Mao's War Against Nature: Politics and the Environment in Revolutionary China, by Judith Shapiro, Cambridge: Cambridge University Press (2001), xvii, 287 pp.

Reviewed by Gregory A. Ruf, Associate Professor, Chinese Studies and Anthropology Stony Brook State University of New York

In this engaging and informative book, Judith Shapiro takes a sharp, critical look at how development policies and practices under Mao influenced human relationships with the natural world, and considers some consequences of Maoist initiatives for the environment. Drawing on a variety of sources, both written and oral, she guides readers through an historical overview of major political and economic campaigns of the Maoist era, and their impact on human lives and the natural environment. This is a bold and challenging task, not least because such topics remain political sensitive today. Yet the perspective Shapiro offers is refreshing, while the problems she highlights are disturbing, with significant legacies.

The political climate of revolutionary China was pervaded by hostile struggle against class enemies, foreign imperialists, Western capitalists, Soviet revisionists, and numerous other antagonists. Under Mao and the communists, "the notion was propagated that China would pick itself up after its long history of humiliation by imperialist powers, become self-reliant in the face of international isolation, and regain strength in the world" (p.6). Militarization was to be a vehicle through which Mao would attempt to forge a 'New China.' His period of rule was marked by a protracted series of mass mobilization campaigns, based around the fear of perceived threats, external or internal. Even nature, Shapiro argues, was portrayed in a combative and militaristic rhetoric as an obstacle or enemy to overcome. While traditional philosophies had espoused 'Harmony between Heaven and Humans,' the slogan 'Humans Must Conquer Nature' came to epitomize attitudes and actions during the Mao years. This was an era when "human will was considered more powerful than objective scientific law" and political dogma held that "the earth could be miraculously transformed through ideologically motivated determination" (p.197). Shapiro suggests that Maoism rejected tradition as well as Western science, yet embraced the modernist conception of human:nature separation, creating a situation in which the human and environmental costs of living in opposition to nature were "transparent and extreme" (p.xii).

Focusing on "coercive state behavior" during the Mao years, Shapiro argues political campaigns of mass mobilization, class struggle, and political repression contributed to severe environmental damage. She contends that people participated, enthusiastically or reluctantly, because of the ideological hegemony and coercive power of Maoist authority. Indeed, the "hypothesis" Shapiro seeks to explore in this book is that "abuse of people and abuse of nature are often interrelated" (p.xiv). Her conclusions may be read as emphatic confirmations.

To support her thesis, Shapiro presents several "particularly telling" or "representative" cases that highlight the dynamics of "anthropogenic environmental degradation" in Maoist China. These are organized into four chapters, focusing on 'core themes:' political repression, utopian urgency, dogmatic uniformity, and state-orchestrated population relocations. Each chapter addresses development initiatives and their environmental consequences in the context of specific campaigns of mass mobilization, although political repression is a meta-theme that unites each case study.

First, Shapiro relates how the suppression of intellectual dissent following the Hundred Flowers movement stifled scientific critics, contributing to a series of policy actions with far-reaching environmental consequences, including China's current population pressures and controversial hydroprojects. Next, Shapiro addresses the impact of the Great Leap Forward, when collective mobilization was fuelled by fanatic idealism, and forests and birds fell to fantastical schemes to boost production in a 'war against nature' that was propagandized in explicitly military terms. The Cultural Revolution provides the context for her third chapter, which focuses on the struggle for grain and the rigid formalism manifest in the national emulation of the Dazhai agricultural model and in the destruction of the Dianchi wetlands near Kunming. The fourth chapter examines urgent war preparations in the late 1960s and early 1970s, particularly the construction of a new inland strategic base area or 'Third Front,' as well as the compulsory relocation of 'educated youth' and former Red Guards to help develop China's frontiers. Shapiro concludes by considering the legacies of the Maoist era in the commercialization of contemporary China, suggesting elements of traditional philosophy and liberal democracy may best contribute to sound environmental management.

