

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

## INTRODUCTION

*The Big Picture*

J. R. MCNEILL AND CORINNA R. UNGER

## CONTEXT

For those too young to have learned, or old enough to have forgotten, the Cold War was nasty, brutish, and long.<sup>1</sup> Historians disagree vehemently about its origins, about both who was responsible and when it began. But it was under way by 1947 at the latest, driven partly by conflicting ideologies among the victorious allies in World War II, partly by conflicting economic and political interests, and partly by a host of lesser considerations, including personalities, misunderstandings, and much else.

The Cold War fault lines derived from World War II. Its main theaters, Europe and East Asia, were the main theaters of World War II. On one side stood the Soviet Union of Joseph Stalin and the East European countries the Red Army had liberated (or conquered) in 1944–5 in the savage war with Germany. On the other side stood the United States and Britain, supported by dozens of allied countries, notably those liberated and occupied by Anglo-American forces in the last months of World War II. In East Asia, the defeat of Japan left a divided China, which embarked on a civil war between Communists, often but not always supported by Stalin, and nationalists, often but not unconditionally supported by the United States.

From 1948 to 1962, the Cold War featured a series of crises that threatened to convert it into World War III. The biggest shift in the balance of power came in 1949, when the Chinese communists under Mao Zedong's leadership won the civil war and drove the nationalists to the island of

1 A handy primer is David S. Painter, *The Cold War: An International History* (London, 1999). Readers familiar with the outlines of the Cold War may skip down a few paragraphs.

This book arose from a conference sponsored by the German Historical Institute in Washington, D.C. We wish to thank Christof Mauch, former director of the institute, for supporting the conference from the outset, and David Lazar of the institute for his sharp eye and firm hand in helping shepherd this volume into print.

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

Taiwan, and when the Soviet Union successfully exploded its first nuclear weapon. A full-fledged war in Korea (1950–3), uprisings among Soviet satellites in Eastern Europe (1953, 1956), and crises in Berlin (1958, 1961) and Egypt (1956) kept the great powers on edge and motivated dizzying arms races. The most dangerous moment of all came in 1962, when the United States persuaded the Soviets to withdraw missiles from Cuba, which had recently become a Soviet client state.

Meanwhile, the decolonization of the British, French, Dutch, and Portuguese empires in Africa and Asia enlarged the scope of the Cold War. Not only the United States and the Soviet Union but also China wished to secure allies and resources in the new countries. The United States gradually waded deeper and deeper into a conflict in Vietnam, trying to forestall communist expansion there. By the late 1960s, Vietnam had become a divisive and expensive problem for the United States, and escape from Vietnam seemed to require some relaxation of tensions with either the Soviet Union or China, or with both. Better relations with the United States, awkward as that might be in ideological terms, held a strong attraction for the two communist powers because they had had a falling out that led to border clashes in 1969. The Soviet invasion of its insubordinate satellite Czechoslovakia in 1968 further divided the communist camp. Thus, the table was set for negotiations and *détente*. The failure of the Soviet Union and China to maintain their alliance was another major shift in the balance of power during the Cold War.

The relaxation of tensions did not last long. A Middle East war in 1973 and the Soviet invasion of Afghanistan in 1979 ignited a new phase of intensified conflict and arms buildups. After Mao's death in 1976, China stayed mainly on the sidelines. The Soviet Union could not carry the burden, as its economy had proved far less flexible and productive than that of the capitalist world by the 1970s. By the late 1980s, under Mikhail Gorbachev, it gambled on desperate efforts to revitalize economy and society. The Soviets lost the resolve to clamp down on restive Eastern European populations, and in 1988–9, Eastern Europe – peacefully – escaped Soviet control. The Cold War was over, although the Soviet Union limped on until 1991.

