



21: water

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Junctures encourages discussion across boundaries, whether these are disciplinary, geographic, cultural, social or economic. *Junctures* embraces the long established fields of the humanities, arts, science, law, medicine and philosophy, as well as engaging with the challenges of more recent disciplinary and interdisciplinary fields. Each issue of *Junctures* is organised as a site of encounter around a theme. This allows us to highlight the resonances and disturbances of dialogue. With New Zealand and the Asia-Pacific region as a backdrop, but not its only stage, *Junctures* seeks to address the matters which concern us all as we negotiate the contemporary environment.

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Marc Doesburg and Ron Bull	Editorial	6
Part 1		
Kelli Te Maihāroa	Waitaki: Water of Tears, River of Mana	9
Deborah Wardle	Sustainable Groundwater Stories – From Disasters to Epical Narration	22
Linda Lapiņa	Re-membling with river Daugava: Poetic engagements with water memory	31
Adele Bennett, Jennifer Cooper, Jenny Rock	Place-based film for growing community engagement in local marine conservation	42
Part 2		
Art and Water project		
Pam McKinlay and Jenny Rock	The waters were wide: A report on the Art and Science Project “Water/Wai: Mountains to the Sea”	49
Bryce Peebles and Anne Marie Basquin	Art and Water Collaboration: Interview	56
Heramaahina Eketone	Kōpata	65
Geoff Wyvill	Amazing Water – A Physicist’s View	68
Pam Mckinlay with Geoff Wyvill	<i>Ice Is Cool</i> – Artist’s response to John Tyndall, “Ice Flowers”	73
Madison Kelly with Jon Lindqvist	<i>Present/Forthcoming:</i> Tracing imagined waters and their inhabitants	80
Emma Curtin, Jessica Ritchie and Henrik Moller	Art + Science + Dung Beetles: Collaborating to Sustain People, Land and Water	86
Jessica Jie Ying Ong and Emily Brain	Malaria in New Zealand – Using Art Science to spread a message	93
Michelle Wilkinson	Circling the drain – contemporary jewellery and the tale of the New Zealand Grayling	99
Siau-Jiun Lim with Glen Reilly	Sinclair Wetlands: A case study of practice-led research in community projects	104
	Call for papers 2021: Food	109

Water

Na Te Po, ko Te Ao	From Eternity, came the universe
Tana ko Te Ao Marama	Then came the clear light
Tana ko Te Ao Turoa	Then came the enduring light
Tana ko Te Kore Te Whiwhia	Then the void unattainable
Tana ko Te Kore Te Rawea	Then the void intangible
Tana ko Te Kore Te Tamaua	Then the void unstable
Tana ko Te Kore Te Matua	Then the void that allowed for existence
Tana ko Maku	Then came moisture

The incantation above, from the indigenous peoples of Southern New Zealand, shows the creation of water as the progenitor for all life. It is an essential part of life, requiring careful management to maintain its quality, quantity and accessibility. We are all charged with its preservation and protection for the benefit and survival of ourselves and all living beings we share this planet with.

The world's freshwater resources are increasingly the subject of conflict between parties with vested interests and those advocating for biodiversity and protection of shrinking habitats. Lowered standards in catchment management for short-term gains increasingly exacerbate scarcity of potable water. Climate change, attributed to global warming, is intensifying flooding in low-lying areas and triggering mass migrations as people lose their homes to the rivers or the rising seas.

Water has deep-time cultural and spiritual values and frequently has a central position in ritual and religious symbolism. The fluidity of water is often equated with the power of life itself; its life-giving potency is celebrated in many cultures. For Māori, all elements of nature possess mauri, a life force - water is interconnected with sky and land, and kaitiakitanga, stewardship, is required to maintain the integrity of the whole.

As in the past, most of the articles published in this edition of *Junctures* stem from a project between artists and scientists. The collaboration is described in the article by McKinlay and Rock: 'The waters were wide: A report on the Art and Science Project "Water/Wai: Mountains to the Sea."'

A visual depiction of the elements in water, Eketone's artwork *Kōpata* is a representation of water as it falls, with the koru expressing the necessity of water to all forms of life. Symbolically represented are the deities associated with water stemming from the Maku and the three forms of water: solid, liquid, and gaseous. The final droplet of the four has fallen from the forces that hold the stream together and encompasses all whakapapa, knowledge, and the wonders of water.



