

***Pacific Circle Newsletter***  
***Volume 3:7 (10 April 2023)***

***FROM THE CIRCLE ARCHIVE***

In honor of the Pan-Pacific Congress celebrating its centennial anniversary:  
Roy MacLeod and P. F. Rehbock, "Developing a Sense of the Pacific: The Pan-Pacific Congress in Australia," *Pacific Science* 54:3 (2000), 209-226.

***BOOK REVIEWS***

Gordon Barrett, *China's Cold War Science Diplomacy*, Cambridge: Cambridge University Press, 2022 xiii + 258 pp. US\$99.99 (cloth), ISBN 978-1-108-84457-4.

Reviewed by Richard P. Suttmeier (University of Oregon)  
Published on H-Sci-Med-Tech (March 2023)  
Commissioned by Penelope K. Hardy

*Science and Diplomacy Then and Now*

Gordon Barrett's *China's Cold War Science Diplomacy* is a carefully researched study of a largely overlooked topic. While most Western writing about the role of science in China's international relations focuses on the post-Cultural Revolution era, considerably less has been written about the period from the Chinese Communist Party's rise to power in 1949 to the early 1970s. A limited amount of attention has been given by others to China's bilateral science relations with the Soviet Union and its Eastern European bloc, but Barrett is less interested in these than in the ways China's "science diplomacy" developed through the "transnational" activities of Chinese scientists interacting with foreign scientists and with nongovernmental international scientific organizations.

The author introduces his subject by recalling China's experience with the 1957-58 International Geophysical Year (IGY). China's interest in joining IGY was marked by discussions with foreign

scientists and the formation of a Chinese national IGY committee and the preparation of a national program outlining the contributions China might make to the success of IGY research. When the United States supported inclusion of the Republic of China in IGY, China rejected a compromise solution that would have provided for the participation of both "Chinas" as inconsistent with its "one China" policy. This led to Beijing's withdrawal from participation in 1957 and reinforced its view that international science organizations controlled by the West were not welcoming of China's participation in spite of encouragement from sympathetic Western scientists. Association with the World Federation of Scientific Workers (WFSW) represented a more congenial option and remained so throughout the 1950s and beyond.

The ties to WFSW go back to the late 1940s and the activities of the Chinese Association of Scientific Workers (CAScW). With leading roles played by elite Chinese scientists (e.g., meteorologists Tu Changwang, Zhu Kechen), CAScW was an important "united front" organization supported by the CCP that sought to provide an organizational home for scientists with a variety of political views. After 1949, it became the All China Federation of Scientific Workers, which in turn was reorganized into the Science and Technology Association of the PRC (STAPRC), now usually referred to as China Association for Science and Technology (CAST). As with its successor organizations, CAScW, a nominally nongovernmental organization, became a vehicle for transnational scientific ties, especially with WFSW and briefly with UNESCO.

In the 1950s, China also explored involvement with the Pugwash conferences. With his many connections with international science, physicist Zhou Peiyuan had the lead in representing China and, again, came to symbolize the ways in which Western-trained scientists from the pre-'49 period were able to use transnational professional connections in attempts to promote China's interest. But Pugwash also was dominated by representatives of the "super-powers," leading China to again conclude that China's interests could not be advanced in that forum. China ceased participation in 1960, turning again to the WFSW as the preferred platform for Chinese efforts to exert international scientific leadership. In the face of growing Sino-Soviet tensions (seen also in the Pugwash and WFSW contexts) in the late 1950s and early 1960s, China intensified efforts to turn the Federation into a major "anti-imperialist" forum, thus, deepening competition with the Soviet Union for Third World leadership.

This turn in science diplomacy is discussed in two chapters charting China's new path in the 1960s. Troubled by the direction of the Federation, China's science diplomacy after 1963 began to focus more on building solidarity with the developing world. The two major science diplomacy initiatives which followed were the 1964 Peking Science Symposium (at which Japanese physicist Sakata Shoichi was hosted by Mao Zedong for a discussion of elementary particles) and, just prior to the outbreak of the Cultural Revolution, the 1966 Physics Colloquium. By this time, science was becoming increasingly intertwined with radical domestic politics in China, reflected in a science diplomacy focusing on revolutionary solidarity with the

Third World and the promotion of a vision of scientific development not dominated by the West or the Soviet Union.

To further illustrate the importance of personal ties in transnational science, Barrett describes the China experiences of five accomplished British scientists, all having sympathies with the new China, but with varying degrees of exposure to China and varying commitments to Marxism-Leninism-Mao Zedong Thought. These included crystallographer J. D. Bernal, long known for his left-wing sympathies, entomologist Howard E Hinton, physicist Kurt Mendelssohn, and crystallographers Kathleen Lonsdale and Dorothy Hodgkin. For Barrett, these cameo sketches are illustrative of the complexity of science and international relations in the exercise of science diplomacy. As the author puts it, "As when attempting to characterize organizations such as WFSW, or events such as either the PCSWA or Peking Science Symposium, it is impossible to characterize the visits or activities of the scientists under straightforward or singular labels. Indeed, they are much more interesting because of the fundamentally interconnected nature of personal, political, and professional layers running through them" (p. 211).

Barrett concludes with a useful summary of his findings and conclusions. As noted above, his history is one of complex interconnectedness of the interests of the CCP and the professional interests of China's elite scientists. With few exceptions, the pursuit of transnational ties and professional interests by Chinese scientists could only occur within party-created institutional frameworks--the foreign affairs bureaucracy, the Chinese Academy of Sciences (CAS), and CAST--and resulted in science inescapably becoming part of the foreign policy of the party-state. Yet genuine professional exchanges also occurred, often resulting from personal relationships developed in the pre-'49 era, and as a result of exchanges and participation in organizations like WFSW and Pugwash.