Familiar with the impact of Maoist politics on Chinese society, Shapiro based her research for this particular book on a wide variety of source material. Some of this was collected during visits to China in 1998, 1999, and

2000, when she conducted interviews (many with former participants in these campaigns), and delivered a series of volunteer lectures on environmental philosophy and international environmental politics. Shapiro makes extensive use of secondary sources, official and popular, scholarly and literary, published and unpublished. These include newspapers and magazines, scholarly studies and unpublished doctoral dissertations, journalistic accounts and semi-fictionalized 'reportage literature,' autobiographies and memoirs, as well as a number of "insightful and factual" Chinese-language works (often claiming 'inside' knowledge of the leadership) that appeared in the 1990s. She also makes extensive reference to Mao's own writings and speeches, as well as to statements attributed to various Chinese Communist Pary (CCP) leaders and officials.

Shapiro's first chapter, "Population, Dams, and Political Repression," concerns the 1957 Anti-Rightist campaign, and the suppression of intellectual dissent following the Hundred Flowers movement. Recounting the development of party-state policies toward intellectuals, Shapiro presents two enlightening case studies of "environmental disasters and the scientists who tried to avert them." Focusing on Ma Yinchu and Huang Wanli, prominent scholars with doctoral degrees from American universities, Shapiro seeks to illustrate how "'knowledge' based on wishful thinking was given primacy over the tested understanding of scientists" (p.60). Her account of these two men, who questioned the appropriateness of development plans favored by Mao, offers insight on two controversial issues facing China today: birth planning policies and grand hydroprojects.

Ma Yinchu is perhaps best remembered for his outspoken opposition to Mao's views on population policy, which ascribed to Soviet dogma that contradictions between production and population no longer existed under socialism. Born 1882, Ma had pursued graduate studies in economics at Yale and Columbia under sponsorship of the Qing imperial government, before returning to China in 1916. Hired by Cai Yuanpei to chair the economics department at Beijing University, Ma subsequently served for a time in Chiang Kai-shek's Nationalist government (and later, after criticizing Kuomintang corruption, in its prison camps). Following the communist victory in the civil war, Ma was appointed in 1951 as President of Beijing University, and to the standing committee of the National People's Congress. It was in this capacity that he delivered his 1957 report, 'New Demography,' warning that unchecked population growth might slow economic development.

Shapiro recounts the debate over development strategy following the PRC's first national census, conducted in 1953, as part of the First Five Year Plan. The census count, Shapiro reports, was higher than expected, and raised concerns of some authorities. Ma Yinchu's essay, published in the People's Daily, advocated frequent census checks, family planning programs, public education campaigns, later marriages, rewards for small families, and encouraged use of contraceptives (Ma opposed abortion). But his position dissented from Mao's assertion that there were no population problems under socialism, and that China's population was a source of its strength. Shapiro characterizes Ma Yinchu as a man of integrity who was committed to "plain speaking in an age of slogans" (p.38), and who symbolized the freedom of thought and democracy at the university he headed. Criticism of Ma, and pressure on him to retract his report, mounted in the months that followed, and intensified during the Great Leap Forward, when the slogan 'Strength Lies in Numbers' (ren dou liliang da) represented the party line on population policy. Ma steadfastly held to his opinions, but in 1960 he was obliged to resign as Beijing University President, and was effectively 'silenced' and banished from public life until his political 'rehabilitation' in 1979, three years after Mao's death.

Shapiro then turns to the case of hydro-engineer Huang Wanli, who vocally opposed plans to dam the Yellow River at Sanmenxia. Noting that political authority and water control have an intimate relationship in Chinese history and legends, Shapiro suggests that Mao's sensitivity to the traditional adage, 'When a great man emerges, the Yellow River will run clear,' was a contributing factor in his support for this controversial project. Huang Wanli had opposed the dam, arguing that its design did not fully consider potential sedimentation problems. Huang published an allegorical tale in a Qinghua University journal, criticizing those who simply said whatever party-state authorities wanted to hear, and which praised Ma Yinchu's wisdom and integrity. Huang's story drew the ire of Mao Zedong, and in 1957 he was harshly criticized in a People's Daily editorial that Shapiro contends signaled the beginning of the Anti-Rightist campaign (Huang was indeed labeled as a 'rightist'; during the subsequent Cultural Revolution, even his children were pressured to denounce him).

