

Introduction

Beyond the sprawl that consumes so much of Florida, nature conspicuously endows the physical setting. Less evident is nature's significance to history. It was the environment's largesse that enabled the indigenous people of southern Florida to live without agriculture while retaining a sedentary existence, a rare combination of circumstances for a complex and flourishing civilization. Some among their disease-bearing Spanish conquerors believed that Florida might bestow something greater than the gold and silver that eluded them—eternal life. Four centuries later, Florida's natural charms stirred the literary imagination of Henry James, Sidney Lanier, Harriet Beecher Stowe, Stephen Crane, and others. The environment also betrayed features that fascinated minds of empirical temperament. It was primitive, diverse, accessible, and full of bountiful life. It had plants botanists had never seen, and primordial reptiles and birds that excited the emotions of even dour men of science. Few failed to speak of its splendor. In the twentieth century, pioneering ecologists gained notoriety for their studies of the Florida environment.

Humanists, by contrast, were slower to accept the environment as a scholarly resource. The state's rich cultural heritage preoccupied them instead.

But the environment was always there, an intrusive and unyielding variable, agent, or context that eventually crept into the scholars' consciousness. Archaeologists studying Florida's pre-Columbian people were compelled to look to ecological science for a deeper understanding of ancient civilizations. To interpret Florida writers, literary scholars had to familiarize themselves with the canon of nature writing. Political scientists learned that water and land were at the heart of Florida politics, as did historians chronicling Florida's past.

The essays in this collection concern themselves with those two natural assets and more. Environmental historians frame questions about society, politics, and culture around the relationship between people and the natural environment. They see nature not simply as an object of human imposition but as a dynamic agent in history, one that takes an active role in shaping human choices and experiences. Beyond the imagined parameters we place upon the world around us are forces that have always affected human history. Those forces are older than humanity, and ultimately they will likely prove to be more enduring. The dean of environmental history, Donald Worster, argues that they "have long been setting the terms of our existence; they have influenced what we have done and what we have been able to do."¹

Worster is talking about the forces of nature. Florida is an outstanding place to study nature's influence in history in large measure because so many cultures—Native American, Spanish, French, Anglo, African, southern, northern, midwestern, and others—have interacted with the indigenous environment. Comprehending those interactions is essential to expanding one's conception of Florida's past, for the natural environment embodies the values, economies, arts, literature, social relationships, and collective memory of people and their cultures. Each culture was forced to make adjustments to live with the nonhuman world, while at the same time each transformed the natural landscape in some fashion or degree. This is especially true of the twentieth century, the most dramatic period in the environmental history of Florida. During the past century—the period that receives the greatest attention in this volume—Florida has emerged from frontier conditions and ballooned into the country's fourth-largest state.

Despite nature's distinct presence in Florida's past, historians initially failed to gaze beyond human activities. The early histories of Florida, including weighty multivolume texts written by some of the state's best-recognized scholars, subordinate environmental imperatives much in the way that the texts ignore pre-European contact history. A noteworthy example of this

slight to nature is the four-volume state history written by University of Florida professor Junius E. Dovell in 1952. Crafting his subject while surrounded by an impressive cohort of ecologists at his university, Dovell prefaced his study with a description of Florida as a “land of diversities,” which “exist in geology, the flora and fauna, and in the people themselves.” But the rest of his study strays from the direction suggested in the opening pages. Dovell and his fellow anthropocentric historians failed to consider the counterfactual. If Florida had been dry instead of wet, mountainous instead of flat, or cold instead of warm, the state’s history would have been utterly different.²

Two monographs published in the 1940s did attempt to chart new narrative territory when they made the natural environment a centerpiece in Florida’s past. Both appeared as volumes in Rinehart Books’ fabled Rivers of America series. The first, *The St. Johns, a Paradise of Diversities*, by James Branch Cabell (a novelist with a naturalist bent) and Alfred Jackson Hanna, chronicled the “human drama” from the sixteenth to the nineteenth century as it revolved around the natural environment of the St. Johns River. The second, Marjory Stoneman Douglas’s *The Everglades: River of Grass*, not only offered a seminal approach to the state’s history; it also challenged conventional notions of wetlands as wastelands. Hanna, a Rollins College history professor, and Douglas, a south Florida writer, were alert to both nature’s role in history and the goings-on in the nonhuman world of their day. Hanna served as president of the Florida Audubon Society, and Douglas later founded an influential Everglades environmental organization. She and Hanna also wrote general survey history texts that suggested a new trend in interpreting the state’s past. Douglas called her 1967 *Florida: The Long Frontier* a work of environmental geography.³

In general, however, Florida historians were slow to heed the epistemological markers of Douglas and Hanna. Charlton Tebeau opened his 1971 *A History of Florida*, once regarded as a definitive survey text, with “Natural Endowment and First Inhabitants,” a chapter that offers a detailed geographic description of his subject. But the rest of the book treats the environment as little more than a natural resource benefiting humans. In two previous books, *Florida’s Last Frontier* (1957) and *Man in the Everglades* (1964), Tebeau actually came closer to following the Hanna and Douglas tradition, making considerable use of the writings of early-twentieth-century naturalists who warned that human encroachments might lead to Florida’s environmental doom. Frank Chapman, Charles Torrey Simpson, John Kunkel Small, David Fairchild, and Thomas Barbour all conducted important scientific studies in