Barrett argues that his work supports the thesis that there is more continuity than discontinuity in Chinese international scientific affairs from the Republican period to the post-Mao era of reform and openness. Western-trained scientists, or those with extensive international contacts, maintained transnational ties during this period and facilitated the opening to international science after 1978. All the while, these transnational relations occurred within a framework set by the CCP and were guided by CCP united-front policies, as remains the case today. Reminiscent of initiatives of the 1960s, China's current science diplomacy again includes outreach to developing countries by including offers of scientific cooperation in its Belt and Road initiatives and in efforts to promote a "Chinese model" of scientific development as an alternative to that offered by the West.

As science and technology have come to play a more consequential role in international relations, the importance of science diplomacy for many governments has increased. In his discussion, Barrett calls attention to a 2010 definition of science diplomacy developed by the Royal Society and the American Association for the Advancement of Science that differentiates among "science in diplomacy," "diplomacy in science," and "science for diplomacy." [1] This suggests that science diplomacy faces a complex task environment, one in which governments are challenged to manage and exploit transnationalism.

Referring, typically, to flows of goods, money, and people across national boundaries, normally in nongovernmental settings, transnationalism calls attention to the importance of cross-national networks. Barrett's account of the roles played by key scientists illustrates the importance of such networks. But thanks to advances in commercial aviation (think 747) and communications and information technologies, today's transnationalism in science is orders of magnitude greater than that of the Cold War years. Transnational science today takes a plethora of forms--the international scientific activities involving direct scientific cooperation between and among scientists themselves, relations between and among national and international scientific organizations, the international roles of universities and the various ways in which "transnational corporations" engage scientists and research centers around the world.

The discourse of transnationalism, though, can sometimes mask the roles of national governments and leaves unanswered the question, What are the relationships between governments and transnational phenomena? Barrett's study provides only a partial answer. As we have seen, China's party-state both provided the frameworks for transnational science and also employed scientists and their transnational ties in the service of political ends. Yet, arguably, some of the most important areas of Chinese science diplomacy in the 1950s and since the late 1970s have been focused on enhancing national scientific and technological capabilities by using diplomacy for science. One suspects that for both China's political leaders and for the great majority of the scientists, government-to-government relations with the Soviet Union (and Soviet bloc countries), allowing or access to their educational and scientific resources, occupied a far more central place than transnational relations with WFSW. The collapse of the bilateral relationship with the Soviet Union, especially in the area of nuclear cooperation, of course, represented an enormous setback in China's diplomacy for science.

Understandably, this type of diplomacy for science is somewhat beyond the scope of Barrett's study, and he can't be faulted for not giving it more attention. But signaling the absence of discussion of these issues illustrates the difficulties of getting conceptual control over the idea of "science diplomacy" and the challenges the practitioners of science diplomacy face.

Gordon Barrett has probed deeply into a variety of sources in writing this interesting and suggestive book. He offers new insights into how science served China's united-front operations in the period leading up to the establishment of the People's Republic. Students of Cold War history are presented here with new perspectives on China's role. Those in the science studies and science and international relations communities are offered a case of the complex interactions between the professional and the political, as internationally engaged Chinese scientists sought to build transnational relations in the context of a Chinese state committed to using science to enhance national power and influence. And, at a time when the tensions between China and the West are testing science diplomacy in new ways, the study also prompts us to think more carefully about science and international affairs in our current era of transnational science and technology.

Note

[1]. The Royal Society, *\_New Frontiers in Science Diplomacy\_* (London: Science Policy Centre, The Royal Society, 2010), accessed February 10, 2023, [https://www.aaas.org/sites/default/files/New\\_Frontiers.pdf](https://www.aaas.org/sites/default/files/New_Frontiers.pdf).

Citation: Richard P. Suttmeier. Review of Barrett, Gordon, *\_China's Cold War Science Diplomacy\_*. H-Sci-Med-Tech, H-Net Reviews. March, 2023.

URL: <https://www.h-net.org/reviews/showrev.php?id=58639>

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Samantha Muka, *Oceans under Glass: Tank Craft and the Sciences of the Sea*,  
Chicago, IL: University of Chicago Press, 2023, 240 pp. US\$35.00 (cloth),  
ISBN 978-0-226-82413-0.

Reviewed by Kimia Shahi (University of Southern California and  
Harvard University Center for the Environment)

Published on H-Sci-Med-Tech (April 2023)

Commissioned by Penelope K. Hardy

On a recent visit to the New England Aquarium, I was struck by the blend of artifice and reality that characterized my experience of viewing underwater worlds behind glass. Nose to tank, I encountered living fish, sea turtles, and corals, feeling briefly as if I, too, were immersed in the ocean. Yet as I moved along the aquarium's darkened corridors, my eyes drawn from one

luminous window to the next, I also wondered about the less visible forms of labor, technology, knowledge, and artistry that brought these marine environments to me and impacted how I saw and understood them. In *Oceans under Glass: Tank Craft and the Sciences of the Sea*, Samantha Muka brings histories of aquarium design, construction, and maintenance to light and shows how the making of aquariums, or tank craft, has played an essential role in shaping the study and knowledge of marine creatures and ecosystems. At its simplest, an aquarium is a three-dimensional container built to house captive marine organisms and to allow humans to observe them. An aquarium is thus both a simulated environment and an instrument of visualization; its earliest proponents likened it to a "miniature ocean" but also compared it to the microscope and telescope.[1] In lively prose that shifts fluidly from fieldwork stories to detailed technical descriptions, Muka describes how diverse historical actors have sought to balance the aquarium's sometimes conflicting purposes as both habitat and visual technology. Throughout the book, Muka argues persuasively that looking carefully at aquariums, rather than simply seeing through them, draws our past and present relationships with the ocean into greater focus. She invites us to consider how human-engineered environments might shape the futures of the ecosystems they are designed to simulate.

