## H-Net Reviews

**Richard Campanella.** *Draining New Orleans: The 300-Year Quest to Dewater the Crescent City.* Baton Rouge: Louisiana State University Press, 2023. Illustrations. 424 pp. \$19.95, e-book, ISBN 978-0-8071-7941-3.



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"Drainage is a process and not an agent. The agent behind drainage is us; it is three centuries' worth of human decisions made to wring water out of wet dirt to render a city dry. Decades of trying were followed by apparent triumphs, and now, increasingly, came the tragedies" (p. 228).

We all know where a book about water, infrastructure, and New Orleans will end up: in late August 2005, with Hurricane Katrina stalling out over the sinking city. Katrina epitomizes the "tragedy" of New Orleans: a flooded city with a fraught racial history, much of it built below sea level, whose whole existence has entailed a struggle between people and water. The storm is an inexorable force that bends historical writing about the city toward it. However, the best writing about this storm does not warp under its weight. Richard Campanella, in Draining New Orleans: The 300-Year Quest to Dewater the Crescent City, if I may presume, understands that his book must provide a robust explanation for why Katrina flooded New Orleans to the extent that it did, or else why would one write a history of drainage in

the city? He delivers that and more in his history of New Orleans's drainage infrastructure.

New Orleans and the Lower Mississippi valley have intrigued environmental historians more so than any other city and watershed in the American South, or perhaps even within the United States. Therefore, I began Campanella's book uncertain what he would contribute on the history of New Orleans and its environs that would cause it to stand out from the remarkable books on the area's historical built environment by Craig Colten (An Unnatural Metropolis: Wresting New Orleans from Nature [2005]), Kathryn Olivarius (Necropolis: Disease, Power, and Capitalism in the Cotton Kingdom [2022]), Andy Horowitz (Katrina: A History, 1915-2015 [2020]), Christopher Morris (The Big Muddy: An Environmental History of the Mississippi and Its Peoples [2012]), and Lawrence N. Powell (An Accidental City: Improvising New Orleans [2013]), among others. Yet I came away from this book with deeper knowledge and understanding of the human folly embedded within what might seem like otherwise dry bureaucratic debates over policy and infrastructure.

In his march through time, Campanella surveys the rise and fall of numerous "drainage kings": "lordly colonials, brilliant engineers, noblesse oblige elites, savvy entrepreneurs, hardworking contractors, and dedicated public servants, as well as the occasional rogue, huckster, and fraud" (p. 5). Though varied in character, personality, and goals, Campanella's kings are extremely limited in their racial and class diversity. It is not until his chapters on the late twentieth and early twenty-first centuries that anyone who is not white is named as an actor in the pageant of New Orleans's drainage history, beyond occasional references to the enslaved and exploited workforces who realized the vision of the drainage kings. Even so, through his drainage kings, he provides the reader with vivid, sometimes humorous, always incisive, completely recognizable portraits of human nature. If environmental historians have been accused of neglecting the human within their scholarship, let Campanella never be.

Campanella explains that his book's purpose is "understanding how this dewatering happened in New Orleans, who engineered it and why, and what consequences it had" (p. 5). His story begins with a page on Native peoples' use of the landscape that skips by quickly to make way for the engineer. In this case, the engineer was Adrien de Pauger, the assistant engineer for the Compagnie d'Occident, which held the monopoly charter on France's Louisiana. Pauger is the first of Campanella's kings, a pugnacious, high-minded colonial bureaucrat fixated on his object: "a rational, visionary, and grand plan" for New Orleans, which was then but a "third-rate priority of a second-rate company chartered by an indebted empire beleaguered by a cumbersome colony" (pp. 16, 14). He took advantage of a 1722 hurricane that struck the beleaguered, muddy village established four years earlier to enact a new plan to move New Orleans onto the Mississippi River's natural levee.

Of Campanella's kings, Pauger has perhaps the most successful legacy, simply because he was victorious in his quest to move the nascent city to higher ground. But his vision of a city perched above water was not precisely the same that his pragmatic urban-planning descendants sought to realize: of a city that should be emptied of water. The natural levee is limited in space, and as New Orleans grew, dewatering the rest of the city became an obsession. But as Campanella makes clear, *deciding* how to effectively drain the city was as much of a challenge as actually doing so. He traces centuries of squabbling and inefficiencies as locals with land and power subdivided the urban landscape, deflected blame, and offloaded responsibility in pursuit of drainage. The urgency, importance, and value of drainage was not matched with competency or a comprehensive plan, even though, as Campanella states, "in this environment, drainage was nearly as intrinsic to the concept of 'original value' as landownership itself" (p. 28).

