

ISSUE NINETEEN : FALL 2021
OPEN RIVERS :
RETHINKING WATER, PLACE & COMMUNITY

SHIFT



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from multiple perspectives within and beyond the academy.

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IN REVIEW

ON WATER, EQUITY, AND JUSTICE

By Kathryn Nuernberger, Henry McCarthy, Tyler C. Seidel, Jabari Jones, Amanda Lyons, and Verónica Cadavid González

Note From the Editor

In a recent article, Leah Thomas, founder of Intersectional Environmentalist—a climate justice resource hub and community bringing social justice concerns into focus in environmentalism—questioned “whether environmentalism can be truly effective if it continues to ignore those that are most vulnerable in our ecosystem and society.” Her work calls for a shift in environmental thinking and work.

In early summer 2021, this call became a central part of the conversations and work

of the Water, Equity, and Justice Fellowship cohort at the University of Minnesota (UMN). Sponsored by the UMN Water Council and the Institute for Advanced Study at UMN, a small group of people with varied disciplinary backgrounds, professional goals, and personal experiences convened to discuss their own work and its intersections with questions of water, equity, and justice. The conversations moved from practical mapping applications to changing disciplinary structures, from self-care to symbiotic relationships, from Indigenous



Image by Amy Humphries on Unsplash.

epistemologies to literature to human rights and beyond. As one of the facilitators for this group, I left the sessions with a long list of new resources to consult, with a wonderful set of collaborators with whom I will continue to engage, and with renewed commitment to the challenging work of intersectional environmentalism.

This fall I asked these fellows to contribute to this In Review column for Open Rivers by sharing what they are currently reading and why it matters to them. Their responses, like our meetings, offer a robust and varied collection of resources that will, I hope, enrich your own reading lists. Enjoy.

—Laurie Moberg, Editor

Kathryn Nuernberger on *The Edge of the Sea*

Lately I've been reading and rereading Rachel Carson's *The Edge of the Sea*. In this lyrical field guide to niche ecosystems along the Atlantic coast she attends to the beauty of each individual crab, shorebird, shrimp, algae, and clam, as well as to their beautiful interconnectedness. Many of the tide pools and marshes she studied while

writing this book in the 1950s are now ringed by subdivisions or struggling to carry the burden of agricultural runoff and other pollutants that flow into them. But some creatures still scurry, for now, along the edges of the water that gives them—and us—life.

