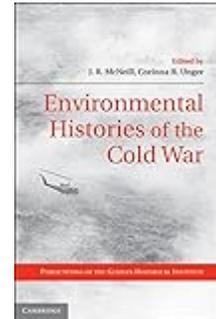




J. R. McNeill, Corinna R. Unger. *Environmental Histories of the Cold War.* New York: Cambridge University Press, 2010. 362 S. \$90.00 (cloth), ISBN 978-0-521-76244-1.



Reviewed by Sandra Chaney

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J. R. McNeill u.a. (Hrsg.): Environmental Histories of the Cold War

The twelve well-researched essays in this collection make a valuable contribution to environmental and Cold War history by exploring obvious and not-so-apparent ways in which these two fields overlap. Until recently, editors John McNeill and Corinna Unger explain, environmental historians and historians of war have almost completely ignored one another's work (p. 4). Yet Cold War history is enriched by being viewed in its earthly context, whether that is the upper atmosphere, the Arctic, or the jungles of Vietnam. Environmental history, too, is broadened by taking modern warfare into account. In fighting the global Cold War, scientists, military planners, and government officials developed strategies that included altering weather and hydrology; they also condoned using weapons that destroyed crops, water supplies, and entire ecosystems.

By underscoring points of convergence between the Cold War and environmental history, this volume identifies new areas of research. The essays' thorough notes support further study by yielding a bibliography of sources otherwise hard to find in one place. The editors' insightful introduction also identifies issues warranting

more attention. The Cold War, they note, produced unintended environmental consequences. It sparked the peace movement, which overlapped with the environmental movement; it initiated the use of satellite photography to monitor weapons stockpiles but also captured images of the whole Earth; and it created militarized borders where nature received unprecedented protection and where peace might pose more harm than war.

Part I, entitled science and military planning, includes five essays that examine the superpowers' Cold War environments. Paul Josephson underscores how the Soviet Union's determination to maximize production and ensure military readiness exploited the empire's people and natural resources. From the Urals to Siberia, slave and free laborers extracted strategic minerals, and later oil and natural gas, but created industrial wastelands in the process. Yet Soviet engineers claimed that centralized planning ensured a desirable exploitation of nature for maximum productivity and with minimum ecological harm. This irresponsible thinking does not explain Moscow's negligence in handling nuclear materials (for example depositing submarine reactors in the ocean) or

account for its massive nuclear accidents.

Apparently the Soviet Union inflicted the greatest harm on its own environment during the Cold War. Its rival, by contrast, planned to influence environments on a global scale. As Matthew Farish explains, the US military's goal "to create a [. . .] universal soldier" (p. 59) capable of withstanding extreme environments around the world envisioned even remote arctic regions to be potential combat zones. Accordingly, it pursued dozens of research projects testing human adaptability to frigid climates. More sobering is American military planners's willingness to practice environmental warfare, i.e., the intentional destruction of life support systems to achieve victory. Convinced that the US faced a total and global conflict with an unscrupulous foe, Jacob Hamblin states, planners favored developing chemical, biological, and radiological weapons. In the late 1940s, when neither superpower had nuclear arsenals, radioactive weaponry, in particular, seemed to be a cheaper, more flexible alternative to nuclear bombs. Ultimately, radiological weapons were not developed, stymied by civilian-military conflict over control of nuclear energy.

Two essays explore the global reach of US science and engineering. Kristine Harper and Ronald Doel describe how President Lyndon Johnson pursued weather control to strengthen ties with non-aligned India. Fearing India's arrival as a nuclear power, Johnson coaxed Indira Gandhi to pursue cloud seeding an alternate scientific path to regional influence. But clouds failed to form when the US military began the project and both governments feared condemnation for using weather manipulation as a weapon. American plans to contain communism by building multi-purpose dams in countries south of the Soviet Union form the subject of Richard Tucker's essay. To improve local living conditions and show the advantage of American friendship, the US mobilized engineers and materials behind ambitious plans for megadams from Egypt to the Philippines. Yet few of these projects fulfilled expectations, weakened by instability in host countries and limited consultation with locals.

The four essays in Part II focus on the environmental consequences of Cold War geopolitics. Mark Merlin and Ricardo Gonzalez describe the devastating consequences of nuclear testing in Oceania by the US, Great Britain, and France. Between 1946 and 1962, the US conducted 110 tests of atom bombs which were far more powerful than the 1054 tested in the US between 1945 and 1992. These blasts had immediate impacts (death, blindness, fish kills, vaporized islands, underwater craters)

and long term consequences (thyroid cancer, brain tumors, and leukemia in humans). Greg Bankoff recounts the Vietnam War's effects on animals and vegetation. Fighters on both sides harmed nature to weaken the enemy, but the US inflicted greater damage through eight years of daily bombings. They also killed Asian elephants that moved communists's supplies and slaughtered 900,000 of South Vietnam's water buffalo. David Zierler examines debate over ratifying the 1925 Geneva Protocol, which prohibits first use of chemical and biological weapons. Hoping to promote disarmament, President Richard Nixon submitted the protocol to Congress for ratification, yet he angered the Senate by insisting on a narrow reading of the treaty which would exclude herbicide use. Outraged by America's "cocaine" in Vietnam, university scientists and anti-war activists helped Congress defeat the initiative. The Senate ratified the protocol in 1975 after Nixon's departure. In the era of détente, Kai Huenemoerder's essay emphasizes, the environmental crisis created "soft" policy issues that facilitated closer cooperation between communist countries and the West, as was the case with the two Germans.

The third section on environmentalisms is the shortest and least cohesive, but instructive nonetheless. R. S. Deese highlights the pioneering work and thought of biologist Julian Huxley (the first director general of UNESCO) and his brother and author, Aldous Huxley. Both men understood the geopolitical and ethical dimensions of environmental problems and Julian, in particular, established international organizations to address them. Toshihiro Higuchi examines the US government's failed bid to determine for the rest of the world acceptable levels of risk associated with nuclear testing. During the 1950s scientists's uncertainty about the dangers of radioactive fallout enabled officials to downplay potential health risks and emphasize natural security threats instead. This changed during the 1960s, when scientists, consumer advocates, and citizen activists with their own research data revealed the harmful effects of radioactive contamination. Bao Maohong examines China's environmental problems and its delayed policy responses. Pressured by domestic environmental accidents (fish kills, mercury poisoning) and by foreign affairs (the Sino-Soviet split, rapprochement with the US, and preparation for the UN Stockholm Conference), in the early 1970s China acknowledged that socialist countries had environmental problems requiring solutions. Only with massive industrialization and a prominent presence on the international stage in the 1990s did China truly begin

to grapple with its environmental problems.

In the epilogue Frank Uekoetter argues that the Cold War's end marked only a halfhearted turning point (p. 350) in environmental history. Attention to sustainability has inspired activism and new policy formulations, yet few significant changes to how people live on the planet. As the world's leaders seek sustainable solutions

for global environmental challenges, they would profit from knowing about the environmental consequences of the Cold War, a long conflict witnessing some of the most creative and destructive uses of science and technology ever imagined. As the engaging essays in this carefully edited volume make clear, building a saner and securer future requires an awareness of paths taken and best avoided.

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