

Hell on Earth

The Second World War and the Environment

By G. Tracy Mehan III

“Many people witnessed spectacles comparable with Renaissance painters’ conception of the inferno to which the damned were consigned; human beings torn to fragments of flesh and bone; cities blasted into rubble; ordered communities sundered into dispersed human particles,” writes British historian Max Hastings in his 2011 work *Inferno: The World At War, 1939-1945*. It was the “greatest and most terrible of all human experiences.”

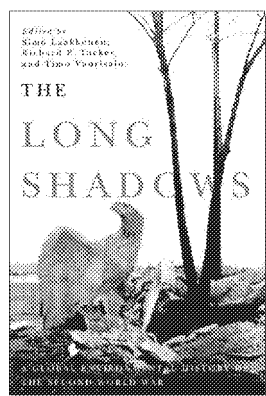
Hastings reckons that “at least 60 million were terminated by death.” An average of 27,000 people perished each day between September 1939 and August 1945 and China, invaded by Japan two years earlier, lost 15 million lives.

It may seem unseemly, even disrespectful of the dead, to discuss the environmental consequences of World War II, given the immense carnage it inflicted on humanity (or humanity inflicted on itself). But the environment encompasses human beings who must rely on it. So it was inevitable, even necessary, that environmental historians would turn their attention to war in general and World War II in particular. This is, after all, the Epoch of the Anthropocene. And nothing is more quintessentially human, and destructive, than war.

Now Oregon University Press has given us what it deems to be “the first book-length work to offer global perspectives on the environmental history of World War II,” a collection of academic essays reflecting the latest research on a global scale encompassing Europe, North America, the Ca-

ribbean, Asia, Africa, and the Arctic. Edited by two Finns, Simo Laakkonen (University of Helsinki) and Timo Vuorisalo (University of Turku), and one American, Richard Tucker (University of Michigan), *The Long Shadows. A Global Environmental History of the Second World War* offers chapter-length essays by 16 authorities, including an introduction by the environmental historian John R. McNeill and a concluding chapter by the editors offering their own hypotheses.

While the book’s subtitle limits its scope to a history of World War II, it actually begins the story much earlier,



The Long Shadows: A Global Environmental History of the Second World War. Edited

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even before World War I, and continues it forward into the Cold War (in which military expenditures “sustain an unjust world order”) and beyond.

In truth, most of the contributors are criticizing industrialization, resource extraction (mining, forestry), intensive agriculture, colonialism, Stalinism, capitalism, and widespread reliance on chemicals, pesticides, and nuclear energy in war and peace. Evidently, one does not mine minerals but is “raiding” them. One does not farm, but engages in “agricultural colonization.” And, at least in the Arctic, “the

“extractive economy” is, at all times and places, the “excessive and unsustainable use of natural systems and natural resources in peripheral areas.”

Evan Mawdsley, general editor of the *Cambridge History of the Second World War* (2015), and one of the contributors to *The Long Shadows*, gives the game away when he writes, “But I also find a considerable degree of truth in the proposition that the most deadly war in history (in human terms) had only limited environmental impact, especially if seen in comparative terms.” He makes an exception for China. He also cites Professor McNeill for the proposition that “most of the environmental changes wrought in combat proved fleeting” and “preparing and mobilizing for industrial warfare” brings more serious changes.

The historical research they present is impressive by any measure and merits careful attention by any student of war and the environment.

Also, the book’s global perspective (supply chains being just one example) will be most helpful to an Anglo-American audience, which tends to overlook, say, the war in China going back to 1937 or the Eastern Front, regarding which another British historian, Norman Davies, observed that for four years, more than 400 Red Army and German divisions fought over a front of 1,000 miles. Eighty-five percent of the German military dead fell there.

The costs of the war for the Soviet Union and Belarus, and the Stalinist ideology which mistreated the natural world as well as human beings, are exhaustively outlined in a chapter by Paul Josephson of Colby College. The 871-day Leningrad Blockade is described in excruciating detail. Again, this is an example where the human tragedy, quite obviously, dwarfs any concern with the environment.

Given the Finnish influence in and on this collection, the three wars

involving Finland, the Soviet Union, and Nazi Germany are most interesting, given that the Finns had to fight on both sides of the war because of their geopolitical vulnerability. They were invaded in 1939 by the Soviets in the Winter War, launched a counter-attack in the Continuation War and, finally, had to fight the Germans in the Lapland War under the terms of its previous surrender to the Soviets. *The Long Shadows* highlights the destruction in Finland's Arctic regions, both human and environmental. However, true to form, it judges the Finnish government harshly for pushing economic development in the regions after its loss of so much territory to the Soviets.