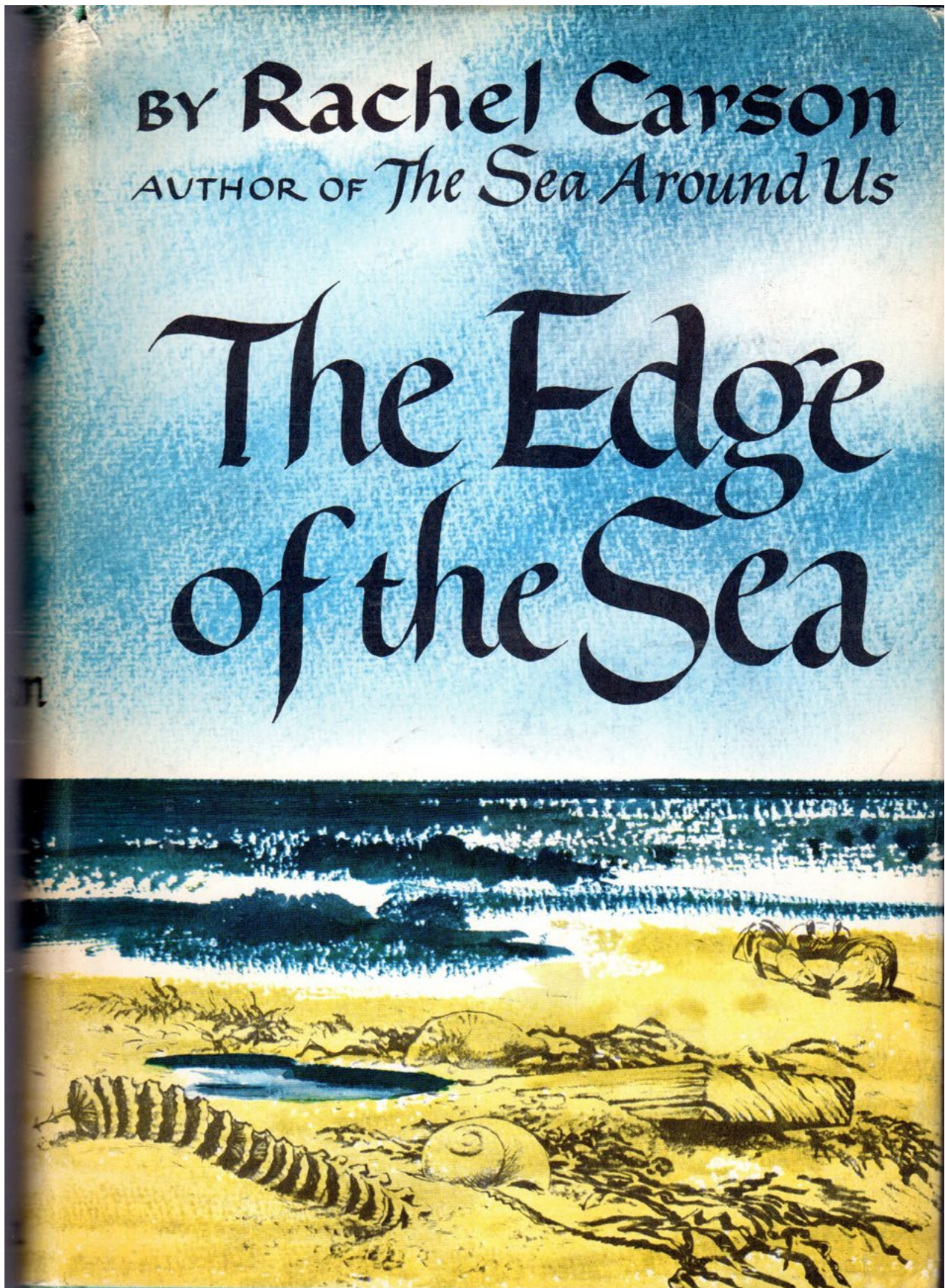
Carson, Rachel. (1955) 1998. *The Edge of the Sea*. Boston: Houghton Mifflin Company.

Henry McCarthy on *Imagine 2200: Climate Fiction for Future Ancestors*

I have been reading a curious and exciting collection of short stories called *Imagine 2200: Climate Fiction for Future Ancestors*. The collection is comprised of twelve stories, the winners of a climate-fiction contest held by Fix, the solutions lab offshoot of the environmental magazine, *Grist*. Individually, these stories immerse the reader in a future earth that feels both familiar and foreign. As a collection, these stories offer hopeful snippets of what life may look like some centuries from now. I usually find imagining the future to be a somber task; however, I have found encouragement and value from the stories in *Imagine 2200*.

One aspect of the Water, Equity, and Justice fellowship that I particularly enjoyed was the interdisciplinarity of the cohort. The conversations we had during the fellowship challenged me to move beyond the confines of my daily work subjects and engage with different resources and methods for exploring topics surrounding water. Discourse around climate change and water supply planning often feels dominated by data, its analysis, and the legitimacy of claims made through analysis and projection. While these aspects of the discourse are valid and important, it is refreshing to conceptualize a climate change future through imaginative and inventive literature.

Fix. 2021. *Imagine 2200: Climate Fiction for Future Ancestors*. Seattle: Grist Magazine. <https://grist.org/fix/series/imagine-2200-climate-fiction/>.



Carson, Rachel. (1955) 1998. "The Edge of the Sea." Boston: Houghton Mifflin Company.

