

*The King's Harvest: A Political Ecology of China from the First Farmers to the First Empire.* By Brian Lander. New Haven and London: Yale University Press, 2021. Pp. xvi + 300. \$ 40.00 hardcover.

This useful and very readable book is the first comprehensive investigation into the eco-history of early China. It covers almost six millennia from the Early Neolithic (ca. 6,000–5,000 B.C.E.) through the Qin dynasty (221–206 B.C.E.). Rather than encompassing all of continental East Asia, it focuses on one geographically well-circumscribed region: the Middle and Lower Wei River 渭河 basin in present-day central Shaanxi province. This part of China, traditionally referred to as the “Area within the Passes” (Guanzhong 關中), is in many respects a microcosm of early Chinese cultural history. Not only was it one of the “cradles” of the transition to an agricultural way of life (ca. 8,000–6,000 B.C.E.), but the political centres of the Zhou kingdom during the Western Zhou period (ca. 1046–771 B.C.E.) and of the state and empire of Qin after the early seventh century B.C.E. were located here, as were the capitals of numerous later imperial dynasties. *Mutatis mutandis*, the ecological and socio-political processes described by Lander are paradigmatic for North China as a whole.

In his quest to trace the development of the “ecology of political power” (p. 3), Lander takes early China as a case study for the emergence of hierarchical societies in tandem with increased exploitation of the natural world, and for the subsequent transformation of these hierarchical societies into powerful, centrally administered states—a process with considerable ecological consequences. What sets the book apart from textually based eco-historical accounts of premodern China—e.g., Mark Elvin’s masterful *The Retreat of the Elephants* (New Haven: Yale University Press, 2004)—is not only the different time coverage, but, above all, the much greater variety of sources and methods of inquiry adduced. Not only does written evidence appear here in three distinct forms: as transmitted texts, inscriptions, and excavated manuscripts, each necessitating their own fine-tuned philological approaches, but of equal standing in Lander’s account is the material culture reflected in the rich and complex archaeological record accumulated in a century of fieldwork; furthermore, the region’s “natural history” reveals itself through the scientific analysis of the vast amounts of paleoclimatic, palynological, geoarchaeological, zooarchaeological, and palaeoethnobotanical data now available.

The last-mentioned type of research—requiring an intellectual outreach into the natural sciences—is the newest and hitherto least commonly accommodated into historical inquiry. Let me just give one example of the sorts of insights it enables: “Most pigs at Dadiwan 大地灣 [a site in Qin’an (Gansu) 秦安 (甘肅), dated to ca. 6,000–4,500 B.C.E.] were killed when they were young, which suggests that they were a managed population, but the carbon isotopes in their bones suggest that they

mainly ate wild foods” (p. 47). Such facets of people’s livelihood (in this case, during a relatively early stage in the transition from hunting/gathering to food production) were quite simply unknowable until very recently. Lander’s well-balanced integration of all available sources within an overarching historical narrative, aided by the judicious application of up-to-date social-science theories, elicits great admiration.

Lander lays out his theoretical stance in the first chapter, “The Nature of Political Power.” Here he explains the co-evolving relationships between food production, socio-economic hierarchy, taxes, bureaucracy, and the enforcement of social norms through patriarchy and the threat of violence. He finds that “agrarian states . . . had strong incentives to occupy and populate new territory, encourage agricultural intensification, and promote economic and demographic growth” (p. 17); and he cannot help realizing that “rivalry between armed states has been a key driver of environmental destruction for millennia” (p. 13).

Chapter Two, “Seeds of Life,” describes how—in a parallel to similar processes elsewhere in the Ancient World—the natural environment of the Guanzhong region was gradually transformed into a cultural landscape after ca. 6,000 B.C.E. Lander tends to de-emphasize the impact of climate changes during the Holocene, foregrounding the ability of the human inhabitants of the Guanzhong region to adapt flexibly to warmer or cooler episodes. He blames human-induced deforestation for both the extinction or near-extinction of large wild-mammal species and the erosion that inflicted permanent change upon the landscape. In Lander’s words, “East Asia has the most diverse temperate ecosystem in the northern hemisphere . . . [b]ut civilization has dramatically reduced this diversity” (p. 38). During the Yangshao 仰韶 times (ca. 5,000–3,000 B.C.E.), “[f]arming villages were becoming their own ecosystems” (p. 56). The subsequent Longshan 龍山 period (ca. 3,000–2,000 B.C.E.) brought environmental deterioration, malnutrition, and increased inter-communal violence, perhaps connected in part to the introduction of new large domestic mammals (cattle, sheep, and horses) from West/Central Asia during that time. According to Lander, “[t]he reason agriculture has become the main subsistence strategy around the world is not that it makes life better. Rather[,] it creates much denser populations, so that farming societies have the numbers, the complex social organizations, and the diseases to conquer foraging peoples” (p. 42).

