



# COS10025 Technology in an Indigenous Context Project unit

School of Science, Computing, and Engineering Technologies

## Seminar Week 3: Culture and application technology in the Australian context

## Shannon Kilmartin-Lynch

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# Acknowledgement of Country

We respectfully acknowledge the Wurundjeri People of the Kulin Nation, who are the Traditional Owners of the land on which Swinburne's Australian campuses are located in Melbourne's east and outer-east, and pay our respect to their Elders past, present and emerging.

We are honoured to recognise our connection to Wurundjeri Country, history, culture, and spirituality through these locations, and strive to ensure that we operate in a manner that respects and honours the Elders and Ancestors of these lands.

We also respectfully acknowledge Swinburne's Aboriginal and Torres Strait Islander staff, students, alumni, partners and visitors.

We also acknowledge and respect the Traditional Owners of lands across Australia, their Elders, Ancestors, cultures, and heritage, and recognise the continuing sovereignties of all Aboriginal and Torres Strait Islander Nations.

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# Week 2 Recap

# Designing with Country

Designing with Country is not possible without engaging with and be guided by Indigenous people.

Most importantly the knowledge held by Indigenous people should be an ongoing resource when designing with Country.

Design with Country is an important step to take –it allows us to gain a better understanding of how Indigenous culture can be respected and protected to allow culture to strengthen.

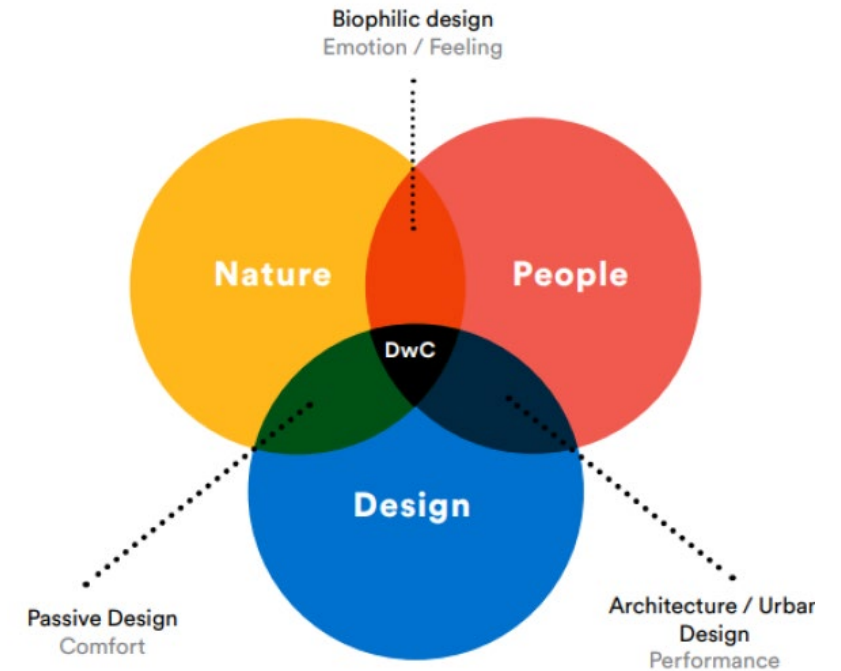
Three essential elements of design with Country –Nature, People, Design.

Three binary relationships –Architecture, Passive, Biophilic

Architecture considers design and people informed by nature

Passive considers design and nature, when utilized becomes environmental design

Biophilic design considers the essential connection between people and nature. When informed by design this specific relationship can be understood as an origin for Indigenous architecture



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# Human-centred Vs Country-centred Design

Sometimes referred to as Ego-centric or Eco-centric design

Indigenous people are referred to having an eco-centric world view, as the natural system involving people, plants and animals are considered when working with Country.

However, in contemporary design people and their needs are often prioritized over Country, where the landscape and nature are often reduced to second tier priorities.

