

REVIEW ARTICLE

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THE ENVIRONMENTAL TURN IN MIDDLE EAST HISTORY

TOBY JONES, *Desert Kingdom: How Oil and Water Forged Modern Saudi Arabia* (Cambridge, Mass.: Harvard University Press, 2010)

ALAN MIKHAIL, *Nature and Empire in Ottoman Egypt* (New York: Cambridge University Press, 2011)

ALAN MIKHAIL, *The Animal in Ottoman Egypt* (Oxford: Oxford University Press, 2014)

NÜKHET VARLIK, *Plague and Empire in the Early Modern Mediterranean World: The Ottoman Experience, 1347–1600* (New York: Cambridge University Press, 2015)

SAM WHITE, *The Climate of Rebellion in the Early Modern Ottoman Empire* (New York: Cambridge University Press, 2011)

If historians of the Middle East have turned their attention to the environment rather later than those in other subfields, a recent crop of books indicates that a new generation of scholars has spent much productive time considering environmental histories of other geographies. The books reviewed in this essay stand out for their insistence on examining Middle Eastern environments as both ecological facts and representational spaces. Taken in concert, they indicate the vibrancy of environmental history in the field. Moreover, their careful attention to methodology and creative use of sources opens up spaces for new investigations of politics, culture, and religion as mediated through environmental management and representation. Following on the recent work of Diana K. Davis, Edmund Burke III, and others, these historians have marshaled environmental, climatological, epidemiological, biological, and geological data for historical argument. Thus, the resulting works situate themselves deeply within their respective historiographic narratives, yet also interrupt, redelineate, and unsettle those narrative assumptions. At its best, the so-called “environmental turn” in the history of the Middle East represents not an intellectual fashion, but rather a major methodological shift that involves a reframing of our understanding of the formation of the field.

Early modern environmental history has particularly bloomed. In the long shadow cast by Fernand Braudel, historians of Europe and its early modern empires have elaborated the environmental underpinnings of state formation and empire formation. Ottoman history has benefited from its turn towards comparative work on imperial formations to add to and revise the picture of global environments in the early modern world. In the four works under review, Nükhet Varlık, Sam White, and Alan Mikhail depict Ottoman environmental history as at once locally and globally sited: the environmental policies

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and transformations that took place in small communities and in large cities alike reflect larger patterns both within the empire and within the early modern Mediterranean world as a whole.

Varlık's *Plague and Empire in the Early Modern Mediterranean World: The Ottoman Experience, 1347–1600*, traces the history and afterlives of the bubonic plague over the longue durée. The author argues that because of its relative marginality in studies of the Ottoman Empire, plague history as a whole largely reflects European (and especially Christian) understandings of plague. She explains the specifically Ottoman understandings of plague and their consequences, demonstrating that “the growth of the Ottoman Empire and the expansion of plague epidemics are intimately entwined” (p. 4). The preoccupying questions of early modern Ottoman history—centralization, expansion, relations between Istanbul and the provinces—revolved around the very factors that facilitated its spread, yet also followed contours determined by its mortality and the terror it generated. Thus, Varlık does not simply insert plague into the already well-defined contours of Ottoman historiography. Instead, *Plague and Empire* fundamentally upends our comprehension of the formation and expansion of the Ottoman Empire. What Varlık refers to as “plague networks” and subsequent population changes must, she thoroughly demonstrates, form the basis of new understandings of political and social networks in the empire.

This innovation arises directly out of the methodological sophistication of Varlık's account. She has thought deeply about specifically Ottoman epistemologies of plague, their reflections in the archives, and the resulting practices and lived experiences of the disease. “Instead of situating *more plague* in opposition to *better recording*” as a heuristic (and ultimately irresolvable) problem of historiography (p. 10), she emphasizes that the same networks that facilitated better record-keeping also spread plague. She cogently explains that, contrary to previous explanations, the “absence” of plague from early Ottoman historical records is less an archival lacuna than an epistemological one: her sources allow her to trace the emergence of plague as a category of *understanding*, not as a phenomenon. Quite simply, the disease existed before its reification as a specific form. That “the dearth of references to and the near-total absence of descriptions of plague . . . are products of a mind-set in which plague was understood” (pp. 209–10) raises important and intriguing questions about the historical understanding of Ottoman epistemologies more broadly.