By conventional reckoning, then, the Cold War lasted from the middle of the 1940s until 1991, pitting the material, cultural, psychological, and other resources of the United States and its allies against the Soviet Union and its bloc. The Cold War included shooting wars, often but not always fought by proxy forces, notably in Korea, Vietnam, Afghanistan, and southern Africa. It featured fluctuating tension and anxiety, which at many moments seemed likely to boil over into an atomic Armageddon. It incorporated almost the

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)*Introduction: The Big Picture*

3

entire world, directly or indirectly, and was bound up with the politics of nationalism and decolonization. There is much to reckon with within the conventional reckoning.

That reckoning still does not acknowledge that the Cold War was fought on Earth in the biosphere with repercussions that will last for perhaps a hundred thousand years. In some respects, the Cold War enlarged the human experience of the biosphere by encouraging research and explorations in previously neglected nooks and crannies, such as the polar regions, the ocean floors, and the upper atmosphere. The Cold War helped alter the human appreciation of the biosphere, spurring grand ambitions such as changing the direction of ocean currents and altering weather patterns. The stakes seemed so high to those in the corridors of Cold War power that drastic interventions in the workings of the biosphere were easily justified if they promised some advantage in the mortal struggle with the enemy. In countless ways, the Cold War altered the biosphere itself. This book explores those linkages between the Cold War on the one hand and the environment, environmental change, and human knowledge of the environment on the other. It seeks to bring together the concerns of environmental history and Cold War history.

Historians of the Cold War have kept themselves busy for about sixty years, chronicling and analyzing various aspects of the struggle. The occasional opening of a new archive or the release of a new set of documents has invited periodic revisions of reigning interpretations. So, unlike the Peloponnesian War or even World War I, about which no new documents are likely to challenge prevailing wisdom, Cold War historiography chases a moving target, repositioning and remaking itself at a rapid clip, like the study of human evolution (constantly revised by new archeological finds and genomic evidence) and cosmology (revised by new snippets of data from the far corners of the universe). Historians of the Cold War, despite their unflagging industry, their relentless curiosity, and their plentiful numbers, have not given much attention to the relationships between their chosen subject and its earthly context. Like those in the corridors of power whom they have so carefully studied, they have been too busy with more conventional matters.<sup>2</sup>

2 See, e.g., the three recent general treatments by leading Cold War historians: Odd Arne Westad, *The Global Cold War* (Cambridge, U.K., 2005); John Lewis Gaddis, *The Cold War* (New York, 2006); and Melvyn Leffler, *For the Soul of Mankind: The United States, the Soviet Union and the Cold War* (New York, 2007). None of these works considers environmental issues or contexts. A notable exception is Jeffrey A. Engel, ed., *Local Consequences of the Global Cold War* (Washington, D.C., and Stanford, Calif., 2007). Historians of war, for their part, have long been interested in environmental factors that might affect campaigns and battles or, in an older tradition, the character of peoples. But environmental

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

In the latter years of the Cold War, the historical profession developed a new wrinkle, environmental history. Although it has many roots and precursors, as a self-conscious enterprise, environmental history dates to the 1970s. It is concerned with relations between human society and the rest of nature. These can take any number of forms, such as human alteration of the environment, writing and thinking about the environment, and policies and politics concerning the environment. Environmental historians have probed several aspects of this relationship, from bodies and disease to industrial metabolism and environmental protest movements. But, by and large, they have been reluctant to consider the significance of war.<sup>3</sup>

At first glance, this is strange indeed. War has long been one of the classic subjects for historians. Even in the past forty years, when historians have stampeded in new directions, such as social and cultural history, most still attribute great importance to big wars and routinely use them in their periodizations. And there is good reason for this: wars, at least big ones, are important in the evolution of societies. Conceivably, the sort of historian attracted to consideration of the environment is normally repelled by attention to warfare. Or, perhaps, it is merely that environmental historians thus far have been too busy with other matters and have not yet gotten around to focusing their lenses on war. In any case, environmental historians and historians of war have almost completely ignored one another's work until very recently.

