



ISSUE EIGHT : FALL 2017
OPEN RIVERS :
RETHINKING WATER, PLACE & COMMUNITY

GRASPING WATER



<http://openrivers.umn.edu>

An interdisciplinary online journal rethinking the Mississippi
from multiple perspectives within and beyond the academy.

ISSN 2471-190X

The cover image is of Delta of the Yellow River, China (top) and Delta of the Zambezi River, Mozambique (bottom). Landsat imagery courtesy of NASA Goddard Space Flight Center and U.S. Geological Survey.

Except where otherwise noted, this work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). This means each author holds the copyright to her or his work, and grants all users the rights to: share (copy and/or redistribute the material in any medium or format) or adapt (remix, transform, and/or build upon the material) the article, as long as the original author and source is cited, and the use is for noncommercial purposes.

Open Rivers: Rethinking Rethinking Water, Place & Community is produced by the [University of Minnesota Libraries Publishing](https://www.libraries.umn.edu/) and the [University of Minnesota Institute for Advanced Study](https://www.umn.edu/ia/).

Editors

Editor:
Patrick Nunnally, Institute for Advanced Study,
University of Minnesota

Administrative Editor:
Phyllis Mauch Messenger, Institute for Advanced
Study, University of Minnesota

Assistant Editor:
Laurie Moberg, Doctoral Candidate,
Anthropology, University of Minnesota

Media and Production Manager:
Joanne Richardson, Institute for Advanced Study,
University of Minnesota

Contact Us

Open Rivers
Institute for Advanced Study
University of Minnesota
Northrop
84 Church Street SE
Minneapolis, MN 55455

Telephone: (612) 626-5054
Fax: (612) 625-8583
E-mail: openrvrs@umn.edu
Web Site: <http://openrivers.umn.edu>

ISSN 2471-190X

Editorial Board

Jay Bell, Soil, Water, and Climate, University of
Minnesota

Tom Fisher, Metropolitan Design Center,
University of Minnesota

Lewis E. Gilbert, Institute on the Environment,
University of Minnesota

Mark Gorman, Policy Analyst, Washington, D.C.

Jennifer Gunn, History of Medicine, University of
Minnesota

Katherine Hayes, Anthropology, University of
Minnesota

Nenette Luarca-Shoaf, Art Institute of Chicago

Charlotte Melin, German, Scandinavian, and
Dutch, University of Minnesota

David Pellow, Environmental Studies, University
of California, Santa Barbara

Laura Salveson, Mill City Museum, Minnesota
Historical Society

Mona Smith, Dakota transmedia artist; Allies:
media/art, Healing Place Collaborative

CONTENTS

Introductions

Introduction to Issue Eight
By Patrick Nunnally, Editor 5

Guest Editors' Introduction to Issue Eight
By Ruth Mostern and Ann Waltner 7

Features

Watershed Colonialism and Popular Geographies of North American Rivers
By Sigma Colon 12

Industrial Ornament, Modern Symbol: New Orleans' First Waterworks on the Mississippi River
By Rina Faletti, Peer Review 29

Rio Yaqui-The Hiak Vatwe: The Transformation of a Cultural Landscape
By Anabel Galindo and James Hopkins 52

River Conservancy and the Undetermined Future of the Port of Tianjin, 1888-1937
By Kan Li 64

The Vanishing
By Ian Teh 87

Perspectives

Why is water sacred to Native Americans?
By Rosalyn R. LaPier 122

When a river is a person: from Ecuador to New Zealand, nature gets its day in court
By Mihnea Tanasescu 127

Geographies

"C-ing" the River: from Companionship to Control to... Catastrophe or Compromise?
By Stevan Harrell 133

Hydrology and World History: Rivers and Watersheds for Students
By Patrick Manning 139

In Review

Listening to a River: How Sound Emerges in River Histories
By Christopher Caskey 146

Primary Sources

Reflections of “New” Geographies: A Brief Glimpse at Pre-Modern Cartography By Marguerite Ragnow	155
---	-----

