

Pacific Circle Newsletter
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Members' Activities and Scholarship

Book Reviews

Ruth Mostern. *The Yellow River: A Natural and Unnatural History*.
New Haven: Yale University Press, 2021. 376 pp. US\$35.00 (cloth),
ISBN 978-0-300-23833-4.

Reviewed by Xiangli Ding (Rhode Island School of Design)
Published on H-Water (November, 2022)
Commissioned by Yan Gao

Ding on Mostern, *_The Yellow River_*

The Yellow River, which was dubbed the "mother river" of the Chinese nation and "China's sorrow" in recent history, has become a focal point in the academic field of Chinese environmental history. In recent years, three monographs centered on the breaches and management of the river have been published in English. Micah Muscolino on the Huayuankou breach in 1937, David Pietz on the management of the river in the modern era, and Ling Zhang's award-winning book on the 1048 flood.[1] Though Pietz covers a longer historical period, all three focus on the lower stream of the Yellow River on the North China Plain. The river, however, traverses a bigger basin and longer history. Despite their compelling narratives and insightful analysis, it is hard to claim that we have harnessed a holistic and thorough understanding of the river and its history.

Ruth Mostern's new book, *_The Yellow River: A Natural and Unnatural History_*, is the latest addition to this flourishing field. Unlike the previous three books, Mostern provides a temporally *_longue duree_* and geographically holistic view of the river. In doing so, she aims to address a simple and yet fundamental question: How did the Yellow River become yellow? People with basic geographic knowledge would know that the sediment of the river mainly comes from erosion on the Loess Plateau. Yet, to elaborate on the phenomena and its historical evolution requires extensive historical data

collection, synthesis, and interdisciplinary inquiry.

Epistemologically, Mostern introduces the concept of hydrosocial to underline the anthropogenic nature of the Yellow River. Unlike conventional river histories which focus on water/flooding on the floodplains and take sediment "as an inherent and permanent reality to manage," Mostern takes sediment as the main subject of historical examination. In her words, sediment is "a manifestation of particular history and geography" (p. 6). It is the key to unlock the environmental and human mechanisms behind major events unfolding on the Yellow River throughout history.

The book consists of four chapters. Each chapter chronologically covers a specific life span of the Yellow River. In chapter 1, based on the works of archaeologists, geographers, historians, and scientists, Mostern introduces the essential environmental and human factors in the making of the Yellow River history. According to her, the history of the Yellow River is the history of an entire hemisphere (p. 25). Traversing through a semi-arid zone renders the flow susceptible to climate variations. More importantly, Mostern highlights the nature of the Loess landscapes as the major element shaping the Yellow River. They retain moisture very well when they are intact, but they deteriorate rapidly when vegetation is removed. Generally speaking, human activity was responsible for the loss of ground cover. Mostern identifies four inflection points of human activity that led to intensive soil erosion on the Loess Plateau. The first occurred around about 7,000 to 7,500 years ago and coincided with the emergence of Neolithic agriculture in the region. The second happened as a result of state-directed Iron Age agricultural colonization around 300 BCE to 1 CE. The third, driven by population growth, military defense, and timber commodification, occurred between about 800 and 1100 CE and featured the most abrupt increase of sediment discharge of all. A final turn toward high erosion rates coincided with intensive dryland farming of maize and tubers in the seventeenth and eighteenth centuries and the population boom that accompanied it. Based on these inflection points, Mostern divides the history of the Yellow River into three major life spans. The following three chapters examine each life span respectively.

The second chapter covers the period from the Neolithic through the seventh century. Mostern attributes the main point of this book, the

correlation between erosion on the Loess Plateau and the catastrophes on the floodplain, to the historical geographers and archaeologists, such as Tan Qixiang and T. R. Kidder. The first surge of erosion on the Loess Plateau came after the technological innovation of iron tools, agricultural intensification and state-sponsored settler colonization on the plateau during the Qin and Han Dynasties. However, most of the Loess Plateau remained sparsely populated. The eventful era of the river was still to come. Yet it was not simply a linear deforestation and declination process. Despite the culmination of erosion in the long term, Mostern unveils a more complicated process that featured climate variability, population migration, and the rivalry between pastoralism and agriculturalism.

