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Letter from the Editor

The word nature has two principal meanings. On the one hand, we associate the term with the phenomena of *natural history* – plants, animals, earth, stars; *wilderness* – remote areas with little or no evidence of human habitation or use; and *energy* – the physical forces that govern the universe and all life. But nature also denotes the essential qualities and character of persons, places, or things. When speaking of landscapes, therefore, we may describe their physical attributes in terms of science and art, or we may refer to their *genius loci*, an intensified identity based on sensory perception and memory.

We have come belatedly to understand that the view of nature as foe is foolish hubris and our confidence in our ability to overcome perceived environmental impediments by technological and other means has the power to devastate and even destroy natural systems and species. Nature is fundamentally indifferent to human desires, notwithstanding the sacrificial propitiations of prehistoric and ancient cultures, the prayers of many faiths, or the scientific aptitude of modern civilization. Asteroids, earthquakes, hurricanes, tornadoes, and tsunamis randomly impact the earth with lethal force. To our dismay, we must acknowledge that, in the unimaginably vast continuum of geologic time, all forms of life, including our own species, are mutable and transitory. Even the eternity of the universe is now questioned by physicists.

We are also witnesses to a changing world with a growing indifference to locality, one in which, as Gertrude Stein famously quipped, "There is no there there." Globalization, mass marketing, and large chain operations are creating a culture in which everywhere is becoming a nowhere of sameness. The tourist economy encourages historic places to become theme park versions of their former selves, while mall shopping draws people away from downtown, and highways encourage suburban sprawl.

These sober realizations should not induce fatalism. We are more than consumers of brand-name products and are capable of cherishing and creating psychologically satisfying environments. We are taking hesitant, but appreciable, steps toward developing an ethics of environmental stewardship. Many are grappling with confusion but determination to address the greatest, most politically fraught question of our time: Can we achieve a mutually beneficial relationship with nature and with each other before it is too late, or will humanity be the unwitting agent of the fall of civilization and the destruction of our planetary home? We must also ask ourselves if we can ever achieve an understanding of the importance of place that encourages us to think locally and act globally.

The disaster that Hurricane Katrina wreaked upon New Orleans at the end of the summer of 2005 showed how nature as the character of a place could be tragically undermined by a confrontation with nature as an elemental force. Whether or not one accepts the wisdom of building a heavily populated settlement in a landscape created through tenuous, human-controlled relationships with the sea, it is clear that this unique environment has contributed greatly to the city's vivid cultural identity. The inhabitants have long responded to the New Orleans *genius loci*, and their city is imprinted upon them. That is why many of the displaced struggle to come back.

This issue of *Site/Lines* explores the dual meaning of nature in relation to New Orleans, as our contributors examine the city's urgent need to determine its future identity and relationship to its coastal environment while simultaneously repairing its present wounds.

With good green wishes,

Elizabeth Barlow Rogers
Editor

We are pleased to announce the opening of the Foundation for Landscape Studies Gallery on its website. Readers who wish to view additional images of New Orleans, the work of Edward Ranney, and some of the photographs included in the International Center of Photography's *Ecotopia* exhibit reviewed in this issue can visit www.foundationforlandscapestudies.org.

On the Cover:
New Orleans, 1891. US Geological Survey. Courtesy of Perry-Castañeda Map Collection, University of Texas Libraries.

The Nature of New Orleans

The following essays present a varied picture of New Orleans's landscape and people more than eighteen months following Hurricane Katrina.

A City Like No Other
New Orleans Today

While all cities are governed by their geographical location and historical circumstances, New Orleans possesses a unique natural and cultural situation, the consequence of its founders' daring choice of site. The costly and uneasy bargain the city has struck with its swampy Mississippi delta and Gulf Coast marshlands has shaped it in unusual ways. In addition, the city's initial French, Spanish, American, and African-American inhabitants, along with the subsequent influx of Irish, Germans, Latin Americans, and Asians during the nineteenth and twentieth centuries, have created a highly evolved, idiosyncratic American subculture. As the birthplace of jazz, the possessor of a distinctive architecture, and the home of an original cuisine rooted in its multiethnic heritage, New Orleans is marked by an unusual degree of civic pride. Among American cities it is *sui generis*.

In the weeks and months following August 29, 2005, the effects of Hurricane Katrina have thrown into relief the city's condition as victim of nature's awesome power and indifference to human fate. Its population, which had been declining since the 1960s, was 485,000 before the hurricane; it now hovers around 225,000. The diaspora of those uprooted by the flood has spread nationwide. Yet an unusually large proportion of Orleanians are lifelong residents, and their deep attachment to the place makes them reluctant to live elsewhere. Although some have become discouraged by government's continuing inability to provide a viable resettlement program and are leaving, many residents are optimistically determined to reclaim and rebuild their homes and their city. But the New Orleans that was founded three hundred years ago on a natural levee seven feet above the channel of the Mississippi and twelve feet above sea level has spread over the past century into formerly uninhabitable swamplands with below-sea-level elevations. The aftermath of Katrina raises difficult questions

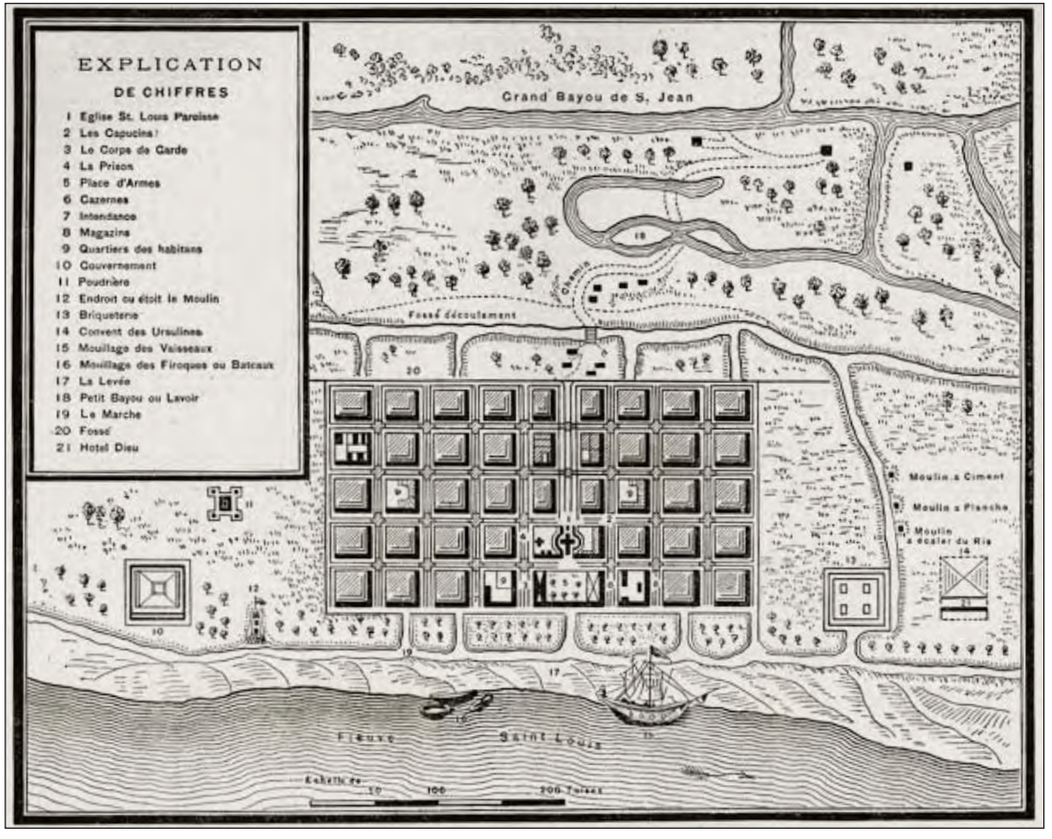
regarding the wisdom of draining and filling these areas in the past and the efficacy of new and rebuilt artificial levees as the means of protecting the city in the future.

The famed French Quarter and Garden District, as well as other parts of the city occupying the relatively high ground along the Mississippi River, were spared for the most part, but the flooding of low-lying areas fulfilled the direst predictions of geographers and environmental scientists who said that the alliance between engineering and nature was too fragile to endure and that nature would have the upper hand in the end. In spite of strong warnings about the possible consequences of the erosion of the Gulf Coast's spongy wetland fringe – currently disappearing at a rate of 25 to 35 inches each year – there are as yet only limited attempts to address important environmental issues. Promises of an engineering fix to be achieved by building bigger and stronger levees and floodwalls, disregarding the uncertain flow of congressional and state appropriations to repair and maintain existing ones, perpetuate the dubious goal of waging war against climate, weather, and geography. Desolate sections of the city, deprived for the most part of public services, schools, and stores, raise the question of what shape a renewed New Orleans should take. Partly because Louisiana politics are as rife with corruption and riven with racial strife as the Gulf Coast landscape is boggy and geographically broken apart, no clear vision has emerged, and citizens are still in a frustrated quandary as to the city's future.

The Shaping of New Orleans

In 1682 the French explorer René-Robert Cavelier, sieur de La Salle (1643–1687) claimed the vast Mississippi drainage basin for the French monarch, Louis XIV. The founding of the improbable, yet logical, city, the work of the French governor of Louisiana, Jean-Baptiste Le Moyne, sieur de Bienville (1680–1767), did not occur until 1717. In choosing its location, Bienville followed the lead of his older brother, Pierre Le Moyne, sieur d'Iberville (1661–1706), a career soldier and explorer who founded the colony of Louisiana. Thanks to the help of a native guide, Iberville had discovered a convenient portage from Lake Pontchartrain to the Mississippi by means of the north-south tidal channel of Bayou St. John. This valuable short cut was the principal route indigenous people used to travel from the interior to the Gulf Coast. But the pragmatic use of the crossing by Indian traders with itinerant settlement patterns and the establishment of a permanent European-style fort city on the site were two different things. Humid, mosquito-infested deltas on hurricane-buffeted coasts do not as a rule invite colonization. Why, therefore, were Europeans willing to gamble so heavily against nature in founding New Orleans?

One of two early twentieth-century steamboat houses in the Holy Cross neighborhood. It occupies the corner of Egania and Douglas Streets, near a levee of the Mississippi River.



"Plan de la Nouvelle Orleans Capitale de la Louisiana 1728." From *Report on the Social Statistics of Cities*, Compiled by George E. Waring, Jr., United States. Census Office, Part II, 1886. Courtesy of Perry-Casteñeda Map Collection, University of Texas Libraries.

The cultural geographer Peirce F. Lewis explains New Orleans's dichotomous status as a nature-defying *site* and an economically unparalleled *situation* – as a duality guaranteed to create adversity and prosperity at the same time. The city's early, tenuous siting, while dangerous, was eminently reasonable because it was situated at the mouth of the Mississippi and therefore able to tap the resources of a vast continental hinterland as well as Mexico, South America, and the Caribbean islands.

The original layout of the French engineer Le Blond de la Tour (died c. 1715), which later generations called *Vieux Carré* or French Quarter, was a fortified grid drawn according to the paradigm Louis XIV's military engineer Sébastien Le Prestre de Vauban (1633–1707) established for the chain of forts-cum-cities along the northeast border of France, the first European nation-state.[1] Surrounding the settlement's European-style grid were plantations reflecting the old French cadastral system of land division into lots of so many arpents. (One arpent

[1] Unlike Vauban's fort-cities, New Orleans was not enclosed by massive earthworks, such bastion fortifications being unnecessary because of its water-protected location and surrounding swamps. The precedent for grid plans with a central square derives from the Roman architect Vitruvius, whose town-planning recommendations influenced the Law of the Indies of Phillip II (1527–1598) that governed the layout of Spanish colonial cities. In New Orleans the Place d'Armes, now Jackson Square, fronts the Mississippi and is not in the center of the grid like the plazas of Spanish colonial grids, although, like them, it is faced by a cathedral.

measures approximately 192 feet and one square arpent equals approximately .85 acre.) An eighteenth-century ordinance stipulated that plantation owners have a specified number of arpents fronting the river. The Mississippi River's crescent shape at this location (hence New Orleans's moniker "Crescent City") meant that the settlers' long narrow lots had property lines that converged on the concave side of the river bend, whereas the ones on the convex side of the bend necessarily fanned out. Although the lots were later subdivided into gridded plots, the plantation boundaries of the former French cadaster are still evident in the radial streets just outside the French Quarter.

New Orleans already had a cosmopolitan character at the time of the Louisiana Purchase in 1803. Its proud, sophisticated population self-consciously differentiated their city from others founded by westward-moving Americans and looked down on this breed of newcomers pushing into their firmly established urban space. Accommodating the city's necessary expansion beyond the settlement was no easy matter. Even as social tensions were held at bay, the city's physical growth was constrained by its precarious perch on the shifting mud of the labile river mouth.[2] Habitation was historically confined to areas adjacent to the levees. Expansion was therefore constricted and feasible only through laborious environmental interventions. Because the plantations with their old arpent-defined boundaries were sold over time New Orleans's urban form adhered to no standard growth model, and its *faubourgs*[3] sprouted haphazardly. Below-sea-level lands were drained and developed after 1900, a piecemeal affair that depended on local political decisions governing public works projects and the building opportunities thereby created. While the inhabitants of all cities of a certain size refer to their neighborhoods by specific names, Orleanians do so in a way that reveals an understanding of the city as a collection of distinct geographic areas pieced together over its three-hundred-year history.

Scene on the levee, 1862. *Harpers Weekly.*

As a port economy began to thrive, and bales of cotton piled up on the wharves ready for shipment to textile mills in New England and Manchester, commercial and residential building pushed upriver beyond Canal Street, creating the Central Business District and the Garden District. These and such areas as Metairie and Gentilly were manifested as tentacles of growth along elevated ridges, old levees left by relict bayou channels. The undesirable backswamps were inhabited by the poor. The city's indigent and marginally employed also built shanties on the battures, the riverside slopes of the levees. These flimsy habitations were, of course, periodically swept away by the flood-swollen river.