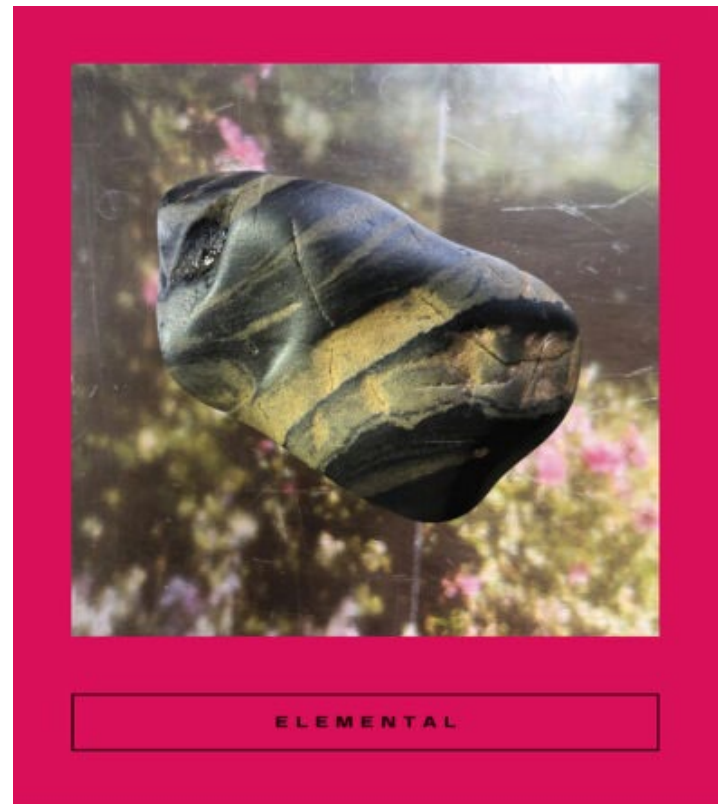
Tyler C. Seidel on *Elemental: Earth Stories*

Elemental: Earth Stories is a collection of English-translated short stories from around the earth featuring brilliant native writers of Japanese, Polish, Kurdish, Hebrew and many more. The authors guide the reader through a journey of human experiences ranging from aging and disease, environmental destruction and research, and family and belonging. The writing styles of each author provide the reader a refreshing exposure to the peculiarities of navigating day-to-day living in an ever-changing world.

While the collective stories are organized according to new, active settings, it is this act of isolation and aggregation that revealed an additional setting not bound in pages. I felt that the atmospheric space of *Elemental*, be it through tone, page structure, or the pacing of the story helped situate me as a reader in the context of how the characters felt in their given environment. I was then able to appreciate more how this context exposed the inherent reality to their stories. I would argue that the environment in *Elemental* is not a passive character or simple setting in each story, but rather a directing force that enables characters to ground themselves across time as they reflect on their experiences and decide how to navigate their conflicts.

Elemental is a valuable piece of literature because it is a commentary on the complications of navigating a universality as entangled individuals and places. Before better appreciating the context of these stories, I could imagine it being tempting to focus on the internal motivations and interpersonal tensions between characters as a means of addressing a story's conflict. However, *Elemental* was an encouraging reminder to me of how appealing to more natural sources for insight can help to explain manufactured

circumstances. In our real world in motion, with the moving stories of *Elemental*, I learned more about how the distance we put between ourselves, our planet, and pages obscures our experiences of being connected.



Coolidge, Sarah, ed. 2021. *Elemental: Earth Stories*. San Francisco, CA: Two Lines Press.

Coolidge, Sarah, ed. 2021. *Elemental: Earth Stories*. San Francisco, CA: Two Lines Press. <https://www.twolinespress.com/shop/book/elemental/>.