4 the state and left behind volumes of highly accessible materials offering historically significant observations about the human-nature nexus. Still, historians before the 1980s rarely consulted the documents of the naturalists or paid heed to their alarm. Comfortable with old modes of thought and methodology, historians tended to celebrate civilization's triumphs both outside and within the context of nature. Beyond unruly floods and hurricanes, nature rarely entered their narratives. Treated as passive and inert and therefore insignificant, most of the natural world was taken for granted.⁴

Fortunately, an important catalyst for a new disciplinary direction in Florida history appeared in 1980 written by Syracuse University professor Nelson Manfred Blake. *Land into Water/Water into Land* examined the history of water management in modern Florida, an issue of considerable importance to many Floridians. According to Blake, bureaucrats and developers were the architects of a massive resculpting of the peninsula that began early in the twentieth century. The dredge-and-fill process, perfected in Florida, was their means toward the twin goals of growth and profit. As the state's population grew in hurried leaps—during the boom decades of the 1910s and 1920s, throughout the prosperous aftermath of World War II, and in the wake of residential air conditioning—humans put heavy demands on land and water. To meet the requirements of a particular venture, whether it was building a subdivision or opening agricultural acreage, one element could be easily converted into the other.⁵

Blake was writing Florida history “from the ground up,” to borrow a term from environmental historian Ted Steinberg. Florida scholars took notice. Even in the absence of *Water into Land/Land into Water*, the shift to studying environmental relationships was inevitable. Living in a rapidly changing state made one acutely aware of how society organizes itself around nature. The disappearance of wild Florida was occurring in living memory, and historians only had to drive down the same streets each day to see how quickly the built environment was metastasizing. On a practical level, the archived records of explorers, settlers, soldiers, cattle barons, citrus growers, railroad magnates, and club women were flush with testimonies of the implacability of nature in human events. References to the soil, water, weather, and nonhuman life-forms were nearly as common as those to wars and elections.⁶

The essays in this collection draw on many of these records and explore Florida's past through the lens of environmental history. A principal ambition of this volume is to demonstrate the integral place of the environment in

historical patterns and development. Many of Florida history's most intriguing and important questions cannot be answered or even addressed without paying attention to environmental history. Can we, for example, fully comprehend the motives behind Indian removal in Florida without knowing something about the ecological relationships of the whites who sought to control Indian land? Similar questions might be asked about the course Florida followed to the present. As a whole, this collection gives historical context to many contemporary environmental problems, and with luck it will encourage a more informed dialogue about issues such as land use and habitat preservation. We also hope to enlarge public knowledge of Florida's contributions to the American historical experience and to delineate Florida's place in the broader scope of global environmental history.

An important premise in this volume is that the indigenous flora and fauna, combined with the subtropical climate of the lower peninsula, projected qualities of a paradise, an Eden, or a dreamland. Prior to World War II, and long before tourism bureaus and travel agents used theme parks and beaches to attract visitors, the dense, wet wilderness and highly visible wildlife brought Florida to the attention of the outside world. Even before the Civil War, thousands of sightseers from Jacksonville took steamers up the St. Johns River to see such wonders as Silver Springs, described by one travel writer as, "a mysterious and beautiful freak of nature . . . [an] avenue of liquid sapphire."⁷

During the late nineteenth century, travel writers and landscape painters took the lead in crafting Florida's dreamscape image. But virtually every element of the state's popular culture contributed to the portrayal of Florida as a veritable Eden, naturally beautiful and benignly wild. Music, fiction, biographies, and architecture of the state were all "devoted to, instrumental in, or derived from Florida image making," as one student of the subject has written. Florida was a place where nature, lush and perennially colorful, constantly regenerated itself. Local chambers of commerce were quick to exploit that image. Broward County, for example, promoted itself as the "paradise of the East Coast."⁸

With great abandon, people sought such places, although not always with the same goal in mind. Some went to Florida to restore their physical health or to escape the stress and crowds of the overcivilized North. Florida was America's Riviera. Fresh and unspoiled, it symbolized a new beginning that drew not just convalescing and leisure-seeking visitors but entrepreneurs pursuing new riches. Forces of progress converged on Florida. They trans-

formed the landscape many times over until the wilderness garden, a world of seductive natural beauty, no longer existed.