In a city that often measures elevation in inches, flood protection was a civic preoccupation from its founding. Natural levees often proved insufficient, especially when breached, creating what Orleanians call a crevasse. In 1724 the French governor mandated that property owners shore up their frontages by building earthworks atop the natural levees bordering their properties. These efforts were only partially successful, as evidenced by the extensive crevasses caused by severe flooding in 1735. In 1792, during the forty-year period of Spanish colonial administration, another governor issued an ordinance requiring that residents raise the levees' elevations, reinforce their sides, fill in ditches, and plant grass to prevent soil erosion. In 1810, after Louisiana became part of the United States, the New Orleans City Council gained control of the waterfront and set new standards for levee construction. Federal funding through the 1850 Swamp and Overflow Land Act stimulated levee fortification with partial success. In addition, as New Orleans gained prominence as a port city, Washington became concerned about the navigability of the Mississippi and sought to control its meandering course and penchant for flooding. In 1854 the Louisiana state legislature established four flood districts and a Board of Swamp Land Commissioners. Following the Civil War, federal responsibility was augmented by a creation in 1879 of a Mississippi River Commission to work with the Army Corps of Engineers. In 1890 the state set up the Orleans Levee District and the Board of Levee Commissioners. With the help of state engineers, these agencies oversaw the construction of five miles of new levees and the fortification of twenty-five miles of existing ones.

The pace of levee building accelerated after 1907 with the introduction of earth-moving machines to replace the manual labor of former slaves and Irish immigrants. By the late 1920s New Orleans acquired, in the words of Richard Campanella, associate director of the Center for Bioenvironmental Research at Tulane University, "a blanket of soil more than thirty feet thick over an area the size of the French Quarter,

[2] Although the city was never as socially segregated as it is reputed to have been, the separation of New Orleans into Creole and Anglo-American communities was reflected in the creation of the so-called "neutral ground," the median running down the middle of Canal Street at the western edge of the French Quarter. Canal is so named because its 171-foot-wide right-of-way occupies the strip of land that was reserved for a canal that was never built. The design of Canal Street set a precedent for the city's other boulevards with their oak-bordered neutral grounds, the term for all medians in New Orleans patois. (See illustration on page 11.)

[3] Orleanians eschewed the term suburb in favor the French *faubourg* when they incorporated the old riverfront tobacco, rice, and indigo plantations into the fabric of the city.

representing a profound change in the topography of the city and ranking as one of the greatest topographic engineering attempts in any American city." But this huge investment of money, time, and machinery gave New Orleans a false sense of security, as proved by the great flood of 1927, so the construction of spillways and other means of accommodating and controlling the mighty river was subsequently initiated.

Within the United States the Port of South Louisiana, encompassing the 54-mile stretch of the Mississippi between New Orleans and Baton Rouge, ranks first in terms of bulk cargo tonnage. The Port of New Orleans is seventh, having been surpassed by the ports of Houston, New York and New Jersey, Beaumont, Long Beach, and Corpus Christi. The city still serves as a gateway to the country's interior, although – like Venice, another once unrivaled maritime entrepôt – the local economy now depends to an increasing extent on tourism.

Dredging is continually necessary to keep the capricious shifts of the Mississippi's course in check, maintain the navigability of channels, and accommodate innovations in maritime transportation. The city's existence has depended on canals as has been the case from its earliest days. The Carondelet Canal between the French Quarter and Bayou St. John operated from 1794 until 1938 when it was filled. The New Basin Canal, begun in 1833, continued operating until 1950 when it was also filled. Between 1918 and 1923 the Inner Harbor Navigational Canal, better known as the Industrial Canal, was dug to connect the Mississippi River and Lake Pontchartrain. With an annual tonnage only one-fifth of the Industrial Canal, the 75-mile-long, 500-foot-wide Mississippi River-Gulf Outlet Canal, familiarly known as MR-GO, was built between 1958 and 1968 by the Army Corps of Engineers. As Campanella points out, there are now twenty-eight miles of levees and floodwalls and seventy-three floodgates just along the Mississippi and another 101 miles of levees and 107 floodgates to control the water levels of Lake Ponchartrain and the city's canals. That the engineering represented by these figures is still inadequate to protect it from flooding hardly needs to be said.

In addition, the environmental harm caused by all these interventions with natural systems has been great. The creation of MR-GO caused the destruction of at least 8,000 acres of wetlands, and the continuous desilting of its channel costs $16 million annually. The petrochemical industry, which has done much to keep the New Orleans port economy alive, has also done a great deal of harm to the surrounding wetlands. Interior aerial views show numerous cul-de-sac canals – one-way waterways terminating in round turning basins – carved into fragile marshes.

Further topographic manipulation can be seen in the elaborate drainage system that removes standing water, rainfall, and sewage from the interior basin formed by the levees girdling the city. Intended to improve salubriousness, the innovative mechanical pumping system developed by Albert Baldwin Wood in 1913 made possible the reclamation of formerly uninhabitable backswamps for development.

When the brackish inland bay incorrectly named Lake Pontchartrain was embanked between 1926 and 1934, the surrounding swamps lost their shantytown character and became prime real estate in spite of the subsidence of their desaturated soils. (Scientists estimate that New Orleans is sinking at a rate of approximately an inch every three years.) By the middle of the twentieth century the area known as Lakeview had become part of the suburban America dream.

The city must continuously grapple with its *site* through advanced and costly engineering in order to maintain its *situation*. As Campanella presciently remarks in *Time and Place in New Orleans*, "The *reversal* of topographic change is the next, greatest, costliest, and most critical chapter in the topographic history of New Orleans and the delta region. At stake is the very existence of the place." And, we may ask, who would wish to see New Orleans become merely a beautiful relic of the past like Venice, home to few residents and host to many tourists?

The Culture of New Orleans

Many who speak with despair of the city's seeming inability to achieve renewal more in keeping with environmental principles that would strengthen its difficult bargain with nature ironically invoke an old New Orleans mantra. *Laissez le bon temps rouler* has acquired more than a hint of dancing in the streets while awaiting one's fatal destiny. Nevertheless, many Orleanians now bravely rally to the slogan "City of Hope," as the title of a fine recent exhibition mounted by The Historic New Orleans Collection suggests. It is questionable whether the city will entirely regain its former cultural luster, but most agree that its unique contributions to America's national heritage are too precious to lose.

Slab-foundation house with rust-colored waterline, Lakeview. Because the homes in this area were not built on raised footings, as was the case in older New Orleans neighborhoods, they suffered the most extensive flooding in the city when one of the poorly engineered retaining walls of the 17th Street Drainage Canal collapsed.

New Orleans is quite naturally a tourist city because of its considerable charm. Fueled by public celebrations such as New Year's Eve, the Sugar Bowl, and Mardi Gras, as well as by the reputation of its famous restaurants and music, tourism is the mainstay of the French Quarter and the driving force of the city's economy. In 2004, before the sharp temporary drop caused by Hurricane Katrina, tourism accounted for ten million visitors, $4.9 billion in revenue, and an estimated 66,000 jobs. The city's economy is also dominated by the oil and gas industry, shipbuilding, and aerospace manufacturing. Several distinguished institutions of higher education are located in New Orleans. Although population erosion, which had started long before Katrina, continues, there is much that propels the city forward. More subtle and less visible, the personal identities of many residents are deeply entwined with the city, whose unique character they cherish and protect in various ways according to perspectives formed by race, class, and historical moment.

Orleanians are highly conscious of their city's Creole character. The term Creole itself has meant different things to different people at different times. In the nineteenth century, when Americans descended on the city in large numbers, residents of French and Spanish ancestry held themselves proudly aloof in the French Quarter and called themselves Creoles, the traditional definition for those of French parentage born in French colonies. Freed slaves and others of mixed blood – *gens de couleur libres* – were later folded into the definition of Creole. The term ultimately acquired a chauvinistic flavor, and Creole came to mean any *native* Orleanian. First-generation immigrants were never considered Creoles, although their children could claim to be.

The city's dominant Catholicism stems from its

"Shotgun" house of the type called "Camelback" because of the second story in the rear. Shotgun houses typically have a front-facing gable and a column-supported front porch.

Creole origins, and like their ancestors, many African-American descendents of slaves worship in Catholic churches. Catholic institutions of higher learning, such as Xavier University and Loyola University, are important components of New Orleans's educational fabric.

The term Creole is also associated with the savory cuisine that features various types of gumbo and jambalaya. Similarly we may speak of Creole architecture, a blend of Caribbean-inflected French and Spanish idioms that exemplify the Latin sensibility that traditionally governed much of New Orleans's culture. Threats to tear down and replace parts of the French Quarter caused public-spirited citizens to effect an amendment to the state constitution enabling the creation of the Vieux Carré Commission in 1936, thirty years before the passage of the National Preservation Act. In 1976 the city created the Historic District Landmarks Commission, further strengthening the protection of historical monuments and buildings. Unlike many other American cities, New Orleans never abandoned its city center. Nor is it likely that it will ever do so since the Vieux Carré is the mainstay of its tourist economy.

Outside the French Quarter older neighborhoods such as Bywater and Tremé derive their distinctive characters from their veranda-fronted two-family houses called doubles, which date from the early years of the twentieth century. More common is the single-story "shotgun" with a string of rooms extending almost the entire length of a typically narrow New Orleans building lot. Built according to a Guinea Coast style introduced by African slaves, it is claimed by some to be the only direct legacy of African architecture in the United States. Once the cheapest dwellings in the city, many shotgun houses have acquired the decorative embellishments that characterize so much New Orleans architecture and are now candidates for historic designation. However, post-Katrina, some owners who consider them dilapidated and ripe for replacement resist this step. Residents of the famed Garden District have also opposed designation of their neighborhood of tall, balconied, antebellum mansions. The motivation here is different: many fear that property values will drop.

Undoubtedly, New Orleans's greatest contribution to world culture is the creation of jazz as a musical art form. An outgrowth of West African dance and drumming traditions blending African and American musical instruments, New Orleans jazz is also a product of the popular brass marching bands and the syncopated rhythms of ragtime music of the 1890s. Vaudeville and minstrel shows furthered the national craze for brass-band ragtime. The popularity of its outgrowth, big-band dance music, allowed many Creole musicians to travel to other parts of the country.

New Orleans's indigenous jazz tradition continues to the present through its affiliation with Mardi Gras when organizations such as the Cornet Carnival Club parade down Bourbon Street. New Orleans jazz is also perpetuated by a unique tradition: the jazz funeral sponsored by African-American benevolent societies that function as charitable and social clubs. The deceased, usually a jazz musician or someone connected to the heritage of jazz, is carried to the church and cemetery by family and friends to the accompaniment of dirges and hymns played by a brass band. After the burial, an upbeat piece launches a parade that heads from the cemetery to the social club. Ever more lively and popular jazz music encourages bystanders to join what is known as the second line as the entire procession becomes a joyful celebration of life.

New Orleans Tomorrow

The landscape of New Orleans was greatly transformed by Hurricane Katrina, setting in motion numerous efforts to reinvent the city. Architects, landscape architects, city planners, and new urbanists have held forums, workshops, and graduate school studio projects to envision a reborn New Orleans. The first such attempt to develop a planning strategy and practical recommendations for implementation was an effort of the Urban Land Institute (ULI), a Washington, D.C.-based organization. On November 28, 2005, following an intensive, week-long series of tours and interviews by fifty specialists in urban planning and real estate development, the ULI presented its proposals to its sponsor, the Bring New Orleans Back Commission. A citizen panel appointed by Mayor Ray Nagin, the commission is composed of an evenly divided number of the city's black and white civic leaders.

FEMA trailers provide temporary living quarters on lots whose owners are repairing their homes.

The ULI report recommended a temporary financial oversight board to review the city's budget, approve contracts, and recommend financing options for development. It also recommended the creation of the Crescent City Building Corporation to manage the rebuilding process. The corporation would have broad responsibilities, including the purchasing of homes and property, acquiring and restructuring mortgages, organizing neighborhood planning efforts, land-banking vacant tracts, issuing bonds, and fostering the development of subsidiary local community development corporations.

Because housing is the most critical need, the ULI team addressed the issue of fair compensation for destroyed property and equitable financial assistance to allow people to relocate or rebuild. It allayed the specter of high-rise public housing by proposing that the city capitalize on its historic pattern of comparatively integrated neighborhoods and low-density housing, the norm being one to eight families to a lot in single or multifamily homes or apartments. The city would thereby reverse the racial segregation of areas such as the Ninth Ward, while maintaining the distinctive architectural flavor of its neighborhoods.

Inherent in this prescription is the notion of infill residential development in topographically higher parts of the city and the conversion of the lowest, most destroyed areas into parks and recreational corridors. Joseph Brown, the chairman and chief executive officer of EDAW, a noted national landscape architectural firm, maintains that, "As New Orleans designs and strengthens its flood protection, its engineered systems – levees, seawalls, drainage canals, and pumping stations – can be supplemented by restoring natural areas within the city and building in concert with its topography." The chairman of the ULI panel, Smedes York, put it more bluntly: "In our view, it would be irresponsible, and possibly deadly, to immediately allow residents to move back to and rebuild on lots that are virtually certain to be underwater in New Orleans's next major storm." His answer to the dilemma faced by dispossessed property owners is to provide compensation at pre-Katrina values for the equity in their homes and businesses, thereby allowing them to build in safer parts of the city.

The ULI plan was quickly characterized as "shrinking the footprint," fighting words to the people who wanted to go home, or already had, having rebuilt and occupied their former dwellings in near-deserted old neighborhoods. The City Council unanimously rejected the ULI proposals. There was hope nevertheless that the Bring New Orleans Back Commission could achieve a consensus. On January 11, 2006, when the commission set forth its Action Plan, an angry gardener from eastern New Orleans stood up and told the chairman, Joseph Canizaro, a prominent developer, bank president, and member of ULI, "Mr. Joe Canizaro, I don't know you, but I hate you." The notion of intentionally regreening New Orleans by transforming previously reclaimed swampland into a mosaic of parks has taken on serious racial overtones. Mayor Nagin has not endorsed the Bring New Orleans Back Commission's action plan, nor has he put forth a renewal vision of his own.

Front steps of a destroyed slab-foundation house, Lower Ninth Ward.

In the meantime the economy of the city has continued its pre-Katrina slide. The dispersion of over 200,000 of the city's former citizens has greatly diminished its workforce, a lack being met in part by undocumented Latino labor. While some Orleanians living in Houston and other cities within long-distance commuting range go back and forth between jobs and family, many parents with school-age children have discovered that there are better educational opportunities elsewher than they had in New Orleans, which has the lowest-rated school system in the nation. Political rhetoric notwithstanding, with no reasonable plan in place to bring these families back, it is likely that many will settle in the communities to which they were evacuated.

Gary Reyes, the youth and education minister of the United Church of Santa Fe, New Mexico, is one of many members of faith-based organizations to lead aid missions to New Orleans. He assesses the prospect of relocation in terms of the meaning of place in people's lives, "A place is defined organically by generation after generation of people living there. It is not only the land under ones feet but sounds, smells, tastes, traditions, personalities. New Orleans is a unique place. I can't think of any other city where displacement would affect people's identity more. Eighty-two percent of its population was born there. Although it is a southern city with a history of discrimination, the racial bigotry we have seen in other parts of the South has been mediated here by the city's rich heritage in which music and food break down the cultural divide and being a port destroys intolerant insularity."

