

Are Environmental Imaginaries Culturally Constructed?

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THE MODERN history of the Middle East has always been the history of a human relationship with nature. The environment appears to define the Arab-Islamic world more than it does any other major region in world history. It is time to ask, as this book does, how this naturalized history came about.

Stretched in an irregular shape from the Atlantic to Central Asia, the region of the Middle East and North Africa was always demarcated by its climate. An arid environment was said to produce distinctive forms of history. Political orders were built upon major river systems, or along narrow fertile crescents and coasts. Political dynamics were traced to the difference between the desert and the sown, the nomadic and the settled, the tribe and the state. Colonial histories, as Diana Davis shows, could describe the precolonial order as incapable of managing this difficult human-natural balance or maintaining the region's precarious ecology. Europeans could then justify their colonization of the Arab world in ecological terms.

We write histories of the more recent past as the story of states coping with fragile environments, limited areas of cultivable land, populations

expanding faster than resources, the artificial growth of megacities, and strained or disappearing reserves of water. Even the one natural resource found in abundance appears as a problem. The region's large reserves of oil are described as a curse whose presence disrupts the normal process of political development.

The forces of nature that define the region's history typically acquire their place in the story as something abnormal and errant. The arid, ~~semi-arid~~ ecology of the Middle East and North Africa, as Davis points out, is frequently treated not as one of the earth's several terrestrial biomes, alongside the varieties of temperate, boreal, tropical, and other zones, but as an aberration and a threat in comparison to the norm of a temperate world. Low levels of rainfall and riparian areas of concentrated cultivation and settlement are addressed as abnormalities to be overcome, just as the curse of abundant oil reserves must be broken. Davis describes this way of seeing things as an environmental orientalism. The natural shapes the region's history as something unnatural.

An unnatural nature appears to determine Middle Eastern history, but we have no history of this nature. The natural world stands on one side of the account, human history on the other. Academic specialization helps keep them apart, with experts on each side working with their own time scales, agents, and records. The environmental forces and reserves that shape the region's past and present occur in historical accounts largely as an underlying set of resources, restrictions, and risks. Knowledge of these elements is produced for the most part by nonhistorians, among specialists in the various natural and environmental sciences. Historians specialize in studying the human response to those forces, focusing on the tools with which humans are said to address, understand, and try to overcome the limits of their natural environment: culture, politics, economic and technical knowhow, and the moral resources of communities and states.

The first task, as this book explains, is to interrogate and disassemble the representations of nature that govern the region's history. Unpacking the environmental imaginaries formed in the colonial period and carried over or transformed after colonialism is a large undertaking. The essays in this book, and the larger bodies of writing and research on which all of them are based, take on this task in a variety of ways. They explore how the British in Egypt and Iraq, the French in North Africa, and the Zionist movement in Palestine each deployed distinctive visions of environmental crisis, neglect, or possibility to help construct a colonial order and justify European intervention, settlement, and control. Typically the place to be colonized or controlled was described in contrast to a more verdant and

fertile past, or a more prosperous, well-irrigated future, which European control would restore or bring about. The failure of the native population to sustain or bring into being this abundance became one of the primary justifications for the colonial occupation.

In the middle decades of the twentieth century, as European control was challenged and transformed, new regimes adopted or developed many elements of the earlier environmental imaginaries. They devised schemes to make or remake the nation, and eliminate threats to its national coherence, on an even grander scale. The initiatives took several forms, but the most prominent and frequent were projects to build dams across the region's major rivers, on a scale far larger than the undertakings of the Ottoman and colonial periods. The dams would store up the rivers' waters, eliminate systems of flood-basin irrigation, and replace the river and its carefully managed seasonal abundance with a permanent arrangement of barrages, canals, irrigation channels, and diesel pumps. The Nile, the Jordan River and its tributaries, the Tigris and Euphrates, and many other rivers were dammed up and diverted. It is no surprise that more than half the chapters of this book are concerned with the analysis of these schemes, the diverse and contested work of environmental imagination they required, and the challenges to those visions that flowed from the misjudged or unanticipated ecological transformations they engineered.

