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Nature Bats Last

Some Recent Works on Technology and Urban Disaster

ARI KELMAN

Since the destruction in New Orleans following Hurricane Katrina last August/September, I have pondered the strained links among cities, technologies, and catastrophes. In this I am probably like millions of other people. The only difference is that a few years ago I wrote a history of New Orleans's relationship with the Mississippi. So, when Katrina made landfall, some people wanted to hear my thoughts. Despite being wrong—repeatedly—I became an instapundit, writing about the disaster in the press and talking about it on television. It was jarring, having my ideas become so public so quickly.

More unsettling, though, was my publisher's request to produce a new "post-Katrina" preface to my book. Ideally, she said, it should be in the sort of journalistic prose style that I use for my more popular writing. With New Orleans still under water, I quickly said yes, not really thinking through the implications. What resulted was an odd document, a hybrid between a short-form magazine essay and an introduction to a scholar's book. I did my best. But I now realize that I came up wanting in important ways. What I created, I think, was far more a historical document, a chronicle of my views of unfolding news, than good history. I was stricken by the reports coming out of New Orleans. I could not step back. Worse still, I was too naive to realize how caught up I was in the moment. I should have done what historians do when they don't have ready answers for hard questions: read history.

In the aftermath of that experience, *Technology and Culture* kindly offered me the chance to write a review essay about the literature on urban disasters. What follows is my effort to do that. I have not tried to be com-

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prehensive. Instead, I have chosen five books that I think might help readers understand Katrina: John McPhee's *Control of Nature*, Craig Colten's *Unnatural Metropolis*, Mike Davis's *Ecology of Fear*, Philip Fradkin's *The Great Earthquake and Firestorms of 1906*, and Lawrence Vale and Thomas Campanella's *Resilient City*.¹ Writing this essay has certainly allowed me to organize my own thinking on the subject. Unfortunately, I cannot go back and rewrite the preface to my book, which will have to stand on its own merits. What I can do is suggest how these books, read in concert, suggest precedents for the Katrina debacle, even for the leveling of great cities. Each documents an overreliance on technology, a belief in artifice's ability to tame nature. This deep faith, no matter how misplaced, has permeated American history. And the consequences have been severe, with the bill yet again coming due in New Orleans. On the one hand, I find these authors' insights somewhat hopeful; I am sustained by the idea that history can help us to grapple with seemingly incomprehensible events. But I cannot help but wonder how it is that we seem to have learned so little from our past.

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New Orleans used to be a sort of American Amsterdam: romantic, architecturally alluring, and entirely dependent on flood-control technologies for its survival. Much of the city, as we learned during Hurricane Katrina, lies below sea level. A ring of artificial levees, likely now the nation's most notorious public works, is the only thing keeping the Mississippi River and Lake Pontchartrain from flowing downhill into it. This technological fix, even when it works, brings its own problems to a place that has a high water table and no natural drainage. Because of the levees' growth through the years, it has become ever harder to get water out of New Orleans once it finds its way in. Every drop of rain must be pumped over the embankments. And so the city relies on even more technology: hundreds of miles of drainage canals and a network of huge pumps, a system designed to shunt excess water to the levees and then push it over the top. All of this artifice makes New Orleans one of the world's most engineered landscapes, a remarkable example of human confidence that it is possible to "control nature."

That pithy phrase belongs, of course, to John McPhee. The first of McPhee's case studies in his 1989 collection *The Control of Nature*, "Atchafalaya," is about the U.S. Army Corps of Engineers' battle to keep the Mississippi River from leaving its current channel for another route to the sea—a

1. John McPhee, *The Control of Nature* (New York, 1989); Craig Colten, *An Unnatural Metropolis: Wrestling New Orleans from Nature* (Baton Rouge, 2005); Mike Davis, *Ecology of Fear: Los Angeles and the Imagination of Disaster* (New York, 1998); Philip Fradkin, *The Great Earthquake and Firestorms of 1906: How San Francisco Nearly Destroyed Itself* (Berkeley, Calif., 2005); and Lawrence Vale and Thomas Campanella, eds., *The Resilient City: How Modern Cities Recover from Disaster* (New York, 2005).

