

"Brilliantly illustrated and written with flashes of wit and humor, *Nature and Culture in the Early Modern Atlantic* traces the shift in people's thinking about nature from the medieval to the modern period. Peter C. Mancall brings his encyclopedic knowledge of the primary and secondary sources to bear on monsters, insects, tropical forests, and indigenous peoples and shows that a new fascination with the material spectacle of the New World contributed to secular explanations of natural phenomena."

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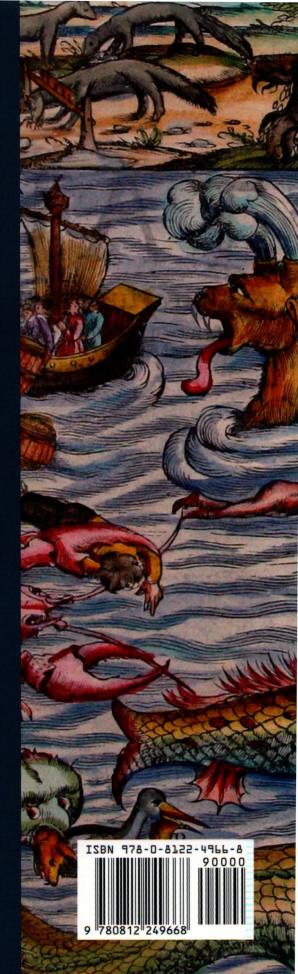
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"In this compact, learned, and beautifully illustrated book, Peter C. Mancall probes a wide array of written, oral, and art historical sources on the real and imagined flora and fauna of the Americas in the sixteenth century, examining everything from monsters to mosquitoes. He shows in exquisite detail how the integration of the Atlantic world unsettled sensibilities toward nature."

—J. R. McNeill, author of Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914

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PETER C. MANCALL

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In memory of
Elliott
(1927–2013)
and Jackie
(1932–2013)

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Nature and Culture in the Early Modern Atlantic



THE EARLY MODERN AMERICAS

Peter C. Mancall, Series Editor

Volumes in the series explore neglected aspects of early modern history in the western hemisphere. Interdisciplinary in character, and with a special emphasis on the Atlantic World from 1450 to 1850, the series is published in partnership with the USC-Huntington Early Modern Studies Institute.



PREFACE

This book is about humans and nature in the sixteenth-century Atlantic basin. At its heart lies a selection of images, namely, a set of painted panels from a fourteenth-century cloister in a cathedral in the south of France, an illustrated manuscript atlas assembled at Dieppe on the Normandy coast in 1547, a manuscript of uncertain provenance from the late sixteenth-century Caribbean and coastal America, and English and northern European depictions of coastal Carolina in 1585 and 1590. Such visual evidence, among the abundant illustrative material in printed books and hand-painted codices, reveals early modern ecological thinking among Europeans and the indigenous residents of the Western Hemisphere. In the sixteenth century, as now, everyone thought about nature. Europeans and indigenous Americans alike devised ways to understand and take advantage of what the English natural historian Edward Topsell called in the early seventeenth century the "troublesome and vast Ocean of Natures admirable fabricature." But views of nature did not remain static. Instead, ecological sensibilities shifted over the course of the century when the peoples around the basin incorporated new information into their understanding of nature—evidence produced from the increasing number of journeys back and forth across the ocean. Put another way, new knowledge of nature produced a shift in the nature of knowledge—in this case, how individuals understood changing environments.

The three main chapters in this short book began as the Mellon Distinguished Lectures in the Humanities at the University of Pennsylvania. I have since added a postscript and a note on sources. My goal in this extended essay is twofold. First, I explicate European and indigenous American interpretations of nature and trace the ways that the natural world and human communities evolved as a result of contact between the so-called Old and New Worlds. I begin with a chapter on early modern Americans' and Europeans' capacious sense of the extent of nature around 1500, which included invisible forces and monstrous creatures. In the second chapter, I trace changes in the natural world of the basin as a result of transoceanic encounters. In the third chapter, I focus on the outer banks of modern North Carolina, a place so well documented that it has become a synecdoche to represent all of early North America in many historians' works. In the postscript, I describe and analyze two sixteenth-century texts about insects, one produced in Mexico and the other in Europe. I use the Note on Sources at the end to set the images and texts that are central to the main chapters into the context of writing about the environment in the early modern world.

Part of my inquiry is epistemological: how did people know what they knew about the natural world before 1600? To explore those sensibilities, I pay close attention to the range of available evidence, much of which is not found in traditional written sources. This leads to my second goal in these essays. To understand the environmental history of the sixteenth-century Atlantic basin, scholars must consider the wide range of potentially relevant evidence. So while I draw on traditional sources, such as early modern European printed books produced by travelers and natural historians, I am equally concerned with the kinds of evidence that have come to us through oral history and visual images. These bodies of knowledge have played too scant a role in scholars' exploration of the initial encounter between peoples in the basin and, more important,

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the impact of myriad subsequent encounters. Historians analyzing images and texts have done brilliant work in limning the relationship between peoples but an insufficient job so far of putting these human meetings into the physical context of a rapidly changing natural world. Further, I integrate insights from folklore and oral history to demonstrate the utility of sources used by scholars in some contexts (for example, historical writings informed by anthropological analysis) but, to date, less frequently in works of environmental and early modern Atlantic history. The natural world existed apart from humans' understanding of it, but every effort to explain its workings drew on culture in the broadest sense. Following from that notion, I draw on texts, images, folklore, and oral history since all can be mined to understand the relationship between nature and culture.