Teaching And Practice

Grasping Water Summer Institute Reading List By Ruth Mostern, Ann Waltner and Kan Li	169
---	-----

Editorial

The People Who Make This Journal Happen By <i>Open Rivers</i> Editorial Staff	174
--	-----

INTRODUCTION

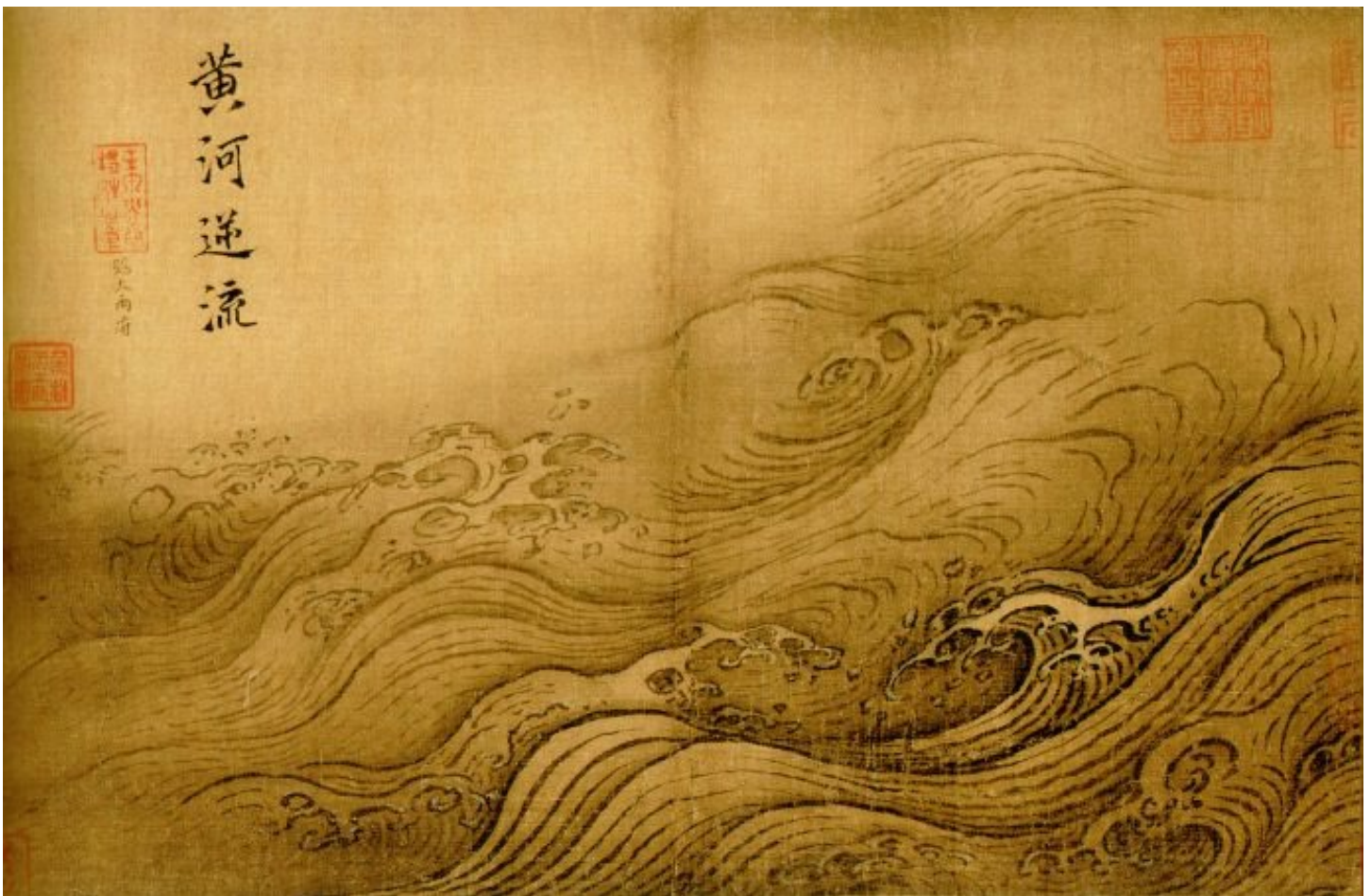
GUEST EDITORS' INTRODUCTION TO ISSUE EIGHT

