

## Editor's Introduction: New Perspectives from Korean Environmental History\*

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Environmental history is one of the fastest-growing fields of the historical profession. The field's objectives – to use the historian's methods to examine intersections of humans and the ecosphere – can be partly traced to the environmental awakening of the past half-century. Pollution, faunal extinctions, and climate change have widened awareness of the mutually constitutive relationship between humans and their environment and in turn have spurred interest in the ecological contexts of past studies.

Yet, it is important to mention, as Joachim Radkau notes, “the dream of uniting history and nature has enticed historians for a very long time, going back all the way to Herodotus.”<sup>1</sup> Long before Rachel Carson penned *Silent Spring*, the works of Annales historians such as Marc Bloch, Emmanuel Le Roy Ladurie, and Fernand Braudel addressed intertwining relationships between society, agriculture, climate, and geography over the *longue durée* of medieval and early modern European history.<sup>2</sup> For

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1 Joachim Radkau, *Nature and Power: A Global History of the Environment*, trans. Thomas Dunlap (New York, NY: Cambridge University Press, 2008), 1.

2 Emmanuel Le Roy Ladurie, *The Peasants of Languedoc*, trans. John Day (Urba-

such historians, the environment served as a powerful explanatory vehicle, a material structure through which the totality of human history could be understood. In the United States, environmental history grew out of a particular American interest in “wilderness” and frontier expansion. While initially self-contained within an American cultural milieu, American environmental historiography has become increasingly situated in comparative contexts, particular in the realms of settler colonialism and urban history.<sup>3</sup>

Over the past thirty years, both the European and American branches of environmental history have inspired new environmental histories of Asia and Africa. South Asian and African environmental historians have largely focused on intersections of colonial empires and indigenous landscapes.<sup>4</sup> Historians of China have produced a corpus of environmental-historical studies ranging across the diverse geographies of China and Inner Asia. Within them, water and hydraulics have been a particular focus, partly due to the legacies of Karl Wittfogel and his use of the concept of “hydraulic despotism” to perpetuate outdated explanations of Chinese

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na; Chicago: University of Illinois Press, 1974); Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. Sian Reynolds (New York, NY: Harper and Row, 1973).

- 3 William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York, NY: W.W. Norton, 1992); Pekka Hämäläinen, *The Comanche Empire* (New Haven, CT: Yale University Press, 2009); Karl Jacoby, *Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley; Los Angeles, CA: University of California Press, 2001).
- 4 Diana K. Davis, *Resurrecting the Granary of Rome: Environmental History and French Colonial Expansion in North Africa* (Athens, OH: Ohio University Press, 2007); Thaddeus Sunseri, *Wielding the Ax: Scientific Forestry and Social Conflict in Tanzania c. 1820-2000* (Athens OH: Ohio University Press 2009); K. Sivaramakrishnan, *Modern Forests: Statemaking and Environmental Change in Colonial Eastern India* (Stanford, CA: Stanford University Press, 1999). For a recent environmental history of pre-colonial India, see Thomas R. Trautmann, *Elephants and Kings: An Environmental History* (Chicago, IL: University of Chicago Press, 2015).

political structures.<sup>5</sup> In Japanese historiography, the works of Conrad Totman on forestry in early modern Japan heavily influenced environmental historians interested in modes of conservation in pre-industrial societies.<sup>6</sup> Engagement with South Asian, African, and American environmental-historical scholarship, moreover, has inspired a growing array of historians of the Japanese Empire.<sup>7</sup>

This special issue introduces new environmental histories of a thus-far neglected region: Korea. While Korean studies has grown enormously over the past three decades, relatively little scholarship has addressed environmental histories of the Korean peninsula. In South Korea, the term “environmental history” (*hwan’gyōngsa*) has only recently become part of mainstream historical discourse. Environmental-historical arguments of decidedly Malthusian flavor have been broached by a school of economic historians known as the “Naksōngdae School,” after their eponymous research institute. These scholars’ research is primarily concerned with a salient question – why did the Chosōn dynasty decline and fall? The Naksōngdae scholars argue that Korea’s nineteenth-century decline stemmed from severe economic problems, including falling productivity, incomes, and wages.<sup>8</sup> Some of the scholars, notably Yi Uyōn, have further attested that these economic problems had roots in widespread

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5 Peter C. Perdue, *Exhausting the Earth: State and Peasant in Hunan, 1500-1850* (Cambridge, MA: Harvard East Asia Monographs, 1987); Ling Zhang, *The River, the Plain, and the State: An Environmental Drama in Northern Song China, 1048-1128* (Cambridge, UK: Cambridge University Press, 2016).