Stranger still is that Cold War historians and environmental historians have studiously ignored one another's work. The majority of inquiry in environmental history concerns the post-1945 world. Just as the Cold War played out against a backdrop of the changing biosphere, every environmental issue between 1945 and 1991 took place in an evolving geopolitical context dominated by the Cold War. Yet the two historiographies have been like two ships passing in the night, dimly conscious of one other but unable or unwilling to engage each other.<sup>4</sup> In this book, we aim to shine a

change and the possible impacts of war on the environment have yet to spark much interest among military historians. This stands in sharp contrast to the outlook of military planners today, many of whom have developed a keen interest in environmental change, especially climate change, which they foresee as possibly affecting their craft in fundamental ways.

3 There are some exceptions, such as Richard P. Tucker and Edmund Russell, eds., *Natural Enemy, Natural Ally: Towards an Environmental History of Warfare* (Corvallis, Ore., 2004); J. R. McNeill, "Woods and Warfare in World History," *Environmental History* 9 (2004): 388–410; Berthold Meyer, ed., *Umweltzerstörung: Kriegsfolge und Kriegsursache* (Frankfurt, 1992); and Charles E. Closman, ed., *War and the Environment: Military Destruction in the Modern Age* (College Station, Tex., 2009). For readers of Finnish, there is also Simo Laakkonen and Timo Vuorisalo, eds., *Sodan ekologia: Nykyaisen sodankäynnin ympäristöhistoriaa* (Helsinki, 2007), concerning recent warfare.

4 The chief exception to this general statement is the awareness in the historiography of the rise of modern environmentalism of the significance of anxieties arising from nuclear fallout.

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)*Introduction: The Big Picture*

5

searchlight through the fog, making it easier for those on one ship to take account of those on the other.

## CONNECTIONS

Countless connections exist between the Cold War and the concerns of environmental history. This book explores a few but by no means all of them. Here are some reflections on some of the relevant themes – some represented, some not – in the chapters that follow.

*The Environmental Effects of Proxy Wars*

Greg Bankoff's chapter on Asian fauna in the Cold War, and especially in the hot wars of Korea, Vietnam, and Afghanistan, provides a glimpse into a fascinating and large subject. Proxy wars took place outside of Asia, too, of course, in Angola; Mozambique; Central America; and, in some people's estimation, in the Middle East. These were often guerilla conflicts, fought in remote rural landscapes by poor and hungry people. The destruction of crops, trees, animals, water supplies, and so forth – environmental warfare – had a strong logic where those resources were so desperately needed and where moral strictures against punishing civilian bystanders scarcely applied. The wars in southern Africa (c. 1960–90), where the Americans and the Soviets supported rivals seeking to supplant Portuguese colonial rule, serve as a fine example. The fragility of ecosystems, especially in semiarid areas of Angola and Mozambique, made ecological damage hard to repair, and the poverty of the affected populations made environmental warfare an especially effective political tool.<sup>5</sup>

The Vietnam War is the best-studied war from the ecological perspective, mainly because of the moral objections to the Americans' use of chemical defoliants such as Agent Orange. David Zierler's chapter explains some sides of that important issue. Other aspects of the environmental effects of combat, and of political struggle, in Vietnam have rewarded investigation.<sup>6</sup> Other Cold War theaters, from Central America to the Horn of Africa, deserve detailed attention, too.<sup>7</sup>

5 Emmanuel Kreike, "War and the Environmental Effects of Displacement in Southern Africa (1970s–1990s)," in *African Environment and Development*, ed. W. G. Moseley and B. I. Logan (London, 2003), 89–110.

6 David Biggs, "Managing a Rebel Landscape: Conservation, Pioneers and the Revolutionary Past in the U Minh Forest, Vietnam," *Environmental History* 10 (2005): 448–76.

7 On Central America, there is Daniel Faber, *Environment under Fire: Imperialism and the Ecological Crisis in Central America* (New York, 1992), but it is thinly researched.

