

## WAR AND THE ENVIRONMENT: CONTEXTS AND CONSEQUENCES OF MILITARY DESTRUCTION IN THE MODERN AGE

Conference at the GHI, May 7–8, 2004. Conveners: Charles Closmann (GHI) and Christof Mauch (GHI).

Participants: Greg Bankoff (Netherlands Institute for Advanced Studies, Wassenaar), Lisa Brady (Boise State University), Dorothee Brantz (Free University of Berlin), Jeffry Diefendorf (University of New Hampshire), Bernd-Stefan Grewe (University of Trier), Daniel Fahey (San Francisco State University), Oliver B. Hemmerle (Chemnitz University), John R. McNeill (Georgetown University), Karen Oslund (Library of Congress), David Painter (Georgetown University), Chris Pearson (University of Bristol), Jeff Schutts (University of British Columbia), Richard P. Tucker (University of Michigan), William Tsutsui (University of Kansas), Frank Uekoetter (University of Bielefeld), Robert Wilson (Syracuse University), Frank Zelko (GHI).

Wars have had major impacts on urban and natural environments. As a consequence of military campaigns and destruction, landscapes and cityscapes have been transformed; oceans and air have been polluted. At the same time, environmental factors such as the climate and the availability of resources have influenced military strategies and the conduct of war. Some wars have been fought in order to gain access to natural resources; others have been compared to natural events.

Over two days in early May, a group of historians and social scientists from Europe and North America met to explore the nexus of environment and war from multiple perspectives. They analyzed the consequences that wars and the use of modern weapons have had on nature and natural resources. They discussed the ways in which wars have contributed to the physical and cultural transformation of landscapes, and they explored different types of postwar reconstruction.

The first panel was dedicated to the “Environment and the Military in Germany and the United States.” John R. McNeill and David S. Painter provided an overview of the ecological influence of the American military in general terms. They assessed environmental change by focusing on frontier expansion, infrastructure construction, the purchase and production of weapons, American land acquisitions, and the creation of U.S. overseas bases, “an archipelago of military facilities around the world covering around 8,100 hectares.” McNeill and Painter emphasized that the environmental effects of preparation for war were much longer last-

ing than those of combat itself. The ecological impacts associated with military bases—unprecedented levels of energy use as well as chemical and nuclear contamination—were indeed wide reaching and substantial, particularly so because of the global reach and expansion of American military power.

In her paper on W.T. Sherman's Civil War campaign of 1864–1865, Lisa M. Brady discussed nineteenth-century constructions of nature, warfare, and gender. She interpreted the military campaigns through Georgia and Carolina as an attempt by the North to reveal to the South its inability to control and defend "nature" in a meaningful way. By turning part of the South into a "wilderness," for instance, General Sherman "capitalized on a long-standing fear most Americans shared of disordered 'wild' nature." Brady also emphasized that the conquest of the Southern landscape was often described in gendered terms demonstrating male control over a feminine nature and population. In a paper titled "More than a Battlefield: Military and Forests from the Seventeenth to the Twentieth Century," Bernd-Stefan Grewe analyzed the strategic and economic importance of forests since early modern times. He identified various strategic functions of forests in military history, including forests as battlefields, natural obstacles, hideouts, and natural borders, and he emphasized the importance of forests for war economies. He pointed out that forests provided resources as well as revenue in times of both war and peace. In addition, Grewe noted a variety of indirect impacts of wars and the military on forests, such as the effect of wars on timber prices, on land use, and on forest ecology.

The second panel, titled "War and Environment: Experiences and Effects," opened with a paper by Dorothee Brantz on trench warfare in World War I. Brantz investigated how environmental factors shaped the daily practice of war and how trench warfare created a new sense of space. Brantz pointed out that the trench environment, with its rodents, mud, and direct exposure, had a major impact on the soldiers. In fact, the war transformed "landscapes of peace" into "environments of war" that "subsumed humans."

A paper by Daniel Fahey focused on the recent debate over depleted uranium munitions in the United States. Since the early 1990s, according to Fahey, depleted uranium ammunition has emerged from near total obscurity to become one of the most controversial weapons of modern warfare. Advocates have called it a "silver bullet" that saved the lives of thousands of Americans, while critics have called it a "genocidal weapon." In his paper, Fahey assessed scientific evidence about the effects of uranium, evaluated legal regulations, and analyzed political trends in dealing with this issue. Fahey pointed out that the Department of Defense has downplayed the extent and severity of battlefield expo-

sure. Above and beyond that, he demonstrated that both sides of the debate have been informed by ideology and politics rather than science and common sense.

Oliver Hemmerle, in his paper on "Landscape and Nation-Building amidst Wars," argued that the coastal strip on the Mediterranean that encompasses the pre-1967 state of Israel, the Gaza Strip, the West Bank, and the Golan Heights would be economically self-sufficient. However, when divided into two or more parts, the military defense capability and economic sustainability would become "questionable." Therefore, according to Hemmerle, notions of the natural and urban environments have had an extremely strong impact on military strategy.

A third panel, "Imperialism, War, and Environment in South East Asia," dealt with the effects of colonialism and war on tropical forests. In an essay on the Philippines, Greg Bankoff argued that state formation under the Spanish and American colonial powers went hand in hand with the exploitation of tropical woodlands. The Spanish in particular harvested massive quantities of teak, guijo, yacal, and other hardwoods for the construction of forts during the seventeenth and eighteenth centuries. Most importantly, according to Bankoff, particular species of Philippine trees "were felled at a much faster rate than the forest in general," a process which endangered the genetic integrity of certain kinds of hardwoods, and threatened some species with "chance extinction" in the long run.

