

Darwin and ‘excess’ aside, Milo’s book is deeply insightful when focused on the theme of the dangers of superimposing culture onto nature. The Galapagos finches, with their specialized beaks, are usually taken as an example that solely natural selection modifies organisms. But, Milo says, this is not true in all cases. ‘It does not convincingly demonstrate that traits are, in general, selected for optimal performance in the struggle for life, but the strength of the example alone combats skepticism’ (p. 83). The point about the fallacy of extrapolation is not new. What is new is the connection with Milo’s brilliant chapter – ‘the Invention of Tomorrow’. Humanity’s capacity to imagine the future is the analogue of nature’s safety net. It allows humans to project and simulate possible futures, and, unlike other organisms, not be stuck in their present. One such future was to see ‘Darwin’ (i.e. natural selection) as ‘thought to explain everything in the development of species and much more besides’ (p. 248). By suggesting that his view might be closer to nature, Milo attempts to paint another future: ‘to rescue evolution from the evolutionary ethics that have been used since Darwin to justify the excellence conspiracy’ (p. 249). We might excavate this ‘rescue’ more – the impetus being another great merit of Milo’s *Good Enough*.

doi:10.1017/S0007087422000498

## **Gordon Barrett, *China’s Cold War Science Diplomacy***

**Cambridge: Cambridge University Press, 2022. Pp. 300. ISBN 978-1-1088-4457-4. £75.00 (hardback).**

John Krige

Kranzberg Professor Emeritus

Gordon Barrett’s excellent study of ‘how eminent Chinese scientists ... became crucial international interlocutors for the early PRC [People’s Republic of China] through their involvement in an interconnected cluster of organizations, events and networks’ (p. 3) during the first two or three decades of the Cold War throws new light on the importance that the revolutionary regime placed on international scientific collaboration. Dedicated Chinese scientists sought both to enhance national scientific capacity and to promote the social model that was under construction in China by working along with left-wing organizations and sympathetic individuals in the capitalist ‘West’ and the socialist world. Barrett describes in detail China’s role in the World Federation of Scientific Workers in the first decade after the war, in the early Pugwash Conferences on Science and World Affairs up to the Sino-Soviet split in 1960, and in organizing huge international conferences in Beijing in the mid-1960s that explicitly targeted developing countries. The bridges built with a number of British socialists are given a chapter of their own.

I found this book particularly interesting, not simply for the quality of its scholarship, but also for the light it throws on the dynamics of transnational knowledge flows that are often obscured in studies of science diplomacy. Indeed the transnational scientific exchanges described by Barrett had a number of specificities that tethered them to the space-time context in which they occurred: this is a story of *China’s* science diplomacy in the *Cold War*.

First question: is this science diplomacy at all? Or what form of science diplomacy is it? In its ‘standardized’ version, science diplomacy brings together scientists in different

countries who collaborate on scientific questions that are of interest to them, and refined in conjunction with their national governments. In the positivist version of the paradigm, scientists define problems in a 'universal', value-free and objective language that facilitates dialog and cooperation between government officials tasked with pursuing 'particular' national interests. The science diplomacy described by Barrett has next to nothing in common with this characterization. It does not involve formal relationships between China and other states (as far as we can see). The collaboration is essentially between Chinese scientists who are tightly coupled with the Chinese Communist Party and its state apparatus, on the one hand, and left-wing, sympathetic organizations and individuals in other parts of the world, on the other. What is more, even when scientists from China got together with foreign colleagues, as in the Beijing science conferences, they made no attempt to bracket political convictions. Foreign visitors participating were harangued about the perfidy of the capitalist West and the Soviet Union, and the need to collaborate with China in an anti-imperial struggle. Transnational scientific collaboration rooted in scientific internationalism was an opportunity both to exchange scientific ideas and for Chinese scientists to promote their government's foreign-policy agenda to distinguished, sympathetic individuals from abroad. There is little or no formal inter-state cooperation in this mode of science diplomacy: it went no further than consular offices on both sides authorizing cross-border travel between Communist China and scientific visitors from foreign countries.

China's foreign-policy agenda in the Cold War defined what countries would be included in 'international' collaboration. Isolated by the United States and embittered by the Soviet Union's withdrawal of technical assistance in August 1960, there was no attempt to bridge geopolitical divides at the two major meetings in Beijing in the 1960s. On the contrary, international scientific exchanges were instrumentalized to drive a wedge between China and its 'enemies' and to enrol developing states scientifically and politically in Mao's agenda. One striking exception is Japan, which had a large delegation at the 1964 Beijing Science Symposium, an exception that is worth studying in detail.