Changing conceptions of plague translated into differing experiences of it. The centralization of plague-related spiritual practices follows a familiar Ottoman pattern of consolidation and regularization, but also reflects what Varlık calls the “naturalization” of plague as part of both a (depopulated) Anatolian landscape and an increasingly deadly urban one. Operating as both a series of networks and a series of mediated social and political relationships, the Ottoman Empire both disseminated the plague and resulted from it. *Plague and Empire* not only rectifies the absence of the Ottoman Empire from the history of the bubonic plague, it fundamentally reconfigures our historical understanding of the empire's formation and functioning as these played out through experiences of disease and subsequent population dislocations.

Sam White's *The Climate of Rebellion in the Early Modern Ottoman Empire* undertakes a similar, but perhaps less ambitious, task. White places the empire within broader early modern contexts of the Little Ice Age and reads this major climatological

interruption into the historiographic understanding of the Ottoman world. Climatological change and subsequent famines, failures in the provisioning system of the state, and rebellion drastically altered the course of Ottoman history. “The environmental approach,” White argues, “offers the most coherent paradigm for Ottoman crises and transformation and the one with the most explanatory power. Without resorting to vague concepts like ‘decline’ or ‘decentralization,’ it actually addresses why and how the rapid growth of the sixteenth century came to an end . . . and why the empire suffered such tremendous setbacks over the century that followed” (p. 226). Population decline, urbanization, increased mortality in cities, and rebellion all followed from the Little Ice Age.

White argues convincingly that the success of the Ottomans in dealing with the Celali rebellion ultimately contributed to the ossification of political forms that elsewhere, from China to Western Europe, gave rise to more sudden shocks to political order. Moreover, the Little Ice Age precipitated a shift to an export-oriented economy by reorganizing landholding and provisioning. White thoroughly demonstrates that the Little Ice Age’s droughts, famines, and rebellions remade the political compact of the Ottoman Empire, precipitating “not only the breakdown of the provisioning system, but also a break in that implicit circle of justice that bound the *reaya* to the imperial government.” Facing animal disease, starvation, and chronic instability, “the *reaya* had no cause to serve the sultan any longer as peaceful taxpayers” (p. 162). The Little Ice Age remade individuals’ relations to the land, but White illustrates its rather more surprising reconfiguration of ties between taxpayer and empire.

The concomitant demographic shifts in population required a further rethinking of those relationships by Ottoman subject and administration alike. Environmental change prompted not only a recrudescence in nomadism (pp. 228, 242–43), but also an increase in urbanization. As Varlık notes, cities became charnel houses. “By the nineteenth century,” White contends, “probably millions of Orromans had in effect died of rural-to-urban migration” (p. 275). Taken in concert with Varlık’s “plague networks,” such contentions invite a further reconsideration of what constituted urban and rural, center and periphery, in the Ottoman Empire. The networks and vectors of plague, but also of motion and interchange more broadly, require, these two authors note, a deeper chronology and geography.

Although *Climate of Rebellion* does excellent work in reading the Little Ice Age as part of Ottoman history, White at times invents historiographical straw men with which to argue. His sources do “illustrate that the groundswell of desperation in the wake of famine, in conditions of ecological and economic pressure, provided fuel for the flames of [the Celali] rebellion,” but no serious historian of the Ottoman Empire could contest such an argument, even if scholars have left it to White to demonstrate. His environmental readings of the disorder in the early modern empire complement, rather than transfigure, our understandings of the period. He correctly maintains that “it is no longer tenable to blame the empire’s troubles of the 1600s simply on the decay of old institutions or the challenges of a rising Europe” (p. 298), but Ottoman historians have largely discarded simplistic understandings of both the empire’s “decline” and its perdurability. White fills a major lacuna in Ottoman historiography and further bolsters an emerging scholarly consensus about the nature of the changes that the empire experienced over the longue durée. *Climate of Rebellion* inserts environmental crisis and response into the already rich historiography on change in the Ottoman Empire.