A common theme suggested in the title of this volume and running through many of the essays is that paradise in Florida seems to have been lost. Polluted water, scarred land, leaching landfill sites, acid rain, unhealthy ozone levels, beach and soil erosion, stressed reefs, depleted marine life, overpopulation, and microclimatic changes have marred Florida's dream-scape image. With only scraps of old nature left, one might argue that today's environment is an artificial one. We may think that we're seeing nature when we look out on a college campus with a pleasant pastoral setting, but what we are admiring, even when that setting includes trees older than the college, is a landscape that reveals human preferences. Environmental historians refer to places that camouflage human intervention as "second nature." Chris Warren offers a brief discussion of second nature in his essay on citrus, which has been around so long in Florida and is found in so many backyards that it feels like nature. Yet backyard fruit is like much of Florida's seemingly unspoiled green spaces and wetlands: they exist because people allow them to do so or because people have created them. Wherever possible, humans are inclined to control nature, even to the point of manipulating the way an ecosystem works. Relieve the engineers and bureaucrats of their duties in the Everglades, which is maintained by some 1,500 miles of water-control devices, and the grandest of all wetlands would likely die or degenerate into something unrecognizable.

Controlling the Florida environment has a long and mixed genealogy—French, Spanish, British, and American. Two of these groups are the focus of the opening essay in the volume's first section. Thomas Hallock is less interested in how European empires, specifically the Spanish and British, controlled nature than in how their subjects interpreted the Florida paradise. While many scholars have examined nature in nineteenth- and twentieth-century Florida literature, Hallock is the first to undertake an ecological survey of the literature—letters, journals, and books—of those Europeans who explored and settled the peninsula. Florida was not simply a paradise to these Europeans; the impressions it left with them were varied and complex. On one level, Florida was a harsh place that forced newcomers to meet the environment on its own terms. The aborigines had succeeded in doing that long before contact with Europeans, Hallock points out, while making an argument for further study of their own narrative of the landscape. In this complex real world, what emerged in the minds of Europeans and conveyed to the

written word was an interesting amalgamation of truth and myth, images of the like that continued to inform perceptions for centuries to come.

The texts of European explorers abstracted the Florida environment, whether hospitable or hostile, within a particular cultural context. In *Uncommon Ground*, William Cronon argues that nature as Americans know it is an idea, existing in many forms, that represents the commingling of artifice and ecological forms.⁹ Similarly, paradise was (and is) an admixture of the imagined and the actual, a dynamic concept or state of mind that varied with the sentiments and multilayered visions of a given culture and generation.

The social construction of paradise was in part the result of humans separating themselves from nature. With few exceptions, to be *of* nature was to be savage; to be apart from it was to be civilized. Western tradition has always positioned humans above the nonhuman world, with the former assuming the moral imperative to take dominion over the latter. Donald Worster observes that Western culture has a “tendency to measure everything in human terms, to reduce the world to a succession of cultural ideas, to frame everything as a confrontation between rival abstractions, or to insist on the triumph of the human imagination over the natural world.” As Worster’s comment suggests, environmental historians understand nature as the essential context of human existence, and the only one of the two—nature and humanity—that can survive without the other. Environmental historians regard their human subjects as one component in a larger interconnected world, and yet they recognize that those same subjects remove themselves intellectually and emotionally from nature.¹⁰

One of Florida’s first naturalists, William Bartram, was determined to avoid such removal. Charlotte Porter’s essay follows the extraordinary travels of Bartram through colonial East Florida during his four-year, 2,400-mile journey across the southern colonies. Exploring Florida when it was part of the British empire (1763–83), Bartram collected a wide range of specimens and scientific data. His journey produced the most detailed observations of Florida nature before statehood. Captured in texts as well as illustrations, Bartram’s Florida is at times savage and contentious and at other times serene and inviting. But it is always exotic, an Elysium, as he calls it, and it is both real and imagined. His journal, known today as *Travels*, contains not only scientific details but equally fascinating observations of human interaction—both of Indians and British subjects—with the environment. When gazing upon a landscape, he accepted humans as part of the natural community, a perspective not taken by the ordinary naturalist or scientist of the day.

Bartram had a significant influence on Florida nature writers a century later, Porter points out, and his observations remain an invaluable tool for environmental planning—restoring paradise—in northeastern Florida.

Scores of naturalists followed Bartram to Florida over the next two centuries. One was University of Florida herpetologist Archie Carr, whom Frederick R. Davis writes about in this collection. Carr referred to natural Florida as an Eden, but for him Eden was not a pastoral landscape revealing human improvements. It was an ecological place rich in the matter of scientific study. Carr, who earned professional accolades for his pioneering work with sea turtles, carved out a distinguished five-decade career at the University of Florida, from the 1930s to the 1980s. As Davis points out, Carr's talents included a scientist's eye for observation and a writer's sense of place. Although research often took him to Central America and Africa, the place he always came back to, emotionally and intellectually, was Florida. Carr came from a long line of naturalists whose writings introduced Florida's unique biology to a national audience. But few, if any, were as eloquent and prolific as Carr. Prepared for both academic and general audiences, his writings eventually acquired a conservationist tone. Though characteristically subtle, his advocacy carried the backing of scientific knowledge and the poignancy of descriptive prose.

