

Disasters and the Making of Asian History

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Environmental historians have often been drawn to disasters. They have unearthed the often-forgotten stories of erupting volcanoes, raging rivers, and rainless skies, and in so doing have reminded their colleagues from more anthropocentric disciplines that the societies, economies and cultures they study are part of broader physical systems. In addition to highlighting the agency of nature, however, disasters have also helped to remind us that environmental history remains at heart a humanistic discipline. It should never be simply a lament for lost natural habitats, but also a discipline which offers a unique prism through which to study people. It is perhaps for this reasons that environmental historians continue to use inherently anthropocentric words such as *disaster* and *hazard*, terms which makes little sense when viewing disturbances from the perspective of an ecosystem? A forest fire or a flooded river might pose a hazard to an individual plant or animal that is burned or drowned as a consequence, yet in systemic terms neither is disastrous, as such physical processes offer other organisms in the vicinity opportunities to exploit new territories and sources of nutrition. Indeed, over time such disturbances can even promote the general biodiversity of an ecosystem.¹ A disaster is, therefore, a relative concept, which offers a species-specific rather than a holistic perspective on the environment. From the perspective of many other species, the rise of humanity has probably been the worst disaster since Cretaceous–Paleogene extinction event. Yet generally when historians talk about disasters they are talking about their own species, and perhaps a few other species which humans have come to rely upon for their own subsistence.

Given this anthropocentric bias, it is perhaps unsurprising that it is Asia, the region most densely populated by human beings, that suffers by far the greatest number of disasters. This is not simply the product of the region's formidable demographics, as Malthusian economists might have us believe. Asia also happens to contain a disproportionate number of natural hazards. The Himalayas disgorge vast quantities of water that often push rivers into flood, the Ring of Fire produces volcanic eruptions, earthquakes, and tsunamis, while the Indian Ocean is regularly buffeted by cyclonic storms.² When it comes to disasters, Asia seems to have them all.

This raises the question of how a continent so profoundly hazard-prone can foster such dense populations. One answer, which echoes current ecological thinking about the role of disturbances in ecosystems, is that hazards generate not only disasters but also opportunities. Most obviously, agriculturalists cherish the fertile alluvial soils accreted by flood pulses and the rich andosols bequeathed by volcanoes. Another answer, which will be more familiar to environmental historians, is that disasters are not natural events but the culmination of long-term patterns of human-environmental interaction.³ From this perspective, it would stand to reason that disasters would be at their most acute in Asia, where demographic pressure and

¹ This is the revisionist interpretation favoured by *disturbance ecologists*, whose views have gained increasing acceptance over the past few decades. See for example Seth Robert Reice, *The Silver Lining: The Benefits of Natural Disasters* (Princeton, N.J.: Princeton University Press, 2001).

² Greg Bankoff and Joseph Christensen, *Natural Hazards and Peoples in the Indian Ocean World : Bordering on Danger*, Palgrave Series in Indian Ocean World Studies (New York: Palgrave Macmillan, 2016).

³ Classics of this now voluminous genre include Peter C. Perdue, *Exhausting the Earth : State and Peasant in Hunan, 1500-1850*, Harvard East Asian Monographs (Cambridge, Mass.: Council on East Asian Studies Distributed by Harvard University Press, 1987); Donald Worster, *Dust Bowl : The Southern Plains in the 1930s* (New York: Oxford University Press, 1979).

economic marginality have encouraged ecologically damaging patterns of settlement. A final answer, more familiar to students of political economy, is that disasters are often acute expressions of more general poverty and are therefore linked to ongoing problems of economic marginality that still beset many regions of Asia. The causes of this poverty are too numerous to detail here, but must certainly include the extractive colonialism, repressive authoritarianism, and military conflict that have plagued so much of modern Asian history.⁴

Ultimately, any attempt to synthesise a general history of Asian disasters will run aground when confronted with the diversity of a continent which has always been more of a geopolitical fabrication than a cultural or geographic reality. Rather than attempting such a manoeuvre, this special issue chooses to embrace the diversity of Asian history, bringing together several authors working on different areas and from differing historiographical traditions. The papers were first presented at a conference entitled *Disastrous Pasts: New Directions in Asian Disaster History*, held in November 2016 at the National University of Singapore.⁵ The subsequent articles range across Central, East, South and Southeast Asia, following history through river valleys, across pyroclastic flows, and amidst locust swarms.

The diversity of issues explored in this issue reflects the fact that the term disaster can be used to refer to vast array of differing events and processes. A *disaster* can be distinguished from a *hazard* as the latter refers more to a physical threat – be it environmental or anthropogenic – whereas the former describes what happens when said hazards interact with human communities. Thus, whilst it might be appropriate to talk about a *natural hazard* – such as a volcanic eruptions or earthquakes – the term *natural disaster* is problematic as it elides the cultural and social processes that leave communities vulnerable to disasters.⁶ In avoiding environmentally deterministic language, however, it is important not to revert to a form of socioeconomic determinism that sees disasters simply as products of human systems. A more productive approach is to plot disasters on a sliding scale between the environmental and the anthropogenic. The disasters described in this special issue fell at vastly differing points along this spectrum, from naturally occurring earthquakes to anthropogenic famines.

Another way to think about disasters is to focus less upon causation and more upon impact. Though human fatality tends to be the default index used to measure disasters, even without loss of life environmental hazards can have disastrous economic, social, and psychological impacts. Although they vary greatly in terms of causation and impact, the historical events described in this volume each adhere in their own way to Scott Knowles's definition of a disaster as "an event focused in time and place causing significant disruptions to normal activities and incurring unacceptably high losses of property and/or life."⁷

⁴ See for example Mike Davis, *Late Victorian Holocausts: El Niño Famines and the Making of the Third World* (New York: Verso, 2001); Janam Mukherjee, *Hungry Bengal: War, Famine and the End of Empire* (Oxford, New York: Oxford University Press, 2015); James F. Warren, "Typhoons and Droughts: Food Shortages and Famine in the Philippines Since the 17th Century," *International Review of Environmental History* (Forthcoming 2019).