*Oceans under Glass* is organized around four different kinds of aquarium tank, each designed for a different purpose. These are: photography tanks, designed to aid in capturing underwater images on camera (chapter 2); Kreisel tanks, engineered to keep water in motion according to the needs of jellyfish (chapter 3); reef tanks, crafted to recreate complex reef ecosystems (chapter 4); and breeding tanks, used to propagate species in captivity (chapter 5). Following these technologies takes Muka across disciplines and beyond the traditional boundaries of the academy. In addition to the archives and scholarly publications, her research encompasses interviews, Facebook posts, Etsy pages, and Kickstarter campaigns. She visits aquariums, research institutions, and theme parks and charts formal and informal networks of exchange among professionals and amateurs, between hobbyists and scientists, aboard research vessels and in labs, in museum basements, on beaches, and at kitchen tables across the United States, Germany, Japan, Indonesia, Ireland, and the oceans in between. Histories of tank craft, Muka demonstrates, are rarely documented in unbroken chains of citation; much isn't even published at all. Instead, this is a technology that productively "blurs the lines between making and knowing," whose advancements are due as much to the resourcefulness of the tinkerer and the care work of the animal-keeper as to the controlled protocols of the professional engineer or research scientist (p. 5).

In chapter 1, "Aquarium Craft: Replicating Oceans Under Glass," Muka offers framing and context for her research and approach. She situates her work in relation to longer histories of aquarium use, fishkeeping, and specimen display, and shows how aquariums have always been ideological media; by encouraging users to see the ocean, and define "nature," in certain ways, they communicate ideas and beliefs as much as they transmit knowledge. In this chapter, Muka also introduces a key throughline throughout the book: her conception of the aquarium

tank as a "tinkerer's technology" (p. 16). Drawing on the anthropologist Claude Levi-Strauss's notion of the *\_bricoleur\_* (*\_The Savage Mind\_*, 1962), Muka defines tinkering as a process rooted in embodied skills and of-the-moment problem-solving that is often improvisational and flexible. Here and throughout the book, Muka's emphasis on tinkering and tinkerers signals that this is both a history of a technology and a methodological intervention that is interested in the ways scholars might better account for the significance of knowledge gained and transmitted through informal, non-textual, and unstandardized means.

In chapter 2, "Photography Tanks: Viewing Oceans under Glass," Muka astutely draws together the aquarium and photography as two nineteenth-century innovations that changed what it meant to see and represent the natural world. She focuses on how the visual priorities of taxonomic classification have shaped the ways photographers have used aquarium tanks to compose, light, and frame their shots and position their intended subjects. For example, for the identifying characteristics of a given animal to be visually legible, a tank photographer needed to prioritize clarity, stillness, shape, and contrast over opacity, movement, or blur. By emphasizing the interrelationships between aquariums and photography as technologies of visualization, this chapter makes an especially convincing case for the aquarium's importance within broader histories of visual culture and scientific observation. It likewise reveals how photography spurred the circulation of tank-based images, thereby allowing wider audiences to see the ocean through aquariums. At the same time, Muka emphasizes how photographs further blurred the lines between simulation and reality by effectively "erasing," and hence naturalizing, the aquarium's role as pictorial frame (p. 46).

Chapter 3, "Kreisel Tanks: Crafting Movement under Glass," pivots to the challenge of making the contents of a static container move, rather than fixing the underwater world in still images. Kreisel tanks use pumps, plungers, and other mechanisms to mimic the complex movements of water in ocean currents, upon which many jellyfish and gelatinous zooplankton species depend for food and life-cycle development. Muka describes how tinkerers modified kreisel tanks in response to new observations of jellies in the wild, as well as to the day-to-day challenges of keeping these fragile animals alive. She also stresses the discrepancies between kreisel tank engineering, which is relatively well published and documented, and knowledge about jellyfish gained from husbandry work like feeding and breeding. Historically, the latter has been undervalued and under-cited and has also more often been the purview of women. Muka works to correct this imbalance while also calling attention to persistence of gender bias in histories of knowledge.

In chapter 4, "Reef Tanks: Building Ecosystems under Glass," Muka focuses on the intricate project of building tanks that replicate the complexity of coral reefs, some of the most biodiverse and threatened ecosystems on the planet. The reef tank elaborates the nineteenth-century concept of the self-sustaining aquarium: an enclosed microcosm that, ideally, balances itself "naturally" with little outside intervention. One of the chapter's most

interesting revelations is that creating miniature captive reef systems has often depended upon the intentional inclusion of "unknowable elements" into those systems, such as unfiltered ocean water and "live rocks" taken directly from reefs. These elements carry unknown variables, or "hitchhikers" that may or may not support the aquarium's health (p. 112). However, because they introduce a necessary uncertainty into the tank environment, they render the reef tank less compatible with the criteria for scientific research, creating the paradox that the more reef-like a tank is, the more difficult it might be to study in any systematic way. Necessary unknowns within a reef tank, such as variable quantities of algae, might also render the tank incompatible with the aesthetic demands of the aquarium itself: if healthy water is opaque, there may not be much to see.

