

SECOND EDITION

# URBAN DESIGN FOR AN URBAN CENTURY

SHAPING MORE LIVABLE, EQUITABLE,  
AND RESILIENT CITIES

LANCE JAY BROWN, FAIA • DAVID DIXON, FAIA • OLIVER GILLHAM, AIA

WILEY







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*Shaping More Livable, Equitable,  
and Resilient Cities*

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Lance Jay Brown, FAIA

David Dixon, FAIA

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In Memoriam: Oliver Gilham, AIA

*The authors wish to acknowledge the essential contribution our friend and co-author, Oliver Gilham AIA, made to the original edition of this book. Oliver died in 2009, but his spirit and values infuse every page of Urban Design for An Urban Century. A gifted urban designer and acute observer of cities, Oliver never stopped working to deepen his and our understanding of human settlement and the conditions that would shape those settlements in the twenty-first century. His 2002 book The Limitless City: A Primer on the Urban Sprawl Debate helped shape much of the thinking that underpins this book. Although an ardent critic of sprawl, in Limitless City Oliver presented both sides of the debate even-handedly in an effort to help nonprofessionals understand the issues and the stakes involved—a characteristic of his humane and generous spirit. This book owes much to his broad view, keen insights, and sense of urgency about improving the built environment.*







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# Introduction

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## Urban Design: A Social and Civic Art

Urban designers can make a strong, positive difference in the lives of the people on whose behalf they work. This book melds theory and practice to argue, however, that urban designers can only make such a difference when they understand the forces that shape people's lives—and, in turn, the places they inhabit. (As Winston Churchill noted, the reverse is also true: places shape the lives of the people who use them.)

Much has changed in the field of urban design since the first edition of this book appeared in 2009. During the writing of the first edition, a typical day for one coauthor began with his teaching students about how American downtowns constantly change their physical form in response to shifting economic, social, and environmental forces. Later, he might meet with colleagues from across New York City to advance a green housing initiative. His day might have ended with moderating a seminar on new approaches to creating mixed-income neighborhoods. For the other coauthor, a typical morning included writing design guidelines for more walkable streets in suburban Atlanta; the afternoon might be spent preparing plans for new, mixed-use urban neighborhoods in Norfolk, Virginia, and Kansas City, Missouri; and the day might end with hammering out the draft of a talk on the benefits of urban density.

While preparing this new edition, both of us held the same jobs we had held in 2009, but our work had taken on a much more global focus and a decided

emphasis on the environment, economic development, and the use, control, and design of urban space.

A reader might reasonably assume that since the first edition the wrenching global economic retrenchment would have slowed the evolution of urban design. The worst economic downturn since the Great Depression doubled unemployment and reduced housing values by one-third in the United States. In the European Union, it precipitated an even harsher economic contraction and a dangerous monetary crisis. Yet the pace of change in urban design grew even faster than it had, accelerated by shifts in social, cultural, and environmental values that made living in urban areas more popular, as measured by market demand.

The years following the first edition also saw a growing recognition of manmade and natural threats that nonetheless presented opportunities for transforming our cities. The September 11, 2001, attack on the World Trade Center has posed an enormous challenge to American society, and more than a decade later we continue to grapple with its implications. Four years after the attack, Hurricane Katrina swept across southern Louisiana and Mississippi, devastating both physical and psychic landscapes and raising fundamental questions concerning social equity, our preparedness, and even where and how we build our cities. Hurricanes have long ravaged the Gulf Coast (8,000 residents of Galveston, then the largest city in Texas, had died in the Hurricane of 1900). New York City, however, had never experienced a storm like Irene, the tropical system that flooded parts of the city in 2011. Just over a



year later, Hurricane Sandy, supercharged by a warming climate, ravaged huge swaths of metropolitan New York and New Jersey. Not since World War II had a global capital suffered so much damage; the closest analogue for an American city is the 1906 earthquake and fire in San Francisco. In the wake of these storms, few people still question the reality of global warming (even if some political figures find it expedient to do so). In his 2013 inaugural address, Barack Obama became the first American president to mention climate change.

December 2010 marked the beginning of a period of dramatic political change in the Arab world.<sup>1</sup> Much of the Arab Spring's political activity, especially in Egypt, played out in city centers near seats of power. Images of demonstrations in Cairo's Tahrir Square, protests in the streets of Tehran, and battles raging in Syrian towns and cities were conveyed daily by broadcast and social media. The occupation of urban land signified the degree to which one side or another had wrested a temporary control.

Within a year, nonviolent but no less passionate demonstrations began in New York City under the Occupy Wall Street banner. This protest against the influence of financial institutions and growing social inequality began in September 2011 and spread rapidly across the United States and the world; cities small and large saw citizens gather, protest, and often set up camp in urban spaces. Nowhere did the friction between protestors and the forces of civic control prove greater than near Wall Street itself, in Zuccotti Park, where the protests began. The larger debate sparked by the Occupy protests over a growing gulf between the rich and the poor, the corporate and the individual, also became a debate over public use and private space and the devil's bargain that muddied those waters. The Arab Spring abroad and the Occupy movement in the United States spotlighted the often overlooked role that the connective tissue of open space plays in cities today.

In the first edition of *Urban Design for an Urban Century*, we described urban design as “finding the

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The celebration of the star architect too often encouraged object buildings—buildings that willfully ignore time, place, and context. Cities are more than sculptures to be understood only from a bird's-eye view or figure-ground diagram; they are constantly changing entities with unique physical and social landscapes made vibrant by the people who live, work, and celebrate in them. It is the chemistry of that interaction between people and environment that gives value and identity to the place where people live. Urban design continues to be a vital discipline because the care and shaping of our cities is too complex and too important to be left to those who see it only as a vehicle for creating objets d'art.

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*M. David Lee, FAIA, vice-president, Stull and Lee Inc. Architects and Planners*

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right fit between people and place.” The forces of the intervening years—the velocity of economic change, a widening gap between haves and have-nots that is often most glaring in cities, an increased global awareness fostered by the Internet and new media platforms, and a deepening sense of environmental responsibility—demonstrate the failure of that formulation to capture fully what urban design is capable of.

There *is* no way to decisively secure the right fit between people and place. Urban design entails a constant search for an ever-changing fit between people, time, and place. Through urban design people understand, integrate, and manifest influences in flux—culture, environmental response, economics, philosophy, politics, social context, and technology—and in the process shape and reshape their cities.

## **1. A social and a public art**

Urban design never takes place in a theoretical or artistic vacuum. The forces that shape a place must also shape the basis for judging the work of urban design. Without discounting the importance of individual creativity or



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In the twenty-first century, the province of urban design is no longer the spaces between buildings or the decoration of streetscapes. Rather, the meaning and role of urban design is to recognize and enhance the fundamental relationship between physical form and the social life of our communities.

*Jean Marie Gath, principal, Pfeiffer Partners Architects and Planners, New York*

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skill, we approach urban design as a social and public art, one informed by underlying forces that then tap creativity and skill to translate this information into plans reflecting their time and shaping particular places for the people who use them.

## 2. Historical precedents

For his book *A World Lit Only by Fire*, historian William Manchester chose a title that captured a central reality of day-to-day life six centuries ago. He intended to help modern readers see the late-medieval world from the perspective of its own era, not ours.<sup>2</sup> Any history of urban design requires a similar effort to appreciate the vastly different worlds in which humans have designed spaces and settlements.

The practice of architecture and urban design stretches back to humans' first intentional attempts to shape their environment. Although the earliest human settlements likely evolved without conscious planning—as some still do—we can trace a continuous history of places that were visibly designed: Neolithic



I.1 “Las Vegas . . . [was] where we could discover the validity and appreciate the vitality of the commercial strip and of urban sprawl, of the commercial sign whose scale accommodates to the moving car and whose symbolism illuminates an iconography of our time. And where we thereby could acknowledge the elements of symbol and mass culture as vital to architecture, and the genius of the everyday, and the commercial vernacular as inspirational as was the industrial vernacular in the early days of Modernism.” —Robert Venturi, FAIA, accepting the 1991 Pritzker Prize (from [www.pritzkerprize.com](http://www.pritzkerprize.com)) Courtesy Clément Bardot via Wikimedia





I.2 Merneptah's Mortuary Temple (ca. 1200 BCE) served as a religious, bureaucratic, and economic center. It also suggests the political significance of early planned urban development. A stele proclaimed: "The kings are overthrown, saying: 'Salaam!' / Not one holds up his head among the nine / nations of the bow. / Wasted is Tehenu / The Hittite Land is pacified / Plundered is the Canaan, with every evil / Carried off is Askalon / Seized upon is Gezer / Yenoam is made as a thing not existing. / Israel is desolated, her seed is not. / Palestine has become a [defenseless] widow for Egypt. / All lands are united, they are pacified; / Every one that is turbulent is bound by King Merneptah." Courtesy Wikipedia user Pufacz

settlements in western Europe, ancient palace complexes of Mesopotamia, funerary and religious compounds of third-dynasty Egypt, ancient Greek and Roman fora, pueblos of the American Southwest, Aztec city-states, Cahokia Mounds on the eastern edge of the vast North American plains, the Forbidden City of Beijing, and the boulevards of nineteenth-century Paris all reflect a drive to form settlements in ways that expressed their builders' beliefs and responded to nature, economics, and other forces around them.

From Mesopotamia onward, urban design has served as a conscious act of mediation among a constellation of influences—economic and social dynamics, religious and cultural beliefs, environmental constraints,

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Urban design is an art and not a science or an engineering discipline, but a social and public art rather than a personal or fine art. . . . Unlike a painter or sculptor, in every aspect of my work I am responsible not only to myself but to my fellow man and to future generations.

*Douglas Kelbaugh, FAIA, dean, Taubman College of Architecture and Urban Planning, University of Michigan, Ann Arbor*

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and others—unique to a community or era. Monarchs, priests, military engineers, the urban designers of their day, did look at their work as the creation of monuments and the adornment of their communities. But more consciously, they were reacting to the needs and aspirations



of the gods, economic systems, and societies they served, and they strove to prepare their communities to meet the demands of the world around them. Urban designers may not worship Baal today, but as much as any builder in the ancient world, they too must meet the needs of the larger world.

Urban designers often use historic precedents as models for contemporary urban design, and not just when they work in historic settings. Architectural forms can live long after their purpose vanishes—for example, designers still think and design in terms of gateways, squares, boulevards, and grids. Understanding what gave rise to these forms can prove more valuable than studying the forms themselves.

The reconstruction of the Ishtar Gate at Berlin's Pergamon Museum lets modern visitors experience one



**I.3** A reconstruction of Babylon's Ishtar Gate from the seventh century BCE, at the Pergamon Museum, Berlin, suggests the feeling the gate might have evoked in its creators: awe of the protective power of the gods that dwelt inside the city. Courtesy Wikipedia user Gryffindor

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One remarkable man, the Franciscan friar Roger Bacon . . . stands on an isolated pinnacle of his own in the Middle Ages. . . . It has been claimed for him that he announced the idea of Progress. . . . His aim was to reform higher education and introduce into the universities a wide, liberal, and scientific programme of secular studies. . . . With great ingenuity and resourcefulness, he sought to show that the studies to which he was devoted . . . were indispensable to an intelligent study of theology and Scripture.

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*John Bagnell Bury, The Idea of Progress: An Inquiry into Its Origin and Growth (London: Macmillan, 1920)*

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of history's jaw-dropping gateways and offers a glimpse into the Babylonian mind of the seventh century BCE. A modern visitor readily understands the gate's size and majesty as a proclamation of Babylon's significance and the splendor within its walls. Yet to Babylonians, who lived in a world where few people traveled beyond the village of their birth, who had no concept of the individual (as our era understands the idea), and who saw history as an endlessly turning wheel of seasons, the Ishtar Gate announced not human splendor but a city of gods as well as humans. For the gate's creators, the roaring lions evoked the protective power of the gods that dwelt inside the gates. Over subsequent centuries, gateways have been used for collecting tolls (Jerusalem), commemorating military victories (Rome), and controlling access to walled cities. In the twentieth century, evocative gateways, historically built for a different reason, sometimes became mechanisms of social exclusion (as in gated communities).

The squares of Greco-Roman cities like Pompeii and Renaissance cities like Siena reflect the forces that shaped those cultures—and offer striking contrasts to the Ishtar Gate. As gathering places for wealthy property owners, Pompeii's forum and Siena's Piazza del Campo celebrate both the rise of an affluent urban class engaged in commerce and its claim to a political voice. Neither square served as a setting for public buildings or broad community enjoyment, as modern squares do. Cities shaped



during the Baroque era and later, such as Paris, reflect the influence of monarchical government and authoritarian rule in great diagonal boulevards, monumental spaces, and long vistas slashing across clustered medieval blocks. The squares and grand boulevards of these cities served as models for both the grand commercial main streets and vibrant squares of early twentieth-century American cities and the destructive, windswept squares and overscale “boulevards” carved out of urban neighborhoods during urban renewal.



I.4 Designers working under authoritarian regimes often had the freedom to create monumental spaces and long vistas, as in Paris. Copyright © iStockphoto.com/FotoVoyager.com

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Once the urban transformation had been effected, the city as a whole became a sacred precinct under the protection of its god: the very axis of the universe went . . . through its temple, while the wall . . . was both a physical rampart for defense and a spiritual boundary of greater significance.

*Lewis Mumford, The City in History: Its Transformations and Its Prospects (New York: Harcourt Brace, 1961), 48*

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Scorned in the years after World War II as an antiquated approach to urban neighborhoods but valued today as a defining quality of walkability, the grid originated to support military efficiency and taxation in Greek settlements. Its adoption by most American cities owed largely to a desire for efficient land distribution and development in a society that believed strongly in the moral benefit of owning property. The young United States, with its abundant acreage, saw property ownership as an economic prerequisite to democracy—a clear distinction from Europe and other societies that restricted property ownership to a small elite. Only in the District of Columbia did Americans pursue the monumental design and diagonal boulevards characteristic of continental Europe—following a plan laid out by a French national.

### 3. A changing world and the birth of urban design

The outlines of the discipline of urban design began to take shape in efforts to tame the burgeoning industrial centers of mid- and late-nineteenth-century Europe and America. The changes unleashed by the Industrial Revolution, including unprecedented urban growth, triggered a need to revisit basic assumptions about the form and organization of urban communities. No cities in history had attained anything close to the size and complexity of the industrial cities that blossomed across Western Europe and in North America after 1850—and none had grown and changed so rapidly. Before the Industrial





I.5 As factories multiplied in cities, many residents found the resulting noise, smoke, and soot intolerable. Courtesy the Library of Congress, FSA-OWI Collection



I.6 For the well-to-do, suburban housing offered an escape from crowded industrializing cities. Courtesy Oliver Gillham

Revolution, few cities changed substantially during a resident's lifetime, and when they did, the change resulted from the intervention of a powerful elite.

After the Civil War, American industrial cities grew at an astonishing rate. The number of U.S. cities with populations greater than 200,000 grew from four in the mid-nineteenth century to more than forty by the early twentieth century. Industrialization alone did not drive this growth; electric streetcars and new building technologies allowed cities to grow both horizontally and vertically. Architects began to approach cities from a new design perspective that would feel familiar today, as they wrestled with noise, pollution, and poverty, new technologies, and a new and profound separation between urban residents and nature. They joined European colleagues in advocating sweeping measures under the banner of the City Beautiful movement: mass rebuilding to restore beauty and nature to cities. Architects and others—more so in the United States than in Europe—explored ways to escape industrialization's disagreeable side effects by creating suburban retreats for the rich and, later, the middle class.

It was the decline of America's industrial economy after World War II, however, that led to formal

recognition of urban design as a distinct discipline. Taking hold even more rapidly than the rise of urban manufacturing, this decline produced a full-blown crisis, as jobs and residents—up to half in some cities—fled to the suburbs, taking most of the center cities' wealth with them. A confluence of seemingly unrelated factors accelerated this dramatic migration: the advent of near-universal automobile ownership among middle- and upper-class Americans; the construction of a vast national highway system that began in earnest in the 1950s and made suburbs easily accessible; government programs that made home ownership more attainable; a dramatic rise in the number of households with children (and a subsequent demand for backyards); and the broad diffusion of technologies, including television, that eroded the ties binding people to their urban neighborhoods.

Alarmed by physical deterioration in American cities, the U.S. Congress enacted federal housing laws in 1949 and 1954 that provided significant funding for eliminating “slums” and “blight” in cities. In response, Josep Lluís Sert, then dean of Harvard's Graduate School of Design, organized the Harvard Urban Design





I.7 Highways of the urban renewal era often cut large swaths through dense older neighborhoods. Courtesy Boston Public Library, Prints Division

Conference in 1956. Sert was the first to use the term *urban design* to describe a particular approach to planning. In contrast to the City Beautiful movement and other reactions to industrialization, he did not urge participants to look to the past.

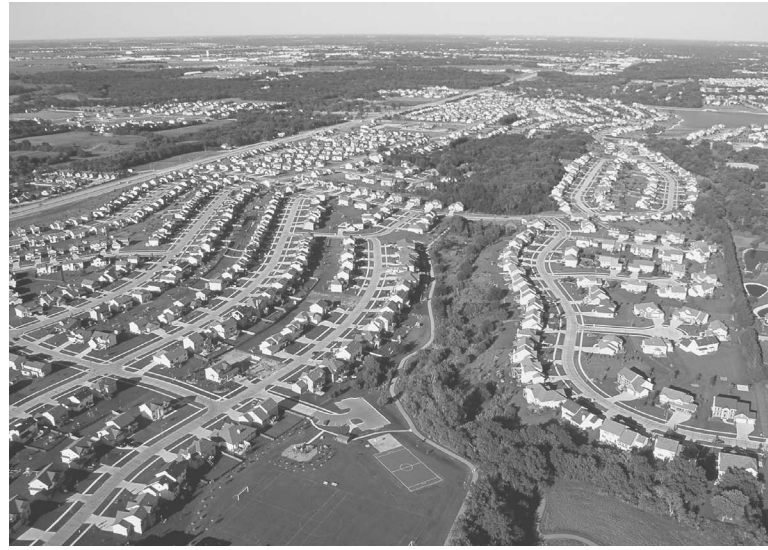
With the exception of author Jane Jacobs and urban historian Lewis Mumford, virtually all of the distinguished participants gathered in Cambridge at the birth of urban design as a formal discipline defined

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**Recentralization—a fight to defend core cities against the centrifugal forces of suburbanization.**

*Josep Lluís Sert, in an address to the Harvard University Graduate School of Design Invitation Conference on Urban Design, April 9, 1956*

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I.8 These same highways cut very different swaths across formerly rural areas—dispersing the economy of America’s cities from older neighborhoods to miles of strip development. Courtesy U.S. National Soil Conservation Service

recentralization very differently than their present-day counterparts. These leaders of architecture, planning, and landscape architecture agreed with Edmund Bacon, executive director of Philadelphia’s City Planning Commission, that the federal government’s commitment to invest in urban renewal represented “a responsibility we cannot duck” to sweep away the archaic crowding of traditional downtowns and urban neighborhoods and replace them with “modern” environments shaped around expressways, parking structures, and malls—symbols of progress in 1956. These leaders believed in applying Mies Van der Rohe’s architectural dictum “form follows function” to city form, and more than anything, “function” meant opening up dense cities for economic renewal.

Like Mies, most of those who helped define urban design saw their task as a fine art, which, like modern painting, celebrated the rejection of Old World social and political values closely associated with traditional





I.9 a,b Philadelphia created Independence Mall in the early 1950s—a three-block swath whose stated rationale of commemorating historic events served as an excuse for an urban renewal project that buffered downtown from deteriorating neighborhoods to the east and cleared “slum neighborhoods” to create sites for new office buildings. Wikimedia Commons

architecture and urban form. The modern movement had coalesced around a rejection of the rigid social order and the deference to the anciens régimes that had dominated Europe prior to World War II. The fact that Hitler, Stalin, and Mussolini had embraced classical ideas of architecture and city-building only reinforced a desire for approaches to planning that broke with tradition. The urban designers who gave shape to the urban renewal movement of the 1950s and 1960s took pride in ripping out what they saw as the archaic relics of an irrelevant and discredited past and creating a modern city shaped around the automobile and a rational aesthetic that celebrated progress. Mumford balked at this impulse, saying that “if this conference does nothing else, it can at least . . . report on the absolute folly of creating a physical structure at the price of destroying the intimate social structure of a community’s life.” So fully did urban designers equate the renewing of cities with the rebuilding of cities that nearly forty years passed before Mumford’s warnings about destroying intangible social capital gained broad acceptance among urban designers.<sup>3</sup>

Distracted by Cold War fears that dense cities were vulnerable to atomic attack, racial fears that precipitated white flight, the decline of America’s industrial economy, a shift in wealth from cities to suburbs, and

other challenges, initial efforts to save cities proceeded with scant attention to their impact on community life. Instead, urban designers allied themselves with planners and architects as early champions of massive rebuilding projects intended to lure investment back to cities.

No individual better embodies the tendency against which Mumford warned than New York’s “master builder,” Robert Moses. Trained not in planning or design but in political science, he became the most visible practitioner of urban renewal in the United States. While holding a variety of positions, he functioned as New York City’s de facto master planner from roughly 1930 to 1965. Moses’s concept of urban renewal, which involved “rationalizing” the city’s form to accommodate twentieth-century infrastructure, took precedence over all other considerations. He built expressways that sliced through neighborhoods in all five boroughs (and well into other parts of the state) and replaced thousands of units of traditional neighborhood housing with blocky high-rises inspired by architect Le Corbusier’s tower-in-a-park model.

Urban renewal values did not go unchallenged. A series of influential writers struggled to reconnect the design of cities to human and environmental values. Kevin Lynch’s *Image of the City* (1960) introduced the





I.10 Robert Moses viewed his Battery Bridge project (1939) as a high-profile opportunity to modernize the image of New York City. The Battery Tunnel was constructed instead. Courtesy Library of Congress, New York World-Telegram & Sun Collection

concept of shaping urban form around the ways that people actually experience the built environment. In *Design with Nature* (1969), Ian McHarg argued for starting with the natural environment in creating human environments. Two years later, Victor Papanek built a case for understanding the role of social forces in *Design for the Real World: Human Ecology and Social Change* (1971). Novelist James Baldwin dubbed urban renewal “Negro removal,” in anger at the widespread dislocation it brought to black neighborhoods.

While these authors and their allies attracted the notice of some planning and design professionals, their work had little impact on popular thinking—or policy makers. If anything, their advocacy widened the gulf between the evolving values of practitioners and decision makers and the general public. As dissatisfaction

with and then disdain for urban renewal grew in the 1970s, it discredited Sert’s message of recentralization, too. Urban design coalesced as a discipline just as suburban growth accelerated and the term *sprawl* took hold to describe the increasingly decentralized forms that growth followed in the United States.

Within a decade of the Harvard conference, however, new voices began to emerge from outside the planning and design professions. Over the next fifty years, social commentators, economists, environmentalists, public health officials, preservationists, neighborhood activists, and others—often speaking from disparate perspectives—built a compelling case for recentralization that is the foundation of contemporary urban design. Unlike Sert’s call to reinvent cities, these voices framed a vision around reinvigorating cities instead. If anything, that vision today marks suburbs as the targets for reinvention.

The most influential of the new voices that appeared in the years after the 1956 conference was that of Jane Jacobs. In *The Death and Life of Great American Cities*, published in 1961, she evoked the joys of urban streets and condemned both the isolation of suburban life and the damage wrought by urban renewal. *Death and Life* rekindled a passion for urban living that spread gradually over six decades, even though for years critics dismissed its call for a return to traditional urban values as a romanticized ideal that ignored economic and social realities. One year after *Death and Life*, Rachel Carson’s *Silent Spring* unleashed a passion for protecting the natural environment that took hold much more quickly than Jacobs’s paean to urban life. *Silent Spring* inspired the first Earth Day in 1970, which evolved into a global day of recognition of environmental issues. Initially, environmentalists dismissed cities as culprits in polluting air and water. It was not until the 1990s that environmental awareness had a widespread impact on thinking about urban form, yielding a very different understanding of cities’ environmental impact.





I.11 Skidmore, Owings & Merrill's design plan for Moynihan Station in Manhattan recaptures much of the grandeur of McKim, Mead & White's Pennsylvania Station, demolished in 1963. The current, underground station would relocate across the street to the dignified Farley Post Office Building, also a McKim design. The plan responds to a widespread yearning for the urban qualities lost to urban renewal and subsequent years of disinvestment. Courtesy SOM, © pixelbypixe

The demolition of New York City's neoclassical Pennsylvania Station in 1963—a case study in urban renewal's undiscerning hostility toward traditional form and embrace of all things “modern”—mobilized a new preservation movement. Preservationists across America condemned the terminal's destruction and mobilized locally to safeguard America's architectural heritage. As a direct result, Congress passed the National Historic Preservation Act in 1966. Heightened awareness of and legal protections for historic preservation had a pervasive influence on urban design. But the most significant outcome of Penn Station's destruction was the enfranchisement of grassroots movements, which became active participants in the process of urban design. In the early 1970s, inspired by early preservation successes, activists in Boston, New York, Philadelphia, New Orleans, and other cities mobilized to fight plans for elevated expressways that would cut through urban neighborhoods. From the mid-1970s on, the influence of local

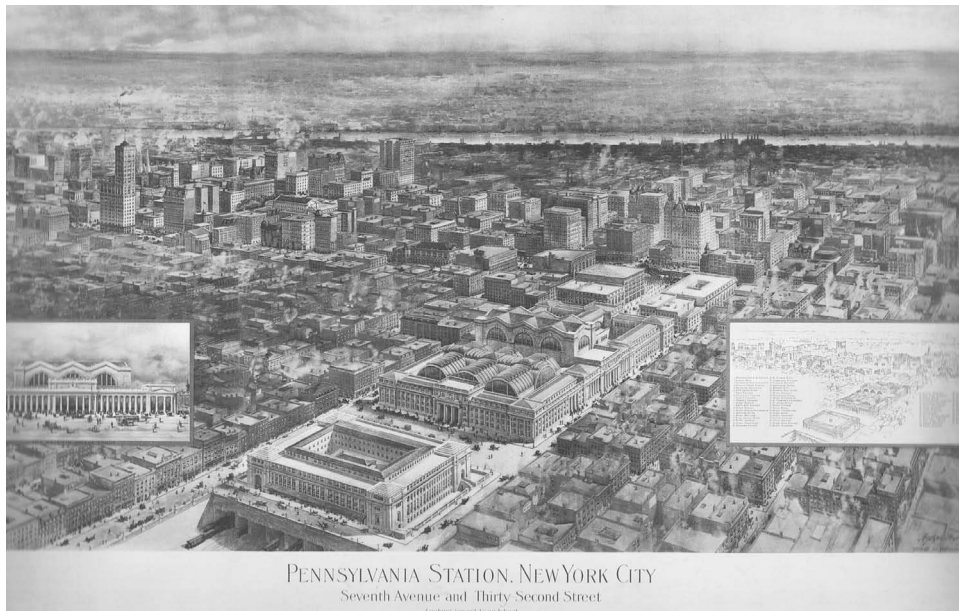


I.12 The SOM plan grafts a glass superstructure onto the neoclassical Farley Building to define a striking arrival area that serves as a memorable new transit-oriented entry to New York. Courtesy SOM, © pixelbypixe

communities grew steadily in shaping urban design proposals and determining the likelihood of their adoption by local governments.

In the late 1970s and 1980s, federal policy turned against cities. When a bankrupt New York City asked for federal financial aid, the *New York Daily News* ran an infamous headline summarizing President Gerald Ford's response: “Ford to City: Drop Dead.” President Ronald Reagan (who reportedly did not recognize his own Housing and Urban Development secretary, Samuel Pierce, at a White House function in 1980<sup>4</sup>) campaigned against “welfare queens,” thereby linking racial hostility and urban poverty, and slashed federal funding to cities by more than 50 percent. African-American leaders began to argue that civil rights and the fate of cities were intertwined; ignoring cities meant ignoring the poor and people of color. Urban leaders began to use the word *equity* in calling for an “urban agenda” that balanced federal spending on suburban highways with investments in mass transit, job training, education, and other programs that contribute to the quality of life of urban residents.





I.13 A 1910 Hughson Hawley rendering of Penn Station and the Farley Post Office complex. Wikimedia

New thinking about cities coalesced around the “smart growth” movement in the 1990s. Organizations like the American Planning Association and the Natural Resources Defense Council insisted that ending sprawl and conducting growth back toward a city’s core were essential to protecting the environment. They found models in policies introduced in small cities like Boulder, Colorado, as early as the 1960s, as well as efforts to protect rural land in the Pacific Northwest that led to growth boundaries around Portland (established in 1979), and Seattle (1992). In 1994, Parris Glendening won election as governor of Maryland on a platform calling for the reorientation of state policies to favor growth in existing communities rather than the exploitation of undeveloped land. As governor, Glendening gave smart growth a new level of prominence.

In the early 2000s, new ideas about the role of cities reached ever wider audiences. In an influential 2004 article, *New Yorker* staff writer David Owen turned on its head

the conventional wisdom that cities degraded the environment and were less healthy than pristine rural areas. From high levels of transit use to apartment building heating, he catalogued the many ways that Manhattan’s density enabled its citizens to use energy far more efficiently—and consequently leave a far smaller carbon footprint—than their friends in the suburbs or the country. Not only did they use resources more efficiently, Manhattan residents walked more often than most Americans, which made them healthier, on average, than their counterparts elsewhere. America’s largest city, Owen showed, was its greenest and healthiest. His provocative article, circulated widely (and later expanded into the book *Green Metropolis: Why Living Smaller, Living Closer, and Driving Less Are the Keys to Sustainability*), buttressed a gathering consensus about the need to reverse sprawl to address both environmental and personal health.<sup>5</sup>

Beginning in 2000, Dr. Richard Jackson—then working for the Centers for Disease Control and



# How We Live

## A CIVIC INITIATIVE for a LIVABLE NEW ENGLAND

Led by the Boston Society of Architects and backed by a wide array of civic, governmental, environmental, and professional groups, the Civic Initiative brought together more than one thousand citizens in 2000 and 2001. In forums, workshops, a planning workshop, and a "future search, participants focused on two central questions: Will we continue to sprawl, squandering a legacy of historic cities and open countryside? Can we find ways to grow that protect and nourish our heritage and our resources?

**BSA**  
THE CIVIC INITIATIVE FOR A LIVABLE NEW ENGLAND  
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A CIVIC INITIATIVE FOR A LIVABLE NEW ENGLAND

## 1 Why is sprawl happening here?

*We have used increasing wealth to sprawl more than some Sunbelt areas*



Since 1990 in metro Boston:  
• Population change: +15%  
• Number of households: +25%  
• Median age: 35  
• Households in the core: +15%  
• A recent Harvard study reported that in 2001 we are using new land seven times as fast as our rate of population growth.

- **Variable educational quality**—Concerns about public school quality drive families out of low-income communities.
- **Local fiscal policies**—Dependence on unpaid local real estate taxes forces suburban towns to lure jobs and tax base out of older communities and near housing.
- **Limited housing affordability**—Limited options for affordable housing encourage development of low-expense rural land.
- **Limited transportation choices**—Insufficient funding for public transit and lack of coordination of transportation and land use planning reduce the availability of alternatives to the car.
- **Fear of density**—Limited familiarity with good design prompts opposition to concentrated and mixed-use development.
- **Desire for security**—Some people perceive diverse uses as less safe than more homogeneous suburbs.

*We're paving paradise—are the results what we really want?*

## 2 Why should we care?

*We're rapidly losing our heritage*

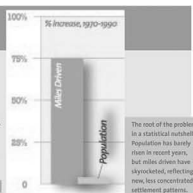
**We're sprawling more than Los Angeles**  
• Proportion of Massachusetts defined as developed in 1990: 15%  
• Same figure projected for 2010: 31%

**We're paving over our heritage**  
• Increase in population, metro Boston, 1970-2000: +15%  
• Increase in annual vehicle miles driven: +75%

**We're breathing uneasily**  
In the Boston metro area:  
• Mass. Dept. of Environmental Protection projects that NO<sub>x</sub> levels will begin rising again over the next five years as a result of increasing vehicle miles traveled.  
• 15% of rivers fail to meet state water quality standards. That number will rise during the next five years, according to DEP projections.  
• More children and seniors suffer from environmentally linked diseases than 10 years ago.

**We're facing a housing-affordability crisis**  
• 2000 Boston rental vacancy rate: 1%  
• Change in number of homeless families, 1998-2000: +95%  
• In 2001 in the communities of eastern Massachusetts—home to nearly 1/3 of the state's residents—no family earning the median income could afford a house at the median price.