Environmentalists, geographers, and city planners believe that reoccupying below-sea-level lands is an invitation to disaster and the best strategy for buffering New Orleans against hurricane destruction in the future is to allow nature to rebuild Gulf Coast wetlands. As the debate continues,

A new garden in front of a house built by Habitat for Humanity in the Musicians' Village project it is sponsoring in the Upper Ninth Ward.

returning homeowners who have found compliance with new federal guidelines mandating that homes be raised a specified number of feet above grade too costly are being allowed to rebuild. There is, however, more or less general agreement that the oversized, little-used, wetland-gobbling canal MR-GO should go.

On New Year's Eve 2006 Governor Kathleen Blanco announced the appointment of ten new members to the Southeast Louisiana Flood Protection Authority East. The appointees included civil engineers, a historian, a meteorologist, and an expert in ground water remediation. However, as reported by *The Times-Picayune*, "no sooner had the winged creature of reform emerged from its cocoon than it became entangled in a spider web of parochial politics and legal challenges." The Small Business Administration, the federal government's principal agency for helping natural disaster victims rebuild, is running out of funds. To date it has distributed only half of the $8 billion approved for reconstruction. Similarly, only half of the $2.6 billion the agency has earmarked for loans to businesses has found its way into the hands of applicants. Mayor Nagin says, "We've got to get the money to flow," but there is no clear plan for cutting through the bureaucracy to make this happen. The mayor has recently appointed Ed Blakely, a former chairman of urban and regional planning at the University of Sydney in Australia and an advocate of what planners refer to as "smart growth," to be his recovery czar, raising hope that something will be accomplished. Blakely, a native Californian whose reputation rests on his leadership of the recovery plans following the 1987 San Francisco Bay Area earthquake and the 1991 Oakland fires, says, "We have to start building some things in order to restore public confidence. We have to set up a system so that people who want to come back can come back somewhere in New Orleans as soon as possible. It might be in stages. They might come back to one area of the city, and then they might move into other neighborhoods in a year or two."

Thomas Murphy, the former mayor of Pittsburgh and a member of the ULI advisory panel, now heads ULI's advocacy for a recovery plan. "Money is not the problem," he says. "You need leadership, vision, and decision making to make things happen. That's not happening yet. But maybe there is one bright spot: the partnering of not-for-profit organizations is providing remarkable leadership in the face of singular inaction by the city." Pondering the future, he adds, "The city was declining before the storm. Yes, it will be smaller, but New Orleans is a unique city and can still be a great one."

Despair, anger, and hope are prevalent emotions in New Orleans today. Its citizens have confronted the forces of nature in the past, not always wisely, but with great ingenuity, and successfully enough to build a thriving port city. There is no shortage of grassroots advocacy and planning participation today. The open question is whether Orleanians will choose to work in concert with nature as a physical force and at the same time honor their human nature as people devoted to neighborhood-focused identity. Or will a laissez-faire attitude and lack of concerted action render the hope for reestablishing their city's special place in the world a doomed dream? – EBR

Ceramic tile marker at the corner of Dauphine and Piety. Such sidewalk-embedded street signs, dating from the late-nineteenth and early-twentieth centuries, are prevalent in New Orleans.

Following London's Great Fire of 1666, Christopher Wren (1632–1723), the greatest English architect of his day, proposed a plan that would bring greater order and beauty to the City's landscape. Resistance to the reorganization of existing street patterns and property lines prevented its realization. Today New Orleans faces an opportunity to reconfigure the city in the process of recovering from Hurricane Katrina, but here too resistance looms. Kristina Ford, the former director of city planning, explains how a renewed New Orleans could be achieved in a manner consistent with its historical development.

Reframing the Densification Argument in New Orleans

On August 30, 2005, the world saw the first images of New Orleans awash in Hurricane Katrina's shining, ruinous water. We saw houses flooded to their eaves; citizens crawling through holes chopped in roofs; poor, mostly black Americans stranded and abandoned; or dead at the Convention Center where they had sought refuge. From the breeched levees a toxic brown tide invaded landmark neighborhoods. My lovely old city, where I had lived for fifteen years and where I had been director of city planning from 1992 until 2000, was drowning along with many of its vulnerable citizens.

Few of the reporters who interviewed me had ever seen the city, and those who had knew only what tourists know: the French Quarter and the Garden District, the St. Charles streetcar line, the historic restaurants. After the hurricane they saw only undifferentiated destruction upon what seemed a simple flat surface. But New Orleans is not a flat or simple surface. And the pattern of flooding demonstrated, among many important things, how unwisely the city had used its land, particularly in the twentieth century.

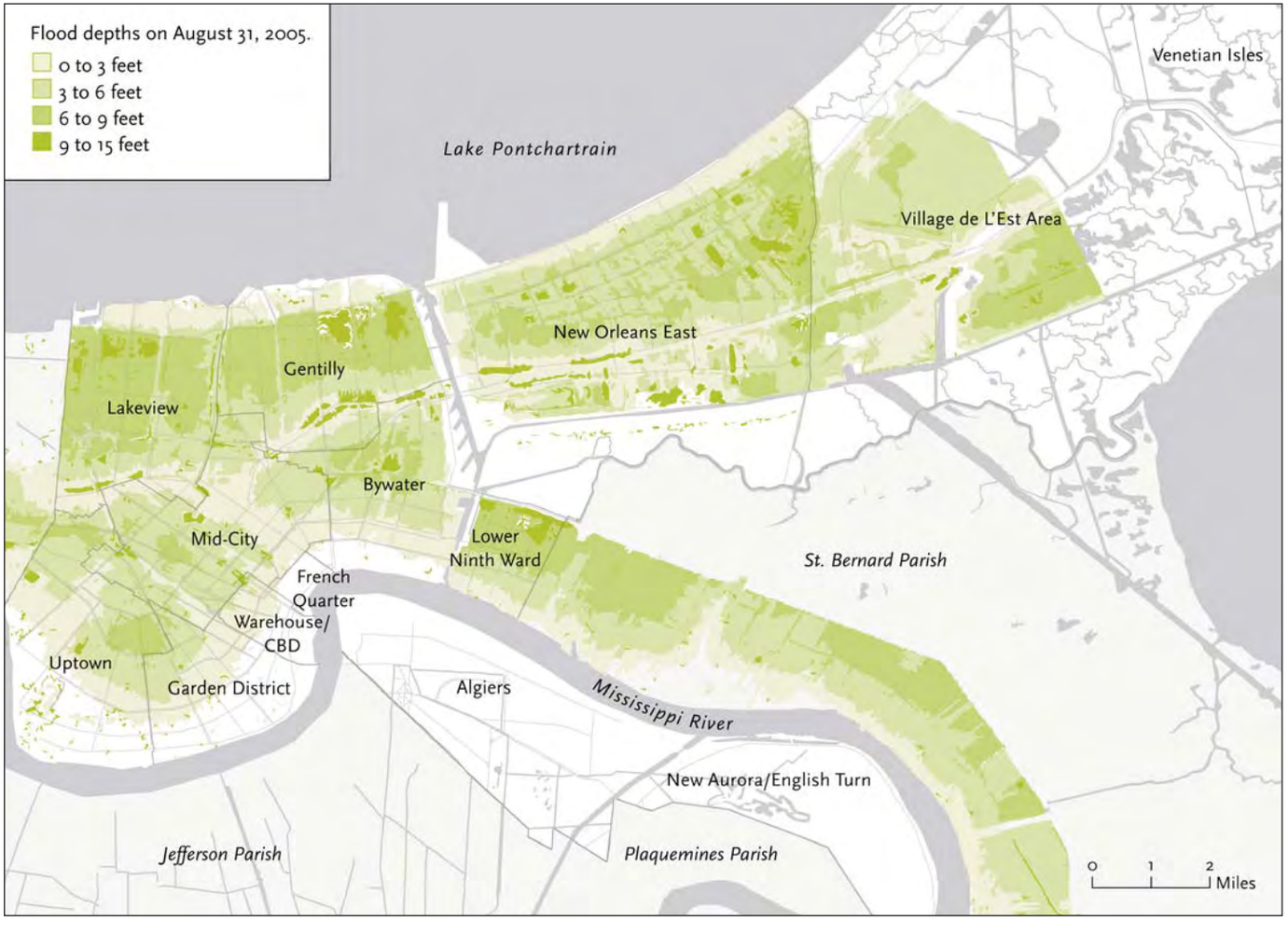
Before 1900 the population lived in raised houses clustered on the Mississippi River's natural levee. Like all major rivers, the Mississippi had created these levees along its banks over many millennia as spring floods regularly exceeded the river's channel and then receded, leaving behind the sediment carried by the water. The coarsest sand and silt settled first, close to the banks of the river, creating the highest land; less coarse sediment traveled farther. The result was a pair of sedimentary ridges – natural levees – parallel to the river and highest at its banks. New Orleans was founded on the relatively wide sediment ground of the eastern levee, and French engineers immediately constructed a manmade levee along the riverbank to afford their new city additional protection from flooding.

The two-mile natural levee at New Orleans gently slopes away from the river toward Lake Pontchartrain. Before 1900 this high ground was where people lived. Beyond it, farther

toward the lake, nothing could be built because dense cypress swamps intervened. In the early 1800s the city sponsored efforts to drain the swamps by constructing drainage canals leading to the lake. However, these efforts were largely ineffectual until the turn of the twentieth century, when Alfred Baldwin Wood, an engineer and native Orleanian, invented a pump capable of lifting great quantities of water that also might contain tree trunks and other large debris. The city authorized using the canals to drain the cypress swamps with Wood pumps, and by 1910 all were drained. The newly created land was low and required protection from floods by means of manmade levees constructed along the old drainage canals. Confident of the safety provided by these levees, developers began building houses, although not as houses had been built before, that is, clustered and raised above ground level. According to the fashion of the day, sprawling neighborhoods of ranch-style homes on concrete slabs were built. The new homeowners felt that they were as safe as those who lived on the natural levees.

A subsequent extension of so-called buildable land occurred when the city authorized a subdivision of the fifty square miles of low-lying ground in what is now called New Orleans East. Much of this land was drained and developed in the 1970s. Here, too, residents living below sea level felt safe because levees separated them from Lake Pontchartrain and the Mississippi flood zone.

A topographic map showing the city's various elevations graphically delineates the areas inundated by Katrina's flood waters on August 31, 2005. The image also shows how false – and how tragic – the feeling of safety was in many neighborhoods on the reclaimed land. The parts of town that came into existence after 1900 – Lakeview, for example, lying adjacent to the 17th Street Drainage Canal – were several feet under water when one of the canal's embankment walls gave way. In vivid contrast, the neighborhoods built on the natural levees suffered little damage. Some were already dry while Lakeview was still under ten feet of water. New Orleans East was completely flooded. In purely historic terms, if a street existed on a map of the city drawn before 1900, the houses there were probably undamaged by the flood.



Following Katrina, a common idea for rebuilding the devastated city has called for the reduction of its physical extent and clustering replacement housing on the higher ground of the natural levees. Such a proposal would turn the city back to its historic confines, house people in safer neighborhoods, and simultaneously reduce the extent and cost of municipal services. It seemed in the early days after Katrina that government could affect this proposal by preparing a rational redevelopment plan. Two phrases were employed to express the commonsense rationality the plan suggested: "shrink the city's footprint" and "increase the residential density on the natural levees." Both alienated the citizens who heard them. *Shrink* meant some neighborhoods would not be rebuilt, causing individual homeowners to lose equity, even though in many cases their houses were ruined or no longer standing. *Density*, as applied to this sprawling, low-scale, low-density city composed mainly of one- and two-story houses, implied high-rise development on the natural levees and suggested the Le Corbusier-inspired housing projects found in Chicago and other cities. Density in these terms seemed out of scale with the type of development that has long typified New Orleans.

It must be said that this is a city now fearful of the future, a city divided between neighborhoods safely located on the natural levees and those on low-lying, imperiled land. Citizens on the high-ground areas are afraid of the changes that increased density might cause in the neighborhoods to which they have returned. On the other hand, residents of neighborhoods at or below sea level – most of whom have not been able to return and, without government assistance, have no economic means to do so – are afraid that shrinking the city's footprint will mean they will not be allowed to resettle. At present, public officials have responded to these fears by abandoning a large-scale redevelopment plan in favor of allowing the real estate market and the decisions of individual property owners to determine how the city will be rebuilt.

Flood areas in New Orleans post-Katrina. Map courtesy of Greater New Orleans Community Data Center. Flood depth data courtesy of National Oceanic and Atmospheric Administration.

Notwithstanding this laissez-faire policy, government could still have an important role in the city's rebuilding by legislating new measures to encourage more people to live on higher ground. A short excursion around the revived neighborhoods on the natural levees shows that there is ample vacant property, vestiges of the twenty-five percent population decline the city has suffered since 1960. These vacant spaces are scattered and hardly suitable for a concentrated redevelopment plan, yet each vacant lot and each dilapidated house could nonetheless be made available to entrepreneurs interested in building moderately denser residential structures. In fact, in the natural levee neighborhoods there is already a scattering of multifamily housing. Neighborhoods built before 1900 have fourplexes and small apartment buildings with as many as twelve residential units. A closer study of the blocks containing these small multifamily buildings reveals an older pattern of residential development in New Orleans: large buildings anchor a block at its corners, especially along the major boulevards. Adjacent buildings step down toward the middle of the block where smaller, one- or two-family structures stand. There is no sense of overwhelming density in these blocks, nor would there be if such a pattern was allowed by zoning in natural levee neighborhoods.

In this city that so famously values historic preservation, if the discussion could move away from contentious notions of shrinking the footprint and increasing density and instead concentrate on determining how many people could be housed according to historic building patterns, a safer, more compact city of the same residential scale could be made attractive to homeowners, renters, and neighborhood preservationists.

The mechanism to achieve this is a simple one, familiar to most city-dwellers: the zoning ordinance, which limits what can be built on individual pieces of property. The city could legislate a Historic Residential Density Zone for the areas of town that lie on natural levees. In this zone new construction would follow the existing step-down pattern, with apartment buildings of no more than six to ten units at the corner of designated blocks and one- or two-family houses in between.

