Edited by Kim De Wolff, Rina C. Faletti, and Ignacio López-Calvo, *Hydrohumanities: Water Discourse and Environmental Futures* derives from a number of academic and public events held by the University of California, Merced, and features contributors from diverse academic backgrounds and research interests. As De Wolff and Faletti note in the introduction, the central question of this edited volume is: “how can humanities thinkers lead diverse scholars and publics into uncertain environmental futures through explorations of water?” (p. 2).

To answer such a broad and profound question, they present the concept of “hydrohumanities,” which refers to an “emerging discourse surrounding water-human-power relationships” (p. 1). They argue that “hydrohumanities scholars see constellations of human-water-power relationships as irreducible to their component parts, none of which acts simply as a context for the others” (p. 6). Hydrohumanities also applies an interdisciplinary approach that traditionally has been used in environmental humanities, and it is “deeply informed by new materialist and posthumanist attention to the active role of water in its multiple materialities,” which is a new transition (p. 1). “Organized in a trajectory from rigorously theoretical research toward explicit policy implications,” chapters in this volume acknowledge the core discourse of hydrohumanities: “hydraulic environments embody social and political power, as do the knowledges that circulate about them” (pp. 9, 2).

This book consists of three parts, with three chapters comprising each part. Chapters in part 1, “Agency of Water,” center on the agency of water (especially its logistical power and relationality) and examine “how water, under its own power, is harnessed by and ultimately confounds human desire and control” (p. 9). In chapter 1, Chandra Mukerji demonstrates that the construction of the Canal du Midi showed King Louis XIV’s ability to reshape nature and to control his subjects, especially those in Languedoc, via overcoming difficulties generated by natural environments and local nobles’ resistance and successfully changing the flows of water with material means. The canal contributed to the growth of state power and changed local societies in Languedoc in seventeenth-century France. As a form of impersonal rule endowed by the logistical power of water, the canal “stood for the state but far from the person of Louis XIV, illustrating the monarch’s capacity to reshape Creation itself to serve as steward of his kingdom” (p. 28).
In chapter 2, Stephanie C. Kane uses a “geo-cultural approach that focuses on collective actors in global shipping” and investigates the “unintentional histories in geoscience timespace” and the “anticipatory port” of Winnipeg (pp. 42, 49, 54). She explains this new approach in detail: “treat the archive of technical knowledge in geoscience as cultural knowledge” as “geoscience informs engineering and engineers lead collective human efforts to rearrange water bodies and human bodies on city, region, oceanic, and planetary scales” (p. 45). With climate change and technological innovation, it is possible in the near future that the opening of an Arctic trade route will make Winnipeg an important port city. (Technological innovation mainly refers to “multimodal or intermodal freight transport” and containerization [p. 46].) However, “humans may take advantage of climate change, but they did not intend, could not have intended, to make climate change happen,” which means humans still need to be cautious about potential hazards behind the conveniences brought by the logistical power of water and ice in the Arctic (p. 49). Kane indicates that the opening of a trade route may not enhance efficiencies of global trade, as a melting Arctic may disrupt the hydrological patterns, make "cold warm oceanic and atmospheric currents" unstable, and cause meteorological and geological disasters (p. 48). Such turbulence may affect global trade and give rise to geopolitical chaos.

In chapter 3, Irene J. Klaver reveals that water is “intrinsically relational” and radical, displays epistemological and ontological shifts from modern water to relational water via theoretical analysis and case studies of New York City and New Orleans, acknowledges the multiplicity and complexity of water, and rejects a simplification of conceptualizing water (p. 46).) However, “humans may take advantage of climate change, but they did not intend, could not have intended, to make climate change happen,” which means humans still need to be cautious about potential hazards behind the conveniences brought by the logistical power of water and ice in the Arctic (p. 49). Kane indicates that the opening of a trade route may not enhance efficiencies of global trade, as a melting Arctic may disrupt the hydrological patterns, make "cold warm oceanic and atmospheric currents" unstable, and cause meteorological and geological disasters (p. 48). Such turbulence may affect global trade and give rise to geopolitical chaos.