**We're draining vitality from our older cities**  
From 1990 to 1999:  
• Change in employment around Route 128: -4900%  
• Change in older, core communities: -40%  
• We have exported our economy to the suburbs.  
• Boston share of Class A office space in 1980: greater than 60%  
• Boston share of Class A office space in 2000: less than 40%



**We're straining our social fabric**  
In the Boston metro area:  
• Proportion of poor children living in cities: 80%  
• Number of low-skill workers in the core in 2000 competing for 10,000 available jobs: 60,000  
• Core community household income as a portion of household income in outer communities: 60%  
• Portion of African- and Latino-American residents in cities: 75%

## 3 What can we do?

*Ten key goals will help us begin to address the problem*

- Promote efficient land use**—to foster mixed development and densities that encourage walking, support public transit, reduce auto trips and congestion, and minimize development in natural areas.
- Expand economic and social equity** across the region to reduce concentrations of poverty, reverse economic and social fragmentation, and promote a sense of regional community.
- Expand public transit options** to enable older communities to absorb growth, support more efficient land use, and improve access to regional and other sites.
- Expand New England's tradition of concentrated cities, towns, and villages** to verify the character of existing communities, take advantage of existing transportation and utility infrastructure and preserve open space.
- Conserve open space** to preserve New England's unique natural heritage and environmental health.
- Adapt "green" approaches to building and the planning** to promote efficient use of resources and reduce pollution.
- Expand affordable housing options** in developed areas to reduce pressures for sprawl and accommodate the changing demographics of new households, only 27% of which are traditional families.
- Promote when design approaches for more concentrated, mixed-use development that strengthen traditional town and neighborhood centers, support revitalization of "Main Street" and broaden housing options.**
- Encourage broader educational equity** to reduce pressure for families with children to move out of older communities and to reduce social, racial, and economic fragmentation.
- Create new forms of revenue sharing** to alleviate the need for suburban communities to compete for commercial tax base by pulling jobs out of core communities.

*We can't meet these goals without substantial change.*

Many people believe the dynamics of sprawl are unchangeable, yet New England is better prepared to manage growth than most regions:  
• Despite a strong "home rule" tradition, New England municipalities repeatedly turn to state and regional agencies for help in managing schools, markets, transportation, and other issues that don't conform to local boundaries.  
• Although greenfield sites are less expensive, environmental legislation and local regulations have complicated suburban development, helping spark renewed interest in urban sites.  
• Addressing school quality, housing needs, and limited public transit would create pressure to "cluster" to move further out and drive more.  
• National models of effective growth management show state governments in the lead—Oregon and Washington have focused growth around Atlanta and New Jersey have linked growth to public transportation. Maryland provides state infrastructure dollars only to designated growth areas. Massachusetts has already laid the foundation for managed growth through legislation and local options programs, but these initiatives—low-density redevelopment, the Storm Protection Act, the Community Preservation Act, the Watershed Protection Initiative, Community Development Plans, and affordable housing certification for competitive state bonds—need better coordination and more funding.  
• Leadership from governors and the private sector in Rhode Island, Maine, and New Hampshire has explicitly made smart growth part of the local political agenda and regional growth management.  
• In Massachusetts, each of these goals is achievable with strategic legislative and funding initiatives.



## 4 What next?

*Build a coalition*

- Civic Initiative proponents will convene key leaders to begin building a smart-growth coalition that unites advocates of environmental, housing, transportation, education and other elements of a growth-management agenda. The coalition would focus on five goals:
- **Building greater public understanding** to cultivate an informed constituency.
  - **Finding resources** to identify solutions to complex challenges.
  - **Advocating growth-management issues.**
  - **Convening and coordinating existing organizations** in support of growth-management issues.
  - **Rallying support** for key legislation.
- To get started, the coalition will need to:
- hire an executive director and limited staff
  - secure start-up funding; and
  - begin informing a broad membership.

## What does smart growth look like?



I.14 In 2000, the Boston Society of Architects (BSA) sponsored the first regional smart growth initiative in New England. In the wake of a yearlong grassroots effort that culminated in a weekend conference that drew hundreds of participants, five major environmental organizations joined the BSA to form the Massachusetts Smart Growth Alliance. The Alliance has evolved into an effective advocate for smart growth legislation and public policies. Courtesy of Goody Clancy

Prevention—coauthored a series of articles and books that documented a growing obesity epidemic in the United States and traced it largely to Americans' love affair with the suburbs: sprawl discouraged people from walking. Speaking at forums such as the Congress for the New Urbanism in 2003, Jackson made a case, based on public health measurements, for compact rather than sprawl-form growth. Owen, Jackson, and many others had reached the same conclusion Jane Jacobs had forty years earlier (although they came to it from different directions): mixed-use, walkable, lively urban

neighborhoods and downtowns are simply better places to live.

Economist Richard Florida's *The Rise of the Creative Class* (2002) buttressed Jacobs's message from yet another perspective. Florida argued that vibrant, walkable downtowns and urban neighborhoods attract the educated, creative workers essential to regional economic competitiveness in a postindustrial age driven by innovation. Around the same time, CEOs for Cities, a group funded by private-sector employers, commissioned research showing that the younger, educated workers





I.15 In 2003, the Boston Society of Architects (BSA) joined with the Massachusetts Smart Growth Alliance and the American Institute of Architects to organize *Density: Myth and Reality*, the first national conference on population density. Concerned that smart growth would remain unattainable without support for greater density in urban centers, the BSA saw the conference as a way to confront widespread fears about density. Policy makers considered density so controversial that just the word's presence in the conference title prompted more than one public agency to threaten to withdraw its sponsorship. Today, planners and public officials view denser urban development as a key economic and environmental strength of cities and, increasingly, suburban centers. Courtesy Goody Clancy

sought by corporate America no longer moved to where jobs were plentiful, but instead sought places that provided a decidedly urban lifestyle—and, increasingly, the jobs followed them. The group argued that regional approaches to economic development must reflect this new understanding. In a postindustrial economy, suburban roads and highways no longer counted as the most effective investment for competitiveness; urban revitalization did.

While these and other voices argued for reconcentration, laying a foundation for a shift in approaches to contemporary urban design, they hadn't yet proved that social, environmental, and economic advantages made cities viable in the marketplace. Five decades of urban

decline strongly suggested the opposite—particularly to elected officials, planning boards, and other public decision makers struggling with shrinking financial resources.

The notion that cities could succeed, and even out-compete suburbs for investment, remained unproven in the 1990s. Housing analysts Todd Zimmerman and Laurie Volk of Zimmerman/Volk Associates (ZVA) developed a methodology for identifying housing demand that relied on demographic analysis rather than the success of comparable developments—the traditional measure of housing demand. ZVA's new approach quickly proved effective at identifying rapid shifts in the housing market and emerging submarkets,



such as urban neighborhoods and downtowns. The conventional focus on comparable projects simply confirmed the historical absence of demand for new types of housing or housing in new locations. With no indication of previous demand, developers avoided new locations and new approaches for fear that no market existed, and in doing so precluded any future statistical support for such projects. ZVA's approach identified latent future demand and quickly found success, identifying new segments of urban markets in St. Louis, Newark, Baltimore, and other cities. The success of the redevelopment that followed began to persuade decision makers and developers that new urban development on a large scale could succeed.

Around the same time, Christopher B. Leinberger, a developer and Brookings Institution fellow, reported on research showing that for the first time since World War II, mixed-use, walkable environments commanded a higher price than suburban office parks, shopping centers, and other single-use settings. Real estate analyst Arthur C. Nelson wrote a series of articles that showed how profound demographic shifts across America presaged new interest in and demand for urban living. In 2008, Leinberger took the case a step further. He reported on research by Nelson that predicted a looming surplus of single-family suburban houses at the same time that most cities would have difficulty meeting the demand for urban housing. Leinberger warned that “many low-density suburbs and McMansion subdivisions . . . may become what inner cities became in the 1960s and 1970s—slums characterized by poverty, crime, and decay.”<sup>6</sup>

When Sert called for recentralization in 1956, he argued that the dire prospects for failing cities demanded a new discipline—urban design—that could reinvent urban form and organization. Ironically, recentralization remains the mission of urban design today, but the term has taken on precisely the opposite meaning from what Sert had in mind. Today the term means

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It is no coincidence that in 1857, many of the founders of the American Institute of Architects in New York (Richard Upjohn, Leopold Eidlitz, Edward Gardiner, Richard Morris Hunt, Jacob Mould, and Calvert Vaux) also advanced theories on infrastructure, transportation, park planning, and the role of public buildings and spaces as a means of improving the quality of life within our cities. It was that same spirit that sought to create an architecture organization that would “promote the scientific and practical perfection of its members” that was also brought to bear in the advocacy of a better society for all Americans. . . . [Today] we can't provide grand visions of what a place may be without fully interacting with the public. This is how architects made a difference in the past, and this is how we will make design matter for future generations.

*Mark E. Strauss, FAIA, AICP, principal, FXFOWLE Architects, New York*

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I.16 Four hundred attendees at the 2003 density conference called for heeding architect and urban designer Josep Lluís Sert's call for recentralization, almost fifty years after Sert delivered his initial speech on the topic at Harvard University in 1956. Courtesy Goody Clancy



giving city and suburban development alike *traditional* form that nurtures walkability, diversity, greater personal choice, opportunity for collaboration, healthier lifestyles, and environmental responsibility. What changed? Context. And it will continue to change. Urban designers have learned much since 1956, and the most important lesson is that urban design remains a work in progress.

## Notes

- 1 Garry Blight, Sheila Pulham, and Paul Torpey, “Arab Spring: An Interactive Timeline of Middle East Protests,” website of *The Guardian*, last modified Jan. 5, 2012. [www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline](http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline).
- 2 William Manchester, *A World Lit Only by Fire: The Medieval Mind and the Renaissance, Portrait of an Age* (Boston: Little Brown, 1992).
- 3 Alex Krieger and William S. Saunders, eds., *Urban Design* (Minneapolis: Univ. of Minnesota Press, 2009), 102.
- 4 Peter Dreier, “Reagan’s Legacy: Homelessness in America,” *Shelterforce*, no. 135 (May/June 2004), last modified July 17, 2008. [www.nhi.org/online/issues/135/reagan.html](http://www.nhi.org/online/issues/135/reagan.html).
- 5 David Owen, “Why New York Is the Greenest City in America,” *New Yorker*, October 18, 2004, 111. *Carbon footprint* refers to the cumulative amount of specific gases—carbon dioxide being the most commonly measured—produced by the activities of a person or a group of people (e.g., a business, a city, a country, or all of humankind). These gases trap heat in the earth’s atmosphere, and the resulting worldwide rise in temperatures has begun to produce unpredictable climate change, from droughts to melting icecaps to rising sea levels that threaten to inundate coastal cities in a few decades. Efforts to curtail the production of these gases and mitigate their impact on the planet emerged in political debate in the early 2000s—although the United States is the only developed country where the debate over the reality of climate change continues—and climate scientists agree with near unanimity that human activity has caused most of the warming. In recent years, the debate has shifted from what we can do to prevent rising global temperatures to how we can protect against the worst of their inevitable and unpredictable consequences.
- 6 Christopher B. Leinberger, “The Next Slum?” *Atlantic* 301, no. 2 (March 2008): 74.



## Roots of Western Urban Form: Centralization

This chapter focuses on key points in the evolution of human settlements that, while reflecting very specific times, cultures, and conditions, also serve as the roots of America's planning and urban design traditions.

### First Cities

#### Early organized societies: Organic cities

Whenever archeologists think they have identified the oldest human settlement, it seems that a dig somewhere else unearths an even older one. Each new find adds to a rich human tradition: Cities exist because humans are social beings, variously tribal, communal, and mutually supportive. From nomadic beginnings—first hunter-gatherers, then tribal herdsman—came agricultural settlements that eventually clustered for religious, administrative, defensive, or economic reasons. With the emergence of surplus economies, hierarchical societies appeared and supported the growth of villages, then towns, and, finally, cities.

In simplified terms, two basic city forms emerged early in Western civilization: the organic and the geometric.<sup>1</sup> Organic cities arose by chance and accretion; they grew willy-nilly. Geometric cities were typically planned, functional, and rational. Geography, climate, and land apportionment shaped both forms, whether in an administrative center in a Mesopotamian kingdom, a trading settlement on the Silk Road, a Mexican colonial outpost, or a farming community on the Canadian plains.

Likely the more ancient of the two, organic settlements developed around regional crossroads, safe harbors, river crossings, and access to mountain passes or other geographic features crucial to trade or defense. Sometimes an expanse of arable land, reliable access to water, and a good defensive position encouraged settlement. From these beginnings, streets and public ways arose from the paths people and animals traveled, guided by topography. Original settlement patterns, allotment by rulers, negotiation, and trade likely governed land distribution. Often the result was a radial-concentric plan, as small villages merged and, eventually, formed



into a town and then a city. Venice and Siena in Italy fall into this category, as do some newer cities, like Boston.

### **Stronger political, social, and religious organization: Geometric cities**

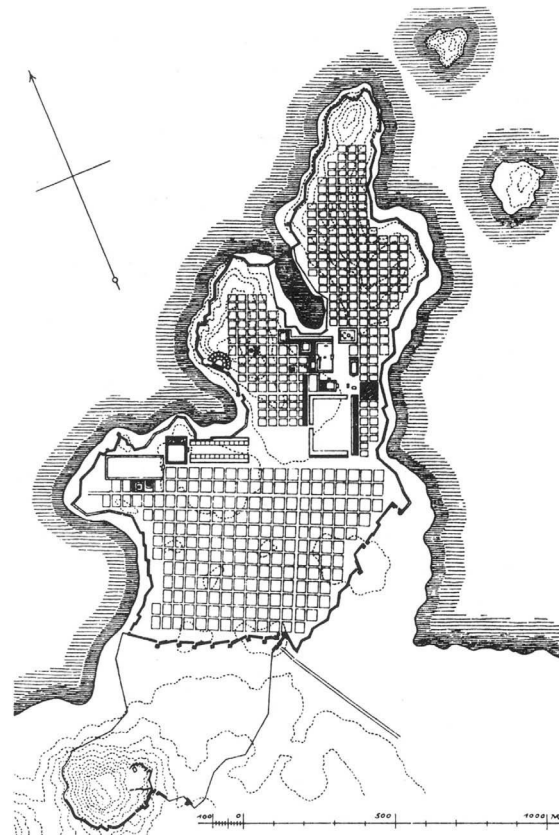
The geometric city form was intentionally designed in some fashion; it dates to at least 2600 BCE. The cities of Mohenjo Daro and Harappa in the Indus River Valley are two early communities that comprised blocks formed by streets running at right angles.<sup>2</sup> Rectilinear patterns also appear in excavated towns in Babylon and China that date from the seventeenth to fifteenth centuries BCE. The Egyptians also knew geometric planning: Kahun (nineteenth century BCE) and Amarna (fourteenth century BCE) each follows a rigid gridiron plan, as much for religious reasons as for the speed and mechanization such a plan allowed. Lewis Mumford writes, “City building under the pharaohs was a swift, one-stage operation: A simple geometric plan was a condition for rapid building. . . . More organic plans, representing the needs and decisions of many generations, require time to achieve their more subtle and complex richness of form.”<sup>3</sup>

Such considerations indicate a more mature society—one that has outgrown purely organic roots. They also suggest authoritarian rule. Geometric settlements were often planned in advance as central places for religion and commerce, remote outposts for control of regional populations, or colonial encampments that prioritized defense and control in their design. The grid offered a practical method for allotting land in colonial settlements and for demarcating land according to use and function.<sup>4</sup>

The Greek city of Miletus in Asia Minor offers one of the best-known early examples of geometric planning. While Greek cities on the mainland tended to develop along topographic contours in an organic pattern, Greek colonies in Asia Minor and elsewhere followed a more

geometric path.<sup>5</sup> Rebuilt in the fifth century BCE after having been razed during the Persian Wars, Miletus spread out on a gridiron around a central, rectangular agora in a plan often attributed to Hippodamus. This organizing scheme proved so compelling that it took on the city’s name—Miletian.

As the Greeks spread westward along the Mediterranean’s shores, they exported the Miletian plan to their outposts in Italy, where the Romans later



1.1 Plan of Miletus (fifth century BCE). Reconstruction of the Greek colony in Asia Minor—carried out after being sacked by the Persians—followed a gridiron plan, with square blocks radiating from a central agora. As they established subsequent colonies around the Mediterranean, the Greeks replicated the Miletian plan. Courtesy Holger Ellgaard, via Wikimedia





1.2 Dubrovnik, Croatia. The Byzantine empire inherited the Miletian plan from Rome and prescribed the grid that still distinguishes Dubrovnik's historic center from development outside its walls, which were begun in the ninth century and completed during the Renaissance.

adopted it. From their rise to power until the demise of their empire in the fifth century CE, the Romans built numerous cities and towns on the Miletian plan throughout what is now Western Europe. These communities, often fortified outposts called *castra*, usually followed the same strict grid pattern around a central forum. Sometimes they were overlaid atop preexisting settlements of other cultures; cities as distinctive as Cologne, Florence, and London all grew from such beginnings. In Tuscany, behind massive sixteenth-century walls, the historical center of Lucca still preserves its original Roman street grid.

The classical cities that developed from these two beginnings evolved over hundreds and thousands of years. Rome itself combines organic origins and gridded streets, and historians have identified at least six layers

of reconstruction, with the Roman grid absorbed into successive periods of growth and decay.

## Rebirth of European Cities: “Organic” Cities of the Late Middle Ages

Few new European cities arose in the centuries after the fall of Rome, and military considerations strongly shaped those that did, primarily *bastides* in France and *Zähringer* towns in Germany. Inspired by Roman military outposts, these towns followed a strict Miletian pattern arrayed around a central market square. Planned from scratch, they exemplified medieval town planning and urban design.



*Bastide* towns dotted the Languedoc, Aquitaine, and Gascony during the thirteenth and fourteenth centuries, when the Hundred Years' War between France and Britain raged over much of France. *Bastides* were typically planned and built as single units, often by a single lord; Alphonse of Poitiers for example, built several in a bid to consolidate territorial control.<sup>6</sup> Roman influences remained strong in medieval France, and the *bastides* adopted the plan of the *castra* that preceded them. Wide streets at right angles crossed a central marketplace, dividing the town plan into super blocks, or *insulae*, which were further divided by narrow lanes. Among other things, the grid plan's modular character facilitated tax collection and record keeping,<sup>7</sup> considerations that encouraged its use in later centuries.

The dukes of Zähringer built fortified towns in Germany's Rhine Valley in the twelfth century, seeking, like Alphonse of Poitiers, to tighten control over their domain.<sup>8</sup> Freiburg, Villingen, and Rottweil survive as examples of the form and, as in France, drew heavily on

the model of the *castra*, with a Miletian grid plan built out from a central marketplace.

What might be characterized as medieval urban design extends beyond *bastides* and Zähringer towns, however. Cities during the same period, some dating to antiquity, undertook major renovations and expansions that resulted in some of Europe's most renowned public spaces. From its beginning as a small plaza facing the Basilica di San Marco in Venice, the Piazza San Marco took on its present configuration in the twelfth century, when it was rebuilt to accommodate a historic meeting between Pope Alexander III and the Holy Roman Emperor Frederick I (Barbarossa). The piazza continued to grow incrementally; the doge's palace, the clock tower, and the campanile were added between the fourteenth and the sixteenth centuries.

The Piazza del Campo in Siena sits on gently sloping ground between the three original settlements that make up the present-day city. The piazza we see today dates largely from reconstruction carried out in the



1.3 Piazza del Campo (fourteenth century), Siena, Italy. The Piazza del Campo broke with an important medieval city-building tradition. Instead of serving as the setting for a cathedral, the piazza's focus is a secular building, the Palazzo Pubblico, seat of the Sienese republic. The square prefigured the modern idea of secular civic space. Courtesy Manfred Heyde, via Wikimedia



thirteenth and fourteenth centuries, when the Palazzo Pubblico was completed. While the piazza may seem like the quintessential medieval space in the quintessential medieval city, it pointed toward a major functional change. Unlike the Piazza San Marco and other medieval public spaces that served as forecourts to great cathedrals, the Piazza del Campo serves no religious building; it focuses instead on a civic building, the Palazzo Pubblico, prefiguring the Renaissance and the beginnings of modern secular civic space.

## Reintroduction of Classical Learning: “Geometric” Cities of the Renaissance

In Europe, the Renaissance revived interest in the great civic works of classical Roman architecture, sparked in part by wide distribution of *De architectura*, a rediscovered treatise written by the Roman engineer Marcus Vitruvius Pollio (first century CE). The new awareness of classical architecture reflected an emerging humanist worldview that heavily influenced European ideas about cities, as demonstrated in Pienza in Tuscany. Designated a United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Site in 1996, the diminutive city serves as a prime example of early Renaissance city planning. UNESCO’s citation praised the town’s “outstanding universal value” as “the first application of the Renaissance Humanist concept of urban design, and as such [it] occupies a seminal position in the development of the concept of the planned ‘ideal town’ which was to play a significant role in subsequent urban development in Italy and beyond.”<sup>9</sup>

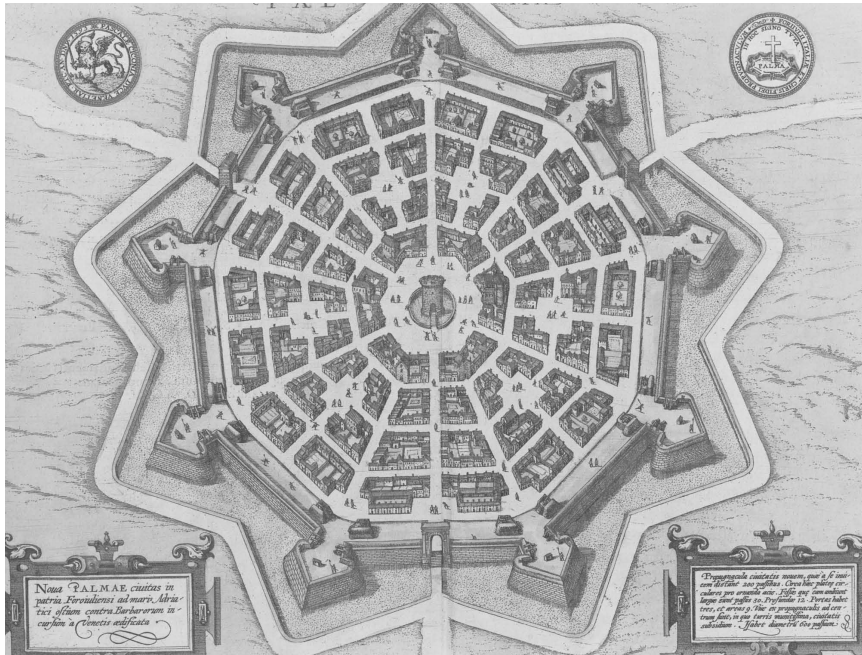
Pienza owed its transformation to Pope Pius II, who, in 1459, launched a rebuilding of the center of his native town in conformance with emerging Renaissance principles. To direct the work, he hired Bernardo Rossellino, a follower of Leon Battista Alberti, whose approach to

architecture foreshadowed modernity in many ways. In addition to advocating the conscious creation of public places, he and his followers recommended the prohibition of buildings housing noxious and noisy activities, such as tanneries and slaughterhouses, within town precincts. Instead, he suggested the creation of dedicated districts for craft and industrial use—an early instance of land use zoning. Rossellino brought to Pienza a new vision of urban space that culminated in the creation of Piazza Pio II and its surrounding buildings, including the Piccolomini palace, the Borgia palace, and a pure Renaissance exterior for the medieval cathedral.

In Alberti’s wake came a parade of Renaissance theoreticians, from Andrea Palladio to Sir Thomas More, whose writings ranged from purely physical design to the philosophical bases for building. Ideal cities such as Palmanova in northeastern Italy and More’s literary utopia, both from the sixteenth century, served as models for centuries of town planning to follow.

While More’s *Utopia* imagined an ideal society set in an island nation of reasonable, tolerant, and peaceful people, Palmanova originated in a more bellicose world. Built to defend Venice’s eastern flank against Turkish attack, in plan view the city resembles a nine-pointed star, with a focal piazza surrounded by radiating streets. The unusual form grew from the need to command multiple defensive bastions from a central location and to move troops among the bastions quickly and efficiently.<sup>10</sup> Military origins aside, Palmanova’s geometry clearly reflected an idealized plan. Its authoritarian pattern, arrow-straight streets, and imposition of human order on nature foreshadow baroque city planning. Those same traits also reflect major advancements in surveying, which allowed the drawing of scaled plans for designing new cities. Ironically, this small military outpost influenced planning for generations. Its pure geometry and containment within a greenbelt of earthworks inspired planners and designers as diverse as Ebenezer Howard and Paolo Soleri.





1.4 Palmanova, Italy (1593). The strict geometry of the plan for Palmanova—a defensive fort east of Venice—grew out of military necessity, but it influenced town planning for centuries. Its straight, wide boulevards and idealized plan surfaced in baroque-era plans across Europe. Purely geometric inside a broad band of earthen bulwarks, it also inspired designs as varied as English garden cities and twentieth-century visionary projects like Arcosanti in Arizona. From *Civitates orbis terrarum*, a sixteenth-century atlas of cities published by Georg Braun and Frantz Hogenberg, via Wikimedia

Architects Vincenzo Scamozzi and Pietro Cataneo also created city schemes that influenced later urban plans. Reviving the classical works of Vitruvius in his *L'Architettura* (1567), Cataneo plotted idealized grid cities peppered with public squares. Even though Cataneo himself saw few of these plans built, they were realized in towns like Charleville in northern France and Avola in Sicily, and they served as models for American cities like Philadelphia and Savannah, Georgia.<sup>11</sup>

By the seventeenth century, the urban ideas of the Renaissance had matured into those of the baroque and had spread across Europe. Like baroque architecture, the urban plans of the era favored artifice on a grand scale, with sweeping vistas and long axes slashed through crowded cities. A zeitgeist dominated

by absolute monarchies and the Counter-Reformation strongly influenced European city-building in this era. Rulers and their architects attempted to impose a new sense of order upon the accretive muddle that characterized many European capitals. This new order frequently included an authoritarian preference for straight avenues and clean lines of sight, an inclination reinforced by many planners' backgrounds in military engineering.<sup>12</sup>

In some respects, the work of these baroque engineers shared the instincts of the U.S. urban renewal era more than four hundred years later. It did not seem to bother Italian military engineers of the time, Lewis Mumford writes, that the “encumbrances” they ordered removed “were human households, shops, churches,



neighborhoods.” The fact that this “tissue of habits and social relations” could not be replaced “did not seem important to the early military engineer any more than it seems so to his twentieth-century successors, in charge of ‘slum clearance projects’ or highway designs.”<sup>13</sup>

This unfortunate parallel may hold true, but this era also gave birth to some fundamental concepts of modern urban design: the idea of the street as a spatial element in its own right; the concept of purposely shaped and defined public space and street networks organized by visual foci; and the idea of deploying buildings with uniform facades to define streets and other public spaces.<sup>14</sup>

Beyond the development of new concepts, urban conditions required new approaches in the baroque era as the populations of cities swelled dramatically, often overwhelming the functional capacity of medieval street systems. Like planners in later periods, the era’s city builders worked to bring public health, light, and air into the city, to clear hopeless gridlock, and to bring order to perceived chaos.

Early in the seventeenth century, Pope Sixtus V worked with the architect Domenico Fontana to devise a new master plan for Rome.<sup>15</sup> The plan introduced a network of long, straight avenues connecting the Porta del Popolo to churches, monuments, and formal public spaces, among them the basilicas Santa Maria Maggiore (St. Mary Major) and San Giovanni in Laterano (St. John Lateran) and the Colosseum. Sixtus’s plan created what Edmund Bacon calls “a controlled sequential experience” out of what is basically a “movement-system design structure.”<sup>16</sup> Demarcated by a series of obelisks erected by Sixtus, the system served as the principal framework for city-building in Rome for several centuries. Such significant public spaces as the Piazza del Popolo, the Piazza Barberini, and the Spanish Steps were later designed and built around this framework.

Giovanni Lorenzo Bernini’s acclaimed Piazza San Pietro, which superbly rationalizes the entrance sequence to the Basilica di San Pietro in Vaticano

(St. Peter’s Basilica), stands as a preeminent example of baroque planning and design. Bernini designed the colonnade and piazza around one of Sixtus’s obelisks in another nod to the pope’s vision for Rome. Combining an understanding of perspective inherited from the Renaissance with the baroque penchant for illusion and grandeur, Bernini ingeniously blended oval and trapezoidal plans to foreshorten perspective and make the cathedral seem closer to the piazza than it actually is.<sup>17</sup>

Baroque urbanism also broke new paths well beyond Italy. In France, the expansion of the Château du Louvre and the development of the Tuileries Garden both exhibit baroque preferences. Not satisfied with those projects, Louis XIV built Versailles and relocated his court there toward the end of the sixteenth century, replacing the Louvre as the royal residence. The axial layout of Versailles and the long perspective vistas of André Le Nôtre’s gardens rank among the foremost examples of urban design and landscape architecture from the baroque period.

In 1660, England’s Charles II hired Le Nôtre to plan London’s Pall Mall. The Great Fire of 1666 provoked a flurry of proposals for rebuilding the entire city from architects and planners, including Sir Christopher Wren and John Evelyn. None was actually implemented, but most displayed the strong influence of Continental designers like Le Nôtre. In submitting his plan to Charles II, Evelyn invoked three principles for the proposed reconstruction: “beauty, commodiousness, and magnificence.” The last principle most clearly reflects the baroque tradition, and Evelyn’s plan of gridded streets broken by long, axial diagonal avenues clearly follows contemporary examples from the Continent.

England exported the ideas it had absorbed from the Continent to its possessions abroad. The Regional Plan for the Ulster Plantation was produced in the early seventeenth century as part of the colonization of Ireland. In a 1614 master plan for the walled city of Derry (now Londonderry), baroque planning principles define the





1.5 Piazza San Pietro (1656–67), Vatican City. Bernini’s quintessential baroque plan for a plaza and colonnade masterfully blends Renaissance knowledge of perspective with the baroque penchant for grandeur and illusion to orchestrate the experience of approaching St. Peter’s Basilica. Courtesy Jalesee, via Wikimedia

streets and square that make up “the Diamond.” The design of space surrounding key public buildings—such as St. Columb’s Cathedral and the Bishop’s Palace—received careful attention. As buildings (designed in the emerging baroque architectural style) began to fill in the dictated street pattern, they formed collective walls that reinforced the public spaces.<sup>18</sup>

Spain sent baroque European planning ideas to its cities in the New World, as did other colonial powers. In fact, the urban design principles that emerged in the baroque period came to dominate city planning and

urban design in both Europe and the New World over the next three centuries. The same ideas of axial public streets and landscaped boulevards; radial and diagonal patterns defined by specific visual focal points; monumental public spaces; and uniform street walls characterized Pierre-Charles L’Enfant’s plan for Washington, D.C., Baron Georges-Eugène Haussmann’s plan for Paris, and many other urban plans and expansions in both Europe and the Americas. But baroque planning of another sort, borrowing heavily from the Miletian tradition, ultimately wielded the most influence in North America.



## The Emergence of Merchant Cities: Integrating Renaissance Ideas and the Marketplace

In the Netherlands, Amsterdam in 1607 adopted the Plan of the Three Canals,<sup>19</sup> which called for a quadrupling of the city's area with the construction of three new encircling canals that would also serve as the main streets of new districts. The plan's innovation lay not only in these combined canal-streets but also in its incorporation of phased execution over a long period of time: each canal would serve as the outer boundary of the city in successive enlargements. In its long, straight canals and streets, and its radial form, the plan created a spiderweb pattern that drew heavily on baroque planning in other parts of Europe. Yet it also relied upon a distorted version of the

ancient Miletian grid (borrowing slightly, perhaps, from the earlier plans of Pietro Cataneo).

The grid form supported another innovative quality of the plan: its joint execution by public and private actors. The municipal government drew up a plan that parceled out the land in a grid of blocks, established firm guidelines for the use and form of the buildings along the canals, and reserved specific areas of land for churches and marketplaces. That done, the government pulled back and left build-out largely to the private sector—often investors working for profit.<sup>20</sup> This approach prefigured the planning of North American cities. Gridded expansion, phased construction, and a combination of public and private enterprise all anticipated the methods that American cities adopted in subsequent centuries.