Shapiro uses the case of Huang Wanli to suggest, as the latter did, that China's real problem was a lack of free speech. As she shows, many of Huang's unheeded concerns were ultimately justified. The Sanmenxia project inundated more than one million mu of land (one mu roughly equals one-sixth of an acre) and forced the relocation of over 300,000 people. Yet within a few years heavy silting problems arose, threatening the dam, fouling the reservoir, and obliging authorities to remove the power generators to another site. Huang's case was an example to other potential critics, symbolizing the subordination of technical expertise to political 'truths.' Shapiro notes that China built more than 80,000 dams since 1949, yet by 1980 nearly 3000 had collapsed, causing destruction and

death, while over ten million relocatees continue to live in impoverished circumstances.

Chapter 2, "Deforestation, Famine, and Utopian Urgency," explores how Mao's Great Leap Forward (1958-1960) mobilized the population in a veritable "attack" on nature. The Leap was arguably the most extreme expression of Mao's peculiar materialist philosophy, which put great emphasis on the transformative power of thought and ideas. Shapiro briefly recounts the ascendancy of Mao's more radical approach in the party leadership's 'Two Line Struggle' over the pace of collectivization. Faced with a lack of 'sophisticated technology,' correct thinking was to tap the enormous energy of mass labor in grand efforts to transform the material world. In a sharp break with the traditional paradigm of 'Heavens and Humans in Harmony' (tian ren heyi), the triumphal rhetoric of the Leap espoused that 'Humans Must Conquer Nature' (ren ding sheng tian). Slogans such as 'Greater, Faster, Better, More Economical' and 'Great Courage Brings Forth Great Yields' came to symbolize the heady ideological spirit of the times, as elevated production targets were surpassed by fantastical production claims, sometimes supported (as she illustrates) by deceptively staged photographs.

Without diverging into theoretical analysis, Shapiro examines the 'language of urgency' in the 'compressed time' of mass mobilization political campaigns, or "orchestrated competitions designed to achieve targets established by superiors," compliance with which was often enforced through fear (p.71). She argues that Mao's war against nature was epitomized in the militaristic attitudes and practices of the Great Leap Forward, when elements of nature were "casualties in the crossfire of other battles and targets of direct attack" (p.75). The rural people's commune system was to affect the 'militarization, combatization, and disciplinization' of the countryside for Mao's vision of socialist transformation. Mao, who was later characterized by his former personal secretary as a military strategist who felt annoyed and constrained by scientific thinking, told the directors of cooperative organizations in 1958 that nature should be given serious attention tactically, but viewed with contempt strategically.

The Spring of 1958 saw the first 'battles' in this war against nature, with campaigns to construct new irrigation networks (including the famed Red Flag Canal). Then, during the 'Iron and Steel' campaign, roughly ten percent of China's forest cover was felled in the course of a few months to fuel 'backyard blast furnaces' in what became the first of 'three great cuttings' (the others coming during the Cultural Revolution and then following decollectivization). The subsequent campaign to 'Eliminate the Four Pests' (rats, sparrows, flies, mosquitoes) portrayed nature as an enemy. Even 'child soldiers' were recruited in a "simultaneous, highly coordinated, and compulsory mass slaughter of sparrows [that] was a singularly foolish episode of wasteful mobilization of human energy in an effort to alter the natural world" (pp.88-89). Many of the Leap's consequences that Shapiro deals with are fairly well known: notably, its ecological disruption - from deforestation, erosion, and land degradation -to insect infestation, crop failure, and three years of famine (the death toll from which she puts at 35-50 million). But her work leads one to suspect that even the Leap's lauded accomplishments had costs and consequences not yet fully understood or appreciated.

