

Weaving Water: Connecting to place, practice, and protocol

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Abstract

This panel consists of four international experts who have collaborated and connected on a diverse range of projects for over 20 years. The discussion focuses on an interdisciplinary residency in Australia 2023, Weaving Water @ Yarun, designed to support relational ways of being, share cultural practices, and provide artistic and theoretical frameworks that acknowledge a deep connection to place. The residency tied together social and cultural knowledge about water as an essential element to support human and more-than-human physical and spiritual life on the planet. This panel discussion explores individual experiences of the residency as well as framing shared contributions to the residency outcomes.

Keywords

Transdisciplinarity, emerging technology, Climate crisis, water, weaving, collaboration, First Nations, media arts

Introduction

The panelists demonstrate that the concept of weaving water extends beyond a mere theoretical framework. It serves as a practical methodology and a foundational point for inquiry. If there is a shared paradigm, it places a central emphasis on tangible acts/actions/activisms, and embodied practices while also maintaining a broader perspective that encompasses various significant unresolved issues, such as identity, kinship with nature, place and related historical oppression, governance, racism, and cultural distinctions. Weaving emerges as an effective approach for examining how small local actions like assembling, resisting, crafting, or adorning connect to conscious global water management phenomena and living aquatic body occurrences.

To illustrate, the panel will first sketch changes to the role and prominence of interdisciplinarity in practice, illustrated by reference to over a decade of project activity.

This will be followed by an introduction to recent shifts in theory and knowledge which acknowledges relational ways of being and deep connection to place. From this basis, collaboration with First Nations people and communities in project activities will be scoped, with reference to prior exhibitions and collaborations. How

these changes have manifested in collaborative activities will be discussed along with a range of projects that engage with art, science, culture, and technology with particular focus on water as a basis for projects. The focus of the discussion will then turn to how these activities have manifested in practice through the presentations of each of the speakers and their contributions to a 2023 ArtSci residency in Australia.

Connections through water

Benson will discuss the concepts, influences, and themes of a series of collaborative events and projects over 12 years focusing on the element of water and its role as a connective element. Specific projects will address environmental and cultural tensions that are specific to place related work with a focus on how knowledge sharing and interdisciplinarity have shaped these events and the evolving community of creatives working together across hemispheres.

Clothier provides a timeline for the notion of an interconnected universe, demonstrated by Moana peoples of the Pacific as 1190CE, based on radiocarbon and linguistic evidence. This allows academics to properly acknowledge precedence in Indigenous practices where notions of interconnections are concerned.

With the playful atmosphere and their deep connection to water as a unifying medium, Pell presents insights of a water play workshop in the Woorim Beach shallows. Captured by a 360° camera bobbin in the waves, Pell used play through human-computer interaction in water as a strategy to bring attention to how intra-cultural subjects and objects are co-producing in the turbulence of aquatic rites, rights, practices, and sensibilities. An aquatic performance emerged from the water bodies as if the warp on a tidal loom. The exchange within the water gave rise to a profound intimacy that both united us and raised questions about our roles as symbolic threads in the tapestry of our contemporary existence.

Diekman presents the process and outcome of a group exploration of multisensory designs that amplified inspiration and momentum from Torres Strait Islander basket weaving techniques demonstrated by Krista Ellis combined with microcontrollers and other sound art

electronics. The participants designed and created interactive, tactile objects that wove together conductive materials with natural materials to create an embodied, sensorial listening experience. Users could pick up, hold, touch, caress, and trace the objects' textures while listening to cultural stories, songs, poems, and field recordings related to water.

From the mountains to the sea - informing methodology

Relational ways of understanding the world around us erode the silos of knowledge which bind and compartmentalize disciplines. By understanding the connections between the flows from the source to the sea a dialogue between ecosystems and cultures emerges. The Murray Darling Basin (MDB) in Australia is an example, it covers a third of the land mass and crosses four state and territory jurisdictions. It is also the home of over forty First Nations and the song lines and stories of the river system travel along its flows to the ocean. In 2017, a 3-day intensive workshop explored these themes, based at the top of one of the water catchments which flow into the MDB. This project was influenced by earlier projects in Aotearoa New Zealand and Australia which focused on the convergence of knowledge and cultures in a place related context.