The final chapter, "Breeding Tank Systems: Closing the Cycle under Glass," focuses on the development of tanks designed to breed ornamental fish in captivity to lessen the impact of collecting wild species on ecosystems like tropical reefs. Muka describes how the challenges of tracking species' life cycles in ocean environments have made it difficult, perhaps even impossible, to measure the conditions for successful breeding in captivity against what happens in the wild. Breeding tanks therefore illustrate the "distinctions between captive and wild populations" that arise from the necessary differences between a simulated environment and that which it represents (p. 142). These tensions illustrate Muka's point that "the more complex a tank becomes, the more it becomes a simulation of the natural system, and the less likely it is to model that system" (p. 105). As she posits in the book's conclusion, "'You are the Ocean': Scaling Up Oceans under Glass," the anthropogenic devastation of ocean environments has increasingly troubled binaries like natural versus artificial, or wild versus domestic, that aquariums have always called into question. It is possible, then, that the art and craft of making oceans under glass might presage the managed oceans of the future if the damages of recent history prove irreversible.

*Oceans under Glass* is a welcome and forceful addition to the relatively minimal historical literature on aquariums. It richly expands the historical and methodological terrain covered in books like Judith Hamera's *Parlor Ponds: The Cultural Work of the American Home Aquarium* (2012) and Isobel Armstrong's *Victorian Glassworlds: Glass Culture and the Imagination, 1830-1880* (2008). As a contribution to growing scholarship on "envirotech," *Oceans under Glass* brings together science and technology studies and environmental history (p. 5). It persuasively calls attention to the relative neglect of oceans and ocean technologies in recent histories of environmental thought and theory like Etienne Benson's *Surroundings: A History of Environments and Environmentalisms* (2020), and following Benson, made me want to think more about the different ways aquarium tank craft might be said to define "environment" based on the ways aquarists' practices of display and animal-keeping both visualize and materialize certain relationships between marine organisms and their surrounds.



Muka's book will also be of interest to scholars interested in media and visual studies from a variety of disciplines and might be productively read alongside texts like Ann Elias's *Coral Empire: Underwater Oceans, Colonial Tropics, Visual Modernity* (2019) and Melody Jue's *Wild Blue Media: Thinking through Seawater* (2020).

As a historian of art and visual culture, I found most interesting the questions Muka raises about aquariums as technologies of visualization and the diverse ways they have shaped practices of seeing and knowing underwater environments. These questions are especially resonant in chapter 2; however, I was compelled by many moments throughout *Oceans under Glass* that touched on the complexities of thinking about the aquarium not just as a technology that simulates ocean environments, but one that also reshapes these environments and the lives of their inhabitants by making them available to human observation. Muka's book therefore made me want to think more about the ethics of display as well as the role of the nonvisible in aquarium histories and those of human-ocean relations more broadly. How might we imagine an aquarium designed around opacity, camouflage, or the need to remain unseen? How might approaches to aquarium tank craft from fields like critical plant and animal studies further complicate our understandings of visibility, as well as agency, communication, and collaboration, in the production of knowledge about the oceans?

In sum, *Oceans under Glass* is a thought-provoking, engagingly written, and deeply researched work of scholarship that is sure to interest a broad readership. It models a creative, multidisciplinary approach to ocean history and argues persuasively that the aquarium has played, and will continue to play, a pivotal role in how we perceive, understand, and interact with marine environments.

Note

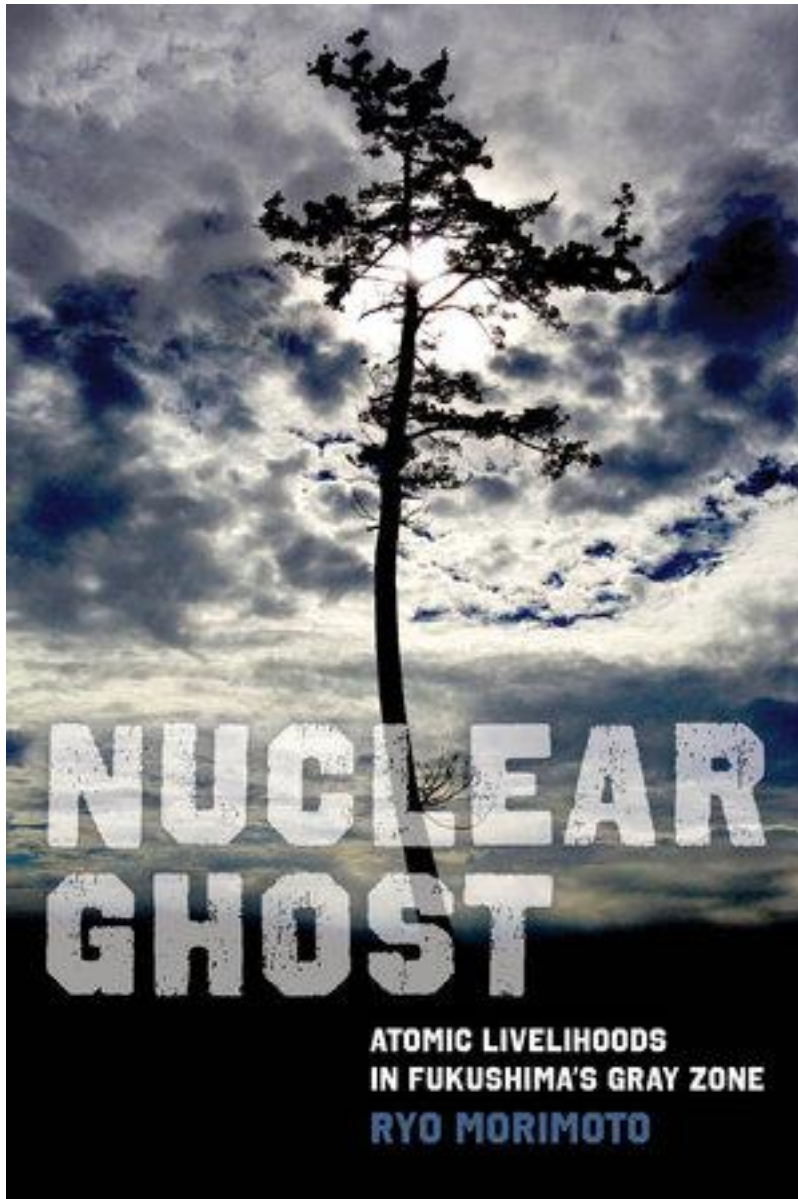
[1]. See Arthur M. Edwards, *Life beneath the Waters: or the Aquarium in America* (New York: H. Bailliére, 1858), 13-14, 16; and Henry Butler, *The Family Aquarium; or Aqua Vivarium* (New York: Dick & Fitzgerald, 1858), 11-12.