Chapter 3, "Grainfields in Lakes and Dogmatic Uniformity," examines some of the "excess" and waste generated by development schemes during the Cultural Revolution, focusing largely on the national emulation of the Dazhai model in agriculture and the filling of the Dianchi wetlands in Yunnan province. Here Shapiro recounts the political struggle over the meaning of 'Take Grain as the Key Link,' which emerged as dominant party-state policy in the wake of the Great Leap famine, and the renewed emphasis on 'self-reliance' that followed the withdrawal of Soviet aid. During the early 1960s, a series of administrative and economic reforms (largely attributed to Deng Xiaoping) helped to stabilize the national economy and to boost production of staple food crops. By the mid-1960s, however, Mao had begun to reassert his influence through the factional struggles over the course of the 'Socialist Education' movement. Having played a less dominant leadership role in the years of post-famine recovery, Mao was to make a dramatic re-emergence on the public stage with a 1966 swim in the Yangzi River, a symbolic expression of the power he was to project during the ensuing Cultural Revolution.

In this context, Shapiro recounts how the People's Daily in 1964 heralded a new campaign to 'Study Dazhai,' urging the nation to follow the heroic determination, revolutionary will, and egalitarian spirit of a rural production brigade that had overcome disasters through self-reliance and literally 'change[d] the face of rivers and mountains.' She notes that models are attractive standard teaching tools, as they facilitate uniformity, centralization, regimentation, coordination, and mobilization (while suppressing spontaneity, individualism, and alternatives). Although initially promoted as an embodiment of the spirit of self-reliance, hard work, and close relations between the party and the people, the Dazhai model later came to be used by Mao as a "universal political paradigm for revolutionary rigor and fervor" (p.96). One of its laborers was commemorated on a postage stamp, while its party secretary was elevated to the CCP's Central Committee.

While it was revealed after Mao's death that Dazhai had, in fact, been the recipient of secret state assistance, during Mao's later years the self-reliant rhetoric and imagery associated with the 'Dazhai model' came to symbolize the spirit of egalitarian collectivism. Shapiro argues that mechanical applications of the Dazhai model in situations

with inappropriate local ecological conditions was an expression of "dogmatic uniformity," or an attempt to 'cut everything with one slice of the knife' (yi dao qie).

Here Shapiro considers the links between power and ideology, and the consequences of uncritical adherence to dogma. During this period, great emphasis was placed on the study of Chairman Mao's works (particularly his 'Old Three Articles:' a 1939 tribute to Dr. Norman Bethume; the 1944 essay 'Serve the People;' and his 1945 adaptation of a traditional parable of the 'Foolish Old Man Who Moved the Mountains'). While Mao had used the parable of the 'Foolish Old Man' to symbolize the Chinese people's determined struggle against the twin 'mountains' of feudalism and imperialism, Shapiro suggests that many took the story literally. In emulation of the famous grain-producing terraces of Dazhai, other villages constructed terraces on slopes that were inappropriately steep; in some locales, she reports, gullies were cut into -- or hills created on -- flat plains so that terraces could be built. Such expressions of dogmatism, literalism, and formalism led to agonizing physical labor and enormous suffering, in a time when hardship was considered "a badge of advanced political thought" (p.104). They also contributed to serious environmental degradation, as non-grain crops were destroyed, fruit trees were uprooted, and wetlands were filled in, leading to increased erosion, flooding, desertification, ecosystem imbalance and micro-climate changes.

Shapiro endeavors to show how the Dazhai spirit of the 'Foolish Old Man' was also evident in land reclamation efforts to 'Get Grain from Mountain Tops, [and] Get Grain from Lakes.' For her purposes, she focuses on efforts to fill the Haigeng wetlands along the north shore of Dianchi, China's sixth largest freshwater lake. Situated near the tropics at roughly 1800 meters elevation, this 300 square kilometer body of surface water plays a role in moderating the climate of the nearby capital of Yunnan province, Kunming, popularly known as the 'City of Perpetual Spring.' On New Year's Day 1970, a 'people's war against nature' began an 'attack' on the lake with a military-style campaign to build dikes, drain water, fill earth and convert roughly 25 square kilometers of wetlands into grain fields as quickly as possible. Shapiro recounts how, in this campaign, political and class struggles were merged with a struggle against the natural world. By harnessing Mao Zedong Thought as a vehicle for transformation, people would remold themselves by remolding nature. "These transformations were ritually melded," she argues, "so that the external/material and internal/spiritual symbolized and acted as proxies for one another" (p.119).