This concept of being in relation has framed an emergent methodology which aims to develop projects that are collaborative and co-designed from the outset. For example, the aim of a recent residency and symposium - Weaving Water @Yarun project was to create time/space to explore Yarun (Bribie Island) its environment, history, and community.

Weaving Water @Yarun

The objective of the project was to build connections between the local creative and environmentally focused community organisations with artists and scientists that are internationally recognised for their work.

Weaving Water @ Yarun was guided by First Nations protocols and several First Nations communities were represented including Joondoburri, Kabi Kabi/Gubbi Gubbi, Wiradjuri, Butchulla, Ghangandji, Kuku Yalenji, Wulgurukaba, Torres Strait (Australia), Māori (Aotearoa) and Vanuatu. Aunty Flo and Michelle Watson led a Cultural Awareness workshop and in decolonising the map (Fig 1.).



Figure 1. Decolonising the map, documentation from Cultural Awareness workshop, led by Aunty Flo and Michelle Watson at Weaving Water @ Yarun, 2023. © Harete Tito

The residency program was designed through a consultative process using participatory design and action research methodologies to guide the approach. The specific methods used included:

- Extensive consultation and co-creation workshops through regular online gatherings held over 6 months leading up to the event.
- Inviting participants to nominate workshop ideas.
- Taking an agile approach to managing the program in-flight to adapt to the needs and requests of participants.

By creating a transdisciplinary program with a focus on Bribie Island, the project provided opportunities for collaboration, knowledge sharing and capacity building locally. It also presented to the public novel ways of highlighting the importance of the environment of Bribie Island and its role as a marine and wildlife sanctuary.

Why participatory design?

Participatory design is a collaborative design approach that involves end-users (residency participants) in the design process. Its aim is to create products and services that better meet the needs and expectations of participants by applying their knowledge and experiences.

Participatory design is also known as cooperative design, co-design, or community design. Various fields use it, including architecture, urban planning, UX and product design. The key principles of participatory design aligned with the intention of empowering program participants in the design of the residency events.

Interconnection, decolonisation, Eastern Polynesia, and radiocarbon dating



Figure 2. H. Waikerepuru, 2011. *Te Hihiri o te Taiao Chart of Natural Universal Energies.*

<http://www.intercreate.org/huirangi-waikerepuru/>

Acknowledging precedence in the history of ideas is a common practice in academic papers. Here I trace the notion of an interconnected universe through Māori cosmology, decolonisation, radiocarbon dating evidence, linguistic mapping and then to Deleuze and Guattari.

Wai, meaning Water or Flow according to respected Kaumatua (Elder) the late Huirangi Waikerepuru, occupies a cosmological position alongside Wa – Time, and Hihiri – Energy, as an Element of the Māori Universe. The layer of Whakapapa (Genealogy) in Fig. 1 is a reference to humans descending from the stars and cosmos. Wai or Water then flows through Papa-tū-ā-nuku (Revolving Earth) and mingles with everyday reality at the level of Atua (Elements of Natural Law), as remarked above. Waikerepuru was brought up being inculcated with traditional knowledge, and often stated that the Chart and it's components to be part of pre-Colonial Māori cosmology. He also spoke Wai o Tapu – sacred water, and the waters of birth. Clearly this is an interconnected worldview.

Following Zoe Todd's (2016) expression of disappointment on hearing Bruno Latour refer to a sentient environment without acknowledging Indigenous precedence, this paper sets out to provide academic certainty around the timing at which it can be said the notion of interconnection was with Moana peoples. The Moana peoples of the Pacific are referenced as this relates Zoe Todd is an "Indigenous feminist (Red River Métis, Otipemisiwak) woman from amiskwaciwāskahikan (Edmonton, Alberta, Canada)" (2016, p.4). In her paper *An*

Indigenous Feminist's Take on the Ontological Turn: 'Ontology' Is Just Another Word For Colonialism she expressed disappointment on hearing Bruno Latour refer to a sentient environment without acknowledging Indigenous precedence for this awareness. Todd does not take issue with Latour personally, but rather views this making Indigenous thought invisible, as part of Colonialism that is embedded in much Western academia (see *Decolonising methodologies* by Linda Tuhiwai Smith, 2012). To avoid this trap, which perhaps has arisen as the words 'for thousands of years' is not academically firm enough, I am providing a route to certainty in timing. This is particularly with reference to the notion of interconnection, which often is cited to the writing of post-structural philosophers Giles Deleuze and Felix Guattari.

