Beeyali: Visualising Ecological Interconnection and Acoustic Ecology on Kabi Kabi Country

Leah Barclay, Lyndon Davis (Kabi Kabi), Tricia King

University of the Sunshine Coast Sunshine Coast, Queensland, Australia lbarclay@usc.edu.au

Abstract

Beeyali is a First Nations led interdisciplinary exploration of cymatics and ecological reciprocity on Kabi Kabi Country. The project brings together Indigenous knowledge with sound, photography, and environmental sciences, to develop and explore new methods for cymatics to visualise the calls of wildlife to demonstrate ecological interconnection and interdependence in the environment. These visualisations are realised as large-scale projection artworks and aim to foster environmental empathy and a deeper connection to Country for audiences that do not have regular access to ecological experiences. Highlighting the interconnectedness of all living things, Beeyali resonates with the Indigenous concept of the Everywhen, transcending linear time and exploring the temporal and spatial complexities of acoustic ecology. As an artistic and research endeavour, Beeyali not only seeks to raise awareness of ecological interconnection but also serves as a call to action, advocating for community engagement and conservation of biological and cultural diversity through creative practice. This paper explores the theoretical foundations of the project and the vision to expand ecological reciprocity as a creative research method.

Keywords

Indigenous knowledge systems, acoustic ecology, photography, visualisation, cymatics, Everywhen, ecoacoustics

Introduction

Beeyali is an interdisciplinary creative research project on Kabi Kabi Country on the Sunshine Coast in Queensland, Australia. It explores ecological reciprocity as a research method in response to the ecological crisis. This First Nations-led project combines Indigenous knowledge with expertise in sound, photography, digital technology, and environmental sciences to explore new ways of visualising ecological interconnection to inspire care, action, and connection to Country.

Beeyali is a word from the Kabi Kabi First Nations peoples in southeastern Queensland, meaning "to call," used to describe the sounds and vocalisations of wildlife in the environment. The project was conceived by Kabi Kabi Aboriginal Artist Lyndon Davis and developed in collaboration with sound artist Leah Barclay and photographer Tricia King. It brings together Indigenous knowledge and interdisciplinary research to visualise the calls of wildlife on Kabi Kabi Country using cymatics, the science of visualising sound.

Davis' arts practice represents his deep connection to Country and his curiosity with patterns and connections found in nature. His artwork is inspired by traditional patterns on Kabi Kabi shields discovered in the region and his fascination with sound. His art incorporates geometrical and symmetrical Kabi Kabi designs and patterns representing those found in nature and coastal landscapes. The Beeyali project is Lyndon's first experiment with cymatics and media art.



Figure 1: Lyndon Davis in Beeyali Projections (Tricia King).

Cymatics: The Science of Visualising Sound

The study of cymatics has a long history, emerging from observations of the visual patterns created by sound interacting with various materials and surfaces. Swiss medical doctor and natural scientist Hans Jenny conducted a series of experiments in the 1960s using a tone generator to produce standing waves in different substances, including liquids and powders. He then photographed the resulting patterns, which revealed a wide variety of geometric shapes and forms associated with each sound (Jenny 1967). Jenny's work inspired many researchers to conduct further cymatic experiments and expand upon his findings. Jenny was among the first to explore the connections between cymatics and the environment, linking the geometric patterns he produced with natural patterns (Jenny 1967). These connections between sound, visualisation, geometry, and the environment were the initial inspirations for the Beeyali project. They also resonate strongly with Indigenous notions of environmental interconnection. Connections to cymatics and environmental geometry are evident in the complex patterns of many Indigenous art traditions in Australia. Aboriginal art is deeply connected to the concept of place and often characterised by intricate geometric patterns that hold significant cultural and spiritual meanings. This art reflects the strong relationship between the Aboriginal people and Country, often encapsulating the Everywhen. These patterns are not merely artistic but serve as a means of encoding and representing Country and story (Morphy 1999).



Figure 2: Wedge-Tailed Eagle Painting by Lyndon Davis.