What is an environmental imaginary? The chapters in this book make clear that in most cases it is more than just a work of imagination. Its force and durability derives from the way it is reproduced and extended in rebuilt and reordered worlds. The millions of hectares of trees planted to reforest Algeria, and the criminalization of grazing and gathering on lands expropriated for reforestation; the redirection of the Nile into channels so capillary that it discharges into the sea less than 1 percent of its previous flow; the remaking of Southeastern Anatolia, as Leila Harris describes, by the monocropping of cotton; or the diversion of the Jordan River waters outside its watershed area, discussed by Samer Alatout, to enable Israel to settle and retain southern Palestine—such projects are as much a contribution to environmental imaginaries as are the travel writings, colonial reports, reconnaissance flights, engineering schemes, and court decisions that helped manufacture new ways of seeing the natural world.

The mixture of materials and processes employed in the making of environmental imaginaries gives them their scale and what sometimes appears as their irreversibility. Contributions to this book depict in a variety of terms the force and durability that the imaginary often seems to acquire. Environmental imaginaries are described as enduring or hegemonic. They

are said to underlie forms of social practice, to explain the decisions and strategies of colonial powers, and to be the cause of state bureaucracies acting toward nature in distinctive ways. They could never be ascribed these powers if they were merely imaginary.

At the same time, several contributions to this volume suggest that environmental imaginaries can sometimes suddenly collapse and give way to rival visions. Priya Satia explains how the British imagination of Arabia changed quite abruptly after World War I from the image of an unknowable and barren void to the vision of a biblical Eden whose prolific fertility could be restored by modern technical intervention. Jeannie Sowers shows how technocrats and agribusiness managers in contemporary Egypt have been able to challenge a dominant understanding of the fecundity of the Nile and the proper way to exploit its natural powers. In Palestine/Israel, according to Shaul Cohen, no common environmental vision can establish itself. For both Palestinians and Israelis, for different reasons and in different ways, the effort to place a value on nature is trumped by the national question—the question, from each side, of the recuperation, survival, or future strength of the nation.

Assessing the power and durability of an environmental imaginary raises the old question of how representations of nature are related to what we call nature itself. No one any longer answers this question by assuming we can simply separate two worlds, the realm of ideas and the realm of natural facts. The chapters provide many examples illustrating why this separation cannot be sustained, from Satia's discussion of the British bombs dropped on Iraqi villages in the 1920s that operated through their "moral effect" to Cohen's description of the decision of the Palestinian resistance group Fatah in 1965 to initiate its campaign against the Zionist vision of permanently settling all of Palestine by blowing up the canal built to claim and colonize the south.

George Trumbull suggests here, as others have elsewhere, that we abandon the "false binary" between images of nature and nature itself. He proposes that we speak instead of the tangible environment and the discursive environment as existing "in superimposition upon one another." However, this sort of answer to the question of the status of imaginaries suggests two problems. First, the idea that the environment and the stories that we tell about the environment form superimposed worlds still leaves these worlds distinct—still understands each as its own world or level. However many overlaps, superimpositions, or interconnections we trace, we are left with nature as one level and history as another; with dirt versus perceptions of dirt; with the environment as an object out there and our

ways of imagining and representing it as something different. Yet none of the natural worlds or environmental forces encountered in this book occur except as worlds or forces formed out of the interaction of the human and the nonhuman, the organic and the technical, the programmed and the unpredicted. Forms of representation have always formed a part of such human-nonhuman, technical-organic interactions. Those modes of representing and reporting that we might refer to as an imaginary occur as a variety of sociotechnical practices—writing, recording, picturing, and referencing—that form aspects of many other sociotechnical operations: building dams, planting forests, irrigating desert lands, administering rural populations. The imaging and reporting occur in these many forms of practice, not as some separate plane of the immaterial.