Shapiro cites a 1988 Chinese study that estimates more than 3800 workers were required to wrestle each mu of reclaimed land from Dianchi. The soil, however, proved too soft, moist, and cool for grain, and each mu produced an average of only 45 kilograms a year, a "dismal performance" (p.131). Within ten years, more than eighty percent of the reclaimed land had been taken out of cultivation. The destruction of the Haigeng wetlands (now the site of Kunming's 'Nationalities Village' tourist attraction) was just one contributing factor to the ecosystem imbalance that has afflicted Dianchi in recent decades. Although Shapiro offers little follow-up coverage, triumphant claims that its 'blue seas…have been turned into green land' (p.124) may seem ironically prophetic for those familiar with Dianchi's current problems with pollution, algae blooms, and eutrophication.

Chapter 4, "War Preparations and Forcible Relocations," looks at development projects during the late 1960s and early 1970s, a period of great political tension in China's domestic and international relations. By 1969, the PLA had been mobilized to suppress factionalist violence between Cultural Revolution 'Red Guard' groups, and a large-scale campaign was soon underway to relocate many urban youth to rural areas. Administrative functions were assumed by 'revolutionary committees' dominated by military governance, Shapiro notes, while green clothing and army caps became the "fashion." Internationally, China faced growing isolation as its relations with the Soviet Union deteriorated following the withdrawal of Soviet aid in 1960, with thousands of 'incidents' occurring along the Sino-Soviet border over the next decade (p.144). In 1964, the U.S. began bombing North Vietnam, whose war effort China had supported, raising concerns about further escalation of that conflict to the south. By 1969, there were armed clashes between Chinese and Soviet troops on the border in Heilongjiang province in the northeast, as well as in Xinjiang to the northwest, and the People's Daily warned that a surprise attack could come at any time. Mao told the country to prepare urgently for war.

During this period, Shapiro argues, the 'battlefront' in Mao's war on nature shifted to the mountains of southwest China, the deserts of Xinjiang in the far west, the grasslands of Inner Mongolia in the north, and the 'Great Northern Wilderness' in Heilongjiang province of northeastern China, on the Siberian frontier. Shapiro focuses on two major campaigns in the war preparation movement. The first is the rapid effort to construct a 'Third Line' or 'Third Front:' a new strategic industrial base area amid the shelter and concealment of China's rugged mountainous interior. She then turns to consider the role of 'educated youth' (zhiqing) in state-sponsored development projects on the country's frontiers. Both campaigns involved the large-scale transfer of human resources to 'remote' regions of the country in an effort to 'open wastelands' and secure frontier areas. Nevertheless,

Shapiro contends, "Nature and people alike were victims of these relocations" (p.142).

Under the slogan, 'Prepare for War, Prepare for Famine, for the Sake of the People,' the 'Third Front' development campaign brought roads and railways to the mountains, opening mines and harvesting timber for hundreds of new factories. Shapiro notes that between 1964-71, some 380 factories were relocated to such inland regions (constituting 20% of all large factories in 'Third Front' zones). Her focus is on the industrial complex at Panzhihua, formerly the small village of Dukou, at the confluence of the Yalong and Jinsha (Yangzi) rivers. Situated in the rugged Liangshan region of southwest China on the Sichuan-Yunnan border, and near the large railway depot and the satellite-launching center at Xichang, Panzhihua was the Y3.74 billion "centerpiece" of Mao's 'Third Front' effort (p.148). Shapiro claims it was the raison d'être of Chengdu-Kunming railway, often hailed as a remarkable feat of engineering and construction. Built under PLA supervision, the 1000-kilometer line was completed in 1970, at the cost of Y3.3 billion, and runs through some of China's most rugged terrain, featuring 999 bridges and 427 tunnels (which cover roughly one-third its length).