The next chapter examines the second life span of the river, when it started to be called the Yellow River. This signified the unprecedented rise of sediment carried by the river. From the late Tang to the rise of the Mongol empire, the Loess Plateau was still a multiethnic frontier zone. Thus, rival states contested to expand and strengthen their presence in the area. Frequent battles, fortifications, and colonization had exacerbated the environmental degradation of the upper terrains in the river basin. As a result, unprecedented flood catastrophes devastated communities on the floodplain downstream. At the end of the chapter, Mostern points out the significance of north China's ecological degradation in helping us understand the Tang-Song transition and the shift of China's economic center to the south. It is true that most scholarship has been focusing on the emergence of the South. But it is worth mentioning that the decline of the North, including the environmental degradation, has been examined by scholars in China.[2]

The last chapter examines the most eventful life span of the Yellow River in the late imperial era. According to Mostern, the Ming defense priorities, the introduction of new world crops, and the collapse of the Mongols had made the entire Loess Plateau an ethnically Chinese space. Sedentary agriculture had become the predominant mode of production on the Loess Plateau. In the eighteenth and nineteenth centuries, population growth and the commercialization of the timber industry led to persistent soil erosion in the Yellow River basin. However, because state-led hydraulic engineering was premised on the Grand Canal-centered political economy, minimal attention was drawn to mitigating the

erosion problem along the middle course. The welfare of the floodplain denizens was secondary to grain transportation to the capital city of Beijing. Mostern also challenges the assumption among scholars about the relationship between hydraulic management and political legitimacy by affirming its recent origin. I believe this would trigger further discussion in the field.

To scholars who are familiar with the Yellow River history, the main argument of the book is not new. However, no one has illustrated and substantiated it better than Mostern. In particular, the use of digital tools in making those charts and maps is innovative. Data collection and analysis are demanding tasks and can be tedious. Mostern and her collaborators presents us with the most comprehensive data of the Yellow River history so far. This alone should be applauded.

Above all, the book is a must-read for students and scholars who are interested in Chinese environmental history or water history in general. Beyond the field of China studies and environmental history, general audiences may also find this book relevant. Mostern reveals that the history of the Yellow River could shed light on the current climate crisis. Throughout history, officials such as Zhang Rong, Ouyang Xiu, and Hu Ding pinpointed the erosion on the Loess Plateau as the root of the Yellow River problem. Yet the political economy of imperial China prevented states from taking effective action. Likewise, the current climate crisis poses another conundrum for the world today. The successes and failures in the Chinese people's interactions with the Yellow River offer a historical lesson for all of us. Therefore, non-academic readers, especially policymakers, will also find this book inspiring.

Notes

- [1]. Micah S. Muscolino, *_The Ecology of War in China: Henan Province, the Yellow River, and Beyond, 1938-1950_* (New York: Cambridge University Press, 2015); David A. Pietz, *_The Yellow River: The Problem of Water in Modern China_* (Cambridge, MA: Harvard University Press, 2015); Ling Zhang, *_The River, The Plain, and The State: An Environmental Drama in Northern Song China, 1048-1128_* (Cambridge: Cambridge University Press, 2016).

[2]. See Cheng Minsheng, *Zhongguo Beifang Jingjishi* (Beijing: Renmin chubanshe, 2004), chapter 10.

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URL: <https://www.h-net.org/reviews/showrev.php?id=58286>

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Research Requests and Collaborations

From Dr. Barbara Kirsi Silva, History of Science and Technology

Universidad Albert Hurtado, Santiago, Chile

"I am working with a group of international scholars/historians about science diplomacy, and we want to start a conversation about Latin America / East Asia connections. In some informal talks, the role of the Pacific showed up strongly, and I thought of contacting you to ask if you know who might be interested in this subject: i.e. science, diplomacy and circulation throughout the Pacific. We don't have anything specific in mind yet (maybe a workshop, maybe some special issue), but it seemed to me reaching the Pacific Circle was like the natural first step."

Please contact Dr. Silva at barbarakirsi@gmail.com

Selected Bibliography of Recent Publications: Articles

Amanda Black, Gary Garner, Melanie-Mark-Shadbolt, Jovana Balanovic, Edith MacDonald, Ocean Mercier, and Janine Wright, "Indigenous Peoples' Attitudes and Social Acceptability of Invasive Species Control in New Zealand," *Pacific Conservation Biology* 28:6 (2022), 481-490

Robert P. Prys-Jones, "Allan Octavian Hume (1829-1912): His Development as an Ornithologist Until His Departure from Etawah District, India, in 16867," *Archives of Natural History* 49:2 (2022)

Jessica Hurley, "Nuclear Settler Colonialism at Sea, or How to Civilize an Ocean," *American Quarterly* 74:4 (2022), 969-995

Selected Bibliography of Recent and Forthcoming Books

Leela Fernandes, *Governing Water in India: Inequality, Reform, and the State*, Seattle, WA: University of Washington Press, 2022.

Christina Gerhardt, *Sea Change: An Atlas of Islands in a Rising Ocean*, Berkeley, CA: University of California Press, forthcoming May 2023

Libby Rumpff, Sarah Legge, Stephen van Leeuwen, Brendan White, and John Woinarski, *Australia's Megafires: Biodiversity Impacts and Lessons from 2019-2020*, CSIRO Publishing, February 2023

Ian M. Miller, Bradley Camp Davis, Brian Lander, and John S. Lee, eds. *The Cultivated Forest: People and Woodlands in Asian History*, Seattle, WA: University of Washington Press, 2022.

