Integrating Indigenous, Western and inclusive pedagogies for work-integrated learning partnerships in architecture and design disciplines

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Work-integrated learning (WIL) provides an opportunity for integrating Indigenous and Western learning pedagogies and facilitate a meaningful pathway for authentic learning through developing partnerships between Indigenous and non-Indigenous stakeholders. However, research in developing WIL with Indigenous communities and appropriate learning pedagogies is limited. This paper discusses how WIL can inculcate Indigenous and non-Indigenous learning pedagogies to facilitate authentic, culturally enhanced learning. The proposed theoretical framework was constructed using the concepts relating to '8 Ways of Knowing Indigenous Learning' framework, Studio Based Learning, Co-design, and WIL. The research method draws on autoethnographic approaches to reflect and critically analyze academic observations and reflections across two case studies. The findings propose a WIL pedagogical approach integrating Indigenous and non-Indigenous learning pedagogies to enable authentic learning by co-generating emergent knowledge in complex socio-cultural contexts. Moreover, this approach enables training architecture students to represent cultures and values of the Indigenous communities in the mainstream Anglo Australian architecture.

Keywords: Community projects WIL, Indigenous pedagogy, Indigenous knowledge, co-design, studio learning, inclusive pedagogies

Creating a learning environment that facilitates increased intercultural dialogue can improve Indigenous and non-Indigenous students' recruitment, knowledge acquisition, and retention (Riley & Johansen, 2019) and address some aspects of equality and justice issues (Luckett & Shay, 2020). Although the Indigenizing curriculum in Australian tertiary education has focused on Indigenous knowledge and Indigenous ways of learning, the pace of adoption has varied based on academic disciplines and institutional priorities (Universities Australia, 2017). Dominant Western higher education models have not embraced Indigenous learning methods to enable co-learning, or to co-generate knowledge. Engaging with tacit knowledge and differences in cultural practices within Indigenous communities warrant context specific learning on and with Country. According to The Australian Institute of Aboriginal and Torres Strait Islander Studies, "Country is the term often used by Aboriginal peoples to describe the lands, waterways, and seas to which they are connected. The term contains complex ideas about law, place, custom, language, spiritual belief, cultural practice, material sustenance, family, and identity" (AIATSIS, n.d., What is Country? section). The higher education institutions have, traditionally, been hesitant to develop and create space for, in a good and meaningful way integrating, Indigenous knowledge (Gale & Tranter, 2011), despite the recorded benefits (Nolan, 2011). Universities are accountable to addressing the deficit in their engagement with Indigenous Australians and communities. Part of this includes their responsibility to create WIL contexts which are offered in the spirit of reconciliation, and build effective and respectful partnerships

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based on the principles of respect, mutual benefit and co-creation with Indigenous communities (Department of the Environment and Energy, 2019;Universities Australia, 2017).

As an additional consideration, space plays a critical role in facilitating learning. Spaces cultivate new sociohistorical relationships between Indigenous and non-Indigenous people. They can bridge or widen the cultural gap in terms of the form and shape of the larger society. This is particularly true in the context of the architecture and urban design education. For many years, Australia's architectural landscape has been rightly critiqued for lacking a vital layer, the histories and current and emergent practices of Indigenous architecture, landscape, and cultures, having a dual negative effect. Firstly, the built environment needs of the Aboriginal and Torres Strait Islander communities was not catered for. Secondly, representation of broader cultures and values of the Indigenous communities in the mainstream Anglo Australian architecture was minimal. Professor Memmott, a leading scholar in Aboriginal Architecture, notes that despite strong progress in Indigenous Architecture in the last 40 years, there is "still a long way to go. There is more work to be done, views to be changed, and knowledge to be put into the public arena" (Ashby, 2019, More work to be done section, para. 3). Mainstreaming Indigenous knowledge and culture in architectural education can bring Indigeneity to the public arena in a meaningful and impactful way.

The architecture discipline has explored many models of teaching and learning that are primarily influenced by constructivist modes fostering learning in context. Learning is a complex cognitive and affective process involving strategies that influence the acquisition of knowledge and strategies that facilitate learning through motivation and volition (Braun et al., 2012; Tasantab et al., 2021). Moreover, the physical location and cultures within which students are inculcated are critical for designing learning environments (Riley, 2021). In this context, an Indigenizing curriculum faces many challenges. For example, not many universities have engaged with Indigenous communities or invested in developing a critical mass of Indigenous academics or students and have not adequately partnered with the Countries on which they are located, resulting in a lack of Indigenous content, dialogue, and culturally appropriate spaces for learning (Bunda et al., 2012). Moreover, the diversity of Indigenous cultures across Australia also requires an attitude of non-homogenizing and non-generalizing Indigenous knowledge. The diversity of Indigenous cultures provides the grounds for fostering creativity, therefore warrants flexibility in the engagement with the knowledge and practices of different communities. In this context, engaging with the Indigenous communities and learning on and with Country can help in boosting creativity and opportunities for holistic learning.

Work-integrated learning (WIL) can facilitate different types of learning, including situational awareness and employability skills focused learning (Rowe & Zegwaard, 2017; Tasantab et al., 2021), through developing partnerships with employers and communities. WIL also enables students' learning in context by solving issues facing institutions and Indigenous communities (Williamson & Dalal, 2007). In this sense, the quality of student experience depends upon facilitating authentic student learning through partnering with relevant stakeholders. Integrating the Western higher education pedagogies and Indigenous ways of learning have posed challenges (Barnhardt & Oscar Kawagley, 2005) for meaningful WIL. The national push for WIL in university curricula reinforces the need and opportunities to engage with clients or employers to improve the student experience and their readiness for employment. This provides further motivation for educators to engage with institutions, employers, and clients within Indigenous communities to boost student experiences of work within the curriculum (or as co-curricular). This aim of this paper is to discuss the integration of Indigenous and non-Indigenous learning pedagogies for facilitating WIL through developing meaningful partnerships for culturally enhanced learning.