Any student of municipal land-use regulation knows that zoning does not create development. In fact, zoning is used mostly to prevent incompatible uses within a given area. Because zoning sets the ground rules for allowable development, the Historic Residential Density Zone could be used to offer an opportunity for individuals to rebuild New Orleans in a manner consistent with its history, that is, its history of locating people on safe ground. – Kristina Ford

The live oak (Quercus virginiana) *is a native species as its botanical name denotes, one indigenous to the American South but rarely found farther north because of its extreme susceptibility to freezing temperatures. It acquired its common name because it remains foliated almost all year round, shedding and regenerating leaves for only a few weeks in the spring. It can attain fifty feet in height with a canopy spread of 150 feet. The trunks of mature old trees can reach over fifty inches in diameter. The roots spread laterally, and root collars often produce shoots that form dense colonies of new communal growth. It is a long-lived tree tolerant of salt spray, high soil salinity, brief flooding, rain, and hurricane-force winds. As such, it is particularly well adapted to areas adjacent to subtropical coastal wetlands.*

Live oaks were once planted in allées with their branches arching over the entrance drives of plantations. Later they were adopted as street trees in many Southern cities. In New Orleans, where their venerable canopies overhang major boulevards, they are one of the distinctive features of the city. Traveling to New Orleans for several extended stays since Katrina, Roberta Brandes Gratz observed at close range the people who, for the most part bereft of government assistance, nevertheless are determined to rebuild their neighborhoods.

Sturdy as an Oak: The Landscape of Community in New Orleans

The community of New Orleans is like the city's great live oak trees – strong, disaster-resistant, and amazingly resilient. Time reveals the community's strengths as it already has proven the strength of the oaks. Most of the oak trees that provide the glorious arched canopies over the city's streets and boulevards and so elegantly grace the city's parks are more than a hundred years old. Only a small percentage were felled by Katrina, and their proud presence stands out in sharp contrast to the devastation around them.

Live oaks grow in clusters, and their spreading roots form a network connecting one tree to the next and holding the extended tree family together. The trees survive so well because they are indigenous to the region. In New Orleans, where they are frequently subjected to fierce coastal storms, they have endured because their twisting branches spread outward as well as upward, leaving ample room for the wind to pass between them. Similarly, their roots spread wide but stay firmly connected to the thick, gnarled trunk, lending strength and balance to it and the branches above.

Because in no other American city have familial networks remained as strongly rooted to particular neighborhoods as they have in New Orleans, the city's history is unique. Like live oaks, with their strong, interconnected root systems, the city's white, African-American, and Creole families have gained strength from their habitation in well-defined neighborhoods for many generations, attributable in part to the fact that many Orleanians live in mortgage-free houses their grandfathers or fathers built. To be sure, other American cities also had deeply entrenched demographic patterns before post-World War II redevelopment policies and relocation choices dispersed families geographically. In New Orleans, however, these patterns have proved more resistant to disruption than elsewhere.

Take, for example, the Alexander family. After the Korean War, five siblings and their father bought an undeveloped parcel of land in the former swampland of New Orleans East. Each had construction skills that enabled them to help build houses for one another, establishing a family compound. Over time, they bought or built more houses in the vicinity for other family members. As with many African-American families in New Orleans, buying additional properties was for the Alexanders a normal form of investment. "Savings went into real estate," explains Maria Alexander, who boasts of having ninety family members living in New Orleans, mostly in New Orleans East. "That is our base," she says.

The Alexanders' wide-spreading family tree has roots in the 1700s. According to Maria, "We have letters of my grandfather courting his wife-to-be in the Dominican Republic. They came to New Orleans after their marriage and settled in Tremé."

Tremé, which is adjacent to the French Quarter, is the oldest black community in America. It is a compact, tightly developed mix of Creole cottages and long, single-room-wide shotgun houses. After World War II, when the swamps near Lake Pontchartrain were filled and made ready for suburban development with single-story houses constructed on concrete slabs at grade level, the Alexanders moved to New Orleans East. The typical house types in the new community represented a departure from the traditional homes in Tremé, all of which had raised footings. Despite the destruction of the Alexanders' houses by Hurricanes Katrina, the family considers rebuilding to be a matter of course.

Then there is the Harris family, two sisters and their grandmother, living in the Lower Ninth Ward. Contrary to media reports, the Lower Ninth Ward is not the lowest point in the

View down a tree-lined neutral ground (the Orleanian term for median) on Northline Street in Old Metairie. Here as elsewhere in the city live oaks may have been stripped of leaves and branches by high winds but were not severely damaged by standing floodwater.

city; the three Harris family homes are only one-and-a-half feet below sea level. Nor is the Lower Ninth Ward as poor as has been reported. Although forty percent of its residents are classified as unemployed, many are retirees living on pensions. Moreover, at least sixty-five percent of the inhabitants – teachers, musicians, doctors, medical workers, limo drivers, tourist industry employees, and the like – have inherited their homes and own them outright.

"Many of us can afford to leave for higher-income districts but choose to stay because we are very connected to our community," says Tanya Harris, head organizer for New Orleans ACORN (Association of Community Organizations for Reform Now), the local branch of an organization that works in more than seventy-five cities across the United States to improve housing conditions for poor people, increase community safety, secure living wages for workers, and improve the quality of local schools. Since Katrina, ACORN has helped clean some 2,000 homes of debris, readying them for rebuilding. The organization is also redeveloping 150 vacant, city-owned properties as affordable housing.

Tanya and her sister Tracy have rebuilt their adjacent one-story brick houses with second mortgages, and ACORN helped their grandmother replace her wiped-out home on the next block. "The city did everything to discourage us," says Tanya. "We had to bully and badger every step of the way to secure water, electricity, and gas. We had no intention of moving elsewhere." The Harris clan traces their African and Creole heritage back to the 1700s and 1800s. Most descendants still live in New Orleans or in other nearby parts of Louisiana. One cousin moved to California, Tracy Harris says.

Uptown patrician New Orleans reflects a similar pattern, with many generations of old-line families firmly rooted in the Garden District and other legendary neighborhoods. Explains Jim Dart, an architect now living in New York who has many relatives still in New Orleans: "It is not about what you do or how much money you have but who your daddy was." Indeed, ancestry is probably a more strongly defining force in New Orleans than in most other cities. Whether they live in the Garden District, Tremé, or the Ninth Ward, many families identify with the neighborhoods in which their forebears lived and where they now own homes, making it unrealistic to think that they can be moved about the city's larger landscape like pieces on a chessboard. What is true for remaining residents holds for evacuees too. "All those people given a one-way bus trip to Houston will come home," says one retired hospital employee who has returned. "At least many of them will. Orleanians don't want to stray far from home and surely not far from their food and music for long."

Lakeview is a predominantly white middle- and upper-income suburban neighborhood bordered by the 17th Street Drainage Canal, Lake Pontchartrain, and City Park. Seven feet of water inundated most of the 11,500 homes there. Because of their greater affluence, its former residents – perhaps not as genealogically conscious and tied to their ancestral homes as Orleanians in other neighborhoods – have greater choice to exercise the option of relocating elsewhere than those in some other low-lying parts of the city. Yet they are returning, and the neighborhood appears to be gradually coming back to life. Having useful building skills of her own and determined to rebuild quickly, Denise Thornton has become a valuable resource for displaced neighbors wanting to come home. "We're perceived by America as upper-middle-class people not needing outside help," she says with a clear note of bitterness, "but if the people who used to live here had the means to go it alone, they'd be back now."

Many previously affluent former Lakeview residents without flood insurance now face a daunting dilemma. To help them and others return and rebuild their homes, Thornton formed Beacon of Hope, a grassroots organization with locations in nine neighborhoods within the lake district. Beacon's centers, which are housed in the homes or offices of some of the returnees, serve as all-purpose resource sites, dispensing tools and advice, assisting in obtaining building permits and hiring contractors, and serving as clearinghouses for information. Beacon has helped hundreds of homeowners through various steps in the rebuilding process. Thornton estimates that probably thirty-five percent of Lakeview homeowners have either returned or are in the process of doing so.

"We are rebuilding from the ground up," she says. "Like a virus, we start in one place and keep spreading out to other neighborhoods, sidestepping government while getting what we can from it. Aside from debris removal, government services were nonexistent for long after the storm. The Sewage and Water Board, for example, was totally unresponsive," she says angrily. "We bird-dogged them to vacuum out the storm drains. The same with the post office to resume delivery. I brought the postmaster out here and drove him around to show him people were returning." She did the same with trash collectors and Internet and cable service providers.

Thornton exemplifies the force found in more than a hundred citizen groups pushing against government resistance at every level. "We connect the dots between people and government to make things happen," she explains. "Citizens around the city are galvanized into action. People are feeling

Corner store at 3231 Dauphine Street in Bywater.

empowered. New leaders are emerging every day. The magnitude of what is happening amazes me. People ripped from their homes want to return. What home means to someone is the same whether it is in public housing, the Lower Ninth, or Lakeview," she adds with passion. "No one wants to live in isolation. This is not the country. People want their neighbors back, their friends." Indeed, if you spend time driving about the city, you see FEMA trailers in driveways and National Guard patrols here and there. But mostly you see neighborhood residents and the thousands of volunteers who have come from all over the country to help rebuild homes.

Unlike so many other cities where corner stores and local businesses that served as neighborhood anchors have been lost to suburban flight and urban renewal, New Orleans retained these stabilizing elements as part of a unique culture of place. They were as significant as its famous food and music. Vaughn Randolph Fauria, who runs the Newcorp Business Assistance Center, points to two main obstacles to reopening: lack of financial resources to make repairs and uncertainty about whether the levees will be properly rebuilt to withstand future hurricanes. "You need a critical mass for businesses to survive and there are too many forces that do not want this city to recover and only want enough people back to service the tourist industry." She points out that local residents support local businesses, and without a sufficient number of people returning, it is difficult to see how such businesses can ever reopen. "Poor people tend to shop locally," she says. "They don't do their shopping on the Internet, and they don't go on vacations."

New Orleans's small businesses, in fact, have been coming back more rapidly than the large chain stores. Dry cleaners, hardware stores, gas stations, gift shops, coffee shops, and restaurants scattered in neighborhoods around the city are beginning to sprout open signs in their windows. "The ACE Hardware stores, a locally owned franchise, was the backbone of our early recovery," notes Fauria. "I wish they sold lumber."

The overwhelmingly desolate landscape of the damaged city makes it easy to be discouraged about the prospect of recovery, especially if one fails to observe the diverse citizen-led efforts. Most distant observers focus primarily on environmental issues and the ill-conceived development of the city after 1900. These experts suggest alteration of the city's current footprint. Many recommend retrenchment. They advise caution, saying that areas should be "closely studied" before investment is made. They maintain that concentrated efforts should be made on "viable areas," calling for a "seriously reimagined" and "reengineered" city and a "reversion to green space." The code words are endless and perceived by many as euphemisms for questioning whether it makes sense to rebuild the Lower Ninth Ward or New Orleans East.

The serious erosion of the Gulf Coast that makes New Orleans so vulnerable has a long history, with many powerful commercial interests receiving benefits at the expense of the environment. The solution cannot be found either in the Lower Ninth or New Orleans East. Even if no one returned to either area, those districts would not lie fallow.

For the past four hundred years human beings have interrupted the natural geological processes allowing sediments, swamps, wetlands, and barrier reefs to form a natural system of land protection, so coastal restoration surely should be the starting point in rebuilding the city.

Restoring the coast, or even beginning the long restoration process, would help put New Orleans on a firmer foundation. Like the city's live oaks, the roots of its communities would be more securely anchored. "Lively, diverse, intense cities contain the seeds of their own regeneration," Jane Jacobs wrote forty-six years ago in *Death and Life of Great American Cities*. Those seeds are germinating in the neighborhoods of New Orleans, but in order to grow they must be nurtured and fertilized, not neglected, abandoned, and lost. – Roberta Brandes Gratz

The lush semi-tropical vegetation of New Orleans is a defining characteristic of the local landscape. Majestic live oaks line many of the city's streets, and their arching branches filter the sun and create tunnels of dappled light on the ground below. Trees associated with swamp conditions, such as bald cypress, black willow, and red maple, are common. In addition, magnolias, crepe myrtles, bananas, palms, and other tropical plants enliven both private gardens and public spaces. Hurricane Katrina's flooding and high winds damaged or destroyed much of the community's vegetation. Lake Douglas discusses what is being done to repair that damage.

Landscape Challenges for Post-Katrina New Orleans: *"Il faut cultiver notre jardin"*

Much has been written about recovery and rehabilitation of New Orleans and the Gulf Coast, most focusing on repairing lives, rebuilding businesses, renovating homes, restoring neighborhoods, and replacing infrastructure. These are critical components of the reconstructed region, but even when reinstated, they will not recreate the pre-Katrina landscape.

First-time visitors to New Orleans often noticed the city's lushness and the canopies of trees, marveled at the mottled ground planes of sun and shadow, and commented on the dense combinations of tropical and native plants. But post-Katrina, the city's appearance has changed, and the differences range from subtle to dramatic. Around eighty percent of New Orleans was flooded, and many areas had more than four feet of water. The receding waters left a grayish sludge that people feared might be toxic. The sludge soon caked and cracked, forming a blanket of grey dust that remained for weeks as a result of a two-month drought. Trash and debris from trees covered the ground and made streets impassable. Though the air was clear, there was an ominous smell and an eerie silence; absent were insects, animals, people, and the sounds of the city. Many trees that stood in the floodwaters died, notably the southern magnolias (Magnolia grandiflora). Trees that survived such as live oaks (Quercus virginiana), crepe myrtle (Lagerstroemia indica), sycamore (Platanus occidentalis) and bald cypress (Taxodium distichum) were often stripped of foliage and branches. Pine trees snapped like pencils and became strange sentinels marking pockets where tornadoes spun off from hurricane-force winds.

The twenty percent of the city that did not flood – the Vieux Carré, the Garden District, and sections of Uptown on the river side of St. Charles Avenue – was affected very little. While there was wind damage in some places, the landscapes were

soon put back in order. Riding around these neighborhoods within weeks of the hurricane, it seemed as if nothing had happened, a situation in sharp contrast to neighborhoods just blocks away.

Major traffic arteries, many lined with trees, connect the undamaged neighborhoods with the rest of the city. St. Charles Avenue, one of the city's principal thoroughfares and tourist attractions, was relatively unscathed. By contrast, Broadway, a major artery connecting the university area uptown with Mid-City was particularly hard hit. The mature magnolias that lined the street for many blocks died from standing floodwaters. Some street tree plantings survived the storm but, like all other trees, were noticeably thinned out by winds. Elsewhere, mature live oaks, water oaks (*Quercus nigra*), and red oaks (*Q. falcata*) were severely damaged or toppled over, leaving gaps in the allées. Perhaps the only consolation was that many of these trees had passed their maturity and were already in a state of decline.