By Ruth Mostern and Ann Waltner

We are delighted to serve as co-editors for this special issue of *Open Rivers*. The essays and exhibits showcased here emerge from a Summer Institute that we co-hosted in collaboration with the Institute for Advanced Study in July 2016. Titled “Grasping Water: Rivers and Human Systems in China, Africa, and North America,” the Institute was sponsored by the Chiang Ching-kuo Foundation and

the Consortium of Humanities Centers and Institutes with additional support from various departments and programs at the University of Minnesota.

The Summer Institute sought to examine rivers ecologically, at the intersection of the physical world and human culture, in ways that demanded both humanistic and scientific perspectives. The



The Yellow River Breaches its Course, ca. 1160.

ISSUE EIGHT : FALL 2017

attempt to control rivers—to minimize flooding, to facilitate transportation, and to provide water for drinking, irrigation, and electric power—is one of the great enterprises of the human past and present. It is an enterprise with a checkered history: the control of nature has proven to be a vexed question. The question of control of rivers is deeply political: who sets the priorities for river use, who invests in river projects, where is knowledge about rivers produced, who benefits from river control? How do rivers figure into narratives about local meaning and identity, and who sets the terms for those conversations? The Institute looked at the various ways in which communities and political entities in China, North America, and Africa have dealt with the problem of controlling rivers in comparative and historical perspective.

Our international and interdisciplinary participants took part in roundtables, joined a workshop on river science for humanists, received introductory training in GIS and cartography methods, explored digital scholarship and online resources for curriculum development and support, viewed an art exhibit, and boated on the Mississippi River. We pre-circulated readings and involved environmental scientists, filmmakers, and geographic information scientists as well as humanists so that the Institute was a learning experience for everyone. The articles and columns in this issue of *Open Rivers* reflect the types and breadth of the work we did together in the summer of 2016, and we are pleased to be able to share it here.



*Participants of the Grasping Water Institute on the Mississippi River.
Image courtesy of Phyllis Mauch Messenger.*

ISSUE EIGHT : FALL 2017

This issue of *Open Rivers* includes features by Sigma Colon, Rina Faletti, Anabel Galindo, Kan Li, and Ian Teh. The five features reflect on one another in a myriad of ways, and in conjunction with each other, they should launch new kinds of conversations. Architectural historian Faletti and historian Li both deal with the challenges of managing rivers in imperial cities at times of political transition, with Faletti addressing eighteenth-century New Orleans, and Li discussing nineteenth and twentieth-century Tianjin. Although the scales and circumstances differ substantially, both concern the kinds of ambitious water engineering projects that needed to be completed for cities to serve the roles that rulers imagined for them and for rivers to serve as urban emblems. Teh and Colon meditate in different ways on the aesthetics of radically

transformed rivers. As a photographer, Teh finds beauty, geometry, and luminous light on the contemporary Yellow River that traverses an ambitious and fragile China, even through haze, industry, and large-scale infrastructure. Colon, in the same vein, traces the ways that scenic guides and other works of popular geography made distant rivers visible and beautiful to armchair readers in nineteenth-century America, creating support for ideologies that arced from colonization to conservation. Galindo writes about the ways in which the water crises facing the Yaqui peoples along the Hiak Vatwe in northwestern Sonora are the product of historical inequalities, and also about the ways in which the Indigenous communities are seeking solutions to the problem of an impaired river. These are just a few of the many currents that readers may follow to connect



Grasping Water attendees having dinner on board the sternwheeler Jonathan Padelford on the Mississippi River. Image courtesy of Phyllis Mauch Messenger.

these articles. The articles surface many themes from the Summer Institute—how rivers serve as sites of pleasure and beauty, as containers for political and economic power, and as challenges to engineering prowess.