LITERATURE REVIEW

In the past few decades, constructivist pedagogies played a critical role in designing curriculum in many Australian universities (Biggs, 1996). Student-centered, and inductive learning environments, harnessing learning in context or situational learning through constructive methods'is seen as more effective in delivering enhanced learning outcomes (Murray et al., 2004; Prince & Felder, 2006; Tasantab et al., 2021). Although knowledge creation was central to Western pedagogies, knowledge creation processes did not accommodate or reflect the cultural ways of learning used by Indigenous communities to create new knowledge (Battiste, 2000; Battiste & Henderson, 2009; Nakata, 2007). Western pedagogies lacked the understanding of how to engage, access or decipher hidden or tacit Indigenous knowledge. Indigenous communities approach learning through a sacred and holistic approach- specifically "as experiential, purposeful, relational and a lifelong responsibility" (Battiste & Henderson, 2009, p. 5). Indigenous education is about understanding the traditions, ceremonies, and daily practices, moreover, the essence of facilitating the spirit-connecting process (Battiste & Henderson, 2009). This paper explores two commonly used pedagogies in architectural disciplines, Studio Based Learning (SBL) and co-design to integrate Indigenous learning methods. This integration encapsulates and reinforces WIL.

In disciplines such as Architecture, Studio Based Learning (SBL) is widespread and is embedded in constructive pedagogy. SBL pedagogy is focused on framing instructions based on learning about, learning how, and learning to become. SBL is not solely about the learning spaces, technologies, and furniture, it is much more in terms of pedagogy. In the writing disciplines, (Kjesrud, 2021, p. 5) notes that "the studio has recently been more deeply theorized for its potential in creating educational justice for students whose literacy identities were undervalued in traditional genres and traditional literacy standards."

Kjesrud (2021) also notes that SBL is more appropriate to project and problem-based disciplines where practitioners must explore problems with no correct answer. Such problems require practitioners to engage in brainstorming and collaboration with the appropriate stakeholders to propose solutions and make revisions based on incremental feedback (Schon, 1985 as cited in Webster, 2008). SBL learning allows architects to engage in reflective learning'and become reflective practitioners (Webster, 2008). Architectural education involves more than students following course documents and demonstrating that they achieved learning outcomes based on formal knowledge, it has a powerful 'hidden curriculum'(Dutton, 1991). The 'hidden curriculum is enabled by socialization and acculturation informing values and customs from one group to another. In the context of Indigenous curriculum, learning on, in and with Country enables us to overcome limited Indigenous -focused curricula and accustom students to Indigenous values and practices (Battiste & Henderson, 2009).

Co-design, another approach widely used in architectural education, originated out of activism and was in part a response to address the issues relating to human and social rights movements and widespread community action against housing and regional development programs believed to be threatening local communities (Sanoff, 2011). This approach caters for the growing sense of people's rights to participate directly and shape the design of spaces where they live, work, and play. Conceptualized as a collaborative research approach to knowledge creation, co-design can provide an appropriate approach to framing research-led learning pedagogies to transform knowledge and provide unique student experiences.

Co-design can also assist with complex social, environmental, and educational problems that no one person can solve and generates diverse knowledge and skills by empowering people to explore complex problems through participation and collaboration (Sanders & Stappers, 2008; Zamenopoulos & Alexiou, 2018). The principles of this approach aspire to engage in community-based design, respectful collaboration, inclusive participation, and adaptive innovation (Auckland Co-Design Lab, 2018). Community-based design provides opportunities to engage all stakeholders and allows for accessible and developed social connections (Blomkamp, 2018). Co-design enables us to engage with Indigenous and non-Indigenous participants and be interactive, inclusive, and inspiring. Respectful collaboration through co-design addresses and acknowledges differences in power (McKercher, 2020). Co-design has three broad stages (Spinuzzi, 2005; Thamrin et al., 2019).

- Stage 1. Initial exploration of work: The students and academics familiarize themselves with the communities, agencies and the work environment and empathize with users' daily settings, habits, and problems. Initial exploration will assist with setting up partnerships, engagement protocols, and learning environments for ideation.
- Stage 2. Discover and define: A collaborative setting for brainstorming and facilitating active interaction between Indigenous and non-Indigenous stakeholders to develop goals, ideas, and design concepts. The process in this stage should enable ideation, develop alternatives, synthesize the co-designs, and encourage participants to revise proposals.
- Stage 3. Prototype, develop and deliver: A collaborative and iterative process providing solutions to problems or delving into outcomes fulfilling established goals using prototypes. In this stage, co-production and solution presentations are key activities. Outputs can be in the form of conceptual sketches, mock-ups, and three-dimensional objects. Solutions or results of co-design processes should be discussed in ways and forms participants can understand and share feedback.

Zamenopoulos and Alexiou (2018, p. 25) provide examples of the co-design process to:

- Share and generate: to share experiences, provide information, knowledge and/or generate ideas for responding to key co-design questions.
- Debate and evaluate: to provide feedback or comments on existing responses to the key co-design questions.
- Collect and organize: to collect, analyze and synthesize information, knowledge or ideas related to the core co-design questions.
- Enable and facilitate: to shape, enable, or facilitate the processes and tools of engagement in design.

In Australia, the most recent reconciliation movement increased opportunities to engage with Indigenous communities and agencies to de-colonize knowledge as well as increase cultural competencies of professionals. Yunkaporta (2009, p. 50) points out:

> Aboriginal students can have an indirect rather than direct orientation to learning, as can be seen in the avoidance of direct questioning … and in the avoidance of direct instruction and behavior management ... Additionally, Aboriginal people think and perceive in a way that is not constrained by the serial and sequential nature of verbal thinking.