1.6 The Plan of the Three Canals (1607), Amsterdam. The Three Canals Plan, adopted by the municipality, introduced a baroque sense of geometry and order into expansions of the medieval city. Amsterdam's novel approach to the plan's execution proved influential in the United States: the municipal government identified the plan area and set guidelines for construction, but it left realization of the plan to private developers. Courtesy of Geography and Map Division, Library of Congress



## The Grid Reaches the New World

Amsterdam, in fact, served as a model for one of the New World's most important cities. In 1626, less than twenty years after the Plan of the Three Canals, the Dutch West India Company decided to consolidate its scattered North American trading outposts into a single defensive settlement called New Amsterdam at the southern tip of the island of Manhattan.<sup>21</sup> At the time, the Dutch claimed all of the land between Virginia and French Canada as part of their colony of New Netherland, but by the 1640s settlers from New England had begun planting small towns on both shores of Long Island Sound, moving ever closer to New Amsterdam. Within twenty years the trickle of English settlers into New Netherland had become a flood, and in 1664, after a brief military assault, control of the colony passed to the English, who renamed the town in honor of the Duke of York.<sup>22</sup>

New Amsterdam may have started out as an organic, somewhat chaotic settlement, but that changed under Peter Stuyvesant, governor of the colony from 1647 until its handover to the English. By the time the Duke of York's troops arrived, Stuyvesant had transformed the town plan into a miniature version of its namesake city. In a move worthy of baroque European planners, the governor had imposed a lattice of new streets over the "town's confounding jumble of lanes and footpaths."<sup>23</sup> He also built a canal and a dock, repaired the colony's fort and northern defensive wall, and established rudimentary building and sanitary codes. The result was a curved grid of streets, blocks, and a canal not unlike those of Amsterdam's 1607 plan, albeit much less dense and on a far smaller scale. However primitive, this pattern entered the settlement's DNA, and the English continued the grid pattern, although with distortions. When the city's

population mushroomed in the nineteenth century, the grid devoured the surrounding landscape, taking on the rigidity and uniformity that characterize New York City today.

Grids influenced the form of other English colonies. In 1683, shortly after William Penn received a grant for what became the Colony of Pennsylvania, Thomas Holme published a plan for its urban center—a deliberate grid aligned on an east-west axis running between the Schuylkill and Delaware rivers. Holme, a surveyor, collaborated with Penn on the plan, which laid out the pattern for the city's subsequent growth. In promoting an orthogonal plan right from the beginning, the team showed vision far beyond that of the Dutch settlers of New Amsterdam. Indeed, the Philadelphia plan bore the hallmarks of the idealized grid cities of the Renaissance envisioned by Cataneo. The purposeful placement of public squares and axial streets made Holme's simple diagram an almost utopian vision for Penn's planned community of Quakers.<sup>24</sup>

The grid plan for another early American city, Savannah, Georgia, proved even more sophisticated and visionary. Earlier settlements in the southern English colonies generally avoided grids, but Savannah and Charleston, South Carolina, embraced them. Laid out in 1733 by James Oglethorpe, Savannah largely followed Cataneo's plans for ideal cities, with a pattern of blocks centered on public squares. Each square anchored a cell of eight blocks, with the east and west ends of the square appointed as sites for churches and other public and commercial buildings. The plan reserved other lots for residential use. The Savannah system carried out a political function as well, with each eight-block cell representing a political unit of landowners called a ward. The settlement began with four such wards in the middle of a forest on the banks of the Savannah River. Those four wards fixed the pattern of the city's growth for more than one hundred years.<sup>25</sup>





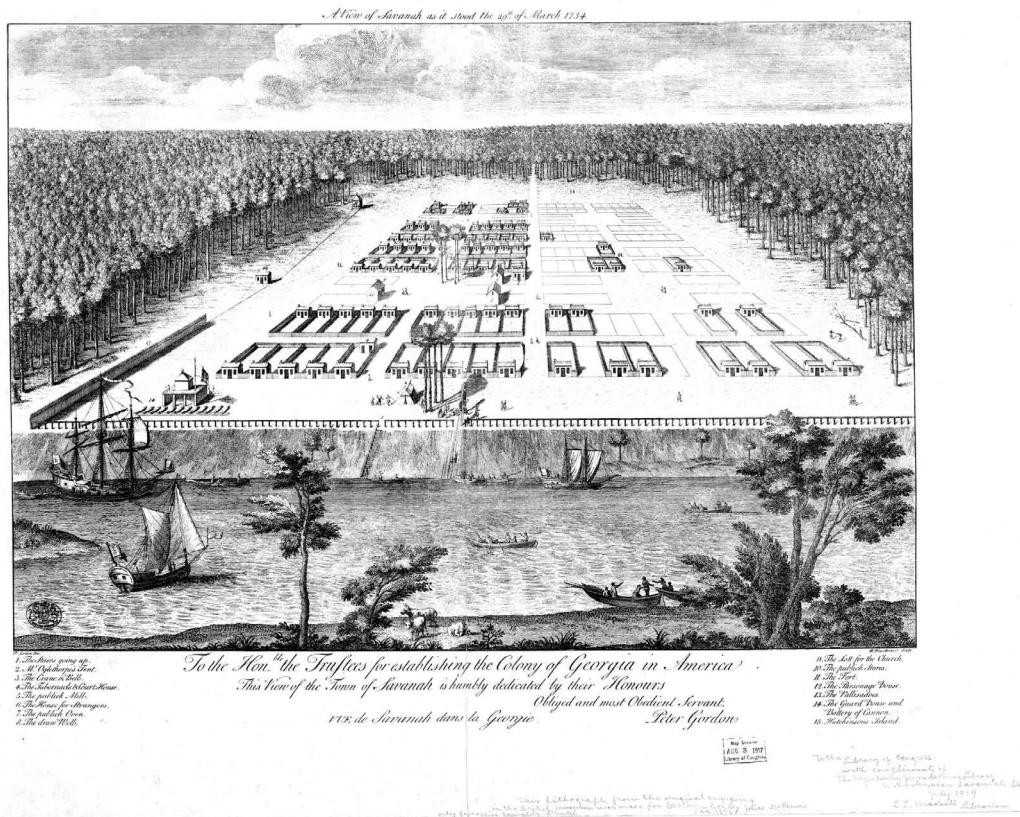
1.7 Plan of New Amsterdam (1660). In nearly twenty years as governor, Peter Stuyvesant turned New Amsterdam's jumbled lanes into a gridded pattern that suggested the influence of both the Three Canals plan and baroque planning sensibilities. Courtesy of I. N. Phelps Stokes Collection, Miriam & Ira D. Wallach Division of Art, Prints and Photographs, the New York Public Library, Astor, Lenox & Tilden Foundations

Not every American settlement started out in such an organized fashion. Boston, settled in 1630, had no planned layout and retained a largely accretive, organic character for more than two centuries. Early maps of the city do suggest a loose and distorted grid, but a true and regular orthogonal pattern did not appear in any major way until the construction of the Back Bay on filled land in the mid-nineteenth century. But Boston remains a notable exception; the Miletian approach ultimately dominated in American city building.

Both George Washington and Thomas Jefferson believed that grid geometry represented the democratic

principles upon which the new nation was founded, a belief that reflected the fundamental role real property played in the American idea of democracy. The founding fathers—themselves all property owners—saw holding real estate as a fundamental right of each citizen. They established ownership as a precondition to voting in the early nation, in part because having land seemed likely to ensure economic freedom in an agrarian economy. Such freedom remained unattainable in Europe, where only a privileged few owned land. The new democracy encouraged widespread distribution of land—a commodity the United States happened to have in abundance.





1.8 View of Savannah, Georgia (1734). Although not every English settlement in the American colonies adopted the grid, Philadelphia, Charleston, and Savannah embraced it. The visionary plan for Savannah arrayed eight blocks around a central square to form a physical and political unit, with appointed sites for public functions like markets and churches; the rest of the land was reserved for houses. These units (or wards) remained the building blocks of the town's growth for more than a century. Courtesy of Geography and Map Division, Library of Congress

Jefferson did much to devise the land-distribution process. He proposed stretching a surveyor's grid of ten-mile squares across the nation's undivided territories; aligning each square with its neighbors would ensure that no land was left vacant. In organizing toward these ends, Jefferson saw himself as the designer of a landowning—and hence orderly and self-regulating—democracy. When Congress passed the legislation for disbursing land, it altered Jefferson's original plan by creating "townships of six miles square" subdivided into thirty-six sections of one square mile each. The land was

to be sold at public auction by section at a price of one dollar per acre, or \$640 per section—the smallest parcel that could be bought at the time.<sup>26</sup>

Whether relying on a six- or ten-mile basic unit, the work and theories of Thomas Jefferson guided the parcellation of the United States' seemingly endless common realm. Congressional surveyors cast a vast, rectilinear net over the wilderness—imaginary grid lines that eventually stretched from the Appalachians to the Pacific, heedless of topography, geology, water, soils, vegetation, or wildlife. That grid became the framework



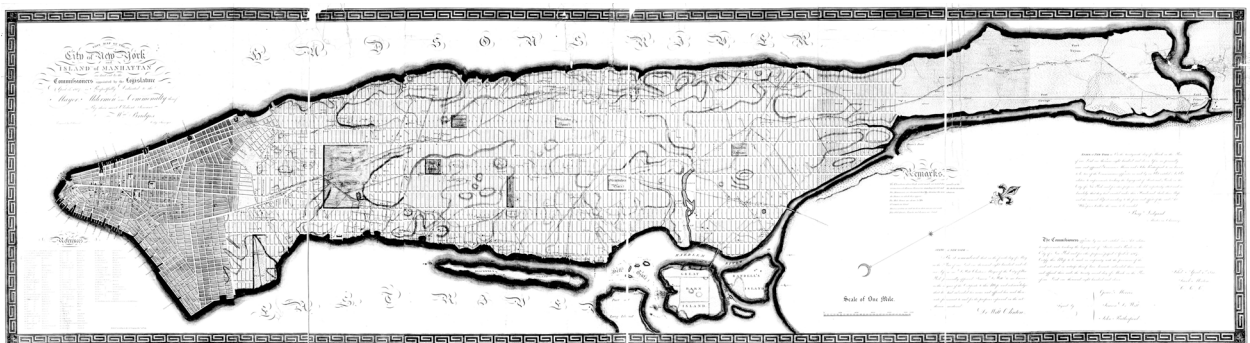
for dividing the continent into individual plots of land and placing them in private hands.

Some of the surveyors' work remains visible today. A flight over the flat lands of the Great Plains shows sections clearly defined by property lines and roads. It is even possible to pick out the points where surveyors adjusted for the convergence of lines of longitude running between the poles. Every so often, roads that run as straight as arrows for miles suddenly make a right-angle turn where section lines shift to account for meridional convergence.

That vast geometry inevitably influenced the growth and pattern of American cities. Eventually, Americans applied grids to cities along the eastern seaboard, straightening even Boston's streets outside its meandering core. Midwestern and Western cities like Indianapolis, Chicago, Oklahoma City, Austin, Denver, Salt Lake City, and San Francisco all grew along grids imposed from the beginning. Although the United States' use of the grid has often been associated with a democratic political attitude—and despite Jefferson's firm belief in it as an instrument of democracy—the grid had historically served to enforce power and control. Greek colonial cities, Roman *castra*, *bastides*, and many other examples suggest that it took meaning from

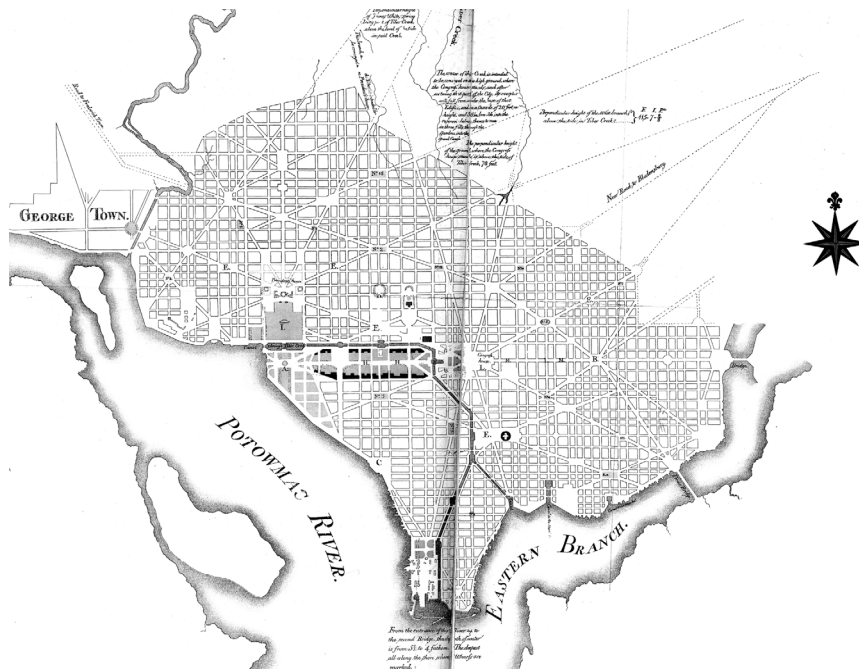
the way it was applied.<sup>27</sup> Despite Jefferson's lofty aims, in the United States the grid came to symbolize not freedom as much as practicality and speculation.

Private investors financed the building of transcontinental railroads in part by selling off sweeping tracts of public land they had been granted by the U.S. government as an incentive to complete the project. They stamped out hundreds of grid-pattern towns to parcel out the land for quick and easy sale. In 1811, a special commission chartered by the state legislature created a notorious plan for building out Manhattan: an unrelieved gridiron of regular blocks from 23rd Street to 155th Street. The plan allowed relatively little public open space (Central Park was not part of the plan, for example) or deviation from the grid—Broadway's errant diagonal is nowhere to be seen. The commissioners declared it obvious that “straight-sided and right-angled houses are the most cheap to build, and the most convenient to live in.” The commissioners' surveyor, John Randel Jr., added that his plan offered particularly good opportunities for “buying, selling, and improving real estate.”<sup>28</sup> In the end, plans for the gridded cities of the United States responded more to the needs of the real estate developer than the interests of the designer or the democratic idealist.



1.9 Commissioners' Plan for New York City. The gridiron that signified order and authority to baroque-era rulers in Europe took on a more practical meaning in the United States—it made development easier. The unrelenting grid laid over Manhattan's topography in this 1811 plan provided the framework for the city's nineteenth-century growth. Courtesy of Geography and Map Division, Library of Congress





1.10 L'Enfant Plan for Washington, D.C. Pierre-Charles L'Enfant scoffed at the simple grid as too humble for a national capital, yet he relied on it as the background pattern for his baroque plan of squares threaded onto a web of avenues radiating from public monuments. Most U.S. cities stuck with a basic grid for ease of design, development, and management. Courtesy of Geography and Map Division, Library of Congress.

The nation's capital, however, proved an exception. To plan the new city, George Washington turned to Major Pierre-Charles L'Enfant, a military engineer trained in the European baroque tradition. L'Enfant belittled the humble grid plan that Jefferson had sketched out, stating that the plan for the nation's capital should be "proportioned to the greatness which . . . the Capital of a powerful Empire ought to manifest."<sup>29</sup> Scorning grids in general as "tiresome and insipid," L'Enfant proceeded to draw up a plan of star-like squares radiating diagonal avenues that makes up today's Washington. In its use of long vistas centered on public monuments, the design recalls Sixtus V's plan for Rome. In its pursuit of baroque grandeur, it

looks beyond democracy to a time when the new nation might entertain imperial ambitions. Yet even L'Enfant's bold vision rests atop a familiar background—an ever-practical, easy-to-use land-apportioning grid.

In the end, L'Enfant's plan proved an exception to the gridded rule of most U.S. cities (although the City Beautiful movement would revive his ideas in early twentieth century). Ease of design—so easy an office boy could figure it out, said Lewis Mumford—ease of record keeping, and a mass-produced nature made the grid pattern irresistible for a speculative nation in a hurry to grow.<sup>30</sup> It also turned out to be highly suitable for a vast industrial revolution; the grid became the foundation for a generation of high-density U.S. industrial cities.



# The Industrial Revolution

## Explosive growth overwhelms America's cities

Before the Industrial Revolution, forces such as trade, agriculture, and defense determined the shape of cities in North America and Europe, whether planned or unplanned. How far a person could reasonably walk and the requirements of carts, wagons, and herds of animals heavily influenced the layout and dimensions of city streets regardless of the form the larger city took. Defensive strategy and technology also dictated form, but the resulting walls—and the need to guard them—often imposed smaller footprints than cities might otherwise have produced.

A jumble of uses marked preindustrial cities, where home and workplace were often either combined or located near one another. The inefficiency of walking great distances dictated that most land uses ended up as close neighbors, even in the most rigid of gridiron plans. No matter how noisy or obnoxious, different activities existed cheek by jowl and one atop another. Attempts to organize uses—particularly to banish offensive or disruptive ones from residential areas—rarely succeeded. Yet except for the most jarring juxtapositions—houses next to tanneries, living space over abattoirs, food markets next to fulling mills—preindustrial city dwellers generally accepted these conditions. The mix of residential and commercial uses added to the liveliness, interest, and excitement of a city.

The biggest settlements in the mid-nineteenth-century United States were largely port cities. Back in 1820, the ten largest cities included Boston, New York, Philadelphia, Baltimore, Charleston, New Orleans, and Salem—all major ports. Their populations ranged from more than one hundred thousand in New York to just twelve thousand in Salem. The completion of the Erie Canal in 1825 marked the first instance of an American infrastructure project influencing urban development—an impact in its day as significant as

that of the interstate highway system in the twentieth century. By the close of the decade, Albany and Buffalo had both grown into major cities. Sailing ships lined wharves. The prime regulator of building height was the number of stairs a person could reasonably climb, which meant that few buildings rose higher than four stories and church steeples stood as the tallest structures on urban skylines. Noise in the streets came mostly from people, animals, and the wheels of carriages and carts.

The Industrial Revolution redrew this picture. Up to that point, U.S. manufacturers had relied primarily on waterpower and favored water for heavy transport, making rivers and streams preferred sites for operations. After the Civil War, coal and steam power replaced waterpower in industry and railroads dominated shipping. Now factories could locate almost anywhere, as long as they had access to a railroad to deliver coal (for making steam) and to carry away finished goods. But factories also needed labor, and the biggest labor pools were found in mercantile cities, where the markets for goods and the means of cross-oceanic transport were also close at hand. Suddenly, stately urban homes on quiet streets found themselves in the shadows of looming, high-decibel factories that operated around the clock. Huge new rail-marshaling yards came to dominate many neighborhoods and waterfronts.

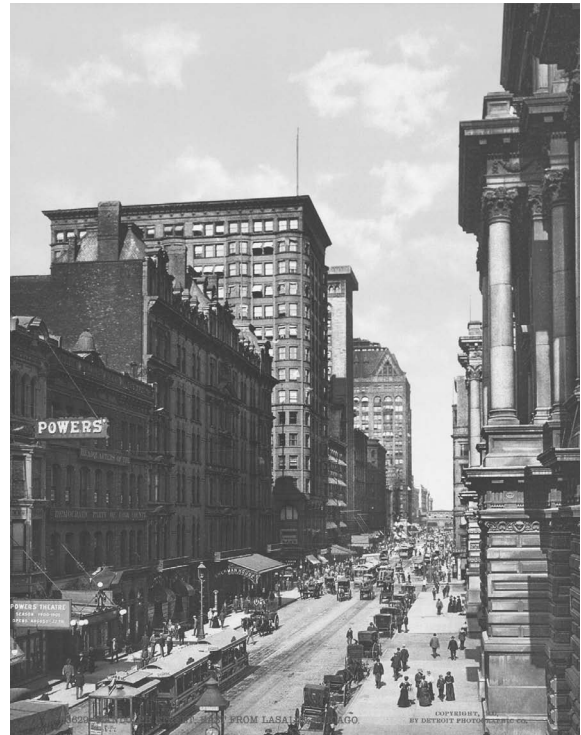
Lewis Mumford has described the era:

Large-scale factory production transformed the industrial towns into dark hives, busily puffing, clanking and screeching, smoking for twelve and fourteen hours a day, sometimes going around the clock. . . . Extraordinary changes of scale took place in the masses of buildings and the areas they covered: vast structures were erected almost overnight. Men built in haste and had hardly time to repent of their mistakes before they tore down their original structures and built again, just as heedlessly. The newcomers . . . crowded into whatever was offered. It was a period of vast urban improvisation: makeshift hastily piled upon makeshift.<sup>31</sup>



These newcomers represented a vast demographic change wrought by industry. At the beginning of the Industrial Revolution, most Americans lived on farms or in small towns. High factory wages and the opportunities for more varied lifestyles that city life offered gradually depopulated the countryside. The 1920 census showed that for the first time in U.S. history, more people lived in cities than on farms.<sup>32</sup> A flood of immigrants from abroad joined this urban influx, creating

crowding and chaos as cities ballooned in size. Between 1870 and 1920, New York City's population grew more than sixfold; Chicago's, ninefold.<sup>33</sup> An expanding labor pool attracted more factories, further encouraging overcrowding. As in preindustrial cities, uses remained mixed together, and new housing sprouted up next to new factories. There was, at first, no other choice—people needed to get to work, and only the rich could afford to travel by horse-drawn conveyance.



1.11 a,b In the last half of the nineteenth century, the Industrial Revolution transformed the shape of U.S. cities. These views of Chicago, one of America's most heavily industrialized cities by the start of the twentieth century, suggest how much the scale and intensity of urban life had changed. In 1850, a few years before the first photo was taken, the city had 29,000 residents. By 1900, when the second photo was taken, it had 1.7 million. New forms of mechanized travel—railroads, then electrified streetcars, then subways—radically altered street design while dramatically extending the distances people could travel to work and shop. This fueled a rapid expansion of the grid pattern in cities and the annexation of adjoining communities to accommodate surging populations and expanding industries. Railroads encouraged the development of distant suburbs, sowing the seeds for later decentralization. Industrialization itself fed the trend, as people sought housing and green space away from the smoke and noise of factories. Alexander Hessler photograph from *McClure's* magazine, via Wikimedia user Bob Burkhardt. Randolph Street chromolith courtesy of Prints and Photographs Division, Library of Congress.



## Giving form to industrial cities: A “new American urbanism” takes shape

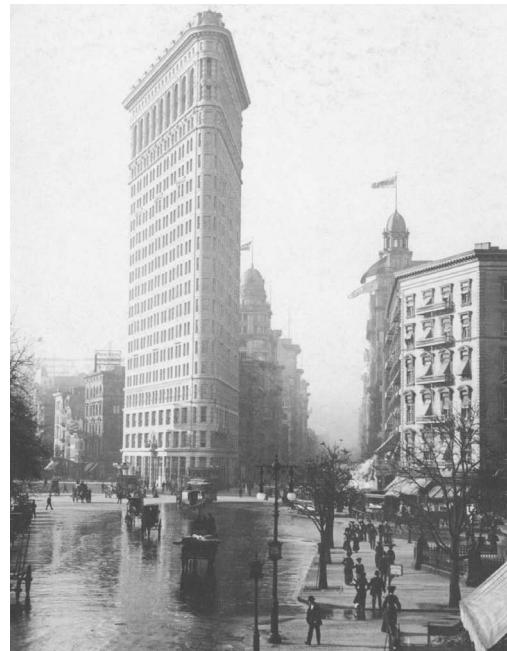
### *To the heavens: Skyscrapers*

As urban populations ballooned and new businesses crowded into city centers, market pressures mounted to use land more intensively, if only to earn more money for landowners. But it took technological breakthroughs to allow buildings to rise above five or six stories, the number of flights of stairs most people could climb. Because of the climb, in fact, owners generally had to reduce rents for higher floors in order to lease them.<sup>34</sup> In 1852, Elisha Otis invented a safety brake for elevators, removing one limit on building height.

But standard construction technology—masonry walls and wooden columns and beams—still imposed strict limits on how high a building could rise. Each new floor required substantially thicker walls on the floors below to hold the weight it added; particularly on small sites, even a few extra stories demanded so much additional bulk at the base that some lower floors became too tiny to be useful. Inventor James Bogardus pioneered the use of cast iron to fabricate both facade and internal structure in a five-story structure he built in New York in 1848–49.<sup>35</sup> For Bogardus, cast iron opened the door to fire resistance and manufactured building parts. But in the process he stumbled on the model for the curtain wall—a structural skeleton that provided strength and stability, with walls essentially hung like curtains from the frame. Bogardus’s first building predated London’s Crystal Palace by two years. In the 1880s, experiments with ways of adding steel framing to structures in both New York and Chicago quickly bore fruit; within a decade, architects and engineers had begun to master the use of internal steel skeletons to support higher buildings without sacrificing the usable space on any floor.

Despite these advances, the first true skyscrapers relied on the tried-and-true technique of masonry bearing walls, using metal only for interior structure.

Burnham and Root’s sixteen-story Monadnock Building of 1884–92 followed this model in Chicago, but exclusively steel-framed buildings began to appear at about the same time. William Le Baron Jenney’s ten-story Home Insurance Building, built in Chicago in 1885, boasted one of the first skeletons of cast-iron columns and steel beams. Adler and Sullivan soon followed with steel-frame office towers in Chicago, Buffalo, and St. Louis. By 1903, Chicago’s Daniel H. Burnham had completed the twenty-one-story Fuller Building in New York City, which the public quickly redubbed the Flatiron Building because of its iconic triangular plan. All of these buildings followed an architectural model developed in Chicago: a tower structure; a clearly defined base; a straight, vertical shaft that filled the site and rose without interruption; and a distinctive final story to mark the top.



1.12 In the late nineteenth and early twentieth centuries, New York and Chicago competed to build ever-taller skyscrapers. In 1903, Daniel Burnham’s Flatiron Building reached twenty-one stories, making it the world’s tallest. Courtesy of the Prints and Photographs Division, Library of Congress



Within five years, the forty-one-story Singer Building, designed by Ernest Flagg, had overtaken the Flatiron Building as the tallest in New York. In 1908, the Metropolitan Life Insurance Company added to its existing building a fifty-two-story tower designed by Napoleon LeBrun, only to see it surpassed in 1913 by the fifty-five-story Woolworth Building designed by Cass Gilbert.<sup>36</sup> The race was on, as captains of the Industrial Revolution and their armies of managers raised lofty new palaces above the laboring city.



1.13 The Singer Building (1908). Provoked by the Flatiron Building's unvarying massing from pavement to cornice, architect Ernest Flagg argued for setting towers back from the property line at the tenth or fifteenth story. Buildings like the Flatiron, he argued, blocked sunlight and failed to capture the drama of skyscrapers, so he used his own design for the forty-one-story Singer Building as a real-world demonstration. The idea of upper-level setbacks appeared in big-city building codes across the United States in the 1920s and directly inspired New York's "wedding cake" skyscrapers from the 1920s through the mid-1960s. Courtesy of the Library of Congress

Although U.S. cities had rapidly pushed outward, their focus remained their core commercial areas. As land values rose, new technology allowed more density and height, which further increased land values. For millennia, the design and pattern of cities had been horizontal. Now city planners and designers began to think about the vertical, and planned ever-taller buildings that would define streets and public spaces.

Ernest Flagg himself loathed the shadowed streets and stark canyons produced by the burgeoning crop of skyscrapers. Unable to hold back the tide, the Beaux Arts-trained Flagg shifted to reforming skyscraper design. Departing from his own earlier designs, which filled their sites in the same way the Flatiron Building did, Flagg advocated setting back from the property line a tower of ten or more stories so that it would fill only a portion of the building's footprint. Doing so, he argued, would open all four sides of the tower element to design and view, and that "we should soon have a city of towers instead of a city of dismal ravines."<sup>37</sup> Flagg's design for the Singer Building helped introduce this model. He rebuilt an 1896 structure to serve as its base, and the resulting Beaux Arts building rose more than 600 feet above Manhattan. Flagg's approach, which influenced other towers, including the Woolworth Building, impacted later building regulations strongly.

### *To the horizons: Suburbs*

The first industrial-era American suburbs were leafy enclaves for the rich. In these railroad suburbs, managers and owners traded the squalor of industrializing cities for a quiet, clean, and uncrowded setting. The onset of industrialization helped promote a new, idealized view of the outdoors reflected in the large volume of literature and sentiment on the subject that appeared between 1840 and 1860.<sup>38</sup> Henry David Thoreau wrote *Walden* during this period, and an increasing flow of books about suburban cottages and landscaping





1.14 Upon its completion in 1913, the Woolworth Building in Manhattan became the tallest building in the world, a title it held until the completion of the Chrysler Building in 1930. Courtesy of the Prints and Photographs Division, Library of Congress

were published in the emerging architectural press.<sup>39</sup> Americans began to yearn for a new Eden in the healthful and wholesome countryside—an idyllic paradise of garden cottages far from the soot and din of the industrial city and, ironically, made possible by the era’s smoky icon, the railroad.

### *Upper-class railroad edens*

Some early new Edens represented experiments: Llewellyn Park in New Jersey, Riverside outside of Chicago, and Garden City on Long Island. They caught on quickly, however, and railroads soon led to some of America’s most celebrated suburbs, from Chestnut Hill

in Massachusetts to Lake Forest and Oak Park in Illinois. Plans for some of these early suburbs emerged from the offices of such influential designers as Frederick Law Olmsted and Calvert Vaux, known for New York’s Central Park and other major urban parks across the nation. True to their design roots, Olmsted and Vaux visualized the housing in their new suburbs as “cottages in a park.” Their designs combined generous lot sizes, “English cottage” architecture, and sumptuous landscaping. Their work shaped a new approach to urban design closely allied with the English Romantic landscape school and characterized by winding lanes and picturesque views. This approach became the model for early automotive suburbs and for major interventions in the industrial cities themselves.<sup>40</sup>

### *Middle-class “transit” suburbs*

Suburbs did not remain a preserve of the rich for long. Complementing the era’s emerging forms of transportation, new building methods encouraged an entirely new kind of development: the streetcar suburb. After the middle of the nineteenth century, a new way of framing buildings—using light wooden members joined by industrially produced nails and screws—began to replace existing, more labor-intensive methods. Within a few decades, this new approach had transformed home-building from an ancient craft into an industrial process; the rapid development of common designs, pattern books, precut kits, and manufactured windows, doors, and molding accelerated the transformation. For the first time, housing could be mass-produced.