potential death blow for New Orleans, which would become a river city without its river.² McPhee notes that “for the Mississippi to make such a shift was completely natural” (p. 6). But nature could not be allowed to run its course in this case, because “in the interval since the last shift Europeans had settled the river, a nation had developed, and the nation could not afford nature” (p. 6). More succinctly, McPhee concludes that “nature, in this place, had become an enemy of the state” (p. 7). And so the state brought its vast resources to bear on the problem, building a structure that has kept the Mississippi flowing past New Orleans for nearly two decades since McPhee’s essay first appeared in *The New Yorker*.³ This span is long beyond what the river would have wrought if left to its own designs. And thus we are left with a tragic irony: for McPhee, it seemed that the greatest threat facing New Orleans in the future was going to be too little water. Oops.

McPhee got that one wrong. But forgive him, because he was right and prescient about so many other things, particularly the politics of technology, the way in which applying artifice to complicated environmental dilemmas creates winners and losers, not to mention unintended consequences. He was equally right about the deep hubris (which some would call the real threat facing New Orleans) necessary to think it possible to domesticate something so wild as the Mississippi. In “Atchafalaya,” McPhee, as he always does, takes his readers on an extraordinary journey: up and down the lower Mississippi with Corps of Engineers officers, a crawfisherman, scholars, and environmental activists, characters almost too colorful to be true. It is a bumpy ride, because everyone wants something different from the river: high water or low, more saltwater incursion or less, some flooding or none at all. There are even some heretics who claim that controlling the river is, at best, a short-term proposition. McPhee clearly sympathizes. Meanwhile, the leaders of the Corps of Engineers show a kind of blank certitude about their mission. One general blusters: “The Corps of Engineers can make the Mississippi River go anywhere the Corps directs it to go” (p. 50). In the end, though, readers know that any victory against the river, and by extension against nature more broadly, will be fleeting. Nature always bats last. Or, as a river pilot puts it, “Nature has more time than we do” (p. 24). The book’s title, then, is suffused with irony. The control of nature is a costly illusion.

Craig Colten agrees. In *An Unnatural Metropolis: Wrestling New Orleans from Nature*, he explores the city’s tortuous efforts to keep unwanted water out and reclaim the local wetlands, as well as other examples of the place

2. The second chapter of *The Control of Nature*, “Cooling the Lava,” deals with a volcanic eruption in Iceland. In a classic scholar’s dodge, I will just say that it is beyond the scope of this essay. McPhee’s third chapter, “Los Angeles Against the Mountains,” will figure later in this review.

3. John McPhee, “The Control of Nature: Atchafalaya,” *The New Yorker*, 23 February 1987, 39–100.

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trying to engineer itself out of harm's way.⁴ A renowned historical geographer and environmental historian, Colten acknowledges that this process has been driven by culture, politics, and economics. That said, he is an unashamed materialist, far more concerned with what he calls the "environmental circumstances that city builders faced" (p. 5) in New Orleans than in anything else. For anyone interested in how New Orleans found itself under water for much of the fall of 2005, this book is essential.

Indeed, in the wake of Katrina it is hard not to approach *An Unnatural Metropolis* teleologically, as if Colten somehow knew that swaths of New Orleans would be destroyed the year his book appeared in print. Reading the past backward carries all manner of risks, not least presentism. Even worse is the tendency to miss small increments of change over time, subtleties that, better understood, might have recast our understanding of events. Assuming inevitability is both less elegant—we have no term of art for this mistake—and more damaging, as it leaves no room for contingency, the gold standard of current academic nuance. *An Unnatural Metropolis* is filled with small decisions made at the local level and based on inchoate reasoning or flawed logic, decisions that eventually made New Orleans more rather than less vulnerable. It is filled, in other words, with historical contingency along the road to disaster.