McLaughlin (2013) indicates that revitalization of Indigenous knowledge requires further integration of communities with higher education institutions, to overcome Indigenous knowledge competing for

validity and to be recognized and situated in educational pedagogies and curricula. The '8 Ways' or Aboriginal Pedagogy identities eight cultural ways of learning:

1. We connect through the Stories we share (Story Sharing);
2. We picture our pathways of knowledge (Learning Maps);
3. We see, think, act, make and share without words (Non-verbal);
4. We keep and share knowledge with art and objects (Symbols and Images);
5. We work with lessons from land and nature (Land Links);
6. We put different ideas together and create new knowledge (Non-linear);
7. We work from wholes to parts, watching and then doing (Deconstruct/Reconstruct); and
8. We bring new knowledge home to help our mob (Community Links).

The 8 Ways or Aboriginal Pedagogy belongs to a place, not a person or organization. They came from country in Western New South Wales. Baakindji, Ngiyampaa, Yuwaalaraay, Gamilaraay, Wiradjuri, Wangkumarra and other nations own the knowledges this framework came down from. Integrating the eight cultural ways of learning with Western pedagogies also facilitates multiple perspectives and support the two-eyed seeing approach to unifying the knowledge system. Bartlett et al. (2012, p. 335) described it as "learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to using both these eyes together".

The learning in context, learning in place, studio-based learning, co-design and reflective learning can be further facilitated and reinforced by WIL. This is a pedagogical practice that facilitates learning through integrating academic and workplace contexts (Billett, 2009). WIL "refers to student experiences of work … undertaken in partnership, through engagement with authentic and genuine activities with and for industry, business or community partners, and which are credit-bearing and assessed" (Department of Education Skills and Employment, 2021, p. 3). WIL is a strategy for developing knowledge of workers through facilitating the interconnections between theoretical, practical and life experience knowledge (Jackson & Meek, 2021).

In recent times, Australian universities are pushing to include Indigenous perspectives in their curriculum and mainstream WIL. In the project-based WIL, students work, either as individuals or as a team, to deliver on a brief provided by an industry or community partner under the supervision of academic staff. The essence of learning is about integrating and applying the previously studied theory and enabling students to develop project management, client relationship, teamwork skills among others. Encouraging students to reflect upon their own decisions and actions in those work-related activities is a key part of WIL (Rowe et al., 2021).

However, quality WIL student experience is dependent upon facilitating authentic student learning through partnering with relevant stakeholders (Rowe et al., 2021). Therefore, Indigenizing the curriculum through WIL requires strong partnerships with Indigenous communities and agencies. WIL in the context of Indigenous curriculum means developing genuine partnerships with the Indigenous communities and their agencies, creating an environment for a genuine interaction between the students and the Indigenous communities, providing a safe space and environment to develop trust, and empowering all parties to address the identified social and cultural needs.

Studio-based learning pedagogy and Co-design approaches enables integrated Indigenous ways of learning of being and doing for more of a holistic approach within a WIL context. This approach addresses challenges with a lack of critical mass, enhances co-generation of knowledge and co-locates

student learning with Indigenous communities. It also engages with being in, on, and working with Country through experiential epistemologies that in turn provides culturally appropriate spaces for learning Indigenous content and encouraging better dialogue.

THE ANALYTICAL FRAMEWORK AND RESEARCH METHODOLOGY

The representation of Australian places cross-culturally remains a challenge for all Australians, but the affirmative rights of inherent Indigenous knowledge of place (Country) prevails through collective support. This knowledge supports and reinforces the social narratives of our mutual space, which collectively provide the ability to know, design, and manage lands in old and new sustainable ways. School of Architecture and Built Environment (SABE) students co-designed with Indigenous School students while listening to Stories told by Wonnarua Elders, Indigenous community members and Indigenous teachers. Aboriginal peoples live, learn, and teach by Stories, so the project began with Storytelling to give direction and inspiration. The analytical framework in Table 1 is constructed by synthesizing the 8 Ways pedagogy, SBL pedagogy (Kjesrud, 2021), co-design (Spinuzzi, 2005), and WIL approaches (Rowe et al., 2021; Department of Education Skills and Employment, 2021). SBL has three types of learning: Learning about, Learning how and Learning to become. 8 Ways of knowing is based on: Story sharing, Learning maps, Non-verbal, Symbols and Images, Land Links Non-linear, Deconstruct/reconstruct, and Community links. Co-design is based on three stages: Initial exploration Discovery process and Prototyping. Work-integrated learning is about: Partnerships and engagement, Authentic learning and student learning experience.

WIL provides the context for situating learning in, on and with Country alongside communities and associated agencies. This enables respectful partnerships' partnerships and authentic learning which provides students with access to hidden curriculum, while 8 Ways provides an Indigenous way of doing along with knowing and learning that connects the practices of Indigenous communities. The context specific knowledge that is co-generated with communities informs mainstream architectural practice and design outcomes. Although framing of the courses is based on SBL or co-design processes, 8 Ways assumes an implicit but central role in driving the learning process, mostly framing the process for the creation of the knowledge in the form of peer review, critiques with the community, or other forms of feedback.

The SBL structured approach to learning and knowledge creation processes needs to be cognizant of the epistemological position of Indigenous Australian standpoint, the philosophy of the physical, the human, and the sacred world (Foley, 2003). The Indigenous standpoint is about empowering Indigenous communities to preserve and retain Indigenous knowledge (Rigney, 1999) and oral traditions. that must be flexible and applicable to diverse Indigenous nations. The framework provides practical ways to integrate and make sense of Indigenous and Western pedagogies in the context of WIL.

TABLE 1: Contextualizing a teaching and learning framework for architectural education.