By appreciating an Indigenous view of the world and incorporating people, resources, animals, waterways and plants equally we can make significant contributions and take further steps toward sustainable life.

When designing with Country, sustainability is not the aim but the outcome. By Incorporating the needs of Country into the design phase of projects we can make these contributions to a sustainable future.



Ego-centric v Eco-centric diagram  
adapted from Art Tawanghar, Designer, San Diego (2016)



# Designing with Country

## The following projects are some examples by Government Architecture NSW (GANSW)

These specific projects are able to demonstrate a genuine intent to build mutual respect between the Indigenous community and the design team. Demonstrating the meaning of Designing with Country.

-Casino Aboriginal Medical Centre –Casino NSW

-Wilcannia Health Service –Wilcannia NSW

-KamayBotany Bay National Park –Sydney NSW



Photo: Tobv Scott

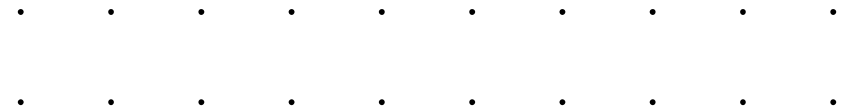




# Culture and application technology in the Australian context

# What will be covered today?

- 2 Way science (CSIRO initiative)
- Designing on Country
- Sea Program





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# 2-Way Science

## Ngaparrtji Ngaparrtji

### Two-way

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# 2 way Initiative

This book is titled 'Ngaparrtji Ngaparrtji Twoway'.

Ngaparrtji Ngaparrtji is a phrase used by several Western Desert Aboriginal languages that loosely translates as 'I give you something, you give me something'. It is a complex cultural concept of reciprocity and exchange.

Ngaparrtji Ngaparrtji is used here to elaborate on the term 'two-way' which underpins the Two-way Science Initiative and the principles that inform its development and implementation. It speaks to the obligation of education systems to ensure Aboriginal knowledges are included alongside other knowledges in the curriculum.

It also speaks of the obligation of schools to value and respect the gift of this knowledge and ensure that Aboriginal people are acknowledged for their participation in the development of local culturally responsive teaching and learning programs. It refers to the complex interplay between Aboriginal scientific understandings of Country and culture, and Western scientific knowledge.

Aboriginal people are the first scientists, the first engineers and the first educators. This work is grounded in the critical importance of ensuring more than 60,000 years of wisdom and knowledge of Aboriginal people has its rightful place in our education systems



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# 2-Way Science Principles

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# Reciprocity

The efforts of Aboriginal communities must be recognised. That can be through remuneration, advocacy and support for local initiatives.



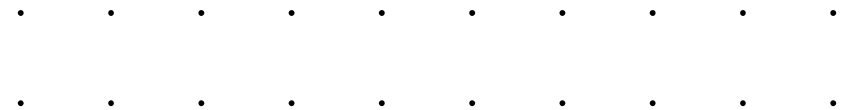
# Co-design

Two-way Science strategies, procedures, schedules, monitoring and evaluation, professional learning and education resources must be developed through codesign with Aboriginal people and communities



# Listen to Country

Time must be spent on Country, listening to Country and learning from Country



# Local place-based solutions

Aboriginal cultures, languages and communities are different from one another and require local placebased programs to support the learning needs of students. Culturally responsive approaches to place and space must include traditional owners and build on the strength of diversity of Aboriginal cultural identities of students and families connected to the school.



# Value and respect what people are already doing

Aboriginal communities and schools have a long history of developing innovations in education delivery. These innovations and the people that developed them should be respected and supported to action them within the scope of the project.





# Cultural safety

The project systems and structures must enable the participation of Aboriginal people in ways that make people feel welcome and safe, and recognise that this will be different in different contexts and for every individual. This includes, for example, the way engagement and consultation takes place, where and how workshops are held, knowledge sharing protocols and the impact of colonisation on language and cultures.