Colten begins with flood control. This is a sensible place to start, because without levees there could be no New Orleans. Actually, without commerce there would be no levees and therefore no New Orleans. The city is a product of imperial ambitions, dreams predicated on the notion that nature can be mastered. French, Spanish, and then American settlers, all entranced by booster myths, viewed the landscape of the Mississippi Valley and decided a city would thrive near the mouth of the continent's greatest river system. The city would be a metropolitan entrepôt, poised to gather up the produce of a huge hinterland. Where New Orleans now sits, on relatively high ground blessed with connections to Lake Pontchartrain, seemed a more likely location for such an urban project than others in the area. That the place was a bit of a fixer-upper, in need of massive technological interventions to keep it going, was deemed a reasonable tradeoff. After all, the people living there would get rich. They could use some of their profits to tame the local environs, which otherwise would be chaos unbound. Colten subscribes to arguments made decades ago by Peirce Lewis, who called New Orleans "impossible but inevitable"—talk about pith.⁵ And so it was that New Orleanians began building levees and trying

4. By way of full disclosure, I read Colten's book in manuscript. I liked it then. I like it now. I have a blurb on the back jacket. If that seems like inside baseball, let me suggest that this essay is less an academic review than a rumination about nature, technology, and urban disaster in the wake of Hurricane Katrina.

5. Peirce Lewis, *New Orleans: The Making of an Urban Landscape*, 2nd ed. (Santa Fe, 2003).

to drain their city, becoming ever more reliant on technology to keep them safe and nature at bay.

An Unnatural Metropolis next features a chapter on regulating the urban environs, which is framed in terms of “nuisance” abatement: trash and sewage disposal, the quest for potable water, the location of cemeteries, and park planning (pp. 49–50). Again and again, the city pushed its nuisance landscapes away from the urban core. Municipal authorities never seemed to learn that they could not hide from their own filth. What was out of sight and mind one moment kept reappearing the next: rotting trash carried downstream on the river’s current, corpses uncovered by hard rain, yet another eyesore or hazard to be cast farther beyond the pale. At the same time, as with drainage, inadequate municipal financing made real reform difficult. Although this material is fascinating, it demonstrates how current events, far beyond any author’s control, can alter the reception of a book. Following Katrina, most readers, save for specialists, likely will view this chapter as little more than a bridge to the next two, fine-grained inquiries into questions of race, environmental inequalities, and urban space.

In a post-Katrina literary landscape, Colten really hits his stride in chapters 3 and 4, detailing the ways in which the poor and people of color, most often African Americans, typically occupied the lowest, worst-drained, and most-polluted land in New Orleans. For anyone paying attention to the Katrina debacle, this is not news. Colten, though, offers important historical context, noting that this turn of events coincided first with the era of Jim Crow and later with postwar white flight to suburbs made possible as drainage technologies finally improved. Here and elsewhere, Colten is leery of mistaking correlation for causation. He has no hard proof, no smoking gun indicating that white New Orleanians forced African Americans to occupy the low ground and then chose not to extend the city’s drainage apparatus to areas where black people lived. So he is extremely careful with his prose. For instance: “The lapse in sewer service to this low-lying, largely African-American district suggests that a Jim Crow mentality perhaps continued to prevent full engineering efficiency” (p. 97). Absent clear evidence, this is all that Colten offers, a passage typical of the book’s tone: measured and thoughtful, if not always as impassioned as readers shocked by images of Katrina might like.

Colten concludes his book first with threats and then whimsy. As New Orleans expanded, new flood dangers emerged, in part because the illusion that nature was under control had become so convincing. With the massive levees separating the city from the river and lake, and with the urban wetlands reclaimed, New Orleanians could forget the danger they faced. They had to scale the levee to catch a glimpse of the Mississippi; even now, the river roils its way to the Gulf of Mexico largely hidden from view. Stunned tourists in the French Quarter sometimes gazed up from their coffee and beignets in astonishment as a containership glided by, high above street

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level. But the danger was still there. Colten suggests that New Orleans became dependent on “structural methods” as other cities began embracing “land-use approaches to flood control” (p. 160). While other better-planned cities were starting to work with nature, New Orleans was still trying to control it. The results were predictably bad. For places like the Ninth Ward, a downpour usually meant flooding. And, Colten adds with eerie prescience, a serious hurricane could spell disaster for the lowest-lying areas of the city.