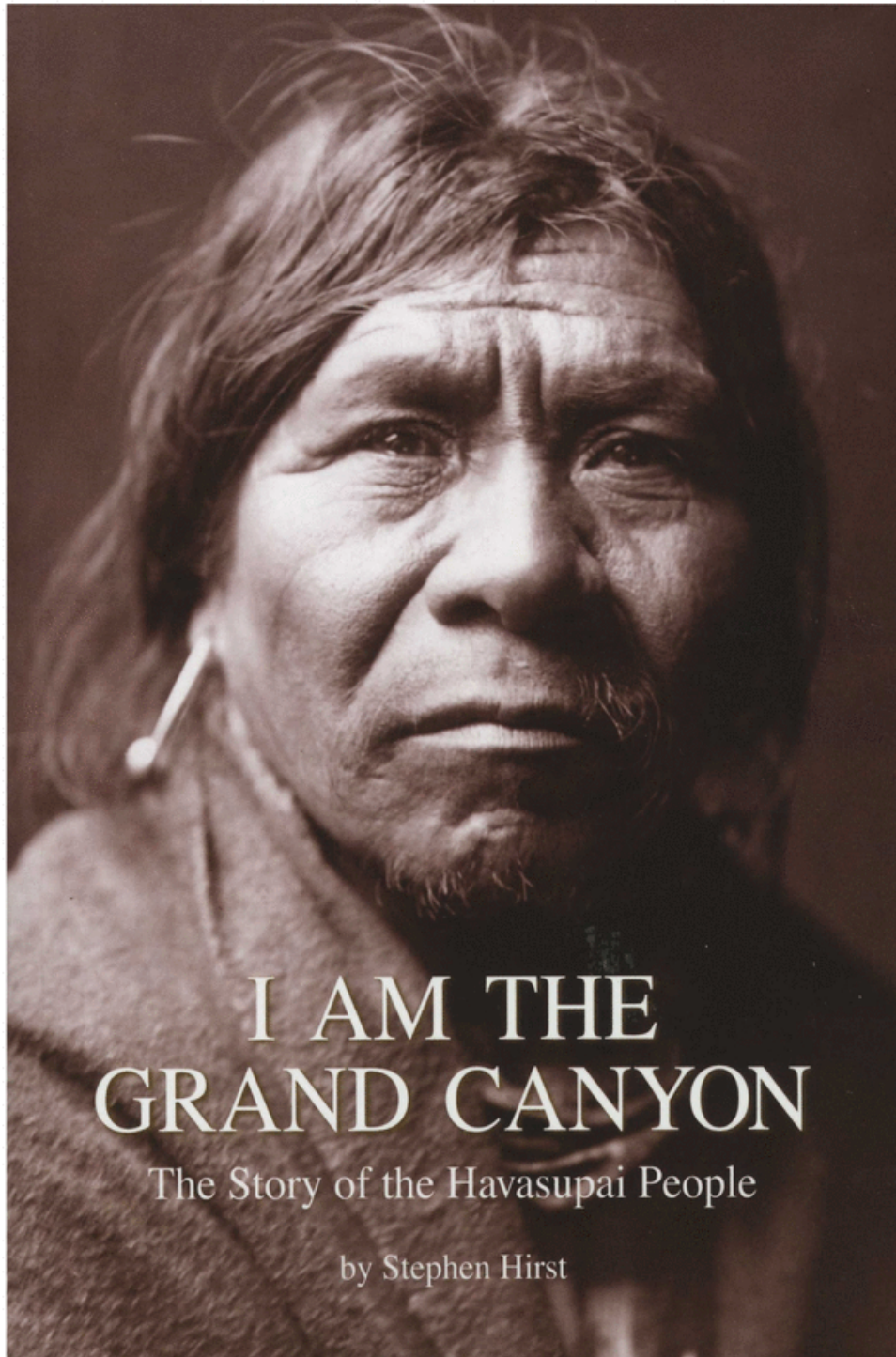
Jabari Jones on “Recognizing Geology’s Colonial History for Better Policy Today” and *I Am the Grand Canyon: The Story of the Havasupai People*

I’ve been thinking a lot about positionality lately—the privileges, challenges, and responsibilities that I carry as a result of my various identities and roles (e.g., university employee, earth scientist, black man, cisgender man). These identities shape and are shaped by the systems and institutions that we interact with and benefit from, and so many of these systems are built from complex and unjust legacies. I want to highlight two sources that I have read recently that have allowed me to wrestle with these ideas.

The first piece is a recent [Eos article](#) by Maddy Nyblade, a graduate student in earth & environmental sciences at the University of Minnesota Twin Cities, and Jenn McDonald, a geologist at the Minnesota Geological Survey (MGS), that explores some of the early history of state-sponsored geologists in Minnesota. Geologic mapping—the practice of mapping the geographic extent and geologic relationship of different rock units—was used to characterize the landscape and to identify potential mineral resources throughout the U.S., often in conjunction with military expeditions. Locating mineral resources, defining transportation corridors, and locating viable farmland all led directly to land dispossession and removal of Indigenous peoples. These practices occurred in Minnesota as well, such as false claims of gold deposits in northern Minnesota that led to cessation of land by the Bois Forte Band of Chippewa. In addition to detailing

history, the paper details the way that the MGS is considering this history in their current practice, including a new policy that gives tribes discretion about whether or not MGS conducts activities on reservation land and/or publishes data collected on tribal land.

