

Book Reviews

Empires of Coal: Fueling China's Entry into the Modern World Order, 1860-1920

By Shellen Xiao WU

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Reviewed by Margaret Mih TILLMAN

Purdue University, United States

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Historians have often told the story of China's entry into the modern world order in a way that emphasizes almost inevitable political failure based on cultural difference; relatively less attention has been given to the environmental exploitation that many claimed was necessary for economic modernization. Addressing this important lacuna, Shellen Xiao Wu charts the introduction of coal mining technology into the late nineteenth and early twentieth centuries. She thereby reframes the story of Western imperialism by charting a mutual quest for fossil fuels. She also argues that the rhetoric of Chinese anti-imperialism sometimes "obscured a far more interesting shift" in Chinese understandings of technological modernization (p. 15). Western imperialism sparked Chinese scientists to introduce scientific technology in political terms, which, Wu argues, also changed the

way that Chinese people understood their place in the modern world order—not merely as one nation among many, but also as a poor man sitting atop a mountain of mineral riches that are being stolen away by thieves (p. 164).

The first half of the book explores discursive issues. As Wu argues, the Self-Strengthening Movement helped interest Qing provincial governors in the modernization of the existing coal technology in the late nineteenth century. On some level, this need for technological modernization encouraged some Chinese, especially in later years, to welcome German expert Ferdinand von Richthofen's optimistic estimation of China's coal resources (p. 186), but Chinese also feared that, while alive, Richthofen served as an agent of German imperialism (p. 15). In the second chapter, Wu points out that Richthofen conceived of imperialism in terms of the "mutual economic benefit to the colonizer and the colonized" (p. 48); his real contribution to China, however, was not in terms of industrial capitalization, but in the creative reinterpretation, by Chinese, of his declarations of China's mineral wealth (p. 65). In the third chapter, Wu focuses on the fraught and difficult process of interpretation, often through the cooperation between Western missionaries and sometimes pitifully overtaxed Chinese interpreters (p. 86). In keeping with her emphasis on the cultural significance of scientific technology, Wu argues, "Over the long run, what failed as manuals of mining succeeded as guidebooks to the culture of industrialization" (p. 67). These discursive negotiations established the importance of not just science, but also scientism for political and economic modernization.

The second half of the book turns to the politics of engineering and industrialization. The fourth chapter explores the roles of "engineers as the agents of science and empire." The sabotage of French engineers just before the onset of the Sino-French War illustrated the dangers of hiring foreign engineers (pp. 105-6). Due to differences in coal typologies, German engineers could also order superfluous machines from their home countries (p. 110). In her discussion of the Qing empire's investment in the Hanyeping Coal Company, Wu counterbalances "tropes" of

“failure” by pointing to a German engineer’s acknowledgement of the difficulties of forging a new industry in China (p. 121). Wu thus contextualizes coal mining in ways that show that problems with the Hanyeping Company were not solely due to cultural failings specific to the Qing (p. 31). The fifth chapter further examines Qing efforts at industrialization through its codification of mining rights beneath the soil (p. 137). Whereas previous Qing rhetoric had often employed Confucian “language of ‘beneficence’ and ‘people’s livelihoods,’” modern legal language in “the new mining regulations codified state involvement in mining from licensing to operations, while removing the general population from the discussion” (p. 141). The state needed to secure mining rights, at the expense of the people, in the context of its need for foreign capital and investment in coal companies (p. 151). Local leaders like Yuan Shikai manipulated local Chinese populations to raid a German mining company while maintaining a “policy of polite resistance” (p. 155). The Rights Recovery Movement (of such companies) became a rallying cry in Chinese nationalism at the turn of the century (p. 158). These struggles set the stage for the final chapter, which focuses on Chinese scientific discourse that reimagines China’s struggle to extract fossil fuels as the key to its political survival.

Empires of Coal helps explain China’s fixation on coal technology as the key to national survival in a global struggle for industrial resources. By beginning this story in the nineteenth century, Wu takes into account the Qing’s active engagement in fossil fuel extraction. She points out that some of these reforms required “the Qing state structure was already adopting the trappings of nationhood at the expense of empire” (p. 129). With this focus on imperialism as the grounding of industrialization, her book would be an especially helpful addition to an undergraduate course on global history.