A final chapter details the halfhearted efforts to reintroduce wetlands in recent years. Born of a cultural climate in which to many New Orleanians nature no longer seemed a frontier awaiting conquest, these efforts nonetheless bemuse or frustrate Colten. New Orleans, once a city of swamps, had by the 1960s become a place whose only wetlands could be found on exhibit at the zoo. Additional preserves on the city’s boundaries also disappoint. They represent nature cleansed of its rough edges—hardly nature at all, but instead another tableau of progress in a city convinced that it controls its once-wild environs. The warnings that follow are haunting now, particularly when Colten takes off the gloves in his epilogue. Having drained the wetlands that used to provide reservoirs during floods, New Orleans had put itself in peril. In the event of a severe hurricane, “the city could find itself under water for months. Evacuation would face serious bottlenecks due to the limited number of escape routes across the water-logged terrain.” More chilling: “federal authorities might not be willing to make the investment necessary to save a city that cannot afford to save itself” (p. 191).

No matter how down on its luck the Crescent City may now be, compared to Mike Davis’s vision of Los Angeles, New Orleans remains the city that care forgot. For Davis, LA’s glass is not just half-empty, it has long since been shattered in an unfair bar fight and its shards used to wound some poor, unsuspecting passerby. Actually, it is not a glass at all, but a panoptic cylinder, manufactured by an oppressed proletariat and later deployed by urban elites to contain their city’s working classes. Or something like that. Kidding aside, Davis’s *Ecology of Fear* is an unrelenting neo-Marxist exposé, a polemic that might leave readers afraid to visit Los Angeles for fear of fires, mudslides, earthquakes, killer cougars, poisonous snakes, and flaming bunnies. (Seriously. If Davis is to be believed, the place is absolutely overrun by rabbits on fire.) Oh, and please don’t forget the tornadoes, which are more common in LA than in Oklahoma City—at least they are if one accepts Davis’s rather controversial statistics. Wide-ranging, funny, extraordinarily well-written, *Ecology of Fear* is a crazy quilt. It is often overstated, and tendentious in places. But it is also instructive. And once again, in the aftermath of Katrina, it has a new resonance and feels more timely than ever. Indeed, Davis predicted the carnage that the nation witnessed in New Orleans after the hurricane. He just thought that it would be another city, Los Angeles, that would be destroyed.

Beyond the critique of the way Davis treats evidence—as a rather more plastic substance than many scholars would like—the most damning thing that can be said about *Ecology of Fear* might also be the book's greatest virtue: it is as scattered, fragmented, far-reaching, and diverse as Los Angeles itself. Chapters cover the city's infamous disregard for public space, Southern California's misunderstood and apparently deadly twisters, and mountain lions hunting humans along the edge-habitats that have been created by the city's endless sprawl. Another chapter juxtaposes Malibu's chaparral wildfire cycle with tenement blazes in the heart of downtown LA, and another conducts a foray into literary studies to examine fictional accounts of Los Angeles's demise. Finally, there is material that may or may not be about the Los Angeles riots (honestly, having read the book at least ten times, I'm still not entirely sure).

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All of that said, *Ecology of Fear's* fascinating thesis can be found in its fast-paced first chapter, "The Dialectic of Ordinary Disaster." It is here that Davis makes his case that Los Angeles is a fraud—not a slice of paradise, blessed with endless summers and miles of lovely beaches, but a disaster just waiting to happen. In fact, calamity in LA is the norm rather than the exception. Even if the city's elites have papered over this ugly truth with sunny propaganda, Davis explains that "for generations, market-driven urbanization has transgressed environmental common sense" (p. 9). The result of this skirting of limits has been tragedy. And when disasters have struck in LA, time after time those in power have shirked the culpability that Davis believes is rightly theirs by insisting that fickle nature is at fault. This notion of unnatural disasters predates Ted Steinberg's similar insight, which lies at the core of his *Acts of God*.⁶ Most recently, the idea that natural disasters are not always natural, that they sometimes are socially produced, has run throughout the best coverage of the Katrina tragedy, particularly as the media confronted its own shocked response to the chaos after the hurricane hit. When officials at all levels of government tried to hide behind the rhetoric of a "natural" disaster, they found a skeptical audience armed with reams of studies suggesting the mayhem had been caused by poor planning, an inadequate response, and a culture addicted to technology.

