

Applying Australian Aboriginal Knowledge to improve Urban Sustainability

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Abstract

Indigenous knowledge in Australia, including the State of Victoria in which the city of Melbourne is situated, dates back at least 40,000 years. Caring for Country is a term used to describe the different sustainable land management practices and initiatives that Aboriginal and Torres Strait Islander peoples undertake, and the key role these practices play in continuing culture. Caring for Country is an integrated approach for sustainable land management. It encompasses the entirety of country – its past and future; its people; its flora and fauna; its natural landscapes and urban formats; its history and culture.

Aboriginal and Torres Strait Islander people make up three per cent of Australia's population with almost 80 per cent living in regional and metropolitan areas. The largest Indigenous populations are in cities and regional centres closest to coastal areas. While only 14 per cent of Indigenous Australians live in very remote areas, they make up a large proportion (45 per cent) of Australians living in these areas. The proportion of the Indigenous population who live in remote and very remote areas is projected to fall from 21.3 per cent in 2011 to 17.5 per cent in 2026. (Commonwealth of Australia, Department of the Prime Minister and Cabinet 2016)

Consequently, here we address the question of whether Aboriginal knowledge could, or should, be applied in an urban environment to acknowledge, celebrate and maintain Aboriginal culture whilst enhancing sustainability outcomes within the City of Melbourne. To investigate this question a consultation was carried out with the Aboriginal community in the State of Victoria, with particular representation from the Aboriginal community in Melbourne, along with key non-Aboriginal stakeholders. There was universal agreement from both Aboriginal and non-Aboriginal participants that Caring for Country can, and should, be used in an urban context to recognise, celebrate and acknowledge Aboriginal culture and to engender sustainability outcomes.

The application of Caring for Country in an urban context offers the potential for new and innovative ways to interact with nature and manage its resources for economic, social and cultural prosperity. Since early 2015, the Monash Sustainability Institute, in partnership with Indigenous Architecture and Design Victoria and the City of Melbourne, has been considering the application of Caring for Country in an urban context.

Caring for Country and Sustainable Development

Country, for Australia's Indigenous peoples, embodies not only the natural environment but also the past and the future; people; flora and fauna; history and culture. Caring for Country is stewardship and value system that encompasses an obligation to manage Country in a way that is ecologically, socially, culturally and economically sustainable (Atkinson, 2004; "Yotti" Kingsley, Townsend, Phillips, & Aldous, 2009, p. 291). Aboriginal people feel deep loyalty to fulfilling their responsibilities to their Country, responsibilities that have been handed down through generations for tens of thousands of years (Atkinson, 2004).

In 1987 the Brundtland Report outlined what is now the classic definition of sustainable development as "meeting the needs of present without compromising the ability of future generations to meet their needs" (World Commission on Environment and Development, 1987).

Sustainable development is also interpreted as an effort to simultaneously address growing environmental, economic and social concerns (Hopwood, Mellor, & O'Brien, 2005a, p. 2). However, the artificial separation between social inclusion, economic prosperity and environmental sustainability has meant that gains in one area have often been at the expense of perverse outcomes in another area. More recently therefore the need to combine the elements of social, economic and environmental sustainability is beginning to be recognised in approaches to Sustainable Development, such as the development of the Sustainable Development Goals (SDGs) (United Nations General Assembly Resolution A/70/L.1., 2015). There has been much talk of integration in the development and implementation of the SDGs and they have been described as "an indivisible whole". There have been attempts to develop approaches to achieve integration, such as Griggs et al (2014), and Nilsson et al (2016) has recently developed a simple framework that can be applied to facilitate an integrated approach to implementation of the SDGs. However, overcoming the predominant siloed approach continues to prove difficult.

The world's ecosystems face increasingly complex and serious challenges such as climate change, biodiversity loss and ecological degradation. Now is the time to further integrate Aboriginal environmental philosophy and knowledge into mainstream sustainable development practices. We can learn a great deal from Aboriginal resource managers who have been sustainably caring for this Country for tens of thousands of years. Caring for Country is also relevant to the notion of intergenerational sustainability encompassed in the Brundtland Report's definition of sustainable development. Aboriginal responsibilities to past, present and future generations clearly translate to intergenerational responsibility.

There are many similarities between the Aboriginal approach to Caring for Country and the western approach to Sustainable Development, but there are also differences. Caring for Country views humans and nature as entirely bound in a mutually beneficial relationship of responsibility and reciprocity. As such, rather than Country having to be protected from humans, Country necessitates the activities of humans to thrive. This is a practice of resource use whereby human modification and employment of nature nourishes Country rather than degrading it (Rose, 2008, pp. 51–52; Weir et al., 2011, p. 3).