The new building technology and electric railways arrived at the right time for skyrocketing urban populations. While early railroad suburbs had established secluded enclaves far from the city, electrified streetcars, subways, and elevated trains spurred dramatic expansions of the cities themselves. Existing grid patterns marched across the landscape, frequently growing in long ribbons of new construction that shot out from





1.15 West Newton Hill, near Boston. The first American suburbs—leafy enclaves built for the rich and connected to nearby commercial centers by railroads—adopted a romantic design vocabulary of winding streets, cottage-style architecture, lush landscaping, and picturesque views. In a sense, they represented the “anti-grid” and introduced a new approach to urban design in the United States. Courtesy of Oliver Gillham

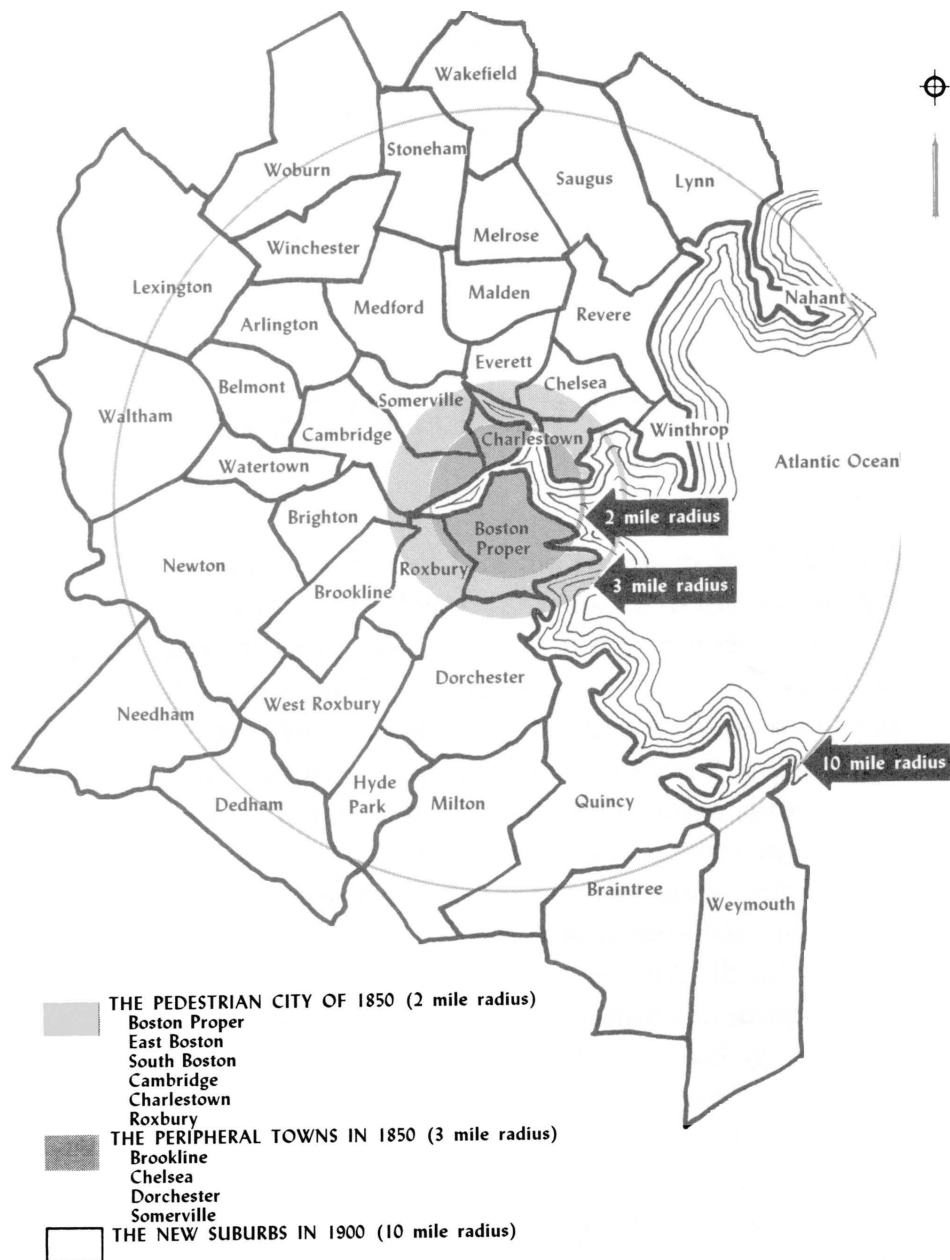
the center of a city along new streetcar lines, with land often developed by the transit operators themselves. The width of the band of new development was controlled by walking distance from the rail line as well as the operators’ land acquisitions.<sup>41</sup>

Over time, the ribbons broadened into what are today the older, inner-ring suburbs of many major cities. These include Highland Springs in Richmond; Dorchester and Brighton in Boston; Mount Lebanon in Pittsburgh; Shaker Heights in Cleveland; Hyde Park in Chicago; University City in St. Louis; and similar communities. Electrified transit lines opened up a new urbanized territory that more than tripled the size of many older cities. New York City increased its territory from 27 square miles to more than 300 square miles between 1850 and 1900 (the annexation of Brooklyn accounted for roughly a quarter of this increase). During the same fifty years, the radius of urbanized Boston expanded from 3 to 10 miles, and the land inside Chicago’s city limits mushroomed from 10 to 185 square miles.<sup>42</sup>

These expansions mostly accommodated the working and middle classes. Electrified transit, combined with wood-frame construction, made land and construction cheap enough for large-scale development. As Kenneth T. Jackson writes, “For the first time in the history of the world, middle-class families in the late nineteenth century could reasonably expect to buy a detached home on an accessible lot in a safe and sanitary environment.”<sup>43</sup>

Streetcar suburbs created an entirely new type of urbanization in the United States: relatively dense, wooden-framed neighborhoods of one-, two-, and three-family homes on lots as small as a tenth of an acre. High-volume transit lines in places like Brooklyn and the Bronx turned these suburbs into urban neighborhoods in their own right, dense enough to rival any city center. Boston, Chicago, and other cities retained their wooden-frame texture. For all of these communities, a grid layout principally offered a convenient tool for parcellation, development, and land sales. Such pragmatic concerns often crowded out public land uses, including streetscapes, public squares, and parks.





1.16 The growth of Boston's "streetcar suburbs." The advent of electrified streetcars and new methods for framing and erecting buildings supported dramatic expansion of U.S. cities in the last half of the nineteenth century. Development followed the inauguration of new transit lines in an early expression of transit-oriented development. Reprinted by permission of Sam Bass Warner, *Streetcar Suburbs: The Process of Growth in Boston 1870–1900*, 2nd ed. (Cambridge, MA: Harvard University Press and MIT Press, 1978): 2; © 1962, 1978 by the President and Fellows of Harvard College.



## ***A British refinement: Garden cities***

Europeans looked aghast at such American urban patterns, which they saw as the equivalent of late-twentieth-century sprawl. The discontented included Sir Ebenezer Howard, the inspirational planner of England's greenbelt towns. In his influential book *Garden Cities of Tomorrow* (1902), Howard proposed a compelling alternative to the uncontrolled suburbanization he saw devouring the English countryside. To avoid haphazard expansion of industrial cities, he proposed substituting strings of discrete, mixed-use communities of about 6,000 acres and thirty thousand residents. Each new city would contain its own employment centers, residential neighborhoods, and shopping districts, together with an ample supply of parks and other public open spaces. He proposed surrounding each community with a permanent belt of agricultural land,<sup>44</sup> a concept borrowed from the baroque military engineers and from towns like Palmanova.

Howard's ideas never caught on in America, despite many advocates and more than a century of attempts, but his influence remained powerful. For example, Clarence S. Stein's *Toward New Towns for America* proposed a series of regional towns based on Howard's model. Walt Disney drew on the model, too, in planning Disney World's Epcot Center. (Built after Disney's death, the project wandered far from the path Disney had mapped out).<sup>45</sup> The greenbelt community concept enjoyed a brief resurgence in the New Town planning movement of the 1960s and '70s: fragments of Howard's vision appear in the communities of Columbia, Maryland, and Reston, Virginia. More recently, the New Urbanist and Smart Growth movements have revived some of his ideas.<sup>46</sup>

## **Regulating the industrial city**

Early in the industrial age, popular prints presented factories as icons of awe-inspiring beauty. As cities grew more congested and dense, however, such sentiment

waned; mixing horizontal and vertical uses felt increasingly like a threat to public health and an assault on aesthetics. Factories and rail yards in particular made bad neighbors in residential districts, smoking and roaring day and night, heedless of their impact on light, clean air, and tranquility. Factory workers lived jammed together in wretched conditions that created serious health and fire hazards. Publication in 1890 of Jacob A. Riis's photographs in *How the Other Half Lives: Studies Among the Tenements of New York* provided graphic documentation of the squalid living conditions that immigrant factory workers endured, inflaming public opinion and joining a swelling chorus of condemnation in the arts, mass-circulation newspapers and magazines, and politics.

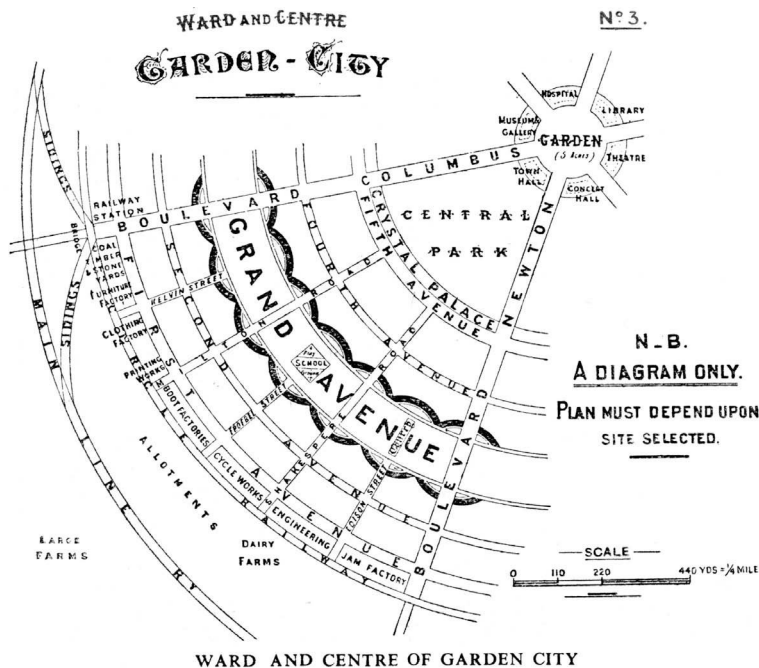
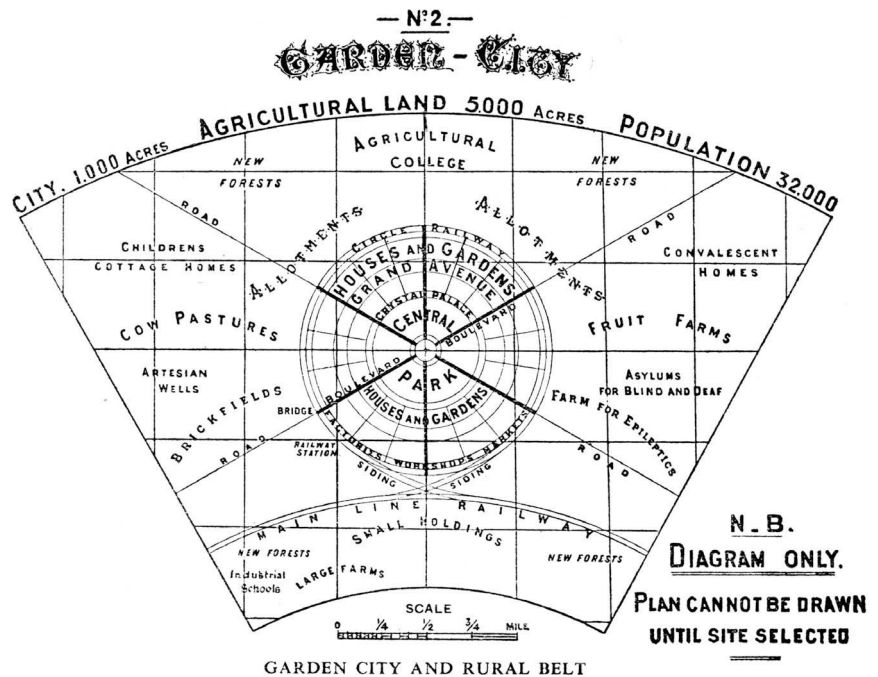
In 1916, New York City instituted the first zoning ordinance in the United States, prompted not only by the squalor of industrial slums but also by the encroaching shadows of the skyscrapers that had come to dominate the skyline in just a few years. The new code established specific building and land use districts and spelled out enforceable regulations for building sizes and uses within those districts. Zoning caught on quickly: within ten years, more than 80 percent of U.S. cities had adopted zoning ordinances.<sup>47</sup> And financial concerns dovetailed with the public health concerns that drove their adoption. Zoning might bring light and air back to city streets and homes, but it also helped stabilize property values by providing some assurances about what might someday be built next door.<sup>48</sup>

Zoning formalized the idea of separating land uses into specific districts, or zones, of a city. Confining new factories and rail yards to industrial districts and gathering houses and apartments in residential zones sequestered incompatible uses so that families would no longer have to share Sunday dinner with the drop forge or hat factory next door.

More finely graduated land use combined with enforced low density as zoning evolved, leading critics



1.17 a,b Diagram details for a prototypical garden city. British reformer Ebenezer Howard advocated an alternative to relentless expansion of industrial cities: small, self-contained cities surrounded by permanent greenbelts. His vision, which drew on the plan for Palmanova (among other sources), influenced twentieth-century city planning in the United States, from the first car-oriented suburbs to the thinking behind the New Urbanist movement in the 1980s and '90s. Courtesy of the Town and Country Planning Association (TCPA)







1.18 By 1890, community leaders had begun to argue for regulations to control the proliferation of telegraph, telephone, and electrical wires in Manhattan's streets. The city eventually required their burial, a precursor to broader controls that ultimately produced the country's first zoning ordinance. Courtesy Library of Congress, Prints and Photographs Division

to blame it for many things, including suburban sprawl. Jane Jacobs also fingered single-use zoning as the culprit that destroyed the vitality of dense, mixed-use cities in *The Death and Life of Great American Cities*.<sup>49</sup> Despite zoning's flaws and unintended consequences, urban life in the industrial era was undeniably intolerable without it. (Only recently has its application to suburbs and postindustrial cities come into question).<sup>50</sup>

Zoning shaped cities in powerful ways. New York City's art deco "wedding cake" skyscrapers, for example, owe form to the city's early zoning, which mandated setbacks on new buildings to allow light to reach the street. Following World War II, many cities adopted zoning that took a different approach—allowing the construction of taller buildings in exchange for the creation

of pedestrian plazas—producing a strikingly different effect. With the retreat of buildings to the center of plazas, sidewalks lost both energy and definition, which diminished the appeal of walking.

## Bringing beauty and order to the industrial city: The City Beautiful movement

New models of urban intervention emerged in Europe in the middle of the nineteenth century, particularly in Paris, where many influential American architects received their training. In 1853, the French emperor Napoléon III hired Georges Eugène Haussmann to modernize the city with the aim of improving public



health by opening streets to light and air and enhancing circulation and safety. Beyond these goals, the emperor had a political agenda—creating streets wide enough to accommodate rapid troop deployment and making it impossible to block streets with barricades, as the revolutionaries of 1848 had done. Haussmann laid a series of broad diagonal boulevards and starlike squares over the tangled Paris street network. In the grand manner of baroque-period planning, his much admired scheme showed little regard for the character of medieval streets.

Haussmann's revival of baroque-style planning gained a foothold in the United States at the Chicago world's fair of 1893—formally, the World's Columbian Exposition. Under the leadership of Daniel Burnham, a team of leading architects and designers that included such luminaries as Frederick Law Olmsted, Charles Follen McKim, and Louis Sullivan designed a vast temporary city to house the exposition. Although covered in flimsy white plaster, the classical architecture of the great Beaux-Arts pavilions along Lake Michigan influenced American city-building for a century. Visitors to the “White City” returned home wondering what might be done to bring light, air, and beauty to their own drab and sooty municipalities. That impulse to brighten,

beautify, and improve civic spaces coalesced under the banner of the City Beautiful movement.

Advocates of City Beautiful sought to advance many of the same goals Haussmann had pursued. Motivated by a desire to bring in light and air, the movement also responded, if less overtly, to concerns about growing radicalism among urban industrial workers (a concern memorialized in the profusion of urban armories that sprang up in this period<sup>51</sup>). The City Beautiful movement also reflected a growing interest in slum clearance among the emerging urban middle class.

The impulse to beautify American cities actually reaches back to the 1840s, when writers like Ralph Waldo Emerson, Henry David Thoreau, and Nathaniel Hawthorne began to romanticize the bucolic countryside.<sup>52</sup> In 1853, New York's legislature set aside more than 800 acres of land for a park in Manhattan, partially at the urging of nationally known landscape architect Andrew Jackson Downing. In 1857, the city's parks commission selected Olmsted and Calvert Vaux to design what would become Central Park.<sup>53</sup> Olmsted and Vaux drew inspiration from popular pastoral urban cemeteries like Mount Auburn in Cambridge, Massachusetts, but great European parks like London's



1.19 Georges Eugène Haussmann's “modern” boulevards cut through Paris, redefining a medieval city that had grown organically for more than two thousand years into the baroque city we know today. Courtesy Beth Lieu Song, via Wikimedia



Hyde Park and the Bois de Boulogne in Paris were equally influential models.

Not everyone applauded City Beautiful interventions, however. Spiro Kostof writes that “common people and cultural critics alike looked with increasing distaste and alarm at the new breed of technocrats . . . who unapologetically gutted historic cores for the sake of circulation. *Eventrement*, evisceration, was the term popular with the most famous ‘demolition artist’ of the time, Baron Haussmann.”<sup>54</sup> In fact, a countermovement arose in Germany headed by followers of Camillo Sitte, whose 1889 book *City Planning According to Artistic Principles* advocated a more contextual and picturesque approach to street planning.<sup>55</sup> Sitte’s followers became dogmatic advocates of curvilinear street patterns, in direct opposition to the more baroque ideas of Haussmann and

others.<sup>56</sup> Sitte’s ideas and those of his followers eventually influenced American urbanism—particularly the design of suburbs—in profound ways, but Burnham and his team remained devotees of Haussmann’s work.

In the wake of the 1893 fair, Burnham became an active proponent of the City Beautiful approach, devising master plans for Chicago, Cleveland, San Francisco, and Washington, most of which drew in part on Haussmann’s plans for Paris. Burnham’s plan for Chicago included a series of great diagonal avenues piercing the city’s well-known grid and converging on the city’s business district and a new civic center. His concerns were both functional and aesthetic: he believed that diagonals saved time and distributed traffic more evenly but also held beauty. “There is true glory in . . . vistas longer than the eye can reach,” he wrote.<sup>57</sup>



1.20 World’s Columbian Exposition (1893). The temporary pavilions at the Chicago World’s Fair influenced American city-building for a century—most directly through a revival of interest in classical architectural vocabulary for civic buildings, but more broadly through the City Beautiful movement, which promoted large-scale gestures to improve the appearance of American cities. Courtesy of Chicago History Museum



Few of Burnham's plans were ever fully realized, in part because only an authoritarian patron could make his sweeping recommendations possible. France, with a highly centralized government headed by an emperor, differed markedly from the republican United States, with its stubbornly independent city, state, and federal jurisdictions. Kostof describes the problem:

The City Beautiful movement left America's cities with significant and treasured, if often fragmentary, improvements. Planning inspired by the movement continued into the 1930s and included such iconic works as the National Mall in Washington, D.C.; great parkways like the Merritt in Connecticut; Charles Eliot's parks along the Charles River in Boston; the

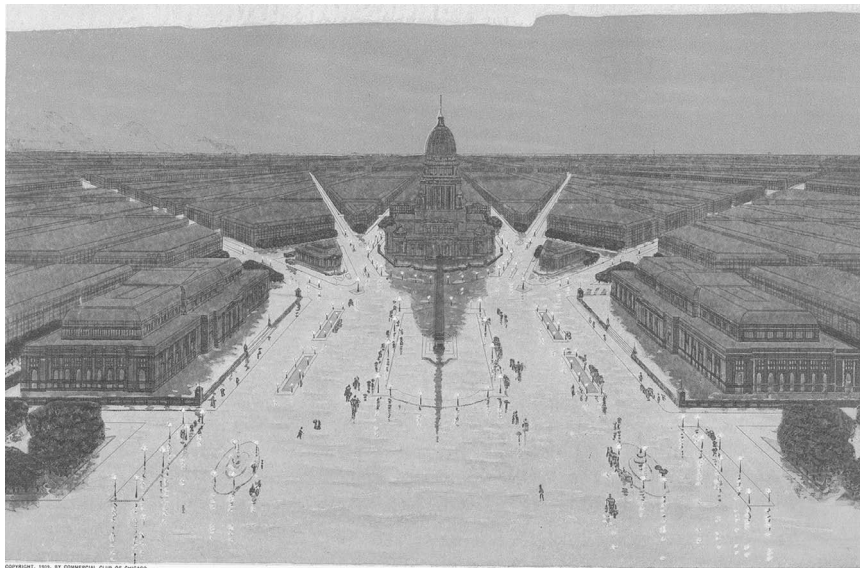
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Without the enabling clout of a Haussmann or a [Albert] Speer, Burnham could not remake Chicago or San Francisco into a City Beautiful. It is not an accident that Washington was the only city to celebrate the Grand Manner unequivocally, when L'Enfant's moribund plan was revived and elaborated by the MacMillan Commission [on which Burnham served] in 1902. . . . Elsewhere, one could only resort to persuasion and try to advance whatever fragments of the overall plan one could through the tangles of the democratic process. The most appealing fragments were public parks and associated boulevards and parkways, beautifications for waterfront leisure, civic centers, and civic ornaments like approach bridges and entrances.

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*Spiro Kostof, The City Shaped: Urban Patterns and Meaning through History (New York: Bulfinch Press, 1991), 217*

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1.21 A grand city hall and plaza stood at the “center of a system of arteries of circulation” around which architect Daniel H. Burnham organized his plan of Chicago in 1909. A nationally influential leader of the City Beautiful movement, Burnham made only passing reference to the emerging concept of zoning, instead proposing a baroque framework of grand boulevards and public spaces intended to give Chicago a new sense of grandeur. This same aesthetic informed plans Burnham drew up for Cleveland, San Francisco, and other cities. Only Washington, however, with its grand L'Enfant layout, fully embraced his recommendations, contained in the MacMillan Commission report of 1901. Jules Guerin rendering from Daniel H. Burnham and Edward H. Bennett, *Plan of Chicago* (Chicago: The Commercial Club, 1909).



Chicago lakefront; Kansas City's parks and parkway system; the Denver and San Francisco civic centers; and even many early works masterminded by New York City redevelopment czar Robert Moses, such as Jones Beach and Riverside Park. Moses, in fact, came closer than any other American to achieving the authoritarian status needed to carry out a sweeping City Beautiful plan. By shrewdly playing state and local politics and by winning appointment to key public infrastructure posts, he transformed the New York region with bridges, highways, parks, and recreation centers over a forty-year period. His planning almost invariably assumed wiping parcels clean of existing urban fabric; the resulting destruction of vast swaths of traditional neighborhoods symbolized popular attitudes toward American cities for much of the twentieth century.

In the pursuit of the curvilinear and the picturesque, some City Beautiful projects reflected the ideas of Sitte and his followers more than those of Haussmann and Burnham. But all shared a romanticized view of cities that looked back to an imagined preindustrial era of grand, even aristocratic European cities.

## Notes

- 1 Spiro Kostof, *The City Shaped: Urban Patterns and Meaning through History* (New York: Bulfinch Press, 1991), 43ff.
- 2 Ibid., 102–103; Lewis Mumford, *The City in History: Its Transformation and Its Prospects* (New York: Harcourt Brace, 1961), 61–63. See also Wikipedia's entry "Hippodamus of Miletus."
- 3 Mumford, *City in History*, 87.
- 4 Ibid., 192. See also Wikipedia's entry "Hippodamus of Miletus."
- 5 Mumford, *City in History*, 191–192; also Kostof, *City Shaped*, 104–105.
- 6 Kostof, *City Shaped*, 108.
- 7 Ibid., 108–111. See also Wikipedia's entry "Bastide"; Adrian Randolph, "The Bastides of Southwest France,"

- Art Bulletin* 77, no. 2 (June 1995): 290–307; and Horst De La Croix, *Military Considerations in City Planning Fortification* (New York: George Braziller, 1972), 33, 36.
- 8 Kostof, *City Shaped*, 108–111; Nancy Volkman and Phillip Pregill, *Landscapes in History: Design and Planning in Eastern and Western Traditions* (New York: John Wiley & Sons, 1999), 194.
- 9 Historic Centre of the City of Pienza," UNESCO World Heritage List, April 30, 2007, [http://whc.unesco.org/pg.cfm?cid=31&id\\_site=789](http://whc.unesco.org/pg.cfm?cid=31&id_site=789).
- 10 Mumford, *City in History*, 387.
- 11 Edmund N. Bacon, *Design of Cities*, rev. ed. (New York: Viking Press, 1974), 217; Kostof, *The City Shaped*, 143–145.
- 12 Mumford, *City in History*, 387.
- 13 Ibid.
- 14 Kostof, *City Shaped*, 215.
- 15 Ibid., 216; Bacon, *Design of Cities*, 140ff.
- 16 Bacon, *Design of Cities*, 143.
- 17 Ibid., 134; Niklaus Pevsner, *An Outline of European Architecture* (Baltimore: Penguin Books, 1966), 251.
- 18 The Architecture Working Group, *Architecture and the Built Environment: A Consultation Document* (Belfast: Arts Council of Northern Ireland, 2002), <http://www.artscouncil-ni.org/departs/creative/architect/architect.pdf>.
- 19 Mumford, *City in History*, 439ff; Kostof, *City Shaped*, 136, 252.
- 20 Mumford, *City in History*, 442.
- 21 Edwin G. Burrows and Mike Wallace, *Gotham: A History of New York City to 1898* (New York: Oxford University Press, 1999), 23ff.
- 22 Ibid., 22, 74.
- 23 Ibid., 43.
- 24 Bacon, *Design of Cities*, 217–219; Kostof, *City Shaped*, 144–146.
- 25 Bacon, *Design of Cities*, 217–221; Kostof, *City Shaped*, 96, 146.
- 26 Andro Linklater and David McCullough, *Measuring America: How the United States Was Shaped by the Greatest Land Sale in History* (New York: Plume Books, 2003), 70–73.
- 27 Kostof, *City Shaped*, 99–101.
- 28 Burrows and Wallace, *Gotham*, 421.
- 29 Kostof, *City Shaped*, 209.
- 30 Mumford, *City in History*, 446–449.



- 31 Ibid., 446–449.
- 32 Oliver Gillham, *The Limitless City: A Primer on the Urban Sprawl Debate* (Washington, D.C.: Island Press, 2002), 25–26.
- 33 Campbell Gibson, *Population of the 100 Largest Cities and Other Urban Places in the United States: 1790 to 1990*, Population Working Paper No. 27 (Washington, D.C.: U.S. Census Bureau, 1998). <http://www.census.gov/population/www/documentation/twps0027/twps0027.html#cities>.
- 34 Andrew S. Dolkart, “The Birth of the Skyscraper: The First Elevator,” website of Columbia University Digital Knowledge Ventures, “The Architecture and Development of New York City” section, last modified December 15, 2013. [http://ci.columbia.edu/0240s/0242\\_2/0242\\_2\\_s2\\_text.html](http://ci.columbia.edu/0240s/0242_2/0242_2_s2_text.html)
- 35 John A. Kouwenhoven, *The Columbia Historical Portrait of New York* (New York: Harper & Row, 1972), 243–244. See also “James Bogardus,” in the *Encyclopedia Britannica Online*, [www.britannica.com/EBchecked/topic/71408/James-Bogardus](http://www.britannica.com/EBchecked/topic/71408/James-Bogardus).
- 36 *Singer Building*: Christopher Gray, “Once the Tallest Building, but Since 1967 a Ghost,” website of the *New York Times*, “Real Estate” section, last modified January 2, 2005. [www.nytimes.com/2005/01/02/realestate/02scap.html](http://www.nytimes.com/2005/01/02/realestate/02scap.html). *Metropolitan Life Tower*: “Metropolitan Life Insurance Company,” website of New York Architecture, last modified February 26, 2013. [www.nyc-architecture.com/GRP/GRP019.htm](http://www.nyc-architecture.com/GRP/GRP019.htm). *Woolworth Building*: “The Woolworth Building @ 100,” website of the Skyscraper Museum, last modified September 23, 2013. [www.skyscraper.org/EXHIBITIONS/WOOLWORTH/woolworth.htm](http://www.skyscraper.org/EXHIBITIONS/WOOLWORTH/woolworth.htm); Melissa Matlines, “Woolworth Building,” website of the Skyscraper Museum, last modified February 3, 2004. [www.skyscraper.org/TALLEST\\_TOWERS/t\\_woolworth.htm](http://www.skyscraper.org/TALLEST_TOWERS/t_woolworth.htm).
- 37 Gray, “Once the Tallest Building.”
- 38 Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford, 1964), 26.
- 39 For example, *Catherine Beecher’s Treatise on Domestic Economy, for the Use of Young Ladies at Home, and at School* (Boston: Marsh, Capen, Lyon, and Webb, 1841), which offers a plan for two-story cottage dwellings, and Andrew Jackson Downing’s *The Architecture of Country Houses, Including Designs for Cottages, Farm-Houses, and Villas* (New York: D. Appleton & Co., 1850).
- 40 Gillham, *Limitless City*, 26–27.
- 41 Ibid., 27–28.
- 42 Ibid., 29; Louis P. Cain, “Annexation,” *The Electronic Encyclopedia of Chicago*, <http://www.encyclopedia.chicagohistory.org/pages/53.html>.
- 43 Kenneth T. Jackson, *The Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford, 1985), 136. *Sanitary* refers to the extension of sewer lines as well as to the changeover from horse to electric-traction power.
- 44 Gillham, *Limitless City*, 179–180; Mumford, *City in History*, 515–516.
- 45 R. Stephen Sennott, *Encyclopedia of 20th Century Architecture* (London: Taylor & Francis, 2003), 364.
- 46 Gillham, *Limitless City*, 179–180.
- 47 A suggestion of the pervasive role of zoning: The initial New York City Zoning Resolution filled 16 pages; by 2013, it had grown to more than 1,600 pages.
- 48 Gillham, *Limitless City*, 26.
- 49 Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Books, 1961), 235ff.
- 50 Gillham, *Limitless City*, 26.
- 51 For example, see Tom Condon, “Urban Strongholds Built To Strike Fear, Keep Peace,” website of the *Hartford Courant*, last modified December 16, 2013. [http://articles.courant.com/2007-05-27/news/0705270184\\_1\\_state-armory-national-guard-connecticut-historical-commission](http://articles.courant.com/2007-05-27/news/0705270184_1_state-armory-national-guard-connecticut-historical-commission) (retrieved April 17, 2013).
- 52 Marx, *Machine in the Garden*, 227ff.
- 53 Wikipedia’s entry “Central Park.”
- 54 Kostof, *City Shaped*, 82.
- 55 Camillo Sitte, *City Planning According to Artistic Principles*, trans. George R. Collins and Christiane Crasemann Collins (New York: Random House, 1965). Also see Khoshnaw, Rabaz, “Camillo Sitte (1843–1903): City Building According to Artistic Principles,” website of the Manchester School of Architecture, “Architecture and Urbanism” blog. <http://architectureandurbanism.blogspot.com/2010/01/camillo-sitte-1843-1903-city-building.html> (retrieved April 17, 2013); and Wikipedia’s entry “Camillo Sitte.”
- 56 Kostof, *City Shaped*, 82.
- 57 Ibid., 235.







## CHAPTER 2

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# Decentralization: The Rise and Decline of Industrial Cities

**W**orld War I, the world's first fully industrialized war, swept away the romanticized picture of historic European cities and reshaped society around the globe. Europe went to war in 1914 on horseback but emerged from it in motorized vehicles. Aftershocks rumbled through every field of human activity—including architecture and city planning—and the war accelerated the pace of life, broadened the impact of industrial production, and provoked widespread social activism. In Europe, radical ideas about the rebuilding and redesign of cities broke from a familiar Renaissance-derived aesthetic and practice to proffer a vision of a world reborn through technology and progressive political ideas, the manifestation of which became known collectively as the International Style. In the United States these impulses took a very different path, one cleared by scouts as unlike as General Motors and Frank Lloyd Wright and leading not to the hearts of cities but to their leafy green edges: the suburbs.

### **Proto-Urban Design: Rejecting a Classical Past to Shape an Industrial Future**

#### **Europe: Modernizing the past**

##### *L'Esprit nouveau*

Surrounded by the devastation of the war, the world looked to the future. The 1925 Exposition Internationale des Arts Décoratifs et Industriels Modernes (International Exposition of Modern Industrial and Decorative Arts) in Paris, a seminal global showcase, launched the streamlined art deco motifs that became widely popular in the 1930s in Europe and the Americas. At the Expo, one modest pavilion—designed by an obscure architect and located in an out-of-the-way part of the fairgrounds—caused an outsize sensation. Its Swiss-born architect, Charles-Édouard Jeanneret, had adopted the pseudonym Le Corbusier, meaning “the crow-like one”; his Pavillon de l'Esprit Nouveau (Pavilion of the

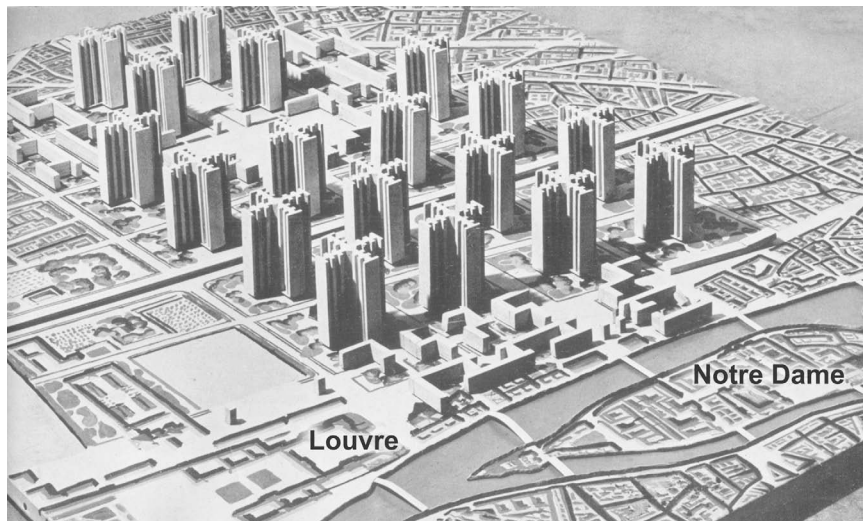


New Spirit), a stripped-down, rigidly geometrical box devoid of any ornamentation, endorsed austerity rather than exuberance in housing design. Paintings by Fernand Léger and by Jeanneret himself of geometric forms and colors inspired by machines hung above Michael Thonet bentwood furniture. Le Corbusier banished art deco entirely in a “machine for living” stripped of frivolous decoration.<sup>1</sup>

Even more startling was a glass-encased diorama in the pavilion holding a model of Le Corbusier’s Plan Voisin for Paris. Named for the automobile company that had helped finance the pavilion, the plan proposed razing almost the entire historic city north of the River Seine. In its place would rise sixty-story glass office towers arrayed in grid formation, each centered on a vast highway interchange and 800 feet from its nearest neighbor. Open parkland and superhighways filled the vast voids between the towers, and titanic linear apartment blocks zigzagged across the landscape, filled with

apartments that look like the model in the pavilion.<sup>2</sup> Compared with intervention on this scale, Haussmann’s plans (see chap. 1) seemed tame. The diorama so horrified exhibition authorities and the French architectural establishment that they tried, unsuccessfully, to have it fenced off. Instead, it would have won an award from an international jury had the French not vetoed the prize.