Davis makes four points about disasters that may be applicable throughout urban America. First, LA was settled during a period of relatively calm weather following an era of unusually high rainfall in the West. Consequently, assumptions about the city's disaster future are flawed, based as they are on too narrow a temporal data set. Second, disasters are often products of feedback loops that are too complicated to predict or comprehend, rather than just an outgrowth of an immediately understood causal chain. In these cases, technologies intended to control nature sometimes exacerbate the

6. Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (New York, 2000).

problems they were designed to solve. Third, most people believe that technologies that may actually be worse than useless will keep them safe in the event of a catastrophe. Fourth, “disaster amnesia is a federally subsidized luxury” (p. 47). This quartet, when mingled in an unstable urban environment, makes for a dangerous cocktail. This is true in LA. And we can see how true it was in New Orleans, which now may be in the midst of a period of more intense storms than ever before in the city’s history, where the post-Katrina chaos was born of factors so complex that the real cause of the disaster may never be fully revealed, where people had misplaced faith in a drainage system and levees that failed them, and where the wealthiest citizens likely will rebuild with federal flood insurance bankrolling their efforts to forget.

Davis’s most compelling material is found in his chapter on fire, “The Case for Letting Malibu Burn.” Picking up where McPhee left off in another *New Yorker* essay that became the third chapter of *The Control of Nature*, Davis suggests that fire suppression in the mountains bordering Los Angeles is a fool’s errand.⁷ Wildfires not only are part of a natural cycle; the longer vegetation grows between burns, the worse the eventual conflagration will be. Had Davis stopped there, he would have been writing in McPhee’s long shadow. Instead, he deepens the discussion by adding the case of apartment fires in inner-city buildings. Not as worried about the line between causation and correlation as Colten, Davis notes archly that the incidence of wild and urban fires in LA is statistically similar. From there, the two cases diverge: expensive cliff dwellings perched on the urban edge are protected by armies of firefighters; tenements burn with little attention from the city. Federal insurance provides seed money to movie stars who will rebuild mansions in the hills; immigrants in the city lose everything and move on. It’s a brutal story, filled with sarcastic asides. By the end of the book Los Angeles seems a cruel city, equal parts Sodom and Gomorrah, a place deserving of the fate that Davis is certain lurks in its near future. That nearly a decade has passed since *Ecology of Fear* was published and yet LA still stands might surprise readers of this book. Davis, one expects, would shake his head and say, “Just wait.”

Philip Fradkin may be angling to become Northern California’s answer to Mike Davis—ideally, one suspects, without the nasty controversies, but with the brisk sales, if you please. Fradkin’s caustic observations about San Francisco’s disaster history and pessimism about the city’s future match Davis’s views of Los Angeles, even if he lacks Davis’s flair for metaphor and creative juxtaposition. Fradkin also shares Davis’s grave doubts about efforts to control nature, particularly in a dynamic environment like San

7. John McPhee, “The Control of Nature: Los Angeles Against the Mountains,” pts. 1 and 2, *The New Yorker*, 26 September 1988, 45–78, and 3 October 1988, 72–90; reprint in *The Control of Nature*, 183–272.

Francisco's. If he does not quite see disaster as ordinary there, he remains certain that the next quake is coming. And that the city is not ready.