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

6

*J. R. McNeill and Corinna R. Unger**Agriculture and the Green Revolution*

The Cold War was a contest for the hearts and minds of millions around the world, but it could not have been won without successfully filling stomachs. Claims for the moral or practical superiority of communism or capitalism would ring hollow unless people were adequately fed. In the Soviet Union, this presented an acute problem in the aftermath of World War II because food production lagged well behind requirements. Famine stalked the land in 1946; Nikita Khrushchev's memoirs mention cannibalism in the Ukraine. Stalin, no friend of the peasant, responded with various efforts to squeeze more grain from the countryside and, in 1948, a comprehensive plan for the transformation of nature. The plan's central goal was to make the Soviet land more productive, to feed the population, and to allow grain exports that could serve political ends (during the 1946 famine, the Soviet Union exported grain to France in hopes of influencing election results). The plan had not progressed very far by the time of Stalin's death in 1953. Khrushchev, eager to distance himself from Stalin, followed with the Virgin Lands Campaign, which involved plowing up huge areas of steppe grassland in Kazakhstan and eastern Siberia and sowing them with wheat.

American authorities, meanwhile, were increasingly concerned about the problem of hunger, which, they feared, could threaten political stability and open the door to communist agitation, especially in Latin America and Asia. After flirting with ideas of land reform, they responded with a technical solution known as the green revolution. This was an agricultural modernization package of high-yield cereals (initially wheat and rice, carefully bred to carry a heavy, grain-packed head on a short stalk), combined with chemical fertilizer, pesticides, and usually new machinery and irrigation. As a production strategy, it worked: wheat and rice yields doubled and tripled where the new crop varieties flourished (e.g., Mexico and India).<sup>8</sup> The Chinese, too, pursued scientific crop breeding, but they also followed the Soviet strategy of plowing up semiarid grasslands for cultivation.

Both of these responses to the threat of hunger, intensification and extensification of agriculture, brought pronounced ecological effects. The green revolution loosed new chemicals on agroecosystems and the waters that drained them. Its machinery led to soil compaction and its irrigation to waterlogging and, in places, to salinization. Plowing up grasslands invited wind erosion and the rapid drawdown of soil nutrients. Hundreds of millions

<sup>8</sup> A forthcoming book by Nick Cullather, *Parable of Seeds: The United States and the Green Revolution in Asia*, will illuminate the role of the green revolution in U.S. Cold War strategy.

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)*Introduction: The Big Picture*

7

of hectares of Earth's surface were fundamentally altered by agricultural initiatives spurred by the Cold War.<sup>9</sup>

*Cold War Infrastructure*

In Richard Tucker's chapter, the connections between Cold War geopolitical agendas and the spate of dam building around the world are laid bare. Dams had both practical and symbolic value in the Cold War struggle, as did other forms of large-scale infrastructure, such as roads and railroads. Like dams, such infrastructure was built for a host of reasons, not all of which involved the Cold War. But, as with dams, Cold War anxieties helped shape projects such as the U.S. interstate highway system and the Soviet Baikal-Amur Mainline (BAM) railroad.

In 1956, after years of political wrangling, the U.S. Congress succumbed to pressure from President Dwight Eisenhower and passed what is commonly known as the National Interstate and Defense Highways Act. Ike wanted a highway system that would stand the country in good stead in the event of war, that would allow rapid evacuation of major cities in the case of nuclear attack, and that would speed men and materiel to ports should conventional war break out. Its roadbeds, tunnels, and bridges were built to accommodate military vehicles. Its network served all of the roughly four hundred military bases in the (then) forty-eight states.

The Soviet leadership also had military priorities in mind when making transport-investment decisions during the Cold War. In contrast to the United States, however, the Soviet Union neglected roads and instead gave priority to railroads. One example is the long-delayed completion of the BAM line first begun in the 1930s but left languishing until geopolitical events in the 1960s – the Sino-Soviet border clashes and the Vietnam War – gave routes to the Soviet Far East and Pacific ports a new importance in the Kremlin's strategic thinking. The sole existing transport line linking the Russian heartland with Vladivostok was the old Trans-Siberian Railroad, which lay close to the Chinese border. The BAM line, well back from the border, offered welcome insurance against either Chinese incursion or American missiles or bombers.