Most people did not see Florida from the perspective of a biologist. Whereas Carr reveled in the chaotic quality of nature, others idealized paradise as orderly, tranquil, and bountiful. Since early Western thought, paradise meant safe and easy living and a mild climate. It was reminiscent of the original garden. "The region is as quiet as in the days of Adam," the historian George Bancroft wrote from the St. Johns River in 1855 to his wife in New York; "the dense woods came down to the water's edge; the yellow jasmine in full bloom almost hung on the water. I have seen nothing like it." Paradise resonated in many of Florida's offerings; and yet Florida could also disappoint people's expectations. When and where conditions were not in harmony with perceptions of paradise, some people took it as their duty to reconstruct or improve upon the natural setting.¹¹

This presumption was perhaps best illustrated in the mission of the Civilian Conservation Corps (CCC) in Florida. Dave Nelson's essay explores how the Depression-era relief agency helped to define nature for Florida residents and visitors. Provisioned with shovels, axes, and bulldozers, the young men of the corps were assigned the task of overhauling Florida's one state park and building new ones. As with national parks, the state parks were designed

to conform to a wilderness ideal, meaning a place not too wild for humans and one that satisfied popular notions of natural beauty. The parks, in other words, were manufactured environments: the CCC removed unwanted indigenous vegetation and animals; planted new, sometimes exotic species; ditched and drained parts of the land; and opened up wild areas with roads, bridges, and recreational spots. In the end, the CCC reclaimed paradise from unviolated nature.

Improving paradise sometimes jeopardized Florida's ecology, the physical foundation of paradise. The natural assets of Florida do not resemble those of other states. The state is unusually flat (the desired condition for an agricultural paradise), reaching a topographical height of only 345 feet. Yet the landscape lacks uniformity. Before the days of heavy logging after the Civil War, north Florida had vast, cathedral-like longleaf pine forests, which were routinely stimulated by lightning fires. An extant and contrasting feature of terrestrial Florida—one that belies visions of paradise—is its scrublands, known among ecologists as palmetto, pine, wire-grass, and limestone flatwoods. Florida is also well known for its myriad forms of hammocks (dense hardwood and palm enclaves with an understory of organic humus): low, upland, mesophytic, and tropical. It is the only state on the continent that reaches into a subtropical climatic region, which lends diversity to its native communities of flora and fauna. With 3,000 species of temperate and tropical plants, Florida is a "botanical paradise," as John Kunkel Small once observed. Equally impressive, Florida has more bird species (475) than any continental state, ranging in size from the almost weightless ruby-throated hummingbird to the more-than-four-foot great blue heron. Their nonavian neighbors include 94 species of wild mammals, and 162 species and subspecies of reptile and amphibian fauna.¹²

None of these species could exist without water. Florida is the wettest state on the continent, with the highest rainfall and the greatest proportion of ground and surface water. Chris Meindl's essay traces the geographic history of the state's most important, most conspicuous—and most abused—natural feature. Florida's water has been polluted, moved from one place to another, and drained away. The result has been waste and miscalculations about its availability. How much surface water did Florida actually have at the time of statehood and how much it since has lost are questions foremost on Meindl's mind. He begins tackling those questions by exploring the conceptual definitions of wetlands and by illustrating their ecological importance. He also examines some of the signature water-control projects in Florida history, de-

signed to fulfill aspirations of growth or visions of an agrarian Arcadia. If the past is indeed prelude, the future does not bode well for Florida's wetlands, Meindl speculates, for all of life's events in Florida come back to water.

Controlling water required the tools of science and technology, innovations that have usually come with the backing of either public policy or market incentives. Humanity has benefited in many ways from scientific insights and technological developments. Advances in medicine offer one case in point. At the same time, humans have acquired new powers to destroy and exploit, with people and nature suffering the impact. One need not elaborate on the development and use of the atomic bomb at the end of World War II to support this argument. For good or bad, humans can remake the world in dramatic ways. From beach renourishment to highway construction, Florida offers many examples of the power of science and technology to improve the quality of life and to alter civilization's relationship with the environment.

Air conditioning, which affects virtually every Floridian's life, puts this dynamic in perspective. Within the course of a few decades during the second half of the twentieth century, air conditioning profoundly changed the South, and Florida in particular. By making the hot and humid summer months more hospitable, air conditioning expanded tourism in Florida from a six-month to a year-round industry, stimulating phenomenal population growth and accelerating the relocation of business and industry from the Northeast and Midwest to the nation's southernmost state. The demographic change in Florida led to a regional power shift and in the process altered the politics, economy, architecture, and community life of the state. The assurance of a technologically engineered mild climate gave new life to the paradise myth, but not without a heavy price. Air conditioning has become the single greatest source of residential energy consumption in the state (Floridians spent \$1.8 billion to run their air conditioners in 1997), and virtually every environmental problem associated with Florida's population growth, from urban sprawl to highway congestion, has been exacerbated by the rise of the air-conditioning culture.¹³

The second group of essays in this volume show other ways in which science and technology have complicated the human relationship with the environment. With public policy adding another layer to the mix, science and technology have not only been responsible for a host of environmental problems; they have also been employed to fix them. That has been the central paradox in the modern history of the Everglades. In 2000, Congress and the Florida legislature jointly pledged \$7.8 billion to fund the Comprehensive