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**SELECTED RECENT PUBLICATIONS: BOOKS and BOOK CHAPTERS**

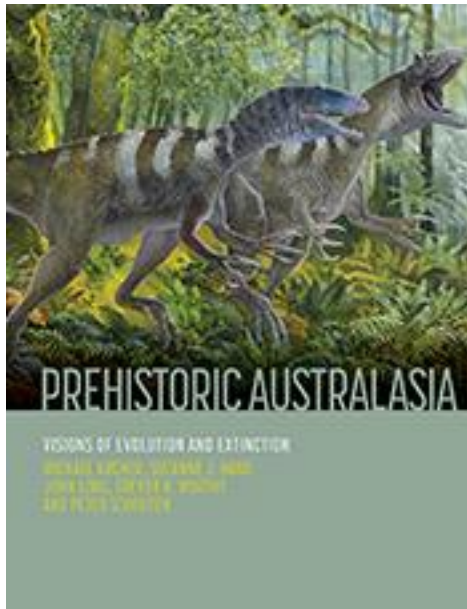


Ryo Morimoto, *Nuclear Ghost: Atomic Livelihoods in Fukushima's Gray Zone*,

Berkeley, CA: University of California Press, 2023

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*PREHISTORIC AUSTRALASIA: VISIONS OF EVOLUTION AND EXTINCTION,*



By: Michael Archer, Suzanne Hand, John Long, Trevor Worthy

Illustrated by: Peter Schouten

CSIRO Publishing, April 2023

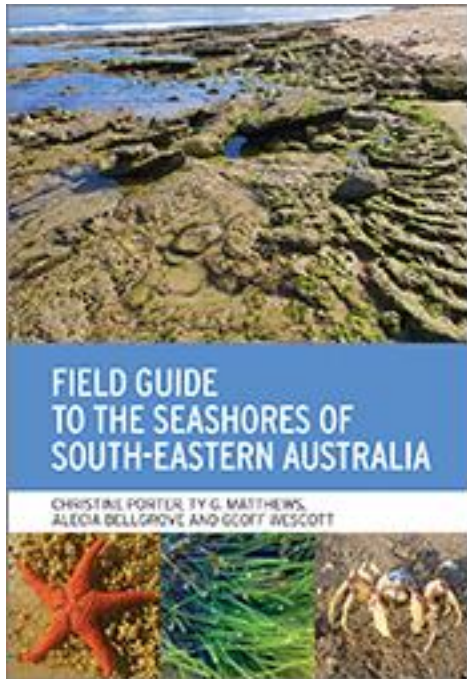
Publisher's Description:

For most of the past 300 million years, the world's continents were interlinked as the supercontinents Pangaea and then Gondwana. Around 50 million years ago, Australia tore itself free from Antarctica to become the huge, splendidly isolated island it is today. Over time, its creatures began to evolve in ways not seen anywhere else on Earth, with tree-climbing crocodiles, gigantic venomous lizards, walking omnivorous bats and flesh-eating kangaroos roaming the continent.

*Prehistoric Australasia: Visions of Evolution and Extinction* presents some of the most extraordinary creatures the world has ever seen – all unique to Australia, New Guinea, New Zealand and their surrounding islands.

Over 100 meticulously painted panoramas by palaeoartist Peter Schouten are accompanied by descriptions of the unique environments and features of these animals, written by four of Australia's foremost palaeontologists. This book explores the nature and timing of extinction events in the Southern Hemisphere, considers whether some of these losses might be able to be reversed, and how we can use the fossil record to help save today's critically endangered species. Through stunning artwork and fascinating text, *Prehistoric Australasia* brings this globally unique transformation over time to glorious, colourful life.

## FIELD GUIDE TO THE SEASHORES OF SOUTH-EASTERN AUSTRALIA



By: Christine Porter, Ty Matthews, Alecia Bellgrove, Geoff Wescott

CSIRO Publishing, May 2023

Publisher's Description:

A guide for beachgoers to the common plants and animals found on the seashores of this region.

The types of plants and animals that live on seashores in temperate regions are similar around the globe, but many of the individual species in south-eastern Australia are found only in this region.

*Field Guide to the Seashores of South-Eastern Australia* features colour photographs, descriptions and ecological notes for around 240 species of the more common plants and animals found on rocky, sandy and muddy shores along the coastline from Port Lincoln, South Australia, to the Hawkesbury River, New South Wales, and Tasmania.

This guide will allow beachgoers to learn interesting details about the plants and animals they come across, while also having sufficient scientific detail for natural history enthusiasts and biology students to develop their understanding of these shore ecosystems.