⁵ Organised by Chris Courtney, Fiona Williamson, and Greg Clancey. With financial support from the Asia Research Institute of the National University of Singapore and the financial support of a Singapore Ministry of Education Academic Research Fund Tier 2 grant entitled "Governing Compound Disasters in Urbanising Asia" (MOE2014-T2-1-017), with kind thanks to Mike Douglass and Michelle Miller.

⁶ See for example Blaikie, Piers M. *At Risk: Natural Hazards, People's Vulnerability, and Disasters*. London ; New York: Routledge, 1994. For a critical analysis see Bankoff, Greg. *Cultures of Disaster: Society and Natural Hazards in the Philippines*. London ; New York: RoutledgeCurzon, 2003.

⁷ Scott Gabriel Knowles, *The Disaster Experts: Mastering Risk in Modern America* (Philadelphia: University of Pennsylvania Press, 2011), p.19.

The issue begins with Greg Bankoff's description of Filipino communities living under Mount Mayon, an overbearing volcanic neighbour that has shaped their modes of subsistence, patterns of settlement, daily life rhythms, and even national politics. It is perhaps inevitable that those who live next to one of "nature's most powerful forces" will find their lives profoundly affected. Yet Bankoff is not content simply to describe the "disaster subculture" created by Mount Mayon, but also challenges us to consider how humans might have influenced the volcano. This article can be read not just for its rich empirical details, but also as a theoretical exploration of how hazards become expressions of *mutuality* - the interplay of influence between nature and humanity.

In the next article Rohan D'Souza describes how environmental historians of India have explored another expression of mutuality, the relationship between human beings and rivers. Guiding us through several decades of historiography, he traces the evolution of the analysis of flooding. While pioneering studies questioned the British colonial interpretation of inundation, they continued to frame floods as *natural disasters*. Later, historians began to envision flooding as a *geomorphologic process*, integral to the long-term dynamic interactions between hydrological and political economic systems. D'Souza concludes by charting a recent ecological turn, in which scholars have begun to examine flooding as a *biological pulse*, which integrates terrestrial and aquatic food webs but also agricultural and fishing economies.

Whereas most environmental histories of rivers in India are concerned with human interventions in fluvial systems, in his article Arupjyoti Saikia's describes how earthquakes have reshaped the Brahmaputra Valley. We are accustomed to think of the geological timescale as the ultimate form of *longue durée* history.⁸ Yet Saikia paints a picture of the geology in flux, detailing how seismic activity reshaped river valleys over the course of decades rather than millennia, redirecting tributaries, raising riverbeds, and transforming plains into wetlands. He concludes with an apt reminder that disasters do not only effect humans, describing how thousands of fish were buried in landslides and choked in silt, becoming the unlikely victims of an earthquake.

We turn next to a very different form of ecological history, as Jeanine Dağyeli describes the impact that locusts had upon the Emirate of Bukhara. The giant swarms that darkened the skies over the mulberry groves and cotton fields of Central Asia were not only agricultural pests but also contested symbols. For ordinary farmers they were manifestations of divine misfortune, to be resisted with Islamic prayer and buried amulets. For the modernising Russian empire, by contrast, locust attacks exemplified the backwardness and fatalism of a subject people. Technocratic governors advocated chemical interventions over local practices, which included encouraging rosy starlings to consume locusts, a method that scientists today would no doubt herald as an ecological friendly form of biological control.

Kathryn Edgerton-Tarpley is also interested in the forced ruptures and disavowed continuities that emerged as indigenous knowledge met scientific modernism. She begins with a description of famished people reduced to eating earth during the cataclysmic famine caused by the government of Mao Zedong. Images such as these had a long heritage in China and were considered the ultimate expressions of desperation. Guiding us through the history of three Chinese famines, in the 1870s, 1940s, and 1950s, her article explores the history of famine foods, demonstrating that earth eating was a practice steeped in deep religious symbolism, and also a local variant of a global phenomenon of geophagy. She continues by recalling how scientists and

⁸ The classic exponent being Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II* (London: Collins, 1972).

politicians in the twentieth century pushed the boundaries of the edible in their attempts to feed China. This culminated in the 1950s, with laboratories scraping up algae and boiling down rotten fruit, as the state sponsored increasingly bizarre attempts to cure a famine that it was itself creating.

From the foregoing sketch, it should be apparent that this special issue is designed to highlight the wide variety of scholarship that exists in Asian disaster history. Nevertheless, there are a number of themes that recur throughout. Many of the authors are concerned with excavating indigenous knowledge and charting how vernacular expertise was dismissed as irrational superstition modernising governments. In doing so, however, they are careful to resist the temptation to romanticise desperation, recognising, for example, that although bodhisattva earth may have recognised pharmaceutical value, the famished people who ate it by the fistful to satiate extreme hunger risked fatal gastrointestinal problems.

Several articles highlight differing cosmological interpretations of disasters, including those emerging from local Buddhist and Islamic traditions. Yet religion is never represented as a homogenous alternative to science. In the Philippines, for example, religious explanations for volcanoes competed for prevalence with evocative images of a slain lovers immortalised in the igneous rock being displaced by terrifying visions of lava as divine retribution as Christianity began to climb craters. Finally, each of the articles highlights the frequency with which communities were forced to endure the hazards. Locust attacks, volcanic eruptions, and floods were not aberrant disruptions to the social equilibrium but integral components in the making of local and regional Asian histories.