Figure 1. Ōwheo Leith stream. Photograph: Marc Doesburg.

The rendition of water as a spiritual force is the core of Te Maihāroa's article *Waitaki: Water of Tears; River of Mana*. She explores Waitahataka, the state of being Waitaha; the Waitaki River is the bloodline and veins of the Waitaha people. Through interviews and journals, Te Maihāroa explores the Indigenous autoethnographic thread *Ko au te Waitaki, ko Waitaki ko au*: I am the Waitaki and the Waitaki is me. The Waitaki River sustains and gives shelter to the people that live in the its valley. It is an ancestral treasure that "serves as a lifeline connecting an ancient past through to an uncertain braided future". There is a duty of care as *kaitiaki* or guardians to maintain her *mauri* so that she continues to support our *mokopuna* (grandchildren). Water is not just the element, but an active indicator of identity.

This philosophy is continued within a European context in Lapiņa's text about the Daugava river in her native Latvia, which unfolds in the national independence struggles of the twentieth century. Through the lenses of "Glissant's writings on embodied memories of trauma, Indigenous perspectives on co-becoming with territory and perspectives from feminist new materialisms", she explores how the river enables re-membering untold histories and living with loss. For Lapiņa, the river is her blood flow - re-membering is a loosening, and as she lets go, it teaches her to endure.

Wilkinson's describes how she used, speaking of social and environmental issues, and working as an agent for change. By illustrating the extinction of the *upokororo*, or grayling, she sounds a warning about the impact of unconsidered use and callous exploitation of our water ways.

In articles pertaining to conservation, Bennett, Cooper and Rock tell how awareness of conservation was raised in a community through a film about a local marine reserve. Curtin, Richie and Moller enthuse from perspectives of scientists and an artist about the deployment of dung beetles in New Zealand to strengthen the ecosystem and reduce runoff, a serious threat to the health of streams and to water quality. Lim and Reilly document two community art projects in the Sinclair Wetlands, where revegetation with native species is strengthening the wetlands as a water resource “to drain and store water through a hydrological process of inflow and outflow from streams, rivers, land, and mountains”. Ong and Brain bring our attention to the impact avian malaria is having on endangered species in New Zealand and describe how they created an exhibit for raising public awareness about the plight of the hōiho in this regard.

A physicist’s view of water is provided by Wyvill, who delves into atomic physics to illustrate why water, ubiquitous and ordinary, has the most extraordinary properties of liquids. Kelly and Lindqvist were attracted to South Dunedin to make observations and drawings at sites regularly threatened by flooding. These were “manipulated in emulation of ichnological processes to offer up pseudofossils as drawing/site/time interfaces (time media)”, an expression of art/science activism connecting them to other knowledges, thinking, and stories told by other fauna of the earth.

McKinlay relates John Tyndall’s speculations on how variations in water vapour could be connected to climate disruptions to the concept of mauri: where mauri is thrown out of balance, realignment occurs in our ecosystems to seek equilibrium. Her series of hand-woven panels is a response to his ice-flower experiments.

A shared concern for escalating ocean acidification unites Peebles and Basquin in their advocacy for connectiveness with nature. They challenge the reader to rekindle the wonder of being in the moment of now in nature. Immersion in water - a medium in which the wonder of nature is immediate.

In her examination of groundwater stories, Wardle argues the need to look at the deep, time connections of water and story. In Australian cultural narratives, she observes a predominance of water epistemologies that see water as a resource to be taken. She believes that contemporary Indigenous perspectives are uniquely positioned to tell sustainable groundwater stories and invites the reader to “rupture familiar frames of reference” to gain new knowledge. She positions literature as a means to expose the conflicts and consequences of contemporary water management practices and to change cultural imaginaries.

This collection of narrative art and exploration follows the ethos outlined in the incantation that began this editorial; it follows maku / moisture / water in its many forms and how these impact on place time and life.

Mauri ora!

Marc Doesburg, Director Global Engagement, Otago Polytechnic Te Kura Matatini and **Ron Bull** Tumuaki Whakaako Otago Polytechnic Te Kura Matatini ki Otago Dunedin, New Zealand.