## THE LONG SHORE:

### Archaeologies and Social Histories of Californias

#### Maritime Cultural Landscapes

Edited by Marco Meniketti

230 pages, 32 illus., bibliog., index

ISBN 978-1-80073-865-2 \$135.00/£99.00 / Hb / Published (February 2023)

eISBN 978-1-80073-866-9 eBook

<https://doi.org/10.3167/9781800738652>

The archaeology of maritime cultural landscapes offers insights into cultural traditions, social transitions, and cultural relationships that reach beyond the narrow confines of waterfronts and beach strands and helps construct meaningful social histories. The long shore of California is not limited to the land that borders the Pacific Ocean, but includes the navigable waters that reach inland, the off-shore islands, and the riverways flow to the sea. Authors investigate the multifaceted character of maritime landscapes and maritime oriented communities in California's equally diverse cultural landscape; viewed through an archaeological lens, and emphasizing social behavior and community as material culture in order to reveal intersections and commonalities.

[Download ToC \(PDF\)](#)

### ***SELECTED RECENT PUBLICATIONS: ARTICLES and ESSAYS***

Anuantaeka Takinana and Roger D. Baars, "Climate change education in the South

Pacific: Resilience for Whom?" *Asia-Pacific Viewpoints* 64:1 (April 2023), 72-

84

<https://doi.org/10.1111/apv.12358>

Abstract

Climate change education (CCE) can be an important tool to increase local community resilience. In 2017, the Pacific Community ratified the Framework for Resilient Development in the Pacific (FRDP) aiming to equip local communities with skills needed to become more climate change resilient. In 2018, Fiji implemented the Climate Change Resilience Programme (CCRP) at the University of the South Pacific (USP), the first of its kind in the South Pacific. This paper evaluates (i) the orientation and aim of the programme and (ii) how different

stakeholders influenced the curriculum development process. Tribe's concept of curriculum space is used to highlight the overall aim of the CCRP. Freeman's stakeholder theory allows to identify key stakeholders and their influence on the curriculum. Results indicate that the programme seems to foster climate resilience in the workplace rather than the local community. Unfortunately, current and future community leaders, the notional targets of this course, were almost completely unrepresented in the process to accredit the course, with the body responsible for accreditation being dominated by industry representatives. This study helps to inform the current review of the Regional Certificate Programme to realign it with its initially envisioned community focus.

Jade Gibson, Franca Buelow, Amanda Black, Lindsey Te Ata o Tu MacDonald, and

Ann L. Brower, "Co-Management of Kauri Dieback in the Waitākere Ranges, Aotearoa New Zealand," *Case Studies in the Environment* 7:1 (2023)

<https://doi.org/10.1525/cse.2023.1830829>

This is a story of positive changes for the natural environment in Aotearoa, New Zealand, realised in a bottom-up mobilisation initiated by a local indigenous group. Kauri are a cornerstone of Aotearoa New Zealand's native forests, creating unique soil conditions that enable other native species to grow. They are one of the longest living tree species in the world and possess the status of a chief to the local Māori indigenous people of Aotearoa. Over the past decade, a deadly soil-borne pathogen known as kauri dieback has been slowly killing native kauri forests in the Waitākere Ranges, home to a local tribe, Te Kawarau a Maki. Our case study on kauri dieback illustrates the implications of mobilisation and co-governance, specifically regarding power issues and voice of community stakeholders in collaborative decision-making. It is an example of the tension between conservation, recreation, culture, and tourism, which can create harmful ramifications for the management of pathogens. The success in bringing everyone together to protect natural resources is analysed and described here by means of literature research and qualitative interviews with participants.

Tiberius Jimbo, Simon Saulei, Jimmy Moses, Balun Lawong, Graham Kaina,

Robert Kiapranis, Abe Hitofumi, Vojtech Novotny, Fabio Attorre, Riccardo Testolin, and Daniele Cicuzza, "Beyond the Trees: A Comparison of Nonwoody Species, and Their Ecology, in Papua New Guinea Elevational Gradient Forest," *Case Studies in the Environment* (2023) 7 (1)

<https://doi.org/10.1525/cse.2023.1831407>

This study appraises the richness of nonwoody species (ferns, herbs, lianas, palms, and shrubs) in 31 sites across undisturbed and disturbed forests in the lowland of Papua New Guinea (PNG) and at montane forest sites at 2,700 m a.s.l. The assessment was conducted following the PNG National Forest Inventory protocol. The results indicate that with 463 nonwoody species, the tropical forest of PNG has remarkable species richness. No significant difference was observed in richness among lowland, logged and pristine, and montane forests. The study shows that the richness of nonwoody species increases with elevation, but this trend is different when considering the taxonomic group separately. Palms and lianas decrease along the elevation, whereas ferns, herbs, and shrubs are positively correlated with elevation. The species composition between lowland forest and mountain sites is different, with a tree fern and an Araliaceae as an indicator of the mountain forest. The findings demonstrate a high taxonomic richness of nonwoody species in PNG, supporting previous research but highlighting the significant contribution of nonwoody species to the overall plant richness in a tropical habitat.

Yekai Men, Zijun Mi, Ende Wang, Liangde Han, Yanjie Wang, Sanshi Jia, Jianming Xia, and Kun Song, "Geology and Geochemistry of the Jianshan Banded Iron Formation in Shanxi Province, China: Constraints on the Genesis," *The Journal of Geology*

#### Abstract

The Jianshan banded iron formation (BIF) is embedded in Paleoproterozoic strata. The Jianshan BIF can be divided into oxide and silicate facies. The former consists mainly of quartz and magnetite, and the latter contains hornblende and actinolite. Geochemical analyses of the Jianshan BIF show that  $\text{Al}_2\text{O}_3$  and  $\text{TiO}_2$  are quite scarce with no significant correlation, and the contents of incompatible elements and transition metal elements are low, indicating negligible involvement of terrigenous clastics during the deposition. The rare earth element (REE) curves reveal depletions in light REE, enrichments in heavy REE, and positive La, Y, and Eu anomalies, suggesting that the material source was a mixture of submarine hydrothermal fluid and seawater. Although the Ce anomalies are unobvious, the decoupling of Th and U and below-crustal Th/U ratios resulting from the oxidation of  $\text{U}^{4+}$ , as well as the enrichment of heavy Fe isotopes, imply a rapid rise of oxygen content shortly after the Great Oxidation Event. The Jianshan BIF might deposit in a redox-stratified ocean. It might be an important possibility for the Jianshan BIF that Si deposition is likely attributed to oversaturation caused by a temperature drop of Si-rich hydrothermal fluids and that Fe deposition is probably due to rapid oxidization in the upper oxygenated layer of the redox-stratified ocean.