Alan Mikhail has assiduously cultivated the field of environmental history through his monographs, edited volume, and articles. *Nature and Empire in Ottoman Egypt* rewrites the formation of a more centralized Egyptian state, centered on Cairo, replacing the rather more loosely administrated Ottoman period before Mehmet Ali. Scholars have extensively investigated the “modernization” of Egypt, especially in the 19th century, through processes of bureaucratization, integration into the world economy, and various other social and political reforms. Mikhail, however, expands this chronology with his detailed analysis of environmental practices of the 18th and 19th centuries. He traces, as early as the 18th century, the introduction of “a much more centralized and authoritarian regime of environmental resource management” (p. 3), and in the process indicates that the centralization and bureaucratization of what other scholars have called “modern” Egypt happened earlier, and in unexpected places.

Local knowledge, regulation of use, and conflict resolution ceded place to an increasingly extractive central government. The extension of bureaucracy placed increased pressure on Egyptian environments and marginalized or even dispossessed peasants. Like Varlik and White, Mikhail aims squarely at the derided “decline theory” of Ottoman history. He replaces it with “two interrelated declines . . . the first is a decline in the lives and well-being of Egyptian peasants . . . the second . . . [is] a steady erosion in the sustainable uses of the Egyptian rural environment” (p. 27). Mikhail does not offer this as mere historiographical word play. Rather, his incisive elucidation of the destruction of rural environmental systems corrects an often implicitly triumphalist historiography that hails the emergence of central Egyptian authority as a necessary step in the formation of an Egyptian nation-state. Mikhail, in contrast, sees that authority as despotic, extractive, and more rooted in the remaking of imperial forms of command than in modern forms of statecraft.

Mikhail situates forms of environmental management at the heart of that remaking. Ottoman devolution of the uses of water (and especially irrigation) to the Egyptian *felahin* represented both an efficient and environmentally logical form of political praxis. The knowledge, labor, and will of the Egyptian peasant permitted the empire to make effective use of the scarce water resources of the region. The resulting food production fed much of the empire, but required near-continuous inputs of wood, as well as water. Wood was used to make the ships that carried grain and the waterworks that prevented the infiltration of seawater. Under Mehmet Ali, however, the severing of Egypt from a ready source of Ottoman timber reconfigured the state’s relationship to individual environmental actors. Massive tree-planting initiatives resulted in the meting out of severe punishments to recalcitrant peasants (p. 164). Mehmet Ali’s Egypt demanded rural laborers function less as local managers of environments than as regulated, regimented laborers required to produce specific amounts of specific goods, regardless of sustainability. “Each effort to centralize and monopolize political power in Egypt at the expense of the Ottoman administration resulted in huge demands being placed on the Egyptian peasantry” and the erosion of their control over the environmental world (p. 169).

Scholars have thoroughly demonstrated that Egypt’s continued dissociation from the Ottoman Empire, drive towards centralization, and increased need for food, agricultural products, and wood remade its relationship to rural Egyptians. Mikhail demolishes “the nationalist narrative of Egyptian history,” which argues that “modernity supposedly came to Egypt as it further separated from the Ottoman Empire” (p. 171). Far from representing

increased local, implicitly Egyptian and “national” control over labor and resources, these shifts inaugurated an increasingly *centralized*, authoritarian, and extractive use of labor and environment, one more stringently controlled from Cairo rather than less intrusively from Istanbul. Ottoman bureaucrats had largely allowed Egyptian peasants to manage their own environments, Mikhail demonstrates, while the increased autonomy of Ali’s Egypt sharply curtailed local autonomy and subjected peasants, like their animals, to forced labor, a near-Foucauldian regimentation, regularization, and organization. Such modes of regulating water, food, labor, and the body predated the intrusion of intensive European imperial attention, emerging instead out of the increased centralization brought about by Egyptian autonomy.