The second source is a longer read called *I Am the Grand Canyon: The Story of the Havasupai People* ([1976] 2006), an ethnography written by Stephen Hirst. The book details the history and legal struggles of the Havasupai Tribe who live in and above the Grand Canyon. To pay mind to positionality, I want to note that the main text of the book was written by a white ethnographer in the 1970s, but the work seems to be well-regarded by the Havasupai Tribe, who hold the copyright on the book. The book details the Havasupai’s decades-long legal struggle to retain and reclaim ownership of and access to their land as Grand Canyon National Park was established around them. Many forces worked against the Havasupai through the decades—railroad companies, the National Park Service, senators, presidents, and the Sierra Club. In spite of this opposition and the complexity of politics and economics around the Grand Canyon, the Havasupai were able to reclaim much of their land from the U.S. government with the passage of the Grand Canyon National Park Enlargement Act in 1975.



*Hirst, Stephen. (1976) 2006. "I Am the Grand Canyon: The Story of the Havasupai People."
Grand Canyon, AZ: Grand Canyon Association.*

As an earth scientist who has done field work in national parks, both these sources force me to wrestle with the history of the institutions that I am part of and the way that their history

continues to influence us today. They present a challenge to interrogate the context of the work that I do and to consider the responsibilities that I have as a result.

Hirst, Stephen. (1976) 2006. *I Am the Grand Canyon: The Story of the Havasupai People*. Grand Canyon, AZ: Grand Canyon Association.

Nyblade, M., and J. McDonald. 2021. "Recognizing Geology's Colonial History for Better Policy Today." *Eos: Science News by AGU*, September 7, 2021. <https://eos.org/science-updates/recognizing-geologys-colonial-history-for-better-policy-today>.

Amanda Lyons and Verónica Cadavid González on the UN Special Rapporteur on Water

When the human right to water was first clarified by the UN Committee on Economic, Social, and Cultural Rights in 2002 and then recognized by the UN General Assembly in 2010, the focus was squarely on access to safe drinking water. Since then, however, this increasingly codified human right has continued to evolve into a rallying cry for a wide range of movements seeking to emphasize water's deep connection with peoples' cultural identity, livelihood, and survival and to address the root causes of the degradation and exhaustion of freshwater resources and ecosystems around the world.

This evolution can also be traced in the work of the successive experts who have held the role of UN Special Rapporteur on the human rights to safe drinking water and sanitation.

Because it draws an important bridge between the international human rights framework and deep questions of water, place, and justice, we recommend to the readers of *Open Rivers* the first report by the newly appointed UN Special Rapporteur on water, Pedro Arrojo-Agudo. Arrojo-Agudo is a Spanish physicist and economics professor emeritus from the University of Zaragoza. In 2003 he was awarded the prestigious Goldman Prize for his impressive

leadership intervening in Spain's water policy, especially around dams.

In his first report as UN Special Rapporteur, presented to the UN Human Rights Council in September 2021, Arrojo-Agudo announces his plan and vision for carrying out his UN mandate (2020–2023). He sets out a novel "socio-environmental approach to the human rights to safe drinking water and sanitation." This leads him to make an insightful diagnosis of the global water crisis from a human rights perspective and to establish concrete priorities for action on that basis.

Importantly, Arrojo-Agudo makes explicit the implications of the UN General Assembly recognizing water as a human right in 2010. Although priority is generally given to water for economic activities, the report notes that "the most important functions and values of water are not even substitutable or exchangeable for money." The consequence, for Arrojo-Agudo, of declaring water a human right is that:

it is necessary to think of the value of water for public health and social cohesion; of the landscape and identity values linked to rivers and lakes; of the social, aesthetic,

recreational and symbolic values that water has in different countries, cultures and world views; and of the functions of water in nature, sustaining biodiversity and projecting ecosystem services of vital importance for current society and future generations.

The Special Rapporteur thus concludes that an ethical hierarchy must be adopted that recognizes that the “essential priority is to support life and people’s health and dignity.”

After making this critical advance, the report identifies the current development model to be at the root of the global water crisis—namely because of the damage to aquatic ecosystems and the poverty, inequality, and discrimination the model ignores, sustains, and aggravates. The pandemic, climate change, and the commodification of water exacerbate these factors. In response, the UN Special Rapporteur sets out as priorities: (1) water governance that is truly democratic; (2) the centrality of ecosystems sustainability in the human right to water for personal, domestic, and productive uses; and (3) water as means to advance collaboration and peace.

