MAO'S WAR AGAINST NATURE

In clear and compelling prose, Judith Shapiro relates the great, untold story of China in the Mao years – the devastating impact of Maoist politics on China's environment. Under Mao, the traditional Chinese ideal of "Harmony between the Heavens and Humankind" was abrogated in favor of Mao's insistence that "Man Must Conquer Nature." Mao and the Chinese Communist Party's "war" to bend the physical world to human will often had disastrous consequences for both human beings and the natural environment. *Mao's War Against Nature* argues that the abuse of people and the abuse of nature are often linked.

The book opens with the story of the political persecution of two scientists during the 1957 Anti-rightist movement, Beijing University president Ma Yinchu, who cautioned against unchecked population growth, and hydro-engineer Huang Wanli, who opposed the Sanmenxia Dam on the main stream of the Yellow River and predicted correctly that the dam would be an environmental and economic mistake. Shapiro then shows how, during the Great Leap Forward, urgency to achieve utopian socialism led to widespread deforestation as trees were cut to fuel "backyard furnaces." Fanciful agricultural schemes and competitions to produce impossible yields sapped farmers' energy, impoverished the land's productivity, and contributed to the greatest human-made famine in history. During the Cultural Revolution, China's environmental misadventures took another turn when the Dazhai model for remolding the earth was misapplied throughout China, ignoring regional variations and local practices; when wetlands in Yunnan's Lake Dian were filled in 1970, the lake region ecosystem was irretrievably damaged and the reclaimed land was unusable for grain. Finally, Shapiro explores the environmental consequences of state-ordered relocations during the "war preparation" campaign of the late 1960s and early 1970s, when strategic industries were transferred to the interior to form a defensive "Third Front" and millions of young Chinese were sent to frontiers to "open wastelands" and prepare for war.

The negative example of the Mao years points to the importance of political participation, public deliberation and oversight, intellectual freedom and rule of law, respect for regional variation and local wisdom, and land tenure systems that give people a sense of responsibility for the land and of a shared future with it. This story of Mao-era environmental degradation not only presents a cautionary tale of historical significance but also explores the social and historical roots of patterns that affect not just China but the world.

Judith Shapiro is coauthor of several well-known books on China including *Son of the Revolution* (1983), a memoir of the Cultural Revolution, *After the Nightmare* (1986), a study of the reform period, and *Cold Winds, Warm Winds* (1986), a discussion of the limitations on intellectual freedom in today's China. She lives in Washington, D.C., where she teaches environmental politics at American University.

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MAO'S WAR AGAINST NATURE

Politics and the Environment in Revolutionary China

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Let's attack here!
Drive away the mountain gods,
Break down the stone walls
To bring out those 200 million tons of coal.

Let's strike here!
Let the Dragon King change his job,
Let the river climb the hills,
Let us ask it for 8000 *mu* of rice paddies.

Let that valley open its bosom
To yield 500 *jin* of oats every year.
Cut down the knoll
To make a plain over there…

Let's wage war against the great earth!
Let the mountains and rivers surrender under our feet.
March on Nature,
Let's take over the power of rain and wind.

We shall not tolerate a single inch of unused land!
Nor a single place harassed by disaster.
Make wet rice, wheat, and yellow corn grow on top of
the mountain,
And beans, peanuts, and red gaoliang rise on sheer rocks…

Zhang Zhimin, *Personalities in the Commune*[1]

CONTENTS

Chinese Measurement Equivalents

100 *mu*	1 *qing*
6 *mu*	1 acre
15 *mu*	1 *ha* (hectare) or 2.47 acres
100 *qing*	16 acres
1 *li*	1/3 mile or 1/2 kilometer
1 *jin* (catty)	1.33 pounds
16 *liang*	1 *jin*

PREFACE

This book is the product of my longstanding involvement with China and more recent interest in international environmental politics. The effort to understand the Maoist attempt to "conquer" nature has provided me with unexpected pleasure as well as enormous intellectual challenges. I have revisited the familiar terrain of Mao-era China with fresh perspective and explored the new territory of environmental politics with the aid of well-known landmarks. I remain fascinated by the interconnections between human and environmental politics under Mao and am gratified now to share my work.

