

of Areas Beyond National Jurisdiction (BBNJ) Treaty, which is now undergoing ratification, “is humanity’s first serious attempt to challenge the carnage that pervades the high seas”, she writes, but notes that any ensuing rules must be consistently enforced. The BBNJ Treaty will be a crucial tool for securing the health, productivity and resilience of the high seas. It will enable international cooperation in conjunction with existing bodies to advance equity, conservation and sustainable use of biodiversity beyond national jurisdictions. However, to ensure that the BBNJ Agreement will protect, restore and maintain marine biodiversity efficiently, it must be signed and ratified.

Progress will be possible only by moving beyond extractivist agendas, prioritizing sustainability over – or at least as much as – economic gain and rethinking how the ocean commons can be used in ways that benefit the most people. Crucial to this endeavour is valuing all knowledge systems and perspectives.

Heffernan serves as an adept guide, breaking down complex topics – from physical oceanography to ecological processes and international governance – into accessible and compelling explanations. At the same time, we wish that the book had avoided perpetuating one of the main issues plaguing discourse surrounding the high seas: a lack of representation and inclusion. As two scientists from lower-income countries, we could not help but notice an absence of diversity in the perspectives conveyed.

The high seas are the largest part of the global commons – which every member of humankind, present and future, relies on. Yet, these regions have been accessed mostly by powerful individuals and high-income countries. This has resulted in a status quo of exploitation, and many questions remain unresolved. How can the equity issues played out at sea – including who benefits from the high seas and who carries the burdens of their exploitation – be remedied? These moral and ethical dilemmas, only alluded to in the book, are more relevant and urgent than ever.

The High Seas is a must-read book that will speak to everyone. From students and negotiators to anyone with an interest in planet Earth, Heffernan takes even the most landlocked out to sea. Even as scientists who work on high-seas issues, we encountered mind-blowing facts and anecdotes in nearly every chapter. Our hope is that this book serves as an invitation to move beyond the ‘out of sight, out of mind’ attitude to our remotest ocean realms.

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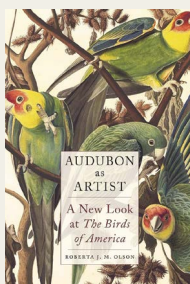
Books in brief



Purified

Peter Annin *Island* (2024)

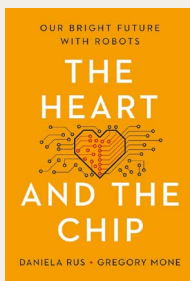
The cover of this revolutionary book shows a recycling symbol, with arrows of clear blue water. Yet the subject is sewage. Environmental and water journalist Peter Annin is satisfied that recycled sewage is drinkable, after studying water recycling for two decades. “In the climate change era, water cannot be taken for granted anymore – and that includes sewage,” he says. Recycling technology could, he argues, relieve the US water crisis, especially in the west, where water diversions have desolated the Colorado River Delta.



Audubon as Artist

Roberta J. M. Olson *Reaktion* (2024)

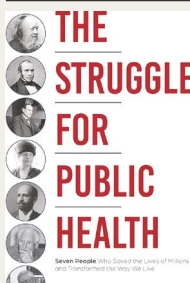
As a museum curator in New York City, art historian Roberta Olson looked after 474 watercolours painted by John James Audubon for his classic book *The Birds of America* (1827–38). Gazing at his birds, she writes, “one wonders whether they might momentarily fly off the page”. Glorious reproductions fill this intriguing book. She regards Audubon as an “American Leonardo da Vinci”, fusing art and science, but focuses more on his art than his naturalism. A gripping self-portrait painted before he found success hints at Audubon’s difficult life.



The Heart and the Chip

Daniela Rus & Gregory Mone *Norton* (2024)

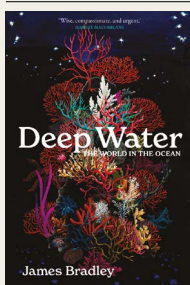
Computer scientist Daniela Rus has dreamt about robots since she was a child, and has developed them for years at the Massachusetts Institute of Technology in Cambridge. She is convinced they will not steal our jobs, as is often feared, but will make humans “more capable, productive, precise”. Her engaging book, co-written with science writer Gregory Mone, focuses on combining human and robotic strengths to pair “the heart and the chip” in three interlinked fields: robotics, artificial intelligence and machine learning.



The Struggle for Public Health

Fred C. Pampel *John Hopkins Univ. Press* (2024)

Rates of death from communicable diseases fell hugely in the late nineteenth century; by 49% for respiratory tuberculosis (TB), for example. But much of the fall had less to do with medical advances – the TB vaccine was not in widespread use until 1954 – than with “rising standards of living, better nutrition, and a strengthening public health movement”, writes sociologist Fred Pampel. His book explores this complexity clearly in seven chapters, each devoted to a public-health pioneer, from epidemiologist John Snow to nurse Lillian Wald.



Deep Water

James Bradley *Scribe UK* (2024)

“How inappropriate to call this planet ‘Earth’, when clearly it is ‘Ocean’,” said science-fiction author Arthur C. Clarke. His comment opens this meditation by science writer James Bradley. He stands on the Australian coast in 2020, witnessing record bush fires that accompanied record oceanic heating. The ocean, where life began, “is the memory of the world”, he writes, given its pivotal role in evolution, migration, capitalism and climate change. Unless we protect it better, we are heading for catastrophe. **Andrew Robinson**