Audubon Park and City Park

Audubon Park, designed by the Olmsted Brothers beginning around 1900 on the river side of St. Charles Avenue, is one of the city's major open spaces and did not flood. Although it suffered wind damage, the debris was quickly cleaned up. City Park, located near the 17th Street Canal, was not so fortunate. Almost a third larger than New York's Central Park, this major open space was covered with four feet of brackish floodwater for several weeks. When the waters finally receded, the losses were great: almost 1,000 trees died, debris was everywhere, green spaces turned brown, and the lagoons were full of trash. The park's golf courses, a main source of revenue, were destroyed. Staff resources diminished almost completely, and nearly all the parks department's tools and equipment were useless. Initial clean up came from Army Corps of Engineers and National Guard personnel, and subsequent efforts have come from volunteers: neighbors, garden clubs, visiting conventioneers, and others. These efforts continue, and the park's director is often seen on a lawn mower. There is even an organized cadre of local residents who call themselves the "City Park Mow-Rons." They can be seen picking up trash and cutting grass on weekends with their own equipment. Some parts of the park, particularly those that are most visible, look relatively good, and park visitors are returning. Other parts remain un-mowed, and native plants are taking over, giving the park more the appearance of a nature preserve rather than a recreational facility. In my view this is not altogether bad, as it inserts a bit of apparently untamed nature into the city's landscape. Moreover, it provides park visitors with the type of romantic landscape that is otherwise difficult to find in urban areas. Nearby residents and former park users struggling to replace flooded homes and restore some sense of order to their lives, however, probably do not appreciate this admittedly nineteenth-century perspective and prefer instead to have the park returned to its familiar appearance.

City Park Botanical Garden

While many areas of City Park remain untended, the Botanical Garden, designed by landscape architect William Weidor and architect Richard Koch and built during the 1930s, has been completely restored to a condition arguably better than before the hurricane. There were particularly tragic losses: mature magnolias, hedges of camellias (*Camellia sasanqua*) and sweet olives (*Osmanthus fragrans*), and the entire rose garden. However, the centuries-old live oaks that form the garden's structure survived. Within days of the storm, the Botanical Garden Foundation board and staff met and quickly decided to divert money originally pledged by a local foundation for the final phases of a capital project into garden restoration, and within weeks work started. The garden was abuzz with the activity of workers who exceeded in numbers the WPA crews that had originally built it. Trash was quickly removed, an antiquated irrigation system was replaced, and new plants were installed. Three months later, thanks to an expenditure of nearly $2 million, the garden was largely restored and reopened. It soon became a welcome green space of refuge and renewal for those returning to nearby flooded homes and devastated neighborhoods.

Longue Vue, Orleans Parish.

The Sydney and Walda Besthoff Sculpture Garden

The Sydney and Walda Besthoff Sculpture Garden, a recent addition to the New Orleans Museum of Art designed by landscape architects Sawyer/Berson and local architects Ledbetter-Fullerton, experienced damage from flood water and winds. Losses include over 25,000 groundcovers – Asian jasmine (*Trachelospernum asiaticum*), Japanese ardisia (*Ardisia crispa*), holly fern (*Crytomium falcatum*), and dwarf mondo grass (*Ophiopogon japonicus*). Also destroyed were 900 shrubs – azaleas (*Rhododendron spp*), camellias (*Camellia japonica spp*), pittosporum (*Pittosporum tobirum*), and privit (*Ligustrum lucidum*). Magnolias, existing and new, did not survive having "wet feet," and pines were snapped off or blown over. Trees were denuded of their canopies, and those already under stress because of adjacent work likely will not survive. Soon after the return of the garden's curator, clean-up crews from Parish Prison began work, and the garden reopened this past spring. On the instructions of the museum's director, some dead plants were allowed to remain for a period so that visitors could appreciate the storm's magnitude, and this proved an effective strategy for raising money for garden restoration. Otherwise, damaged trees were pruned and fertilized, and the replacement of shrubs and trees is now mostly complete.

Longue Vue House and Garden

Longue Vue House and Garden, designed by architects William and Geoffrey Platt in collaboration with landscape architect Ellen Biddle Shipman and naturalist Caroline Dormon, was built between 1939 and 1942. Located near a lower portion of the 17th Street Canal, Longue Vue's gardens had significant flooding and wind damage. At least two feet of brackish water covered the grounds and inundated the basement of the house. Winds caused significant damage to mature trees and shrubs, particularly in the Wild Garden. Several years ago this secluded garden, then in a state of decline, was thoroughly renovated by landscape architect Patricia O'Donnell, whose firm specializes in historic landscape preservation. O'Donnell sought to recapture Shipman's original design and Dormon's planting scheme. Trees and shrubs were selectively removed, the soil was replenished, and new plantings and a new irrigation system were installed. The Wild Garden was just beginning to recover when Hurricane

Katrina set progress back years, if not decades. With the loss of its mature trees, what once was in deep shade is now in full sun, and it will take a long time to achieve the conditions favorable for shade-loving plants to grow.

In other parts of the Long Vue garden, brackish floodwaters caused high salinity levels. When these were finally reduced by rains, ground covers and shrubs were replaced. In the Spanish Court the boxwood (*Buxus sempervirens*) parterre has been replanted and damaged fountains repaired. Absent, however, are many large mature pines that once framed the Wild Garden. Although these losses are lamentable, they have provided opportunities to redesign parts of LongVue in the spirit of Shipman's original plan.

A Greener City

In the last few months a new organization, the Friends of Lafitte Corridor, has emerged to advocate for the creation of a linear park in the bed of the Carondelet Canal, now an abandoned railroad right-of-way that is being eyed by developers. In rebuilding itself, New Orleans has other opportunities to create new parks.

Those of us who have returned are, at least metaphorically, committed to replanting. We are like Voltaire's Candide who, at the end of his misadventures and misfortunes abroad, declares: "*Il faut cultiver notre jardin.*" Perhaps this is a fitting approach for the new *Nouvelle Orleans* that will come into being as the city struggles amidst political squabbling and a lack of visionary leadership to heal itself, regain a viable bargain with nature, and "make our garden grow." – Lake Douglas

Conservatory, New Orleans Botanical Garden

In 2003 the Center for American Places republished Peirce F. Lewis's 1976 classic, New Orleans: The Making of an Urban Landscape. *In the book's new second section Professor Lewis, dismayed by many of the changes that had occurred over the previous twenty-five years, prophetically forewarned of the city's peril in the event of a major storm. Now that disaster has occurred, a third edition is planned with the following epilogue.*

Learning from the Past and Predicting the Future of a Great American City

As this is being written, more than a year has passed since Katrina devastated much of the Gulf Coast of Louisiana and Mississippi and flooded about eighty percent of New Orleans. The floodwaters have been pumped out and megatons of wreckage removed, but it is not too soon to say that New Orleans will never be the same again. It is much too early, however, to foretell exactly what it *will* be. Some experts predict that it will take a decade or more for the city to recover, and nobody, expert or not, will vouchsafe a prediction as to what precise shape the city will take.

There is, nevertheless, room for some general predictions. The city's footprint will undoubtedly be considerably smaller than it was in pre-Katrina times, and it will be heavily biased toward the areas that escaped serious flooding in the aftermath of the storm, namely, the natural levees of the Mississippi and its old distributaries, Bayou Metairie and Bayou Gentilly. In sum, the shape of the city as drawn on a map will look very much as it did before Albert Baldwin Wood's great pumps dried out the backswamp and opened it to what has now proved to be reckless residential development. While precise figures are not yet available, it seems that the new population of New Orleans will be smaller – probably much smaller and also whiter. An acute shortage of affordable housing makes it unlikely that many of the poor black refugees can or will return to the city. Merrill L. Johnson, a highly perceptive scholar on the geography faculty of the University of New Orleans, wrote that "the wisdom on the street suggests that the city's new permanent population may not exceed 250,000 people, about half of that in pre-Katrina days." Johnson goes on to cite several authorities whose estimates are even lower.

There is, of course, a great deal that we cannot know about the city's future. The major unknown is the degree to which new construction will occur in the lowest and most seriously flooded parts of the old backswamp: Central City, Mid-City, and Broadmoor. It would make sense to put the most heavily flooded areas off-limits to rebuilding – at least temporarily. Politically, such a suggestion is a very hot potato. Nobody in decision-making circles wants to be accused of refusing dispossessed people the right to return to their homes, even if those homes were under ten to twenty feet of water after Katrina.

The story of Katrina and what it did to South Louisiana does bear examination, if only to glean a few lessons for future behavior in preparation for the inevitable next big storm.

In my view, there are two general lessons to be learned. The first is simple: For years, New Orleans had been relying insouciantly on luck and technology to protect it from storm surges driven by hurricanes from the Gulf. Luck seems to have served the city on several occasions when hurricanes narrowly missed the city. Katrina, however, clearly warned Orleanians that their beloved city cannot depend forever on luck to escape the wrath of another major storm, which is likely to cause devastation surpassing even that of Katrina.

As for reliance on technology, or what some have called "technological hubris," the second lesson of Katrina is even more sobering. Ever since Bienville stepped ashore in 1717, engineers have been tinkering with the topography and hydrology of the lower Mississippi in the hope of keeping the city and its surroundings as dry and stormproof as possible. As the power of technology grew, those engineering efforts became more and more ambitious. Thus, when they backfired, as they clearly did, the consequences were correspondingly calamitous.

Two examples show how the best efforts of technology have not merely failed to protect the city, but ironically have increased the danger from hurricanes boiling out of the Gulf of Mexico.

One of those technological interventions is simply the building of artificial levees on the Mississippi below New Orleans. Those levees did what they were intended to do: keep the river from flooding the wetlands south of the city, protect oil drilling and shellfishing, and permit residential development. But the levees also starved the delta of the sedimentary deposits of sand, silt, and clay that created it in the first place. That starvation has continued for more than a century, but shoreline erosion along the Gulf shore has not, and the coastal wetlands have shrunk dangerously, reducing the protection wetlands afford during a storm surge. Scientists from Louisiana State University have calculated that Katrina's surge was four to five feet higher than it might have been had the storm

occurred at the turn of the twentieth century when the delta was much larger than it is today.

The second, ultimately catastrophic, environmental intervention was the draining of the old backswamp behind the Mississippi's natural levees in the city of New Orleans, starting around 1890 and continuing for several decades. Two things enabled this effort: Wood's great pumps and a series of outfall canals that raised water above the swamp and poured it northward into Lake Pontchartrain. At the time, nothing but praise could be heard for the pumping, which triggered the rapid expansion of New Orleans northward to the newly embanked shore of the lake. Occasional voices were raised, warning that most of the drained areas lay at or below sea level and that with time the organic material beneath the backswamp would subside and further lower the surface. But there were huge sums of money to be made by those who speculated in real estate. By the 1940s the geographic center of New Orleans was situated in a large shallow bowl surrounded by the waters of the Mississippi River, Lake Pontchartrain, and Lake Bourgne, and well below the level of all of them.

Katrina's storm surge forced water from the Gulf into Lake Bourgne and Lake Pontchartrain. Contrary to all advance planning, the outfall canals were forced to flow backward, out of swollen Lake Pontchartrain (now seventeen feet above normal), and into the city. Despite residents' previous warnings that the levees chronically leaked whenever there was high water, these concerns were not heeded, with the result that the outfall levees burst and flooded much of the city. The Army Corps of Engineers would later admit that the levees had not been built properly, but that concession misses the larger point that reliance solely on technology is seriously misguided. No less a figure than Dennis Hastert, then Speaker of the House of Representatives, wondered what people had been thinking when they built a large city below sea level in the accustomed path of tropical hurricanes. Although many mocked the speaker's question, it truly got to the root of the matter. Experience and common sense dictate that one should not put infinite faith in the power of technology. Sensible people simply do not build cities below sea level along the stormy shore of a tropical sea. Yet they did it anyway, and Katrina forcibly illuminated the folly of such action.

Have Orleanians learned the lessons of Katrina? The question is problematic. After all, people driven from home in a beloved place naturally want to return, even if it is a perilous place. Only time will tell if sentiment or commonsense will win out. Past experience does not hold out much cause for optimism. As Orleanians have been saying for a long time, *laissez les bon temps rouler!* – Peirce F. Lewis

Exhibition

Ecotopia: The Second ICP Triennial of Photography and Video*
International Center of Photography
September 14, 2006–January 7, 2007
Curators: Brian Wallis, Edward Earle, Christopher Phillips, Carol Squiers with assistant curator Joanna Lehan

Following its first triennial, *Strangers*, a 2003 exhibition that examined the psychological interactions of people in public spaces, the International Center of Photography recently mounted a second exhibition, *Ecotopia*, in which the diverse work of forty contemporary photographic artists from twenty countries were grouped around the related themes of landscape and the environment. A conflation of "ecology" and *topia*, the Latin word for landscape paintings, the neologism "ecotopia" carries an intentionally ironic meaning that suggests the depiction of a disquieting, dystopian future. In keeping with this notion, several of the artists represented in the exhibition subtly subverted earlier pictorial conventions for representing nature or made direct political statements about its threatened state.

Whether employing high-resolution film scans or digital capture, photographers today can print mural-size works with no loss of definition. In addition, programs such as Maya and Bryce extend the power of Photoshop to manipulate images, allowing photographers to create fantasy worlds. Such is our inherited faith in photography's veracity as a representational medium that we take these landscapes of the imagination as evidential even though we recognize them as creative works of art. Moreover, video photography and screen projection have broadened the scope of this evolving art form as the selection of artists in the ICP show made clear. The technology of photographic digitization thus permits a pointed critique of industrial technology's rampant conquest and degradation of nature, confronting us with astonishing, anxiety-provoking images of environmental pollution, military destruction, and the homogenization of culture by corporate activities, all on a global scale.

Photographers such as Simon Norfolk draw upon the time-honored conventions of Romanticism to heighten the disjunction between the idealized scenery of the past and the environmentally damaged scenery of the present. Norfolk's portrayal of modern ruins consciously employs an aesthetic derived from art history. His photographs are meant to evoke ruin-strewn Arcadian scenes, a staple of European painters from the seventeenth through the nineteenth centuries. His ruins, however, are the consequences of recent warfare in Afghanistan and Iraq, rather than the slow decay of the monuments of an ancient empire or the moldering of the medieval monasteries so admired by Picturesque painters and landscape designers. Bathed in the warm golden light of late afternoon, *Date Grove, Atifya, Northern Baghdad*, with its missile-studded foreground in shadow, or *The North Gate of Bagdad (After Corot)*, with what appears to be a French countryside allée of poplars dominating the partially revealed, half-destroyed monumental city portal, have an intentionally ironic beauty.