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Hirst, Stephen. (1976) 2006. *I Am the Grand Canyon: The Story of the Havasupai People*. Grand Canyon, AZ: Grand Canyon Association.

Nyblade, M., and J. McDonald. 2021. “Recognizing Geology’s Colonial History for Better Policy Today.” *Eos: Science News by AGU*, September 7, 2021. <https://eos.org/science-updates/recognizing-geologys-colonial-history-for-better-policy-today>.

UN Human Rights Council. 2021. *Report of the Special Rapporteur on the human rights to safe drinking water and sanitation, Pedro Arrojo Agudo*. UN Doc. A/HRC/48/50, July 5, 2021.

For us, this evolution in human rights thinking and advocacy has direct application. As part of the [Minnesota Human Rights Lab](#), we are researching two cases of peasant communities in Colombia who have sought to defend their rights in the context of the imposition of a mega-development projects—the case of the La Colosa open-pit gold mine in Cajamarca, Tolima, and the El Quimbo hydroelectric dam in Huila. In each case, the existing legal and political routes for opposition to or intervention in the project have been paved with insurmountable obstacles. The approach set out by the UN Special Rapporteur, which centers on sustainability, democratic governance, and an ethical hierarchy of priorities, opens a new and promising human rights agenda for diagnosis and action.

For additional information, see the [official report from the Special Rapporteur to the UN Human Rights Council](#) and a [simplified presentation of the priorities and vision for his work moving forward](#).

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About the Authors

Kathryn Nuernberger's current work-in-progress is *Intertwined: Reflections on Mutualism, Mutual Aid, and Ways of Being Together*. She is also the author of the essay collection *The Witch of Eye*, which is about witches and witch trials. Her poetry collections are *RUE*, *The End of Pink* and *Rag & Bone*. Her awards include the James Laughlin Prize from the Academy of American Poets, an NEA fellowship, and notable essays in the Best American series. She teaches poetry and nonfiction for the M.F.A. program at University of Minnesota.

Henry McCarthy is an environmental scientist in the Water Supply Planning Unit of the Metropolitan Council. In his position at the Council, Henry explores regional water supply challenges and patterns through spatial analysis (GIS), cartography, and design. Henry's work supports the Water Supply Planning Unit's role in ensuring a sustainable water supply for current and future generations through technical guidance and stakeholder collaboration. Before joining the Metropolitan Council, Henry graduated from Macalester College with a degree in geography and minors in environmental studies and data science.

Tyler C. Seidel is Hunkpapa Lakota (Standing Rock) and a first-generation student with a bachelor of science degree in biology, specializing in conservation and biodiversity. He is currently in the ecology, evolution and behavior Ph.D. program at the University of Minnesota Twin Cities where his dissertation research is focused on how aquatic and terrestrial ecosystems are connected through food webs in urban environments. His work has been supported by the National Science Foundation, has urged him to learn from the Institute for Advanced Studies, and has inspired him to build meaningful connections with local and international community advocates.

Jabari Jones, Ph.D. candidate in the Department of Earth & Environmental Sciences, studies how climate and land-use change affect river systems, critically evaluates the efficacy and value of field education in the geosciences, and links social and physical systems through research into environmental justice. Jabari's vision for interdisciplinary geoscientific research with tangible impacts aligns strongly with his teaching, volunteer efforts, and work towards community-driven research.

Amanda Lyons is executive director of the Human Rights Center at the University of Minnesota Law School. She is a specialist in international human rights law and advocacy, and her work looks at rights-based approaches to economic, environmental, and gender justice. Amanda earned her J.D. magna cum laude with a concentration in international human rights law from the University of Minnesota in 2009. Before returning to the U of M, Amanda worked for Franciscans International and the International Center for Transitional Justice (Bogotá, Colombia).

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Verónica Cadavid González is a researcher of the Human Rights Center at the Law School and a master of human rights candidate at the University of Minnesota. From Medellin, Colombia, she holds a bachelor of laws and has worked as a researcher on armed conflict, human rights violations, and symbolic reparation within transitional justice. Verónica's work focuses on international law, advocacy, and civic space, particularly in economic, social, and cultural rights and applies a human rights lens to poverty, inequality, and access to justice for disadvantaged communities.