



2014-025

Jacob Darwin Hamblin, *Arming Mother Nature: The Birth of Catastrophic Environmentalism*. New York: Oxford Univ. Press, 2013. Pp. x, 298. ISBN 978-0-19-975005-5.

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In *Arming Mother Nature*, historian of science Jacob Darwin Hamblin (Oregon State Univ.) explores the origins of modern environmentalism. While much ink has been spilled on this classic subject, Hamblin is unique in illuminating the catastrophic thinking at its core. A burning question about a wide range of environmental problems since the 1960s, from DDT use to climate change, is whether human activities have disastrous effects on the whole biosphere. This apocalyptic idea has polarized public opinion, making it hard to take concerted action to address environmental ills, and sets the agenda for Hamblin: “My interest in writing this book began with a less polemic notion that if we wish to understand how humans came to believe they were capable of changing the natural environment on a vast scale, with catastrophic results, we first should look at those people who tried to accomplish it ... scientists, military leaders, and politicians who believed they would have to manipulate and exploit nature in a global war against the Soviet Union” (251). Exploring the checkered history of environmental warfare and earth surveillance, the author locates the roots of catastrophic environmentalism in the Cold War.

Hamblin stresses throughout that the specter of World War III was a principal driver behind the catastrophic interpretation of environmental changes. The silhouette of another total war, so obvious in the aftermath of two world wars, is easy to overlook in hindsight. Shortly before its conclusion, John Lewis Gaddis argued that the Cold War was a period of a “Long Peace” between the opposing power blocs.¹ Accepting this diagnosis, Cold War and environmental historians have looked to a myriad of “proxy wars,” ranging from local conflicts to ideological struggles, to understand the environmental complexities of the period.

Redirecting our attention back to the phantom of World War III, Hamblin explains how it shaped conceptions of the environment in military affairs and beyond. As the United States and its allies devised methods of environmental warfare and earth surveillance in anticipation of a war that never came, scientists gained both confidence in and a fear of the human power to trigger natural disasters on a planetary scale. This disorienting sense of global power and vulnerability, Hamblin contends, drove scientists, politicians, and citizens to view man-made environmental changes in catastrophic terms. He supports this argument with abundant American and British archival sources as well as underused documents from multinational organizations like NATO, the Food and Agriculture Organization, and the World Health Organization.

The book consists of three thematic sections that are roughly chronological in order. The first, “Pathways of Nature,” explores the biological vulnerabilities of human beings. The prospect of epidemics and famines has been a major concern of catastrophic environmentalism. Hamblin traces this sense of biological insecurity to the emergence of chemical, biological, and radiological (CBR) weapons during the early Cold War period. As shown in chapter 1, “The Natural Vulnerability of Civilizations,” no sooner did World War II end than pundits began to speculate about the deployment of CBR agents as “ultimate weapons” in a future war. This alarmism prompted a small group of American scientists and military officers to advocate CBR programs in plans for a possible Third World War. Even allegations of biological warfare in the Korean War, a focus of chapter 2, “Bacteria, Radiation, and Crop Destruction in War Planning,” did not deter the Pentagon from pursuing such weapons as it planned for war with the Soviet Union. Chapter 3, “Ecological Invasions and Convulsions,” discusses the spread of biological catastrophism in the 1950s. The Czech and East

1. “The Long Peace: Elements of Stability in the Postwar International System,” *International Security* 10.4 (1986) 99-142.

German regimes blamed the United States for the “invasion” of the Colorado beetle across the Iron Curtain, while the British government worried about the debilitating impact of human and crop diseases on its failing colonial empire. Like their US counterparts, British military planners saw a strategic value in biological weapons, using herbicides to deny food to insurgents in Malaya. In the meantime, the successful development of thermonuclear weapons in 1952 drastically increased the estimated magnitude of destruction in any nuclear war. American and British officials, concerned about biological survival in a post-attack world, contemplated but ultimately decided against massive stockpiling and put their faith in market mechanisms.