Possibly because the all encompassing nature of Caring for Country is not well recognised outside the Aboriginal community, western attempts to embrace Caring for Country within natural resource management have been restricted to remote or rural Australia. However, Australia is one of the most urbanised countries in the world with 89% of the population living in urban areas, World Bank (2013). Hence, addressing urban sustainability is a key to overall sustainable development.

This raises the question of whether Caring for Country could or should be applied in an urban context. The potential benefits of this approach would be to achieve better, more integrated sustainability outcomes while at the same time celebrating Aboriginal history and culture.

Sustainability Planning and Indigenous values

The majority of both Aboriginal and non-Aboriginal Australians reside in urban environments. Unsustainable urbanisation brings problems regarding strained urban infrastructure, pollution, industrial and household waste, runoff, sewage disposal, poor water quality, reduced open and green spaces, traffic congestion, high energy use and overall reduced environmental health with associated effects on human wellbeing (Harmsworth, n.d.; Skinner, 2010).

As cities, such as Melbourne, begin to appreciate the importance of low impact urban design and development it becomes clearer how significant the contribution of Aboriginal environmental philosophy could be to the success of these new sustainable cities. Attitudes towards nature are culturally determined and the incorporation of Aboriginal values into city planning provides opportunities to markedly improve urban sustainability. This is due to the heightened appreciation it would bring to nature's fundamental role in human existence (Harmsworth, n.d.). For example there would be a greater emphasis on low-impact technologies and development, collaborative learning and community participation, native vegetation to reduce runoff, environmental planning and technologies to reduce contamination, use of natural systems for erosion sediment and effluent control and increased care concerning ecosystem disturbance (Harmsworth, n.d.).

The design of urban spaces becomes part our living environment and affects our living conditions, social wellbeing and health (United Nations Environment Programme, n.d.). As such, it is essential we pay attention not only to the environmental and economic sustainability of these urban centres but also to the cultural sensitivity of their design. Urban sustainability frameworks, informed by cultural diversity and inclusion, are crucial to reduce our cities' environmental impact, nurture a healthy economy and improve social equity (Skinner, 2010).

Incorporating Aboriginal values into city planning would deliver benefits to both Aboriginal and non-Aboriginal communities. For example, the strategic introduction of native vegetation in culturally significant areas would enhance cultural values, reduce runoff and stormwater and recreate habitats based on Aboriginal values.

Other possibilities include: restoration and enhancement projects on Aboriginal lands; planting of indigenous flora and increased native faunal habitats in urban areas; reduced disturbance, biosecurity and contamination of culturally significant areas through low impact design and development; promotion of safe, healthy traditional food source areas in urban centres; incorporation of natural systems within urban design to enhance cultural sites and control and reduce erosion and sediment, and culturally appropriate design for sewerage reticulation, disposal and treatment; and involvement of Aboriginal communities to improve energy efficiency and reduced energy use.

Applying Indigenous principles in the City of Melbourne

The City of Melbourne has gradually started to incorporate Indigenous culture into its architecture, art and public infrastructure. It is distinguishing itself as the first city to apply Indigenous knowledge and perspectives to care for the urban form. Partnering with Victoria's Indigenous community will ensure that Aboriginal cultures are acknowledged and celebrated.

Incorporating the Indigenous approach of Caring for Country into public discussions increases awareness of the need to 'care for' i.e. protect our ecology as we invest in natural infrastructure to respond effectively and innovatively to the impacts of climate change.

The principles that underpin Caring for Country provide a blueprint for dealing with the challenges of climate change. They will help us reshape how we value nature and its services in the urban form, to ensure Melbourne continues to be a liveable and sustainable city in a drier, hotter future.

A consultation was carried out with the Aboriginal community in the State of Victoria, with particular representation from the Aboriginal community in Melbourne, along with key non-Aboriginal stakeholders. This consultation took the form of some one-to-one interviews, but primarily through a symposium held in 2015. The symposium brought together over 75 Indigenous and non-Indigenous participants from across disciplines, levels of government, sectors and importantly a range of community organisations to consider whether the concept of Caring for Country could be applied in an urban environment.

The symposium was designed as a collaborative process structured to facilitate an exchange of ideas and information suited to the needs of the participants so that joint solutions could be developed. This joint leadership approach served to ensure that Aboriginal cultures were acknowledged and celebrated. The partnership approach adopted to deliver the symposium was acknowledged by participants as a method which could work to 'remove the resistance' manifested as a result of previous perfunctory engagement processes.