In the 1930s, tremendous amounts of mineral wealth were discovered in this region, including coal and iron ores (as well as 93% of China's titanium reserves, believed to be the largest in the world). As the 'Third Front' campaign got underway in 1965, the sudden influx of over 80,000 workers created an 'immigrant city;' by 1971 Panzhihua had a population of nearly 215,000. Today, an English language investment brochure proclaims it "'a picture of man conquering nature'" (p.148). Shapiro notes, however, that its human and environmental costs have been great. Mortality rates among workers were as high as 16% in 1965, and averaged 5.42% over the period 1965-70 (p.152). Throughout the 1970s, infectious diseases were rampant in the area, as the air and water were fouled with industrial and human wastes. Over 400 factories (more than fifty with heavy industrial output) have been built along this stretch of the Jinsha River in the Upper Yangzi watershed, upstream from human settlement. Air emissions are regularly trapped in the valley by prevailing wind patterns and temperature inversions. Moreover, many pollution control devices were never installed, for what Shapiro claims were political reasons (p.154). When monitoring did begin in 1975, particulate emissions at the steel mill and sintering plant were found to be 200-300 times the levels of national recommendations, and an official medical investigation in 1984 found three percent of workers suffered from lung diseases. Furthermore, timber harvesting at elevations of up to 1700 meters contributed to extensive deforestation and erosion problems in the upper Yangzi watershed, which has been a factor in the heavy downstream flooding of recent years. Although she confines her discussion largely to the case of Panzhihua, Shapiro concludes that 'Third Front' factories in general were "impractical and inefficient," and that this plan to develop China's interior was as a whole "premature," coming with an "unnecessarily high price" (p.158).

Shapiro turns next to the massive state-orchestrated migration of 'educated youth' to rural areas during the late 1960s and early 1970s. She characterizes this as a blatantly coercive attempt to reorder society, by breaking family bonds, manipulating residency status, and controlling physical movement. Following slogans such as 'The Farther from the Father and Mother, the Nearer to Chairman Mao's Heart;' more than 20 million urban teenagers were 'sent down' or relocated to rural areas. Most joined agricultural production teams in villages, though over two million were assigned to quasi-military units of the 'Production Construction Army Corps," participating in development projects in frontier areas. The Corps were responsible for 'opening wasteland,' defending border areas, and contributing to production. They were to be "shock troops" in battles to create new arable land, and were expected to sustain themselves through their own efforts, although they also drew a small salary from the state. During the military alert in the winter of 1969-70, many 'educated youth' in the Corps were also mobilized to reinforce PLA troops along the Soviet border.

While Shapiro notes that the Corps achieved some successes in their efforts to expand arable land, she highlights the ecological consequences of their activities, such as the destruction of wetlands, forests, and grasslands. In particular, she focuses on the role of 200,000-300,000 'educated youth' in the establishment of rubber plantations in Xishuangbanna, at the southern border of Yunnan province, the 'Last Green Place on the Tropic of Cancer.' China, she remarks, has the greatest biodiversity of any country in the Northern Hemisphere; half of which is found in Yunnan, with the highest concentration in the region of Xishuangbanna. Sheltered from northern winds by tall mountain ranges, this frontier region lies open to warm humid southern monsoons. Now a popular resort and tourist destination, Xishuangbanna is famed for its tropical and sub-tropical plant and animal life, including numerous endemic and rare species. Its climate, however, also made it a potential site for rubber cultivation, and an unsuccessful attempt had been made to introduce the crop in the late 1940s. In 1953, new experimental rubber plantations were established by the PLA, as part of a broader effort to secure the southwestern frontier.

In the 1960s and 1970s, amid China's growing international isolation and tensions, rubber cultivation accelerated into a campaign under the Yunnan Army Corps, as rubber was regarded as a strategic material to be used in national defense and in support of the war effort in Vietnam. Amid militaristic rhetoric and imagery of endless 'attacks' and 'battles' against nature, traditional farming practices, and indigenous beliefs, 'educated youth' labored

to introduce rubber trees at zones of more extreme latitude, altitude, and temperature. Shapiro contends that many of the young people involved in such compulsory, heavy, military-style labor efforts suffered physically and emotionally, some falling victim to depression or suicide (p.180). Despite allegations of abuse and accidents under army leaders, the effort did not wind down until the mid-1970s, following the downfall of PLA marshal Lin Biao (with whom the rubber campaign was closely linked), Nixon's visit to China, and a great freeze in 1974-75 that killed many rubber trees. In the late 1970s, its was the disgruntled and disillusioned 'educated youth' working in Xishuangbanna whom, she maintains, initiated what became the 'Return to the Cities' national protest movement (p.186).