In the first century of the city's history, which Campanella chronicles in chapters 1 and 2, residents complained of mud, battled disease, drained bayous, constructed neighborhoods, and fought over riverside land. In chapter 3, he turns toward the mid-nineteenth century, and in chapters 3 through 6, health, early efforts to centralize authority for the purposes of drainage, and the development of commercial interests through drainage predominantly occupy his analysis. Regarding the last two, it is hard to trace a cohesive narrative thread through the rest of the 1800s; efforts to drain land between New Orleans and Lake Pontchartrain, cut navigation channels, and dig canals usually landed somewhere between unrealized schemes and piecemeal projects. But yellow fever ties these chapters together, and Campanella emphasizes that "the most vocal advocates for drainage were not drainage experts; they were health experts" (p. 78). Over the second half of the 1800s, physicians and scientists hunted for the culprit behind yellow fever, casting blame on swamps, small catchments common in urban areas, and finally, and correctly, mosquitos. This discovery prompted change: the city's 1895 "Report on the Drainage of the City of New Orleans" recommended a centralized drainage system, which worked its way through the halls of power through 1902, when the state passed a bill providing for a "single, tax-funded, professionally staffed, state-backed public utility for sewage, water, *and* drainage" (p. 130).

The history of the Sewage, Water, and Drainage Board occupies the rest of the book. In chapters 7 and 8, Campanella introduces us to engineers, like Albert Baldwin Wood, who designed powerful pumps in the early 1900s that are still functionally in use today, as well as a system for handling sewage and water distribution. These innovations dropped disease and death rates with remarkable speed. But we also meet early twentieth-century developers, like drainage kings George Alfred Hero and Colonel R. E. E. De Montluzin, who took Wood's inventions and used them to purchase swampland between the natural levee and Lake Pontchartrain, drain it, and build on it. And on page 129, Campanella also includes the first, and one of only few, named woman of his book: Kate M. Gordon, a white suffragist who organized the Woman's Sewerage and Drainage League. By the 1920s, Campanella writes, "the framework for draining the modern metropolis was largely inscribed into the landscape," and it was a "world-class engineering accomplishment" (pp. 198, 197).

However, that accomplishment was fraught. The suburban development on the drained land contributed to heightened racial segregation, due to, among other factors, discriminatory housing covenants. Furthermore, it was not a lasting accomplishment, as the swamps were not permanently dewatered. In the second half of the twentieth century, which Campanella follows in chapters 9 and 10, the impermanence of this feat became alarmingly obvious. The dewatered soil of the drained swamps desiccated and shrank, and parts of the metropolis began to sink. Meteorological woes bedeviled the city, with eight hurricanes striking New Orleans between 1947 and 1969. This era saw a sea change in New Orleans: "the days of the drainage kings were over," as federal, state, and local officials scrambled to pour money to shore up the city, "a downward-spiraling feedback loop of sunk costs justifying further expenditures" (p. 241). There was no longer innovation, only mitigation.

Not even the 823 million federal dollars pumped into New Orleans from 1995 and 2005 could save the city. In chapters 11 and 12, Campanella leads us through his narrative of Hurricane Katrina and its consequences. He crowns new drainage kings, the most self-sacrificing of any in his book: the Sewage and Water Board workers who manned their posts through the storm, at great risk to their lives, working around the clock to empty the city of the hurricane's surge and rainwater.

At first, it did not seem as though anything would change. Campanella points out that through the early 2010s, authorities rebuilt old systems, levees and floodwalls reaching higher, pumps stronger. All of this is, grimly, against Campanella's backdrop of the threat of the climate crisis, strengthened hurricanes, and continued subsidence.

But he does not leave us without hope, and it is clear that Campanella does not believe in submitting to despair, abandoning the city, or regarding environmental history as a linear tale of irreversible degradation. We meet one last "king," though "rewatering" New Orleans is instead his purpose: David Waggonner, head of a New Orleans-based architecture/environment firm, who employs "blue and green" tactics to rewater and regreen as much of the city as possible, post-Katrina. Campanella ends with Waggonner intentionally, though prescriptively. The final vignette gives a great deal of credit to Waggonner in advocating neither for a city that perches above floodwaters nor for one entirely emptied of water, but instead for a city with restored flooding capabilities into renewed waterways and green spaces. This is fair enough; but Campanella provides little sense as to how Waggonner fits into the contemporary ecosystem of urban planners, activists, Sewage and Water Board workers, community organizers, and other New Orleanians who also are fighting for the city's more just and sustainable future. Here is where Campanella's drainage kings as his narrative animus shows its weakness: it is an engaging strategy and is justified generally by the book's stated project, but a singular focus on "kings" can sometimes obscure other actors, less consecrated.

Campanella has definitive ideas about what constitutes good planning: urban drainage, he says, "must be done by experts, top-down, through good governance, funded by a regular revenue stream and maintained by skilled full-time workers" (p. 25). This is a book about those experts, and it is an excellent book: complex in its view of history, packed with information, yet peopled with kings.

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