My reason for mentioning these well-known arguments is to introduce a second problem. Despite what I have just written, it may be misleading to dismiss the separation of representation from reality, of history from nature, of stories about the environment from the environment itself, as a “false” binary. The accusation of falsehood overlooks something central to the modern politics of nature. Although representing natural forces forms only a part of our ways of building the collective worlds we inhabit, it is a mode of sociotechnical practice that has become increasingly more organized, coordinated, and effective. Over the last century or so, more and more work has been done to produce representations of nature and to produce what appears as a progressively more distinct separation between those interactions we call nature and those we arrange as images of nature. The result has been to open up, by a series of removals, detours, and delays, what appears as an ever more effective distance between our encounters with natural forces and our encounters with reports and images of those encounters. It is important to understand the production of these removals and delays and the kinds of separation they effect. To dismiss such removals and separations as a false binary (while better than assuming the simple dualism of nature versus representation) risks neglecting the task of tracing ~~of~~ how they have been brought about.

The practices that carry out the distancing of modes of representing and reporting from the interactions on which they report are perfectly real and have their own histories and methods. Richard Grove has shown how the emergence of the environment as an object of knowledge was made possible by a particular kind of distance, isolation, and reporting. The British, French, and Dutch encounters with tropical islands and the business of colonizing and despoiling them made visible processes such as deforestation and their interconnected impact on the biota of a place. Remote,

self-contained, and fragile, tropical islands appeared to those who encountered them from afar as worlds-in-miniature, functioning as laboratories in which the interaction among life forms could be observed, manipulated, and analyzed. The same isolation and difference was later constructed in the glass houses of botanical gardens back in Europe. Like nineteenth-century world exhibitions, the first of which were built as even larger glass houses, these miniature worlds, populated with real plants, animals, objects, and people, were organized as representations of the wider world. No less real than the realities they represented, no more or less discursive, no more or less imaginary, but more controllable and easier to study and report about, such laboratories exemplified the forms of removal, distance, isolation, and control that generated the increasingly widespread and persuasive effect of a world divided in two: into reality versus representation, the environment versus the stories we tell about it, nature versus history.

The essays in this book provide numerous examples of technical projects and administrative practices that helped produce the forms of distance, separation, concentration, and difference that could be organized into the distinction between modern environments and modern environmental imaginaries. The novel use of air power by the British to police and subdue the villages and tribes of Iraq contributed to and reinforced a new understanding of the Mesopotamian environment. The building of two large dams across the Nile at Aswan, the first, discussed in detail by Jennifer Derr, completed in 1902 and the second on a much greater scale in the 1960s, stored up the river's power at a single site and replaced the thousands of dykes and channels that distributed the river's nutrients and energy under the older system of flood basin irrigation. The forms of measurement, know-how, and control that were previously dispersed across millions of hectares of the floodplain were now increasingly concentrated at a single site. This concentration of management and information contributed to the development of ways of governing that took the management of nature as their object, and the representation of nature as their project.

To understand what was distinctive about these practices, Alan Mikhail's chapter on Ottoman methods of managing the waters of the Nile in the eighteenth century is of great importance. From Ottoman court records and other administrative archives, Mikhail has carefully recovered sequences of orders, appeals, reports, inspections, and interventions through which courts, provincial officials, local notables, and ordinary farmers managed, co-opted, and contested the changing flow of the river, the alterations in its channel, the appearance and disappearance of fertile islands, the silting up of canals, and the collapse of embankments. From

these dispersed and intermittent records, the chapter pieces together what can be termed an Ottoman imaginary of the environment.

It seems clear, however, from their dispersed and intermittent forms of reporting and instruction that those engaged in these processes were not concerned with constructing an environmental imaginary. Every dispute, intervention, and administrative decision involved modes of representation, which in turn formed parts of larger systems of administration and rule. However, the painstaking work of scholarship required to recover and assemble these reports and representations, compared to the relative ease with which scholars of the colonial and contemporary state reconstruct environmental imaginaries from published or widely circulated sources, is a measure of what has changed. Ottoman political practice was not dependent on the gathering and circulation of an environmental imaginary, so the work of isolating, concentrating, reporting, and publishing representations of nature had no regular place in administrative routines. In other words, Ottoman practice was not organized with sites of concentration and forms of difference or distance that attempted to produce and maintain the separation of an environment from its imagination, or of nature from politics. Writing accounts of precolonial practices is therefore a different kind of project from writing about the imaginative practices of twentieth-century government. This brings the peculiarity of more recent politics into sharper view.