WIL (Setting the context integrating the pedagogies)			
Partnership and engagement with community, industry, and agencies Authentic activities for student engagement and learning with and for community, industry, and agencies Preparing students for interactions with personal and deal with sociocultural factors. Facilitate students to reflect on their experiences			
8 Ways **(Non-liner learning for creation of knowledge)**	**SBL** **(Structured approach to learning and knowledge creation processes)**		**Co-design** **(Cogeneration of knowledge)**
Values Systems Protocols Processes	Type of Learning	Knowledge Dimension and Cognitive Process	Collaboration Inclusion Empowerment Co-creation Reflection
HOW WE LEARN - CULTURE WAY • Story Sharing: Approaching learning through narrative. • Learning Maps: Explicitly mapping/visualizing processes. • Non-verbal: Applying intra-personal and kinesthetic skills to thinking and learning. • Symbols and Images: Using Images and metaphors to understand concepts and content. • Land Links: Place-based learning, linking content to local land and place. • Non-linear: Producing innovations and understanding by thinking laterally or combining systems. • Deconstruct/Reconstruct: Modelling and scaffolding, working from wholes to parts (watch then do). • Community Links: Centering local viewpoints, applying learning for community benefit.	Learning about: • Indigenous knowledge- Stories, Symbols, Rituals, Traditions etc. • Western knowledge Learning how: • Who is learning form whom? • Translating life experience to knowledge Learning to become: • Understanding relationships, hierarchies, and power	Recall/ Understand: • Facts and Concepts Procedural: • Apply • Analyze • Evaluate • Create Metacognitive: • Reflective partitioner	Stages: • Initial Exploration • Discovery process • Prototyping Process: • To share and generate • To debate and evaluate • To collect and organize • To enable and facilitate

ANALYSIS AND DISCUSSION: CASE STUDY 1 DESIGNING TOWN CAMPS OF ALICE SPRINGS AS A STUDIO COURSE

Background

This case study is an intensive Studio Based Learning (refer to Table 1), designed for students to recall and apply the knowledge they learnt in the class and analyze/evaluate new information gathered through the 8 Ways to create knowledge. The critical element is the fusion of 8 Ways of knowing with studio-based learning, to generate new knowledge by deciphering the values, systems, protocols and processes through a partnership with the Aboriginal communities in the Town Camps of Mparntwe (Alice Springs). Students work within the Local Decision Making (LDM) agreement established between the Northern Territory Government and Tangentyere Council Aboriginal Corporation (TCAC), making the learning genuine and authentic. Moreover, studios also require constant reflection by students to better understand the requirements of the Town Camp communities. Hence, this architectural studio course has a complex pedagogical design, blending the cognitive process and knowledge dimensions, making students see the world through a two-eyed seeing approach. This course has run since 2016 as an elective called the Town Camps of Alice Springs. The studio involves four groups of four students, each engaged in the research and design of public infrastructure projects within the Town Camps of Alice Springs, visiting Alice Springs over a period of two weeks. The studio ends with the completed projects being publicly displayed and presented at an exhibition on the final afternoon.

The course is made possible through an engagement and partnership between SABE from the University of Newcastle (UON) and Aboriginal Community Controlled Organization (ACCO) Tangentyere Council. Tangentyere Council has 16 Town Camp corporate members and over 600 individual members, offering services to more than 270 individual households in the Alice Springs Town Camps, and in excess of 10,000 people from a region that covers almost a million square kilometers, all with strong cultural links into remote Central Australia. Tangentyere is an Arrernte word meaning 'Working Together'.

> The Town Camp movement was catalyzed by the displacement of people from their traditional lands and steadily built momentum from early 1974, with the incorporation of the first Town Camp Housing Associations. The Associations and Tangentyere Council Aboriginal Corporation (TCAC) were formed by Town Campers to support their efforts to gain access to land, housing, water, electricity, municipal services, community services and to address the shared experience of disadvantage. TCAC was incorporated in 1979 as a service provider and umbrella organization for the Town Camp Housing Associations, and these associations are the corporate members of the Council. (Tangentyere Council, n.d., para. 1)

Tangentyere Council delivers human services and social enterprise activities for the benefit of Aboriginal people from Central Australia in the Northern Territory. The projects that the students work with are initiated by Tangentyere Council in discussion with SABE and are framed as infrastructure projects that can be put forward by Tangentyere Council for government funding.

Since its inception in 2016, the way SABE engage with the Town Camp communities has evolved. Critical in this has been the Local Decision Making agreement that was signed between Tangentyere Council and the Northern Territory Government (NTG) in 2019, prioritizing self-determination and community control within Town Camps. This shift in the balance of how decisions about housing and infrastructure are made, required SABE to develop an architectural pedagogy that enables local

decisions to be accurately deciphered and reliably translated within the documents and plans put forward for government funding. The WIL pedagogy enabled the LDM to be embedded within the course, and for research outcomes to be funded and constructed within the Town Camps. An important part of developing the pedagogy has been to reference the 8 Ways of knowing framework.