Lyndon Davis believes that everything is connected in our local ecosystems, and these patterns can help tell a story about what is happening in our environment. His interest in cymatics began by watching sand vibrate on resonant brass plates played with a bow, creating different geometric patterns known as the Chladni figures, documented in Ernst Chladni's book 'Discoveries in the Theory of Sound'.

Cymatics has inspired various creative projects and collaborations, including mainstream projects such as the live visuals for Björk's Biophilia tour, created by visual artist Meara O'Reilly. In 2021, Richard Grillotti led the 'Resonant Waves' project, an interactive installation that incorporates cymatic patterns to reveal the complex symmetrical shapes of sound. This multisensory artwork generates and processes wave interference patterns, translating them into dynamic geometries across different modalities. Participants simultaneously hear, feel, and see the patterns created when a carefully selected range of sound frequencies generate motion in water (Grillotti 2021).

Visual artists have been particularly drawn to cymatics because of the beautiful, often complex patterns that sound waves produce. There is a diversity of artworks produced that reflect the symmetrical and intricate patterns created by sound frequencies. Slow-motion photography can capture the transient formations of particles on vibrating plates, highlighting the complexity of physical sound representations. Photographer Linden Gledhill, with a background in science, uses advanced microscopy and high-speed equipment to reveal cymatic patterns and perspectives usually invisible to the human eye.

These explorations with cymatics also includes artists exploring performance and musical creativity through interactive cymatics (McGowan 2017) and musicians including Laura Ritchie generating live cymatics during a multisensory performance with integrated mathematically accurate cymatic images (Ritchie 2023). Cymatics as an interdisciplinary field allows artists to explore connections between the audible and the visible and provides a powerful tool to represent patterns in nature and inspire a deeper understanding of the sonic environments around us.

Beeyali – Ecological Interconnection and the Everywhen

The pilot phase of the Beeyali project was commissioned as a large-scale projection work for NEW LIGHT 2021 – a competitive national award from the Australian Network for Art and Technology (ANAT), supporting experimental and diverse moving image works by contemporary First Nations artists. The initial stage of the project focused on the calls of black and white cockatoos on the Sunshine Coast, involving a series of experiments to reveal cymatics with native flora, ochre, water, Kabi Kabi designs, and digital photography. These experiments laid the foundation for developing new collaborative processes and exploring the relationship between our creative practices. The creative team experimented with digital cymatics using photographs of the Cockatoos and Davis' artwork as the source material in pattern generators activated by sound.

This involved extensive experimentation and exploration and this process led to the development of new techniques for sonic visualisation that have informed a body of audiovisual creative works, featuring large-scale projections of the Beeyali project. The project expanded from cockatoos to include a diversity of species on Kabi Kabi Country, from Tallo Billa (the humpback whale) to culturally significant birds such as the wedge-tailed eagle. The resulting creative works have been presented at festivals and events, projected onto the sides of buildings in urban environments, and installed on site-specific screens in natural environments. The dynamic geometric patterns (or digital cymatics) that respond to sound have developed new ways to reveal ecological interconnection, combining acoustic ecology, photography, and Indigenous knowledge. The most fascinating outcome of these digital experiments has been the emergence of cultural symbols in the resulting patterns (Barclay, King & Davis 2022).



Figure 3: Beeyali field work on Kabi Kabi Country (Tricia King).

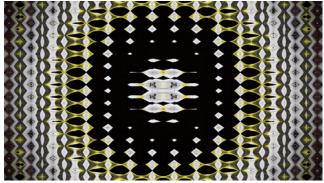


Figure 4: Beeyali Cymatic Image of White Cockatoo Call.

This creative process has revealed a clear sense of interconnection between the computational processes, audio recordings, photography, and the environmental locations of the work. The resulting geometric patterns were clearly connected to the place and cultural knowledge that inspired their creation (Barclay, King & Davis 2023). The Beeyali technique was designed to be applied to wildlife calls, aiming to inspire the conservation of biological and cultural diversity through creative practice. The research team conceived Beeyali to encourage communities to listen, connect with the place, and share knowledge through emerging audio-visual technology.