The plan traced its roots to 1922 and the Salon d’Automne, where Le Corbusier had unveiled *La Ville Contemporaine*, a modern conceptual city for three million people. As in the Plan Voisin, sixty-story cruciform glass-and-steel skyscrapers formed its main office district. These skyscrapers, containing both the offices and apartments of elite industrialists, sat within large parks framed by the same zigzagging proletarian housing blocks in the Plan Voisin. The plan separated vehicular roadways and pedestrian pathways throughout; at the city’s center stood a multilevel transportation center that accommodated buses, trains, a highway



2.1 Plan Voisin (1925). Swiss architect Charles-Édouard Jeanneret, better known as Le Corbusier, scandalized the French architectural establishment with his plan for razing a large swath of central Paris in order to build massive office towers and apartment buildings set in vast parks and connected by superhighways. His plan reflected an approach that dominated modernist architectural thinking in Europe during the 1920s and ultimately shaped American thinking about urban renewal in the 1940s and '50s.

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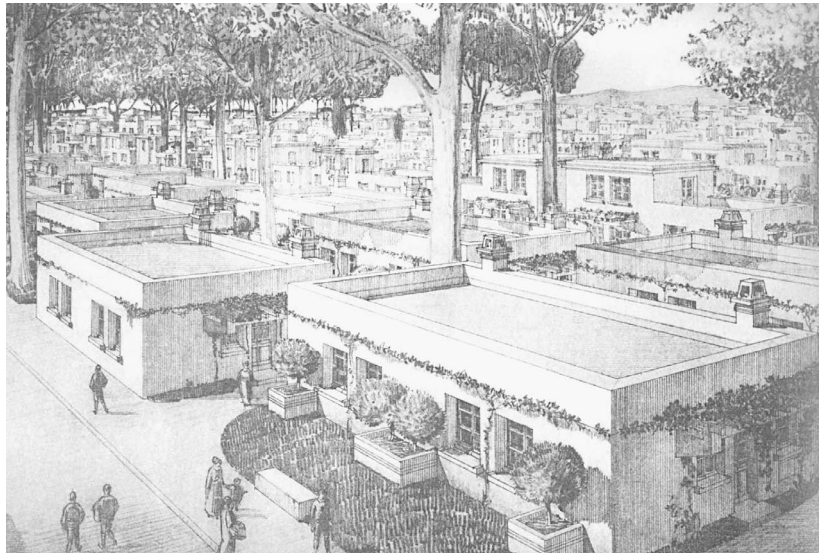
interchange, and a landing strip for aircraft on the roof.<sup>3</sup> Le Corbusier, writes biographer Robert Furneaux Jordan, believed that “the tall building must at all costs be a liberating thing . . . to release land for other purposes: recreation, foliage, lakes, schools, crèches, theaters, restaurants, highways, and so on.”<sup>4</sup>

### *The workers’ city*

Other widely known plans embraced a new, industrial aesthetic. Tony Garnier’s 1917 plan for Cité industrielle, for example, based on work he’d begun as an architecture student, represented an idealized socialist city designed in reaction to the dehumanizing conditions in which millions of urban residents lived, most of them first-generation urbanites whose families had fled rural poverty. Its utopian agenda in some ways wielded far more influence than Le Corbusier’s plans.

Garnier set his city of 35,000 inhabitants on a river in southern France. In size it roughly matched

Ebenezer Howard’s garden cities, which may have provided inspiration. Garnier, however, pushed well beyond Howard’s ideas. Anticipating future planners by decades, Garnier zoned his city rigorously, separating the industrial quarter from residential neighborhoods and public zones that contained cultural, health, and governmental facilities. In a likely bow to Camillo Sitte, the Cité Industrielle preserved and incorporated a medieval town within its borders, and Garnier’s Beaux-Arts training revealed itself in the plan and its monumental civic buildings. But his housing prototypes showed the industrial severity of emergent modernism. “It was above all a socialist city,” Kenneth Frampton writes in *Modern Architecture: A Critical History*, “without walls or private property, without church or barracks, without police station or law courts; a city where all the unbuilt surface was public parkland.”<sup>5</sup> Garnier’s work inspired many plans that emerged after World War I.



2.2 Cité industrielle (published 1917). Tony Garnier’s plan for an idealized socialist city in France influenced many early-twentieth-century urban plans. It blended emerging modernist ideas (zoning and industrial production of housing) with more traditional influences—and even historic preservation. Reprinted with permission from Tony Garnier, *Une Cité Industrielle: Étude pour la Construction des Villes* (New York: Princeton Architectural Press, 1989).

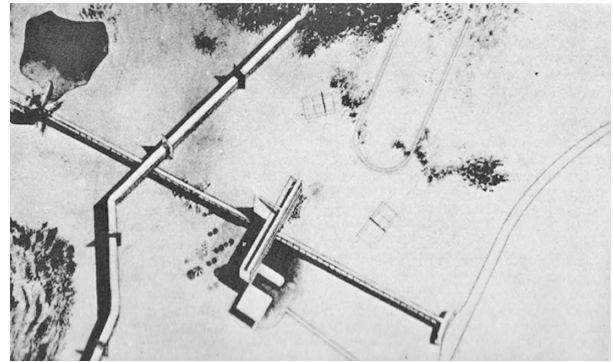


In the late 1920s, Le Corbusier intended his machine-inspired modern forms to convey a similar break with an elitist past and herald an era of cities shaped to enhance the lives of the industrial working class. The modern idiom clearly expressed Le Corbusier's social goals to European contemporaries, and the concept of integrating form and social justice quickly spread across industrialized Europe. Germany's Staatliches Bauhaus design academy emerged as a continental headquarters of modernist design during this decade, first under director Walter Gropius and later under Ludwig Mies van der Rohe. (Together with a third faculty member, Marcel Breuer, they would influence twentieth-century architecture and urban design tremendously.) Radical ideas also bubbled out of what had become the Union of Soviet Socialist Republics (USSR) after the war. Konstantin Melnikov's Soviet Pavilion and annex represented the Vkhutemas—the Soviet equivalent of the Bauhaus—at the seminal 1925 Exposition Internationale des Arts Décoratifs et Industriels Moderne in Paris.<sup>6</sup> It offered a stunning representation of the emerging wave of revolutionary architecture and urbanism based on industry.

Throughout the 1920s, the major political battles in Europe—particularly between Marxism and its opponents—resounded in the world of architecture. Socialists saw industry as a means for achieving socialist revolution; opponents, like Gabriel Voisin, sponsor of the Plan Voisin, saw it as the province of elite capitalists.<sup>7</sup> Le Corbusier embraced capitalism and sorted housing by class in his *Ville Contemporaine*. The Soviets, in contrast, aimed for a classless model,<sup>8</sup> a new kind of city that strove to express “the disappearance of the contrasts between center and periphery, between fashionable districts and workers’ slums, and even, in the last analysis, between city and country.”<sup>9</sup> Imbued with idealism and revolutionary fervor, Soviet architects drew up bold plans for linear cities and crisp, clean housing blocks in

parklike settings with plenty of space, air, and light—all things that the City Beautiful movement had promoted in the United States, but with a drastic revolutionary and industrial twist.

Even in revolutionary Russia, conflicting schools of thought had emerged. The so-called urbanists pushed the communal aspect of the city to the maximum. They proposed housing projects with only 5 square meters (roughly 55 square feet) of private space for each occupant, allocating everything else—bathrooms, kitchens, living areas, outdoor space—to the common realm.<sup>10</sup> Another group, the so-called disurbanists, stressed dispersed settlements of detached dwellings organized along transit lines. And Russia, at least for a brief period, actually strove to realize some of these plans, mostly along disurbanist lines, in industrial cities built from scratch, like Magnitogorsk.<sup>11</sup>



2.3 Communal House by Barsch and Vladimirov (1930). Revolutionary thinking upended traditional approaches to urban planning in Europe after World War I. In the Soviet Union, one school of thinking argued for communal housing that allotted each occupant roughly 55 square feet of personal space, with everything else used and held in common.

From the journal *SA* (1930); courtesy of Creative Commons.



Despite their differences, architects from different countries strove to bring the world a new international style of architecture that adopted the vocabulary of industrial buildings and found aesthetic inspiration in the newly discovered possibilities of steel-reinforced concrete and an aversion to ornamentation. If housing would become a machine for living, office buildings, too, should lose superfluous detailing; giant towers with walls of glittering glass translated the industrial revolution directly into built form. Planning efforts described revolutionary new cities that embraced industry as its muse while mitigating its impacts with rigorous zoning, better housing for workers, and broad, parklike settings with light and air. It was a logical step for these architects to create an organization for debating, codifying, and executing their ideas.

## **America: Reaching for the future**

### ***Towers come of age***

Skyscrapers evolved from their beginnings in the 1880s to their quintessential American form in the 1920s. In New York—which in 1939 boasted more tall structures than any other city in the world—the art deco shapes of the Chrysler and Empire State buildings defined the skyline, buttressed by a host of other elegant towers bearing the names of corporate owners like American Radiator, the *New York Daily News*, the Cities Service Company, Irving Trust, and the Radio Corporation of America (RCA). Although art deco had originated in Europe, the United States embraced the style enthusiastically and applied it to architecture on a grand scale.

The masterwork of the era, Rockefeller Center, neared completion in 1939. Begun in 1930, the complex comprised fourteen towers designed by Raymond Hood, all clad in Indiana limestone and sliced by vertical stripes of glass and bronze. In many ways Rockefeller Center represents the archetypal work of purely

American urban design. Covering three city blocks, its centerpiece is a below-grade plaza with a heroic-scale statue of Prometheus bringing fire to man. Behind the sculpture rises the knifelike edge of the seventy-story RCA (now General Electric) Building, with Zeus wielding a lightning bolt above its entrance. Everything about the complex celebrated twentieth-century industrial modernity, from the towers themselves, with their decorative arts and sculpture celebrating man and industry, to its nickname, Radio City. Sublevel walkways connect all fourteen towers, the city's subway system, and a pedestrian concourse lined by shops and restaurants that range around the sunken plaza. This multilevel circulation system prefigured postwar urban design thinking.

Architectural illustrator Hugh Ferriss idealized the style of Hood and his contemporaries, projecting them onto an imaginary cityscape in his book *The Metropolis of Tomorrow*.<sup>12</sup> His dramatic, bottom-lit aerial perspectives of an archetypal art deco city, with ziggurat-topped towers rising into the night, celebrated a purely American, high-density urbanism. Ferriss's renderings symbolized the age, and by the 1940s such art deco skyscrapers dominated the skylines of American cities as varied as Pittsburgh, Miami, Tulsa, Houston, and Seattle. Boston's John Hancock Building, Detroit's Guardian Building, Chicago's Board of Trade Building, and the city halls of Buffalo and Los Angeles are especially well-known emblems of the period.

### ***Magic motorways***

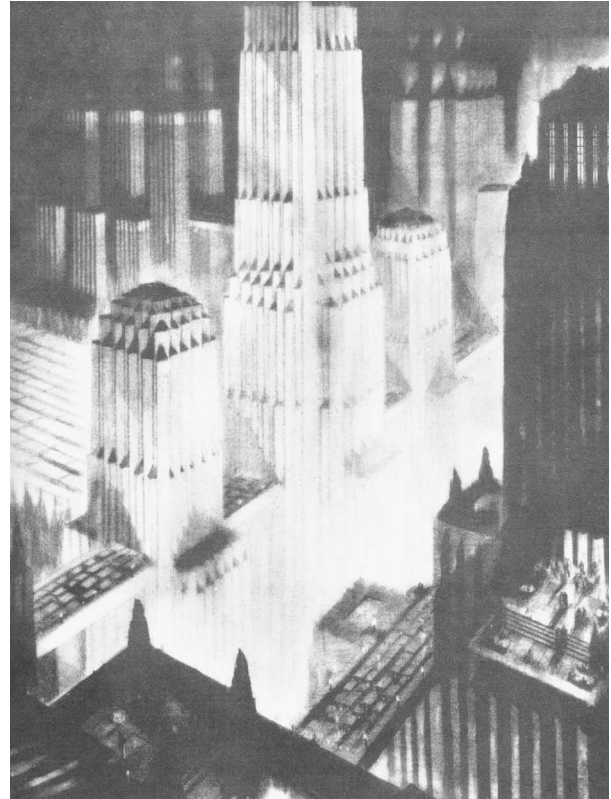
The year 1939 marked a watershed in American urbanism. The United States had reached the pinnacle of its distinct brand of vertical city-building: the skyscraper was king, and the urban center was its kingdom. The supremely art deco Trylon and Perisphere dominated the world's fair that opened in New York that year, both reflecting its time and hinting at changes to come.





2.4 Rockefeller Center, New York (1929–39). Perhaps the crowning achievement of American urban design in the skyscraper era, Rockefeller Center’s design celebrated industrial modernity. Among its pioneering features, a web of subterranean walkways connects the complex’s fourteen towers and suggest the separated levels of circulation that distinguish many plans in the urban renewal era. Courtesy David Shankbone, via Wikimedia.org

If Hugh Ferriss’s renderings celebrated height and density, the pavilions at the fair (1939–40) proved a more accurate forecast of the future of American urbanism. More than five million people climbed the great serpentine ramps leading to the General Motors (GM) pavilion, the most popular at the fair. Conceived by prominent industrial designer Norman Bel Geddes, the Futurama exhibit provided displays and models of



2.5 Rendering from *The Metropolis of Tomorrow*. Hugh Ferriss’s distinctive style of architectural rendering helped idealize the massing of New York skyscrapers (itself a product of the city’s 1920s zoning code) and transform the skyscrapers into models that influenced the shape of urban buildings across the United States for decades. Reprinted by permission from Hugh Ferriss, “Crowding Towers,” in *The Metropolis of Tomorrow* (Mineola, N.Y.: Dover Publications, 2005), 63.

future cities served by high-speed, limited-access continental highways. In stunning dioramas, expressways with looping ramps snaked across the countryside. In *The World of 1960*, these “magic motorways” sped commuting fathers home to the suburbs at 100 miles per hour. To accommodate an anticipated flood of new cars (the pavilion sponsor did, after all, make them), GM and Bel Geddes redesigned cities, placing vehicles and

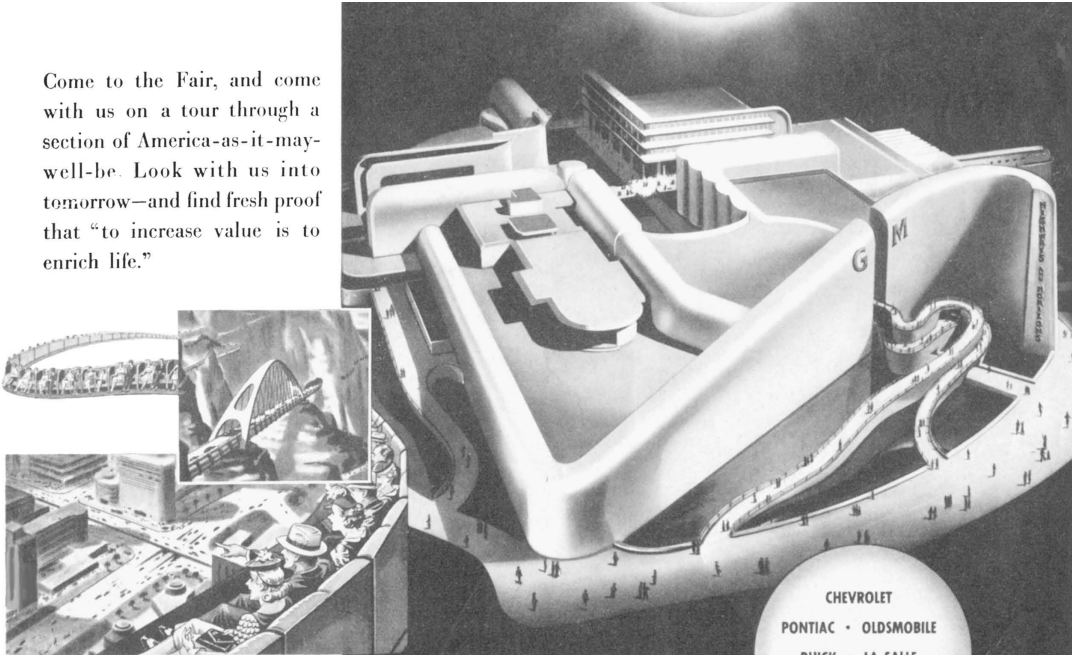


pedestrians on different levels. Although hardly a new idea—Leonardo da Vinci devised a fifteenth-century plan for Milan that placed service tunnels and canals belowgrade, reserving surface streets for pedestrians—such plans had gone unrealized. Eugène Hénard’s 1910 Street of the Future and other plans for Paris were built around similar ideas;<sup>13</sup> World’s Fair patrons could see its realization in Rockefeller Center’s below-grade pedestrian concourse.

General Motors’ dramatic vision of grade-separated cities influenced much urban design in the second half

of the twentieth century, even though most city streets in the United States remain single-level today. The pavilion’s real vision lay in its idea of the open landscape. In *Metropolis of Tomorrow*, Ferriss had posited a vertical urban future; Futurama unveiled an entirely different vision—a horizontal city rarely rising above three stories and spreading from horizon to horizon. Two decades after the 1939 fair, the United States would build a vast continental infrastructure that formed the underpinnings of a nationwide suburban metropolis.

Come to the Fair, and come with us on a tour through a section of America-as-it-may-well-be. Look with us into tomorrow—and find fresh proof that “to increase value is to enrich life.”



**YOU RIDE IN SOUND-CHAIRS, viewing a world in miniature—a vast world of future cities and countryside—industrial and mountainous sections—airports, lakes, rivers and waterfalls—streamlined trains, tunnels and boats—ten thousand moving cars on the superhighways of tomorrow. A spectacular and life-like “Futurama” covering more than 35,000 square feet and extending for a third of a mile in and about this exhibit building of wonders.**

**MIRACLES OF MODERN RESEARCH AND SCIENCE**

**COMPLETE STREAMLINED DIESEL LOCOMOTIVE**

**BROAD RESTFUL TERRACES • STAGE AND SCREEN SHOWS**

**INTERIORS OF STRIKING BEAUTY • THE STREETS OF TOMORROW • HIGHWAYS OF THE FUTURE**

**CHEVROLET**  
**PONTIAC • OLDSMOBILE**  
**BUICK • LA SALLE**  
**CADILLAC • FRIGIDAIRE**  
**BODY BY FISHER**

2.6 Advertisement for the General Motors (GM) pavilion at the New York World’s Fair (1939–40). Among the marvels that GM’s popular Futurama exhibit predicted included a vast, automobile-oriented suburbia served by a network of superhighways. Within twenty years, the United States was busily concretizing a very similar vision. Advertisement from the *New York Times*, March 5, 1939



In fact, GM's auto-dominated future had already begun taking shape by 1939. An invention of the late nineteenth century, the automobile began as a plaything of the wealthy; by 1900, the United States had a modest supply of just eight thousand.<sup>14</sup> As manufacturing costs fell and as governments at all levels enlarged the network of paved roads, automobile ownership burgeoned. By 1927, Americans were driving twenty-six million cars, an increase of well over 3,000 percent in less than three decades. The car was on its way from upper-crust toy to middle-class necessity.<sup>15</sup> By 1939, a national highway system was already in place, comprising primarily two- and four-lane arterial roads with traffic lights, roadside retail, and multiple curb cuts. The numbered roads in the national system began with Route 1 on the East Coast and ended with Route 101 on the West.

By the 1930s, parkways had appeared near New York, Boston, Chicago, and Los Angeles, and other cities. Often grade-separated and with minimal curb cuts, these roads for "pleasure vehicles" formed part of park systems or provided access to parks well beyond the city. Carefully landscaped, they incorporated picturesque overpasses that carried intersecting roads to provide for a scenic—and minimally interrupted—ride. Although intended as routes to recreation for city dwellers, parkways turned out to be convenient for commuting from the suburbs as well. Originally treated as civic improvements built for recreation, their function quickly shifted to utilitarian commuter routes.<sup>16</sup>

### ***Automobile suburbs for Everyman***

As early as the 1920s, with a national highway system and new parkways under construction, U.S. cities began to see their first automotive suburbs. Radburn, a community within the town of Fairlawn, New Jersey, gained a national reputation from its 1927 launch as one of the first "towns for the motor age,"<sup>17</sup> with a layout prototypical of suburbs to come. Street sizes matched

the traffic volumes they were intended to support, with large arterial streets carrying the heaviest traffic outside the community and roads through residential neighborhoods narrowing until they reached cul-de-sacs that each served a cluster of individual residences. The entrances to individual houses turned away from the street to face private gardens, which in turn provided access to pedestrian greenways that ran behind the houses and crossed streets on overpasses and underpasses. Many of Radburn's innovations became standard suburban features, although the greenway system survived in only the wealthiest or most self-consciously visionary developments.<sup>18</sup>

Radburn led a wave of similar developments. During the 1920s, the suburban population of America's ninety-six largest cities grew at double the rate of their center cities. The populations in Grosse Pointe, Michigan, and Elmwood Park, Illinois, exploded by more than 700 percent. The population of New York's Nassau County on Long Island tripled during the period, and Los Angeles added more than 3,200 subdivisions with a total of almost 250,000 homes. Much of Kansas City's Country Club District dates from the 1920s, as do significant portions of Philadelphia's Main Line. Rail and streetcar service linked some of these new suburbs with downtowns, but it was the automobile that made most of them possible. As early as 1922, almost 135,000 homes in sixty cities could be reached only by automobile.<sup>19</sup>

The new pattern broke from anything that had preceded it. Walking distance to a fixed transit line no longer constrained new developments. Consequently, untouched land between rail and streetcar corridors began to fill up. While streetcar suburbs had been relatively dense—thanks to limits imposed by comfortable walking distances and land prices—automotive subdivisions spread out as increasing access made walking immaterial and lowered the cost of buildable land by greatly enlarging the supply. The size of an





2.7 Plan for Radburn, New Jersey. Automobile registration surged in the 1920s, Radburn became one of the first communities whose design presumed car ownership. Many of its features—including a hierarchy of streets geared to handling auto traffic, cul-de-sacs, and houses facing away from the street and toward private backyards—became staples of suburban planning in the years after World War II. Courtesy of the Regional Plan Association

average house lot nearly doubled, while residential densities dropped by half. Garage doors began to replace front porches as house fronts faced away from the street.<sup>20</sup>

### Broadacre City

In 1932, architect Frank Lloyd Wright published *The Disappearing City*, in which he argued that the future lay in suburban metropolises. By 1939 he had formulated a large-scale model of his vision,

Broadacre City, a prototype he continued to refine for two decades and described more fully in his 1958 book *The Living City*. He saw dense city centers as dead ends dominated by machines, gasping for air, and shadowed by skyscrapers. Wright minced no words: “The city, as we know it today, is to die.”<sup>21</sup> In its place he envisioned a centerless, horizontal city connected by automobiles and advanced telecommunications. “Natural horizontality,” he wrote, “is the true line of human freedom on earth.” Condemning works like Ferriss’s *Metropolis of Tomorrow* as “sterile urban verticality,” he argued that dense American cities were, in truth, no more than “pig-pilings” unfit for humans.<sup>22</sup> Broadacre City would unfurl across the countryside a carpet of single-family homes, apartments, and office and industrial parks stretching beyond the horizon. In Wright’s vision, the houses would be interspersed with farms and forests held “in trust for future generations.”<sup>23</sup>

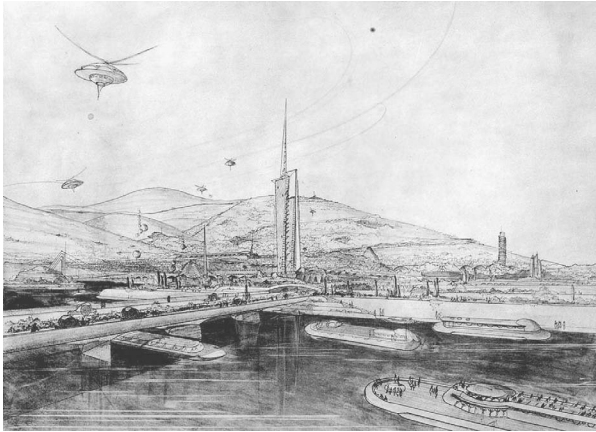
Wright strongly believed that this new city would embody the ultimate expression of Jeffersonian democracy. Decentralization, he felt, was the only way to guarantee individual freedom, and the nascent highway system would deliver that vision. “The great highways are in the process of becoming the decentralized metropolis,” he wrote.<sup>24</sup> Wittingly or otherwise, Wright’s vision matched GM’s—and both came close to describing the America’s postwar urban future.

## International urbanism: CIAM and the birth of urban design

### Congrès Internationaux d’Architecture Moderne

In the three decades after its founding, and particularly after 1945, the Congrès Internationaux d’Architecture Moderne (International Congress of Modern Architecture, known by its French acronym CIAM) became a significant force in shaping cities in Europe and North





2.8 Perspective of Broadacre City. Frank Lloyd Wright's 1939 vision for low-rise, decentralized development matched GM's Futurama ideal. Both predicted America's devotion to suburban development in the post-World War II era. Courtesy Flickr user Kjell Olsen, via Wikimedia.org

America.<sup>25</sup> Le Corbusier and his colleague Sigfried Giedion organized the first congress (CIAM 1) and issued a selective set of invitations to avant-garde architects across Europe.<sup>26</sup> Urbanism figured prominently in the CIAM 1 agenda. According to Eric Mumford, author of *The CIAM Discourse on Urbanism, 1928–1960*, Le Corbusier used the conference to restate “the ideas of his Plan Voisin in emphasizing the need for urban ‘surgery’ to reorganize existing cities.” He also “asserted the importance of building at very high densities in the centers of cities while still allowing the maximum of space for greenery and transportation routes.”<sup>27</sup> In the end, leftist members, shunning skyscrapers as “the last cry of capitalism,” prevented the congress from endorsing these ideas. The congress did, however, support two concepts advocated by Le Corbusier: centralized land planning and the “functional city,” made possible by zoning that separated land uses by function.<sup>28</sup>

### *Europe: The idea of the functional city*

Although the rise of totalitarianism in Russia and Germany had muted some voices on the left by 1933, Le Corbusier moved toward that end of the political spectrum in the wake of his involvement in a Soviet competition to plan and design a socialist garden city for 100,000 people. He modified his commentary on the competition into his plan for the Ville Radieuse, or Radiant City, which he presented at CIAM 3 in Brussels in 1930. The Ville Radieuse plan at once affirmed and expanded planning ideas embodied in the Ville Contemporaine and the Plan Voisin, and it significantly influenced CIAM thinking and debate. Meanwhile, Germany's Walter Gropius had begun to side with Le Corbusier on the subject of tall buildings following a period of sustained opposition to them by German leftists, some of whom maintained their antagonism. In the same spirit of repudiating familiar city forms as a way of rejecting oppressive social systems, Gropius, Ludwig Hilberseimer, and other Bauhaus theorists began exploring concepts for decentralizing cities.

Organizers planned to hold CIAM 4 in Moscow, but the Russian political climate forced it onto a cruise ship sailing from Marseilles to Athens. Focused on the functional city, CIAM 4 (1933) produced little agreement and no formal resolutions, but it did spin off a series of *constatations*, or observations. Edited by Giedion and Le Corbusier, these documents became the defining text for CIAM's urbanism, and Le Corbusier incorporated them into his Athens Charter, published in 1943. Josep Lluís Sert—a new supporter of Le Corbusier's ideas from CIAM's Spanish contingent—used the *constatations* as the fodder for his *Can Our Cities Survive?*,<sup>29</sup> which appeared in the United States in 1942, shortly after Giedion's seminal *Space, Time, and Architecture* (1941).<sup>30</sup> By this point, Gropius, Giedion, and Sert had all relocated to the United States. All three ended up in



key positions at Harvard University's Graduate School of Design, from whence they spread their ideas, and those of Le Corbusier's Athens Charter, throughout North America.

The Athens Charter, ostensibly shaped by CIAM's membership, actually reflected the thinking of Le Corbusier, Giedion and Sert. The document showed the strong influence of Le Corbusier's *Ville Radieuse*, his earlier *Ville Contemporaine* and *Plan Voisin*, and Gropius's 1920s housing plans for various German cities.<sup>31</sup>

### ***CIAM leaders come to the United States***

Together, the Athens Charter, *Can Our Cities Survive?*, and *Space, Time, and Architecture* amplified the

influence of European modernist doctrine in the United States after World War II. The planning ideas these architects advocated dominated American urbanism well into the 1970s and have recently enjoyed a revival. For example, the contemporary Landscape Urbanists (discussed in chapter 5) point to Lafayette Park—a utopian redevelopment of Detroit's Black Bottom “slum” neighborhood developed in 1946—as a “city in the park” model, a useful template for contemporary urban development.

Under the banner of CIAM, Le Corbusier, Giedion, Sert, Gropius, and their American followers advanced a series of urban planning and design principles. First, they posited that cities could be rationally analyzed and described by four functions: dwelling, work, leisure, and circulation.<sup>32</sup> Although not entirely original, this



2.9 Detroit's Lafayette Park, planned and designed by Mies Van der Rohe, replaced a slum with a mix of towers and townhouses set in a landscaped park. Today Lafayette Park is a neighborhood of choice for professionals who want to live close to downtown. Christian Unverzagt photo courtesy OpenBuildings.org



functional-city idea established the foundation for the rest of their thinking.

A second principle excoriated the creeping sprawl of U.S. and European cities and condemned Wright's Broadacre City concept. They endorsed instead the preservation of the natural environment from what Le Corbusier described as the "leprous suburbs."<sup>33</sup> The solution, they insisted, lay either in wholly new cities, such as those envisioned by Le Corbusier, or in "heroic measures" that would transform existing cities. "The first thing to do," Giedion argued, "is to abolish the *rue corridor* with its rigid lines of buildings and its intermingling of traffic, pedestrians, and residences." In other words, the traditional city with blocks of street-defining buildings would have to yield to something new. He echoed Le Corbusier's feeling that the existing urban street was "no more than a trench, a deep cleft, a narrow passage. . . . Our hearts are always oppressed by the constriction of its enclosing walls."<sup>34</sup> Le Corbusier himself put the idea even more bluntly that same year: "The present idea of the street must be abolished: *death to the street!*"

Highways—or parkways, as Giedion called them—would be the new urban corridors, and pedestrians, residences, and vehicles would be clearly separated.<sup>35</sup> Tall buildings containing homes and offices would stand apart from one another to allow sunlight and air to circulate through parklike surroundings. "In order to achieve the placement of living quarters amidst greenery in densely populated districts, which is imperative," Giedion wrote, "there must be a concentration of groups of high buildings standing in parks or, at any rate, in open spaces. Only by such means can the distances necessary for light and air between buildings be secured."<sup>36</sup> (Despite his noble intent, substituting "open spaces" for parks left the door ajar for parking lots to become the open space of choice in subsequent decades.) This ideal was the apotheosis of key goals of the City Beautiful movement and the move toward zoning that had dominated urban design in the first decades of the twentieth century: maximizing light,

air, and green space within the city and providing new means of transportation. The automobile would offer the primary means of circulation and govern the layout of future cities—just as GM had forecast.

The theories of English architects Peter Smithson and Alison Smithson took these ideals a step further. They advocated separating pedestrians from the baleful impacts of traffic and proposed putting them on actual pedestals—elevated circulation networks separated from roadways for cars. Their thinking broadly influenced American urban renewal.

Under their third principle, these architects chose government as the primary mover behind "heroic change." CIAM had endured a long debate over the impediment of private land ownership, but most members ultimately agreed on the need for eminent domain to uproot antiquated city patterns to carry out the necessary changes—a position that paved the way for the midcentury urban renewal movement.