In a similar fashion, Adam Broomberg and Oliver Chanarin explain their politically charged "Forest" series depicting the second-growth trees that now blanket the landscape of former West Bank Arab settlements, maintaining in "Ecotopia: A Virtual Roundtable," the email, fax, and telephone "discussion" the show's curators moderated and placed

Christopher LaMarca
from "Forest Defenders," 2005

*The Foundation for Landscape Studies Gallery is proud to host a selection of images from this exhibition. To view, go to www.foundationforlandscapestudies.org.

as the foreword to the exhibition catalog:

> Our strategy here is to photograph the forests at the crack of dawn so the quality of light reinforces the feeling of harmless beauty, the myth of nature. Here we have appropriated conventions used in landscape painting, including the notion of the sublime and the picturesque.

Also looking back to the aesthetics of the past, Clifford Ross pondered the theories of Immanuel Kant's *Analytic of the Sublime* (1770) as he set out to capture shifting light and atmosphere in his "Mountain" series. Working every day from four o'clock in the morning until nine in the evening, Ross used his self-made, six-foot-tall, sixty-pound camera, which he calls the R1, to record Mount Sopris in Carbondale, Colorado, over the course of a month. This unique camera allowed him to capture continuous depth of field, thus revealing distant details and layers of atmosphere with a high degree of optical fidelity. Such is the clarity of his 2.6 gigabyte file scans, here printed at the scale of five-by-ten feet, that one can experience *Mountain XIII* from the series almost as a personal immersion in wilderness, the hiker's pleasure in the quiet sublimity of an unmarred landscape.

While Ross does not engage in environmental politics overtly, Mitch Epstein's "American Power" series does. The looming presence of gigantic stacks and cooling towers behind an utterly ordinary scene of backyard garden paraphernalia in *Amos Coal Power Plant, Raymond, West Virginia* is a surreal testament to our desire to cling to the conventions of quotidian existence even in the shadow of overpowering, and possibly toxic, industrial landscapes. Intending to photograph oil-drilling operations on the Gulf Coast in 2005, Epstein found himself a witness to the aftermath of Hurricane Katrina. In *Biloxi, Mississipi* he captured a surreal scene in which a large mattress is impaled on one of the branches of a nearly leafless tree while other branches are festooned with bedclothes. A nearby doubled-over palm tree wears its dead canopy like a floor-length hula skirt. Epstein's image has an eerie poignancy because the detritus it displays simultaneously evokes human presence and absence. By contrast, *New York Times* photographer Vincent Laforet's journalistic shots show New Orleans residents in the throes of their distress.

Gilles Mingasson's photographs document another kind of climatic disaster: global warming. His series portraying the Inupiat village of Shismaref on the Alaskan island of Sarichef, which is relentlessly eroding into submerged non-existence, renders the inhabitants' dilemma as their spring seal-hunting economy becomes increasingly untenable, and they face the unhappy prospect of imminent resettlement elsewhere. Their elders now wrestle with the need to relocate the ancestral burying ground that Mingasson captures in a white-on-white image of painted cemetery crosses and snow. In another documentary photo essay Robert Adams partially traces the route of Lewis and Clark's 1803 exploration of the Northwest Territory in his series, "Turning Back: A Photographic Journey," portraying human, rather than natural, destruction in images of clear-cut forest along the Columbia River and in the Cascade Mountains – a scathing anti-celebration of the expedition's bicentennial. Forest destruction is also the focus of Christopher Lamarca's photographic portraits of activists protesting the logging activities expanded by the Bush administration.

Comprising structures that recall the architecture of Mies van der Rohe, Le Corbusier, and other modernist architects in a townscape of piled-up houses reminiscent of Greek or Italian hillside villages, Doug Aitkin's *Plateau* depicts a studio construction created entirely of FedEx boxes. "Colonized" with starlings, it is a weirdly futuristic fantasy of urban globalization devoid of human presence.

Goran Devic's short documentary film, *Imported Crows*, shows how a few crows released in the 1950s to control gypsy moths in the town of Sisak, Croatia have extravagantly multiplied. Devic's film includes interviews with residents who are unsuccessfully seeking to evict their unwanted avian neighbors. Seen from a different political perspective, the birds – traditionally associated with death – have defenders who view their destruction as symbolic of ethnic cleansing.

Instead of a single bird species, more than a hundred figure in "Bird Hand," Victor Schragers's series of platinum prints. But unlike Audubon's famous *Birds of America* prints in which the botanical and the ornithological are united to form dramatically alive, imaginary scenes of pristine nature, Schrager's hand-held birds suggest captive beauty rather than freedom in the wild.

In her "Safari" project Catherine Chalmers has created a post-human world in which insects, amphibians, and reptiles have inherited the earth. Magnified by a ground-hugging video camera, these tiny creatures display predatory behavior both fascinating and disturbingly Darwinian in its testament to nature's indifference to the wars of biological survival.

By contrast, Mary Mattingly adopts an anthropocentric perspective with her seeming faith in human ingenuity for the purposes of survival. Her digitally creative photographs are fictive virtual realities that inspire an unsettling credence in an eerie future where technologically adept nomadic people inhabit strangely constructed wearable homes as they move through bleakly beautiful natural landscapes.

Simon Norfolk, *The North Gate of Baghdad (After Corot)*, 2003

Looking backward toward an imaginary scene that, like Aitkin's globalized townscape and Chalmers's futuristic scenarios, had to be constructed before it could be photographed, Harri Kallio depicts the dodo, the large flightless bird that became extinct after the Dutch colonized the island of Mauritius in the seventeenth century. After studying fossil remains, Kallio crafted a pair of artificial dodos, which he transported to Mauritius and photographed in their original habitat. In this wild, natural setting his images of these birds, entirely unknown to us, exude a prehistoric aura, although their demise was entirely historic and prophetic of the wanton destruction by humans of so many other species.

Sprawl and the human imprint on the landscape of the southern California desert inform Stéphane Couturier's series "Landscaping," a title that carries more than a hint of "land-scraping." Often devoid of horizon lines, Couturier's works have an abstract beauty, reminding us that photography is a primarily graphic art form with the ability to aestheticize the most unpalatable subjects. Much the same may be said of David Maisel's "Surveillance" series of aerial photographs of military storage facilities at the Hawthorne Army Amunition Depot near Reno, Nevada. It is chilling to realize that Maisel's aerial views, which appear to be beautifully textured and patterned surfaces, are not artists' earthworks viewed from above. Rather, their graphic imagery is derived from a landscape incised with special-purpose desert roads lined with munitions "igloos" like so many identical houses in a suburban tract development. (To gain an even better idea of how much of the American continent has been inscribed by human intentions such as the ones depicted in Maisel's work, one can look at the website of The Center for Land Use Interpretation: www.clui.org.)

The photographers whose work was seen in *Ecotopia* bear witness to a vision of nature that is simultaneously paradise, menacing force, and victim. If the exhibition presented a stark vision, it was also a realistic one, highlighting the question human society now faces: Are we inexorably altering the planetary landscape and radically redirecting the fate and the evolutionary dynamic of all species, including our own? – EBR

Books

Defiant Gardens: Making Gardens in Wartime
By Kenneth I. Helphand
San Antonio: Trinity University Press, 2006.

This study of a neglected dimension of garden history lives up to its provocative title. Part engaging chronicle, part probing meditation on human nature, it both depresses and inspires. It depresses with its detailed accounts of the horrific cruelty of humans to one another through warfare, genocide, and incarceration. It inspires through its powerful narrative of the efforts of the victims of that cruelty to maintain their physical survival, morale, and dignity through the creation of gardens in the most unlikely circumstances and in the most unexpected places. By addressing this little-known subject, Helphand has produced one of those rare works that pioneers significant new territory in its discipline – in this instance, landscape studies.

We often view gardens as the products of politically stable circumstances: the bountiful cottage gardens of Victorian England, the serene Buddhist meditation gardens of Tokugawa Japan, and the quiet suburban residential gardens of late twentieth-century America come to mind. However, we do not tend to associate gardens with the needs of the oppressed, being more familiar with them as creations of the prosperous and the powerful – kings, cardinals, shoguns, industrial magnates, and the like. The Versailles of Louis XIV or the Villa Lante of Cardinal Giovan Francesco Gambara bear witness to this fact, as do a plethora of other examples from Europe, North Africa, North and South America, the Middle East, and Asia.

At the opposite pole contextually are, in Helphand's terms, "defiant gardens." Such gardens are "those created in extreme or difficult environmental, social, political, economic, or cultural conditions." They exist not in harmony with their settings but stand in opposition to them, calling attention to their existence and "almost demanding response from their human visitors." They are catalysts that empower humans to survive by subverting and defying dehumanizing situations, such as imprisonment, humiliation, execution, or the threat of immanent death in battle.

While there are many types of defiant gardens, Helphand focuses primarily on four types created during wartime. These include gardens constructed by soldiers on and behind the battle lines of the Western front in World War I, gardens created in the Warsaw and other ghettos during Nazi occupation, gardens produced by prisoners of war during both world wars, and gardens built by Japanese Americans incarcerated in internment camps during World War II. In a manner analogous to the study of extreme states of human consciousness in order to understand the dynamics of the human psyche, Helphand affirms that the examination of defiant gardens created in such dire circumstances "provides the illumination of contrast, allowing the background to bring the central image and concept of the garden into brilliant relief." As certain kinds of seeds require the searing power of fire to germinate, so defiant gardens emerge from the inferno of war, revealing the inherent nature of all gardens.

What are the precise characteristics of that brilliant relief? Wartime gardens, according to Helphand, reveal with extraordinary clarity five attributes inherent in all gardens: life, home, work, hope, and beauty. Manifesting life, gardens are a means by which humans experience an innate affinity for the natural world. As such, gardens provide food not just for bodily sustenance but for psychic health. To buttress this argument, Helphand draws upon sociobiologist E. O. Wilson's concept of "biophilia," Jay Appleton's study of human habitat preferences, and Roger Ulrich's investigations of the restorative power of nature in the context of healthcare facilities. As embodiments of home, a broad category that encompasses living quarters, region, and nation, gardens help to establish a sense of place or to recall home when one is far away. As locales of work requiring both physical and mental labor, gardens provide the sense of identity and fulfillment that results from manual pursuits. The quality of hope is found in the temporal dimension of gardens, which involves the belief that one's labor will come to fruition, that seeds will germinate, and the harvest will be bountiful. Hope

is inherent in the act of gardening itself and inspires those enmeshed in the horror of war. It nourishes the faith that they will survive, preserve their dignity, and experience a meaningful future. Finally, beauty, whether manifest in gardens or other artifacts, is necessary to human well-being and is "rooted in our instinctual response to certain conditions." Beauty is no frill, and its creation and appreciation is a profound expression of the depths of our humanity. It encompasses the memories, associations, shared history, and culture that unite communities and societies. It also defines our delight in form, craft, and material. For Helphand, gardens satisfy our basic needs at every level, "from physical survival to the highest levels of art and cultural achievement."

The wartime gardens that Helphand examines are difficult to study. All have disappeared, leaving no physical traces, and photographic and written evidence is scarce. His research is exemplary, employing a wide range of archival sources in France, England, Israel, Poland, and the United States. Much of his primary source material is in Polish, German, Hebrew, and Yiddish. Helphand structures his narrative around first-person accounts in the journals and diaries of those who created and experienced these gardens. He also interviewed a number of individuals still alive who could recall such gardens. This imparts a particular vividness to his account that, coupled with well-chosen illustrations, gives the book the flavor of a well-paced documentary film.

Helphand frames each garden type with a succinct and informative analysis of its historical context, supplemented by his own visits to many of the sites. His chapters on ghetto gardens in Poland and internment camps for Japanese Americans are particularly poignant, as is his account of his visit to the site of the Warsaw ghetto. The result of this meticulous scholarship is profoundly moving and is a testament to the capacity of humans to endure and prevail in the most abject circumstances. To Helphand's credit, he avoids moralistic homilies and does not spike his prose with the sensational or the maudlin. This sensitive restraint renders his account all the more affecting.

The study is not without minor flaws, the first being redundancy. The conclusion repeats to an unnecessary extent many of the points discussed in the first chapter, such as the therapeutic value of work, the nature of biophilia, and the power of defiant gardens to transform a new place into a home or a recollection of a faraway home.

The second defect is the need for a more thorough discussion of the work of the other researchers Helphand cites in order to strengthen his theoretical arguments for the restorative power of defiant gardens. To be sure, too much discussion of this rich and controversial material could steer the book off course, but for the sake of clarity some additional cruising in these waters is justified. For example, Helphand leans rather heavily upon the work of E. O. Wilson and Jay Appleton. Citing Appleton to make the point that gardens "provide mechanisms of human survival other than sustenance," he implies agreement with Appleton's hypothesis that our aesthetic responses are "in part inborn" and derived from habitat preferences developed over two million years of hunter-gatherer culture. For Appleton, this involves a preference for specific landscapes that embody places of prospect and refuge. Helphand does not mention these specific features of Appleton's habitat theory, and we are left wondering whether he accepts the theory in full or merely agrees with a more general hypothesis of the biological roots of gardening.

The same applies to his citation of E. O. Wilson's concept of biophilia – an "innate affinity for the natural world and especially for its life, form, flora and fauna" and a "product of our evolutionary history" – to explain the importance of gardening for human happiness. He agrees with Wilson and notes in carefully qualified prose, "Our species history suggests an innate genetic response and predisposition toward certain landscapes to their fitness for our survival." He also notes that certain landscapes have the capacity to reduce stress and tension. These comments are a bit abstract. What particular landscapes is Helphand referring to? Wilson affirms that a specific type of landscape habitat is encoded in humans, namely the sweeping grassland, forest edge, and lakes of the African savannah. Helphand does not discuss these notions of landscape form. Venturing into the much debated relationship between culture and biology by calling upon such volatile concepts as encoded genetic preferences is indeed a plunge into turbulent theoretical waters that requires further clarification.