These roads and railroads, like all transport infrastructure, helped redefine patterns of land use. They influenced settlement, the location of businesses,

<sup>9</sup> John H. Perkins, *Geopolitics and the Green Revolution* (New York, 1997); Zhores Medvedev, *Soviet Agriculture* (New York, 1987); Nick Cullather, "Miracles of Modernization: The Green Revolution and the Apotheosis of Technology," *Diplomatic History* 28 (2004): 227–54; Martin McCauley, *Khrushchev and the Development of Soviet Agriculture: The Virgin Lands Programme, 1953–1964* (London, 1976).

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

and the economics of resource extraction. Logging, mining, and farming became practical in places previously inaccessible. The interstate highways also inhibited terrestrial wildlife migrations – as dams did aquatic wildlife.

### *Military Bases*

The Cold War was a global struggle, especially after the Soviet Union made a commitment in the 1960s to foster communist revolution wherever circumstances seemed promising.<sup>10</sup> This meant that both the Americans and the Soviets built networks of military bases to house their forces, partly to keep local governments and populations loyal (or at least compliant) and partly to be prepared should a real war break out. By the mid-1960s, the United States had some 375 overseas bases. Sometimes these were sprawling establishments, as in the case of the Panama Canal Zone or Subic Bay in the Philippines. Normally, the bases were free from local laws and at least partially insulated from local pressures. This meant that military authorities could often use the environment of the military bases as they saw fit, with little or no restraint. They could, for example, dump millions of tons of toxic chemicals – mainly in fuel, lubricants, and ammunition – on soils and in waters without regard to the consequences. The pollution record of the Soviet military in Eastern Europe and the Baltic in this respect is especially egregious, an indication of the frictions felt between Soviet occupying forces and the unwelcoming populations. As the Soviet forces withdrew after 1989, they sometimes willfully polluted the bases they were turning over to Eastern Europeans. The Americans' slow withdrawal from the Panama Canal Zone after 1977 seems honorable in comparison – but only in comparison. Thus, the networks of bases were archipelagoes not merely of environmental nonchalance but sometimes of deliberate despoliation as well.<sup>11</sup>

### *Nuclear Weaponry*

Far in the future, when none but the most encyclopedically informed historians has heard of the Cold War, the legacy of radioactive contamination from nuclear weapons programs will still haunt the biosphere. Most of the

10 See Vladislav Zubok, *A Failed Empire: The Soviet Union in the Cold War from Stalin to Gorbachev* (Chapel Hill, N.C., 2007), on Soviet adventures around the world.

11 Henri Myrntinen, *Base Conversion in East and Central Europe, 1989–2003* (Bonn, 2003), 12–13; José Carcione, Henryk Marcak, Geza Seriani, and Giorgio Padoan, “GPR Modeling Study in a Contaminated Area of Krzywa Air Base (Poland),” *Geophysics* 63 (2000): 521–5; Joseph Gerson and Bruce Birchard, eds., *The Sun Never Sets: Confronting the Network of Foreign U.S. Military Bases* (Boston, 1991).



Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)*Introduction: The Big Picture*

9

environmental effects listed above were the result of Cold War conduct that was driven only in part by Cold War political agendas. In the case of nuclear weapons, although the United States first developed them in World War II, their mass production and frequent testing was explicitly a result of Cold War anxieties. The production, testing, and even decommissioning of nuclear weapons all made lasting messes. Paul Josephson's chapter gives a sense of the casual attitude toward nature and the anxious attitude toward security that characterized the Soviet nuclear weapons program. Mark Merlin and Ricardo Gonzalez's chapter illustrates some of the effects of American, British, and French nuclear testing in the Pacific. No one knows just what the environmental effects of Chinese testing at Lop Nor might be, as China maintains a thicker veil of secrecy around its nuclear weapons program than anyone else does. But whether in the Soviet Arctic, the atolls of Micronesia, the Xinjiang Uyghur Autonomous Region of China, or anywhere else, the radiation resulting from nuclear weapons production, testing, and (careless) disposal will be with our descendants, and indeed with all life forms, for tens of thousands of years to come. Historians will have to be at their best to explain to future generations how the pressures of the Cold War led responsible officials to make the choices that they did.<sup>12</sup>

