



Interweaving Water

The Incremental Transformation of Sovereign Knowledge into Collaborative Knowledge

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A common plot sequence in First Nations oral history is where the main character first transcends a world boundary and then quickly transforms from human to animal or vice versa to adjust to the new world. This sequence is a helpful analogy that modern ontology could take notice of as a prerequisite to tackling anthropogenic ecological consequences,¹ literally piling up before our children's eyes.

The Tsimshian oral history entitled “Myth of Niaslaws”² is an excellent example of how a supernatural water being transcended the boundary between the water world and the human world. It starts out with two Tsimshian hunters casting their stone anchor from their boat to moor at an island for the night. Their anchor lands on a supernatural being's roof, so he (Spanaxnox) sends a slave woman to see what is going on, and this is where we join in:

She saw this big stone anchor and she returned and said to [... Spanaxnox], "There is a big rock on top of the house with a rope on it." The chief [Spanaxnox] said, "Go and see where it comes from." The slave woman went out and swam around the canoe and Txagetk caught it and cut off its fins. He threw it into the water again and the little fish went back into the house of the supernatural being [Spanaxnox] and again changed into a human being but without arms and she was crying. [...] Spanaxnox was sitting at the back of the house and he saw the slave woman crying who said, "There is a huge monster [canoe] on top of the water and it is full of human beings and one took me and cut my hands off," and she cried again. The supernatural being was mad and he said, "I will bring them down and take them into my house." When he said this, there was a strong current, which made a whirlpool, and this brought the men into the house of the supernatural being.³

Slave woman transforms into a little codfish in the hunters' world, even though she is human in her water world. The hunters' perception is that slave woman is an annoying little codfish. Additionally, transcending boundaries between the two worlds allows the hunters to see, with new eyes, how this human was maimed by their actions in their world. The hunters' assumption about the ocean just being a place to use and to drop anchor was challenged, and with their newfound empathy they adopted a new attitude of respect, which is a crucial part of transformation.

I have hope in our ability to transcend boundaries, as we see that a Gitxsan Halait (i.e., healing shaman) can when moving between worlds, or as Dvorak's Rusalka can when she, a fish-woman who lived on the bottom of a river, awkwardly emerged from a waterway. This seemingly impossible transcendence offers hope, opens up new paths, and liquefies the "either/or" narrative about traditional boundaries between art and science, Indigenous and Western, living and non-living, biotic and abiotic, salt water and fresh water, and sentient and inanimate. I will examine one more modern narrative in my conclusion: jobs and the environment.

This chapter outlines four steps toward transforming sovereign knowledge into collaborative knowledge: (1) humility, (2) transcending, (3) interweaving, and finally (4) transformation. I illustrate this process using the theory of Blue Ecology, which I developed in collaboration with Indigenous Elders. It interweaves Indigenous and Western science's perspectives on water.⁴

We are borrowing fresh water from future generations. Our children's children will be faced with daunting, complex, and urgent environmental problems that will surge social and economic changes at an unprecedented pace. This impending crisis requires us, the source of this crisis, to transcend and transform, to begin to lay a foundation for our children's children to have something to work with, a

starting point, and some options to grasp in the urgent moment. We owe it to future generations as a form of apology. We owe them hope.

Humility

The hunters' arrogance blinded them as they threw their anchor on top of the chief's house. Not one epistemology—whether it is Western science, Indigenous science, art, business, or theology—by itself is fully equipped to deal with the highly complex problems that our children's children will face. Thus, the first incremental step of transcendence is for the knowledge keepers and creators, scientists and philosophers of each epistemology to feel humility. Basia Irland is a water and eco-artist who embodies the idea of humility and courage because she creates ephemeral ice art that is meant to melt away as she sends it on a journey down a river of inspiration; her art moves beyond the walls of the gallery into more contextual and humble spaces. For instance, she spends days creating an ice book in situ, embedded with “riparian text” made of local plant seeds, and then in a moment of courage she floats the ice sculpture down the river from which the ice was made in the first place.⁵ The embedded text of humility is courage.