Mapping the Town Camp: The Learning Journey

Tangentyere Council in discussion with a Town Camp community identifies the need for the different issues the Town Camp is facing to be mapped as a form of masterplan. The LDM process begins by preparing a detailed photographic Image of the Town Camp that is printed out as a large Image, 1.5m square. Tangentyere Council organizes a time with the community to meet, and a group of four students, one UON academic and a facilitator from Tangentyere, visit the Town Camp. The relatively small number of UON students and academics attending these meetings has been guided by Tangentyere Council. When we visit a Town Camp as a group, we require just the one Tangentyere vehicle, while the small group of visitors helps to normalize power. In a community space, the map is laid out on a large table, allowing people to stand around its edges. It is often the first time that most have seen the whole Town Camp presented in this way, and as the high-resolution imagery captures the smallest of details within the landscape, that residents immediately engage with its Deconstruct/Reconstruct and Non-Linear content. Land-links are also more obvious, as the whole and the detail overlap, both being seen at once. Fingers begin to run over pathways, and in a local language, residents point, discuss, laugh, and gesture about what it shows. A video footage on Vimeo captures the Land-Links experience (Tucker, 2021). People find their own houses, and they find the informal roads, problem areas, breaks in fences, hazards, and places of other happenings. Story Sharing establishes Community Links that slowly brings the aerial Image to life as a Learning Map. Felt-tip pens are used by residents and students to mark out these Stories as Symbols over the map. There are fundamental differences between these interactions, and the more typical way design professionals manage community briefings. Question and answer sessions that legitimize decision through the loudest voice and post-it notes in non-aboriginal communities, give way to Non-Linear conversations, Story Sharing and Symbols marked on a map over a longer less structured period of time.

The power imbalance personified by the secret and privileged knowledge of the designer's clipboard, gives way to equal contributions made by those gathered. After a couple of hours, the map has been heavily marked up by the Symbols that represent the Stories of living within the Town Camp. Leaving the Town Camp and returning to the studio at Tangentyere Council, an intensive debrief takes place in the smaller Town Camp groups of four students, and together as a class group with the other three Town Camp groups. The Symbols and Stories of the meeting are translated on to a digital version of the map (that will be printed out for subsequent meetings), and scaled models of buildings and structures that might better describe the proposal. The LDM pedagogy communicates the future of the Town Camp as a Learning Map, where the consideration of topological space helps the students develop the Stories identified by the community as design proposals. Topological space is value laden, relying on human occupation to provide its meaning, while Cartesian space remains undifferentiated in this respect. Cartesian and cadastral space utilizes dimensioned geometry to portray the landscape as 'property', topological space overlaps the event of occupying the landscape, with its physical dimension terrain.

After a few days, the student groups return to the community to show and discuss the updated map. Symbols representing the architectural proposals continue to be used, a method based in accessibility, where written and verbal explanations are avoided in favor of graphic representations. In similar ways

to the first meeting, the conversation moves quickly with felt tip pens marking out Stories, and models being moved about on the map, as a more focused deconstruct/reconstruct and non-linear discussion about the consequences of what is being proposed. Negotiations within public and shared spaces prioritize both Community and Land-links as they also articulate a future of the Town Camp.

With approval from the Town Camp community, the mapping proposals for the Town Camps are prepared for public exhibition and funding applications. The proposals for all four Town Camp projects are displayed for public exhibition and presentation on the final afternoon of the 12-day intensive course (Tucker, 2019).

The large LDM map, that has been at the center of the briefings and discussions, continues to be utilized as a Non-verbal and Non-Linear Learning Map utilizing Symbols and Images. The design outcomes of all LDM meetings are also collated into a proposed *Guide to Infrastructure and Housing Standards for Town Camps*, an industry focused report from SABE and Tangentyere Council that articulates how the LDM findings relate to local, territory and national planning and regulatory requirements. The pedagogy SABE has developed within this course prioritizes the forming of knowledge that is between two different cultures. Through the 8 Ways of knowing, this transitional knowledge continues to be understood by both the communities of the Town Camps, and those within government agencies who might potentially fund the infrastructure projects being described.

Moreover, due to the successful LDM processes held by SABE in 2019 with three Town Camps in Alice Springs, Tangentyere Council has asked SABE to develop maps for the remaining 13 Town Camps, while we continue to update the LDM maps for the first three, based on continued discussion with the communities. Tangentyere Council confirms that the accessibility of the map to members speaking multiple First Nation languages, and with sometimes limited English literacy and numeracy, has been extremely valuable in facilitating the LDM process. The LDM maps utilize shared Symbols and Images where normative models of architectural communication are often less successful and become detached in conversation. SABE continues to work with Tangentyere Council to update the LDM maps already prepared, and to prepare new LDM maps for the remaining Town Camps in Alice Springs.

As WIL, the LDM pedagogy embedded in a studio course challenges students to listen and design through the cultural context of the Town Camp community, a very different learning environment to that typically found within universities. The immersive quality of being within the Town Camp, spending time with its community, and working with them on the real projects that will greatly improve the amenities of the Town Camp, has shown itself to be a highly successful way of developing context-specific engagement with knowledge and practices. Several of the projects proposed have been successfully funded, and feedback from students has shown it to be an important part of life-long learning and professional development. There is still much that needs to be developed in the pedagogy, and the more time we spend with the communities the better we come to understand our role in translating the architectural and infrastructural issues within the Town Camp into proposals that might be funded. In most towns and cities in Australia, residents don't need to engage with WIL so that their roads might have speed signs, stormwater drainage, kerbs and gutters, footpaths, street lighting, pedestrian crossings, working houses and community buildings. The needs are so basic it embarrasses a wealthy nation. The challenges of this WIL course are to always be working between two cultures, thinking how we might propose and communicate basic town infrastructure in a way that actually gets built. The immediacy of operating daily within the context of a Town Camp, sharpens an ability to apply knowledge, and develop skills that can quickly become useful. The partnerships between Tangentyere Council and Aboriginal communities have enabled authentic learning for students and

given them an insight into the structural inequalities between cultures, while helping to slowly bring the infrastructure of Town Camps up to a level existing within the rest of Alice Springs.