Observers of global environmental politics are quick to point out that no solution to the earth's environmental problems is possible without the involvement of China. China is a major force in almost every global environmental issue, be it climate change, ozone depletion, biodiversity loss, world food security, human population growth, or overexploitation of the global commons. At the regional level, China is involved in trans-boundary air and water pollution, conflict over shared watercourses, international trade in endangered species, and cross-border fallout from nuclear weapons tests. With its enormous size, remarkable economic growth, and severe environmental degradation, China's importance to planetary health is overwhelming.

A legacy of political upheaval, only partially acknowledged by China's current leadership, has contributed to the current grave environmental situation in China. Uneasy reactions to the Mao era have intensified the negative effects of industrialization on the environment; the aftereffects of the tumultuous Mao years continue to undermine Communist Party claims to legitimacy, to promote corruption and disillusionment with public goals, and to hinder the Chinese people's

search for national identity and pride. The dismal environmental record of the Mao years offers scant guidance as China seeks to meet new challenges raised by explosive economic development. China's cities are among the world's most polluted; much of the population struggles with falling water tables and unsafe drinking water; health problems due to environmental problems are so widespread that, if fully accounted for, they would negate much of the region's economic growth; erosion, salinization, and desertification plague much of China's arable land; sandstorms traced to deforestation and overgrazing torment northern China; and major floods connected to excessive logging and land reclamation are becoming more frequent. A comprehensive portrait of the causes and effects of contemporary Chinese environmental problems is beyond the scope of this book, and only some of China's current predicament is attributable to Mao's policies and legacy. However, this book seeks to inspire debate about the social and political causes of China's environmental difficulties and to challenge the received wisdom that China's environmental problems are attributable solely to post-Mao economic reforms and industrial growth.

Beyond China's importance to global environmental issues, there is an additional, even more compelling reason to investigate and explain the environmental dynamics of the Mao years: few cases of environmental degradation so clearly reveal the human and environmental costs incurred when human beings, particularly those who determine policy, view themselves as living in an oppositional relationship to nature – as well as to each other – and behave accordingly. The relationship between humans and nature under Mao is so transparent and extreme that it clearly indicates a link between abuse of people and abuse of the natural environment. As this book will show, coercive state behavior such as forcible relocations and suppression of intellectual and political freedoms contributed directly to a wide range of environmental problems ranging from deforestation and desertification to ill-conceived engineering projects that degraded major river courses. At numerous important junctures of Mao-era history, the connection between human suffering and the degradation of the natural world was very clear. Today, at a time when it has become critical to adopt more sustainable modes of human activity, the cautionary example of the Maoist "war against nature" may shed light on the human–nature relationship in other periods and parts of the world.

Preface

To write this book, I have assembled evidence of the environmental impact of Mao-era politics in representative cases, drawing on newspaper and magazine accounts, interviews, written memoirs, scholarly field studies, and journalistic accounts. I have built on the limited Western scholarly materials on the environment during the Mao years, as well as on analyses of the politics of the period. I have searched Chinese "reportage literature," or semifictionalized memoirs, as well as autobiographies by many who suffered during the era's political campaigns, for hints of the environmental story that was not usually their main focus. In an effort to understand the roots of Mao's war on nature, I have drawn on Mao's writings and speeches and on Chinese Communist Party statements. Informative and outspoken books published in China during the climate of greater intellectual openness of the late 1990s also provided insight and factual material, although political constraints remained evident, particularly with respect to the roles and responsibilities of Mao and other leaders whose reputations were still being protected. Finally, perhaps most importantly, I have plumbed the memories of ordinary Chinese who participated in Mao's massive nature-control experiments, whether they did so by terracing mountains or filling in lakes during the years of "learning from Dazhai" or by relocating to the frontiers to counter the Soviet threat. Out of respect for the law of unforeseen consequences, which this book illustrates well, I have protected the anonymity of these informants, except in a handful of cases in which disclosure of their identities added significantly to the memories they shared and I was able to obtain explicit permission for their names to be used.