I view Western science and Indigenous ways of knowing as *sovereign* entities. A great deal of energy goes into rationalizing, promoting, and protecting an epistemology. How-

ever, now we need to acknowledge that we don't have all the answers. We can build a collaborative epistemological framework if we transcend sovereign contemporary narrative's boundaries, and literally mine each epistemology for gems that can be interwoven in a collaborative manner. Embracing humility will release the energy used to protect and rationalize current academic and political sovereignty and redirect it to the intensive next step: interweaving. Identifying the strong threads—and there are many—of Western science with those of Indigenous traditional knowledge will form a new collaborative fabric of knowledge. Lee Maracle speaks eloquently about the Indigenous concept of humility, which means humbling ourselves *to* water. Additionally, Astrida Neimanis invites us in a humble way, to open up a new imaginative space by paying attention to water and thinking *with* water. Both of these authors view humility as a key ingredient for collaboration; thus the corollary is that arrogance can lead to unnecessary conflict.

Transcendence

In this chapter, transcendence takes on the literal Latin origins of *going beyond* the perceived boundaries of our world, like the hunters entering the underwater world of the supernatural being. In 2002 I appealed for humility and

challenged Western science to re-examine its assumption that water is abiotic.⁶

Transcendence looks like *genuine* curiosity. Curiosity about other cultures draws us into a better understanding, and allows us to contrast and compare two worlds. The product of curiosity is an analysis whereby comparison and contrast enable the interweaving process. I have invited Western scientists to transcend the boundary that was built in the sixteenth and seventeenth century, and to be curious about the Indigenous perspective that water is alive (biotic).⁷ Once I understood the strengths and contrasts of each perspective on water, I was ready for the interweaving process and published papers that showed how interweaving could happen.

Interweaving

It is difficult to tell which world is which, and who is who in the Tsimshian oral history; the worlds are interwoven. Interweaving is about creating a new form of knowledge through collaboration by interweaving useful threads from each way of knowing into a more robust way. It looks like artists, scientists, theologians, Elders, and poets weaving around the same table. Interweaving is not integration, just as equality is not about assimilation and creativity is not empirical. Mircea Eliade says the coming together of the spirit and matter or sacred and profane “produces

a kind of breakthrough of the various levels of existence ... a coexistence of contradictory essences.”⁸ Interweaving is a collaborative process where apparently contradictory epistemologies are brought together as coexisting threads of information and theory to produce a new entity called collaborative knowledge. Interweaving is an incremental rather than a revolutionary process whereby collaborators identify packets of knowledge that benefit from the interweaving process.

Artist Berndnaut Smilde’s indoor cloud installation (see [Figure 3.1](#)), entitled *Nimbus D’Aspremont, 2012, Cloud in room*, provides an elegant and amorphous exemplar of interweaving art with science. Using science, he has placed nature within the human domain; this juxtaposition highlights the artistic natural beauty of a cloud.



Figure 3.1 *Nimbus D'Aspremont, 2012, Cloud in room.* (Source: Berndnaut Smilde; reproduced with the permission of the artist)



Figure 3.2 *Blue Ecology.* (Source: Michael D. Blackstock and Annerose Georgeson)

My expression of Blue Ecology theory came in multiple media, including academic writing, eco-poetics, and visual arts (see [Figure 3.2](#) for an example of a painting entitled *Blue Ecology* or the poem “Blue Ecology” in my book *Salmon Run*).⁹ Each form of media expressed the Blue Ecology in a new way to new audiences. This theory was developed over ten years.¹⁰ Our children’s children will not have this luxury of research time to solve their immediate crisis.

I defined Blue Ecology as “an ecological philosophy, which emerged from interweaving First Nations and Western thought that acknowledges fresh and salt water’s essential rhythmical life spirit and central functional role in generating, sustaining, receiving and ultimately unifying life” on Earth Mother.¹¹ Many cultures, and in particular Indigenous peoples, believe that water has a spirit and it is commonly characterized as the lifeblood of the planet.¹² Indigenous peoples often use the descriptor “water is lifeblood” since water is seen as the blood flowing through the terrestrial veins of Earth Mother.¹³ Blue Ecology does not jettison the great work of modern ecology; however, it does reshape its foundation and opens up new paths of inquiry. This new theory is meant to be a companion because it augments existing Western science hydrology rather than displacing this knowledge. Blue Ecology has, however, identified and challenged some key assumptions of hydrology, while at the same time honouring the wealth of knowledge Western science has produced. The Blue Ecology vision is collaborative, not competitive. Blue Ecology is a compact or product of interweaving that blends Indigenous knowledge and Western science.