The book’s second part, “Forces of Nature,” shifts attention to the geophysical vulnerabilities of the planet. The notion of the Earth as a single, delicate system that would respond violently to even small disturbances has inspired catastrophic forecasts about the environmental impact of human activities. Hamblin finds that this One-Fragile-Earth thinking originated in the thermonuclear age. Chapter 4 sheds light on the US military’s determination to put “Earth under Surveillance.” Scientists tracked the global circulation of radioactive fallout from atmospheric nuclear weapons testing, while the International Geophysical Year (1957–58) provided American armed forces a “synoptic” view of the planet through real-time measurements. In the meantime, the reassuring concept of Earth as a stable body began to erode in the face of efforts to control weather, one of the most dynamic natural phenomena. Chapter 5, “Acts of God and Acts of Man,” treats the surge of scientific and popular interest in weather modification resulting from cloud seeding and nuclear testing. For fear of bad public relations consequences, meteorologists repeatedly denied that human activity might cause extreme weather events like hurricanes and tornadoes. By the early 1960s, however, mankind’s role in terrestrial changes were becoming obvious: a US military experiment, for example, proved that a nuclear explosion disturbed Earth’s radiation belts. Chapter 6, “Wildcat Ideas for Environmental Warfare,” covers the post-Sputnik period, when American cold warriors begged their scientific advisers for exotic ideas to unleash natural disasters against the Soviets. A NATO study group established in 1960 took stock of the various scenarios that thermonuclear explosions might trigger, from earthquakes to firestorms, and concluded that environmental warfare would be an unreliable, wasteful, and redundant addition to nuclear Armageddon.

In the book’s third and final section, “Gatekeepers of Nature,” Hamblin investigates the sense of environmental power and vulnerability that scientists fostered through their military-sponsored research in the 1960s and later. Chapter 7, “The Doomsday Men,” reveals the hidden role of defense intellectuals in linking catastrophic war to environmental crises. For example, the Club of Rome, the think tank that published the famed 1972 report *Limits to Growth*, drew on the technical expertise of the MIT systems analyst Jay Forrester, who had helped design a continental air defense network in the 1950s. Beyond the military, the outlook and rhetoric of scientist-critics like Barry Commoner and Paul Ehrlich reflected doomsday thinking and a survivalist mentality. Even the US and Soviet governments used the language of global environmental catastrophe in their propaganda. In 1969, President Richard Nixon announced the plan to scrap the US biological weapons program and called on Congress to ratify the Geneva Protocol of 1925 banning the first use of chemical weapons; in chapter 8, “Vietnam and the Seeds of Destruction,” Hamblin describes how Nixon challenged the Soviets to follow suit by casting the danger of these weapons in global terms, a move that also helped him distract public attention from the Vietnam War. As demonstrated in chapter 9, “The Terrorist Science of Environmental Modification,” the Americans and Soviets also “embraced global doom-saying” (210), seeking to outmaneuver each other in the diplomatic negotiations leading up to the Environmental Modification Convention of 1977. Chapter 10, “Adjustment or Extinction,” clarifies the superpowers’ calculation of strategic gains and losses in the face of bioenvironmental crises, including the Sahel drought, climate change, and AIDS.

Arming Mother Nature is a sweeping reinterpretation of modern environmentalism that opens a new perspective on the historical origins of its ideological foes. In an “extraordinary irony,” the Cold War, which brought a catastrophic turn in environmental thought, also stirred “skepticism about the notion of catastrophe” (246). While radical scientists denounced capitalism as environmentally deleterious, war planners and intelligence analysts claimed that, on the contrary, the flexibility and resilience of the free market

would allow Western-bloc nations to adapt to environmental changes better than their communist rivals. It was no coincidence that cold warriors preached the gospel of capitalism and the “American way of life” that US national security policy was meant to protect,² and celebrated the nation’s political system. The free-market dogma became all the more influential after neoconservatives declared the “triumph” of the West at the end of the Cold War. Historians of science Naomi Oreskes and Erik M. Conway have recently shown³ that neoliberalism has provided the ideological rationale for fierce opposition to public health and environmental regulations in the United States.

Jacob Hamblin’s book is a salutary and timely reminder that we must go back to the Cold War past to gain a firmer grasp of the current stalemate in environmental politics and of the possibilities for change. It will strongly appeal to both professional historians and general readers seeking an alternative account of environmentalism and its opponents.

2. See Melvyn P. Leffler, “National Security,” *Journal of American History* 77 (1990) 143–52.

3. See *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (NY: Bloomsbury, 2010).