Most official accounts were unreliable as descriptions of what happened, precisely because of the lack of freedom of expression and information of the Mao years. They were relevant, however, for the models they provided and for the attitudes and policies toward nature that they revealed. Even such obvious sources as the *People's Daily* and *China Pictorial* provided windows onto how China's policy-makers conceived national struggles and campaigns, and were excellent sources for charting the evolution of official discourse. Moreover, official sources pointed toward other versions of the truth, as acknowledgment of small problems suggested big ones, and announcements that problems had been resolved served to expose the problems. Because mass political campaigns touched almost all Chinese, and because many of those who lived

through the period are still alive, an infinite base of experiences was available to be discovered and retold.

I made my first visit to China in 1977 and taught English in Changsha, in Hunan province, from 1979 to 1981, as one of the first forty Americans to work in China after U.S.-China relations were normalized. My Chinese students and colleagues were quick to disabuse me of any romanticism about Maoism and the Cultural Revolution; my wide travels and explorations of Chinese society confirmed that the Mao era had been a disaster for the country on numerous levels. In the early 1980s, that period was still poorly understood in the outside world, and upon my return to the United States, I worked to share what I had learned, collaborating with my former husband, Liang Heng, on a series of books about the Cultural Revolution and the ongoing constraints on intellectual freedom in China. I returned to China repeatedly, often spending time in out-of-the-way places where I came to know the arduous lives of rural Chinese and observe how closely they depended for survival on their interactions with the land. I heard much testimony about how much easier rural life has become since the end of the desperate Mao period. I also observed enduring political victimization and a host of environmental problems that originated under Mao. My instinct that these phenomena were connected helped suggest the hypothesis, explored in this book, that abuse of people and abuse of nature are often interrelated.

Research for this project was conducted during four visits in 1998, 1999, and 2000. My interest in China's environment led me to volunteer to lecture on environmental philosophy and international environmental politics at Southwest Agricultural University near Chongqing. Since I had been a teacher in China, I was familiar with this role and felt comfortable contributing to Chinese efforts to train environmental professionals at the same time that I developed my own work through conversations and interviews. I also traveled to other regions to collect exemplar stories, returning twice to Yunnan province, where several of the cases featured in this book are located. I sought out intellectuals who had been persecuted during the Anti-rightist movement, former schoolchildren who had participated in the campaign to get rid of the Four Pests, workers and peasants who had been mobilized to fill in a lake to grow grain, and former "educated youths" who had been sent to the frontier to "open the wasteland" and grow rubber. I made a special

effort to speak with older Chinese engaged in environmental protection. Although their often-bitter experiences during the Mao years were typical of those of other Chinese intellectuals of their generation, their perspectives were unusually helpful, as they had often thought deeply about the themes investigated here. Their memories inform the core insights contained in this book. I also spoke to younger Chinese who did not live through the Mao years about their attitudes toward environmental issues, particularly during a May 2000 lecture tour on the role of nongovernmental organizations in environmental protection. Although contemporary attitudes were not the primary focus of my research, these conversations provided an important source of hope for the future, as reflected in this book's conclusion.

The illustrations for this book came primarily from magazines and books purchased in Chinese flea markets, which have become a rich source of Mao-era collectibles. Propaganda posters, back issues of *Zhongguo Huabao* (China Pictorial), *Zhongguo Sheying* (China Photography), and various provincial pictorials were readily available. Fortuitously, I also found a 1971 commemorative album depicting the building of the Chengdu-Kunming Railroad, several albums used in "learning from" Dazhai, a volume of wood-block prints designed to encourage youths to volunteer to "open up" the countryside and frontiers, and several sets of commemorative photographs of Chairman Mao. A journalist who had retained his 1960s negatives kindly gave me unpublished original photographs of Panzhihua, the Third Front steel base; hydro-engineer Huang Wanli and his children were generous with their family photographs, for which I am most grateful.