### ***The "anti-industrial city": Towers in a park***

In 1933, at CIAM 3 in Brussels, Le Corbusier had argued that his towers-in-a-park concept would make residents safer from aerial bombardment and gas attack in war.<sup>37</sup> This assertion—made at a time when memories of World War I were still fresh—resonated again during the Cold War. By 1951, some U.S. planners argued that traditional, dense cities posed a serious risk in the event of atomic attack. In the *Bulletin of the Atomic Scientists*, the chairman of Harvard's Department of Regional Planning, William L. C. Wheaton, called for a national policy of dispersing urban centers. In his article "Federal Action Toward a National Dispersal Policy," Wheaton recommended "that new construction and urban redevelopment in existing major metropolitan areas be utilized to reduce congestion and excessive concentrations of industry or population." He went on to praise the "programs of urban redevelopment and slum clearance" carried out under the Federal Housing



Act of 1949, which had already begun flattening dense blocks in cities across the United States.<sup>38</sup> The same issue of the *Bulletin*—devoted entirely to dispersion as a national civil defense policy—included an article by a former commissioner of planning for New York City, Goodhue Livingston Jr., recommending the creation of urban firebreaks. “Such firebreaks,” he wrote, “carved out through presently crowded industrial and residential areas, if used as vehicular express highways . . . will afford a means of escape for thousands who otherwise will be burned or suffocated to death.”<sup>39</sup>

It was not only planners who recommended dispersion and decongestion of the United States’ urban centers; the newly created federal Civil Defense Agency actively encouraged dispersal of industry and employment with financial incentives for new plant construction. The National Security Resources Board also

produced literature recommending dispersal with such titles as *Is Your Plant a Target?*, some of which carried lurid pictures of atomic blasts. Civil defense considerations such as these, in fact, ultimately helped win passage in 1956 of long-stalled legislation to fund the interstate highway system. The Federal Aid Highway Act of 1956 opened the floodgates for what was already a steady stream of migrants to the suburbs in the United States, the dream of GM’s Futurama and Frank Lloyd Wright’s Broadacre City.

Civil defense considerations, along with the increasing blight in U.S. cities resulting from their depopulation, left municipal officials receptive to the recommendations of Le Corbusier, Giedion, Sert, Gropius, and their followers. Yet despite a prevailing emphasis on dispersion, Le Corbusier and his American followers believed strongly in the survival of the city—but only



2.10 In 1956, Lúcio Costa won an international competition to design Brasília, Brazil’s built-from-scratch capital city, with a proposal inspired by Le Corbusier’s towers-in-a-park model. Intended to contain 400,000 people by the year 2000, the city had actually surpassed 2 million residents by that date. Costa embraced a modernist rejection of “archaic” city qualities, and his plan illustrates some of the most cherished goals of CIAM, including “rational” separation of uses (districts for residential, office, government, hotel, and others) and the use of arterial roadways to separate them. Although Costa’s plan guided only the development of the city center, Brasília stands as the most prominent citywide application of modernist principles. Architect Oscar Niemeyer designed most of the government buildings, including those for the supreme court, presidential offices, and the congress (pictured). Landscape architect Roberto Burle Marx designed the landscapes. Courtesy Eurico Zimbres, via Wikimedia



if completely reinvented using Giedion's "heroic measures." The city, Giedion insisted, "cannot continue to exist in its present form." It "must be transformed but need not be destroyed."<sup>40</sup>

Interstate highways abetted this transformation. Construction of the new roadways broke through existing cities, sometimes cutting straight across crowded residential and commercial areas. Supporters used civil defense concerns to justify this destruction, but the perceived need to modernize older cities in order to compete with a rapidly emerging suburban economy drove these projects forward as well. The new urban unit would be the "superblock," a fusion of multiple city blocks bounded by modern arterial roads and highways. These "urban corridors" would accommodate cars only, with pedestrians relegated to an independent system outside the corridor. And new zoning reinforced such federal urban renewal and highway programs.

Modernism soon dominated in neighborhoods and commercial districts razed and rebuilt according to principles laid down by Le Corbusier and his colleagues thirty years earlier. New York City replaced the setback zoning that had defined the art-deco city. The new zoning allowed developers to build taller buildings in exchange for creating ground-level open space, a change that transformed the Midtown blocks of Sixth Avenue (renamed Avenue of the Americas) into a parade of broad, open plazas nearly devoid of activity, with slablike towers at their center, separated from sidewalk, street, and neighbor.<sup>41</sup>

## The post-World War II industrial city

### *Urban design emerges*

The profession of urban design was born into this climate. The followers of CIAM in the United States had for some time believed that there was no borderline between architecture and city planning and that the architect's ultimate client was society. Le Corbusier



2.11 Slablike office towers along New York's Sixth Avenue set behind plazas devoid of active programming or dedicated use beyond ornamental landscaping exemplify the influence of Le Corbusier and CIAM on American cities.

and other members of CIAM had arrived at the idea of the "architect-planner" who could "orchestrate" urbanism as early as the 1930s.<sup>42</sup> As their U.S. followers' stature increased, they further developed that concept. In *Space, Time, and Architecture*, Giedion talks of the "town planner" who must think in more than two dimensions.<sup>43</sup> Sert uses the same phrasing in *Can Our Cities Survive?*<sup>44</sup> Yet as city and regional planning gained widespread recognition as a distinct profession, Sert, Giedion, and their colleagues felt the need for



something else, neither strictly architecture nor city planning but some combination of the two that could bring about the “heroic measures” necessary to salvage the nation’s cities.

In 1953, Sert—by then the president of CIAM and dean of the Harvard University Graduate School of Design—delivered a lecture entitled “Urban Design” at a conference of the American Institute of Architects (AIA) in Washington.<sup>45</sup> This is the first widely known instance of the use of that term in an architectural forum. At that conference and subsequently, Sert advocated the “carrying out of large civic complexes; the integration of city-planning, architecture, and landscape architecture; [and] the building of a *complete environment*” in urban core areas.<sup>46</sup> Sert’s evocation of a complete environment built on an idea he’d suggested nine years earlier in “The Human Scale in City Planning,” an essay in which he argued for countering the American trend toward suburbanization by replanning metropolitan regions based on walkable “neighborhood units” focused on schools and other public facilities.<sup>47</sup> His idea’s importance, as Eric Mumford later wrote, is that Sert “began to advocate the cultural and political value of urban pedestrian life . . . right at the moment when many businesses and the federal government saw the movement of the white middle class to the suburbs as both desirable and inevitable. Out of this combination of the earlier CIAM effort to redesign cities ‘in the general interest’ with a new focus on pedestrian urban ‘cores,’ Sert eventually developed the discipline of urban design.”<sup>48</sup>

This idea ran counter to the thinking within CIAM and in the dispersionist circles of American planning. Influenced in part by a splinter group of younger CIAM members known as Team 10, Sert broke with CIAM’s general deprecation of the density of older cities while hailing the cultural aspect of cities and great urban spaces such as “the Acropolis, the Piazza San Marco, the Place de la Concorde” as models of face-to-face pedestrian interaction.<sup>49</sup> In fact, at the AIA conference

at which he first used the term *urban design*, Sert represented one side of a debate about the future of American cities. Tracy Augur, a planner for the Tennessee Valley Authority, championed the other side, arguing that “urban centers make inviting targets” for atomic weapons.<sup>50</sup> Sert disagreed, advocating a renewed focus on city-center redevelopment, albeit with reduced congestion and with new downtown parking facilities and modern roadways along the lines of earlier CIAM recommendations. In taking this tack, Eric Mumford writes, Sert set “the direction of much downtown urban renewal for the next few decades.”<sup>51</sup>

Three years later, in 1956, Sert hosted at Harvard the first conference dedicated solely to urban design. Participants included members of CIAM as well as such key figures as architect and planner Victor Gruen; Edmund Bacon, the head of the Philadelphia City Planning Commission; historian and urbanist Lewis Mumford; and writer and activist Jane Jacobs. Many historians agree that the conference gave birth to urban design as a distinct discipline with a specific focus on the renewal of declining core cities. “Urban design,” Sert said at the conference, “is that part of city planning which deals with the physical form of the city.”<sup>52</sup>

Harvard had already introduced a seminar on urban design, describing it as focusing on the “physical expression of city planning” and using the term *urban design* interchangeably with *civic design*.<sup>53</sup> The 1956 conference, judging from its participants and their comments, represented a sincere attempt to solicit diverse viewpoints about the future of the city. Nevertheless, Sert’s view on the importance of retaining and rebuilding core cities as areas of civic engagement set the framework not only for the conference but for the future of urban design. “The urban designer,” Sert said at the conference, “must first of all believe in cities, their importance, and their value to human progress and culture.” He went on to describe the necessary process as “not one of decentralization, but one of recentralization.”<sup>54</sup>



## Suburban dominance

Las Vegas . . . [was] where we could discover the validity and appreciate the vitality of the commercial strip and of urban sprawl, of the commercial sign whose scale accommodates to the moving car and whose symbolism illuminates an iconography of our time. And where we thereby could acknowledge the elements of symbol and mass culture as vital to architecture, and the genius of the everyday, and the commercial vernacular as inspirational as was the industrial vernacular in the early days of modernism.

*Robert Venturi, FAIA, accepting the 1991 Pritzker Prize (www.pritzkerprize.com, <http://www.pritzkerprize.com/laureates/1991>)*

“Detroit,” says urban designer Constance Bodurow, “spent the first fifty years of the twentieth century

bringing the industrial age to America and then went to sleep for the next fifty years.” She points proudly to revitalization initiatives across her city, but her comments apply to much of urban America. In the late 1940s, mayors and chambers of commerce proclaimed a bright future for U.S. cities—an optimism that frequently proved premature. Instead, a perfect storm of economic, technological, and social forces dramatically refashioned the American landscape after World War II.

Migration to the suburbs tracked the transition in an economy that no longer needed mills and factories in urban centers. In America’s largest manufacturing cities, industrial jobs dropped by more than 40 percent between 1967 and 2001. This shift reflected a fundamental transformation not just of the economy but also



2.12 Renaissance Center, designed by architect John Portman and described as “a city within a city,” represents the high-water mark of urban renewal’s commitment to replacing traditional downtowns with “modern” auto-oriented urban centers. The Center’s location within downtown Detroit made it far more accessible by workers driving from affluent suburbs than it was from downtown, which sat isolated (or fenced off) from the complex by an arterial highway. Courtesy Ritcheypro, via Wikimedia



of social classes. Median income rose sharply after the war, dramatically increasing the number of Americans who considered themselves middle class. With more money to spend on housing, Americans increasingly chose homes in the suburbs. Central cities soon gained a reputation as the province of working-class, poor, and nonwhite households—people who could not afford the suburbs (and who found their paths blocked by discriminatory lending and sales practices). Government housing programs of the late 1940s concentrated low-income housing in urban core areas at the same time that large numbers of Southern blacks trekked northward in search of industrial jobs and relief from Jim Crow laws. These factors aggravated a growing racial and economic gulf between city and suburb.

Rising middle-class wealth together with high post-war birth rates drove demand for both home and car ownership. Fueled by government-insured mortgages, this demand spawned unprecedented tract-housing development; cities did not have the huge quantities of cheap land they needed to compete. By the mid-1950s, generous funding of the interstate highway system became yet another stream of federal subsidy supporting suburban development.

As suburban investment rose, urban investment fell. Middle-class and wealthier Americans not only moved out of cities, but they stopped working and shopping there as well. Although industrial uses began moving out of Northern cities as early as the 1920s, a massive relocation began after World War II. Trucks and interstate highways freed industry from the need to remain near big urban rail hubs. Air-conditioning and refrigeration removed yet another locational restraint. As a result, manufacturing gravitated to the urban fringe, deserting much of the northern United States, particularly its center cities and unionized workforce. By 1963, more than half of all the industrial employment in the United States had moved to suburban locations. Less than twenty years after that, almost two-thirds of

manufacturing was taking place in industrial parks well beyond city limits.

By 1990, the real value of assessed property in the city of Detroit had dropped to less than a quarter of its 1950 level. Even though the decline elsewhere was less dramatic, almost every American city shifted rapidly from being a center of wealth to a center of poverty. Indeed, some suburbanites took pride in organizing their lives so that they never had to set foot in a downtown or urban neighborhood. By the 1970s, cities and traditional urban forms generally had taken on the air of outmoded relics of an earlier age.

### ***Urban renewal: Remaking cities in an era when “what’s good for General Motors is good for America”***

Even before the interstate highway system began to take shape, the car was fast becoming America’s travel mode of choice—and necessity. Virtually every plan from this time had to find innovative ways of dealing with automobiles. This problem principally involved how to capture the car and store it so that people could walk, shop, and engage in a fully pedestrian environment. In a paradigm-setting 1956 plan for Fort Worth, Texas, Victor Gruen proposed building a completely pedestrian urban core surrounded by a ring of parking structures all connected by a loop freeway. For Philadelphia, Louis Kahn proposed a series of parking garage “harbors” served by expressway “rivers.”<sup>55</sup> Gruen’s plan holds special interest as it essentially recapitulated—on an urban scale—his 1953 plan for the first fully enclosed shopping mall in the United States: Southdale Center in the Minneapolis suburb of Edina.

Essentially, Gruen designed Southdale—which opened its doors in 1956—as a climate-controlled downtown shopping street anchored by department stores and dropped it into the center of a burgeoning suburb. Unlike a real downtown street, however, Southdale arose from scratch and offered ample parking. Moreover, both the

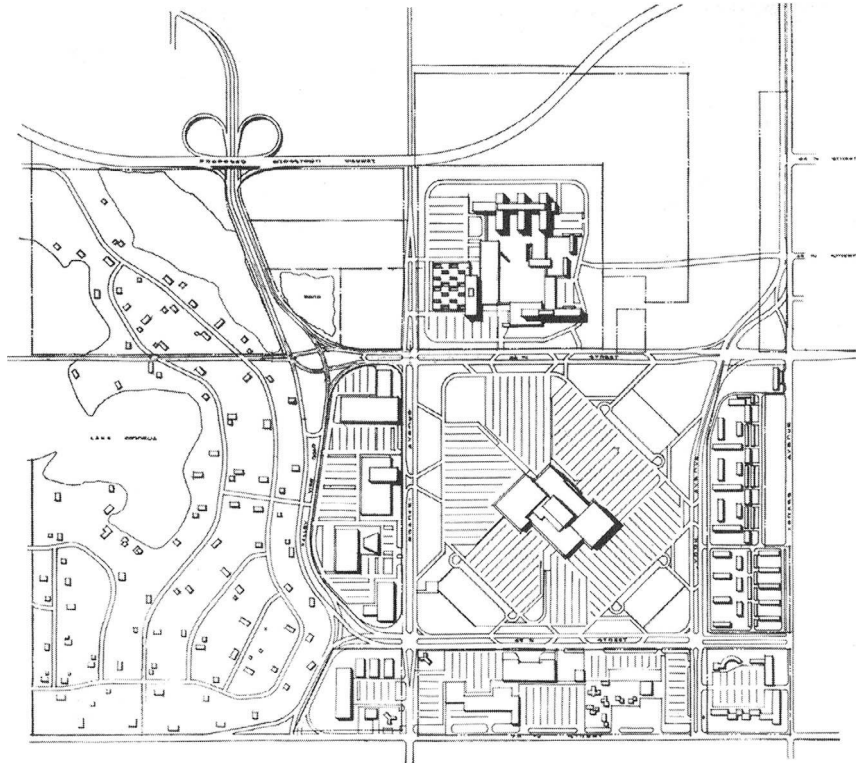


public space within and the parking lots outside were privately owned. Gruen didn't invent this concept, and he had designed earlier outdoor malls, notably Northland Center, which opened in 1954 in suburban Detroit.<sup>56</sup> But Southdale proved a highly influential prototype for a generation of shopping malls that became the town centers and market squares for countless acres of otherwise centerless suburbia across the United States.

Despite their suburban origins, Southdale and Northland served as the basis for Gruen's Fort Worth plan. Like them, Gruen's plan for Fort Worth offered a fully pedestrian environment surrounded by parking; garages provided the interface between driving and walking. The main differences lay in scale, history, and ownership. Gruen's suburban malls—considerably smaller

than the one in downtown Fort Worth—were built de novo, had single owners, and sat amid vast fields of surface parking. The Fort Worth plan covered an entire existing downtown comprising multiple property owners. Additionally, despite its structured parking, the plan left much of the pedestrianized urban core outdoors. Finally, unlike an all-retail mall, the Fort Worth plan mixed both commercial and civic uses.<sup>57</sup> (Because the State of Texas refused federal urban renewal money, the city could not assemble the funding to buy out downtown property owners—one reason the plan was never realized.)

Ironically, Gruen's mall-inspired plan for Fort Worth largely followed the precepts that CIAM had laid out for urban centers at its 1951 congress. Foreshadowing Sert's



2.13 Plan for Southdale Shopping Center (1953). The first enclosed mall in the United States, Southdale opened in 1956. It served as a prototype—albeit on a smaller scale—for many downtown-revival plans into the 1980s. Courtesy Gruen Associates (formerly Victor Gruen & Associates)

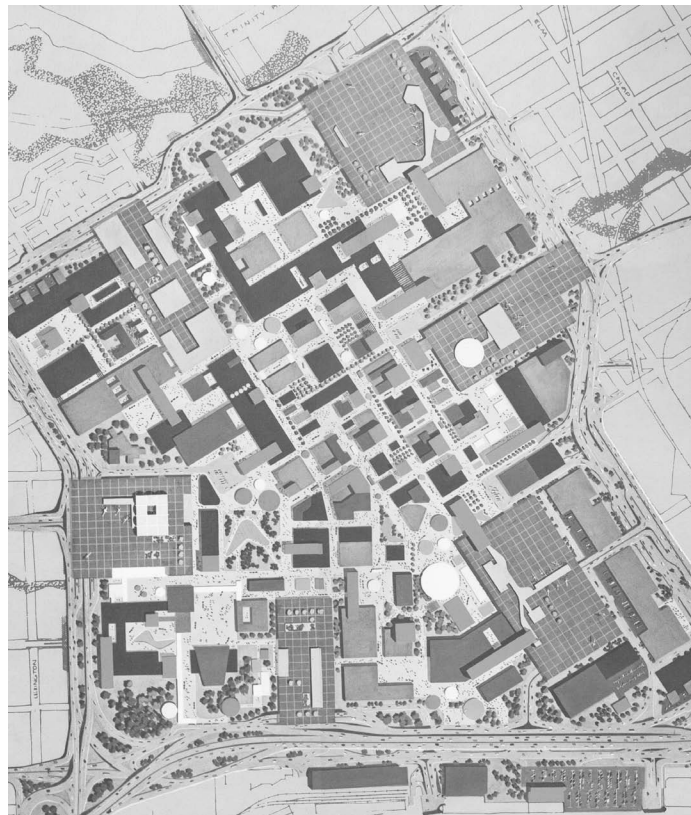


call for recentralization, CIAM 8 (called “The Heart of the City”) recommended that each city have only one core; that the core contain a mix of uses, including retail, office, and civic functions; and that it remain free of vehicular traffic, with cars parked at the periphery. Yet even in 1951 this was old news: Sert and other architects involved in CIAM (as well as others unaffiliated with the organization) had promoted this idea for nearly a decade. Nevertheless, Gruen’s plan for Fort Worth stood out for its clear application of the suburban mall model to an entire city, and it followed CIAM 8’s prescription for the urban core—hardly surprising, given that the

suburban mall itself followed the model of a downtown shopping street.

### *The urban renewal model*

By the early 1950s, the pace of urban disinvestment—spurred by federal investment in highways and low-cost mortgages, an exodus of white residents fearful of racially integrated living, the growing stigma of urban neighborhoods as places ill-suited for middle-class households, and the difficulties of accommodating cars—was a national crisis. Elected officials and their



2.14 Plan for Fort Worth, Texas (1956). Architect Victor Gruen’s plan for downtown Fort Worth—a pedestrian core surrounded by garages for cars that arrived on an encircling freeway—recapitulated his earlier plans for suburban shopping centers and established a highly influential paradigm for rebuilding city centers in an auto-oriented age. Courtesy Gruen Associates (formerly Victor Gruen & Associates)



allies from industrialized states with major cities created the federal urban renewal program, which became the major source of funding for urban redevelopment until the mid-1970s. Echoing Burnham's "make no little plans" spirit, the advocates of urban renewal demanded transformative federal investments in cities to restore their ability to compete with burgeoning suburbs for investment and middle-class residents and workers in an automotive age. Many projects from the urban renewal period of the 1950s and '60s shared major traits:

1. They were unabashedly modernist and monumental, that is, they embraced the aesthetic tradition developed by CIAM in Europe before World War II.
2. They followed CIAM's ideas by setting high-density towers and slab blocks within open space to allow light and air between the buildings.
3. They attempted to rework existing urban patterns to accommodate the needs of automobiles by adding car-oriented roadways, superblocks, and interceptor parking in peripheral garages or hidden under platforms.

4. They attempted to segregate pedestrians and vehicles, creating central pedestrian spaces or networks of pedestrian greenways, often on a different level from automotive circulation.
5. They also segregated different uses, creating distinct zones along the lines of CIAM's "functional city" recommendations.

A large majority of significant urban design undertakings from the 1950s through the 1970s were urban renewal projects heavily subsidized by government. Municipalities used powers of eminent domain to clear large tracts of inner-city and core areas—especially in the industrial cities of the Northeast and Midwest—with the goal of introducing new life: the "recentralization" that Sert had called for. But not all of these efforts met the criteria that Sert and other urban designers had proposed, and many of those that did were built around vast civic pedestrian plazas fully separated from vehicular traffic. In retrospect, the underlying model—segregation of pedestrians and vehicles—proved a poor substitute for the lively streets, squares, and pedestrian networks eliminated to make way for these projects.



2.15 Empire State Plaza, Albany, New York. Separation of pedestrians and cars—in this case with a civic pedestrian plaza above a highway and parking—became the standard during the period of urban renewal. Courtesy Jer21999, via Wikimedia.org



## *Urban renewal in Boston: A model for America*

Redevelopment of central Boston, which began before the 1956 urban design conference and continued after it, paralleled the Fort Worth plan while embodying earlier CIAM ideas. Unlike the Fort Worth plan, Boston's was actualized. Starting in the 1950s, Boston used the Federal Housing Act of 1949 to raze the historic but rundown West End neighborhood and replace it with a modern housing development called Charles River

Park (Victor Gruen served as architect for the development). This attempt to provide new housing downtown as an alternative to suburban flight is a classic example of CIAM's "towers in a park" concept, albeit with less room between towers than Le Corbusier would have demanded. It also conformed to modern CIAM-inspired zoning, replacing an older mixed-use neighborhood with a single-use residential district that confined commercial uses to peripheral development along adjoining streets.



2.16 a,b Boston before and during urban renewal. In the second image, taken in the early 1960s, several key urban renewal initiatives are complete or well underway. The elevated Central Artery, not yet ten years old, cuts across the bottom of the photo. Above the highway at right, the low-rise, nineteenth-century buildings of the West End have disappeared; only the Massachusetts General Hospital campus remains, clustered near the river. The first buildings of Charles River Park—built on a model harking back to Le Corbusier's Plan Voisin—rise to the right of the hospital. The left edge of the cleared swath of land forms the site for the future Government Center and plaza. At top center, the framework of the Prudential building rises over former rail yards. From the Malcolm Woronoff Family, Aerial Photos International Collection. © Frances Loeb Library, Harvard Graduate School of Design.





During the same period, demolition proceeded on a corridor of buildings near Boston's waterfront to make way for an elevated expressway. Planned to speed regional automobile access into downtown, the Central Artery connected on its northern and southern ends to roads that eventually became part of the interstate highway network. Negative reaction to both these projects, especially the demolition of the West End, drove a newly elected mayor in 1961 to hire Ed Logue, who had led redevelopment efforts in New Haven, as Boston's chief planner.

Under Logue, most projects continued to follow Gruen's model of using structured parking to intercept cars, so as to create exclusively pedestrian zones. Less than a mile from downtown, the Prudential Insurance Company undertook the construction of a monumental office tower on the Boston and Albany Railroad switching yard in the city's Back Bay neighborhood. Charles Luckman's design for the Prudential Center epitomizes

many projects built in the 1960s. Planned as a superblock surrounded by a loop road, the Prudential Center followed the by then familiar Gruen model, although it tucked its parking beneath the complex rather than next to it. A plinth raised the center's pedestrian level well above the surrounding streets. The mixed-use complex centered on the fifty-two-story Prudential Tower and included apartment and hotel towers, secondary office buildings, department stores and shops, and a convention center.<sup>58</sup> These components sat atop the parking platform, like so many vacuum tubes plugged into the chassis of an early television set.

Other U.S. projects—including Constitution Plaza in Hartford, Empire State Plaza in Albany, the World Trade Center in New York City, Renaissance Center in Detroit, and Embarcadero Center in San Francisco—adopted the platform formula. In a plan for Stamford, Connecticut, an office complex known as the Landmark Center anchored a second-story pedestrian system for



2.17 Prudential Center, Boston, Massachusetts (1960–65). This redevelopment project incorporated several of the era's common characteristics: it followed Victor Gruen's model of capturing traffic in a parking structure (in this case, underneath the development); it formed a superblock far larger than the basic unit of the adjacent grid; and it segregated pedestrian and automobile traffic.



the city's entire downtown. Never completed, the plan left some parts of downtown with a two-level system.

In a fourth urban renewal initiative, the City of Boston leveled the delicate tracery of blocks that made up its red-light district, Scollay Square, after declaring it blighted. Use of the “blighted” designation said little about the neighborhood’s economic or physical condition but much about decision makers’ desire to remove poor people from the heart of the city and signal their own embrace of modernity. Where Scollay Square had stood, the city consolidated federal, state, and municipal offices in a complex of modern buildings, rechristening the area Government Center. The final master plan for the area by I. M. Pei & Partners organized every structure

around a huge brick-paved plaza modeled on Siena’s Piazza del Campo. A long, curving midrise office building framed the western edge of the plaza, and a federal office complex designed by Walter Gropius defined its northern edge. A new city hall, the centerpiece of the project, anchored the plaza’s eastern edge, holding the same position as the Palazzo Pubblico in Siena. With the exception of the federal buildings, no structure around the plaza rose higher than ten stories. City Hall itself had been the subject of a much-publicized competition won by the firm of Kallmann McKinnell and Knowles. Executed in the concrete brutalist style, the building won wide acclaim as a contemporary masterwork upon completion in 1969.<sup>59</sup>



2.18 Government Center, Boston, Massachusetts (1962–69). The complex of government buildings, planned by the architect I. M. Pei, replaced an energetic red-light district demolished in the early 1960s. Despite architectural praise for the city hall building, the vast pedestrian plaza often remains desolate, in contrast to lively mixed-use streets nearby.



Government Center, the quintessential urban design plan of the era, adopted the Fort Worth model. A large, adjacent parking garage intercepted cars from the regional traffic system in the hope that a driver's downtown experience would occur on foot. City Hall Plaza deferred to this notion—its vast brick expanse was intended for public gatherings and to serve as a place of civic engagement along the lines Sert had laid out. In a remarkably similar exercise, the state of New York built Empire State Plaza in Albany, which gathered state government functions around a broad pedestrian plaza lifted above a platform of parking with direct highway access. It replaced the Pastures, a “blighted” neighborhood that was actually a stable Italian and Jewish district of Federal and Victorian houses.<sup>60</sup> Remarkably, the state, which owns one America's foremost contemporary art collections, chose to display its collection on the walls of the pedestrian arcades that served a shopping mall sandwiched beneath the pedestrian plaza and above an immense parking garage located in the project's podium.

The design for Government Center failed to anticipate how little use the plaza would actually get. As quickly became clear, adjoining streets were livelier and more interesting than the plaza itself. Surrounded entirely by office buildings, it lacked any housing, which could have generated activity after 5:00 PM, and what little retail existed sat across a wide street with high traffic volume. Subsequent decades have produced a parade of proposals for redesigning and even eliminating the plaza.

## Reactions to urban renewal

“After we have so painfully cleared away the old environment, dislocating hundreds of thousands of families, and after we have spent our billion dollars, will the new environment we create be worth the effort?” Edmund Bacon asked the seminal 1956 Harvard conference on urban design<sup>61</sup> Indeed, that question troubled many people over the next twenty-five years. Some projects produced

during the period won major awards but later fell into disfavor. Others, like Bacon's planning initiatives for Philadelphia, enjoyed alternating periods of approbation and opprobrium. Still others, like Boston's Government Center, continue to generate controversy today.

## *Preservation and rediscovery*

America's preservation movement emerged in the nineteenth century as a series of largely isolated local campaigns to save historic landmarks such as Mount Vernon in Fairfax County, Virginia, in the 1850s and Boston's Old South Church in the 1870s. The early twentieth century saw a shift in focus from individual buildings to historic districts, starting with the creation of a historic commission for New Orleans's Vieux Carré (French Quarter) in 1925 and the adoption of zoning protections for historic buildings in Charleston, South Carolina, in 1931. Formation of the National Trust for Historic Preservation in 1949 signaled the emergence of preservation as a national movement. While in its early decades the Trust focused on saving historic sites, preservationists organized themselves into loose coalitions to oppose the destruction of the traditional urban fabric that almost always accompanied urban renewal projects. By the early 1970s, these informal groups in cities across the United States had emerged as pioneering advocates of urban neighborhoods as places of choice, not last resort.

In 1963, the New York City Planning Commission granted a variance allowing demolition of Pennsylvania Station to clear the way for construction of a new Madison Square Garden and an office complex. The commission found no legal basis for denying the variance, as no law then protected historic buildings.<sup>62</sup> The destruction of McKim, Mead & White's masterwork provoked widespread condemnation as a national tragedy, but it galvanized the historic preservation movement. Once the preserve of a small number of wealthy Americans, the movement expanded dramatically during this period, as preservationists joined forces with community groups



to protect endangered neighborhoods from highways and urban renewal projects. Within three years of the Penn Station debacle, New York City had put in place a landmarks preservation law and Congress had passed the National Historic Preservation Act.

Penn Station's demise accelerated a dramatic shift in American thinking about the value of cities already underway. Buildings that architects, planners, and others had once dismissed as blighted now enjoyed new critical approval as valuable historic resources. The delicate network of lively urban streets and blocks appeared to offer an alternative to urban sprawl and modernist superblock planning schemes. The seminal *Death and Life of Great American Cities* had appeared in 1961, written by Jane Jacobs, a senior editor at *Fortune* magazine. Inspired in part by her experiences working to block construction of the Lower Manhattan Expressway in the 1950s, Jacobs advanced the idea that urban renewal destroyed precisely the things that made cities great: the intimate scale

and complex social networks found in, say, Greenwich Village, where she lived. She exhorted planners to “go back and look at some of the lively old parts of the city. Notice the tenement with the stoop and sidewalk and how that stoop and sidewalk belong to the people there.”<sup>63</sup>

“Cities,” she wrote, “need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them.”<sup>64</sup> At the same time, she wrote, “the continuity of . . . movement (which gives the street its safety) depends on an economic foundation of basic mixed uses.”<sup>65</sup> Small blocks, she said, not vast superblocks, give cities vitality and provide the qualities that make them better and more interesting places to live than suburbs. Prominent academics and intellectuals joined Jacobs—including Lewis Mumford, William H. Whyte, and Ada Louise Huxtable—and a groundswell of opposition soon became a tidal wave as residents in city after city protested the destruction caused by highways and urban renewal.



2.19 Writer, activist, and urban theorist Jane Jacobs. In her 1961 book *The Death and Life of Great American Cities*, Jacobs set out the intellectual underpinnings of the reaction to urban renewal and its modernist precepts. She argued that the very qualities that car-focused urban renewal destroyed—varied buildings, intricate social networks, and pedestrian street life—were precisely what make cities successful. Her thinking continues to influence urban design today. Courtesy Library of Congress, New York World-Telegram & Sun Newspaper Photograph Collection



During this same period, an MIT professor catalogued the elements that make a city viable for its citizens—the constituent parts that people use to orient themselves and travel through a city. In *The Image of the City* (1960), Kevin Lynch analyzed the features that contributed to what he called the “imageability” of a city. In this and subsequent books, Lynch found that the most “imageable” cities often turned out to be the more historic ones—Venice, San Francisco, and Boston, for example. Such places tended to contain more iconic buildings and features—that is, more memorable structures and places—such as the Piazza San Marco in Venice, the Golden Gate Bridge in San Francisco, the art deco John Hancock Building in Boston. While some newer plans introduced identifiable markers in certain cities, a growing number of architects and urban designers felt that the industrial anonymity of modernist buildings (a logical outgrowth of the machine aesthetic promoted by modernists and CIAM) lacked this quality of imageability. Essentially, these new projects might arise in any city; nothing distinguished a modern building in Dallas from one in Denver or Detroit.

Other factors contributed to cities’ distinctiveness independent of the work of architects, planners, or urban designers. Older neighborhoods like Manhattan’s Greenwich Village, Boston’s South End, San Francisco’s North Beach, and Philadelphia’s South Street had continued to attract artists, writers, and others who steadfastly refused to move to the suburbs. These people formed the nucleus of grassroots movements that began to transform entire districts of older cities without government help—and sometimes without government approval.

