning. *Willam-ee-moor-ing*, Plenty Gorge, Plenty River, Merri Creek, Bundoora and Healesville (*Coranderrk*) were pre-contact homelands in a much broader cultural landscape which simultaneously was and is a space in which the Wurundjeri community imbues a sense of belonging with their traditional Country, as evidenced through this project.

The *Koorong*, as a material object, reinscribed Wurundjeri's conceptual and tangible link between



Figure 5. Participants in the cutting of the *Koorong* at Plenty Gorge NP, with the *Koorong* covered in white ochre and sitting on the metal braces over a fire in the foreground. Photograph taken by Phillip Wierzbowski on 10 October 2012.

past and present within this cultural landscape, in which present-day Wurundjeri community members were able to practice elements of everyday life prior to settler colonialism. Connection to Country via an understanding of traditional practices is integral to contemporary Wurundjeri identity, and pertinent to *Willam-ee-moor-ing*, Plenty Gorge, Plenty River, Merri Creek, Bundoora and Healesville (*Coranderrk*) is the facilitation of these practices in a culturally demarcated area, where Wurundjeri descendants can carry out traditional roles of resource procurement, ceremony and manufacture in the estate of their ancestors. These tasks are a performance to anchor Wurundjeri representation back into the landscape.

The *Koorong* Project has immense value in the emergence of cultural reproduction from historical discontinuity, and it fills the gaps of cultural interpretation in the academic record. It is an example of a dynamic culture adapting to the disenfranchising circumstances of colonisation and expression of agency through Wurundjeri participation in land management with other land stakeholders.

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