To do this I will turn first to the radiocarbon dating record for the settlement of *Eastern Polynesia*. This area covers thousands of miles of ocean and includes Hawai'i to the north, Aotearoa New Zealand to the south and Rapa Nui (Easter Island) to the east. Wilmshurst et al state that according to class 1 (the most reliable category) radiocarbon dating: "dispersal continued in one major pulse to all remaining islands A.D. ~1190–1290" (2011, p. 1815) – see Figure 2.

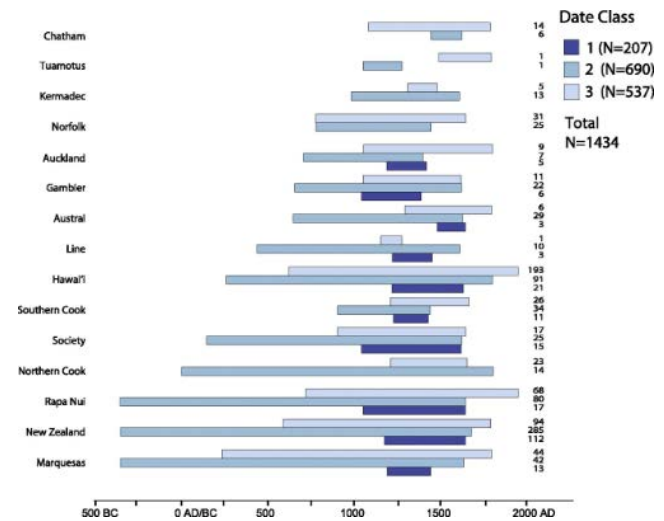


Figure 3. J. Wilmshurst, J., B. Hunt, C. Lipo, & and A. Anderson, (2011). High-precision radiocarbon dating shows recent and rapid initial human colonization of East Polynesia. In *Proceedings of the National Academy of Sciences, February 1, 2011 vol. 108*(, no. 5), p. 1815–1820.

The question then remains as to how to establish that the notion of interconnection was with Moana peoples at this time. To do this, a chart of common language terms across islands in the region is given in Fig. 4. From this we can see that the important concepts of Dark and Light – and Te Pō and Te Ao for Māori – are the same as those for Tahiti, while in Hawai'iian these are Ka Po and Ke Ao, where the 't' sound is expressed as a 'k' sound, something that is

typical of Hawai’ian. The term Tapu in Māori, meaning sacred, is identical in Tahitian and expressed as Kapu on Hawai’i, following the ‘k’ substitution guide. A Priest or Highly Skilled person in Aotearoa New Zealand is Tohunga, on Tahiti this is Tahuna and on Hawai’i Kahuna. Consequently, the terms for Dark, Light, Sacred, and Priest (as well as the name of the Pleiades cluster, and the word for Chief) are clearly of the same family of terms, and indicate that a Polynesian worldview was in place prior to the settlement of Eastern Polynesia.

Row	Hawai’i	Tahiti	Māori	English
A	Ka <u>Pō</u> /Ke Ao	Te <u>Pō</u> /Te Ao	Te <u>Pō</u> /Te Ao	Dark/Light
B	Kahuna	Tabu	Tohunga	Priest
C	<u>Makali’i</u>	<u>Matariki</u>	Matariki	Pleiades
E	Honua	Fenua	Whenua	Land
F	Ali’i	<u>Ari’i</u>	Ariki	Chief
G	Kapu	Tapu	Tapu	Sacred

Note. Source of Hawai’ian <https://hilo.hawaii.edu/wehe/>; source for Tahitian Victoria University of Wellington (2016); source of Māori <https://maoridictionary.co.nz>