In the 1960s and ’70s, a gradual exodus of garment manufacturing from Lower Manhattan left behind an exemplary collection of nineteenth-century loft buildings. Low rents and large spaces attracted painters, sculptors, photographers, dancers, and other artists who used these buildings as both work and dwelling space. The City of New York initially discouraged this

movement because it violated zoning laws and seemed likely to drive remaining factories—and their well-paying jobs—out of the city. But the movement nonetheless exploded in the 1970s, as others began to follow artists into the lofts. By the 1980s, SoHo and neighboring Tribeca had become fashionable addresses. Over a twenty-year period, these old industrial buildings were recycled into new, mixed-use residential and commercial neighborhoods that had never existed before, with rehabilitated loft condominiums eventually selling for millions of dollars.<sup>66</sup>

Manhattan offers only one example of the grassroots reinvestment that began in the 1960s. Urban pioneers began fixing up and restoring old buildings in neighborhoods like College Hill in Providence, downtown Charleston, South Beach in Miami Beach, Ybor City in Tampa, Virginia Highlands in Atlanta, Pittsburgh’s North Side, Lincoln Park in Chicago, Lower Downtown in Denver, and in neighborhoods in many other cities. Although initially antagonistic, most city governments ultimately became active supporters of the movement. This change in perspective owes much to the work of Jane Jacobs and her political and intellectual allies who staked out the battle lines against urban renewal and urban highway building in the 1960s.<sup>67</sup>

At about this time, some of the huge public housing projects inspired by CIAM and modernist ideals (or, more accurately, a misunderstood and poorly executed version of those ideals) fell victim to major operating problems. Instead of improving the lives of residents, these complexes—with structural deficiencies and social ills contributing in equal measure—made residents’ lives worse. The iconic 1972 demolition of the troubled Pruitt-Igoe complex in St. Louis highlighted this turn and undermined CIAM’s notion of the architect-planner as an able agent of social improvement. Turning away from CIAM’s influence, urban designers across America moved toward the Jacobs camp, and a new idea of urban design began to take form.



## *Utopianism*

In 1967, more than fifty million people from around the planet flocked to Canada for Expo 67 in Montreal. Many found themselves enthralled by one of the fair's iconic structures, Habitat 67, a hill of giant concrete boxes that looked randomly thrown together. The apparent chaos, in fact, belied the exacting thinking behind the boxes' arrangement. Each industrially fabricated module joined with one or two others to make a dwelling unit replete with landscaped terraces that sat on the roof of the unit below. Habitat was, in fact, a painstakingly

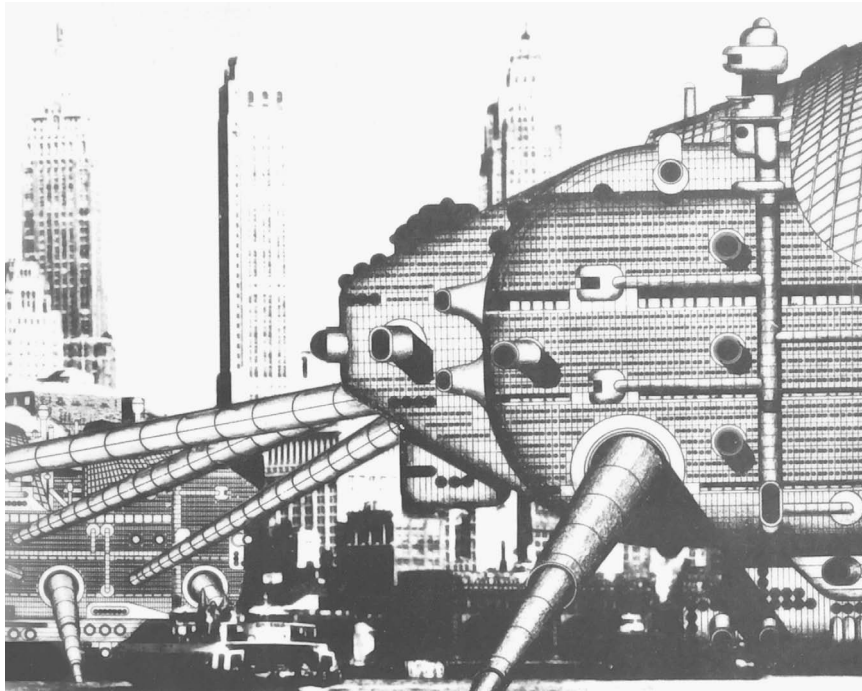
planned megastructure, an industrialized casbah, and its architect, Moshe Safdie, became famous overnight. To many, it seemed a revolutionary vision of the future of cities and housing.

Utopian visions abounded in the 1960s, but unlike Habitat 67, few were actually built. In the Arizona desert, Paolo Soleri worked on a utopian megastructure called Arcosanti.<sup>68</sup> In Japan, Kenzo Tange proposed a megastructural plan for Tokyo Bay, and Arata Isozaki set out plans for his Joint Core Stem urban system. In Great Britain, three years before Expo 67, Archigram—a



2.20 Habitat 67, Montreal, Quebec. Although it looks like a haphazard pile of boxes, Moshe Safdie's Habitat 67 was actually a carefully planned housing development. Built for the 1967 world's fair in Montreal, it stands as one of only a handful of 1960s megastructure plans that were built. Photo by Tim Hursley





2.21 Walking City. One of many unbuilt megastructures from the 1960s: Archigram's 1964 plan for a city that moves on massive hydraulic legs. © 1964 by Ron Herron. Courtesy of the Ron Herron Archive

loose federation of avant-garde English designers who produced theoretical designs—proposed the Plug-In City—live/work modules that could be moved at the owner's whim from one towering infrastructure frame to another. The collaborative devised many other unorthodox schemes, including one for a city that moved on massive hydraulic legs.<sup>69</sup> In 1968, Paul Rudolph unveiled a proposal that would have combined four thousand units of housing with offices, schools, and factories in a single massive structure built in Lower Manhattan.

Inspired, as CIAM had been, by the idea that housing could be mass-produced, these designers extended the idea of industrial production to other urban building types and systems. These projects pushed CIAM's theory of the functional city to an occasionally fantastical conclusion, turning transportation and utility systems into organizing spines and cores that housing and

other building types could plug into. (CIAM's elegant towers, surrounded by light and air, sometimes vanished entirely within the structural maze some of these projects created.) While European countries did complete housing that borrowed some practical aspects of these utopian ideas, few such structures broke ground in the United States, where a strong backlash was brewing. Nevertheless, unbuilt utopian projects from this period remained an inspiration for later architects and urban designers.

### *Reform*

As early as the 1960s, city governments began to modify or abandon their approach to urban redevelopment. Without walking away from big housing and redevelopment initiatives, they began to incorporate mixed-use



and infill projects that respected existing urban neighborhoods. The skyrocketing price of gasoline in the 1970s refocused thinking on mass transit as an alternative to highways and parking garages. City governments began to take up what had been a grassroots cause, restoring historic neighborhoods and downtown subdistricts, often with federal or state funds earmarked for urban renewal. In the 1970s, Newburyport, a faded seaport north of Boston, reversed course in the middle of demolishing its historic, Federal-style downtown. Instead, the municipality listed the district on the National Register of Historic Places and used the remainder of its federal urban renewal funding to launch a massive restoration. The resulting Market Square Historic District project became one of the first AIA Honor Award winners to encompass historic revitalization of a major portion of a downtown.

Less than an hour inland from Newburyport, the rundown mill town of Lowell, Massachusetts, used

National Park Service funding to transform its dying center into a national urban cultural park. Adding federal urban renewal funds, and with the active support of the state, the city sparked the recycling of thousands of square feet of abandoned mill buildings into offices, homes, and museums. Other cities identified and began restoring key parts of their historic downtowns. Philadelphia had already begun work on its Society Hill neighborhood. In Seattle, Pioneer Square became a center of revival efforts. San Diego focused on the Gaslight District. Denver residents organized to reclaim Capitol Hill, and Providence began refashioning both the College Hill and Federal Hill neighborhoods.

A major restoration project of the period became widely influential: Boston's Faneuil Hall Marketplace, created by the Rouse Corporation and architect Benjamin Thompson. Winner of an AIA Honor Award, the project converted a wholesale food center into the



2.22 Newburyport, Massachusetts. Making a midcourse correction, the city abandoned an urban renewal project, listed its downtown on the National Register of Historic Places, and redirected unused urban renewal funds to restoration. The historic preservation movement emerged in the 1970s as an alternative to urban renewal, offering an approach to downtown revitalization that focused on restoring rather than replacing urban fabric. Courtesy of Oliver Gillham



nation's first "festival marketplace" by rehabilitating three huge nineteenth-century market halls and transforming the surrounding sea of asphalt into beautifully landscaped pedestrian space. Here was a vibrant urban environment that encouraged true civic engagement and enjoyment. Located on Boston's Walk to the Sea, the marketplace created an exciting transition from the "New Boston" at City Hall Plaza to the city's historic waterfront, where wharf buildings were undergoing rehabilitation for residential use. The marketplace set a national standard for urban retail development and historic building reuse; variations exist in cities across the United States, including the highly successful Harborplace in Baltimore; Jacksonville Landing in Florida; and Navy Pier in Chicago. As much as it became a new paradigm, Faneuil Hall Marketplace in many ways simply adapted the familiar Gruen model, creating a pedestrian shopping zone attached to a large parking garage with near-direct highway access.

By the late 1970s, communities across the United States had begun restoring historic downtowns and Main Streets with newly available federal funds and tax credits. In 1977, the National Trust for Historic Preservation launched its Main Street program, designed to spur economic development by preserving the historic commercial architecture of declining downtowns along with other cultural and historic resources. By 2013, the program had reached more than two thousand American communities.<sup>70</sup>

All these efforts aimed to revive downtowns that had suffered from suburbanization. That work continues nationally as downtowns adopt standard-practice storefront-revitalization programs and signage guidelines and install new paving, landscaping, and lighting. Revitalization plans have often combined these initiatives with new parking facilities (following the Gruen model) and targeted redevelopment and adaptive reuse of existing downtown buildings.



2.23 Faneuil Hall Marketplace, Boston, Massachusetts. The first "festival marketplace" became a national model for urban retail development and adaptive reuse. Photo © 2006 Chris Wood, via Wikimedia.org



## Looking back for inspiration

### *Postmodernism and contextualism takes root in cities*

Postmodernist and contextualist architectural movements emerged in the late 1970s as complements to the growing historic preservation movement. Both movements challenged the dominance of modernism and the industrial aesthetic in architecture, advocating a return to the historic orders, decorative detail, and scale of premodernist architecture—often with a contemporary twist. Art deco reinterpretations became popular alongside more purely historicist approaches, as seen in buildings designed by Robert A. M. Stern or in Skidmore, Owings & Merrill's One Worldwide Plaza in Manhattan, which reflected architectural styles from the late nineteenth and early twentieth centuries.

In the early 1980s, urban designers shifted their focus to the patterns of historic European and American cities, emphasizing the street and the square, treating buildings as the background for public space, and turning the tables on Le Corbusier and his earlier assertion that “our hearts are always oppressed by the constriction of [the street's] enclosing walls.” They began reexamining the work of out-of-favor planners from previous eras like Ebenezer Howard, Raymond Unwin, and Claude Nicolas Ledoux. Meanwhile, designers embraced the historic American gridiron pattern of smaller blocks (championed by Jane Jacobs) and turned their backs on the superblock, whose lack of scale and variation now seemed hostile to urban streetscapes. They resurrected the strong diagonals, axial streets, spaces and views, and use of focal points that had characterized the City Beautiful movement—and other city planning strategies since the baroque era. Parks planners looked to Frederick Law Olmsted and the great parks of the Victorian era and early twentieth century.

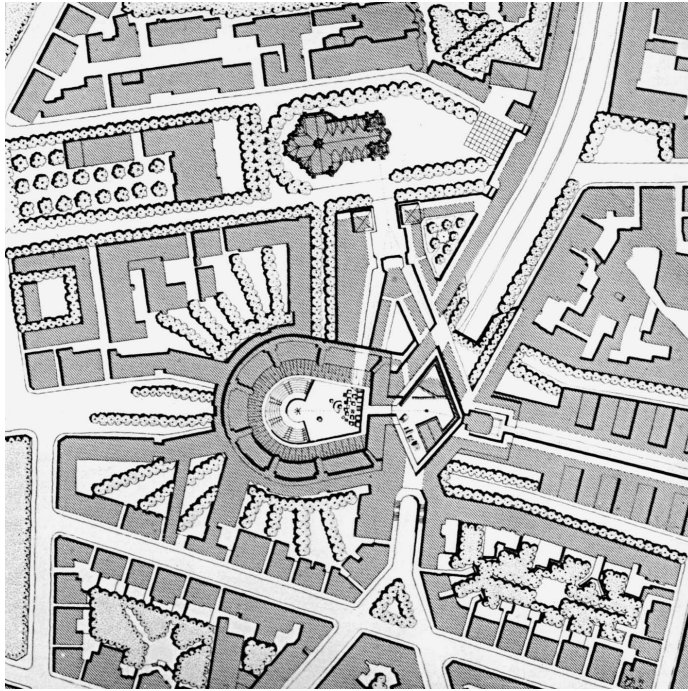
Leading this new movement were the followers of Colin Rowe at Cornell University and the brothers

Robert and Léon Krier, who viewed urban space as essentially “carved out” of a carpet of dense building mass rendered in *poché*. This regime favored background buildings, or at least buildings that borrow their formal vocabulary from their surroundings rather than those that make bold, individual statements. Shape and form governed public space, and design guidelines lent a common look and feel to the architecture that would function as the “walls” of public spaces. In all cases, the street wall was to be maintained, not deliberately broken to introduce light, air, and open space as it had been under modernism. The Kriers advocated mixed uses characteristic of the density and form of older European and American cities, recommendations that, again, aligned with the work of Jane Jacobs.

Growing distaste for superblock planning and a revived interest in traditional cities and city blocks coincided with cuts in federal urban renewal funds by the Reagan administration. At the same time, the near-completion of the interstate highway system meant that the flow of highway funding that had supported urban redevelopment also slowed. These changes cut the fuel supply that had powered the urban renewal juggernaut. Large-scale land takings and mass redevelopments grew infeasible, especially in the face of a mounting backlash against urban renewal efforts. As a result, private developers and private finance took over as primary agents of urban change—a transition that favored infill development and small-block planning. In urban areas, the focus shifted to leftover redevelopment parcels and former industrial and military lands or brownfield sites, like the Charlestown Navy Yard in Boston. Its redevelopment as a mixed-use complex entailed rehabilitation of historic naval and industrial buildings; part of the project won an AIA Honor Award in 1994.

Rowes Wharf, a major multiple-use complex on Boston's waterfront completed in the 1980s, exemplifies this period. Also a 1994 AIA Honor Award winner, the project relied entirely on private developers working





2.24 Robert Krier's plan for part of Stuttgart, Germany (1979). In the 1980s, urban designers in the United States began imagining public space as harmonious forms carved out of a dense background of buildings and stressed the importance of the street wall—the alignment of adjacent buildings—in shaping public spaces. Robert Krier, *Urban Space* (New York: Rizzoli, 1979), 126

on public land. The Boston Redevelopment Authority owned the parcel, a remnant of a former industrial redevelopment site, and had “land-banked” it; a parking lot occupied the site until the market could support redevelopment. The complex wraps hotel, offices, and condominiums into a contextual brick package that maintains the street wall of Atlantic Avenue on the west while continuing Boston’s line of finger piers along the harbor to the east. A multistory archway and rotunda form an iconic gateway from Atlantic Avenue to the waterfront, a water transportation hub, and the public HarborWalk. The building complex deploys details and materials from surrounding buildings, making it feel as if it has always stood on the site.

Another major project from this period—Battery Park City in Manhattan—won a *Progressive Architecture*

magazine urban design award, and parts of the project earned AIA Honor Awards for urban design in 1996 and 2005. Battery Park City arose on another leftover public site—landfill produced by the 1970s excavation for the World Trade Center. The master plan, devised by the firm of Cooper Eckstut Associates (now Cooper, Robertson & Partners), extended the adjacent street grid through the site to a waterfront promenade and park system, creating a new residential and mixed-use neighborhood of small, pleasingly scaled city blocks. The clearly contextual pattern followed recommendations Jane Jacobs had made more than twenty years earlier. The project architecture borrowed heavily from the vocabulary of New York apartment buildings built early in the twentieth century, filling out the postmodernist and historicist details of the plan.





2.25 Rows Wharf, Boston, Massachusetts. Diminishing federal funds for urban renewal and highway construction in the 1980s increased the role of private developers in shaping urban space. This change accelerated a move from the sweeping urban design plans of the 1960s and '70s toward infill and small-block development. Courtesy Daderot, via Wikimedia.org

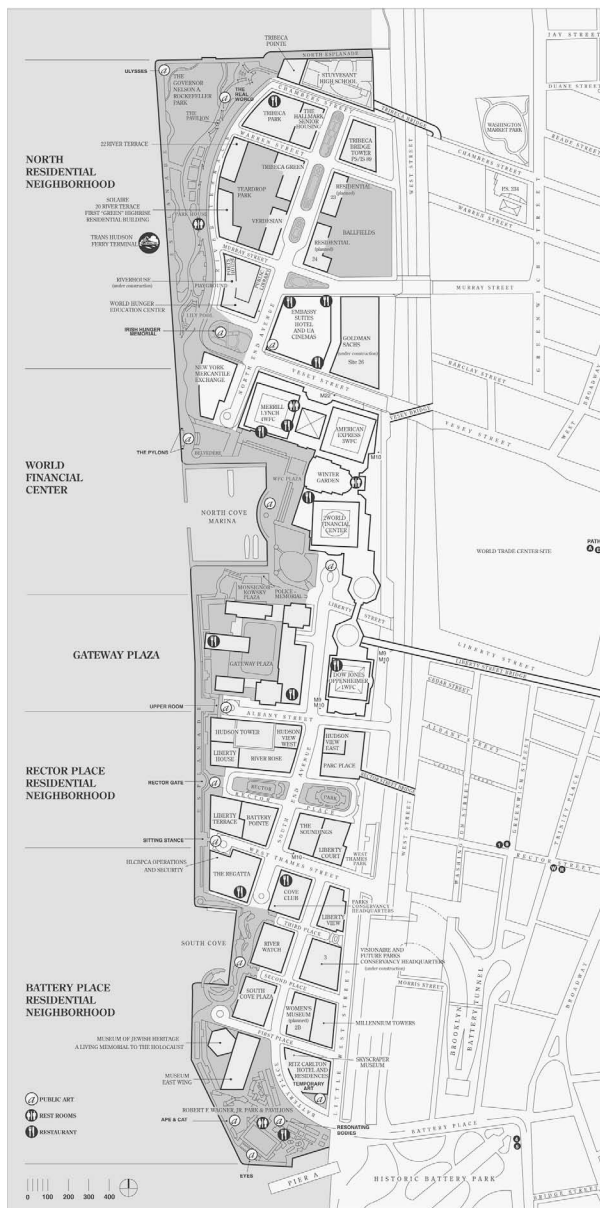
In addition to its awards, the plan earned widespread nonprofessional praise.

Contemporaneous plans of this genre include Mission Bay in San Francisco, Boston's Harbor Point, and Mizner Park in Boca Raton, Florida. Mission Bay comprises an entire new district built on a 300-acre former industrial site. Like Battery Park City, it extends a contextual pattern of blocks, row houses, neighborhood commercial streets, and parks into a new district; a later plan revision added a new campus for the University of California.<sup>71</sup>

Completed in 1991, the mixed-use Mizner Park development replaced a failed shopping mall with

nearly three hundred units of housing, a public promenade and park, shops and restaurants, office space, cinemas, and a museum. The 29-acre development centers on a tree-lined boulevard of multistory residential buildings with ground-floor stores. The popularity of this model today obscures Mizner Park's singularity when it opened: it planted an entirely new "traditional downtown" where none had grown before, and it did so in the heart of a fundamentally suburban community. Its compact building design, vertical mixing of uses, and walkable outdoor environment all recall downtowns of the nineteenth and early twentieth centuries—but instead of growing incrementally, it was built in a single





Courtesy Hugh L. Carey Battery Park City Authority

2.26 a,b Plan for Battery Park City, New York (1979). This context-sensitive master plan extended the nearby street grid onto landfill and took its architectural vocabulary from familiar New York City building styles. It concretized many of the principles writer Jane Jacobs had advocated for decades, beginning with her groundbreaking *Death and Life of Great American Cities* (1961).

stroke, as a suburban shopping center would be. Older downtowns struggled to accommodate the automobile with sometimes intrusive parking garages; Mizner Park provided plenty of concealed parking, remarkable for its time, and established a widely followed template for later projects.<sup>72</sup>

Throughout the 1980s, most development left parking exposed in large garages that dominated (or blighted, as critics charged) surrounding streets. Rows Wharf hid its parking in multiple underground levels, despite having to build them essentially underwater. High land costs for an external garage made this sleight-of-hand necessary, and the development's high returns made it possible. Most projects, especially in less dense urban and suburban settings, cannot afford to repeat it.



Courtesy Wikimedia user Gryffindor



Mizner Park pioneered a new approach, concealing less costly aboveground garages behind residential and retail uses that face sensitive areas (like the main shopping boulevard and surrounding neighborhoods) but leaving them exposed where they face arterial roads that provide access to the complex.

Mizner Park refined the extremely durable yet malleable Gruen paradigm: it includes onsite parking to hold the cars of customers arriving on a highway, and a pedestrian shopping street serves as its center. Yet Mizner Park is neither a traditional shopping mall nor a redeveloped downtown; rather, it is a totally new development incorporating all necessary automobile infrastructure but built to look and feel like a mixed-use downtown neighborhood that has existed for years. Many developments across the United States subsequently adapted this scheme, commonly called a “lifestyle center,” as an alternative to traditional enclosed malls.

## New Urbanism takes root in suburbs

Mizner Park broke new ground in the design and planning of suburbs. Its contemporaneous pioneers included entire new communities designed in the postmodernist mode. In 1982, Andrés Duany and Elizabeth Plater-Zyberk began planning Seaside, a community in the Florida Panhandle that came to be seen as the spark for the New Urbanist movement in the United States.

Planners and architects within the New Urbanist movement proposed a new spatial and architectural vocabulary for suburban development unabashedly inspired by historic New England villages and other small towns. The movement initially aimed only to overhaul conventional subdivisions, substituting developments that consciously cultivated qualities found—ironically—in the suburbs of the early twentieth century (in contrast

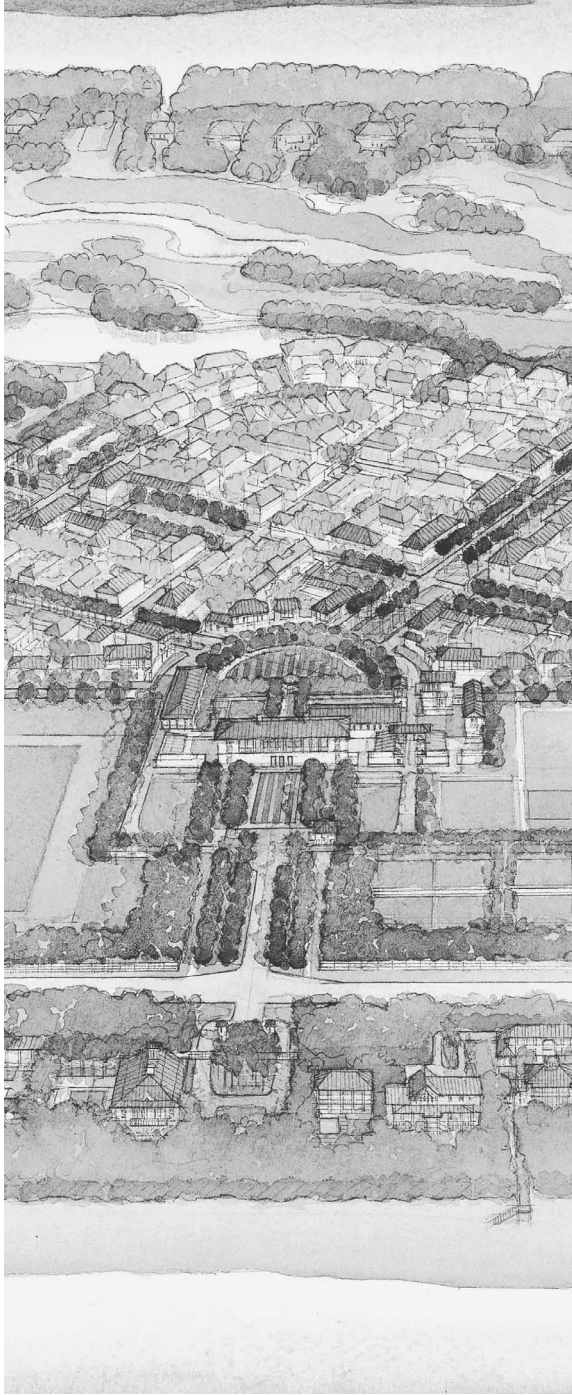


2.27 Mizner Park, Boca Raton, Florida (1991). This pioneering 29-acre development introduced a full mix of uses—in essence, a small downtown built from scratch—on the site of a failed shopping mall. Although more sophisticated in execution, it reproduces the basic Victor Gruen paradigm of a highway bringing cars to garages from which pedestrians walk to shopping—and, in this case, to work, home, and other activities. The model has been repeated across the United States. Courtesy Wikimedia user Infrogmation

to what James Howard Kunstler calls the “nowhere of contemporary suburbs”).<sup>73</sup> They called their new model “traditional neighborhood developments” (TNDs).

While Gruen had attempted to create pedestrian precincts in an automobile-dominated landscape, the early New Urbanists challenged the idea of planning and designing suburbs around the needs of the car. Instead, they sought to re-create a walkable community served by but not dominated by the car. Their early successes with Seaside and Kentlands and later with Celebration and Windsor (both in Florida, a state that proved especially fertile ground for TNDs) demonstrated the broad appeal their model held. As the first physical embodiments of TND ideals, these communities promoted the idea that suburbs and their physical form and function needed serious rethinking. Other





2.28 Windsor Town Center, planned and designed by Merrill & Pastor Architects, introduced a walkable and mixed-use New Urbanist center into what had been a single-use Florida subdivision. Watercolor by Michael Morrissey, courtesy Windsor Town Center



2.29 Celebration, Florida (1994). In the late 1980s and '90s, plans for new "traditional" towns—with denser development that promoted walking, protected open space, and developed a vocabulary of architectural features from older suburbs—helped crystallize the New Urbanist movement. Courtesy Bobak Ha'Eri, via Wikimedia.org

urban designers and planners applied this approach to both existing neighborhoods and dense urban centers. Over the next two decades, their work reframed urbanism from a critique of suburban development to a full-blown alternative approach to designing—and redesigning—American cities.

## Notes

- 1 Kenneth Frampton, *Modern Architecture: A Critical History* (New York: Thames & Hudson, 1992), 156; Alan Colquhoun, *Modern Architecture* (New York: Oxford Univ. Press, 2002), 155–156.
- 2 Oliver Gillham, *The Limitless City* (Washington, DC: Island Press, 2002), 42; Frampton, *Modern Architecture*, 155–156.
- 3 Frampton, *Modern Architecture*, 154–156.
- 4 Robert Fumaux Jordan, *Le Corbusier* (New York: Lawrence Hill, 1972), 34.
- 5 *Ibid.*, 102.
- 6 Anatole Kopp, *Town and Revolution: Soviet Architecture and City Planning, 1917–1935* (New York: George Braziller, 1970), 60–63.
- 7 Eric Mumford, *The CIAM Discourse on Urbanism, 1928–1960* (Cambridge: MIT Press, 2000), 27.



- 8 Ibid., 19–22.
- 9 Kopp, *Town and Revolution*, 168.
- 10 Ibid., 171–172.
- 11 Ibid., 181ff; Mumford, *CIAM Discourse*.
- 12 Hugh Ferriss, *The Metropolis of Tomorrow* (New York: Ives Washburn, 1929).
- 13 Spiro Kostof, *The City Shaped: Urban Patterns and Meaning through History* (New York: Bulfinch, 1991), 160, 237. See also Rai Y. Okamoto and Frank E. Williams, and the Regional Plan Association, *Urban Design Manhattan* (New York: Viking, 1969), 45.
- 14 Kenneth T. Jackson, *The Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford, 1985), 157.
- 15 Ibid., 161.
- 16 Gillham, *Limitless City*, 32–33.
- 17 Ibid., 29–30; Mumford, *The City in History*, plate 51; Richard Moe and Carter Wilkie, *Changing Places: Rebuilding Community in the Age of Sprawl* (New York: Henry Holt, 1997), 42–43.
- 18 Gillham, *Limitless City*, 29–30.
- 19 Ibid., 30; Jackson, *Crabgrass Frontier*, 175–185.
- 20 Gillham, *Limitless City*, 30; Jackson, *Crabgrass Frontier*, 175–185.
- 21 Frank Lloyd Wright, *Modern Architecture: Being the Kahn Lectures for 1930* (Princeton, N.J.: Princeton University Press 1931), 101.
- 22 Frank Lloyd Wright, *The Living City* (New York: Horizon Press, 1958), 22.
- 23 Gillham, *Limitless City*, 30–31.
- 24 As quoted in Moe and Wilkie, *Changing Places*, 45.
- 25 Mumford, *CIAM Discourse*, 1.
- 26 Ibid., 12–16.
- 27 Ibid., 15.
- 28 Nikolai Miliutin called skyscrapers “the last cry of capitalism” in his criticism of Le Corbusier’s 1930 recommendations for Moscow. See Mumford, *CIAM Discourse*, 47.
- 29 José Luis Sert (Josep Lluís Sert), *Can Our Cities Survive? An ABC of Urban Problems, Their Analysis, Their Solutions* (Cambridge: Harvard University Press, 1942).
- 30 Mumford, *CIAM Discourse*, 79.
- 31 Sigfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge: Harvard University Press, 1966), 833.
- 32 Mumford, *CIAM Discourse*, 79.
- 33 Ibid.
- 34 From a 1929 article by Le Corbusier that appeared in *L'intransigent*, as quoted in Mumford, *CIAM Discourse*, 56.
- 35 Giedion, *Space, Time, and Architecture*, 822.
- 36 Ibid., 833.
- 37 Mumford, *CIAM Discourse*, 49.
- 38 William L. C. Wheaton, “Federal Action Toward a National Dispersal Policy,” *Bulletin of the Atomic Scientists* 7, no. 9 (September 1951): 274.
- 39 Goodhue Livingston Jr., “The Blight of Our Cities,” *Bulletin of the Atomic Scientists* 7, no. 9 (September 1951): 262.
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- 41 Gillham, *Limitless City*, 44.
- 42 Eric Mumford, “The Emergence of Urban Design in the Breakup of CIAM,” *Harvard Design Magazine* 24 (Spring/Summer 2006): 10–20.
- 43 Giedion, *Space, Time and Architecture*, 818.
- 44 Richard Marshall, “The Elusiveness of Urban Design,” *Harvard Design Magazine* 24 (Spring/Summer 2006): 25.
- 45 Mumford, “Emergence,” 11.
- 46 Ibid., 12.
- 47 Ibid., 11.
- 48 “Urban Design: Extracts from the 1956 First Urban Design Conference at the GSD,” *Harvard Design Magazine* 24 (Spring/Summer 2006): 6.
- 49 Mumford, “Emergence,” 12.
- 50 Ibid., 13.
- 51 “Urban Design: Extracts,” 5.
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- 53 Mumford, “Emergence,” 16.
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- 55 David Gosling, *The Evolution of American Urban Design: A Chronological Anthology* (Chichester, U.K.: John Wiley & Sons, 2003), 36, 38.
- 56 Even earlier, Gruen’s ex-partner, Morris Ketchum, designed Shopper’s World in Framingham, Massachusetts, outside Boston. That plan organized stores around an outdoor “village green” but also surrounded the retail area with acres of parking. See Alex Wall, *Victor Gruen: From Urban Shop to New City* (Barcelona: Actar, 2005), 65–67, 81–87, 92–100.
- 57 Ibid., 122–138.
- 58 Elihu Rubin’s book *Insuring the City: The Prudential Center and the Postwar Urban Landscape* (New Haven: Yale



- University Press 2012) provides a wide-ranging yet fine-grained evaluation of the political, economic, and architectural influences that shaped the Prudential Center. Among the four major urban renewal projects completed in Boston in the 1950s and '60s, it was the only one undertaken by the private sector.
- 59 Alex Krieger and Lisa J. Green, *Past Futures: Two Centuries of Imagining Boston* (Cambridge: Harvard University Graduate School of Design, 1985), 72–73.
  - 60 Victoria Newhouse, *Wallace K. Harrison, Architect* (New York: Rizzoli, 1989), 245.
  - 61 “Urban Design: Extracts,” 6.
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  - 64 Jacobs, *Death and Life*, 187.
  - 65 *Ibid.*, 153.
  - 66 Gillham, *Limitless City*, 57–58.
  - 67 *Ibid.*, 58.
  - 68 David Gosling, *The Evolution of American Urban Design: A Chronological Anthology* (New York: Wiley, 2002), 89.
  - 69 Colquhoun, *Modern Architecture*, 223–229.
  - 70 National Main Street Center, Inc., website of the National Trust for Historic Preservation, last modified December 15, 2013. [www.preservation.org/main-street/about-main-street/the-center/](http://www.preservation.org/main-street/about-main-street/the-center/).
  - 71 Peter Katyz, *The New Urbanism: Toward an Architecture of Community* (New York: McGraw-Hill, 1994), xxxvii–xli.
  - 72 Andrés Duany, Elizabeth Plater-Zyberk, and Jeff Speck, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream* (New York: North Point, 2000), 27–31. See also “Development Services,” website of the City of Boca Raton, Florida, retrieved December 15, 2013, ([www.ci.boca-raton.fl.us/dev/pdf/CRA/MiznerParkHandout.pdf](http://www.ci.boca-raton.fl.us/dev/pdf/CRA/MiznerParkHandout.pdf)), and “Smart Growth Illustrated: Mizner Park, Boca Raton, Florida,” website of the United States Environmental Protection Agency, last modified October 30, 2013 ([www.epa.gov/smartgrowth/case/mizner.htm](http://www.epa.gov/smartgrowth/case/mizner.htm)).
  - 73 James Howard Kunstler, *The Geography of Nowhere: The Rise and Decline of America’s Man-Made Landscape* (New York: Simon & Schuster, 1993).