Transformation

Transformation is like the hunters’ epiphany that the little codfish is actually a human woman. In short, transform-

ation can mean a shift away from the attitude of sovereign knowledge to collaborative knowledge. The main axiom of transformation is: *It costs you nothing to change your attitude.* A new collaborative knowledge attitude will open up new worlds of possibility. What do you see? Is it a little codfish or a human woman? Is she a water nymph or Rusalka? Is it a wriggling nudibranch (i.e., sea slug) or an elegant First Nations dancer?¹⁴ Is water a non-living fluid or a living and life-giving being? The beholder's transformation can be from one state of mind to another.

Hope

A product of the transformation will be a societal-wide reverence for water. Nasrid poet Ibn Zamrak (AD 1333–93) poignantly expressed reverence in his epigraphic poem inscribed on the Daraxa's water fountain in the Alhambra palace, Granada, Spain. His use of prosopopeia,¹⁵ in poetic form, speaks “*for the walls of the Alhambra, engages the beholders and guides them beyond visual perception to imaginative comprehension. The beholder is enjoined to ponder.*”¹⁶

I am a water orb that appears before the creatures limpid and transparent a great Ocean, the shores of which are select pieces of work made of special marble and the waters of which, shaped like pearls, flow on an enormous sheet of ice that has been delicately

carved. In occasions I am overflowed with water, but I, from time to time, part with the transparent veil that covers me.

Then I and that part of the water that comes from the borders of the fountain, appear like a piece of ice, part of which melts and the rest does not ...¹⁷

In the last verse of the poem Zamrak writes about how Nasr, the Sultan of Granada, “has granted me the highest degree of beauty, so that my shape causes the admiration of the sages.”¹⁸ The beholder is asked to share the same reverence for the water fountain. This imaginative comprehension or reverence has faded in Western science and does not manifest in the twenty-first century’s reverence-less *jobs versus the environment* false conundrum, which has obvious and fundamental flaws: it assumes that jobs, rather than Earth Mother, sustain us.¹⁹ Water is life, not jobs. A job is an abstraction that can disappear in a moment and leave families destitute. A job is, furthermore, a political abstraction used to pit the employed against the unemployed, and the “irrational *greens*” against the “rational” family provider. This abstraction and distraction separates us from each other and from Earth Mother, who is the ultimate provider. Fear over losing our jobs distracts us from having a debate about how this destructive abstraction creates boundaries used by some politicians and those *jobs-riddlers* who lobby politicians. It is a warning sign if you detect the construction of boundaries.²⁰

Underlying this lobbying is the notion that “our environmental policy is based on sound (Western) science and it sustains jobs.” Western science has provided many wonderful technical and medical inventions to society, and will continue to do so. Artelle et al. are concerned that politicians and resource managers are not held to the same level of independent oversight that research scientists are when they claim that their policies are “science-based.”²¹ This is a valid concern since commonly used political rhetoric defends controversial resource management statutory decisions like pipeline or mine approvals, for example. Artelle et al. suggest that there should be a peer-review process to ensure scientific research is properly interpreted and incorporated by politicians into “science-based management.” Assuming this oversight is put in place in the future, there is still a cultural bias in Western science that needs to be addressed.

“Biocultural diversity,” a term that emerged this millennium, inextricably links cultural and biological diversity, focusing on correlations between biodiversity and linguistic diversity. Most importantly, the notion of “linked” implies that biological diversity and cultural diversity have co-evolved, are interdependent, and mutually reinforcing. Cultural groups interact and influence the biological diversity of their environment, and vice versa. Biocultural diversity is the “sum total of the diversity of life in nature and culture.”²²

In 2007 UNESCO launched an international dialogue on biocultural diversity, which is a very valuable resource for policy-makers.²³ They concluded there is a danger in addressing biodiversity independent of cultural diversity, and vice versa. When considering the process of change, like climate change, it is important to understand time scale and historical context. Indigenous peoples around the world are acknowledged to be custodians of biodiversity and proponents of cultural diversity.