These shortcomings, however, cast only small shadows on this extraordinary book. Helphand, like a wise rabbinical scholar, illustrates many key points with stories. The one concluding the book mirrors the deep spirituality that infuses its contents. During the dark days of the Nazi regime, members of the CIAM (Congrès Internationaux d'Architecture Moderne) raised the question, "How can we think about roses when the forests are burning?" and answered it, "How can you not plant roses when the forests are burning?" Helphand so aptly concludes, "Gardens always ask us this most elementary question, for the forests are always burning, and we always both need and want to plant roses." – Reuben M. Rainey

Literature of Place: Dwelling on the Land Before Earth Day 1970
By Melanie L. Simo
Charlottesville and London: University of Virginia Press, 2005

In her latest book Melanie Simo provides a survey of the American "literature of place" between 1890 and 1970, a period roughly spanning historian Frederick Jackson Turner's (1861–1932) pronouncement in 1893 that "the frontier has gone, and with its going has closed the first period of American history" and the first Earth Day in 1970. *Literature of Place: Dwelling on the Land Before Earth Day 1970* comes two years after *Forest and Garden: Traces of Wildness in a Modernizing Land, 1897–1949* (Charlottesville: University of Virginia Press, 2003), Simo's erudite exploration of proto-environmentalist attitudes in the United States in the first half of the twentieth century. Her new book covers much of the same period in American cultural history, and in some cases Simo revisits authors discussed in her earlier book. As she points out, her new effort presents a "kind of mirror image as well as a companion volume" to the earlier work.

Literature of Place can indeed be more fully appreciated in conjunction with *Forest and Garden*. In the latter Simo wove various intellectual threads to reveal a fabric of artistic and scientific approaches to the definition and preservation of wild areas in the United States. Disparate nature writers, preservationists, and scientists created an earlier, wider cultural foundation for wilderness preservation in

the twentieth century than had previously been appreciated. Simo structured her book as a series of themed chapters organized in two parts: the first a series of descriptions of landscape types, such as desert and prairie; the second a chronological account of the activities of wilderness advocates.

In her new book Simo takes as a departure point a 1918 essay, "Literature of Place," by the critic and author Walter Pritchard Eaton (1878–1957). In 1910, while still in his thirties, Eaton left behind his busy life as a New York theater critic and relocated with his wife to a farm in the Berkshires. He is perhaps best remembered today for books on the outdoors, such as *In Berkshire Fields* (1915) and *Wild Gardens of New England* (1936). Simo uncovers the significance of Eaton – among many other authors – who, though relatively unknown today, was widely read by his contemporaries and influenced his successors. Eaton's essay cited a broad selection of authors from Washington Irving to John Muir. His examples embraced fiction and nonfiction, nature writers, social commentators, and dramatists. The group's cohesion, Simo observes, was a consequence of the fact that the authors "could somehow express the *soul* of a place."

Whether describing a childhood home, a travel destination, or an imaginary setting, they captured the very essence of a place and thereby endowed their work with emotional depth and impact. Eaton helped define a specifically American literary tradition that linked Ralph Waldo Emerson, Henry David Thoreau, Sarah Orne Jewett, Walt Whitman, and Celia Thaxter. Simo identifies the debt owed by later authors, including Henry Beston, Wallace Stegner, and J. B. Jackson to these pioneers of an American literature of place.

In her survey of twentieth-century writers, she again shows the eclectic and original spirit of inquiry that served her well in *Forest and Garden*. She draws on diverse, far-ranging landscape examples and makes unexpected connections among them. She again employs a two-part structure. The first part, "The Region," includes a critical discussion of authors whose writing in one way or another captured the heart of certain areas of the country: New England, the Southern Highlands, the Pacific coast, the arid West. In the second, "The Domain," Simo organizes her material typologically: the small garden, the abandoned place, the reinhabitated place, the lost place, the explored place.

The book begins, appropriately, in New England, where Thoreau invented a new way of writing about place. The coast of Maine, the mountains of Vermont and New Hampshire, and the salt marshes and rivers of Massachusetts have figured in descriptive essays, travel writing, novels, and poetry. Jewett made the Maine landscape and its inhabitants the subjects of her most successful novel, *The Country of the Pointed Firs* (1896). Eaton not only celebrated "Our Berkshires" and advocated for their preservation but also eulogized the salt marshes, stone walls, and meadows around Boston that had been his childhood playground. Simo notes that nature writing reached a peak of public enthusiasm in the years before World War I, and writers from New England in this period continued the tradition of Emerson and Thoreau by rooting their intellectual lives and emotional identities in regional landscapes that by then had accumulated generations of literary attention.

Simo organizes her survey around other regions associated more exclusively with the literature of the twentieth century. The Southern Highlands, for example, became the subject of particular interest following Horace Kephart's popular, quasi-anthropological study, *Our Southern Highlanders* (1913). She observes that Kephart "blended scholarly history with anecdotes and stories" and concluded that certain groups in the rural Appalachians had a culture and language comparable to people in eighteenth-century Britain and America. An appreciation of the deserts of the American Southwest followed Mary Austin's *Land of Little Rain* (1903) and reached its highest expressions in the novels of Willa Cather and the post-World War II essays of the geographer and essayist J. B. Jackson. Simo devotes some of her best criticism to Jackson's observations of people and places in the Southwest. Jackson's "unpretentious essays were invitations to look at the American landscape in radical new ways." At his best, she adds, "he seems to be thinking aloud and speculating." No author more effectively worked the magic of drawing the reader into the landscape and creating an awareness of an elusive but pervasive spirit of a place.

Abandoned farm landscapes were given iconic significance by Eaton, Liberty Hyde Bailey, and Robert Frost. Simo makes a connection between these figures and Edward Abbey whose fierce regret at the advance of automotive tourism in Arches National Park in Utah as described in *Desert Solitair*e (1968), was another kind of protest at the advance of modernization. In "The Domain," the book's second part, Simo makes clear how lost places held the imagination of the postwar generation of nature writers.

Christopher Rand's *The Changing Landscape* (1968) documented the great changes in the farms and towns of northwestern Connecticut that he had witnessed in his lifetime. But this was more than an "affectionate backward glance," Simo notes, "and not quite an elegy." In the end Rand "seems reconciled to the changed character of the place he once knew. What is lost – although he doesn't quite identify it as such – is *time*, slow time." The loss of the pace and rituals of the rural landscape, as much as any physical changes, had forever altered rural places for many inhabitants.

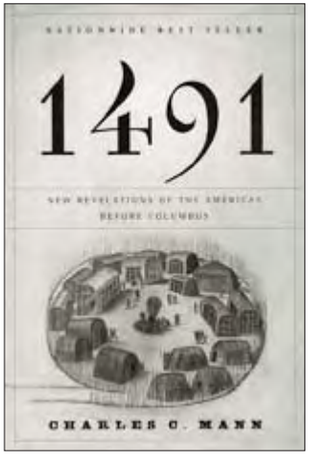
Henry James, William O. Douglas, Christopher Alexander, Jane Jacobs, and scores of other equally diverse authors, critics, and poets appear in this ambitious survey. Unfortunately, *Literature of Place* lacks the more specific organizing structure of its companion, *Forest and Garden*, and inevitably some of the selections discussed seem somewhat arbitrary. The reader is invited to second-guess the author since there are always other examples that might have been discussed while others do not always seem worth including. For example, while Pritchard Eaton is central to the discussion, Ernest Thompson Seton and other nature writers and outdoor-life advocates are equally important, and Theodore Roosevelt might have been an interesting addition. John Burroughs and Benton MacKaye also might have had prominent places in this volume though they appear extensively in *Forest and Garden*. This is another reason why the two volumes should be read together as they form a more complete whole. Nevertheless, there is remarkable cohesion within the genre of literature that Simo discusses here.

Something significant changed, however, around 1970. The first Earth Day, she observes, can be considered "the opening of another frontier – a whole planet, on which the fine webs of interconnection among living organisms were only beginning to be understood." Simo concludes that most of the writers considered in *Literature of Place* were trying to make sense of environments shaped and managed on a smaller scale – not the "giant dams, massive clear-cut forests, vast ranches, and widespread industrial agriculture" that often have held the attention of writers in recent decades. They "focused on family farms, small towns, urban neighborhoods, or some desirable

balance of city and country, cultivation and wildness." Again and again, these writers "managed to make peace with a world changing beneath their feet." In this sense the genre examined here has indeed changed in tone and substance.

Literature of Place is welcome as further documentation and analysis of the complex cultural and artistic trends that led up to the attitudes we have associated with environmentalist ethics, rhetoric, and literature since 1970. Simo again demonstrates how deep and various the roots of contemporary attitudes and literary genres are. In *Forest and Garden* and *Literature of Place* she explicates the work of writers, poets, scientists, and wilderness advocates who provide the foundations not merely of recent nature writing but also of contemporary environmental science and work within the planning and landscape architecture professions. These connections are too often under-appreciated by those who believe that the historiography of natural and cultural landscape preservation in America only began in the 1960s. Simo's work has done much to reclaim this story through her wide, interdisciplinary, literary excavations.
– Ethan Carr

1491: New Revelations of the Americas Before Columbus
By Charles C. Mann.
New York: Alfred A Knopf, 2005



Since 1970 I have traveled regularly to Peru to photograph the compelling traces of the Incas and preceding Andean cultures such as the Paracas and the Nazca, the Moche and the Chimu, and other peoples whose monumental pre-ceramic sites along the desert coast are now known to date from as early as 3,500 BC. As a student in the mid-1960s, captivated by the Inca sites around Cusco, I was deeply struck by the Inca's unique adaptation to the highland landscape and resolved to undertake an extended photographic documentation of the unusual forms and qualities associated with their shrines and ruins.

My resulting work, done with a large format camera during the 1970s, coincided with my growing awareness of the importance of the legacy of the Cusco photographer Martín Chambi (1891-1973), who as a prominent portrait photographer in the former Inca capital had also photographed extensively at Inca ruins as part of the documentation of the Quechua culture to which he belonged. Collaboration on a project in 1977 with Chambi's surviving son and daughter, Víctor and Julia Chambi, sponsored by Earthwatch, enabled us to reprint a significant part of his 15,000-plate archive, and by 1979 we were able to give international exposure to different aspects of his work through numerous exhibitions.

The Inca archaeological sites that Chambi and I photographed are, of course, among ancient America's more impressive monuments. As the remains of one of the world's largest empires at the time of the conquest by the Spanish in 1532, the Inca had established well-organized systems of tribute and trade and employed numerous subject societies in the building of a vast system of 14,000 miles of roads to facilitate their far-flung administration. The Inca are less well known for another linear network of forty-one spiritually powerful lines called *ceques* that radiated from Cusco's Temple of the Sun and imposed a unique cultural order on the highland landscape. Along these routes of ceremonial and geographical importance were 328 sacred *huacas*, special landscape features, or shrines. While the *huacas* took the form of rock outcrops, springs, or sacred hills and peaks, the lines were imaginary and related as much to concepts of the Inca calendar as to important geographical boundaries and sacred points in the landscape. A number of these landscape sites and the unusual *in situ* rock carving of the *huacas*, with their abstract and distinctly modern appearance, are central to an understanding of Inca culture.

Because of my deepening interest in the complexity of Andean cultural development, intensified over the past twenty years through my photographic surveys of ancient sites located on the Andean desert coasts, Charles C. Mann's broad and engaging study, *1491: New Revelations of the Americas Before Columbus*, is of particular interest to me. A synthesis of much recent scholarship, the book provides a refreshing and wide-ranging reassessment of select historical aspects of pre-Columbian America.

It is to Mann's credit that he includes two examples of Martín Chambi's photographs as illustrations in *1491*, images that testify to the continuity of native artistic voices in the Americas. Indeed, the world Mann evokes is still alive at Inca sites around Cusco and many areas of the desert coast.

Spurred by the recognition that much of the ancient Americas has been lost to memory, Mann gives voice in *1491* to research relating to three main focuses of new information about the ancient Americas: Indian demography, origins, and ecology. He thus provides a new sense of the various cultural and physical landscapes of the Western Hemisphere in the late fifteenth and early sixteenth centuries.

Most striking, perhaps, is Mann's attempt to show how densely inhabited the Americas likely were before European contact. Estimates of the hemisphere's pre-conquest population now range between eighty and 112 million people. Central to ultimate European domination of the continent was the key role played by European diseases, particularly smallpox, in the conquest of native populations. Mann cites sources suggesting a staggering 95 percent death rate among native peoples during the first 130 years after contact, an epidemic disaster unequaled in the world before or since.

Further delineating the major role of disease in the sixteenth-century conquest of central Mexico and Peru and in New England one hundred years later, Mann weaves scientific fact with wonderfully engaging narrative accounts of historical events and personalities. He consistently encourages us to appreciate the rich achievements of these different cultures and the complex cross-cultural interaction that ultimately undermined them.

One telling example Mann cites is the story of Tisquantum of the Patuxet, a tribe occupying lands on what is now the coast of Massachusetts. Tisquantum was taken to England as a human trophy by seventeenth-century British explorers and later managed to gain passage back to Canada and then make the arduous and dangerous journey home on foot. To his great sorrow he found the native population in the area drastically reduced in numbers, with the Pilgrim colony of Plymouth now occupying his village site. All through New England the story was the same, with surviving tribes in a greatly reduced and weakened state.

Even more complex is the still open question of how and when the Americas were originally settled. Mann provides important data that questions the widely accepted theory formalized in the mid-1960s, namely that settlement resulted from

migration across the Bering Strait approximately 14,000 years before the present. Some paleo-archaeologists now place the date of migration from Asia across the Bering Strait between 33,000 and 43,000 years ago, sometime before the peak of the last Ice Age. They surmise that at that time tribes could easily have spread south through present-day Canada. The establishment of Paleo-Indian settlements at Monte Verde in southern Chile is now thought to have occurred within the past 12,800 to 32,000 years.

Further scientific speculation suggests the possibility that migrations may have originated in Australia, arriving at Tierra del Fuego by way of Antarctica. Other research asks us to consider that even during the last Ice age, southern oceanic currents could have created temperate refuges along the Pacific shore enabling paleo-Indians using boats made of animal skin to make their way down the North American coast.

Mann addresses these and other theories without espousing any thesis, merely pointing out the need to assess the rise of native cultures in the Americas with decidedly different perspectives. Refuting the notion of European cultural superiority, he points out that "people were thriving from Alaska to Chile while much of northern Europe was still empty of mankind and its works." The accomplishments of Old and New World civilizations must be reassessed in this light. As pioneers in mathematics and astronomy, the Olmec, Maya, and other Mesoamerican societies were certainly as intellectually adventurous and accomplished as their European contemporaries, but Mann reminds us that, rather than comparing their achievements, it is perhaps more relevant to be aware of the many different, advanced civilizations that had developed in the Americas by 1000 AD in very diverse ecological settings. To suggest the richness of cultural development, he chooses to discuss in some depth cultures as diverse as the pre-Inca empires of the Tiahuanaco and Wari in Peru; the Maya; the Mixtec and Toltec states of central Mexico; Cahokia, located near present-day St. Louis; and the little-understood remains of the extensive settlements in the Brazilian Amazon.