6 Conrad Totman, *The Green Archipelago: Forestry in Pre-Industrial Japan* (Athens, OH: Ohio University Press, 1998).

7 Ian Jared Miller, *The Nature of the Beasts: Empire and Exhibition at the Tokyo Imperial Zoo* (Berkeley; Los Angeles, CA: University of California Press, 2013); Ian Jared Miller, Julia Adney Thomas, and Brett L. Walker, eds., *Japan at Nature’s Edge: The Environmental Context of a Global Power* (Honolulu, HI: University of Hawaii Press, 2015).

8 Yi Yōnghun, ed., *Suryang kyōngjesa ro tasi pon chosōn hugi* [A Cliometric Re-examination of the Late Chosōn Era] (Seoul: Seoul Taehakkyo ch’ulp’anbu, 2004).

deforestation. The bare and denuded hillsides of late Chosŏn Korea, according to this argument, engendered landslides and lowland flooding that only added to the simmering rural unrest of the nineteenth century.<sup>9</sup>

Though environmentally-centered historical studies are still few, Korean-language scholarship has tackled numerous environmental issues from the perspectives of economic and social history.<sup>10</sup> Kim Tongjin has produced a recent study of Chosŏn's environment as well as exemplary histories of the Korean tiger.<sup>11</sup> Kim Sŏn'gyŏng and Kim Kyŏngsuk have thoroughly analyzed changing patterns of forest-usage rights and forest-related lawsuits in Chosŏn Korea.<sup>12</sup> Most importantly, a wide range of Korean historical ecologists, geographers, and architectural historians

9 Yi Uyŏn "18-19 segi sallim hwangp'ye wa nongŏp saengsansŏng [Deforestation and Agricultural Productivity in Korea during the 18th and 19th Centuries]" in *Suryang kyŏngjesa ro dasi pon Chosŏn hugi*, Yi Yŏnghun, ed. (Seoul: Seoul Taehakkyo chulp'anbu, 2004); Yi Uyŏn, *Hanguk ūi sallim soyujedo wa chŏngch'aek ūi yŏksa, 1600-1987* [A history of Korean forest usage institutions and policies, 1600-1987] (Seoul: Ilchogak, 2007).

10 Yŏm Chŏngsŏp, "Chosŏn hugi Hansŏngbu chunch'ŏn ū sihaeng [The implementation of dredging by the Seoul Magistracy in the late Chosŏn era]" *Sŏulhak yŏn'gu* 12 (1998): 83-111.

11 Kim Tongjin, *Chosŏn ūi saengt'ae hwan'gyŏngsa* [An Environmental History of Chosŏn Korea] (Seoul: P'urŭn Yŏksa, 2017); *Chosŏn chŏn'gi p'oho chŏngch'aek yŏn'gu: nongji kaegan ūi kwanjŏm esŏ* [A study of tiger hunting policy in the early Chosŏn era from the perspective of land reclamation] (Seoul: Sŏnin, 1998); Kim Tongjin, "16 segi samnam ūi p'ohop'i cheyŏk kwa pangnap ūi wisang: Mukchae ilgi rŭl chungsim ūro [The status of exemption payments in tiger and leopard furs and tribute contracting in the southern provinces during the sixteenth century: with focus on the Mukchae ilgi]" *Chibangsa wa chibang munhwa* 16:2 (Nov. 2013).

12 Kim Sŏn'gyŏng. "Chosŏn hugi sansong kwa sallim soyugwŏn ūi silt'ae [Gravesite lawsuits and the conditions of forest usufruct rights in the late Chosŏn era]" *Tongbang hakchi* 77-78-79 (1993); Kim, Sŏn'gyŏng. "17-18 segi yangbanch'ŭng ūi salimch'ont'aek sajŏm kwa unyŏng [Yangban monopolization and management of forests and marshes in the seventeenth and eighteenth centuries]" *Yŏksa yŏn'gu* 7 (2002); Kim Kyŏngsuk, *Chosŏn ūi myoji sosong* [Gravesite lawsuits in the Chosŏn dynasty] (Seoul: Munhak tongne, 2012).

have researched the impact of human action on Korea's environment.

Until recently, international Koreanists largely overlooked the environmental history of the Korean peninsula. Conrad Totman wrote a comparative environmental history of pre-industrial Korea and Japan, but the work is hampered by his lack of engagement with Chosŏn-era primary sources and Korean-language secondary scholarship.<sup>13</sup> The flagship journal for environmental history in the United States, *Environmental History*, published its first piece on Korean history in 2015.<sup>14</sup> In 2018, the *Journal of Asian Studies* published a special forum on "War and the Environment on the Korean Peninsula."<sup>15</sup> Several monographs and articles on Korean environmental history are forthcoming in the coming years.