Environmental interconnection plays an important role in the Beeyali project, particularly in how the research team draws connections between Indigenous knowledge, environmental research, emerging technology, photography, and sound to explore complex relationships within ecosystems. Emphasising interconnectedness fosters an embodied understanding of these ecosystems, which is essential for effective conservation and management strategies. The project prioritises connection to Country and the importance of Indigenous knowledge systems, acknowledging the interconnectedness of all living things in the environment.

As an example, Gubbi Gubbi Gun'doo Yang'ga'man is a research and reconstruction project initiated by Lyndon Davis that saw the skills and traditions of bark canoe making reinstated by Kabi Kabi people. In 2022, the Beeyali team returned to the site of the first reconstructed Kabi Kabi canoe, almost ten years after the canoe was created, with the idea of recording the tree and creating a new Beeyali audiovisual work in response to the acoustic ecology of the tree. The resulting work draws on detailed photography of the scar tree and contact microphones that were used to create recordings inside the canoe scar, including Davis interacting with the tree, merging the sounds of his body with the tree. The tree was audibly responding to his interactions with a soundscape that synchronised with the blood pumping through his hand.



Figure 5: Beeyali Canoe Tree Recording (Tricia King).

The soundscapes were then played through the photographs from the site to create a unique audio-visual work demonstrating ecological interconnection, interwoven with recordings of Davis singing Kabi Kabi songs, including the Kabi Kabi canoe song. The project reveals interconnectedness and offers audiences an embodied way to connect to place and inspire care and respect for our surrounding environment.



Figure 6: Beeyali Cymatic Image of the Kabi Kabi Canoe Tree.

This outcome from the Beeyali project that focused on the sounds of the canoe tree was the first digital acquisition of the UniSC Art Gallery and commissioned through 'The Contemporaries' with support of the De Deyne Family, to coincide with the Djagan Yaman, Davis's first major solo exhibition at the UniSC Art Gallery in 2022. Beeyali Canoe Tree was the first major work commissioned for the public screens in Sunshine Coast Councils 'City Hall' in the new Maroochydore City. The work featured internationally in the 2023 programme of 'Ecological Imaginaries' at Schumacher College in the UK and in 2024, a series of stills from Beeyali Canoe Tree were commissioned and fabricated as permanent large-scale screens for UniSC's Thompson Institute, a world-class hub for research, teaching and clinical services for Australia's most pressing mental health issues. These creative outcomes are all designed to generate a greater awareness around connection to Country and ecological interconnection.

Connection to Country is a fundamental aspect of Australian Aboriginal culture, reflecting an innate relationship with the land and a sense of identity and belonging (Kingsley et al. 2013). This connection encompasses a deep spiritual relationship with ancestral land, central to the well-being and social and emotional health of Aboriginal peoples (Schultz et al. 2018). The concept of "Everywhen" is deeply rooted in Indigenous Australian knowledge and practices, reflecting a temporal understanding that differs from Western notions of time. This term encapsulates the idea that the spiritual and cultural foundation of Indigenous Australian societies exists beyond linear time, encompassing past, present, and future simultaneously (Hoffmann 2015). This understanding challenges the conventional Western view of time as a linear progression, presenting instead a more holistic and interconnected temporal framework (Warin et al. 2022). The spatial and temporal possibilities of the Everywhen have been explored in approaches to performing the outcomes from the Beeyali project and continue to inspire how the work resonates in communities.

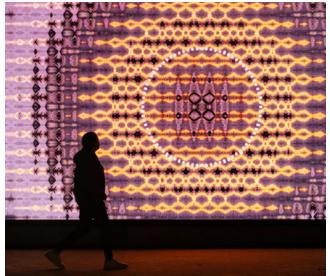


Figure 7: Beeyali Projections at Illuminate Adelaide.