In chapter 3, Irene J. Klaver reveals that water is “intrinsically relational” and radical, displays epistemological and ontological shifts from modern water to relational water via theoretical analysis and case studies of New York City and New Orleans, acknowledges the multiplicity and complexity of water, and rejects a simplification of conceptualizing water (p. 46).) However, “humans may take advantage of climate change, but they did not intend, could not have intended, to make climate change happen,” which means humans still need to be cautious about potential hazards behind the conveniences brought by the logistical power of water and ice in the Arctic (p. 49). Kane indicates that the opening of a trade route may not enhance efficiencies of global trade, as a melting Arctic may disrupt the hydrological patterns, make "cold warm oceanic and atmospheric currents" unstable, and cause meteorological and geological disasters (p. 48). Such turbulence may affect global trade and give rise to geopolitical chaos.

In chapter 3, Irene J. Klaver reveals that water is “intrinsically relational” and radical, displays epistemological and ontological shifts from modern water to relational water via theoretical analysis and case studies of New York City and New Orleans, acknowledges the multiplicity and complexity of water, and rejects a simplification of conceptualizing water (p. 46).) However, “humans may take advantage of climate change, but they did not intend, could not have intended, to make climate change happen,” which means humans still need to be cautious about potential hazards behind the conveniences brought by the logistical power of water and ice in the Arctic (p. 49). Kane indicates that the opening of a trade route may not enhance efficiencies of global trade, as a melting Arctic may disrupt the hydrological patterns, make "cold warm oceanic and atmospheric currents" unstable, and cause meteorological and geological disasters (p. 48). Such turbulence may affect global trade and give rise to geopolitical chaos.

Part 2, "Fluid Identities," explores “how the presence or absence of water is powerfully entangled with ethnic, national, and imperial cultural identities, highlighting the interconnectedness between human and material worlds” (p. 91). In chapter 4, Ignacio López-Calvo and Hugo Alberto López Chavolla draw on two novels, José María Arguedas’s Los ríos profundos (Deep Rivers, 1958) and Philip Potdevin’s Palabrero (2016), to study the significance of water to indigenous communities in Latin America from the perspectives of neo-materialism and ecocriticism. Drawing on neomaterialism, both novels acknowledge the political agency of water and demonstrate that rivers/water are the representation of indigenous cultures. Arguedas views the water in Deep Rivers as a metaphor and symbol of indigenous Andean culture, past, and society and suggests that indigenous elements should be maintained despite influences of exotic cultures. Potdevin’s novel Palabrero accuses the multinational mining company of damaging the local environment and doing harm
to indigenous Wayuu communities in northeastern Colombia, which reveals the close connection between indigenous culture and water sources in the Guajira Peninsula. Further, Potdevin's novel implicitly criticizes extractivism, racism, colonialism, and neoliberal internal colonialism in the real world and advocates respect for the agency of water (rivers) in Latin America.

In chapter 5, Penelope K. Hardy demonstrates that the three-dimensional mapping of the ocean with physical, chemical, biological, and geological characteristics in the nineteenth and twentieth centuries was connected with nations’ interest in science, global commerce, and politics/nationalism. With an investigation into the mapping of Matthew Fontaine Maury and the German navy in modern history, Hardy “explores the intricate connections between ocean travel and global imperialism, particularly through the process of naming sea features as a mark of possession” (p. 92). Also, Hardy argues that “the water itself ... retains a fluid identity: it is measured, and it is also a technology of measurement” (p. 135).

In chapter 6, Kale Bantigue Fajardo attempts to challenge the traditional land-based discourse of “nationalist historiographies and imaginaries of Malolos by stressing ... aquapelagic and marine-based perspectives, visual imaginaries, and knowledge” in the context of “rapid urbanization, megaregionalization, industrialization, and the local/global anthropogenic climate crisis” (p. 154). This aquapelagic imaginary of Malolos (a city in the Philippines) relies on “a more localized, indigenous, precolonial, and decolonial ecological approach (not a nationalist one),” which implies that water is also a “fluid reminder ... of their Indigenous roots” (pp. 147, 93).