The sciences discussed at this symposium reflected the priorities of the Chinese government (and developing countries), with special sections devoted to agricultural and medical sciences, as we might expect, and to science and engineering more generally. Noteworthy too are sessions on the social sciences: politics and law, economics, philosophy and history. These were surely used to promote Mao's thinking on dialectical materialism and the local interpretation of Marxist-Leninist thought. I also wonder what research questions were not allowed to be discussed, especially in nuclear and space sciences and engineering. Barrett tells us that Nie Rongzhen, who was responsible for China's civil and military nuclear programmes at the time, was actively engaged in organizing the two international meetings in Beijing. But we know nothing about the censorship that he imposed on scientists who discussed China's progress in nuclear physics at these conferences or earlier during Pugwash meetings. What knowledge was shared or denied with, say, Mark Oliphant, who built a cyclotron in Birmingham University, who worked in the Manhattan Project, who went on to direct a research group at the new Australian National University after the war, and who visited China in 1964? Reversing the arrow of transmission, it would also be useful to know more about the impact on Chinese science and science policy of exchanges with some of Britain's leading crystallographers, people like J.D. Bernal, Kathleen Lonsdale and Dorothy Hodgkin.

This is an extremely engaging and important book for scholars interested in the first decades of Mao's rule in China. It emphasizes the importance the regime gave to transnational scientific exchanges with sympathetic foreign scholars, defying the US attempts to isolate it after the Korean war up until the early 1970s. It is also a major contribution to studies of science diplomacy precisely because it describes (in as much detail as the

archives consulted permit) a highly politicized mode of international scientific collaboration led by a ‘developing’ country in its first decades of state formation. The measures taken by Chinese scientists and by the CCP to mobilize science and technology to transform and modernize an agrarian society, and to enroll politically sympathetic scientists from abroad in its national and global ambitions, remind us of the need to define carefully what we mean by science diplomacy. They also oblige us to situate science diplomacy in its temporal and geopolitical context, and to tease apart the specificities of its collaborative practices undertaken in the shadow of (sometimes determining) national political agendas.

doi:10.1017/S0007087422000504

## **Lydia Barnett, *After the Flood: Imagining the Global Environment in Early Modern Europe***

**Baltimore: Johns Hopkins University Press, 2019. Pp. 264. ISBN 978-1-4214-2951-9. \$52.00 (hardback). ISBN 978-1-4214-4527-4. \$28.95 (paperback).**

Alexander van Dijk

University of Cambridge

In this book, Lydia Barnett investigates early modern ideas of the reciprocal interaction between a global humanity and the global environment. These ideas oscillated around one ‘world-historical force’ – sin. Barnett demonstrates that the modern concept of the Anthropocene had early modern intimations, even if the conceptual language to frame the idea was radically different. Barnett places her investigation in the context of a number of adjacent literatures. While reference is made to Alexandra Walsham’s study of the Reformation landscape, the historiography of the (de)sacralization of early modern space is largely eschewed.

In the first chapter, Barnett examines the 1584 *Lettere di philosophia naturale*, by the Paduan apothecary Camilla Erculiani. Barnett presents the volume as the first in a tradition of works that use the event of the Flood as a locus for the examination of the ‘reciprocally destructive’ relationship between humanity and the environment. Barnett traces the translation of the Flood from the category of supernatural events, and therefore the subject of theology, biblical commentary and chronology, to that of natural events, and therefore the subject of the meteorological branch of natural philosophy.

In the second chapter, Barnett explores the uses of the Flood in the formation of the early modern global world-historical consciousness. In particular, she argues that the Flood became central in monogenist narratives about the origin of American Indians, which underwrote particular visions of world history and geopolitics. This was, in turn, expedient for evangelical and imperial aims. In the first section of the chapter, Barnett explores the debates about the way in which Indians had arrived on the American continent after the Flood. She demonstrates that there was a consensus between European scholars that the Indians arrived by land bridge rather than by sea, because of Europeans’ assumed superiority as seafarers. For missionaries, a postdiluvian land bridge also secured the monogenist origin of American Indians, and therefore their inheritance of original sin