ANALYSIS AND DISCUSSION: CASE STUDY 2 CO-DESIGN INITIATIVE FOR BUILDING OF 'OUR PLACE' AS AN ELECTIVE COURSE

Background

This case study is a co-design elective embedded in a real-life project focused on research-driven Indigenous collaboration and design. The elective engages Indigenous communities within the Hunter region through the designing and building of public space. The co-design process (refer to Table 1) was significantly enhanced when blended with 8 Ways of knowing. The 8 Ways of knowing enriched the co-design process with Indigenous communities. 8 Ways fosters a nonlinear approach to sharing, evaluating, organizing, and facilitating the design of *Our Place* at the Maitland Regional Art Gallery (MRAG). *Our Place,* a working title, pays homage to Sally Morgan's *My Place*, which is about her journey of discovery of her Indigenous homelands and roots. While this book has sparked many debates, Marcia Langton puts it best

> The enormous response by white Australia to *My Place* lies somewhere in the attraction to something forbidden... and the apparent investigation and revelation of that forbidden thing through style and family history. It recasts Aboriginality, so long suppressed, as acceptable, bringing it out into the open. The book is a catharsis. It gives release and relief, not so much to Aboriginal people oppressed by psychotic racism, as to the whites who wittingly and unwittingly participated in it. (Langton, 2005, Social relationship between Aboriginal and non-Aboriginal section, para. 9)

Co-design and 8 Ways complement each other in creating new knowledge through encouraging them to work collaboratively and inclusively while empowering people to develop effective partnerships between non-Indigenous and Indigenous communities.

The partnership between Indigenous community members living on (Wonnarua) and off Country (nine different language groups), Maitland Regional Art Gallery (MRAG), School of Architecture and Built Environment (SABE) and Indigenous high and primary school students is about co-creating *Our Place* at the Maitland Regional Art Gallery. The project has three objectives: to co-design and co-create *Our Place* through a series of iterative workshops (the elective), to capture the co-design and co-creation processes via an animated film so that the process of the collaboration is explicit and shared, and to continue the co-creation process after the University elective is completed, using similar collaborative methodologies throughout the construction of *Our Place* with Indigenous contractors, local Indigenous school children, university students, and Indigenous artisans.

The co-design elective course also has a complex pedagogical design, making the students see the world through a two-eyed seeing approach. In the context of this paper, the learning through co-design of *Our Place* is examined through the pedagogies of 8 Ways of knowing framework and experiential epistemological framework. It is important to briefly describe the live research project before delving into the pedagogical approach of the elective as this forms the aims and intents of the co-design process. The initial brief for the research project illustrated the aim of the Maitland Regional Art Gallery(MRAG) to engage Indigenous Communities in the region and beyond through the co-creation of a public open space framework which will host a range of events and activities. Dr Gerry Bobsein, MRAG Director writes:

There are a growing number of public institutions looking to rebalance the representation and participation of Australia's First Nations people not only in programming and exhibitions but in the physical aspects of building design and infrastructure. MRAG is one of these institutions. In a report recently commissioned by the Australian Museums and Galleries Association, a roadmap was developed to ensure that museums and galleries build stronger relationships with Indigenous Australians. (personal communication)

Janke (2018) suggests that

As colonial institutions, museums and galleries have historically been viewed as oppressive environments by Indigenous people. In order to change this, organization's need to build trust and deeper relationships with Indigenous people and change the way the space itself presents the way it values Indigenous culture*s*. (p. 21)

She identifies many key areas for change in museums and galleries including:

- Changing the way Indigenous peoples are represented in museums and galleries by reflecting on dominant historical narratives.
- Amplifying Indigenous people's voices with increased exhibitions and stronger Indigenous engagement and relationships.
- Encouraging and embedding Indigenous values into the institution to make Indigenous peoples feel welcome and safe.
- Increasing Indigenous representation and leadership in cultural institutions.
- For physical spaces, the roadmap notes the development of research and community spaces for the Indigenous community would increase attendance and participation.

MRAG envisions a series of Wonnarua culturally specific gardens inspired by and featuring bush tucker (i.e., food native to Australia), bush medicine, and other ethnobotanically relevant plant species to welcome members of the extended public into the gallery grounds. MRAG reached out to SABE and the Mindaribba local Aboriginal Land Council. The stakeholders collectively agreed on engaging in a co-design process between University Architecture students and local Indigenous primary and secondary school students. Prior to beginning the co-design process, the team worked diligently to provide respectful collaboration practices which included addressing the differences in power through sharing power in research, decision-making, design, delivery, and evaluation. Thus, the project preparation included presentations and the iterative development of the co-design brief with MRAG's Indigenous Advisory Board, participating schools Maitland's Aboriginal Education Consultative Group (AECG), and the local land council. Developing draft briefs with the review of Indigenous stakeholders allows for respectful collaboration. It is also important to note that all works produced through the project will come back to the AECG as well as Mindaribba Land Council, for comments, reflections, and changes, as an integral part of iterative processes of engaging with extended Aboriginal community stakeholder organizations. This project is the first step in embedding above principles within MRAG and provides an example of WIL providing students an opportunity to engage in a culturally transforming real-life project.

Designing Our Place: The Learning Journey

As part of the initial exploration of work and to ensure that the University students understood and engaged in ethical and respectful practices, they underwent a cultural competency workshop prior to the commencement of the co-design process on site. In this pre-elective training, the architecture

students had to share something about themselves with one another, they had to explore, articulate, and reflect upon their own vulnerabilities, they did exercises on deep listening, building trust, discussed their understandings of Country with an Indigenous educator, as well as investigated the principles put forward in The Indigenous Design Charter.

The co-design process of the elective course was carried out in June and July 2021 across a ten-day intensive period. Importantly, there was a two-week break for National Aborigines and Islanders Day Observance Committee (NAIDOC) week and for student reflection activities between the first week and the second week of the course. The first five days involved discovering and defining especially building trust between the University students and the local Indigenous school students, ideation for what the *Our Place* could be, and various modes of physical, spiritual, and conceptual site analysis. The second five days involved putting together conceptual plans and a prototype for the whole of site, with each of the seven student teams and co-creating a 1:1 temporary site work which captured and embodied each teams' vision for the site.