Everglades Restoration Project. Yet, as David McCally demonstrates in his essay, the nation's most ambitious environmental engineering rescue project is a response to a century of abuse for which science was in part responsible. Dating back to the mid-nineteenth century, Floridians used scientific studies, albeit poor ones, to reinforce their notion of the viability of converting the Everglades into dry and productive land. Advocates of Everglades drainage, McCally explains, were chasing the Florida dream, which he defines as an exotic variant of the "American desire for better life in a new world." Arguing that science and the Florida dream were mutually reinforcing, McCally examines the role of this dialectic in the destruction of Everglades ecology. He ultimately notes the irony in the shift from destruction to restoration. On one level, Floridians' relationship with the Everglades has not changed. It remains freighted with illusions about the possibilities of science to reconstruct nature to conform to the protean Florida dream. Just as Floridians believed that they could engineer an agrarian Arcadia out of a fetid swamp, they now trust that science will save them from their environmental follies.

If science for the benefit of civilization could refashion a landscape into a completely different form, it could presumably improve the quality of human life by controlling a pesky, airborne insect. For thousands of years, humans had lived with mosquitoes. But by the twentieth century, Florida residents, instilled with a progressive-era confidence that public-health initiatives could ameliorate the natural environment, decided to suffer no longer. Paradise was supposed to be a hospitable place. Gordon Patterson points out in his essay that by the 1910s scientists had come to understand the mosquito as more than a bothersome pest. Viewing the insect as a vector of diseases like malaria and as a major hazard, the State Board of Health and the U.S. Public Health Service launched what Patterson describes as a war against mosquitoes. Battles were not limited to miasmatic swamps, however. In examining the comparatively crude though sometimes effective science of mosquito control in the days before pesticides, Patterson also tells the story of public health officials who struggled to free themselves from the mire of state politics.

Florida citrus, by contrast, has always been a blessed child of Florida politicians. One might think that oranges are Florida's original fruit. But the origins and history of citrus in Florida environment are complicated, as Chris Warren's contribution to this collection indicates. Warren begins with European contact and follows the journey of Florida citrus agriculture through space and time. Citrus agriculture has led a nomadic existence in Florida, prompting Warren to investigate the environmental imperatives behind its

migration. He is also interested in the transformation of citrus from a crop to a product—in particular as a concentrate—and the environmental factors and technological innovations that shaped that transformation. Following citrus's journey through Florida has left Warren with many intriguing questions about the environmental history of the fruit crop. The answers to those questions beg for a larger work on this understudied subject in Florida.

If the blossoms and bright fruit of citrus evoke the color and scent of paradise, hurricanes spoil the myth. They are not simply a Florida phenomenon. They come from somewhere distant, inflict their damage, and then move on. Yet they have terrorized every culture that has established itself in Florida. Raymond Arsenault's essay tracks the historical evolution of hurricanes from private storms to public storms. Virtually everything about hurricanes was a matter of local or personal concern until the turn of the twentieth century, when hurricanes gradually became institutionalized in weather technology, the affairs of the state, and the national consciousness. Central to Arsenault's study is the argument that the advancement of forecasting technology was dependent on government activism and the growing expectation that the state take responsibility for the public's safety. The turning point in the government's role to protect U.S. citizens from wrathful storms came with the crushing hurricanes that blew through southern Florida in the 1920s and 1930s. Although the public storm had been born, it did not reach maturity until after World War II. Hurricanes, of course, continued to inflict major damage despite rising expectations of mitigation and control; and as late as 1992, Hurricane Andrew demonstrated nature's enduring power over the state.

In addition to the application of science to nature, Arsenault's essay illuminates another theme in environmental history. In popular and bureaucratic parlance, hurricanes, like earthquakes and floods, are invariably labeled natural disasters—acts of God or nature. Yet environmental historians do not see such phenomena as altogether natural. Humans lend destructive power to hurricanes and their counterparts by placing themselves in harm's way—by, for example, building and rebuilding their homes and businesses on a fault line, in a flood plain, or on a beachfront.¹⁴ In turn, perceptions of nature's harmful tendencies harden civilization's resolve to control the non-human world. The unqualified belief in the human capacity to impose its will upon nature—to make it more amenable to human desires and expectations—has broadened civilization's imprint on the land. As a result, Florida has undergone a significant transformation, with old landscapes turned into

something new and different. In the end, the despoliation of nature caused by human activities has been more extensive and devastating than all of Florida's hurricanes combined. As nature mends self-inflicted wounds, humans leave new scars.