Part 3, "Culture Currencies," emphasizes the “multiple meanings suggested by the idea of ‘currencies’ when culture leads discussions of value in water policy and management strategies, and re-ends the idea of currency with its literal meanings: circulation, flow, and acceptance” (p. 161). In chapter 7, Faletti investigates two forms of invisibility in California—“one of land and water within it, another of the laborers who work with that land and that water”—to probe land subsidence and social subsidence via the lenses of hydrogeology, fieldwork, and photography (p. 170). In addition, Faletti analyzes “landscape images with social, economic, and political interpretations that underscored critical symbolic content,” which may contribute to political and cultural actions to save water and to solve related social problems in California (p. 180).

In chapter 8, James L. Wescoat Jr. and Abubakr Muhammad argue that the “composite culture of irrigated gardens in the Indus River Basin” should be applied to policies about water resources management in this region (p. 190). The water engineering culture/system and the food machine metaphor in the twentieth century “proved fruitful for physical infrastructure development,” but they also led to negative environmental and social impacts (p. 195). Thus, there is a need for a shift from infrastructure development to water resources management. This chapter then undertakes “a geographical study of irrigated gardens that provide promising models of creative water management from the headwaters to the delta” to study five subregions in the Indus River Basin and summarizes five humanistic threads that tie the irrigated garden cultures together, which “offer culturally inspired and inspiring models of conscientious waterscapes that embrace and go beyond the accomplishments of twentieth-century water management” (pp. 196, 207).

Concentrating on water issues in the United Nations’ agenda for 2030, Veronica Strang in chapter 9 shows that different people's discourses and ideas about water “often lead to conflicts that are intrinsically about values” (p. 223). Therefore, Strang demonstrates that “there is some useful potential to discuss ‘cultural and spiritual’ values as a way of critiquing unsustainable political and economic short-termism” and that social sciences
and humanities should be involved in policies about water, along with STEM (p. 220). Strang suggests that “water is the perfect mirror of relations of power within and between societies and ... equally reflects relations between human groups and nonhuman and material worlds” and discusses various water issues under the UN’s agenda (p. 221). Finally, she puts forward three principles about water use and management from a holistic and long-term perspective and advocates putting these “top-down” principles into action.

Overall, this edited volume is a fantastic book with broad spatial and temporal scales. Although the majority of these chapters mainly discuss histories from the early modern period onward (especially from the nineteenth century onward) and some regions are not included as individual chapters in this volume (such as Oceania, the Middle East, Africa, and East Asia where cultures are also very different from the regions mentioned in this volume), the nine chapters still display many brilliant stories about the “emerging discourse surrounding water-human-power relationships” (p. 1). These chapters primarily deal with the agency of water, multiple identities associated with water, and cultural currencies of water, with an emphasis on coastal and riverine human societies.

In terms of methodologies, hydrohumanities relies on an interdisciplinary approach with an emphasis on humanities to study cases. De Wolff and Faletti claim that authors endeavor to “demonstrate how interdisciplinary cultural approaches grounded in the humanities can transform water conversations that address intensified environmental crises, by promoting interchanges that are far more inclusive than those dominated by techno-economic and policy concerns” (p. 2). Humanities can solve problems when STEM majors cannot, such as the case study of the irrigated gardens in the Indus River Basin in chapter 8. In chapter 10, Strang stresses that “cultural and spiritual values” are more important than “economic” and “environmental” values since the former values “permeate all human engagements with water, including those focused on economic or ecological concerns” and in nature the cultural and spiritual values “generally meant the deeper, more complex values that hold societies together and that are sometimes subsumed by immediate pressures to meet material and economic needs” (pp. 219-20). This is the reason why humanities should be taken into account in UN policymaking about water and why hydrohumanities studies should absorb the outcomes of humanities studies.

Although valuing humanities methodologies, chapters employ different disciplines. For instance, Kane in chapter 2 turns to geography and climatology to imagine and construct the potential economic hinterland of this city. López-Calvo and Chavolla use literary analysis methodologies to decipher the two novels in chapter 4. Hardy also applies cartography in chapter 5 to study mapping of the oceans. In chapter 7, Faletti appreciates a combination of methodologies consisting of hydrogeology, fieldwork, and photography, while highlighting art analysis methods.