*Military-Industrial Complexes*

At the end of his presidency, Eisenhower warned the U.S. public against the power of what he dubbed "the military-industrial complex." It was not a new threat. Britain and Germany had their own versions of military-industrial complexes in the nineteenth century, and every major combatant in the world wars either had one or had to build one. But in the course of the Cold War, the United States and the Soviet Union took the military-industrial complex to another level. According to some estimates, military goods accounted for 25–40 percent of all industrial production in the Soviet Union. In all Cold War powers, industries deemed vital to military preparedness were given tax breaks and subsidies, and afforded levels of secrecy unavailable to others. Military industries enjoyed privileged access to raw materials, particularly in the Soviet Union, and special powers in labor

12 Michele Gerber, *On the Home Front: The Cold War Legacy of the Hanford Nuclear Site* (Lincoln, Neb., 1992); Stephen I. Schwartz, ed., *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons* (Washington, D.C., 1998); Arjun Makhjani, Howard Hu, and Katherine Yih, eds., *Nuclear Wastelands: A Global Guide to Nuclear Weapons Production and Its Health and Environmental Effects* (Cambridge, Mass., 1995); Nikolai Egorov, Vladimir Novikov, Frank Parker, and Victor Popov, eds., *The Radiation Legacy of the Soviet Nuclear Complex* (London, 2000); V. I. Bulatov, *Rossia: Ekologiya i armiya* (Novosibirsk, 1999), 41–53.

Cambridge University Press

978-0-521-76244-1 - Environmental Histories of the Cold War

Edited by J. R. McNeill and Corinna R. Unger

Excerpt

[More information](#)

relations, including, in the Soviet case, the provision of free gulag labor. Wherever possible, and in the Soviet Union this meant everywhere, they were exempt from pressures and laws to contain pollution. In the United States during the Cold War, environmental regulation more or less stopped at the doorstep of military industries, especially before the mid-1970s. As for the Chinese, after the Sino-Soviet split, they felt anxious about attack from both the Soviet Union and the United States, and consequently built a brand new military-industrial complex deep in the interior, mainly in Sichuan Province, polluting broad swaths of countryside that had formerly breathed easily.<sup>13</sup>

Military-industrial complexes reached beyond the borders of the leading geopolitical powers to a much greater extent during the Cold War than they had in earlier epochs. Strategic ores such as uranium, manganese, cobalt, and nickel meant a great deal to the Cold War powers, so they tried hard to maximize and monopolize production wherever they could. The United States tried to persuade its firms to mine strategic ores in places where the prospects for profits were usually insufficient to tempt businesspeople, such as in central and southern Africa. The Soviet Union tried to get as much ore, especially uranium, out of Eastern Europe as fast as possible, leaving a radioactive mess in the former East Germany and Czechoslovakia. Thanks to the pressures of the Cold War, mining operations took place around the world that otherwise would not have. And, of course, they had a range of environmental consequences, from the in-filling of streams and rivers to the creation of mountains of slag.

### *Respite for Nature*

One of the more cheerful aspects of the relationship between the Cold War and the environment is the creation of de facto nature preserves in restricted military areas. Simply by preventing quotidian economic activity, restricted areas sometimes preserved ecosystems and species that would otherwise likely have disappeared. In some cases, decommissioned bases or artillery ranges have been converted to formal nature preserves, as with some of the former Soviet bases in Eastern Europe, the former U.S. Navy gunnery range at Culebra (an island off of Puerto Rico), and the former nuclear arsenal at Rocky Flats, Colorado (an official wildlife refuge since 2005).

Perhaps the best example, and a direct result of the Cold War, is the demilitarized zone (DMZ) spanning the waist of the Korean peninsula. Off-limits

13 Judith Shapiro, *Mao's War against Nature* (New York, 2001).