# Aboriginal intellectual and cultural property

Aboriginal intellectual and cultural property is owned by the authors and traditional owners of that property. Consent and permission must be obtained whenever intellectual and cultural property is used by anyone for any purpose.



# Co-authorship

Projects for Aboriginal people must be developed by, or with, Aboriginal people. Co-authorship must be acknowledged where Aboriginal people have had an input into the development of projects as well as any written or audio visual material.



# Commitment and sustainability

Support and grow Aboriginal-led initiatives to produce long term sustainable outcomes for schools and communities



# Work at the pace of Aboriginal communities

Aboriginal people must be given the opportunity to build projects according to local cultural protocols and practices with the full input of communities and Elders who have diverse commitments and geographic locations.



# Take time to build relationships and trust

newcomers to communities must take the time to listen and build relationships and trust during project development



# Define success

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# Two-way science initiative

Two-way Science provides an opportunity for all students to learn about science from the world's oldest continuing cultures.

The Two-way Science Initiative aims to:

- build respect for Aboriginal histories, cultures, people, knowledges and experiences amongst school staff and students
- strengthen Aboriginal student wellbeing, engagement and achievement.



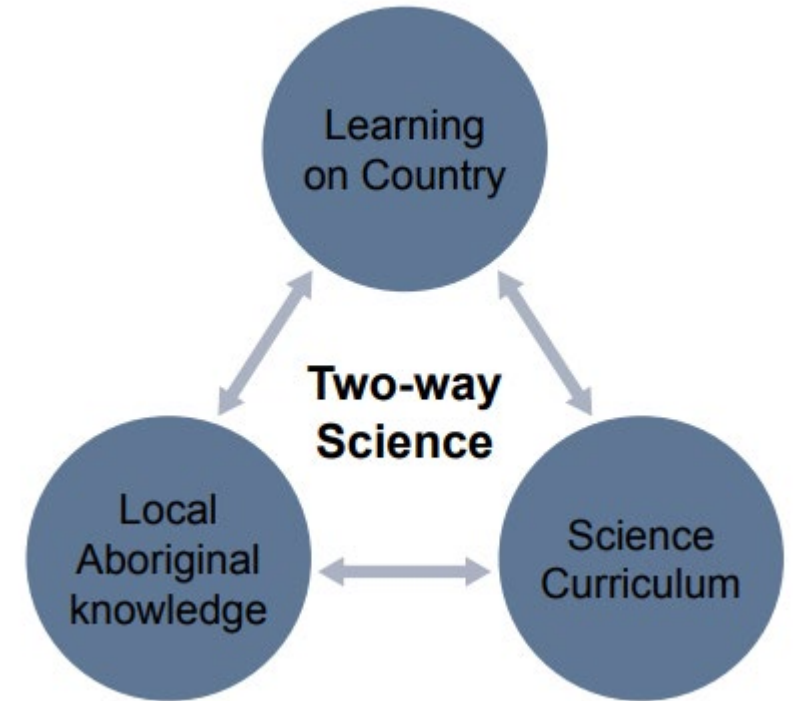


# Two-way approach

Two-way Science privileges local Aboriginal knowledge, empowerment and leadership but asks all staff to work and learn together.

A Two-way Science program contains three essential elements:

- Aboriginal knowledge of the local community
- Learning on Country led by local Aboriginal experts
- The science curriculum



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Sea Country Indigenous Protected Areas Program - Grant Opportunity - DCCEEW

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# Designing on Country examples

## Burwood Brickworks

Frasers Property Australia engaged Balarinji to design public art installations for Burwood Brickworks in Victoria, the world's most sustainable shopping centre. Balarinji worked with local Wurundjeri, Dja Dja wurrung and Ngurai illum wurrung artist, Mandy Nicholson who developed an artwork concept that was deeply embedded to Place and reflected Wurundjeri culture.