It is instructive that all chapters attempt to go beyond traditional analytical models and explanations and to explore new ways to conduct their analysis and develop new interpretations. Some chapters have dialogues with related research topics, either intentionally or unintentionally. Some chapters mirror new theories of different disciplines and new trends in historical studies, such as neomaterialism, complexity theory, nonlinearity thoughts, and postcolonialism.

Finally, many chapters in this volume question the concept of “modernity” which derives from industrialization—What is modernity? What is the origin and driving forces of modernity? What consequences can modernity cause?—in the context of hydrohumanities. In chapter 2, Kane mentions the possible benefits of the Arctic trade route brought by climate change and modern technologies but also concerns about the potential
risks in the future. This implies that modern civil-
ization still cannot thoroughly control nature and,
to a degree, that humans are subordinated to
nature, though humans also have their own agen-
cies. Chapter 6, on aquapelagic Malolos, also refers
to the discussion about modernization. Fajardo
considers urbanization and megaregionalization
to be threats to Malolos, which led to the “degrad-
ation of communities and habitats” (p. 152). The
ecosystem has been changed and coastal areas
tend to face a rising frequency of potential envir-
onmental disasters amid the local/global climate
crisis. In chapter 7, Faletti mentions that modern
agricultural development in California led to over-
extraction of groundwater and then land subsid-
ence. This geological subsidence is accompanied
by social subsidence of marginalized people, such
as the female workers working on such an agricul-
tural landscape, and this dual-subsidence was
cased by modernization. In chapter 8, Wescoat
and Muhammed suggest that people should turn
to the traditional idea of irrigated gardens of the
Indus River Basin to improve water resources
management and that infrastructure development
alone is not enough to deal with water issues in
this basin. The last chapter in this volume also
challenges a mechanized STEM way of coping with
water issues, which is a symbol of modernity. In
this volume, modernity often means overuse of
water resources, neglect of local cultures and tra-
titions, homogenization of water in different rela-
tions, and dependency on modern technology. In
addition, “modern water” can also affect human
society and natural environment in a destructive
way and even challenge some “modern values,” as
Donald Worster reveals in his profound work
Rivers of Empire: Water, Aridity, and the Growth
of the American West (1985).

Thus, contributors in this volume criticize the
modern way of dealing with water issues and call
for the inclusion of humanities in developing solu-
tions to the problems brought by the moderniza-
tion of the extraction of water resources. In con-
clusion, people should regard water as an ever-
changing, dynamic, unpredictable, and uncertain
being and acknowledge the diversity, complexity,
multiplicity, and agency of water, in order to avoid
the potential negative consequences brought by
modernity. Humanities and social sciences should
be included in the policymaking and implementa-
tion processes regarding water.

The structure of this edited volume is logical
and chapters correlate to each other, either liter-
arly or theoretically. It is inspiring that various
contributors even have dialogues with each other
in this volume. For instance, Kane in chapter 2
mentions Mukerji’s study on the Canal du Midi
and the logistical power of water in chapter 1. Such links are likely to impress readers and help
them to reflect on the historical “water-human-
power relationships” in different parts of the
world (p. 1).

However, this volume apparently does not
discuss a lot about aquatic creatures, which are in-
dispensable nonhuman existence below water.
Considering that many communities used/have
been using such natural resources to feed them-
selves for a long time, it is essential to include
such a dimension in the discourse of “water-hu-
man-power relationships” (p. 1). Poul Holm has
been conducting studies on the relationship
between marine creatures and human societies,
which is also an important part of the hydrohu-
manities research field.[2] Despite this minor flaw,
the edited volume is a wonderful, pioneering, and
thought-provoking book for the new research field
of hydrohumanities. Hydrohumanities will help
people understand our past better and offer many
insightful suggestions to current and future aquat-
ic problems humans may likely encounter.

Notes

[1]. Melanie K. Yazzie and Cutcha Risling
Baldy, “Indigenous Peoples and the Politics of Wa-
ter,” Decolonization: Indigeneity, Education & So-
ciety 7 (2018): 2, 3, 12.

[2]. Poul Holm has published a chapter on the
Sustainable Development Goals (SDG) put for-

If there is additional discussion of this review, you may access it through the network, at https://networks.h-net.org/h-environment


**URL:** https://www.h-net.org/reviews/showrev.php?id=58503

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 United States License.