In relation to environmental interconnectedness, the Everywhen underscores the deep, intrinsic link between humans and the natural world, highlighting that humans are not separate from nature and that every element of the environment is seen as interconnected and interdependent. This perspective fosters a respect for nature and forms the core foundation of the Beeyali project. The connection between the Everywhen and environmental interconnectedness lies in the understanding of time as non-linear and all-encompassing, promoting a deep respect and care for nature and a holistic approach to ecological engagement. The Beeyali project's focus on environmental interconnection not only raises public awareness and empathy towards Country but also encourages interdisciplinary collaboration and sustainable thinking. Ultimately, this emphasis on interconnectedness inspires a collective sense of responsibility for the conservation of vulnerable species and their habitats, highlighting the balance that underpins the planet's ecosystems.

The large-scale projection works developed through the Beeyali project have been experiments in communicating concepts of environmental interconnection to a wide diversity of audiences in accessible ways. Understanding interconnectedness is crucial for effective environmental engagement as it fosters a holistic view, recognising that every action has a broader impact. In Beeyali, we hope this awareness leads to audiences engaging in more responsible, sustainable, and regenerative practices, ensuring the health and balance of ecosystems for current and future generations.

Ecological Engagement and the Climate Crisis – A Call to Action

Beeyali is developed as a call to action – a method to engage our community and respond to the urgent need to inspire and motivate communities to listen and connect. One of the most powerful aspects of immersive audio-visual experiences is their ability to inspire environmental empathy through sensory engagement and feeling connected to an ecosystem and the species that inhabit it. Evolutionary ecologist Monica Gagliano believes that environmental empathy and our capacity to recognise the planet and its many life forms as more than 'elusive entities to be objectified' is the missing link in many responses to climate action (Gagliano 2018). She also believes that the environmental guilt associated with the framing of the Anthropocene is counterproductive, focusing on our dominion over the environment.

Effective climate action extends far beyond mere ecological considerations; it necessitates a profound transformation in how communities envision their future and interact with the world around them. This shift involves not only reimagining alternative, sustainable futures but also actively engaging in novel, relational approaches that foster a paradigm change in our thought processes. Embracing a posthumanist perspective is pivotal in this context. This perspective challenges the deeply ingrained anthropocentric (human-centered) worldview, advocating for a more inclusive understanding of our planet. It calls for an expanded awareness that acknowledges the intricate web of interconnections between all forms of life, urging us to respect and care for not just humans but also the myriad non-human entities that cohabit our world. By adopting this posthumanist lens, we can inspire communities to actively participate in shaping and realising a future that prioritises ecological coexistence, leading to more holistic and sustainable climate action strategies.

Byskov et al. (2019) emphasise the need for posthuman and animal ethics in setting climate action recommendations to protect non-human entities and animals, expanding the scope of climate action beyond anthropocentrism. Sterling (2020) suggests that critical posthumanist thinking can provide a valuable counterpoint to technocratic solutions for the climate crisis. Chappell (2021) highlights the potential of posthumanising creativity to address Anthropocene challenges, including climate-based problems, by shifting attention from "who" creates to "how" all actants create and generate new ideas and phenomena. Donna Haraway (2015) believes that we must collaborate to enable partial yet robust biological-cultural-political-technological recuperation and recomposition, while also acknowledging and mourning irreversible losses. She advocates for multispecies ecojustice and feminist methodologies to drive imagination and action, aiming to 'unravel the ties of both genealogy and kin, and kin and species' (Haraway 2015). Haraway emphasises the need for collective thinking and collaboration in response to the current crisis.

Professor Anne Poelina, a Nyikina Warrwa Indigenous woman, has been leading the conservation and protection of the Mardoowarra (Fitzroy River) in Western Australia. Poelina has advocated for the river to be recognised as a living ancestral being, following the recognition of the Whanganui River in Aotearoa (New Zealand) in 2017. She believes in Indigenous ways of knowing, being, and doing based on nonlinear time, a located temporality, which connects people, waters, and place (Martuwarra et al. 2021). Poelina shares a similar view to many First Nations leaders in Australia, advocating for water management to engage with Indigenous-led restorative research and practices to ensure Indigenous values are recognised (Martuwarra et al. 2021). Poelina believes that healing ecosystems is a cultural endeavour and that listening, hearing, and voicing waterways should be guided by Indigenous knowledge of place. She recognises place as an active entity in her research, evidenced by the river being the first author in her recent papers (Martuwarra et al. 2021). Indigenous custodians of Bawaka Country in Northeast Arnhem Land have taken a similar approach, with Country as the first author in their research about complex Yolngu kinship systems and insights that explore relational, material, and more-than-human ways of knowing (Bawaka Country et al. 2016).