As part of a blossoming subfield, the articles by John S. Lee, Sang-ho Ro, and Tristan Grunow in this special issue bring new environmental-historical perspectives into different eras of Korean history. Each of the articles ties key themes of Korean history – infrastructure, philosophy, science, and urbanization – to Korean landscapes and environmental transformations during the Koryŏ, Chosŏn, and colonial eras. Together, the articles urge further engagement with environmental contexts to shed new light on Korea's past. Moreover, environmental themes allow Korea to be further situated in comparative and transnational perspectives.

John S. Lee's article, "The Waterlogged Limits of the Infrastructural State: The Failure of the T'aean Canalization Projects in Pre-Industrial Korea, 1134-1537," is a *longue durée* study of successive Koryŏ and Chosŏn-era attempts to construct a waterway through the T'aean peninsula on Korea's western coast. A successful canal would have allowed transport ships to bypass treacherous reefs and tidal flats, thus easing critical shipments between the southern grain basket and the major popula-

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13 Conrad Totman, *Preindustrial Korea and Japan in Environmental Perspective* (Leiden: Brill, 2004).

14 Joseph Seeley and Aaron Skabelund, "Tigers – Real and Imagined – in Korea's Physical and Cultural Landscape," *Environmental History* 20 (2015): 475-503.

15 *The Journal of Asian Studies* 77: 2 (May 2018): 315-374.

tion centers in Kaesŏng and Hanyang (modern-day Seoul). However, each of the canalization attempts failed. Lee argues that a confluence of environmental and political factors contributed to the failure of the T'aean canalization projects. The T'aean peninsula is layered in granite bedrock that challenged Koryŏ and Chosŏn technological repertoires. Ingenious plans were laid, but the government could not maintain a reliable labor force or the infrastructure necessary to combat tidal variations and siltation. After the last failed attempt in 1537, the Chosŏn government invested in other infrastructural paths, including strategic granary construction, the hiring of private shipping, and the use of alternative waterways in the T'aean region.

Lee's article shows how the infrastructural development, a process closely tied by social scientists to state formation, is inextricably intertwined with environmental factors. Koryŏ and Chosŏn attempts to canalize the T'aean region were motivated by dreams of centralization and tighter integration. An ambitious officialdom confidently assumed their plans could overcome obstacles and advance the state's interests. Even as grand plans failed in successive order, officials pressed on. The persistence of Chosŏn officialdom reflects patterns of institutional inertia that compel long-term processes of environmental management in world history. For example, German rulers struggled – and continued – for centuries to maintain dikes in hostile marshlands along the River Oder.<sup>16</sup> In China, successive dynasties grappled with flooding along the Yellow and Yangzi Rivers by doubling down on bureaucratic management and hydraulic maintenance.<sup>17</sup> In the Korean case however, Chosŏn officials eventually abandoned the T'aean projects. After 1537, officials recog-

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16 David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York, NY: W.W. Norton & Company, 2006), 29.

17 Ling Zhang, *The River, the Plain, and the State: An Environmental Drama in Northern Song China, 1048-1128* (Cambridge, UK: Cambridge University Press, 2016); Joseph Needham, Wang Ling, and Lu Gwei-djen, *Science and Civilisation in China, vol. 4, Physics and Physical Technology, Part III: Civil Engineering and Nautics* (Cambridge: Cambridge University Press, 1971), 211-378.

nized the environmental limits of the T'ae'an region and accordingly chose other paths to infrastructural integration.

The latter half of the Chosŏn era was marked by economic and cultural efflorescence, particularly in the eighteenth century, even as political power gradually became monopolized by a small group of elite families based in Seoul. Educated elites outside of the realms of power pursued various intellectual interests ranging from political reform and economic development to “practical learning” and the natural sciences, thus diversifying the scope of Confucian philosophy and reorienting Korean understandings of the natural world. Sang-ho Ro’s article, “Pre-modern Entomology and Scientific Knowledge on Insects in Eighteenth-century Korea,” narrates how late Chosŏn scholars conceptualized the world of insects in the eighteenth and nineteenth centuries. Ro argues that late Chosŏn entomology in this era shifted from a metaphysical and ethical discourse to an approach more akin to “scientific knowledge” and the close investigation of native insects. In turn, Korean intellectuals advanced empirical studies of various insect species and their behaviors, particularly the silkworm and locust. Ro thus reveals the development of new ecological epistemes at the end of Korea’s early modern era. Scientific observation was not a mere by-product of colonialism and modernity. Late Chosŏn intellectuals presented a variety of entomological discourses that merged with analysis of ethics, political philosophy, economic production, and famine.