The Great Earthquake and Firestorms of 1906 is one of a trio of new books about the San Francisco earthquake, all presumably released to capitalize on the hundredth anniversary (18 April 2006) of what Fradkin insists was the worst urban disaster in the nation's history.⁸ He dismisses the 1900 Galveston hurricane, which is sometimes awarded that mantle, as politically unimportant; so much for the six thousand people who died in the storm surge and the rise of Houston as a result of the carnage. Chicago's 1871 fire was not even half as large as the blaze that followed the San Francisco quake, he notes, and he does not even mention the 1889 Johnstown, Pennsylvania, flood, which is considered a contender in circles easily mesmerized by David McCullough's stirring voice and print narration. Of course, such squabbles do not seem quite as interesting now that Katrina has taken the title outright, a bit of renown New Orleans surely can live without. When it comes to his thesis, though, Fradkin is less focused on scale, list-making notwithstanding, than on causation. He insists that the earthquake was not natural. Or rather, while the quake may have been natural—Fradkin seems willing to concede the point—the disaster was caused by people, elites who ignored well-known hazards embedded in the city's accident-prone site and then collaborated with the media to keep the danger quiet. "San Franciscans, not the inanimate forces of nature, were primarily responsible for the extensive chaos, damage, injuries, and deaths in the great earthquake and firestorms of 1906" (p. xl). So important is the argument, familiar to readers of Colten, Davis, and McPhee, that it is the first line in Fradkin's preface. Cut to the chase, indeed.

Fradkin spends half of his book describing the earthquake, whose gruesome particulars are already well known. Still, this exposition is gripping, if grim. Fradkin is a commendable researcher and a totally committed and capable social historian. He recovers the voices of a wide array of common people, allowing his varied subjects to speak for themselves. The text, consequently, can sometimes seem a bit like a parade of quotes. Overall, though, the effect is laudable, as even well-worn terrain like the intentional destruction of Chinatown feels fresh again, though the accompanying tone of righteous indignation can be tedious. Fradkin is also an excellent storyteller, keenly aware of the importance of engaging characters. Fortunately, he has no shortage of these. The book is peppered with colorful anecdotes, including the case of opera singer Enrico Caruso, whose presence in the earthquake and later escape from the ruins tells readers volumes about San Francisco's Gilded Age culture.

8. The others are Dennis Smith, *San Francisco Is Burning: The Untold Story of the 1906 Earthquake and Fires* (New York, 2005), and Simon Winchester, *A Crack in the Edge of the World: America and the Great California Earthquake of 1906* (New York, 2005).

The meat of the book, what's new here, arrives in the second half, which concerns the disaster's aftermath. It was then that "the rich and powerful . . . usurped the functions of government" (p. xl): first by having a citizens' committee order looters (as fluidly defined here as they were in post-Katrina New Orleans) shot on sight; then by persecuting Asian Americans as part of a concerted Anglo land grab that may seem familiar to observers paying attention to the politics of rebuilding (or not rebuilding) parts of the Crescent City's battered Ninth Ward; and finally by cooking the books to ensure that the rich did better than San Francisco's common folk during the relief effort. Fradkin is also interested in the politics of reconstruction, particularly the ways that powerful California Progressives like James D. Phelan used the quake as justification for race baiting, which then brought them expanded power and popularity.

In the end, though, the most poignant part of a book that now lives in the shadow of Hurricane Katrina may be Fradkin's lament for how little San Francisco learned from the tragedy. The city rose from ruin too quickly to implement proper planning, instead building on loose soil—so-called made land—and hushing up talk about the next major earthquake. Fradkin notes that the death toll, which is still unknown, would have been much higher had the temblor taken place during business hours. Most troubling, seismologists predict that the next major quake will happen soon, likely some time in the next three decades. Worse still, it will be centered in an urban region that is approximately twenty times larger than it was in 1906.

If you are looking for an antidote to the depressing fare typical of the disaster literature, pick up *The Resilient City*, a collection edited by Lawrence Vale and Thomas Campanella. These well-illustrated essays examine topics ranging from the aftermath of the recent terrorist attacks on Oklahoma City and Manhattan to the rebuilding of Washington following the British invasion in 1814; the rise of Berlin, Warsaw, and Tokyo from the rubble and ashes of World War II; and the reconstruction of Mexico City and Tangshan, China, following earthquakes. These and several other cases make up a "global tour of disaster and recovery" (p. 335). Despite all the included destruction, *The Resilient City* maintains an optimistic tone, in refreshing contrast to Davis and Fradkin. The book is also commendable for its vast geographic reach and long temporal arc, and for drawing from a variety of disciplines: Asia to North America, the early nineteenth century to the twenty-first, art history to urban studies. On the opposite side of the ledger, despite its remarkable sweep and recent publication, the book feels somewhat timebound, even anachronistic in places. This is a book written in the shadow of the 9/11 attacks, and one has the sense that the editors and authors might now regret having used the destruction of the World Trade Center as their baseline for urban catastrophe.