Figure 4. Chart of common terms across Polynesia

The notion of interconnection when discussed in Western literature often makes reference to Deleuze and Guattari. As van Tuinen and Zepke (2017, p 7) wrote in regard to art works “For Deleuze and Guattari art works are expressions of immanent and abstract forces that animate all aspects of our world, and indeed what is not ours, the cosmos.” This animated world permeated by energies that animate all life, is precisely an awareness expressed by Waikerepuru. In this instance, two quite diverse cultural groups – Moana peoples and Western - have beliefs and assertions that resonate together.

Deleuze and Guattari have been widely cited in a number of Western academic disciplines, including Philosophy (Callinicos, 1985), History (Bell & Colebrook, 2009), Science (Bazzul & Kayumova, 2016), Art History (van Tuinen & Zepke, 2017) and the post-Colonial discussion (Huggan, 1989). A consequence of the discussion raised above is that now, a precise timing for when the notion of interconnection was with Polynesians can be given with academic certainty – that is, prior to 1190 CE. Therefore rather than using the phrase ‘for thousands of years’ in

regard to Indigenous understanding of an interconnected universe, the year 1190 can be used. It is indubitable that the notion of interconnection was with Polynesians earlier, however for the sake of precision and determinacy, 1190 is proposed.

Water Play – wet and wild weaving waves

The Water Play workshop experience served as an example that prompted participants to become increasingly aware of their specific situational physicality and contexts, leading to the emergence of certain interwoven issues and feelings. The warm-up activity consisted of a whole-body enactment of the game of *rock paper scissors* in pairs betwixt waves. Then, over two 20-minute blocks of activities between the swim flags, participants (paired and dressed in black), fully immersed waist-deep to form a tight ring in the shoreline. With a 360° camera that bobbed in the centre of the weaving circle, participants interpreted Pell’s instructions much like a mathematical peal – *all odd pairs to the centre as quickly as possible, teams 3, 7, and 9 feet first as slowly as possible, find a rhythm, join hands, drum the water, swap places with your complementary pair across the circle etc.* This resulted in a sequence of choreographed movements, which amplified poetic behaviours and attention to performing, while the floating immersive visualisation tool captured the expressions of in-water world-building (Fig. 5).



Figure 5. Water Play workshop on Woorim Beach, led by Sarah Jane Pell, Weaving Water @Yarun, 2023. © Sarah Jane Pell.

The facilitated embodied exchange in the water created a new intimacy that both unified and called to question the agency, control, and identity of the metaphoric bonds in the communal weave. These issues seem vivid at the heart of a broader cultural struggle, and why play had been scheduled for the second third of the residency. The socially coded nature of intersectional, intercultural, and interdisciplinary beings needed to be liberated and joyous amid the work.

Water play helps to develop the weft of trust, respect, and awareness of each other’s grit or grace within the waves. It also highlights the links of resistance, tepidness, dominance, and fray too where we can reach out

and support each other through the shared proximity to the oceanic body. The knit and knots between us grew as a result. Where one participant proposed that the entire event should take place in the water next time. Another said the luxury of play is traditionally reserved for when the daily work is done. Nonetheless, the immediate feedback was unanimous joy. As Jean Yern (Ngāti Tamaoho te hapu, Mangatangi te Marae) observed, *“Some folk need to participate to feel they can belong, other folk need to belong to feel they can participate.”*

If elements from post-colonial to embodied hierarchies threaten the possibility of harmonious aquatic cooperation and care, the ocean in challenging our sensorium bodies also buoys our spirits. The embodied act of aquabatics as we discovered, surrendering to flow, collective participation, trust, intimacy, and being in space-time to resonate, cooperate and weave together. Therefore, Pell presents the 4K interstitial as an essential contribution to these discursive cultural aquatic looms a unique opportunity to champion the liberating power of in-water play to weave water as research-in-practice for transdisciplinary bonding, or posit a WaterHCI method for documenting and observing how the in-water acts of wading, splashing, floating, assembling, connecting, disconnecting, revealing, concealing, treading, and bobbing can relate to the residency aims and frame its embodiment.