A few caveats about the limitations of this book: If the study of attitudes, values, culture, and ideas is always difficult, it is even more difficult to pin down their relationship to policy and behavior. Memory is slippery, especially as it seeks to retrieve and make sense of politically charged events that have caused personal dislocation or suffering. Much evidence was subjective, as is its interpretation; however, the memories of witnesses and participants are an essential part of this book. Moreover, no study of a country as large as China, covering as broad a time span as the Mao years, can possibly be comprehensive, and this book does not pretend to be an exhaustive history of the environment during the period. Rather, it is an attempt to tease out themes by investigating particularly telling cases, and thereby to draw a rich portrait of

the complex human face of environmental degradation in China under Mao. In so doing, I hope to provide a historical context for China's current environmental problems. I hope also to advance our theoretical grasp of the connection between problems among humans, on the one hand, and problems between humans and nature, on the other, by providing detailed cases that demonstrate how this connection has been played out. The confluence of destructive interhuman relations and destructive human–nature relations in Maoist China is an extreme example of similar patterns and distortions that occur and have occurred in other settings. Further study of this congruence may have value for a broader understanding of the relationship between social and environmental activity.

This book has benefited from a wealth of expertise, ideas, experience, and support from colleagues, friends, family, and people known to me only electronically. Mary Child of Cambridge University Press believed in the project from the start, patiently and wisely improved the manuscript with numerous intelligent suggestions, and shepherded it through publication. Donald Worster, editor of Cambridge University Press's Studies in Environment and History, welcomed the project onto an exceedingly distinguished list and provided valuable guidance for revisions. Cathy Felgar, Nancy Hearst, Betty Pessagno, Larry Meyer, and Laura Ho contributed their expertise during the production process. A calligrapher who prefers to remain anonymous kindly wrote the slogans that open each chapter. Among the many other individuals who played pivotal roles are Paul Wapner, who helped conceptualize the project and read it in numerous incarnations, and Edward McCord, who invented the title and was responsible for essential conceptual modifications. Other West-based scholars who commented on all or parts of the manuscript include David Barrett, John Israel (who drew my attention to the Dianchi wetlands in-filling and persuaded me to meet him and his family in Kunming), Jacques deLisle, Roger Kasperson, Mark Elvin, Nicholas Menzies, Zhao Quansheng, Rick Edmonds, Ken Conca, Louis Goodman, Cao Zuoya, Marjorie Lightman, Robin Broad, Stacey Lance, Joan Lennox, Priscilla Grayson, and some very helpful anonymous reviewers for Cambridge University Press. Assistance with ideas, materials, and contacts in China was afforded by Jing Jun, Gan Che Ng, Jim Harkness, Dan Viederman, He Ping, Devra Kleiman, Walter Parham, Dave Cowhig, David Bleyle, Zhou Yuedong,

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My husband, Richard Shapiro, supported my decision to write a new book and kept me on track when my resolve wavered. He was often my first and most demanding reader, and he endured my writer's angst with patience and understanding. Others who played special roles include Tom McKain, who was reliably at the other end of the e-mail when I despaired, Michael Shapiro, my brother-in-law, who stepped in to help at a critical moment, and numerous others who know who they are.

Finally, a word about those to whom I owe the greatest thanks, the hundreds of Chinese who helped me by sharing memories, information, printed materials, introductions, and kindness. I am reluctant to bring possible inconvenience to them by naming them here. It saddens me to be unable to acknowledge them publicly. Some of them cautioned me to be circumspect in writing about political questions, but I could not implement this advice and also tell the story of the environment under Mao as I understand it, and I apologize if I have offended their sensibilities in any way. Others urged me to write what they cannot yet write openly. I hope that this book does them justice. I remain deeply grateful to all of these extraordinary, courageous, and generous individuals, and I hope that one day the views they expressed to me can be openly published in China.