Using a biocultural diversity lens, I contend that Western ecological science has a fundamental and repairable cultural bias.²⁴ Environmental policy-makers and politicians are assuming that Western science has “got it right” when they say our policy is “science-based.” However, when it comes to how science and *science-based* environmental policy treats water as a non-living component of the ecosystem, I argue the contrary: Indigenous peoples around the world believe that water is alive and water is life. If the sovereign ecological science of the West is potentially flawed, then its environmental policy derivative is also flawed.

And now I cast doubt on another rhetorical boundary between jobs and the environment. Politicians give voters a false and difficult choice between protecting the environment or creating new jobs. Jacobs argues, however, that we can achieve the “double dividend” of environmental protection and economic growth if there is a policy shift toward

placing a tax burden onto environmental impact and creating deep-green jobs.²⁵

A job offers us purpose and dignity, which is not to be underestimated; however, the survival of our children and Earth Mother must come first. Morris Berman argues we are now at the end of the capitalist arc, and maybe even at the end of the modernity arc.²⁶ So now what? We can expect collaborative knowledge to be part of the emergence in a new era when resource managers acknowledge and interweave world views to achieve *sustainable survival with dignity*. To enable hope, we need to act now. We have responsibilities associated with borrowing fresh water from future generations, for instance, which include respecting and responding to Elders' concerns that some of our lakes, springs, and creeks are drying up. Climate change is about water and its transformation from one state to another (e.g., permafrost to water to vapour), and its dramatic movement from one place to another (e.g., from glaciers to rivers to oceans to clouds). In parts of the world, climate change will result in water being the most valued "commodity" produced from forested lands,²⁷ necessitating a change in our management priorities and approaches. With reverence, the first question asked when contemplating resource management impacts should be: *How does it affect the water?* The highest environmental assessment test for development planning is the paramount water-first principle: *planned development (e.g., real estate, urban plan-*

ning, hydro power, architecture, forestry, agriculture, fishing, aquaculture, mining, oil and gas extraction) cannot impede the functional delivery of quality water to ecosystems in a healthy rhythm.²⁸

The collaborative vision and operational guiding principles of Blue Ecology, which interweaves cultural perspectives on water in a sustainable and survivable manner, are ready to be implemented now. Hope is not a passive desire but an active attitude. An Elder shared her deep cultural understanding of water and her concern for how humans were disrespecting water, and then she looked into my eyes and said, “What are you going to do about it?”²⁹ At that moment I knew I had to do more than ethnography. I would try and mediate between two cultural perspectives and develop a new way of looking at water that respected both the Indigenous and Western science perspectives. I moved beyond a strictly “neutral observer’s” ethnographic role. Claude Levi-Strauss, in *Structural Anthropology*, describes the trickster’s role in mythology as a mediator between two worlds: “The trickster is a mediator. Since his mediating function occupies a position halfway between two polar terms, he must retain something of that duality—namely an ambiguous and equivocal character.”³⁰

I am a professional chartered mediator, forester, a member of the Gitxsan First Nation, and also of Euro-Canadian descent. I really see the value of each culture being genu-

inely curious about each other and willing to interweave to resolve disputes: *This is my action*.

It costs you nothing to change your corporate or personal attitude. Now is the time to act on the belief that if we interweave our strengths as traditional knowledge keepers, scientists, poets, artists, and architects in a collaborative manner, we can make a difference. Blue Ecology is an incremental example of how we can interweave cultural perspectives on water, but that is just a starting point in this new era of *interweaving*.

Notes

- ¹ Tom Curtis, *Climate Change Cluedo: Anthropogenic CO₂*, 2012. <http://www.skepticalscience.com/anthrocarbon-brief.html>. NASA, *Climate Change, How Do We Know?* 2012, <http://climate.nasa.gov/evidence/>.
- ² J. J. Cove and G. F. Macdonald. *Tsimshian Narratives I: Tricksters, Shamans and Heroes* (Ottawa: Canadian Museum of Civilization, 1987).
- ³ *Ibid.*, 317.
- ⁴ Michael Blackstock, "Blue Ecology: A Cross-cultural Ecological Approach to Reconciling Forest-Related Conflicts," *BC Journal of Ecosystems and Management* 6, no. 2 (2005): 39–54.
- ⁵ Basia Irland, *Ice Books*, 2012, <http://www.basairland.com/recent-projects/ice-books.htm>.