Bodies in general, and not solely those of laborers, became the locus of state intervention. Mikhail argues that plague went from a natural feature of Egyptian life and the environment to one requiring, under Mehmet Ali and the influence of European advisers, technologies of management borrowed from European empires, namely, quarantine enforced through violence. Mikhail’s work on quarantine forms a fascinating complement to Nancy Gallagher’s classic *Medicine and Power in Tunisia, 1780–1900* (Cambridge: Cambridge University Press, 1983), the two works in conjunction illustrating the various relationships to European medicine and incipient imperial threats that predominated in different parts of North Africa. The juxtaposition of the episodic and only partial embrace of quarantine in Tunisia and its rigid application in Egypt elucidates that the relative centralization of such regimes both emerged out of *and* produced precisely such practices.

The Nile, of course, loomed as the largest environmental, agricultural, labor, and bureaucratic challenge to the nascent centralized Egyptian state. The Mahmudiyya (Ashrafiyya) Canal attempted to water Alexandria and remake it as a hub of a modern state. To slake its thirst, the Ottomans attempted, in the late 18th century, to create canals. The intensification of that construction in the early 19th century necessitated the forced migration of rural laborers to work in dire conditions on the site. In all, 100,000 died and, Mikhail notes, 8 percent of the population of Egypt as a whole worked on the schemes (p. 281). The canal largely failed to significantly alleviate Alexandria’s water problems or to create new, flourishing settlements along its bank. Its legacy, Mikhail argues, instead lies in its ambition and costs. The Egyptian state succeeded in creating a despotic, authoritarian system of command that ignored the canal’s tremendous cost in human life in the name of its purported benefits to the state as a whole. The peasant laborer became simply another expendable resource.

Nature and Empire disrupts many of the historiographical paradigms within Ottoman political history. Mikhail’s local (and largely rural) focus dissolves macroquestions of center and periphery or of decline into a far more nuanced series of portrayals of contingent, local relations and changes with large-scale consequences. The changes that created a centralized, often despotic, and extractive Egyptian state emerged first in the Ottoman period and intensified thereafter. Environmental management and its failures created Egypt as it came to be.

Nature and Empire and *The Animal in Ottoman Egypt* form a kind of diptych, a two-part investigation into the emergence of a regulatory state in Egypt. The changing intimacy of human–animal interactions reflects the creation of an infrastructure of the regulation of bodies and a state equipped to manage that infrastructure. Much like

schools, armies, workers' bodies, and health, animals, too, provide an ideal locus for tracing the history of state control. Mikhail sees the animal as a forerunner of processes later inflicted on humans. "Just as livestock, dogs, and elephants were stripped of their constructive social and economic functions in the early nineteenth century, so too were Egyptian peasants, the uneducated, the disabled, the poor, the sick, the criminal, and the itinerant cut out of the productive social and economic realms of Egypt later in the century" (p. 15). Far from functioning as a mere metaphor, the Egyptian animal served as a test subject.

The conception of livestock as wealth defined what Mikhail calls the "early modern human and animal." In the 19th century, the reorientation of the Egyptian economy toward export production replaced the animal with land as the unit of wealth, and replaced the animal body with the human body as the unit of labor. The concentration of land in the hands of a few, the dearth of animals following pestilence, and the large number of human laborers made the *human* body into the base functioning unit of agrarian society. The poor without animals had difficulty working their own land, and instead became laborers, increasingly politically marginalized and impoverished. The separation of livestock from wealth foretold the separation of the impoverished peasant from land and power. In tracing the changing role of livestock, Mikhail brings into sharp relief the quotidian, local effects of large-scale changes in the Egyptian economy.