To China's credit, Shapiro concedes, Yunnan today produces the world's highest and northernmost rubber. But the costs, she maintains, have been high. By 1974, the project had opened more than 250,000 mu to rubber cultivation, producing nearly 18,000 tons of rubber, yet posted a net loss of Y34.5 million (p.185). It also contributed to protracted deforestation, as Xishuangbanna had lost more than half its forest cover by 1981. As a consequence, there has been widespread loss of soil and moisture, as well as of wildlife. The silt content of the Mekong River, which flows through the region, has risen, while fog and relative humidity have fallen. Nevertheless, Shapiro notes that although high production costs have made Yunnan rubber less competitive on international markets, during the post-Mao reform era cultivation has expanded even further, more than doubling. By 1996, mono-cultivation of rubber was taking place on nearly 6% of land in Xishuangbanna (p.183).

In her fifth and final chapter, Shapiro considers some of the legacies of the Maoist era. While she is sharply critical of the Chinese Communist Party's environmental record under Mao, she also sees little in China's present state of affairs to reassure her about the future. Shapiro contends that the Maoist assault on traditional values facilitated current trends of materialistic exploitation. For years, the Chinese people "lack[ed] the freedom to behave responsibly toward the natural world" (p.195). The passing of the Maoist paradigm left an ideological vacuum, she argues, fostering a crisis of values characterized by a deep sense of cynicism and betrayal. While many of the extreme policies of the Maoist era now have been attenuated, the war against nature has "continued in altered form after the death of Mao, as the market replaced ideological mobilization as a driving force for the transformation of nature" (p.11). Overexploitation of natural resources, she suggests, grows out of a protracted poverty that has also contributed to ignorance and indifference, as well as to desperation and greed (pp.206-7). Shapiro warns that rapid commericalization and marketization have had their own environmental consequences, contending that China's environmentally related health problems, if fully accounted for, would negate the country's impressive record of economic growth in recent decades (p.xii).

While Mao manifest an "ambition to transform the country," his war on nature "interfered with deep cultural traditions" and showed "disrespect for scientific principles," leading to a "self-destructive rush toward ecosystem collapse and failure" (p.195). Under communism, people had no "vital relation" with nature (p.191), and "no one had real responsibility" for public resources (p.206). Although economic growth and performance improved under the reforms, Shapiro contends that "in a country whose bankrupt leadership's fragile authority rested on improved living standards and shallow nationalism, materialism and greed came to dominate private and public life" (p.204). In this vein, she sees the Three Gorges Dam, likened by critics to "a last-gasp monument to Communist Party" (p.205), as another example of the 'Foolish Old Man' mentality, a Maoist mega-project embodying the spirit of mastery over nature, but which also suppresses human freedoms. She notes that President Jiang Zemin's speech at the cofferdam ceremony praised the project as a reaffirmation that "Man Must Conquer Nature." For her part, Shapiro attributes it largely to the sake of 'face.'

Here her critique hints also at cultural factors, suggesting that continuing environmental degradation in China is linked not only to political sensibilities and the lingering influence of Maoist views of nature, but also to values of short-term personal gain, a utilitarian approach to social interaction and exchange, a difficulty empathizing with strangers, and a deep mistrust of government campaigns and sloganeering (p.204). Her discourse analysis is less extensive in her treatment of the post-Mao era, and she leaves many of these issues unexplored. But she does recommend that China needs to foster a capacity for empathy (p.203), in relations with humans as well as with nature. In her view, it would also benefit from a new "Daoist sense of humility" (p.214), that sees humans as part of nature rather than opposed to it. "While humility, accommodation, creativity, individuality, rule of law, moderation, measure, respect for difference, flexibility, and localism are surely not sufficient in themselves to point humans toward a better-integrated relationship with the organic and inorganic 'other,' surely they are worth emphasizing" (p.202). She ends with a call for China to develop a "more just and tolerant approach" toward the natural world and in human relations (p.215), suggesting one may lead to the other.