Florida received its first scars some 13,000 years ago when humans migrated to the region. It is naïve to think that a culture, even one of indigenous peoples, has ever existed in perfect harmony with the natural environment. All cultures have in some way left their mark, with some more lasting than others. The environmental consequences of a sixteenth-century Calusa shell midden, for example, are insignificant when compared with those of a modern-day county landfill, and only the former has room in the paradise myth. Modern society has engineered the most important environmental damage. Leading off the collection's third organizing theme, despoliation, Jack E. Davis's essay argues that if nature embodied Florida's original image, then serious assaults on nature threatened that image. The first assaults came in the late nineteenth and early twentieth centuries, and not by developers but by hunters, when world markets awarded a monetary value to some of Florida's most distinctive flora and fauna. The "living aesthetic," which had enraptured William Bartram and his predecessors, was Florida's defining quality, what Americans wrote about and what tourists came to see and experience. The exploitation of novelties of nature, specifically alligators and plume birds, led to a level of wildlife destruction in Florida equal to that of the bison on the western plains. By the early twentieth century, lovers of wild Florida had begun grieving for a vanishing Eden.

Development is the sequel to wildlife destruction in the physical transformation of Florida in the modern period. The expansion of civilization's artifacts prevented "shot out" environments from resuming their own course of history, from returning to undisturbed, or minimally disturbed, ecological sequences. William Cronon argues that how successfully a given environment reproduces itself when people are present is the "best measure of a culture's ecological stability." In keeping with this idea, one can argue that the encroachment of the built environment on nature is a subject that deserves more attention than environmental historians have given it. In twentieth-century Florida history, the displacement of wild spaces by human-made structures is a dominant and yet clearly underexplored theme. What people built and for what reasons, why they chose a particular site, what materials they used and architectural styles they followed, what construction practices they employed, how they and their structures interacted with the natural ele-

ments, and how all these things changed over time are questions worth pursuing. One might also ask how the state and local governments influenced private decisions in residential and commercial construction. For example, the development of infrastructure—roads, bridges, and utilities—was essential to opening up wilderness spaces and advancing private development.¹⁵

Few public-funded construction projects in Florida raise more questions about environmental impact than does the Tamiami Trail, an asphalt ribbon built across the Everglades in the 1920s. Although the 273-mile highway connecting Miami to Tampa was completed in 1928 on the eve of the Great Depression, the idea of a roadway that, like railroads in the Great West, would benefit tourism, business, and development was conceived before Florida's first real estate boom. The Tamiami Trail did more than facilitate development, however, as Gary Garret tells us in his contribution to this collection. In addition to connecting cities once separated by wilderness, the roadway bifurcated the ecosystem of southern Florida and disrupted the lives of the Seminoles who considered the area their home. The construction of the highway was a veritable "mission of conquest" designed to subdue both nature and humans. Although the Tamiami Trail is currently regarded as a scenic highway, it inflicted "injuries to the land, water, and inhabitants that continue to be felt today and may yet prove fatal" to the Everglades.

Since European settlement, agricultural interests have been a main driving force behind infrastructure development in Florida. Similarly, in a trend that dates back to the first Spanish period, much of wild Florida (approximately 500,000 acres in the Everglades alone) has been replaced by commercial farmland. Beginning in the late nineteenth century, literature promoting land sales portrayed Florida as a farmer's paradise, a pastoral garden where the soil was rich and the climate perfect. On an aesthetic level, and certainly as illustrations in sales literature suggested, agricultural development seemed like a benign transformation of the landscape. But commercial farming gave a perverse twist to the Jeffersonian dream of the independent yeoman farmer, the intended beneficiary of land policies that facilitated corporate agriculture. Commercial farming also epitomized the commodification of the earth's bounties, mandating practices that have been particularly harmful to the environment, and generating ecological changes that reach well beyond crop fields. In American culture, nature and natural resources are virtually synonymous, and America puts great stock in resource exploitation, the fuel of the country's economic growth. The commercial development of the Everglades is one of Florida's best-known stories, with the effects

of sugar growing and cattle ranching receiving considerable attention in news periodicals, scholarly studies, and the chambers of the state legislature and the U.S. Congress. The Everglades, however, account for only one of countless places in Florida where despoliation has followed agricultural development.

Lake Apopka is one such place, as Nano Riley's essay reveals. Riley examines the lake's devolution from Florida's second-largest and perhaps most beautiful body of freshwater to a virtually dead lake, reduced in size to the state's fourth-largest. Chemical pesticides and fertilizers, the essential tools of modern agriculture, turned Lake Apopka into a toxic cesspool. Just as these inorganic materials threatened indigenous wildlife, Riley informs her readers, they jeopardized the health of migrant farmworkers. Exploiting the environment went hand in hand with exploiting labor. Riley, like David McCally in his study of the Everglades, also touches on the theme of ecology restoration, a relatively new science that, as the story of Lake Apopka shows, remains at the experimental level. The state initiated efforts to clean up the lake in the 1990s, but bureaucratic mistakes led to a massive wildlife kill. Lake Apopka's devastation and rejuvenation, Riley proposes, offer lessons for the future.