Ro’s work can be further situated in the “material turn in history,” a historiographical trend that has also incorporated and influenced environmental history. The material turn can be best summarized as the close analysis of the “nonhuman things that make us human,” to use Timothy LeCain’s words.<sup>18</sup> Modernist thought has tended to separate humans from nature, leaving a material world seemingly to be shaped at will. In the past two decades however, humanists and social scientists have devel-

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18 Timothy LeCain, *The Matter of History: How Things Create the Past* (Cambridge, UK: Cambridge University Press, 2017), 1.

oped a new appreciation for the embeddedness of the human in the environment. The human is not an autonomous atom but rather “an amalgam of materials things.”<sup>19</sup> Animals such as silkworms and cattle construct particular ecologies for human consumption, touch, and taste. Materials such as copper intertwine with an assemblage of human and material worlds: mining economies, human health, electrical infrastructure, homes, cities, and battleships. Ro’s analysis of late Chosŏn entomology shows how closely insects co-constructed conceptions of metaphysics and political philosophy. The highest of human inquiry was not a separate realm from the material world; on the contrary, philosophy refracted upon seemingly mundane aspects of the environment. Similarly, Koryŏ and Chosŏn bureaucrats could not simply conjure an integrated Confucian polity. Their plans were subject to the material realities in which they were embedded: the mud and reefs of the Yellow Sea, the mountains that stretch along the eastern coast, and the vicissitudes of life on a peninsula on the extreme end of Eurasia between maritime monsoons and Siberian fronts.

As with much of the world, Korea’s environment and society underwent a dramatic shift in the early twentieth century. Capitalist modernity and its attendant paraphernalia drew the Korean Peninsula into an unprecedented era of upheaval and social change. In Korea, the advent of modernity is also associated with colonial subjugation. The Japanese colonial era from 1910 to 1945 leaves a bitter legacy in Korean historical memory but also draws the interest of historians focused on understanding the roots of modern Korea and its place in the Japanese Empire. Tristan Grunow’s article, “Cultivating Settler Colonial Space in Korea: Public Works and the Urban Environment under Japanese Rule,” situates colonial Korea in a broader historiography regarding the environmental modalities of settler colonialism. Grunow focuses on how Japanese settlers and colonial officials reshaped Korean urban landscapes as part of a broader attempt to “remake Koreans out of place.” Through the “paving of streets, the digging of gutters, the laying of water and sewer systems, the planting

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19 Timothy Lecain, *The Matter of History: How Things Create the Past*, 16.



of trees” and further installation of street lamps, sidewalks, and Western-style buildings, Japanese colonizers ensconced their presence in Korea while displacing Korean residents and spaces.<sup>20</sup> New codes regulating hygiene, construction, and street usage further perpetuated Japanese rule not only in the rule of law but in the workaday crevices of environment and space.

When placed alongside Lee’s article, Grunow’s work shows the diverse contexts in which infrastructure could be deployed in Korea across the centuries. The canalization projects on the T’ae’an peninsula from 1134 to 1537 were infrastructural projects meant to secure key transport routes. Officials accordingly prescribed the excavation of rock and soil and the movement of populations for labor duty. The overall objective, however, was not the cementing of central rule as much as the integration of a polity. The infrastructural state under colonial Japanese rule, on the other hand, became a mechanism for resettlement and replacement. A new order was to be cemented in the streets and buildings of Seoul, Pusan, and Taejŏn. The pre-colonial regime was discredited as inattentive and impoverished. The urban improvements made by the Taehan government in the 1890s were replaced and forgotten. The Japanese colonial state redesigned Korean landscapes and infrastructure toward the goal of perpetuating new settlers and a new regime. Accordingly, settler colonialism in the Japanese patterns followed patterns seen in the contexts of European imperialism in Africa and South Asia, and American expansion into the western frontier.

Altogether, the articles in this issue use diverse approaches toward Korean environmental history across three different eras to provide fresh perspectives into the Korean past. Moreover, histories of canalization, entomology, and urban landscapes cross disciplinary and national boundaries beyond Korean studies. Most importantly, this special issue highlights intersections of the environment, the state, and conceptualizations of nature that in turn invite links between past contexts and contemporary

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20 Grunow, 17.

issues. In the next decade, universities across the world will admit a generation of students for whom the environment has been the primary crisis of their time. Historians can provide the contexts for further comprehension of our histories with nature, with hope that future generations can find better solutions.

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