Tactile Stories – conductive electronic weaving

Kristine Diekman orchestrated a responsive collaborative workshop, melding traditional craft practices such as natural basket weaving and embroidery with interactive technology to craft a collective narrative of water on Yuran. By skillfully integrating natural materials and fabrics with conductive elements, once connected to a circuit, the sound data and amplification, participants transformed their creations into haptic sonic artworks. This creative process included preparing narrated stories, poetic voices, music, and the sounds of water that define the essence of the island and their homelands. During the workshop, and over the course of a week, participants contributed ancestral materials and weaving techniques, shared stories and impressions from explorations, memories, and interactions with conductive materials incorporated into their projects. Our efforts culminated in a presentation of multi-sensory artworks arranged around a table (Fig 6).



Figure 6. Workshop on interactive sonic woven craft led by Kristine Diekman, Weaving Water @Yarun, 2023. © Kristine Diekman

Diekman’s workshop is an on-going investigation of the role of participatory, multisensory art that focuses on tactility and listening. These workshops and participant responses embody relational, performative and computational approaches to generate intersubjectivity or a profound understanding of the other. Listening and touching are merged, and skin becomes the inter-sensorial organ that provides the conduit to relational experience. Feminist art historian Amelia Jones coined the term “technophenomenology” to press ways that performing subjects (collaborators and audiences alike) are politicized and socialized in their embodied relationship through technology to self/other and self/world. She stresses that embodied experience, within certain technological art works, is generative of new subject/object orientations in that it is performative and in process rather than fixed and representative.

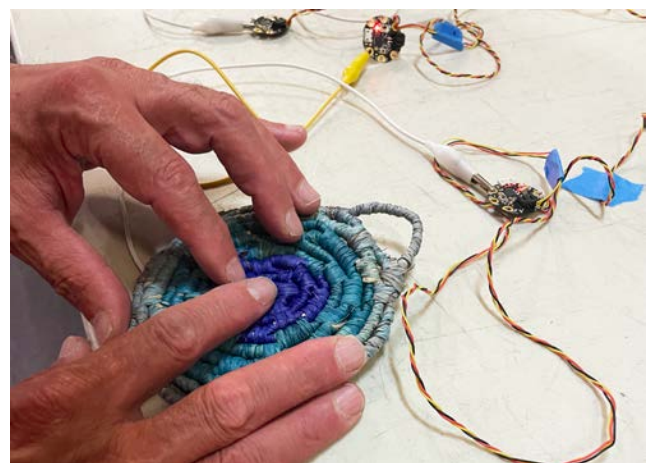


Figure 7. Workshop on interactive sonic woven craft led by Kristine Diekman, Weaving Water @Yarun, 2023. Artwork by Jean Yern. © Kristine Diekman

In addition to the performative aspect of listening, touch is a powerful vehicle to generate empathy and affect, and influences our ability to understand and connect to others' experiences. Touch generates condolence, care, respect, recognition, and other affective exchanges. Tactility also provides extra sensory information that works in tandem to the story. Something heavy is felt as serious. A rough texture is frightening or harsh. Smooth is soothing. Delicate textures train us to be sensitive. Even loneliness can be mitigated by holding something warm. (Fig 7)

At the culmination of the workshop, we were invited to see, listen, feel - beyond spectatorship - embodied haptics and improvised open interactions with the materialized sonic objects. The result was very intimate. By presenting works, and then offering them to fellow participants to play as instruments, we were creating an impromptu soundscape that harmonized the rhythms and reverberations of our

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inner aquatic and intercultural experiences that echoed our connections to place, practice, and protocol.

Continuum

In continuum rather than conclusion, this panel gathers four vastly disparate yet complementary voices on the cultural, ecological, and technological logistics of residencies on water all of which highlight or reveal the intricacies of through lines in mindful acts of collaboration for resilient efficacious water arts and science practices. We hope that this panel will become a point of departure for new project cooperation, inspiration, and a reference for scholars and practitioners to connect to the cultural, political, and poetic analysis of the various embodied practices of water weaving.

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