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Xiangli Ding

Hydropower Nation: Dams, Energy, and Political Changes in Twentieth-Century China

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Xiangli Ding has a dual academic background: he received systematic training in the history of water conservancy at Henan University and Nanjing University, with particular expertise in the Yellow River in eastern Henan, before pursuing doctoral study in the United States. This positioning enables him to bridge Chinese and international scholarly traditions. Environmental history, though introduced into Chinese academia only in the 1980s as an 'imported' field, has since found resonance with China's own longstanding traditions of studying water management. Rooted in a lineage that extends back to the Treatise on Sima Qian's Historical Records: The River Canal and later diversified into histories of hydraulic technology, governance, and ecology, this historiography provides a fertile foundation for Ding's work. Drawing on both intellectual inheritances, Ding moves beyond conventional emphases on irrigation and flood control. By turning toward energy and engaging with broader debates in environmental history, Hydropower Nation reframes China's hydraulic past within a panoramic account of hydroelectric development from the 1910s to the 1970s.

The author derives the term 'Hydropower Nation' from the discourse of Chinese elites and elevates it to the book's central analytical framework. This framework underscores the pivotal role of hydropower in the ruling party's consolidation of authority and in state-building, thereby illuminating the tight coupling among river, hydropower technology, technocratic systems, and nation-state building projects. Because hydropower, as an energy form, inherently spans production, transmission and consumption, the book seeks to braid together the narrative logics of 'hydraulic mode of production' and 'hydraulic mode of consumption' to reconstruct the full developmental chain. The author notes that, owing to archival constraints, except for the chapter on the Sanmenxia Dam on the Yellow River, the other chapters offer a more integrated treatment of production, transmission and consumption. Even so, in execution, the narrative remains weighted toward production, which, indeed, emerges as the strongest and most compelling part of the book.

This book is organised into three parts comprising seven chapters. The first two parts, arranged chronologically, trace the development of China's hydropower history from the late Qing through the Great Leap Forward. Chapter One examines the introduction of knowledge about the conversion of water power into electricity during the late Qing and early Republican periods, as well as the construction of the first set of hydropower stations by local elites. Chapter Two turns to the wartime projects initiated by the Nationalist government during the

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War of Resistance against Japan to alleviate the energy crisis. Chapter Three analyses the hydropower projects promoted by the Communist regime in the early years of the People's Republic as part of its drive for industrialisation. Chapter Four focuses on Mao's campaign to build 'Small Hydropower' during the Great Leap Forward. The third part concentrates on the Sanmenxia dam, with three chapters devoted respectively to its planning, design, and construction (Chapter Five), its impact on people's lives (Chapter Six), and its environmental impacts (Chapter Seven).

This book successfully situates the history of hydropower within the broader trajectories of state-building and regime consolidation across successive periods of modern Chinese history, thereby substantiating its central concept of the 'hydropower nation'. In the late Qing, certain intellectuals placed their hopes in hydropower projects as a means of achieving energy self-sufficiency and, ultimately, national salvation. During the Second Sino-Japanese War, the Nationalist government integrated hydropower development into its goals of national survival and wartime mobilisation. What stands out most is the history of hydropower development after the founding of the People's Republic, which not only broadens the existing scholarship on China's modern 'red hydraulics' but also subjects to critical scrutiny the ideological imprint on hydropower construction during the Mao era. Chapter Three, for instance, reveals the predicament of engineers working under intense political pressure. Li Rui's efforts to elevate the position of hydropower within the socialist bureaucracy and planning apparatus led Mao to adopt the policy of 'Hydroelectricity First, Thermoelectricity Second'. Yet Li was later denounced as a 'right opportunist' and sent to perform labour reform in the Beidahuang (northern wilderness). Chapter Four analyses the Communist Party's promotion of 'Small Hydropower' as a symbol of projects that were small in scale, locally grounded, and mass-oriented. Ideologically, these were considered more 'authentic' than large hydropower projects. Altogether, the book not only demonstrates the multiple ways in which hydropower served state-building across different historical junctures but also sheds light on the complex entanglements between hydropower and political ideology.

While reconstructing the history of hydropower in China, the book simultaneously situates this history within a distinctly international context. The circulation of knowledge, ideas and technology, as the author shows, depended crucially on American missionaries and transnational engineers. In line with patterns observed in other areas of China's modern history, the development of hydropower likewise proceeded through phases of 'learning from the United States' and 'learning from the Soviet Union'. The author, however, avoids portraying China as a passive recipient. Rather, he underscores the agency and institutional creativity that characterised China's approach to hydropower development. Illustrative cases include the pioneering hydropower station constructed by Yunnan merchants, Zhang Guangdou's active pursuit

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of technical support from the Tennessee Valley Authority, the adoption of a 'Hydroelectricity First' strategy at a time when the world was becoming increasingly reliant on fossil fuels, and Mao's idiosyncratic promotion of 'small hydropower' as a policy innovation. Taken together, these dimensions underscore the distinctive trajectory of China's hydropower history and mark it off from the developmental experiences of other nations.

Finally, from the perspective of environmental justice, the book exposes the human and ecological consequences of the Sanmenxia dam, thereby fulfilling the mission of an environmental history and offering a more multidimensional view of China's hydropower development. Drawing on archival materials from resettlement committees in Henan and Gansu Province, the author uncovers the profound human costs of the dam. Notably, he does not reduce Sanmenxia to a declensionist story. Instead, by adopting a longue durée perspective, he seeks to endow the project with a more complex historical significance. In this spirit, the book traces the environmental history of Sanmenxia into the post-1995 period, when the Yellow River Wetland Provincial Level Natural Preserve contributed to wetland protection and biodiversity. At the same time, the author acknowledges that 'pristine' nature is difficult to discern. This reflection further provides a valuable Chinese case for interrogating the category of 'nature' itself and its historical transformations within the field of environmental history.

In sum, this book not only enriches the theoretical foundations of environmental history by foregrounding China's hydropower experience but also reconsiders the country's historiography of water conservancy through the analytical lens of energy history. While it does not encompass every hydropower project and refrains from engaging extensively with the technical minutiae of dam construction, its macro-narrative framework nonetheless lays a significant foundation upon which future research on China's hydropower history can build.

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