In addition to the five feature articles, this issue of Open Rivers includes several other pieces that emerged from the Grasping Water Institute. The relationships of Indigenous peoples to rivers were one theme of our Institute discussions, and so we are offering two Perspectives columns, previously published work that forefronts that perspective. Our Teaching and Practice column is the bibliography of pre-circulated readings that formed the common vocabulary and knowledge base for Institute participants. Two eminent Institute participants have written Geographies columns. Anthropologist Stevan Harrell explains that the meaning of the Anthropocene is that we are running out of resilience itself, not just particular planetary resources. World historian Patrick Manning offers a prototype for a historical atlas of rivers and watersheds, demonstrating the kinds of historical insights that river maps can offer at a range of spatial scales from the global to the local. Christopher Caskey's In Review column looks at various works of recent scholarship about world rivers, and he asks an intriguing question about them: why do we spend so little time studying and thinking about what rivers sound like and how humans have silenced them over time? Showcasing the maps that she presented in the Institute tour of the University of Minnesota Special Collections, Marguerite Ragnow has gathered images of some extraordinary early modern cartographic treasures from the James Ford Bell Library collection, which reveal how rivers have always oriented the makers and readers of maps. Our objective in presenting this collection of columns is to reproduce some of the spirit of broad and interdisciplinary inquiry that animated the Institute itself and to share some of the material that we looked at and discussed together there.

Regrettably, none of the Africanist scholars who participated in the Institute could submit work for this issue of Open Rivers, so we would like to acknowledge those participants and the important contributions that they made to the Institute. Our African participants were: Jacqueline Goldin, a cultural anthropologist and water policy expert from the University of the Western Cape; Mucha Musemwa, a historian of water in colonial and postcolonial Zimbabwe from the University of the Witwatersrand; Philip Olayoku, a research fellow at the University of Ibadan who studies the social and cultural impacts of dam resettlement in Nigeria, and Kwadwo Owusu, a geographer from the University of Ghana, who examines rivers and development at a time of climate change in both Africa and China. We very much hope that the work of some of these scholars will appear in future issues of Open Rivers.

In short, we hope that the collection of thoughts about world rivers that we have gathered in this special issue of Open Rivers suggests the insights and serendipitous connections that the Summer Institute offered to those who participated in it directly. We anticipate contributing to a growing and interdisciplinary conversation about rivers in history, culture, science, and engineering. We know that people, other species, and the rivers with which they live are always on the move together and always affect one another, and we can see that rivers reflect human power while they also power human activities. We historians generally think about human territories that are relatively shapely and compact: cities, nations, and places of shared experience. Rivers are not like this at all. They are long and skinny, they both connect and divide people, they are never still, and they traverse many ecosystems and cultures. However, despite their diversity, they all offer irrigation, drinking water, hygiene, transportation, and energy to the people who live alongside them. When we study the histories and geographies of rivers worldwide, we gain insight about these processes on rivers close to home as well. Studying rivers and thinking seriously

about them thus requires new ways of thinking about people and space, but we are certain that it is worth learning these new frameworks since rivers are vital to all forms of human life and flourishing.

About the Authors

Ruth Mostern is Associate Professor of History and Director of the World History Center at the University of Pittsburgh. She is the author of *Dividing the Realm in Order to Govern: The Spatial Organization of the Song State (960-1276 CE)* (Harvard 2011) and the co-editor of *Placing Names: Enriching and Integrating Gazetteers* (Indiana 2016). Her current book project is entitled *Following the Tracks of Yu: The Environmental and Imperial Worlds of the Yellow River*. She has co-organized several workshops and meetings on global river history including Grasping Water at the University of Minnesota.

Ann Waltner is a professor in the Department of History at the University of Minnesota. She writes on Chinese history and comparative gender history. Recent works include *The Family: A World History* (with Mary Jo Maynes) and a comprehensive website on the eighteenth-century Chinese novel *Dream of the Red Chamber*, which can be found at <http://z.umn.edu/redchamber>.