The Lake Apopka cleanup initiatives were the culmination of a long history of environmental mistakes. By the late twentieth century, when the transformation of many landscapes had gone beyond the point of preservation, restoration had become the logical complement to environmental protection, the final organizing theme in this collection. The history of environmentalism in Florida and elsewhere represents a turn from progressive-era conservation to the modern environmental movement. In the former, which emerged in full force at the beginning of the twentieth century, activists were generally amateurs who performed their duties without the benefit of ecological knowledge. Their goals were often to conserve natural resources to ensure their continuous availability for commercial use. On many occasions, aesthetic qualities, spiritual benefits, or wildlife destruction—but rarely biological considerations—prompted calls for complete preservation of a wilderness area or the creation of a wildlife sanctuary. By the 1960s, however, Americans were growing increasingly wary of living in a dangerously polluted world. At the same time, ecological scientists had begun to insist that the health of nature was a barometer for human health itself. Joining forces with volunteers and concerned citizens, professional environmentalists helped to foster a powerful national environmental movement that pressed for fundamental reform.

Florida, reeling from the effects of explosive population growth and unbridled development, supported one of the most active environmental communities in the country. The roots of that community go back to the dawn of the twentieth century, and women figured prominently in early conservation causes in Florida. In an essay that opens with the early years of women activists, Jack E. Davis chronicles the experiences of Florida's best-known environmentalist, Marjory Stoneman Douglas, who in the late twentieth century led the cause to regain the ecological stability of the Everglades. Her long and socially active life spanned both progressive conservation and the modern environmental movement. Through Douglas's maturing as a full-fledged environmentalist, Davis compares and contrasts those two eras, exploring the catalysts for change in American environmentalism. He ultimately debunks popular myths about Douglas's work as protector of the Everglades early in the twentieth century, noting that her environmental sensibilities evolved along with the larger movement over the course of the century.

Before Douglas emerged as a full-time Everglades activist, others in Florida were working to protect the environment. One was Governor LeRoy Collins. Best known by historians for his shift on the civil rights question, Collins proved to be a stubborn environmentalist. Historians generally credit the 1962 publication of Rachel Carson's *Silent Spring* with ushering in the modern environmental movement. But, as Bruce Stephenson's essay on St. Petersburg shows, in trying to stop a major dredge-and-fill project in Boca Ciega Bay, Collins was already exhibiting a modern environmental consciousness in the 1950s. The development of Boca Ciega Bay reflected the growth mentality that had shaped municipal planning since the progressive era, a period when few Florida cities had zoning ordinances but when city planners, including St. Petersburg's, practiced a soon-to-be-forgotten art of designing with nature. Stephenson's study is the story of how an environmentally astute governor and grassroots activists, aided by the new science of ecology, tried to demonstrate that conventional ways of thinking about the environment had desecrated the beauty and luster of Florida and the biological struts of a once-vital bay.

Twenty years later, another Florida governor found himself in a battle against developers and an entrenched growth mentality. Appalled by Florida's unimpeded march toward environmental degradation, Governor Reubin Askew turned his attention to the Big Cypress Swamp, located on the northwestern fringe of the Everglades. As Gordon Harvey's essay demonstrates, ecologists had educated Askew on the importance of Big Cypress as a water-

shed for the Everglades, which served as the habitat for numerous endangered species. Indeed, the great wetland itself was struggling to survive the onslaught of agricultural expansion around Lake Okeechobee and development in the southeast. Harvey's account of Askew's campaign to gain federal protection for the Big Cypress illuminates a new age in environmental politics, which included the unlikely environmental policies of the Richard Nixon administration, collaborative initiatives between state and federal governments, the emergence of ecological scientists as activists, and the subordination of property rights to environmental protection.

A parallel story to the Big Cypress saga, and one with similar elements, is that of the Cross-Florida Barge Canal. Located in north central Florida, the canal represented an environmental insult of significant proportion. If completed, the artificial commercial waterway would have severed the Florida peninsula, flooded wilderness areas, silted clear-running rivers and streams, and replaced one of the state's first natural attractions, the already-damaged Ocklawaha River. The undisturbed beauty of the Ocklawaha had once invited tourists and writers of the nineteenth century to speak of Florida as paradise. After many fits and starts early in the next century, Lee Irby explains in the volume's last essay, the construction of the canal began in earnest during the Cold War, though by then the canal had become a controversial project. In contrast to the Big Cypress episode, the campaign to stop the canal was led not by a governor but rather by a grassroots organization, Florida Defenders of the Environment (FDE). Founded and led by Marjorie Harris Carr, a scientist by training and the wife of Archie Carr, FDE epitomized the single-issue, citizen-based organizations that defined an important impulse in the modern movement. In the struggle over the canal, Carr and her colleagues were forced to pit scientific rationale against arguments for economic betterment, national security, and recreational benefits. The barge was stopped, but not before the restructuring of much of the river and the landscape along the canal corridor. For environmental activists, many issues were left unresolved.