To understand the practices that gave rise to environmental imaginaries, we need to understand the colonial and more contemporary modes of encountering, working with, and attempting to control a variety of forces, both human and nonhuman. It would be misleading to refer to these methods of isolation, concentration, making of worlds-in-miniature, separation, and reporting as the “cultural construction” of nature. It would be equally appropriate, or inappropriate, to talk about the “natural construction” of nature.

The essays in this book confirm the point Bruno Latour makes, in *Science in Action* and elsewhere, about the recalcitrance of natural forces. The forces of nature, isolated in the laboratory, the glass house, or a gorge at Aswan, can be more easily observed, manipulated, harnessed, described, and represented. But their representation is not a mere cultural construction, for the same forces retain their enormous power to refute what is said about them, escape the mechanisms of control, or produce surprising and unanticipated actions. The desert terrain of Iraq turned out to be more opaque and less governable from the air than the proponents of British air power had assumed. The control of the Nile brought increased

supplies of water, but also rising levels of salinity in the irrigated soil and decreased levels of nutrients. The view that our ideas about nature are culturally constructed resolves prematurely something that should always be an empirical question: What combination of human and nonhuman forces, of the planned and the unintentional, of the freely imagined and the recalcitrant, makes possible the construction and strengthening of our knowledge about the common world?

By asking this empirical question, the study of environmental imaginaries can take advantage of the promise of environmental history: that it provides a way of studying the past and present in which the protagonists are not limited to the merely human. Instead one can trace the shifting alliances and amalgamations of human and nonhuman agencies, organic and technical materials, recalcitrant and malleable forces, that have shaped the common worlds to which we belong.

Take as a final example the history of Middle Eastern oil. This is inevitably an environmental history. Oil is a natural resource that has reworked entire landscapes of the region, whether in the infrastructure required for its discovery, production, and transportation, the speculative urban developments into which its profits have been transformed, or the aquifers permanently depleted to pump the billions of gallons of groundwater required every day to irrigate petroleum-funded agricultural schemes or drive oil in depleted reservoirs toward the well.

In the building of infrastructure, the playing out of speculation, or the pumping of fluids, methods of planning, measuring, valuing, estimating, and other modes of representation and calculation are always at work. From this work the environmental imaginaries of oil are produced. These imaginaries are not limited to the clichés of camel-herding nomads transformed into plutocrats or skyscrapers replacing collections of mud huts, although Western oil companies devoted considerable resources to producing such images. They include, for example, complex methods for producing the varying price of oil; the racial imaginaries—as Robert Vitalis has traced—employed to organize the labor of oil production; and a discourse of international security that for decades transformed the problem of an overabundance of Middle Eastern oil into a threat of scarcity and into programs of arms purchase that recycled petrodollars to the West.

The imaginative world of oil is still larger. As I explore in my work on “carbon democracy,” the plentiful, cheaply produced oil of the Middle East helped engineer, during the decades either side of World War II, ways of living and thinking in which material growth was assumed to have no limits. The flow of oil made possible a new object, “the economy,” through

which this apparently limitless growth could be managed and represented. It fueled in turn the growth of an expertise, economics, that became the dominant way of thinking about the satisfaction of material wants and needs. Thanks to oil and the apparently limitless low-cost energy it supplied, the most abstract and dematerialized of our social imaginaries, neoclassical economics, became over several decades the most influential language for explaining the relationship between humans and nature.

The history of oil, like the histories explored in this book, shows how one can trace the building of environmental imaginaries as much more than a work of cultural construction. The question is to understand what combinations of natural forces and technical skills, human effort and nonhuman devices, the real and the artificial, the freely imagined and the naturally recalcitrant, produce the worlds we inhabit.