Unfortunately, his discussion of the material culture that flowered in these societies is limited, and he does not deal with the extraordinary ceramics, jewelry, sculpture, painting, monumental structures, and other artifacts. Nor does he delve into religious iconography and the artistic beauty, design, construction, and craft skills they evidence. While it is impossible to discuss in this space all of the recent scholarship in landscape design, urban planning, architectural and decorative arts, and costume that has enriched our knowledge and understanding of ancient American cultures, I have thought it useful to provide at the end of this review a list of books that may help readers seeking greater knowledge of subjects that Mann has largely overlooked, particularly in the Andean region.

Mann continually refutes the common assumption that European conquest of the Americas was primarily a matter of superior technology. Firearms were not necessarily an advantage against the marksmanship of skilled bowmen whose knowledge of the land made them extremely adept at guerilla warfare.

Not all of the depopulation of once-thriving settlements and ritual centers was due to lack of immunity to European diseases. Mann shows the consequences of the landscape interventions of various cultures throughout the hemisphere. Some succeeded in unique and imaginative ways, while others failed to understand the ecological implications of their environmental practices.

The large multiple mound site of Cahokia, which developed around 1000 AD near the Mississippi River and grew to become the largest urban center north of the Rio Grande, flourished thanks to the cultivation of maize. Yet extensive clearing of large tracts of land to grow corn ultimately exposed the area to disastrous flooding and mudslides, causing a crisis of legitimacy for the priestly leadership. A catastrophic earthquake in the early 1200s AD apparently caused enough disruption to undermine the rulers' authority, and by 1350 AD the city was almost empty.

Similarly, the severe drought that afflicted the Maya lowlands around 800 AD does not fully explain the early demise of the wetter, southernmost city states such as Tikal and Calakmul in the ninth century AD, but it may have hastened the cultural disintegration caused by the area's over-population and more than one hundred years of large-scale warfare. Mann points out that both the southern and northern Mayan polities depended on artificial landscapes for agricultural production but that it was the political failures of southern leaders that ultimately caused their downfall.

Mann's special contribution in *1491* is his examination of the ways in which native cultures dramatically altered the landscape. Extremely efficient and extensive agricultural terracing and irrigation systems produced large maize and potato crops throughout the Andean highlands, creating a surplus that effectively fed the Spanish as they conquered the Inca. Mann states that "agriculture occurred in as much as two-thirds of what is now the continental United States, with large swathes of the Southwest terraced and irrigated." Crucial to the management of other ecosystems was the wide-spread use of fire throughout North America. The Great Plains and Midwest Prairies were burned so often that the expansive grasslands were said to resemble a "vast pasture managed by and for Native Americans." On the eastern seaboard, forests were "pealed back from the coast," and European settlers moving into what is now Ohio encountered "woodlands that resembled English parks."

Mann cites recent research dealing with early ecological management of the Brazilian rain forest whereby early inhabitants used the tree canopy to protect agricultural uses. Beneath the shelter of selected larger trees in glades along river drainages, they planted large swaths of understory trees, such as the nutritious peach palm (*Bactris gasipaes*). The protection provided by larger trees minimized erosion and enhanced the continuing development over the centuries of the *terra preta*, the rich dark earth made from the organic refuse and pottery shards associated with human settlements. Explorations in Brazil's upper Xingu region have recently revealed surprising evidence of substantial village settlement between 1200 and 1400 AD. The remains of an elaborate built environment found by archaeologist Michael Heckenberger consist of raised causeways, moats, canals, bridges, and other structures that were part of some nineteen villages, a find that seems to confirm early colonial reports of extensive settlements throughout the Amazon. It remains to be determined whether the estimates Mann cites that a quarter of the Amazon forest might once have been farmland and agricultural forests is realistic, but there seems no doubt that at least a significant part of this previously unexamined landscape was once effectively managed by the native population.

The new research defies the racist myth that, except for awesomely magnificent cities such as Tenochtitlan on the site of present-day Mexico City, which was destroyed by Hernán Cortéz (1485–1547) in 1519, and

Cusco, whose gold-encrusted temples were stripped by Francisco Pizarro (c. 1445–1541) in 1532, the ancient Americas were sparsely settled deserts, plains, woodlands, and rainforests occupied by savages. Sadly, with the exception of occasional references to the dramatic events associated with the Aztec and Inca empires, little is taught to students regarding the cultures that existed for more than five millennia before European contact. As Mann ably proves, the archeological record, supplemented by modern scientific evidence is rapidly providing information that can reorient our cultural understanding of the Western Hemisphere. A great deal of ancient American history has certainly been lost, and the material traces that remain are tantalizingly enigmatic. A broader awareness is now being furthered through a number of different disciplines, photography being a particularly helpful one. *1491* makes a useful contribution toward this end and represents the beginning of the serious questioning and instruction needed for understanding the actual landscapes and peoples that once flourished in the Americas. – Edward Ranney

A portfolio of photographs by Edward Ranney can be found in the Gallery section of the Foundation for Landscape Studies website.

Material Culture: Supplementary readings to *1491*

Aveni, Anthony. *Between the Lines. The Mystery of the Giant Ground Drawings of Ancient Nasca, Peru.* Austin: University of Texas, 2000.

Benson, Eizabeth P. and Beatrice de la Fuente. *Olmec Art of Ancient Mexico*, Washington, DC: National Gallery of Art, 1996.

Berrin, Kathleen ed. *Spirit of Ancient Peru, Treasures from the Museo Arqueologico.* London: Thames and Hudson, 1997.

Bridges, Marilyn. *Planet Peru, An Aerial Journey Through A Timeless Land.* New York: Aperture, 1991.

Burger, Richard L and Lucy C Saslazar. *Machu Picchu: Unveiling the Mystery of the Incas.* New Haven and London: Yale University Press, 2001.

Castleberry, May. *The New World's Old World: Photographic Views of Ancient America.* Albuquerque: Univeristy of New Mexico Press, 2003.

Coe, Michael and Justin Kerr. *The Art of the Maya Scribe.* New York: Harry Abrams, 1998.

— et al. *The Olmec World: Ritual and Rulership.* Princeton: Princeton University Art Museum, 1996.

— and Justin Kerr. *Lords of the Underworld: Masterpieces of Classical Mayan Ceramics.* Princeton: Princeton University Press, 1978.

Donnan, Christopher B. and Donna McClelland. *Moche Fineline Painting: Its Evolution and Its Artists.* Los Angeles: UCLA Fowler Museum of Cultural History, 1999.

Greene, Merle. *Ancient Maya Relief Sculpture.* New York: Musem of Primitive Art, 1967.

Hemming, John and Edward Ranney. *Monuments of the Incas.* Boston: New York Graphic Society, 1982; Albuquerque: University of New Mexico Press, 1990.

Kosok, Paul. *Life, Land and Water in Ancient Peru.* New York: Long Island University Press, 1965.

Kubler, George. *The Art and Architecture of Ancient America.* New York: Penguin Books, 1962, 1986.

Mondéjar, Publio López, Edward Ranney, and Mario Vargas Llosa. *Martín Chambi: Photographs 1920–1950.* Washington and London: Smithsonian Institution Press, 1993.

Pasztory, Esther. *Aztec Art.* New York: Harry Abrams, Inc., 1983.

Pillsbury, Joanne, ed. *Moche Art and Archaeology in Ancient Peru.* New Haven: Yale University Press, 2001.

Ranney, Edward. *Martín Chambi: Vistas de Peru, Vintage Photographs.* New York: Throckmorton Fine Art, 2006.

Schele, Linda and Mary Miller. *Blood of Kings: Dynasty and Ritual in Maya Art.* Fort Worth: Kimball Art Museum, 1986.

Stone-Miller, Rebecca. *To Weave for the Sun: Andean Textiles in the Museum of Fine Arts.* Boston: Museum of Fine Arts, 1992.

Townsend, Richard, ed. *The Ancient Americas: Art from Sacred Landscapes.* Chicago: The Art Institute of Chicago, 1992.

—. *Hero, Hawk, and Open Hand.* New Haven and London: Yale University Press, 2004.

—. *Casas Grandes and the Ceramic Art of the Ancient Southwest.* New Haven and London: Yale University Press, 2006.

Young-Sánchez, Margaret, ed. *Tiwanaku, Ancestors of the Inca.* Lincoln, Nebraska and London: University of Nebraska Press, 2004.

Calendar

Exhibition:
Virtues and Pleasures of Herbs through History: Physic, Flavor, Fragrance and Dye
Hunt Institute for Botanical Documentation
Carnegie Mellon Institute, Pittsburgh, Pennsylvania
March 22–June 29, 2007
From the countless cultivated or wild herbs with overlapping applications, the exhibition curators have chosen a selection within four categories: physic (medicine), flavor (food), fragrance (perfume), and dye (materials). Each category highlights the uses of five herbs at specific points in history.

Information: huntbot.andrew.cmu.edu/HIBD/Exhibitions/Exhibitions

Exhibition:
Robert Moses and the Modern City
This three-venue exhibition charts the career of New York's master builder and power broker in documents, photographs and three-dimensional models of the public works he built during the course of five decades.

The Road to Recreation
Queens Museum of Art
February 4–May 27, 2007

Remaking the Metropolis
Museum of the City of New York
February 1–May 28, 2007

Slum Clearance and the Superblock Solution
Miriam and Ira D. Wallach Art Gallery, Columbia University
January 31–April 14, 2007

Conference:
Exploring the Boundaries of Historic Landscape Preservation
University of Georgia School of Environmental Design
Athens, Georgia
April 11–14, 2007
The annual meeting of the Alliance for Historic Landscape Preservation will provide a forum for practitioners, educators, and students to speculate, debate, and share ideas about current trends and future directions in landscape preservation. The discussions will examine the fluid and continuously reconfig-

ured boundaries of the field in an attempt to assess the direction in which it is moving today.

Information: ahlp.org/docs/meetings.html

Symposium:
Middle East Garden Traditions: Unity and Diversity
Questions, Methods, and Resources in a Multicultural Perspective
Cosponsored by the Freer Gallery of Art, Arthur M. Sackler Gallery and Dumbarton Oaks, Washington, DC.
April 27–28, 2007
Closing date for registration: April 12, 2007

This symposium will focus on the history of interlinked garden traditions in the Middle East since Roman times and throughout the Islamic world up to the present. It will highlight the cultural continuities, variations, and differences that exist among gardens from the Iberian Peninsula to the Indus plains. Archaeologists and historians from the Mediterranean and Islamic worlds, Europe, and the United States will offer richly documented studies of gardens in India, Pakistan, Afghanistan, Iran, the Ottoman world, Judea, Morocco, and Moorish Spain. They will explore the operation of conflicting influences, the cultural reception of gardens in religious and mystical societies, the political uses of gardens, and new directions in archaeological research.

Information: doaks.org/gal_2007_spring_symposium_synopsis.html

Lectures and Tours:
William Le Baron Jenney's Landscape Engineering in Chicago's West Parks and Riverside, Illinois
June 6–9, 2007
The Chicago Architectural Foundation, Chicago
Julia Sniderman Bachrach, Christopher Vernon, Jerry Larson , and John Notz will give lectures and lead tours as a part of the celebrations of the centennial of the death of Chicago architect and park designer William Le Baron Jenney (1832–1907).

Event information: architecture.org

Contributors

Ethan Carr, Ph.D., A.S.L.A., is an assistant professor at University of Massachusetts Amherst. His book *Wilderness by Design: Landscape Architecture and the National Park Service* received an American Society of Landscape Architects honor award in 1998. Its sequel, *Mission 66: Modernism and the National Park Dilemma*, will be published in June 2007 by the Library of American Landscape History and the University of Massachusetts Press.

Lake Douglas, Ph.D., A.S.L.A., is a landscape historian and lives in New Orleans. He is a contributing editor for *Landscape Architecture* magazine and has published in a variety of academic and professional publications in Europe and America.

Kristina Ford holds a Ph.D. in Urban and Regional Planning from the University of Michigan. From 1992 to 2000, she was Director of City Planning in New Orleans and won the American Planning Association's Award for Distinguished Leadership for her service in that position. In the immediate aftermath of Hurricane Katrina, CNN, BBC, and NPR interviewed Ford for her assessments of the storm's human and civic consequences.

Roberta Brandes Gratz is a journalist, urban critic, lecturer, and author. Her books include *The Living City: Thinking Small in a Big Way* and *Cities Back from the Edge: New Life for Downtown*. She has written extensively about New Orleans. In 2005 she founded the Center for the Living City at Purchase College, S.U.N.Y. whose mission seeks to focus journalists and the general public on the complex, interconnected issues that define cities. In 2006 the center sponsored a photography exhibition exploring post-Katrina New Orleans, the outcome of a four-day tour of New Orleans by Purchase students.

Peirce F. Lewis, Ph.D., is Professor Emeritus of Geography, Pennsylvania State University at University Park. He is a former president of the Association of American Geographers and has published widely on the American landscape. He is the recipient of fellowships from the John Simon Guggenheim Memorial Foundation, the National Science Foundation, and the Woodrow Wilson International Center for Scholars at the Smithsonian Institution in Washington, D.C.

Reuben M. Rainey, Ph.D., A.S.L.A., is William Stone Weedon Professor Emeritus in the School of Architecture at the University of Virginia. He is a former chair of the Department of Landscape Architecture, co-author of *Modern Public Gardens: Robert Royston and the Suburban Park*, and co-producer of the PBS series GardenStory.

Edward Ranney is a photographer of the monuments of ancient America. His work has been featured in numerous publications and museum exhibitions at the Museum of Modern Art, the Art Institute of Chicago, and the Art Museum, Princeton University. His work has been supported by grants from the National Endowment for the Arts, the John Simon Guggenheim Memorial Foundation, and the Fulbright International Exchange Program. Since 1970 he has lived with his family in Santa Fe, New Mexico, where he currently teaches at the Marion Center, College of Santa Fe.

Corrections

In the previous issue of *Site/Lines* (Volume II, Number 1, Fall 2006), an image on page 14 was erroneously captioned "Nathaniel Lord Britton (1859–1934)." It should have read "John Torrey (1796–1873)." Britton, the founder of the New York Botanical Garden, is depicted below. The portraits of Torrey, founder of the Torrey Botanical Club, and Britton were provided by the LuEsther T. Mertz Library of the New York Botanical Garden, as were the engravings of the Elgin Botanic Garden on page 13 and *Snake with Ipomoea ochracea* on the cover page.

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