- [6](#) Michael Blackstock, “Water-Based Ecology: A First Nations Proposal to Repair the Definition of an Ecosystem,” *BC Journal of Ecosystems and Management* 2, no. 1 (2002): 7–12.
- [7](#) Keith Thomas, *Religion and the Decline of Magic: Studies in Popular Beliefs in the Sixteenth and Seventeenth-Century England* (Toronto: Penguin Books, 1971).
- [8](#) Mircea Eliade, *Patterns in Comparative Religion* (New York: Sheed and Ward, 1958), 29.
- [9](#) Michael Blackstock, *Salmon Run: A Florilegium of Aboriginal Ecological Poetry* (Kamloops, BC: Wyget Books, 2005), 24.
- [10](#) See Blackstock 2001, 2002, 2005, 2005, 2008, 2009, 2010, and 2012.
- [11](#) Michael Blackstock, “Blue Ecology and Climate Change: Interweaving Cultural Perspectives on Water: an Indigenous Case Study,” in *The Role of Hydrology in Water Resources Management*, ed. Hans-Juergen Liebscher, Robin Clarke, John Rodda, Gert Schultz, Andreas Schumann, and Lucio Ub (Proceedings of a symposium held on the island of Capri, Italy, October 2008), IAHS Publ. 327 (2009), 308–9.
- Dr. Marcus Barber describes the Yolngu’s (Australian Aborigine) cosmology. They have very little delineation between salt water and fresh water. In Blue Ecology, water is viewed as a spectrum of salinity.
- [12](#) I am a member of the UNESCO-IHP expert advisory group on water and cultural diversity. Michael Blackstock, “Blue Ecology, What Is Water? An Indigenous Perspective,” in *Water and Culture* (Proceedings of a session at the 5th World Water Forum hosted by TURKKAD [Turkish Women’s Cultural Organization] and ISKI [Istanbul Water and Sewage Administration], March

2009), 28–30. UNESCO, *Links Between Biological and Cultural Diversity*, Report of the international workshop organized by UNESCO, 2007, <http://unesdoc.unesco.org/images/0015/001592/159255E.pdf>.

13 Interestingly, Leonardo Da Vinci's water theory centred on his comparison of the movement of water on Earth to the flow of blood in the human body. Pfister et al., *Leonardo da Vinci's Water Theory*, 85.

14 Karole Wall and Florence James, *Imush Q'uyatl'un*, film, 2008, <http://blogs.eciad.ca/karollewall/imush/>.

15 Prosopopeia is the use of "I," or the first-person voice, as the writer's voice projected onto an atypical character, which in this case is the water fountain's voice. Olga Bush calls it "the deliberate fiction of the 'I'" (55). I prefer to think of it from the Indigenous perspective of giving voice to the spirit of water and marble, which we call a fountain. Our Gitxsan tradition is to give our sacred springs a name through a naming ceremony, for instance, as they are considered a living member of our House.

Kim Anderson says women have a special spiritual connection to water because of their ability to carry the waters of new life in their womb. Kim Anderson, "Aboriginal Women, Water and Health: Reflections from Eleven First Nations, Inuit and Metis Grandmothers," unpublished paper, Atlantic Centre of Excellence for Women's Health and Prairie Women's Health Centre of Excellence, 2010, <http://www.pwhce.ca/womenAndWater.htm>.

The Sultan has asked Zamrak the poet to inspire the imaginative comprehension of the beholder to transcend the arti-

ficial boundary of architecture/sense of place, and to revere the pearls on ice (water). The poet, sculpture, and architect have interwoven their talents, under the Sultan's decree, to instil reverence in the beholder.