As the world continues to face the catastrophic impacts of climate change, communities urgently need more accessible and effective methods to connect and participate in new ways of thinking, acting, and caring for the places that we live and work. Encouraging communities to listen to the environment through interdisciplinary audio-visual creative practices that respect and value Indigenous leadership and traditional knowledge offers one possible means to start a conversation and become a catalyst for new ways of thinking about ecological health.

This research creates pathways for genuine collaborations, climate action, and participatory action research that focuses on interconnection and relational thinking. The Beeyali project is designed with a sense of hope and optimism, focusing on facilitating connections and collaborations between art, science, and technology to mobilise new ways of thinking about our environment and connection to place, with ecological reciprocity as a core research method.

This approach not only advocates for a shift in our interactions with the natural environment but also inspires a mutually beneficial relationship where human activities contribute positively to the health and vitality of our ecosystems and listen to Country with care and respect. Such reciprocal engagement is vital in reimagining our relationship with place and climate action.

Beeyali Tallo Billa

In 2023, Beeyali received funding support from Creative Australia, the Australian Government's principal arts investment and advisory body. This included expanding the project into marine ecosystems on Kabi Kabi Sea Country, with a new work called Tallo Billa, meaning humpback whale in Kabi Kabi. Tallo Billa was commissioned for Horizon Festival 2023, the Sunshine Coast's leading multi-arts festival.



Figure 8: Beeyali team listening to Tallo Billa with hydrophones.

The Beeyali team invited a sold-out audience on a dusk ocean journey to listen underwater and experience cymatic visualisations of humpback whale song. In this live version of the work, the team mixed live hydrophones listening to humpback whales into an immersive soundscape with cymatic visualisations of humpback whale song projected over Old Woman Island, two kilometres off the mainland on the Sunshine Coast.



Figure 9: Lyndon Davis looking for Tallo Billa (Tricia King).

The audience boarded Sunreef's Whale One for an augmented reality experience at sunset, followed by a Welcome to Country with Lyndon Davis over the ocean before the performance.



Figure 10: Lyndon playing didgeridoo on WhaleOne (Tricia King).

Tallo Billa utilises original Beeyali visualising techniques, playing underwater soundscapes through digital images to create distinctive audio-visual portraits with generative visualisations activated by hydrophones. This work will continue expanding in 2024, with field trips and immersive experiences, including a Tallo Billa immersive listening expedition underwater.



Figure 11: Beeyali projections on Old Woman Island (Tricia King).

Conclusions

Beeyali upholds First Nations cultural rights through selfdetermination, and we have a mutual respect for the ways we can authentically work together to connect with Country. This interdisciplinary collaboration comes from a shared commitment that embodies core values from a place of trust, friendship, and reciprocity.

Listening to the environment allows us to understand the patterns of place and can help us better connect with Country and its ecosystems. Listening as a method has been integral to the development of the Beeyali project and the ways we are collaborating and learning through our shared values. Listening and care have emerged as fundamental to what we do as creative practitioners and have allowed us to observe and learn in new ways.

While this research draws on new technologies, experimental science, and emerging creative practice, it is fundamentally about developing a relational creative practice and providing pathways for our communities to engage in practices of listening, with the hope that this in turn inspires a deeper connection to place and a sense of relational thinking and empathy with our changing ecosystems.

The next steps of this research will focus on exploring the health and wellbeing benefits of the audio-visual works resulting from the Beeyali project. We intend to share the project with Elders in hospitals and aged care to explore the value of Beeyali in connection to Country and the possible wellbeing benefits of the creative outcomes. Fundamentally, the Beeyali project, and the broader collaborative research we are developing together, will continue connecting with people and places, building human and non-human relationships that can help us understand and care for each other, our changing ecosystems, and help in shaping our collective futures.