Several important discussion points were raised in the symposium. One particularly critical discussion centred around whether adoption of Caring for Country principles by non-Aboriginal people to create sustainable outcomes would be considered as appropriation of Aboriginal knowledge. While it was recognized that Country belongs to the relevant Aboriginal group for that place it was the strong view that everyone living on that Country shares an obligation to care for that Country, even though it is not their Country, and that the connection to Country needs to be shared with everyone not just Indigenous people. This sharing will lead to a better understanding and therefore respect for the place, its past and future; its people; its flora and fauna; its natural landscapes and urban formats; its history and culture. Hence, the consensus view was that as long as Caring for Country principles are used respectfully and with full consultation and participation of Aboriginal people, there was strong support for them to be applied in an urban context.

In addition, when applying Caring for Country principles the importance of understanding the traditions that underpin them was acknowledged. It was also recognised that those traditional principles should be applied to care for today. These principles say that our Country is our mother and we should not hurt our Country. We are part of Country and we all have a role to play to ensure that Country is improved and sustained for future generations.

Having established that there is Indigenous and non-Indigenous community support for the application of Caring for Country in the city a draft set of principles was developed that provide the basis for the development and implementation of projects, namely:

- support Indigenous and non indigenous engagement, cooperation and co development
- lead to world class joint research
- increase public awareness of the need to 'care for' our natural resources in an urban context
- underpin the development of innovative building and engineering solutions
- attract public and private investment
- create Indigenous employment opportunities
- improve the capacity of Melbourne to deal with the impacts of climate change.

For projects to be developed, and for the aims set down in the principles to be realised, it was recognized that the scope of engagement needs to be expanded to include a wider range of implementation partners. Hence the next phase is to expand the project to encompass the following activities and deliverables:

- continued Indigenous engagement including a reference group
- informing stakeholders of Indigenous and non Indigenous partnership approach, documenting the process for implementation
- the engagement of government and industry as co development partners with the Indigenous and non Indigenous stakeholders
- the brokering of relationships leading to the development of project partnerships across sectors
- support for the creation of Indigenous employment opportunities in Caring for Country projects.

A key aim of the symposium was the identification of project ideas which concentrated on the protection and development of Melbourne's urban form and underpinned by Indigenous knowledge. Initial project ideas identified at the symposium were the following:

- Codify Caring for Country principles
- Integrated mapping of Melbourne's Indigenous cultural heritage
- Development of Royal Park Amphitheatre

Conclusion

It was established through a series of consultations that there would be value in applying the Australian Aboriginal concept of Caring for Country in an urban context, on the understanding that it is used respectfully and with full consultation and participation of Aboriginal people.

It is crucial that the application of Caring for Country to urban sustainability is not performed in a way that simply allows two ideologies to work parallel to each other. There must be a genuine effort to understand and embed Aboriginal environmental philosophy and knowledge into a world-view. There must also be a genuine engagement on behalf of the Western culture to understand the interdependent relationship between nature, law, language, culture, ethics and economy. Otherwise Aboriginal participants will not be able to fully express their connection to Country in a way that is holistic and meaningful to them.

Caring for Country and the sustainable solutions it inspires may become integrated into every aspect of people's everyday lives. The economy, society and the environment are not separate or opposing, but instead are entirely dependent on each other and nurture one another through a series of responsible and reciprocal relationships.

The process of applying Caring for Country to sustainability also offers a fourth, cultural tier to sustainable development. Incorporating varying cultural perspectives into sustainable development fulfills obligations to social equity and provides relevance to various sustainable initiatives that require behavioural change from all sectors of society. It also highlights the artificial cultural boundaries that have been established between Western-scientific and Aboriginal philosophies as we begin to realise the many intersections and parallels that can be drawn between these two worldviews.

Caring for Country can be manifested within urban sustainability in a multitude of ways:

- Aboriginal participation in the governance of urban planning,
- physical structures within urban centres,
- naming of urban spaces
- encouragement and incorporation of traditional practices and knowledge in urban design.

The success of sustainable development requires a significant shift in how the dominant, Western-techno-scientific culture sees the world. Continuing to separate our lives into distinct compartments of economic/social/environmental/cultural, urban/remote, Western/Aboriginal will deliver the same unsustainable results.

It is time to engage in a transcultural, trans-disciplinary worldview that recognises all humans everywhere are part of a web of connections, which embody a series of responsibilities to our environment and each other.

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Acknowledgements

The authors would like to acknowledge the City of Melbourne, the Victorian Department of Environment, Land, Water & Planning and the Melbourne Cricket Ground for their support.