- [16](#) Olga Bush, "When My Beholder Ponders: Poetic Epigraphy in the Alhambra," *Artibus Asiae* 66, no. 2 (2006): 55.
- [17](#) Ibn Zamrak, *Poem of the Fountain of Daraxa's Garden*, circa 14th century, <http://www.alhambra.degranada.org/en/info/epigraphicpoems.asp>.
- [18](#) Ibid.
- [19](#) Eban Goodstein, *The Trade-off Myth: Fact and Fiction about Jobs and the Environment* (Washington, DC: Island Press, 1999).
- [20](#) There is a secondary theoretical and practical challenge that Eliade highlights, which is "as soon as you try and fix the limits to the notion of the sacred you come upon difficulties." Eliade, *Patterns in Comparative Religion*, 1. Essentially it is not only risky but difficult to accurately build the boundary or "limits."
- [21](#) Kyle Artelle, John D. Reynolds, Paul C. Paquet, and Chris T. Darimont, "When Science-Based Management Isn't," *Science* 343 (2014): 1311.
- [22](#) B. R. Johnston, L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang, "Glossary," in *Water, Cultural Diversity and Global Environmental Change: Emerging Trends, Sustainable Futures*, ed. B. R. Johnston, L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang (Dordrecht, The Netherlands: UNESCO and Springer SBM, 2012), 538.
- [23](#) UNESCO, *Links Between Biological and Cultural Diversity*, Report of the international workshop organized by UNESCO, 2007, <http://unesdoc.unesco.org/images/0015/001592/159255E.pdf>.

- [24](#) Blackstock, “Water-Based Ecology: A First Nations Proposal to Repair the Definition of an Ecosystem.”
- [25](#) M. Jacobs, *Green Jobs: the Employment Implications of Environmental Policy* (Brussels: World Wildlife Fund for Nature, 1994).
- [26](#) Morris Berman, “The Waning of the Modern Ages,” [CounterPunch.org](http://www.counterpunch.org), September 20, 2012, <http://www.counterpunch.org/2012/09/20/the-waning-of-the-modern-ages/>.
- [27](#) J. Thompson, “Running Dry: Where Will the West Get Its Water?” *Science Findings* (2007), <http://www.fs.fed.us/>.
- [28](#) Michael Blackstock, “Blue Ecology: A Cross-cultural Ecological Vision for Freshwater,” in *Aboriginal People and Forests Lands in Canada*, ed. D. B. Tindall, Ronald L. Trosper, and Pamela Perreault (Vancouver, BC: UBC Press, 2013), 180–204.
- [29](#) See Michael Blackstock, “Water: A First Nations Spiritual and Ecological Perspective,” *BC Journal of Ecosystems and Management* 1, no. 1(2001): 54–66, and Blackstock, “Blue Ecology: A Cross-cultural Ecological Approach” for the details of this story.
- [30](#) Claude Levi-Strauss, *Structural Anthropology* (Chicago: University of Chicago Press, 1976), 208.

Bibliography

Anderson, Kim. “Aboriginal Women, Water and Health: Reflections from Eleven First Nations, Inuit and Metis Grandmothers.” Unpublished paper. Atlantic Centre of Excellence for Women’s Health and Prairie Women’s Health Centre of Excellence, 2010. <http://www.pwhce.ca/womenAndWater.htm>.

- Artelle, Kyle, John D. Reynolds, Paul C. Paquet, and Chris T. Darimont. "When Science- Based Management Isn't." In *Science* 343 (March 12, 2014): 1311.
- Barber, Marcus. "River, Sea, and Sky: Indigenous Water Cosmology and Coastal Ownership Amongst the Yolngu People in Australia." In *Water, Cultural Diversity and Environmental Change*, edited by B. R. Johnston, L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang, 124–25. Dordrecht, The Netherlands: UNESCO and Springer SBM, 2012.
- Berman, Morris. "The Waning of the Modern Ages." [CounterPunch.org](http://www.counterpunch.org). September 20, 2012. <http://www.counterpunch.org/2012/09/20/the-waning-of-the-modern-ages/>.
- Blackstock, Michael. "Blue Ecology: A Cross-cultural Ecological Approach to Reconciling Forest-Related Conflicts." *BC Journal of Ecosystems and Management* 6, no. 2 (2005): 39–54.
- . "Blue Ecology: A Cross-cultural Ecological Vision for Freshwater." In *Aboriginal People and Forests Lands in Canada*, edited by D. B. Tindall, Ronald L. Trosper, and Pamela Perrault, 180–204. Vancouver, BC: UBC Press, 2013.
- . "Blue Ecology and Climate Change." *BC Journal of Ecosystems and Management* 9, no. 1 (2008): 12–16.
- . "Blue Ecology and Climate Change: Interweaving Cultural Perspectives on Water: An Indigenous Case Study." In *The Role of Hydrology in Water Resources Management*, edited by Hans-Juer-gen Liebscher, Robin Clarke, John Rodda, Gert Schultz, Andreas Schumann, Lucio Ub, 306–13. Proceedings of a symposium held on the island of Capri, Italy, October 2008. IAHS Publ. 327. Wall-

ingford, UK: IAHS Press, 2009. http://iahs.info/redbooks/a327/iahs_327_0306.pdf.