The backdrop of 9/11 does not, however, undermine the book's utility or its principal argument, which is that modern cities, no matter how

severely they've been damaged, almost always have recovered. As Vale and Campanella put it: "Although cities have been destroyed throughout history—sacked, shaken, burned, bombed, flooded, starved, irradiated, and poisoned—they have, in almost every case, risen again like the mythic phoenix" (p. 3). This is an upbeat point, at least in the context of disaster studies, and something New Orleanians might celebrate. But Vale and Campanella complicate their thesis by recognizing that observers must pay attention to the meaning of "recovery." Does the word refer to a city's return to its predisaster population, economic activity, or emotional stability? And who comes through the horror unscathed or able to move on most easily? Although these insights would be interesting enough on their own as we cope with our hurricane hangover, *The Resilient City* goes further, suggesting why cities recover from even the worst calamities: namely, that they are rebuilt because of their symbolic value, their economic centrality, and the influence of their citizens. In other words, the reconstruction of cities confers renewed legitimacy on governments, forestalls economic downturns, and placates a significant portion of the electorate. In sum, cities are rebuilt because it is politically expedient for those in power to rebuild them.

Thus it is that New Orleans's future, which might at least briefly have seemed rather bright during stretches of *The Resilient City*, begins to appear cloudy again by the book's end. Despite a full slate of examples of cities that have weathered episodes just as or even more destructive than Hurricane Katrina, New Orleans may have an even bigger problem, unrelated to technology or inclement weather. The city, unfortunately, makes a lousy symbol for those in power right now; it is a constant reminder of the state's failure to secure the safety of its citizens. Nature, therefore, is no longer an enemy of the state along the lower Mississippi. Moreover, if rebuilding comes down to questions of power, New Orleans is in deep trouble. The city has lost population, economic clout, and even some of its cultural standing over the last two decades. Its port remains a crucial feature in the nation's commercial landscape, and its food, music, and architecture, not to mention social complexities, are all foundations of the American scene. But the city was suffering long before Katrina battered and then drowned it. Sadly, New Orleans must now go to Washington with hat in hand in order to secure its future. The city needs federal funding to keep paying for technologies that purport to control nature. Without this money, and the artifice it buys, the city will die. There it is: New Orleans, once our Amsterdam, may become an American Atlantis, forgotten beneath the waves.

So, with the Gulf Coast cleanup ongoing—although in many parts of the region it has not even really started—people are looking for some way to envision a future for New Orleans and its hinterlands. The city's mayor, Ray Nagin, and Louisiana's governor, Kathleen Blanco, have put together advisory panels comprising activists, experts, and muckety-mucks (who have been duly criticized for being too heavily weighted with muck). These

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people, we are told, will make the decisions that will lift New Orleans from its current prostrate state, wring the city out, and make it safer in the future. In doing so, they will have to face choices—a great many of which will be about technology and the environment—that boggle the mind. Most difficult, perhaps, will be the issue of which neighborhoods will be rebuilt and which will not. For the moment the committees are trying to punt; they have suggested allowing the market to make the choice for them. But if McPhee, Colten, Davis, Fradkin, Vale, and Campanella offer any single conclusion, it is this: disasters outmuscle not only the invisible hands of capitalism but also the finest technologies arrayed by flesh and blood to control nature. And if I have learned anything from the depressing spectacle of Katrina and its aftermath, it is this: in considering the present and the future, one should not forget the past. That may seem self-serving coming from a historian. It may also be a bit of a cliché. But Louisiana's reconstruction committees could do far worse in thinking about their job than to consult the literature on cities, technology, and urban disasters.