## **AWARDS, FELLOWSHIPS and GRANTS**

Society for the History of Technology's Kranzberg Dissertation Fellowship

<https://www.historyoftechnology.org/about-us/awards-prizes-and-grants/the-kranzberg-fellowsh>

## **UPCOMING CONFERENCES**

- **The 32<sup>nd</sup> Annual World History Association Conference** will be held from June 22 - 24, 2023 at the University of Pittsburgh's World History Center. To learn about the keynote speakers and/or register at the early rate go to <https://www.thewha.org/conferences/2023-energies/>. If you have specific questions, email [info@thewha.org](mailto:info@thewha.org).
- **The School of Pacific and Asian Studies (SPAS) and the Department of Asian Studies at the University of Hawai'i at Mānoa (UHM)** invites proposals for papers, performances, and panels that seek to move beyond the 'traditional' regions of Asia for the 34th annual Asian Studies Graduate Student Conference, held in-person at the Center for Korean Studies on the UHM campus in Honolulu, Hawai'i, on April 27–28, 2023. Beyond the constructed and narrow boundaries of South, Southeast, West, Central, and East Asia, the conference presents participants with the opportunity to think particularly about the movements of peoples, ideas, forms, and technologies across space and time through the perspective of Inter-Asia. Visit <https://spasgraduateconference2023.wordpress.com/> for more information.
- **The University of Hawai'i at Manoa Center for Southeast Asian Studies Spring 2023 Symposium: "Climate Change and South Asia."** This symposium invites scholars in the interpretive social sciences, humanities, arts, architecture, business, planning, public health, and policy studies, among others, to share research and artistic work, and join together in conversations about climate change in South Asia. The virtual event will be held April 18 & 19, 2023.



## **Indigenous Histories of Encounters in Asia-Pacific**

**University of Cambridge, 19–20 June 2023**

Keynote speakers:

Lynette Russell (Monash University) & Michael T. Carson (University of Guam)

The field of global history has embraced a call for new histories that cross borders and emphasise migrations and connections across large scales. Yet, in doing so, the field has at times overemphasised the history of European empires. This conference will explore new decolonial approaches which emphasise the agency of Indigenous and other non-European actors within the bustling, cross-cultural worlds of Asia-Pacific. Taking inspiration from the field of Pacific history, we will explore entanglements across oceanic spaces, shifting the focus from the dominance of European traditions towards analyses of cross-cultural exchanges.

We seek to broaden the geographical focus to incorporate the worlds of both the Pacific and Maritime Southeast Asia and beyond, including Latin America. This wider scope will allow for an exciting, boundary-shifting dialogue between Pacific, Asian, and Latin American historians working within the fields of Indigenous history and non-European histories of globalisation and cross-cultural exchange. We call for abstracts concerned with any time period but especially encourage those focussed on the pre-modern era, which has been underrepresented in scholarship. We welcome contributions that cut across different methodologies and forms of historical evidence, including Indigenous studies, decolonisation, visual and material culture, ethnography, and archaeology.

## Inventing the Human

*Conference, conversations, provocations, roundtables, and exhibition*

30<sup>th</sup> November to 2<sup>nd</sup> December 2023

University of Melbourne (f2f and virtual)

### Call for Papers

This interdisciplinary and hybrid conference sets out to place the (liberal-humanist) subject dispatched by posthumanism inside the much larger field of Enlightenment/Romantic thought on this topic—a field that, on the one hand, is no longer imagined as beginning and ending in Europe and, on the other hand, is always already in dialogue or conflict with non-European traditions, understandings, and discourses of the human. We take as our key themes the pasts, futures, and varieties of reason, imagination, liberty, and the body—terms crucial to modern understandings of the human. But we do this in order to ask, in a world where Europe is merely one centre among many, what of this legacy can be dispatched? What can be revised or extended by other traditions? What in the world’s multiple humanities might open new possibilities for the future? And what does our answer to these questions mean for the methods, roles, and organising categories of the Humanities?

#### Confirmed Keynote Speakers / Provocateurs:

[Genevieve Bell](#), Director of the School of Cybernetics; Director of the 3A Institute (3Ai); Florence Violet McKenzie Chair at the Australian National University; a Vice President and a Senior Fellow at Intel Corporation.

[James Q. Davies](#), Professor of Music, University of California, Berkeley.

[Amanda Jo Goldstein](#), Associate Professor, English Faculty, University of California, Berkeley.

[Wantari 'Wanta' Pawu](#), Warlpiri Elder; and Professorial Fellow in Indigenous Studies, University of Melbourne, University of Melbourne.

[Delia Lin](#), Associate Professor, Chinese Studies, University of Melbourne.

[Sujit Sivasundaram](#), Professor of World History, University of Cambridge.