Throughout the first week student teams were visited by Indigenous Storytellers, sharing Stories in makeshift Yarning circles connecting them to site to Country, natural phenomena, and larger regional landscape features through Land links. Yarning in Indigenous cultures is about building respectful relationships. The use of a Yarning circle is an important process within Aboriginal and Torres Strait Islander culture to preserve and pass on cultural knowledge (Grant & Greenop, 2018). Importantly, Indigenous, and non-Indigenous people can participate in Yarning circles, and they are very much a part of most primary and secondary schoolyards across the country. Indigenous lore focuses on understanding and celebrating "the unique belief systems that connect people physically and spiritually to Country/Place" (ACARA, n.d., Key Ideas section). Aboriginal lore was laid down in the Dreaming, the embodiment of Aboriginal creation, which gave meaning to everything and affects the relationships people have with their environment, each other, and their totems. It is important to recognize the diverse range of Aboriginal peoples throughout Australia and that each language group has their own unique spirituality, beliefs, and lore (Bell, 2013). Maitland and the surrounding region have a number of Indigenous people living on and off their homelands or Country. Thus, respecting our local student co-designers and their lore as well as our adult Storytellers helped university students understand the complexity and diversity of cultural beliefs and practices across this region. Dr Tyson Yunkaporta (as cited in Bell, 2013, p.66), a Bama Aboriginal researcher, talks about positioning himself as "part of 'a complex lived reality' within a paradigm he calls 'relationally responsive research'" in which relationships among people, places and laws shape fundamental understandings about roles, responsibilities, and ethics provide the context for developing Community Links and Learning maps.

Additionally, the student groups through Symbols and Images constructed dioramas which housed animals or plants that they made individually and that that they felt resonated with their culture(s). The dioramas became miniature sites where individual students Deconstruct-reconstruct their thinking in a Non-linear way to tell their own Stories and articulated their own understanding, their culture(s) and lore. This assisted the architecture students to understand that *Our Place* could not be about a single Story or dominant Symbol but that it needed to allow for multiple, and simultaneous Stories where identity is emergent and verbal and non-verbal cultural practices are celebrated as open works.

The student teams also did several site-based investigations, painting, found objects and artefacts from the site and staking out with surveyor tape and tent pegs places they liked and did not like. Using large scale panorama Symbols and Images they commented on good places to play, see or be seen, 'chill' or hide, etc. One of the high school groups made raps and poems about the site and their visions

for it. In between making and painting, we had several breaks and informal Yarning circles for Story sharing. Where the architecture students could observe where the high school student teams played or hung out, what they gravitated to on the site provided non-verbal cues. Interestingly, much of the information that they gleaned from their student groups was through talking while making. When students were painting, talking about the site and their Stories, all sorts of things surfaced. Similarly, student groups weaved raffia loops and folded origami paper butterflies, and through these repetitive and hands-on or kinesthetic processes, they opened up and talked about the kinds of places they felt safe in. So, trust was gained by playing and making together, and listening with intent.

The second half of the elective, while disrupted by COVID, became much more focused on the translation of ideas and thoughts which surfaced in the first week, to spaces and places on the site. Two of the student groups (one primary and one secondary school) were unable to come back to MRAG for the second week, but each day they zoomed with their university student to ensure that what was going forward embodied their ideas and concepts from the previous week. The other teams co-built and installed temporary works and prototypes which transformed the site and engaged visitors who came to see the gallery. While co-constructing the installations and prototypes embodied the important ideas surfaced about Aboriginal knowledge, it also demonstrated the Community links via how best to create spaces for Indigenous and non-Indigenous people to engage together.

As a research driven elective course, the design of the course embedded co-design principles and processes which are derived from Community-Based Participatory Research (CBPR). CBPR is regarded as an acceptable approach to Indigenous research. The policy document: Ownership, Control, Access and Possession (OCAP) created by the First Nations Information Governance Centre (First Nations Information Governance Centre, 2019) outlines principles related to data ownership, control, access, and possession, and recommended that community-based and participatory approaches be the predominant approaches within Indigenous research (Dudgeon et al., 2020). The elective also deployed the following pedagogies from the 8 Ways of Knowing: Story sharing, non-verbal ways of doing and making, providing meaning through Symbols and Images, ensuring connection to land and nature, non-linear synthesizing complex ideas, deconstructing and reconstructing identity and place, and is deeply embedded with Community Links. Because this project is a live commission from a local government institution, WIL is thoroughly integrated. Interestingly, the architecture students took on a great deal of responsibility for ensuring their students groups' ideas and voices were collectively and individually to the forefront in the concept designs. This is seemingly at odds with various architectural pedagogical approaches, where architects are the singular author and promote their own creative genius in responding to design briefs. By stepping outside their normative role as the lead designer and sole creator, architecture students can begin to understand the importance of clients' and users' needs, as well as recognizing the need to create respectful and ethical practices.

On reflection, it was evident that the students did not have adequate cultural competencies, they especially lacked the necessary deep listening competency. Also, in some cases, town centers may have Indigenous members from different Countries, and understanding the context of each Country is essential. Such instances will require more awareness of cross-cultural engagement.

DISCUSSION AND CONCLUSIONS

WIL students need to interact with people and deal with many socio-cultural factors (Fleming & Haigh, 2018). The term socio-cultural mostly refers to workplace relationships with supervisors, colleagues, peers, and workplace culture (Rowe et al., 2021). Moreover, WIL is mostly about students integrating

and applying previously studied content and developing project management and client relationships skills. However, in disciplines such as Architecture, WIL can be more than applying previously learnt content and dealing with people and socio-cultural factors in architectural firms/practices. Carefully designed WIL can address skill development by embedding Indigenous culture and values into mainstream architecture design. WIL also enables learning by applying previously learned content to co-generate new knowledge and improve cultural awareness. Therefore, creating WIL opportunities in architecture schools where students can learn complex socio-cultural elements, especially when engaging with Indigenous communities in Countries in rural and urban spaces, is critical for reconciliation.