Despite their role as shepherds, friends, military allies, and (to the chagrin of many) waste disposal units, dogs, too, became subject to the creation of a regulatory state. Instead of a useful adjunct to urban life, dogs in 19th-century Egypt loomed as signs of disorder and uncleanness. Utility rather than affection marked dog-human ties, Mikhail argues, but as the state insisted on regulating evermore aspects of Egyptian life, dogs (and especially uncontrolled dogs) required regulation. The removal of dogs from Cairo only exacerbated garbage problems, but created, from the perspective of bureaucrats, a more orderly, legible city. Again, the array of control technologies focused first on animal bodies before moving on to vagrants, the diseased, or the ill.

Finally, Mikhail turns his attention to charismatic megafauna. Here, too, regulation emerges out of increasing imposition of state control on what had previously been the purview of local actors. The trade in exotic animals testifying to the greatness and mystery of the sultan (lions, elephants) gave way to the regularized logic of the zoo, and the international trade in animals itself seemed to threaten the introduction of epizootics. Where once lions embodied the majesty of the imperial throne, exotic animals increasingly became objects of regularized trade, exported to satiate the curiosity of audiences outside of the Ottoman Empire. What Mikhail calls the "engagement" of animals resituated them in commercial and commodified relations and definitively removed them from the realm of the charismatic.

At its core, *The Animal* argues that "what happened to animals in Ottoman Egypt would soon happen to humans" (p. 177). Mikhail thus expands our understanding of the emergence of regulation in Egypt and, as in *Nature and Empire*, interrogates its chronology. Just as rather more salutary moves to limit animal cruelty emerged in Britain before a concept of children's rights emerged, so, too, did animal regulation foreshadow increased control over the human body in Egypt. In its insistence on taking seriously changing human-animal intimacies and the elaboration of common technologies to control both, *The Animal* points toward a rich future literature on the animal in Middle East

history. The emergence of a regulatory apparatus around animal sacrifice in increasingly urbanized Islamic cities, for example, seems ripe for research across the region.

Similar to Mikhail, Toby Jones turns to environmental history to sketch out the creation of political forms and, in the case of Jones, their contestation. Jones's landmark *Desert Kingdom: How Oil and Water Forged Modern Saudi Arabia* demonstrates not only the centrality of environmental management and its failures to the project of Saudi statecraft, but also the utility of environmental history in clarifying even the most opaque of political regimes. The development or even articulation of Saudi ideology, the emergence and subsequent repression of Shi'i political movements, and the political manipulation of the petropolitical complex, remain, by the kingdom's design, difficult to research historically or contemporarily. *Desert Kingdom* provides both an exemplary analysis of such questions and a promising method for future investigation.

Saudi Arabia, Jones argues, managed water, oil, and the environment as a crucial part of statecraft that bolstered authoritarian Saudi power, especially over the economy, and marginalized Shi'a and others without close ties to the royal house. For much of the 20th century, scientific knowledge and practice, whether hydrology or geology, functioned as a crucial register of legitimacy, casting the state as a modern benefactor and provider of social advancement, and not a premodern authoritarian monarchy.