Shapiro's book is not without its own political undertones, and may be read as a sharp critique not only of China's environmental record, but also of authoritarian governance in general. Most environmental problems, she

reminds us, are ultimately social, political, and cultural problems. The "heuristic usefulness of the Maoist case," she argues, lies in "the blatancy of Maoism's coercive aspects, the ambition of its utopian idealism, and the transparency of the link between human political repression and the effort to conquer nature by portraying and treating it as an enemy" (p.201). The 'lessons' she draws lead her to conclude that sound environmental behavior requires key elements of liberal democracy, although not necessarily that particular form of government. She notes the absence, in all these extreme examples of environmental degradation from the Maoist era, of local self-governance and flexible accommodation to local circumstances, and of government accountability and transparency. Shapiro suggests that sustainable development strategies and effective environmental management practices in China will depend on "political participation, public deliberation and oversight, intellectual freedom, respect for regional variation and local wisdom, and land tenure systems that give people an understanding of their responsibility for the land and of a shared future with it" (p.18).

Shapiro, however, does not show how the presence of these characteristics would facilitate or guarantee the sound policies and practices she seeks to encourage. Nor does she consider the myriad of environmental problems that beset societies in which such elements of 'liberal democracy' are well developed. It is one thing to observe massive environmental degradation in the absence of such socio-cultural characteristics, but the absence of comparative analysis renders her conclusions disappointingly presumptuous and suggestively polemical.

As Shapiro acknowledges, this book is not intended to be a detailed or comprehensive study of attitudes, values, or ideas regarding the environment. Nor is it an environmental history, in a strict sense of the term. Yet it does serve to highlight some environmental consequences of human action, particularly in the context of state-orchestrated mass political campaigns. Her assessment of the Maoist era is a gloomy one, and casts shadows over China's current course of development. One gets little sense of where development initiatives of the Maoist era achieved success, which contributes to a greater sense of concern about the future. In this regard, Shapiro's thesis would have been strengthened with more significant theoretical development, and by more extensive use of comparative material, suggestions of which appear almost cursorily in her concluding reflections. Rather surprisingly, she draws little on the scientific literature of environmental studies in China, a growing corpus of research that offers substantive quantitative data relevant to her (often rather vague) environmental impact assessments. Furthermore, researchers are advised to read the endnotes carefully, as not all citations appear in the bibliography.

Written in a clear style and focused around a central thesis, Shapiro's book will be of interest to general audiences, and will undoubtedly draw the attention of students and scholars in various disciplines. As her narrative offers extensive citations to Mao's speeches and writings, along with judicious reference to prominent rhetorical slogans of the Maoist era, this book may well serve as a companion text to courses on China. Structured around four core thematic issues, it may also be a suitable text for courses dealing with the environmental consequences of human actions, particularly in the context of the modernist project of revolutionary nation-states

Shady Practices: Agroforestry and Gender Politics in The Gambia, by Richard A. Schroeder. Berkeley: University of California Press (1999), 212 pp.

Reviewed by Peter Hamilton, Institute of Transportation Studies, University of California, Davis

It is one thing to concede that women as well as men can and do "play" the game of development, that they, too, act on the basis of motives that are narrow and mean at least as often as they aspire to enlightenment, and that they sometimes win the struggles over land, labor, and livelihoods initiated by development interventions. It is quite another to argue that the structural determinants operating within Gambian social systems no longer have any force, or that the development interventions designed to incorporate women into environmental management have not produced deleterious effects in many areas (p. 135).

The Gambia has witnessed a series of unique and fascinating transformations in the last three decades of exposure to the forces of international "development". Its story could not be told without discussing issues of gender, climatology, sociology, ecology, economics and international development – fertile ground for the field of