Fellowships, Awards and Prizes

Royal Society Early Career Research Award

This award consists of a cash prize and publication in the Society's Journal and cash prizes for the runner-up and honorable mentions. Applicants should submit a previously unpublished essay of no more than 12,000 words based on original research. It can relate to any aspect of the history of science, technology and medicine in any historical period. The deadline for submission is February 28, 2023.

Further information at <https://royalsocietypublishing.org.rsnr/essay-award>.

Annals of Science Prize for 2023

This prize is awarded by the Annals of Science to the author of an original, unpublished essay in the history of science, technology, and medicine not currently under consideration for publication elsewhere. The prize is intended for those who are currently doctoral students, or have earned their doctorate within the past four years. The deadline is January 31, 2023.

Please send submissions to Mordecai Feingold at feingold@caltech.edu

Applications for ICHO Travel Fellowships for Oceans HSTM

The International Commission of the History of Oceanography (ICO) invites applications for fellowship support from scholars studying the history of the Marine Sciences, broadly conceived. Funds can be used to support travel for archival research or conference participation, and other travel in support of ocean-centric scholarship will be considered. Please

send a cover letter describing the proposed research or presentation, a budget justifying the amount requested up to US\$500, a 2-page c.v., and the names of two colleagues who can be contacted as references. Please save and send all of that information as one PDF file.

Please send the application file to Franziska Torma at franciska.orma@rcc.lmu.de

IUHPST Essay Prize in History and Philosophy of Science

The International Union of History and Philosophy of Science and Technology (IUHPST) invites submissions for the 2023 Essay Contest. The Commission invites essays of 5,000 to 10,000 words written in English addressing the question: "How can history and philosophy of science, technology, and medicine help us to understand and evaluate the role of values in science?" All entries should consist of work not previously published.

Entries should be submitted in PDF format by email to the Chair of the Joint Commission, Dr. Agnes Bolinska at bolinska@mailbox.sc.edu by January 15, 2023.

"First Research Article" Fellowship Program

Max Planck Institute for the History of Science, Berlin

September 1, 2023 – February 29, 2024

The Max Planck Institute is offering two fellowships for outstanding graduate students. Applicants should demonstrate their commitment to a research topic related to the History of Science, Technology, and Medicine, or Science and Technology Studies and a need to work with an international community to prepare and publish their first single-authored research paper in the English language. Eligible students should be in good standing through February 29, 2024, and should have completed the archival research for their work and can devote six months to writing and preparing an article in English for journal publication.

Applicants should send the following in English through the online portal:

<https://recruitment.mpiwg-berlin.mpg.ed/position/23330824>

1. Official proof of enrollment and good standing in an accredited graduate program from your PhD thesis or confirmation by your University.
2. Brief description of the dissertation.
3. CV and list of publications.
4. Title, abstract and outline of intended essay (maximum of 750 words).
5. English writing sample.
6. Letter of recommendation from one supervisor.

Please submit the above no later than February 15, 2023.

Upcoming Conferences

"Marine Worlds of the Long Eighteenth Century"

December 7-9, 2022

ACU Fitzroy Campus, Melbourne

The Australian and New Zealand Society for Eighteenth-Century Studies (ANZSECS) and the Australian Catholic University are co-hosting the 18th David Nichol Smith Seminar for Eighteenth-Century Studies. Participants seek to explore and understand the experiences, knowledge, and spaces of oceanic, submarine, and more widely watery worlds from 1650-1850. The organizers want to highlight and interrogate how the ‘blue humanities’ and the environmental humanities in general are in conversation with the study of the eighteenth century across disciplines.

For further information, please visit <https://dnsxviii2022.org>

Pacific Coast Conference on British Studies Annual Meeting

University of California, Riverside

March 24-26, 2022

Organizers welcome papers and panels in the field of British Studies broadly defined to include the history of science, technology and medicine, among other areas, and broadly defined in terms of temporality and chronology.

Proposals for papers or panels should include a 200-word abstract for each paper and a 1-page c.v. for each participant. Panel proposals should also include a brief description of the panel and a brief c.v. for the proposed chair/commentator.

Please send the above to Prof. Erika Rappaport at rappaport@ucsb.edu no later than December 16, 2022.

Contact Prof. Peter Hoffenberg if you are interested in participating. Email: peterh@hawaii.edu

Biennial ANZSHM Conference

12-15 July 2023

Health & Medical Science Building, University of Adelaide

The Australian and New Zealand Society of the History of Medicine (ANZSHHM) invites participants to its 18th Biennial Conference with the theme of “Second Opinions.” Grants for postgraduate students and early career researchers are available. For further information, please visit: www.anzshm2023.com or ncosta@ncestvents.com.au