Acknowledgements

The Beeyali project team acknowledges the Kabi Kabi/Gubbi Gubbi people, on whose lands we live and work and have created this project. We pay respects to the Elders past, present and emerging, and values our relationships with Aboriginal and Torres Strait Islander communities where our projects are located.

The Beeyali project has been assisted by the Australian Government through Creative Australia, its principal arts investment and advisory body. The first phase of the project was commissioned by ANAT through NEW LIGHT and presented by Illuminate Adelaide and ANAT, as part of Adelaide Festival Centre's Moving Image program. Beeyali is an ongoing creative research project based at the University of the Sunshine Coast in the Creative Ecologies Research Cluster.

References

[1] Jenny, Hans. 1967. Cymatics: The Structure and Dynamics of Waves and Vibrations. Basilius Presse.

[2] Morphy, Howard, 1999. "Encoding the dreaming – a theoretical framework for the analysis of representational processes in Australian Aboriginal art", Australian Archaeology(1), 49:13-22. https://doi.org/10.1080/03122417.1999.11681648

[3] Grillotti, Richard, Andy DiLallo, and Angus G. Forbes, 2020. "resonant waves: immersed in geometry", Leonardo(4), 53:401-407. <u>https://doi.org/10.1162/leon_a_01926</u>

[4] McGowan, John J., Grégory Leplâtre, and Iain McGregor, 2017. "Exploring musical creativity through interactive cymatics", Electronic Workshops in Computing. <u>https://doi.org/10.14236/ewic/hci2017.67</u>

[5] Ritchie, Laura, 2023. "Multisensory music performance with cymatic images", Music &Amp; Science, 6:205920432311590. https://doi.org/10.1177/20592043231159065

[6] Barclay, Leah, Tricia King, and Lyndon Davis, 2022. "Cymatic patterns of the black cockatoo: visualising the calls of wildlife in Australia", EVA London 2022, Electronic Workshops in Computing. <u>https://doi.org/10.14236/ewic/eva2022.9</u>

[7] Barclay, Leah, Tricia King, and Lyndon Davis, 2023. "Seeing sound and hearing images: interdisciplinary explorations in marine environments in Queensland, Australia", EVA London 2023, Electronic Workshops in Computing. https://doi.org/10.14236/ewic/eva2023.11

[8] Kingsley, Jonathan, Mardie Townsend, Claire Henderson-Wilson, and Bruce Bolam, 2013. "Developing an exploratory framework linking Australian Aboriginal peoples' connection to country and concepts of wellbeing", International Journal of Environmental Research and Public Health(2), 10:678-698. https://doi.org/10.3390/ijerph10020678

[9] Schultz, Rosalie, Tammy Abbott, Jessica Yamaguchi, and Sheree Cairney, 2018. "Indigenous land management as primary health care: qualitative analysis from the interplay research project in remote Australia", BMC Health Services Research(1), 18. <u>https://doi.org/10.1186/s12913-018-3764-8</u>

[10] Hoffmann, Dorothea, 2015. "Moving through space and (not?) time",:15-35. <u>https://doi.org/10.1075/sin.21.01hof</u>

[11] Warin, Megan, Jaya Keaney, Emma Kowal, and Henrietta Byrne, 2022. "Circuits of time: enacting postgenomics in indigenous Australia", Body & Society(2), 29:20-48. https://doi.org/10.1177/1357034x211070041

[12] Gagliano, Monica, 2018. "Planetary health: are we part of the problem or part of the solution?", Challenges(2), 9:38. https://doi.org/10.3390/challe9020038

[13] Byskov, Morten Fibieger, Keith Hyams, Poshendra Satyal, Isabelle Anguelovski, Lisa Benjamin, Sophie Blackburn, Maud Borie et al., 2019. "An agenda for ethics and justice in adaptation to climate change", Climate and Development(1), 13:1-9. <u>https://doi.org/10.1080/17565529.2019.1700774</u>