The book also focuses on the Finnish army's non-chemical means of fighting lice and typhus: portable disinfection saunas for people as well as horses! This latter chapter, written by Helene Laurent, a medical doctor at the University of Helsinki, contrasts this approach with chemical treatments in Germany (Zyklon, also used in the gas chambers of concentration camps) and the United States and the United Kingdom (typhus vaccines, DDT).

Laurent sees the world wars as leading to environmental damage "by bringing together the interests of the state and the chemical industry." She does cite the successes in fighting typhus in World War II with DDT, etc., but also invokes Rachel Carson on the dangers of pesticides without discussing the benefits. She displays little sympathy for those actually fighting and surviving the war against Nazi Germany and Imperial Japan with the tools at their disposal.

One of the more curious essays is Simo Laakonen's on the "Environmental Policies of the Third Reich." It seems that the Nazis, at least in times of peace, were "radical environmentalists." They strove to promote nature conservation, but all of this gave way to industrialization once the war commenced. Unfortunately, this con-

servation ethic was grounded in the ideology of "blood and soil" (*Blut und Boden*) and was intertwined with anti-Semitism and various contradictory themes of "anticivilization, antiurbanism, anticapitalist and antiliberalist views into a potent, mystical notion of the rural as a revivifying force." The Reich did institute some resource-protection legislation and even supported animal welfare policies, again, until the shooting started. At the heart of the regime was "an ideological-political paradox," i.e., rejecting the rationalism of the Enlightenment while embracing, fully, modern technology.

When Chinese Nationalist General Chiang Kai-shek breached the Yellow River's dikes in Henan province in 1938, it flooded vast areas of land for nine years resulting in what Micha Muscolino of Oxford University calls "the single most environmentally damaging act of warfare in world history" killing over 800,000 people and making nearly 4 million refugees. This sounds like a human tragedy rather than environmental damage, another example of the definitional challenges in this area of environmental history.

One of the best chapters of the book, but confusing in its historical methodology, describes Japanese imperialism and the development of that nation's "pelagic empire" or dominance of marine resources and global fisheries starting in 1868. This is a classic case of government failure, or "industrial policy," causing environmental harm. Through subsidies, diplomacy, state-sponsored research, and numerous other techniques, Japan came to ruthlessly dominate and over-exploit marine fisheries throughout the globe. The primary goal, historically, was for export and foreign exchange. This is an excellent essay, but it is unclear how it supports the "long shadow" thesis in that the Japanese fishing industry was wiped out in World War II until the America occupation authorities found

it necessary to restore the industry for both domestic food supply and export.

There are also chapters in *The Long Shadows* on the war in Burma, including the Burma and Ledo roads and forests; the militarization of Hawaii, before and after Pearl Harbor, and its legacy of pollution and hazardous waste sites; and another interesting chapter on the "acoustic ecology of war" and "traumatic wartime sonic experiences" based on the experience of Finnish war veterans. In addition, there are chapters on the development of aluminum for aircraft in the Western Hemisphere, Mexican forests, food disruption in Tanganyika, the opening up of the circumpolar Arctic, Canadian resource development, and international conservation in the post-war years. Most of the authors take a pretty dim view of resource extraction and, understandably, heavy-handed colonialism in some cases.

War is hell. It is a catastrophe for human beings, animals, nature, and the environment. The contributors to *The Long Shadow* have marshalled impressive historical materials delineating the human and environmental tragedies stemming from World War II. They do, however, bring a good deal of ideological baggage with respect to their antagonism to industrialization and resource extraction, whether or not it is tethered to war-fighting.

They do not ask the hard questions as to when war, even brutal ones, are necessary or justified. Nor do they offer new ideas for international law or even ongoing military protocols to minimize damage in future conflicts. Fortunately, the contributors to this landmark book provide much historical substance with their ideology, which should be sufficient inducement for the prospective reader.

G. Tracy Mehan III is executive director for government affairs at the American Water Works Association and an adjunct professor at Antonin Scalia Law School, George Mason University. Email: tmehan@awwa.org.

Ideology aside, the book does offer a damning account of conflict resolution via arms