Although the birth of the petroeconomy provided both the income and rationale for investment in technological development, Saudi investment in science predated the discovery of oil. American geologists consulted with the kingdom in search of useful underground riches (p. 32). Thus, Jones demonstrates, scientific knowledge, technological advancement, and the prospect of wealth formed part of the political language of the kingdom, a way for it to lay claim to sovereignty and control. The Saudis were by no means alone; the interwar period witnessed an efflorescence of similar practices among the colonial powers, most notably the French in the Sahara. Mastery of scientific knowledge, even before oil, implied a mastery of the land itself. Later, however, the "state . . . us[ed] the depoliticized language of science to justify its increasingly intrusive role in the lives of its subjects" (p. 55). In the kingdom as elsewhere, the 20th-century creation of a scientific discourse invested in proclaiming its political neutrality only enhanced its use for political means. Local projects of technical modernization, water control, and industrial environmental management served as means of connecting subject to state, implying the owed allegiance of the latter without implying any right to participate in actual governance. Moreover, as Jones carefully demonstrates, evangelism of development and the centrality of Islam in no way conflicted as part of the political program of Saudi statecraft. Instead, they reinforced each other as signs of legitimacy. This dyad aimed at fostering both integration with and dependence on the state, largely coterminous in the minds of Saudi technocrats. Those whose livelihoods tied them to the land (largely centrally owned) came to require national projects and to see them as tasks befitting a strong government. Over time, environmental management simply became one of the central tasks of the state, on which subjects counted and which they expected as part of the political system.

Jones outlines what those subjects gave up in return. Development projects and ideology functioned as the public face of an intrusive system of surveillance and control to maintain stability. When restive Bedouin troubled Aramco installations, the government built farms. When, in 1962, some Saudis showed signs of religious and political

dissent, King Faisal ramped up development programs (Chapter 3). Such developments required management, surveillance, and accountability. In acquiescing to local demands for water or efficient wells, Saudi Arabia attempted to ensure local loyalty and provide the rationale to monitor it.

The oil- and water-rich Eastern Province attracted a large, and socially discontinuous, portion of Saudi development attention. Jones convincingly demonstrates the consequences of the largely failed attempts to remake the oasis at al-Hasa and how the increasingly intensive oil economy exacerbated tensions between Shi'a in the province and central authorities. Wealth creation (for an elite few), development, and Wahhabi Islam, the tripod upon which the Saudis rested their political legitimacy, mostly excluded the large Shi'a population. Indeed, Shi'i activists began their calls for change with a plea for better management of the oil industry's environmental destruction and more access to oil wealth (p. 144). Jones rightly interprets these as the "terms for a new Saudi citizenship and a new Saudi nation" (p. 154). These activists erred, however, in the assumption that Riyadh would sacrifice the kingdom as then constituted for a more equitable nation. The further marginalization of Shi'a that resulted alienated and radicalized other activists, culminating in the 1979 rebellion and its brutal repression. Jones stresses the mixed character of this intifada, containing both clerical and leftist factions, and correctly discounts the idea of extensive influence from Tehran. This rebellion resulted, he argues, in a return to Islam, and away from development, as the guiding ideology of the Saudi kingdom. Wahhabism, allegiance, and authority formed the backbone of the post-1979 political ideology (p. 221).

In his environmental history of oil and water in Saudi Arabia, Jones also offers a comprehensive depiction of the Saudi state's changing political ideologies. In seeking political history in projects and landscapes, he deftly circumvents the archival challenges of reconstructing Saudi policy debates. In the absence of a licit political culture, the physical and environmental traces attest to political engineering that reaches an intensity previously not suspected of Saudi Arabia. Such deft, creative, and deeply researched political history ought to serve as a methodological template for scholars interested in reconstituting political forms otherwise silenced in authoritarian states, be it Qaddafi's Libya or the kingdom.

The richness and success of these works attest to the vibrant research in environmental history of the Middle East. Innovative, attentive to nuance, and sophisticated in their interpretation, these books share a commitment to understanding the natural parameters of human history. Nevertheless, they do not form an insular subfield or offer a closed series of conversations. Nor do they eschew other major questions within their respective historiographic frames. Rather, they reinvigorate such debates, reframe questions, and challenge assumptions at the core of many arguments within Middle East history. The success of each work as environmental history will no doubt greatly enrich a literature as yet shy of works on the Middle East and North Africa. Environmental historians of any region interested in questions of state formation and centralization will find these works of great comparative use. Scholars of the Middle East, even those whose research does not relate to the natural world, will find in them revelations about the formation and functioning of basic elements of Middle East politics, economies, and societies.