Moving from prehistory into historical periods, Lander complements the archaeological record with textual references, e.g., in the *Shi jing* 詩經, to plants that have not left behind any traces in the ground. For the Zhou period (ca. 1046–256 B.C.E.), he finds evidence for a developing symbiosis between the farmers in the Guanzhong Basin and agropastoral populations in the more arid areas to the north, with ongoing intensification in both: “Just as the numbers of farmers in the lowlands expanded, so did the numbers of herders in regions suitable for grazing” (p. 69). Even though it is

widely assumed that agricultural productivity increased during this time, this remains impossible to prove (pp. 70, 73). Lander stresses that Chinese farmers continued to use an essentially neolithic tool-kit until almost the time of the Qin unification; iron agricultural implements and ox-drawn ploughs, though available after the middle of the first millennium B.C.E., likely did not become prevalent until the Han period (206 B.C.E.–220 C.E.). Within the Guanzhong region, the diet became increasingly plant-based and deficient in proteins. Millet was still much more common than the more nutritious wheat—this changed only with the introduction of the stone mill from the Hellenistic world at the very end of the Warring States period (ca. 450–221 B.C.E.); and various kinds of beans (soybean, adzuki, and mung) were still cultivated mainly as famine foods—their prominence increased only from the Han period onward due to the invention of tofu and soy sauce. With respect to agricultural innovation, Qin may have enjoyed an edge over its rivals elsewhere in North China, possibly facilitated in part by its better connections to the wider Eurasian world.

Chapter Three, “Herding People,” looks at the formation of ever more strongly hierarchical societies and states from an ecological angle. According to Lander, “political systems formed so gradually that the process may instead be compared to the domestication of animals” (p. 75). The chapter traces the formation of urban-centred states from Late Neolithic Taosi 陶寺 (ca. 2100–1800 B.C.E.) to the great Bronze Age of the Erlitou 二里頭 (ca. 1900–1600 B.C.E.)–Erligang 二里崗 (ca. 1600–1300 B.C.E.)–Anyang 安陽 (ca. 1300–1046 B.C.E.)–Zhou sequence. Lander considers the Zhou to have been “a key period in North China’s environmental history[,] since the stability of the Zhou polities over these centuries created ideal conditions for the expansion of the agricultural population. At the beginning of the period, much of the region was still wild, as shown by the fact that Zhou elites could easily find large wild animals to hunt. By the end, the lowlands were home to tens of millions of people and the megafauna were distant memories” (p. 90). The extension of state control over formerly marginal areas—the proverbial “mountains and forests, marshes and lakes,” formerly the preserve of unassimilated populations—both reflected and further enabled the growth of the bureaucracy, subtended by the common use of writing.

Chapter Four, “The Power in the West,” chronicles the rise of Qin from the ninth to the third century B.C.E., as evidenced by new archaeological discoveries. Again, Lander focuses on agricultural life. He discusses the emerging contrast between steppe and the sown, the expansion of Qin’s agricultural basis through the conquest of Sichuan in 316 B.C.E., and the impact of land redistribution in the wake of Shang Yang’s 商鞅 (390–338 B.C.E.) state-strengthening reforms during the mid-fourth century B.C.E. The chapter also contains an excellent discussion of the Zheng Guo Canal 鄭國渠 (pp. 147–52), a state-sponsored irrigation project constructed in the

mid-third century B.C.E. that transformed a heretofore barren portion of the Wei River basin into a bread basket, and the remains of which have been archaeologically recorded. By assuring the water supply independent from the fluctuations in the local climate, its construction may have enabled increased production of wheat (p. 152).

Chapter Five, “Watching over the Granaries,” treats the ecology of the unified Qin empire after 221 B.C.E. Lander asks: “How were land, labor, and resources used differently under a centralized state than they had been in earlier periods when there were weaker states, or no state at all?” (p. 160). In his quest for an answer, he scrutinizes documents showing the imperial bureaucracy in action—both at the central and the local levels—and describes its concerted efforts of data-gathering for the purpose of more efficient taxation, as well as its control over and judicious use of markets for the same purpose. Land allocations and the role of the extensive convict population are also discussed.

The final Chapter Six, “A Hundred Generations,” characterizes the lasting impact of the Qin empire on the natural environment of the Guanzhong region and the resulting environmental strategies pursued in subsequent centuries. It also compares the environmental impact of Qin to that of other ancient empires.

In an “Epilogue,” Lander offers additional reflections on the Anthropocene and on lessons to be learned regarding centuries-long human resilience in the face of an ever-increasing environmental onslaught.

Lucidly written and full of memorable formulations, the book is eminently suitable to serve as an alternative kind of textbook on the history of early China—a history that decentres important people and events, focusing instead on the processes through which cultures and societies developed in tandem with the natural world. As such, it constitutes a contribution of considerable originality, and it is relevant well beyond the field of Chinese studies.