The chapters that follow reveal a shift in ecological sensibilities from the time of the Columbian voyages to the dawn of the seventeenth century. Historians of science in Europe have already pointed to the period from 1500 to 1700 as a period of transition, a time when explanations of the natural world that pivoted on religious explanations gave way to a more naturalistic or secular mode of explanation, although the transition was not evident at all times, multiple perspectives coexisted, and premodern attitudes did not disappear entirely even as late as the Enlightenment.² From this vantage point, a monster, to take one notable example, could be understood at the start of the period as a sign or a punishment from a supreme being (typically the Judeo-Christian God for most Europeans), but by 1700, that same species or specimen could be described as an oddity of nature and hence explained without recourse to divine intervention. Yet at the end of the sixteenth century, at the approximate midpoint of this larger transition, European readers could find both secular and godly explanations for natural phenomena that did not fit into defined categories of what constituted the normal.

What had prompted the move from an ages-old way of looking at nature as the product of a divine creation to a newer naturalistic perspective? Any complex shift in the ways that people understand fundamental phenomena invariably draws from multiple sources and reflects local circumstances, including alterations in economic practices, political regimes, and technological changes. But in this instance, the changes in understanding nature likely lie in the emergence of an Atlantic community in which far-flung peoples came into contact with strangers and new objects. When Europeans and Americans met each other, they exchanged much—plants and goods and animals, among other things. They also shared knowledge, about both the seen and the unseen. Europeans, who left the vast majority of written sources, often mocked indigenous Americans' spiritual beliefs. But there were more similarities between peoples on either side of the basin than some European explorers or their chroniclers might have wanted to admit.

Thoughtful observers knew that these transatlantic encounters, which took place on every level from the microscopic to the theological, prompted alterations in conceptions of nature and strategies for representing it. The physical world changed as the result of the movement of biota. But interior thoughts evolved, too. While it might push the evidence too far to suggest that the meeting of Atlantic peoples prompted the emergence of a basin-wide modern, post-providential sensibility in which nature could always be explained without recourse to divine intervention, surviving written, visual, and oral evidence at least suggests that multiple encounters across the ocean played a decisive role in what the literary scholar Stephen Greenblatt aptly called "the swerve," the shift in awareness from a medieval world (on both sides of the Atlantic) to a modern one.³

In the chapters that follow, I describe a narrative with two strands. On one hand, as historians have known since the pioneering work of Alfred Crosby Jr. almost a half-century ago, the movement of people and biota reshaped human and nonhuman communities across the basin, especially in the Americas, where the devastating impact of Old World infectious disease and the consequences of the arrival of European fauna was already evident by 1600.4 As the environmental historian Donald Worster has noted, Europeans' appropriation of the natural resources of the Americas "touched off a multifaceted revolution in society, economy, politics, and culture, which swept the entire globe."5 On the other hand, there were changes in perceptions about nature, which developed as a result of the real-world changes precipitated by exchange of physical objects and by human understanding of these changes. In Mexico in 1576, to take one notable example, Nahua artists who had likely studied a copy of Pliny's Naturalis Historia in the library of the Real Colegio de Santa Cruz in Tlatelolco embraced his ideas in their depictions of indigenous plants at a time when an epidemic was reducing the Mexican population by perhaps 50 percent, thereby creating a memorial to their world in a visual language used by early modern Europeans to explain phenomena known in ancient Rome.⁶ Environmental change, such incidents suggest, drove psychological revolution well before the English established themselves on the banks of the James River in 1607.

Since European historians have often described the confessional wars that drove violence across the continent in the sixteenth century, I will begin with three different kinds of confession. First, much of what follows comes from sources left by Europeans. There is much here about indigenous Americans' views of nature, but the majority of it—including the insights from the Mexican codex that describes insects—survives through the intervention of Europeans. As a result, readers must be aware that these sources may be doubly mediated. Every source betrays the biases of its creator and those who have found ways to preserve and circulate the knowledge it contains. Early European viewers of Americans, keen as they might

have been to transcribe what they saw or heard accurately, also had to wrestle with the unspoken assumptions that guide anyone's description of another. Their descriptions reflected their own understanding of the physical world. As a result, their writings often included comparisons between what they observed in new locales and what they and their readers knew from their homelands. Such analogous readings went beyond descriptions of nature and became ubiquitous in European works about the Americas in the sixteenth century. Second, this book about the Atlantic world pays little attention to Africa, although in places I incorporate observations about West Africa and the movement of African plants across the ocean. (I review the existing literature about the sixteenth-century environmental history of Africa in the Note on Sources.) Third, while I draw on indigenous American oral history, I do so through printed versions of knowledge once transmitted orally, rather than through gathering oral history on my own. I take this position after spending time with indigenous peoples in both the United States and New Zealand and with the full awareness that those who receive oral knowledge are not necessarily entitled to disseminate it. While it is true that written versions of narratives might reflect earlier chroniclers' indifference to cultural norms, I accept the notion that oral knowledge exists only through the act of telling and that written versions of stories once told are instead approximations of culturally protected memories. I expand on my use of oral history in the Note on Sources, where I also make suggestions for how to use underutilized written (manuscript and print) and visual sources to write a more comprehensive environmental history of the Atlantic basin in the sixteenth century.



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