Energy history scholarship available in English has so far focused predominantly on Western case studies, with the United Kingdom and the United States of America being over-represented for legitimate reasons of historical importance with a drop of Anglo-centrism. China, the world’s largest consumer of fossil fuels today, has until recently been neglected by energy historians. *Carbon Technocracy* corrects this injustice with great erudition and depth. Victor Seow, an assistant professor of the history of science at Harvard University, has spent more than a decade studying the Fushun colliery, known for most of the twentieth century as East Asia’s coal capital. The result is a fascinating case study on the history of a fossil fuel hub under different political regimes over more than a century.

Situated in Liaoning, a north-eastern province of China bordering North Korea, this fossil industrial centre was kick-started at the end of the nineteenth century by Chinese capitalists backed by Russian capital and expertise. But for much of the first half of the twentieth century, it became controlled by Japan as part of what was known as Manchuria. Japanese rulers sought to accelerate the development of coal mining in Fushun, both to fulfil their imperialist mission in north-east China and to ship coal back to Japan for its own industrial development. After a brief spell of control by Chinese Nationalists after the Second World War, Fushun finally landed in the hands of Chinese state socialists, a situation which hasn’t changed to this day.

The reigns of these varying political regimes over a crucial site of carbon extraction make for an extremely rich case study. One would think that the way Russian capitalists, Japanese imperialists, Chinese Nationalists and then Chinese Communists administered the mines of Fushun would vary greatly, following their differing political systems and priorities. But perhaps the main argument of the monograph is that, despite obvious differences, these regimes all adopted a similar form of carbon technocracy to govern the Fushun coal mines. Broadly speaking, a carbon technocracy as defined by Seow is a political system that uses science and technology to exploit fossil fuels for statist purposes. Here, it centres around coal-led development, a focus on expanding heavy industry, a fixation about national autonomy, an interest for mechanising labour, a priority for cheap energy, and an indexation of economic growth on coal expansion.

Carbon technocracy has had immense costs, both human and environmental. The book describes the multiple accidents that cost thousands of lives over the many decades of coal extraction in Fushun. Miners working up to 12-hour shifts were always under threat of roof collapse in underground mines, fires,
floods, noxious gases and explosions. During the Second World War, Japanese imperialists sent more than 100,000 forced labourers to work in Manchuria for wartime production, and many of these went to work in Fushun collieries. Even during peacetime, colliery administrators employed various techniques to discipline workers, such as advanced fingerprinting records used to filter out suspicious subjects.

The book strongly criticises technocracy, the central belief of which is that social matters need to be identified and resolved uniquely through the mobilisation of science and technology. In the Fushun case, carbon technocracy has consistently failed to live up to its expectations: witness the impossibly exaggerated coal production targets devised both by Japanese imperialists and Chinese socialists. Stemming from its engineering ethos, it has also limited its gaze to supply-side solutions to energy problems. Faced with perceived threats of fossil fuel shortages, technocrats looked at ways to access more energy by tapping into new deposits, developing substitute fuels, and appropriating foreign resources. But they have seldom considered ways to shape and reduce fossil fuel consumption. Finally, the technocrats’ obsession with raising aggregate output at all costs caused multiple expressions of human and environmental violence in Fushun, from the destructive extraction of fossil resources to the ruination of landscapes to the exploitation of workers.

Through its title and citations, this book is clearly in conversation with Timothy Mitchell’s *Carbon Democracy*, where Mitchell claimed that the switch from coal to oil on a global scale allowed economic and political elites to circumvent the threat posed by coal’s materiality and greater vulnerability to strikes and labour activism compared with petroleum, which easier to extract and to transport without as much human intervention. By proposing a situated and more micro case study informed by close archival research, it attempts to refine Mitchell’s over-simplifying conclusions by showing how carbon technocrats could also achieve control over coal mines, despite strikes being common. And even if Fushun’s mining activity is now a thing of the past – its western open-pit coal mine closed down in 2019, while a museum glorifying its past days recently opened – Seow reminds us that China and indeed the world now consume more coal than ever, a sign that the transition to oil has never been completed.

As a concept, carbon technocracy also offers a valuable corrective to some Western-centric visions of energy history that accuse capitalism of being the sole cause of exponential growth in fossil fuel use in the twentieth century. Seow adeptly demonstrates how different political regimes, including state socialist China, pursued similar goals to imperialist and capitalist actors, namely the expansion of fossil fuel production and consumption at all human and environmental costs in the name of national expansion. Without oversimplifying, we could argue that all national political regimes of the twentieth century have relied upon interpretations of carbon technocracy. This insight is another major
contribution of this wonderful volume to scholarly debate, which will enrich conversations in environmental history, Asian studies and political economy, amongst other fields.

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