Representing the Australian place cross-culturally, remains a challenge for all Australians although the affirmative actions and inherent Indigenous knowledge of place prevail. This knowledge supports and reinforces the social narratives of our mutual space, which collectively provide the ability to know, design, and manage lands in old and new sustainable ways (Milroy & Revell, 2013). In the Indigenous communities' space, partnerships and genuine engagement with communities are of utmost importance. WIL provides an excellent platform to integrate Western and Indigenous pedagogies learned on and with Countries. The partnerships and genuine engagement are critical for scoping and building the project, for managing, maintaining, reviewing, and measuring and sustaining the outcomes in culturally diverse spaces and practices.

SABE students, through WIL, have designed sites with both Indigenous and non-Indigenous stakeholders based on 8 Ways of knowing embedded into the Western pedagogies. Blending studio-based pedagogy with 8 Ways facilitated students' learning about Indigenous Stories, Symbols, Rituals, and Traditions that deciphered Indigenous knowledge for designing culturally appropriate infrastructure in a remote Country. The 8 Ways also enabled students to understand how to learn with Indigenous communities by understanding relationships, hierarchies, and power. This co-design elective embedded the 8 Ways of culturally knowing by enabling Indigenous and non-Indigenous stakeholders to share and generate; debate and evaluate; collect and organize and enable and facilitate the design through considering nationally competing issues. The initial exploration phase enabled students to prepare for the elective and familiarize themselves with the socio-cultural contexts. The discovery process through the application of 8 Ways enabled students to bring different Countries' cultural values and practices to urban space design. In both courses, students reflected on their designs and adjusted them according to the feedback from the communities and academic staff.

The developing partnerships with the Indigenous communities enable authentic learning making such project-based initiatives a distinct context for developing WIL courses. Aboriginal people live, learn, and teach by Stories, so integrating planned and unplanned Storytelling opportunities is paramount to both the studio and co-design process. The framework demonstrates the possibility of integrating the Western co-design and inclusive pedagogies with 8 Ways of knowing within WIL, enabling the cultural transformation in teaching and learning in architecture. The proposed framework can help improve the capacity of students, academic staff, and Indigenous communities to prepare for and engage in WIL.

Academics need to be invited by Indigenous communities into the space to develop effective and respectful engagement. If academics are working with Indigenous organisations as an agency to engage with the communities, the agency needs to be trusted by the communities to develop effective collaboration. Setting the context and respect is critical for Indigenous engagement. Moreover, once the engagement is established, by spending more time with the communities, academics can help them

understand the architectural and infrastructural issues in communities and can translate them into proposals that could serve as WIL projects potentially funded by the government. One of the challenges of on Country WIL is facilitating students to develop an adequate level of cultural awareness before the engagement. The other issue is translating the knowledge acquired through the WIL courses' engagement, to a format that government agencies can understand. The key factors making a WIL course successful are being invited by Indigenous communities, developing the context and being truthful, mobilising students with adequate cultural awareness and appropriate translation of knowledge.

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STATEMENT OF PLACE

Thayaparan Gajendran

My cultural roots are tied to Araly, a village in Jaffna, Sri Lanka. I have Dravidian ancestry and speak the Tamil language as my mother tongue. I lived in many places in Sri Lanka during my primary school days due to my father's work relocations and later due to civil war. Since I migrated to Australia I have lived and worked in the land of the Pambalong clan of the Awabakal people. My grandmother has taught me spirituality and the notion of connecting to the elements of earth, water, fire, air, and space through Stories. I have a keen interest in integrating Indigenous pedagogies into tertiary teaching.

Chris Tucker

My father grew up with the Noongar community in Mount Barker, Western Australia, while my mother was born in Cambridge, England to English and Scottish parents. For myself, I grew up in the bush, on a property in the locality of Glen William near Dungog NSW. These are the lands of the Gringai, part of the Worimi nation, a region I have a deep attachment to. I live not far away in the Awabakal lands of Newcastle, physically and spiritually connected to the Gringai through the Williams valley.

SueAnne Ware

My mother was a southern Portuguese immigrant to the United States, my father was an African-American who could trace his family history back to slave ships arriving from West Africa and being sold to masters in Louisiana. Daddy died when I was quite young leaving my mum to raise 14 children. In and out of juvenile detention in my early teens saw me leave Los Angeles to live with my grandfather in Colorado and aunties in New Orleans. My experiences in my grandfather's orchards and the deep swamps of Metairie, created a wonderland of adventure in the landscape. I have lived on the lands of the Apache Nation, Choctaw Nation and call the Gabrieleño Nation (Los Angeles) my ancestral home. My early career in Australia (over 20 years ago) involved embedded outreach work in remote

Aboriginal women's communities across 15 homelands but often within Aboriginal communities living off-Country. Most recently, I have relocated to Awabakal and Woorimi lands where my teaching and research with Aboriginal communities focuses on the Hunter Valley.

Hollie Tose

My biological history contains links through to Polish and Scottish heritage, while through my children, I have also added links to Sri Lanka and England into this family tapestry. My personal history has been predominantly rural and regional. Though born on the land of the Dharawal people, the majority of my early years were spent living in spaces along the river in Wonnarua country, with the entirety of my adult life grounded on the land of Pambalong clan of the Awabakal people. This is the place my children were born, and as such, holds tremendous value and meaning to myself, and my collective family. I have spent a number of years working to make space for all within educational institutions located in Newcastle, first within the primary context, followed by my time spent in tertiary education.

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