The initial brief was an artwork installation for the outer facade, however, midway through the project it was extended to also feature on the ceiling throughout the property. Mandy's artwork is now one of the most commented-on visual aspects of the centre.

The artwork installations are deeply connected to place and Wurundjeri culture. They showcase the six fundamental elements to Wurundjeri Country, on which Burwood Brickworks is located:

1. Tharangalk Biik - Forest Country above the clouds where Bunjil (creator) lives;

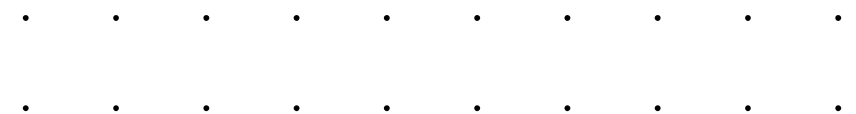
2. Wurru Wurru Biik - Sky Country;

3. Murnmut Biik - Wind Country;

4. Baanj Biik - Water Country;

5. Biik-Dui - On Country where we walk, dance and conduct ceremony; and

6. Biik-Ut - Below Country where all life began.



The installations also reference many local landmarks, including Mount Dandenong, the Great Dividing Range, Yarra Valley flatlands and Port Phillip Bay.

The Burwood Brickworks project is a stunning example of how Aboriginal culture can exist in an urban context and is dynamic and alive.

## Sydney Trains

Sydney Trains engaged Balarinji to collaborate with the Redfern Aboriginal community to art direct and facilitate Public Art themes and concepts for the Redfern Station improvement works.

Balarinji engaged with endorsed community organisations to confirm the key themes for interpretation at the site. This engagement guided art workshops that Balarinji delivered, with artists that Balarinji identified and the community nominated.

Four local artists were appointed as a curatorium, comprising Dolly Brown, James Simon, Suzy Evans and lead curator Adam Hill (aka Blak Douglas).

Balarinji guided the curatorium to develop integrated art elements for Redfern Station: bollards, glazing & a sculptural tree guard of interlinked goannas.



## M12

In a joint project between the Australian and NSW Governments, Transport Roads and Maritime Services (RMS) is planning the development of the M12 Motorway. The M12 will provide access to the future Western Sydney International (Nancy-Bird Walton) Airport at Badgerys Creek.

Balarinji was engaged within the Arcadis and HASSELL design team to embed Aboriginal heritage and culture within the Motorway's identity. Through Balarinji's cultural design principles methodology, a deep Aboriginal sense of place has informed the earliest stages of M12 design.

From research and collaboration with endorsed local Aboriginal stakeholders, Balarinji created an interpretation plan to activate the corridor's Aboriginal narrative. The overarching theme of "Interconnectedness" depicts the central Aboriginal tenet of physical and spiritual belonging to Country. Art and interpretive elements that express the theme across the M12 will acknowledge local Aboriginal history and the Aboriginal community's contemporary story.

Balarinji's methodology included:

- deep, authentic engagement with verified local stakeholders
- thorough, peer-reviewed desktop research
- workshop methodology to facilitate local Aboriginal stakeholders and creative professionals to articulate and interpret their own authentic Body of Story for a Body of Art for conceptual interpretation
- translating the site's core Aboriginal narrative for the M12 Design Team to integrate local Aboriginal cultural interpretation
- commitment to offering opportunity and building capacity in the Aboriginal creative community, by fostering local art practice and by growing partnerships with established and emerging Aboriginal architects and designers.

Balarinji worked closely with local Aboriginal artists and Knowledge Holders to translate the cultural theme for art and design across the M12. The creation stories, song, dance, iconography and cultural practices that have informed the M12 cultural narrative, will greatly enrich built form, landscape design and interpretive user experience. The story of those who travelled the area long before us is a rich and authentic base for the project's identity.

# Key factors to working on Country

- Deep Listening
- Indigenous led
- Community/Place specific
- Shared benefit
- Respecting knowledge and place