The longterm consequences of military conflict on the world's tropical forests were also examined by Richard Tucker. Focusing on the effects of woodland exploitation resulting from the two world wars, Tucker maintained that World War II had a much larger effect on the environment than World War I. In particular, he argued, "By 1939, . . . systems of timber extraction and marketing (and the sciences that lay behind them) were far more highly developed than in 1914." Consequently, Great Britain, the United States, and Japan were able to cut much greater amounts of timber for the construction of military roads, boats, and aircraft than in the previous war. Moreover, he asserted, wartime governments funded extensive research into the technology of timber exploitation during World War II, and "paved the way for massive postwar expansion of tropical logging."

The fourth panel, "Environmental Policies in Times of War," began with another essay exploring the relationship between war and natural resources. In his paper on Japanese fishing policies, William Tsutsui shifted the focus to the environmental history of oceans, a relatively untouched realm of study. According to Tsutsui, the Japanese established a vast "pelagic empire" across the Pacific during the early 1900s. Motivated by the same militaristic factors that propelled Japan's expansion

into China, Korea, and Southeast Asia, Japanese fishermen harvested millions of tons of tuna, whales, and crabs from all corners of Asia. Tsutsui's story of Japan's aggressive fishing policies demonstrated that twentieth-century militarism often resulted from state efforts to control natural resources as much as from nationalism or political conflict.

In a paper on U.S. government policies to manage bird populations on the west coast, Robert Wilson argued that World War II had "uneven effects on the programs and practices of federal land management agencies in the United States." On the one hand, the U.S. Fish and Wildlife Service established large refuges to lure birds away from rice crops during the war, a practice that protected both game birds and rice. On the other hand, the Fish and Wildlife Service employed methods of insect control pioneered by the military, including the use of DDT, in order to kill weeds on its refuges. The story of this campaign is a cautionary tale about the complicated environmental effects of war. While the new refuges restored populations of ducks, the use of DDT killed thousands of gulls and other fish-eating birds in the 1950s and 1960s.

Frank Uekoetter also explored the nexus between government agencies, war, and the environment. In his essay, Uekoetter challenged scholarship on modern Germany that "fails to take into account the institutional background of conflicts over conservation issues during the world wars." Citing a successful 1942 campaign by officials in Baden to protect the Wutach Gorge from destruction by a hydroelectric plant, Uekoetter argued that one can only understand the persistence of prewar traditions of conservation or air pollution abatement by appreciating "the *bureaucratic* character of work in both fields." In the midst of total war, Nazi Germany's conservation officials emphasized bureaucratic routine, legal decrees, and their own indispensability to the regime.

The last panel, "Postwar Scenarios: Reconstruction and Memorialization," considered the ways in which people have planned for and represented the effects of war on cities and rural landscapes. Focusing on urban planning during and after World War II, Jeffrey Diefendorf noted that most experts saw the massive destruction wrought by bombing raids as an opportunity to make cities more livable through modernist designs emphasizing access to "natural light, air, and greenery." Yet the actual pattern of urban renewal after 1945 rarely fit this utopian model. More often, cityscapes in postwar Europe emerged as "compromises between what most planners dreamed of, what property owners and heritage-minded citizens wanted, and what was possible" given available finances.

In contrast to Diefendorf, Chris Pearson emphasized the rural countryside, in this case the Vercors region of eastern France. Drawing upon images of roadside monuments, cemeteries, and other features of this

rocky landscape, Pearson assigned nature a major role in memorializing the resistance of French maquisards who fought the Germans in 1944. Illustrating his point, Pearson cited a small stone monument at Pas de l'Aguille, dwarfed in the background by a massive, stony mountain. According to Pearson, such monuments referenced spectacular elements of the landscape in order to "appropriate nature" and to "glorify and remember the heroic resistance and tragic martyrdom" against the occupiers. Pearson's essay makes the environment central to an understanding of how the French state remembered the events of 1944.

The conference ended on Saturday with a screening of Michelle Mason's award-winning documentary, *The Friendship Village*. On one level, the film chronicles the life of George Mizo, a Vietnam veteran who led international efforts to build a village near Hanoi for the rehabilitation of children with Agent Orange-related deformities. On another level, the film highlights the potential of international organizations and individuals to overcome past animosities and build peace at the local level in a globalized world. Although the filmmaker could not attend, film co-producer Jeff Schutts led a lively discussion of the film and the broader potential of documentaries to educate viewers about the consequences of war.

While this conference covered a range of topics, a few themes recurred in all of the discussions. Perhaps most importantly, participants noted that the direct and immediate effects of military combat on landscapes are often less significant than the long-term consequences of planning for war, marshaling natural resources, and building support structures. Papers on forestry, fishing, and the United States military made this abundantly clear. Moreover, some papers suggested that the line between traditional definitions of war and state-sponsored campaigns to destroy landscapes, harvest timber, and otherwise dominate nature is often blurred. While natural resources like oil or wood are necessary to wage war, the efforts to exploit these resources are just as often a *casus belli*, and one that does not begin or end with military conflict. Finally, the engaging papers presented at this conference shed light on the ways in which military strategists and common soldiers thought about and experienced environments of war. Indeed, one can never fully understand militarism without also appreciating the complex relationship between war and the environment.

*Charles Closmann and Christof Mauch*