[14] Sterling, Colin, 2020. "Critical heritage and the posthumanities: problems and prospects", International Journal of Heritage Studies(11), 26:1029-1046. https://doi.org/10.1080/13527258.2020.1715464

[15] Chappell, Kerry, 2021. "Researching posthumanizing creativity: expanding, shifting, and disrupting", Qualitative Inquiry(5), 28:496-506. <u>https://doi.org/10.1177/10778004211065802</u>

[16] Haraway, Donna, 2015. "Anthropocene, capitalocene, plantationocene, chthulucene: making kin", Environmental Humanities(1), 6:159-165. <u>https://doi.org/10.1215/22011919-3615934</u>

[17] Martuwarra, RiverofLife, Anne Poelina, Sandra Wooltorton, Laurie Guimond, and Guy Sioui Durand, 2021. "Hearing, voicing and healing: rivers as culturally located and connected", River Research and Applications(3), 38:422-434. <u>https://doi.org/10.1002/rra.3843</u>

[18] Bawaka Country, Sarah Wright, Sandie Suchet-Pearson, Kate Lloyd, Laklak Burarrwanga, Ritjilili Ganambarr, Merrkiyawuy Ganambarr-Stubbs et al., 2015. "Co-becoming bawaka", Progress in Human Geography(4), 40:455-475. <u>https://doi.org/10.1177/0309132515589437</u>

Author Biographies

Dr Leah Barclay is a sound artist, designer, and researcher who works at the intersection of art, science, and technology. Leah's research and creative work investigates new methods in ecoacoustics, exploring the soundscapes of terrestrial and aquatic ecosystems to inform conservation, scientific research, and public engagement. She has been the recipient of numerous awards, and her work has been commissioned, performed, and exhibited to wide acclaim internationally by organisations including the Smithsonian Museum, UNESCO, Ear to the Earth, Streaming Museum, Al Gore's Climate Reality, and the IUCN. Leah leads several research projects including Biosphere Soundscapes and River Listening, which focus on advancing the field of ecoacoustics. The design of these interdisciplinary projects is responsive to collaborating communities and involves the development of new technologies, including remote sensing devices for the rainforest canopy and hydrophone recording arrays in aquatic ecosystems. Leah is the Discipline Lead of Design at the University of the Sunshine Coast, where she is also co-leading the Creative Ecologies Research Cluster.

Lyndon Davis (Kabi Kabi/Gubbi Gubbi) is an internationally acclaimed artist, educator and cultural performer. Born and raised on the Sunshine Coast, Davis' arts practice represents his deep connection to Country. His artwork is inspired by traditional pattern work on shields and other artefacts produced by his ancestors and the designs painted on their bodies during ceremony. His art also incorporates geometrical and symmetrical patterns representing those found in nature and coastal landscapes. Most recently, Davis has been making work that visualises the calls of different species on Kabi Kabi Country using cymatics, the science of visualising acoustic energy or sound. Lyndon's first solo exhibition at UniSC Art Gallery brought together painting, objects, moving image and sound to consider the way Davis' practice is grounded in communicating the importance of custodianship and caring for Country. Lyndon is an Honorary Senior Research Fellow at the University of the Sunshine Coast.

Dr Tricia King is a researcher in creative arts health projects for wellbeing focusing on creative engagement with older adults through photographic and creative practices. Utilising lens-based techniques such as photo voice, photo-elicitation, documentary and collaborative photography, Tricia develops collaborative participant driven projects anchored in ethically focused research methods and underpinned by friendship and reciprocity. Her work predominantly focuses on older people living in aged care and people living with dementia to explore their lived experience, enhance well-being and help develop programs to assist with greater socialisation and communication. Tricia's creative practice explores interdisciplinary place-based projects which investigate how remote embodied experiences of natural environments can facilitate ecological empathy, cultural knowledge, and connection to place. Tricia is a Lecturer in Photography at the University of the Sunshine Coast, where she is also co-leading the Creative Ecologies Research Cluster.