#### Topics include:

- Enlightenment-Romanticism and/or its legacies and the invention of the Human
- Indigenous, Asian, Southern Hemisphere .... traditions and knowledges about the human
- Re-inventing the human (or why developing an understanding of plural humanity matters)
- The pasts, futures, and/or varieties of
  - reason / critique • imagination / creativity • knowledge • literary arts / performing arts / visual arts • cosmopolitanism / worldliness • religion / faith / the secular / the post secular • the body • place • tradition

--- or topics not included in this list important for a particular tradition on the human.
- Life writing / Writing about the human
- Ability / disability / differently abled
- Gender / transgender / non-binary



AUSTRALIA AND  
NEW ZEALAND SOCIETY  
OF THE HISTORY OF  
MEDICINE

The 18th Biennial Conference  
of the ANZSHM

# Second Opinions

12-15 July 2023

University of Adelaide  
Health & Medical Science Building

► **Call for Abstracts  
now open. Submit via  
[anzshm2023.com](http://anzshm2023.com)**

Are you interested in the history of health and medicine? Do you have a fascinating health-related history to share? We look forward to you joining us to explore medical histories of all kinds, including re-examining long established historical opinions.

Grants for postgraduate students and early career researchers to attend the conference will be available.

For more  
information visit  
[anzshm2023.com](http://anzshm2023.com)

To register your interest  
or for more information  
please contact **NC Events**  
[ncosta@ncevents.com.au](mailto:ncosta@ncevents.com.au)



# BETWEEN NATIONS / ACROSS SEAS: THE TRANSNATIONAL AND TRANSCULTURAL PACIFIC

The 27th annual conference of the  
New Zealand Studies Association (NZSA),  
together with Stockholm University and the University of Turku

Stockholm, Sweden & Turku, Finland  
26 – 30 June 2023



*Les Sauvages de la Mer Pacifique, scenic wallpaper designed by Jean-Gabriel Charvet, manufactured by Joseph Dufour (1805)*

## Keynote Speakers:

- Professor Dominic Alessio
- Dr André Brett
- Associate Professor Patricia O'Brien
- Rena Owen
- Associate Professor Craig Santos Perez
- Professor Nicholas Thomas
- Dr Wonu Veys
- Susan Wilson

A special 5-day international conference

Includes an additional half-day free symposium for graduates & ECRs

Conference plan:

26 & 27 June - Stockholm; 28 June - ferry crossing; 29 & 30 June - Turku

Conference fee includes: coach transfers, ferry crossing and conference dinner

The New Zealand Studies Association has a long and strong history in promoting New Zealand and Pacific Studies, which for 11 years has been expanded through its twice-yearly Journal of New Zealand and Pacific Studies. The 2023 gathering builds on the successes of the conferences in Marseille (2022), Athens (2019), Aveiro (2018), Strasbourg (2017), Lugano (2016), Vienna (2015), Oslo (2014), Nijmegen (2013), Gdansk (2012), Frankfurt (2009), Florence (2008), London (2007), and Paris (2006).

Proposals for 20 minute papers to be sent by 29 January 2023 to Ian Conrich ([ian@ianconrich.co.uk](mailto:ian@ianconrich.co.uk)) or Mikko Myllyntausta ([mijmyl@utu.fi](mailto:mijmyl@utu.fi)). Abstracts need to be between 200 and 250 words with a bio added of 100-150 words. Interpretations of the theme are broad and papers can address a range of topics related to the Pacific and New Zealand.

Proposals for papers will be accepted within three main strands: 1) Oceania, 2) New Zealand and 3) Oceania/NZ in relation to any aspect of the Pacific Rim. We are particularly keen to receive papers on the third strand as we are hoping to extend the Association's interests into areas we have not widely explored before. Papers that explore relationships between New Zealand and/or the Pacific and Scandinavia are especially welcomed. The conference fee includes annual membership to the NZSA, which for 2023 includes a twice-yearly journal. A selection of papers from the conference will be published in the Scopus-indexed Journal of New Zealand and Pacific Studies, published by Intellect.

The conference will accept proposals on a range of subjects including the following: history, literature, film, music, art, cultural studies, media and communication, sociology, geography, tourism, war studies, politics, international relations, identity and multiculturalism, anthropology, Māori Studies, Pacific Studies, archaeology, heritage and museum studies.



Dear Colleagues,

4S Honolulu 2023: Call for Open Panels — Deadline March 17th

<https://www.4sonline.org/meeting/>

The Society for Social Studies of Science (4S) is an international, nonprofit association founded in 1975 that fosters interdisciplinary and engaged scholarship in social studies of science, technology, and medicine (a field often referred to as STS).

This year, 4S will be holding its annual meeting at the Honolulu Convention Center in Hawai'i, November 8-11, 2023. This year's theme is "Sea, Sky, and Land: Engaging in Solidarity in Endangered Ecologies."



# 4S 2023 HONOLULU

Sea • Sky • Land • Endangered Ecologies • Solidarities

NOVEMBER 8 - 11

We are now accepting proposals for *Open Panels* until March 17.

Open panels are a way to articulate the research of colleagues and allow the formation of new networks around issues that are central to the field of STS. An open panel proposal consists of an abstract of up to 250 words, including a brief discussion of your contribution to the field and to the theme of the 2023 conference, if relevant. Proposals for open panels should be submitted by 17th March 2023. If accepted, open panels will be included in the general call for papers that will open on 10th April 2023. At that time, authors will be able to submit their papers for one or more panels.

The open panel chairs will have primary responsibility for the selection of abstracts submitted to their panels. By submitting a proposal, the chairs will be in charge of reviewing abstracts, chairing the sessions, and communicating with participants. An open panel can comprise up to three sessions of five papers each (i.e. a maximum of 15 papers in total). If a discussant is included, then the session could have up to four papers. The Program Committee reserves the right to make the final decision on which papers will be included in each panel. If you have questions, please email [meeting@4sonline.org](mailto:meeting@4sonline.org).

We look forward to your participation!

Key dates