———. “Blue Ecology and the Unifying Potential of Water.” In *Water, Cultural Diversity and Global Environmental Change: Emerging Trends, Sustainable Futures*, edited by B. R. Johnston, L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang, 132–33. Dordrecht, The Netherlands: UNESCO and Springer SBM, 2012.

———. “Blue Ecology: What Is Water? An Indigenous Perspective.” *Water and Culture*, 28–30. Proceedings of a session at the 5th World Water Forum hosted by TURKKAD (Turkish Women’s Cultural Organization) and ISKI (Istanbul Water and Sewage Administration), Istanbul: TURKKAD, March 2009.

———. *Oceaness*. Kamloops, BC: Wyget Books, 2010.

———. *Salmon Run: A Florilegium of Aboriginal Ecological Poetry*. Kamloops, BC: Wyget Books, 2005.

———. “Water: A First Nations Spiritual and Ecological Perspective.” *BC Journal of Ecosystems and Management* 1, no. 1 (2001): 54–66.

———. “Water-Based Ecology: A First Nations Proposal to Repair the Definition of an Ecosystem.” *BC Journal of Ecosystems and Management* 2, no. 1 (2002): 7–12.

Bush, Olga. “When My Beholder Ponders: Poetic Epigraphy in the Alhambra.” *Artibus Asiae* 66, no. 2 (2006): 55–67.

Cove, J. J., and G. F. Macdonald. *Tsimshian Narratives I: Tricksters, Shamans and Heroes*. Ottawa: Canadian Museum of Civilization, 1987.

Curtis, Tom. *Climate Change Cluedo: Anthropogenic CO₂*. 2012. <http://www.skepticalscience.com/anthrocarbon-brief.html>.

- Eliade, Mircea. *Patterns in Comparative Religion*. New York: Sheed and Ward, 1958.
- Goodstein, Eban S. *The Trade-off Myth: Fact and Fiction about Jobs and the Environment*. Washington, DC: Island Press, 1999.
- Irland, Basia. *Ice Books*. 2012. <http://www.basiairland.com/recent-projects/ice-books.html>.
- Jacobs, M. *Green Jobs: the Employment Implications of Environmental Policy*. Brussels: World Wildlife Fund for Nature, 1994.
- Johnston, B. R., L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang. "Glossary." In *Water, Cultural Diversity and Global Environmental Change: Emerging Trends, Sustainable Futures*, edited by B. R. Johnston, L. Hiwasaki, I. Klaver, A. Ramos, and V. Strang, 53–56. Dordrecht, The Netherlands: UNESCO and Springer SBM, 2012.
- Levi-Strauss, Claude. *Structural Anthropology*. Chicago: University of Chicago Press, 1976.
- NASA. *Climate Change, How Do We Know?* 2012. <http://climate.nasa.gov/evidence/>.
- Thomas, Keith. *Religion and the Decline of Magic: Studies in Popular Beliefs in the Sixteenth and Seventeenth-Century England*. Toronto: Penguin Books, 1971.
- Thompson, J. "Running Dry: Where Will the West Get Its Water?" *Science Findings* (2007). <http://www.fs.fed.us/>.
- Pfister, Laurent, Hubert H. G. Savenije, and F. Fenicia. *Leonardo da Vinci's Water Theory: On the Origin and Fate of Water*. Oxfordshire, UK: IAHS Press, 2009.
- UNESCO. *Links Between Biological and Cultural Diversity: Report of the International Workshop Organized by UNESCO*. 2007. <http://unesdoc.unesco.org/images/0015/001592/159255E.pdf>.

Wall, Karole, and Florence James. *'Imush Q'uyatl'un*. Film. 2008.

<http://blogs.eciad.ca/karollewall/imush/>.

Zamrak, Ibn. *Poem of the Fountain of Daraxa's Garden*. Circa 14th century.

<http://www.alhambradegranada.org/en/info/epigraphicpoems.asp>.