Florida history is replete with ambiguous victories for environmentalists. This is not to say that developers and bureaucrats, or humans generally, have subdued nature beyond redemption or relevance. Natural forces continue to exert a powerful influence on the state, and some of the most challenging problems that Floridians face in the twenty-first century are related to their dependence on the state's natural assets. Anticipated population growth heightens the challenges. Studies project that by 2030, 23.5 million people will be living in Florida. Not only will this population put a greater demand

on basic services, it will move people out to the few remaining undeveloped landscapes. Some places in Florida, such as Pinellas County, are already built out.¹⁶

The most dramatic problem, and central to all others, is how to sustain a balance between the water requirements of the enlarged population and an ecology that must remain healthy to yield that basic resource. Florida has a seeming overabundance of water, but as Chris Meindl tells us, Floridians have a long history of squandering it. Development continues to interfere with the region's elaborate hydrological system, and Florida, the wettest state, has already begun to mimic the challenges and dubious solutions of water supply in arid southern California. Much like Los Angeles, for example, which diverts water from lakes and rivers hundreds of miles away, communities in southern Florida are piping in freshwater from other parts of the state, altering the environment in those areas. In part to avoid "water wars" between regions, Tampa in 2003 opened the state's first and the nation's largest desalinization plant, which in theory will provide uninterrupted service to the area's two million people even in times of drought. By all appearances, technology has once again provided a panacea. For developers, businesses, utility companies, and the Southwest Florida Water Management District, desalinization is a practical solution to the demands of an expanding population—one that will allow growth to continue. Yet for activists opposed to continuing sprawl and more towering condominiums, the energy-intensive technology comes with its own set of environmental problems and gives continued reign to old destructive habits of growth.¹⁷

As has been argued here, loss of unspoiled places has been a central if sometimes overlooked theme in Florida history. And yet, even though engineered landscapes have come to define the state, Florida retains much of its natural bounty and beauty. By the end of the twentieth century, 530 plants and animals had made the state's list of endangered, threatened, and commercially exploited species (104 on the federal endangered and threatened list). But during this same period many more species had shown themselves to be remarkably adaptive and resilient. Some, like the alligator and white ibis, have rebounded from dangerously low population levels. These small victories for wildlife can be attributed in part to Florida's aggressive and highly organized environmental community. A reflection of that community's efforts, the state's environmental laws and regulations are the most comprehensive in the region (although they are not always aggressively enforced and are sometimes legislated around), and policymakers from both political

parties have earned merit for green initiatives. Archie Carr, who regarded wildlife and wilderness losses in Florida as the “most spectacular events” in the post–World War II period, held out hope for Floridians to rise to a “new stewardship” and save what was left of predevelopment Florida. Trying to avoid falling into the “trap of nostalgia and indignation,” he devoted his last book to a celebration of Florida’s natural wonders. Turning his eye to the beauty that remained, he found much in which to indulge himself.¹⁸

The essays in this collection, too, speak about more than loss and destruction. They tell about images, cultural values, public policy making, and nature shaping cultures. They represent a wide range of topics, but altogether they constitute something less than a comprehensive examination of Florida’s environmental history. As with any collection of this sort, much remains to be explored. Historians have not yet, for example, given suitable attention to the changing ecological habits of Florida Indians, the ecological stresses of commercial fishing on the marine environment, the consequences of septic tank effluence on groundwater and coastal waters, the ecological implications and politics of endangered species, and the history and impact of environmental laws and policy. The public-service career of Nathaniel Reed, environmental advisor to Republican Governor Claude Kirk and President Richard Nixon, warrants a full-scale study, as do the environmental policies of Kirk and other Florida governors. The founding of Florida Audubon in 1900, one of the earliest chapters in the country, also awaits examination. Florida tourism has received very little scholarly attention in general, and the environmental implications of thirty to fifty million annual visitors have all but been ignored.

As more students of Florida’s past take an interest in environmental topics, the state’s historiographical landscape will be reshaped by new sources of understanding and complexity. And as the state continues to undergo demographic and material change, public awareness of environmental issues will no doubt expand. But whether all of this will take place in the hopeful contest of a “paradise” partially regained, or in the dreaded context of a paradise lost, remains to be seen. When Europeans first came to Florida, they had grand schemes in mind. As alluring as natural Florida was, it could not satisfy their material, aesthetic, and cultural demands. Florida, for all its natural beauty and bounty, required an almost endless series of makeovers: a forest to be cleared; a river to be dammed; a wetland to be drained; a road or subdivision to be built. Today, after five centuries of European and American initiative and innovation, the result lies before us—a thriving, vital set of human com-

munities resting on a not-so-vital base of land and water inhabited by endangered species and threatened by all manner of pollutants. The time of reckoning, if not already here, is fast approaching, and modern Floridians can ill afford to ignore the fragile foundations of the civilization that they and their ancestors have wrought. Finding and implementing solutions to Florida's environmental problems are tasks that will test the wisdom and courage of all Floridians in the twenty-first century. But it is our contention that professional historians have a special responsibility to do what they can to provide context and historical meaning for public officials and other citizens trying to address this difficult and complex set of issues. Without an informed understanding of the past—without an appreciation for the lessons of environmental history—there is little chance that today's Floridians, or tomorrow's, will be able to meet the formidable challenge of achieving a sustainable balance of natural and human interests. With this in mind, we offer the sixteen essays in this volume as the first installment of what we hope will become an increasingly important and engaged field of scholarly inquiry.

Notes

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