## CHAPTER 3

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# Recentralization: The Forces Shaping Twenty-First-Century Urbanism

In her seminal book *The Death and Life of Great American Cities*, Jane Jacobs took issue with “a widespread belief that Americans hate cities.” The issue, she argued, wasn’t that Americans naturally prefer suburbs, but rather that “Americans hate city failure.” Beginning in the mid-1990s, events began to prove Jacobs was right.

A modern-day Rip Van Winkle who went to sleep in the early 1990s and awoke today would have difficulty grasping how radically the popular perception of cities has changed. Twenty years ago, a late-1980s downtown office boom that spread postmodern reinterpretations of early-twentieth-century Manhattan across cities like Boston, San Francisco, Chicago (and New York itself) had ended, and corporations began shifting back-office operations to cheaper space in the suburbs. And office buildings lost tenants as

telecommuting professionals retreated to their suburban homes to work.

Most Americans still associated urban neighborhoods with crime and decay. In a presentation at a national urban design conference, Pulitzer Prize-winning architecture critic Robert Campbell showed a series of newspaper headlines to demonstrate the negative connotations of the word *urban*. In every example, the headline writer had paired *urban* with

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We’ve known for three decades how to make livable cities—after forgetting for four—but the typical American city does not reflect this knowledge, as it is still inadvertently being designed by a public works department that, worshipping the twin gods of Smooth Flow and Ample Parking, has turned the downtown into a place that is easy to get to but not worth arriving at. We no longer need to reform urban design; we need to reform the relationship between urban designers and those who build the city.

*Jeff Speck, AICP, CNU-A, LEED-AP, Honorary ASLA, author, Walkable City: How Downtown Can Save America, One Step at a Time*

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**Demographics is destiny. When our demographics change, so does every aspect of how we live and build.**

*Maureen McAvey, vice president, Urban Land Institute*

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words like *crime*, *violence*, *poverty*, *decline*, or *decay*. The word *density* felt just as unsavory. It suggested to most Americans cramped apartments with little privacy and even evoked the specter of Jacob Riis's 1890 book *How the Other Half Lives*, which documented appalling living conditions in New York City's tenements. As late as 2002, the Boston Redevelopment Authority could express reservations about sponsoring a conference with *density* in its title, and one state's director of smart growth resorted to the circumlocution "place where you can walk to the library" to avoid using the word *dense*.

The attacks of September 11, 2001, caused a spike in anti-urban sentiment among some policy makers. For many opinion leaders—including noted

architects, planners, and urban designers—cities were both in decline and threatening. In *Urban Land* magazine, architect Léon Krier argued that the high death toll at the World Trade Center suggested that decentralized nodal centers filled with low-rise buildings (in the spirit of Frank Lloyd Wright's 1939 model for Broadacre City) offered a safer approach to building cities.<sup>1</sup> Shortly after that, James Howard Kunstler and Nikos A. Salingaros argued on the American Planning Association's website that urban towers were "an experimental building topology that has failed." They asked, "Who will ever again feel safe and comfortable working 110 stories above the ground? Or 60 stories? Or even 27?"<sup>2</sup> Others joined the chorus. Science writer Steven Johnson, advocating for decentralizing



Photo © Sitephocus, LLC., [www.sitephocus.com](http://www.sitephocus.com)



Courtesy Library of Congress, Historic American Engineering Record

3.1 a,b The transformation of Cherry Creek from a flood-control channel into an urban amenity in the mid-1990s helped turn Lower Downtown (or "LoDo") from an area of abandoned warehouses into Denver's first urban loft neighborhood. In less than two decades, it became one of the city's liveliest—and most expensive—districts.



cities in *Wired* magazine, proclaimed that “if there are to be new rules for the new warfare, one of the first is surely this: Density kills.”<sup>3</sup> The General Services Administration expressed concern about whether federal employees should be forced to work in vulnerable

downtowns, and the Federal Reserve announced the relocation of tens of thousands of employees to safer locations outside of cities. Warren Buffett expressed concern about whether banks would finance any more major downtown buildings.

## NEW YORK STOCK EXCHANGE FINANCIAL DISTRICT STREETSCAPES AND SECURITY (NEW YORK, NEW YORK)

### Designing high-security streetscapes as places for people.

- **Program:** “Provide state-of-the-art security technology for one of the world’s most visible terrorist targets without making the area appear to be under siege.” (from the submission to the AIA Honor Award competition)
- **Area:** Wall Street /Financial District
- **Design team:** Rogers Marvel Architects
- **Developer:** New York City Economic Development Corporation
- **Award:** AIA Honor Award for Regional and Urban Design (2007)
- **Web:** [www.rogersmarvel.com/projects/NYSE/](http://www.rogersmarvel.com/projects/NYSE/)  
[www.chicagotribune.com/chi-090806wallstreet-story,0,1233707.story](http://www.chicagotribune.com/chi-090806wallstreet-story,0,1233707.story)

Investments in safety and security should advance livability as well. Many perimeter-security initiatives responding to the attacks of September 11, 2001, undercut the character and civic quality of public spaces by isolating adjacent buildings. In some cases, public spaces—particularly lively streets and squares—were closed completely; in others, they were cut off from the buildings that helped animate them. With multiple high-profile projects in New York and Washington, Rogers

Marvel Architects has developed expertise in designing secure urban sites that nonetheless feel welcoming to people passing near and through them.

The City of New York insisted that measures to protect the stock exchange not compromise the district’s openness and walkability—in essence, it sought to “harden” the site without destroying the existing urban fabric. The project evolved into an effort to use investment in security measures as a way to enhance the quality and character of the sidewalks and the public realm around the stock exchange. Because of its older and denser context, this project presented extremely complex issues: the constraints of narrow streets and sidewalks; a complicated filigree of underground utilities just beneath the site; and the presence of National Historic Landmark properties. The firm designed new landscaped squares, security barriers that look like public art, street furniture, and other public-realm amenities that met both security and livability goals. Additionally, the enhanced public spaces support an emerging residential community, and today the Financial District around Wall Street has joined several areas of Manhattan that had never before attracted residential development.

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3.2 Rendering © Michael McCann, courtesy of Rogers Marvel Architects



3.3 © Rogers Marvel Architects





3.4 © Rogers Marvel Architects

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(continued)



3.5 © Rogers Marvel Architects

However, as early as the late 1980s—unnoticed by the media and beyond public awareness—the seeds of a significant urban revival had taken root. While 1960s America could not embrace Jane Jacobs, her following began to grow rapidly in the 1990s; by the early 2000s planners and policy makers had begun to celebrate her as a prophet for a new kind of urbanism that focused on people rather than cars. In a sense she was a Cassandra; despite billions of dollars poured into destructive urban highways and urban renewal over four decades, the urban resurgence visible today largely took root in the traditional neighborhoods, historic districts, and lively streets that she had chronicled and that preservationists and community activists struggled to save from urban renewal. Today, in place of malls and expressways, the icons that stir popular imagination are places that

offer the rich, shared, experience Jacobs described—lively urban streets; human-scaled districts like the Pearl in Portland, Oregon, Hillcrest in San Diego, or LoDo in Denver; and parks like Manhattan’s High Line, Chicago’s Millennium Park, Houston’s Discovery Green, and Birmingham’s Railroad Park (less familiar nationally but transformative in its hometown).

Beginning in the late 1990s, the United States experienced a powerful convergence of demographic, economic, social, and technological forces that reshaped society and the economy in ways that favor cities for the first time in at least six decades. In 1990, television broadcasters, always trimming their sails to prevailing cultural winds, had begun gingerly adopting more urban settings for prime-time programs. Of the ten most popular shows that year, five were set in the suburbs and only two in



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In the last decade or so, the hearts of many U.S. cities that many had given up for dead—like St. Louis, Cleveland, and Cincinnati—have come back to vibrant life, fueled by the areas in those cities whose nineteenth-century fabric somehow remained intact until it was once again appreciated. Their dense urban character resonates powerfully with a new generation looking for walkable, diverse environments—the opposite of the suburbs in which so many of them were raised. This is less about buildings, many of which are nothing special, but about the creation of vital, exciting spaces and places; this is, indeed, what urban design is about, and why the growth of urban design as a professional discipline is so important to the future of cities in this country.

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*Alan Mallach, FAICP, senior fellow, Center for Community Progress; visiting professor, Programs for Sustainable Planning and Development, Pratt Institute; editor, Legacy Cities*

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the city. By 2010, nine of the top ten-rated scripted TV shows had urban settings compared to just one set in the suburbs—and it was a satire of suburban life.

## Walkability Displaces Cars as the Genesis of Urban Form

Interest in urban living has reached levels difficult to imagine in 2000 and impossible to imagine ten years before that. More Americans want to live in urban settings, more are in a position to choose urban living, and the rapid growth of a knowledge economy means that access to educated workers and opportunities for interaction now trump access to highways and convenient parking as key locational considerations for a business fueling real economic growth.

### DISTRICT OF COLUMBIA STREETCAR LAND USE STUDY (WASHINGTON, D.C.)

#### Planning a modern streetcar system designed to promote equity alongside economic value.

- **Program:** A study of the impacts in a variety of areas that a new streetcar system would have on the economy and residents of the District of Columbia
- **Area:** 37 miles of proposed track
- **Design team:** Goody Clancy (urban design); Kittelson & Associates (transportation); EHT Tracerics, Inc. (historic preservation)
- **Developer:** District of Columbia Office of Planning

Few large U.S. cities ignored the billions of dollars of new development sparked by Portland's streetcar system, built in the late 1990s. This study reflects the now common understanding that streetcars promote economic development. Cities from Charlotte to Cincinnati to Denver to Tucson

have new systems or system expansions on the drawing boards.

Completed in 2012, the study evaluates the impact on real estate values, resident mobility, quality of life, and development potential of Washington's planned 37-mile system, one of the nation's most ambitious. It projects dramatic residential and job growth along streetcar lines and identifies the streetcar as key to unlocking development potential in the long-neglected neighborhoods of the District's southeast. It examines how the system would alter land use, expand access to jobs, and improve quality of life. It also lays out strategies for increasing fiscal benefits to the District and outlines mechanisms for protecting affordable housing for low-income residents in the face of the rising housing costs the system will likely trigger.

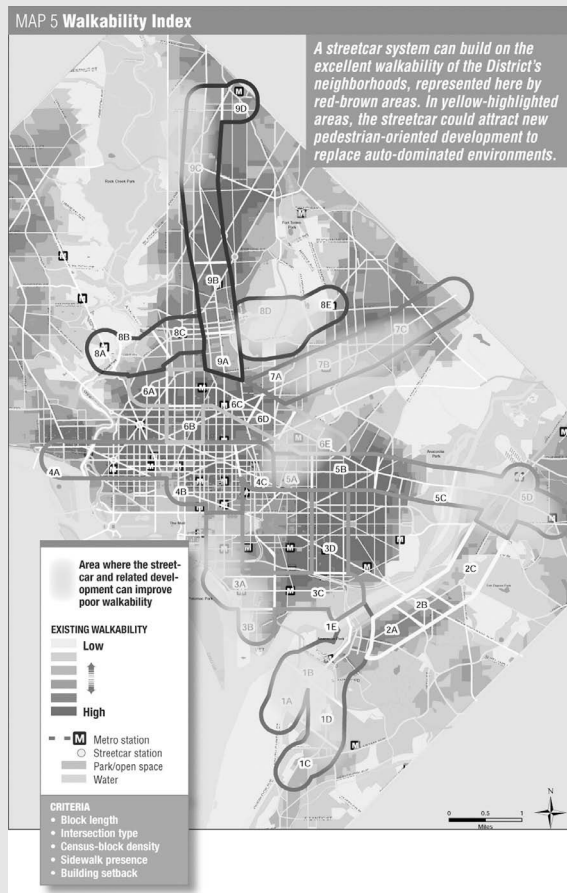
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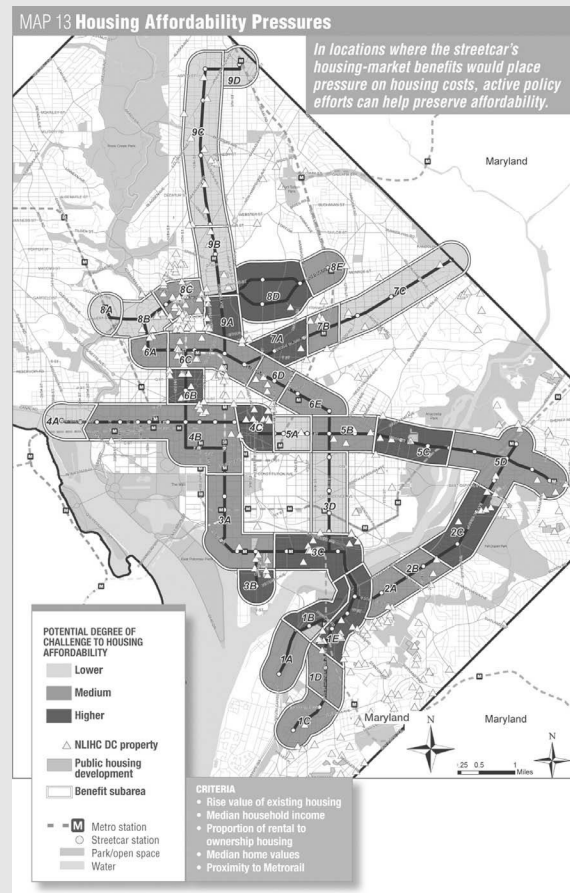
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The report concludes that while the system would increase housing costs, it could also reduce transportation costs for thousands of residents. Households that traded a car for transit would save more than \$9,000 a year, and the system would

dramatically increase the number of jobs they have access to. The study also identifies potential health benefits from the increase in walking that streetcar use would encourage in a city where 60 percent of residents choose not to drive to work.

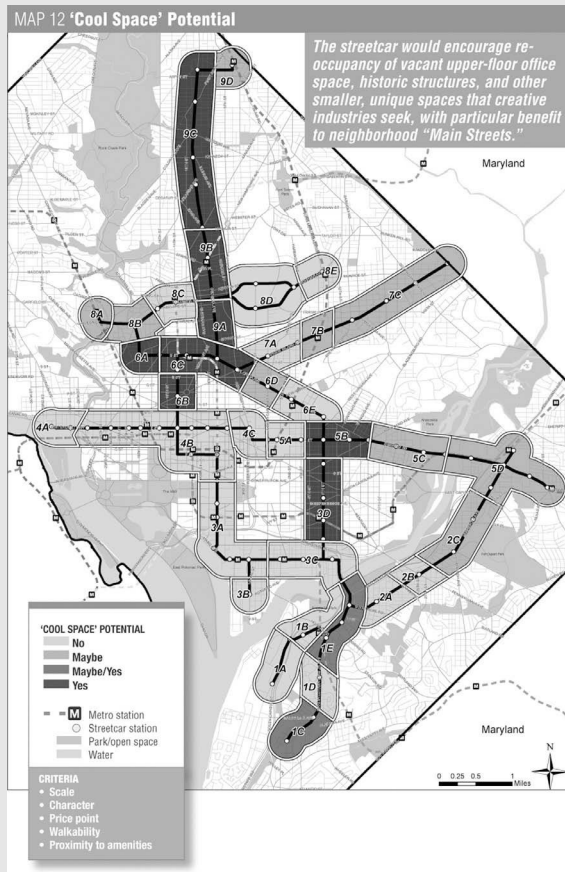


3.6 Courtesy Goody Clancy

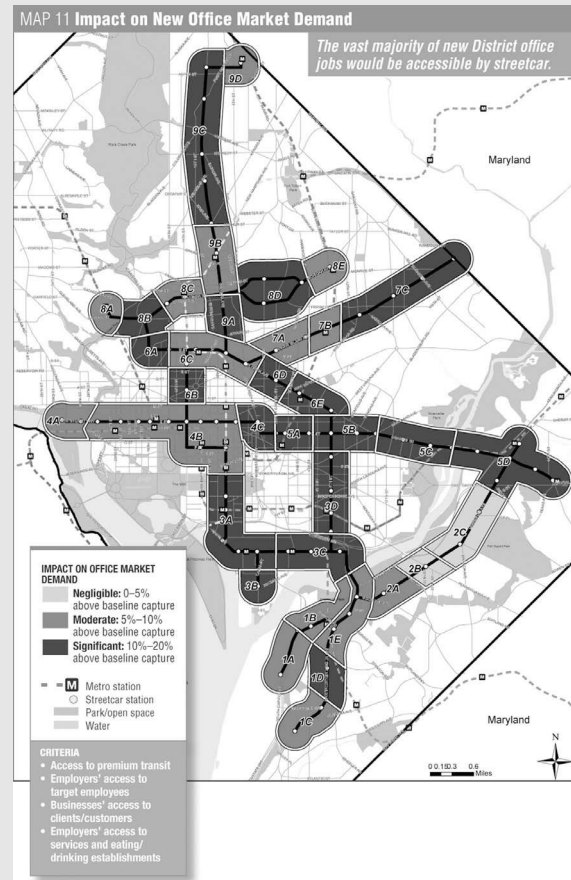


3.7 Courtesy Goody Clancy





3.8 Courtesy Goody Clancy



3.9 Courtesy Goody Clancy

Marquee cities like San Francisco, Seattle, Chicago, Boston, New York, and Washington made headlines when the population declines they endured from 1950 into the 1990s reversed. Equally significant, the growing interest in urban living—driven by younger, college-educated workers and older empty nesters—has led to growth in many other cities, such as Boise, Columbus, and Pittsburgh. Most notably, the trend extends to regions that have lost population, such as Providence and

St. Louis. In *The Great Inversion and the Future of the American City* (2013), Alan Ehrenhalt suggests that the same trends driving population gains in cities created a reversal of fortune in suburbs: “The late twentieth century was the age of poor inner cities and wealthy suburbs; the twenty-first century is emerging as the age of affluent inner neighborhoods and immigrants settling on the outside.”<sup>4</sup> Not all cities have seen an influx of residents (although that has been a parallel phenomenon), but the



majority have attracted more jobs and investment—and their downtowns and Main Streets reflect this sense of revival.

Resurgent cities share at least one common trait: whether through accident of history, careful planning, civic leadership, or all these elements, they have become amenity-rich centers whose strongest appeal lies in their growing walkability. A 2013 survey found that 60 percent of Americans preferred walkable settings (cities, walkable suburbs, or small towns) when describing where they would like to live and work.<sup>5</sup>

Growing cities and the new interest in urban living do not spell the end of suburbs: Cities could not accommodate the additional sixty-five million U.S. residents expected by 2040.<sup>6</sup> Nevertheless, the growth projected for the next several decades in the United States—whether it takes the form of downtown towers, revived urban neighborhoods and Main Streets, or higher-density suburban centers—will look much more urban than the growth in the last half of the twentieth century.

The forces that shape this transition are varied and interrelated, and this discussion can only offer an overview. But all of these forces point toward a more urban form for development in the decades ahead.

## Forces Shaping Twenty-First-Century Urbanism

### A new worldview: Cities are greener than suburbs

In 2004, the *New Yorker* published “Green Manhattan,” a counterintuitive essay proposing that Manhattan has a smaller carbon footprint than rural Vermont—and any suburb. David Owen’s article—widely read, frequently quoted, and ultimately expanded into a

book<sup>8</sup>—challenged decades of conventional wisdom that conflated unpolluted rural settings with environmental sustainability. Owen made a simple but divergent point: dense, compact urban communities use energy far more efficiently and generate far fewer emissions per capita than their suburban counterparts. Within a few years, this perspective had become the new standard, at least for planners and architects.

Reduced automobile use stands as the single most important environmental benefit of urban living. Each year the average urban household drives roughly half as many miles as its suburban counterpart and one-quarter as many as an exurban household—ratios that translate directly into dramatically different carbon footprints for each class of household. Research conducted by the Jonathan Rose Companies, a real estate development and investment firm, and eventually ratified by the EPA, concluded that household carbon footprint increases with distance from the core (in this case, of Portland, Oregon).<sup>9</sup> The study showed that even the greenest suburban house served by a hybrid car doesn’t reduce energy use enough to match the smaller footprint of an urban dwelling. For many of the growing number of Americans for whom reducing environmental impact ranks as a key criterion for decisions about work and housing, urban living is not just a lifestyle choice but also a moral one.

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Most Americans, including most New Yorkers, think of New York City as an ecological nightmare, a wasteland of concrete and garbage and diesel fumes and traffic jams, but in comparison with the rest of America it’s a model of environmental responsibility. By the most significant measures, New York is the greenest community in the United States, and one of the greenest cities in the world.

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*David Owen, “NYC Is the Greenest City in America,” New Yorker, October 18, 2004*

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## CHICAGO DECARBONIZATION PLAN (CHICAGO)

### Using carbon reduction to improve quality of life.

- **Program:** Decreasing carbon emissions from the center city, thereby improving quality of life. Initially focused only on buildings, the plan ultimately addressed density, water, waste, infrastructure, mobility, community engagement, renewable energy, and financial strategies.
- **Area:** 460 acres
- **Designers:** Adrian Smith and Gordon Gill (AS+GG) (design architects)
- **Client:** City of Chicago
- **Awards:** AIA Design Excellence Sustainability Award (2012); American Architecture Foundation, Sustainable Cities Design Academy Award (2012); AIA Honor Award for Regional and Urban Design (2011)
- **Web:** [http://smithgill.com/work/chicago\\_decarb/](http://smithgill.com/work/chicago_decarb/)

The Chicago DeCarbonization Plan (CDP) stands out from other large-scale urban-reconstruction

initiatives because it treats shrinking the city's carbon footprint as a platform for improving livability and for constantly updating the city's physical fabric. AS+GG calls the plan "a beginning process for maintaining the economic and cultural vitality of the urban core from an energy and carbon perspective."<sup>7</sup> The plan includes the development of a digital model for visualizing building-by-building energy consumption and carbon emissions. This tool goes beyond identifying inefficient energy use and sources of carbon emissions; it will equip public- and private-sector decision makers, educators, and advocates to evaluate Chicago's built environment continuously and identify ways to improve its performance.

The most ambitious offspring of the 2008 Chicago Climate Action Plan, the CDP proposes an urban restructuring designed to make downtown fully carbon-neutral by 2030. It addresses relationships among transportation, density, pollution, and urban amenities that spur growth and development and that contribute to



3.10 © Adrian Smith + Gordon Gill Architecture (design architects)

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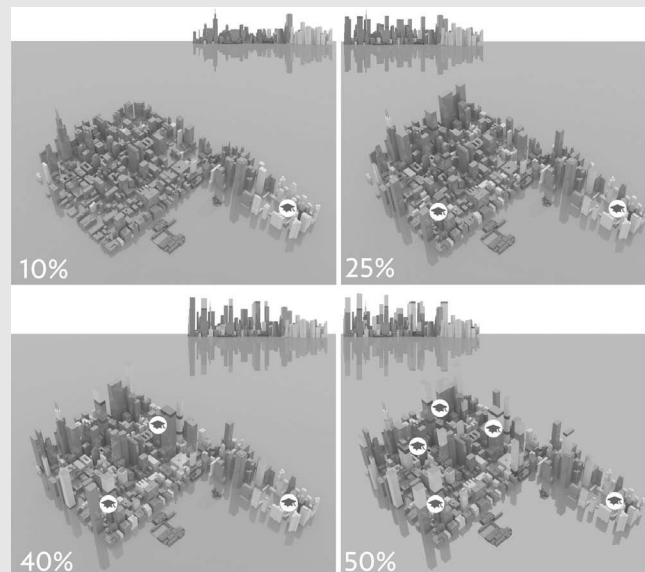
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the city's vibrancy and appeal as a place to live and work. *Toward Zero Carbon: Chicago Central Area DeCarbonization Plan*, the official plan document written by Adriaan Geuze, spells out the implementation of numerous components. They include the Eco-Bridge, a vast breakwater extending

from Grant Park into Lake Michigan that reinterprets part of Daniel Burnham's revered 1909 plan for the city as an iconic multiuse park, energy farm, and observation point. Other components include "sky parks," green roofs, green corridors, and a sustainability curriculum for the city's school system.



3.11 © Adrian Smith + Gordon Gill Architecture



3.12 © Adrian Smith + Gordon Gill Architecture





3.13 © Adrian Smith + Gordon Gill Architecture

## FAYETTEVILLE 2030: TRANSIT CITY SCENARIO (FAYETTEVILLE, ARKANSAS)

### Shifting public policy from supporting low-value sprawl to encouraging high-value smart growth.

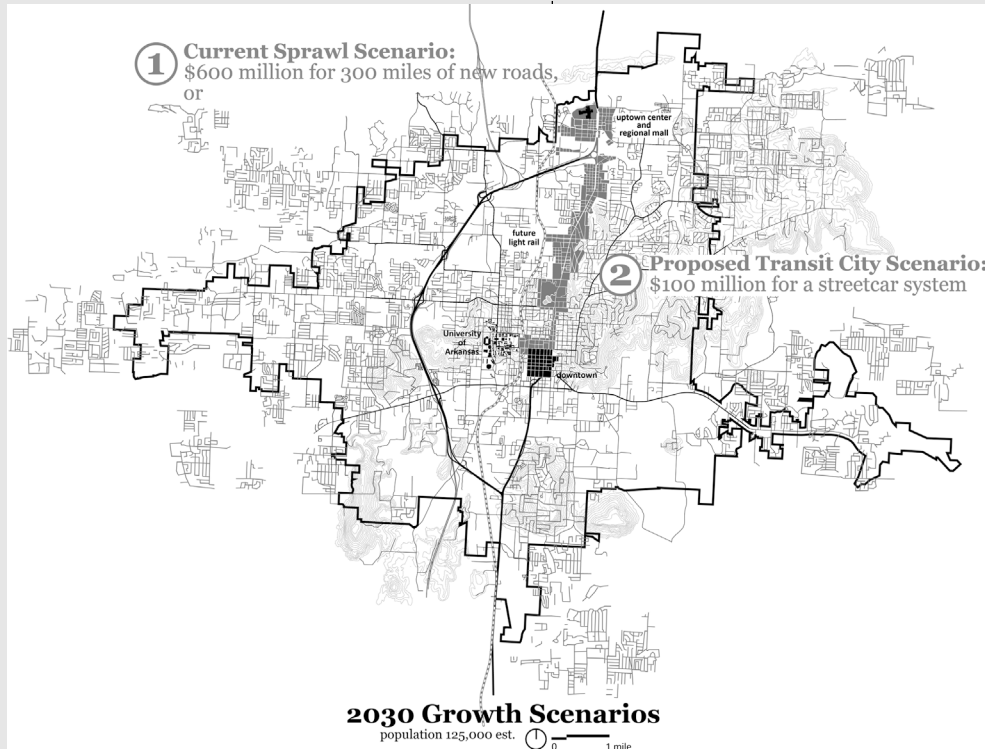
- **Program:** Draw up a twenty-year plan to accommodate growth by reorienting this small city around its urban core through infill, denser development, and the creation of a streetcar system.
- **Area:** 60 million square feet of conditioned space
- **Design team:** University of Arkansas Community Development Center
- **Developer:** City of Fayetteville
- **Award:** AIA Honor for Regional and Urban Design (2012)

The University of Arkansas Community Development Center built an input-based growth model that would best suit its home community. The result is a cost-efficient transportation model

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3.14 Courtesy University of Arkansas Community Design Center

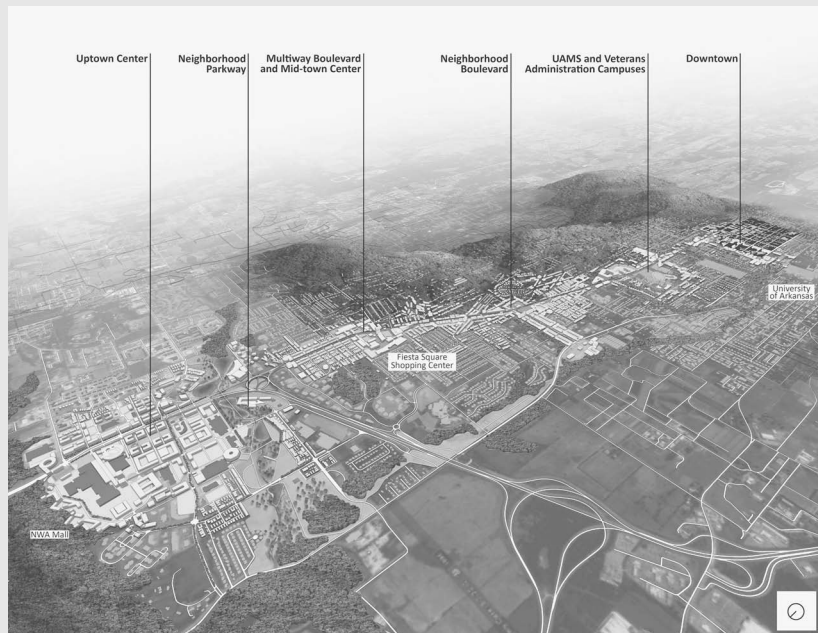
that can encourage investment and inward growth. The project offers a smart urban growth model for the twenty-first century, one that could have a profound effect on the sustainability and transit-oriented development of cities that face similar conditions as Fayetteville.

Projects suggest that by 2030 Fayetteville will to add more than 55,000 people to its population of 73,000. The project scenario encourages growth and increased density in the city's core by developing a 6-mile fixed guideway system. At \$100 million, a streetcar system would create a commercial corridor and discourage sprawl and exterior road construction.



3.15 Courtesy University of Arkansas Community Design Center





3.16 Courtesy University of Arkansas Community Design Center



3.17 Courtesy University of Arkansas Community Design Center

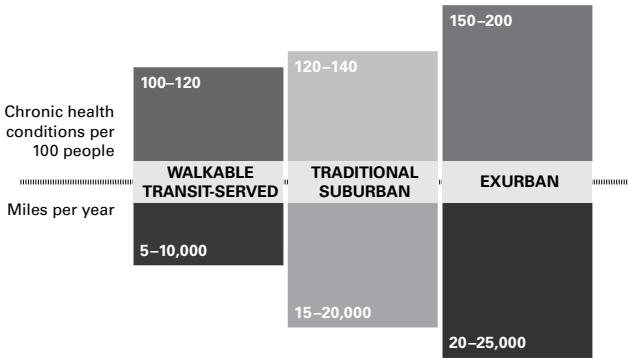


New perspectives on the real costs of driving

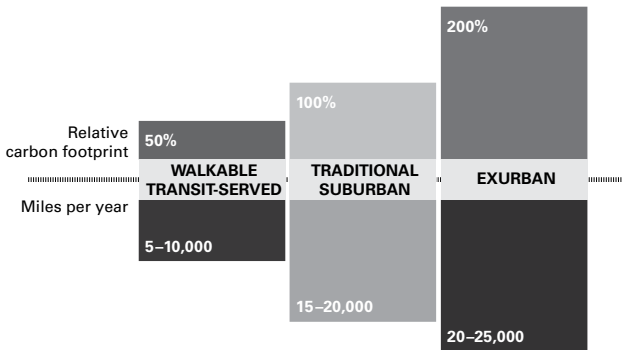
In “Green Manhattan” David Owen noted that Manhattan has better public health outcomes than virtually any other community in the United States. That understanding built on research stretching back to a 1996 study by the Centers for Disease Control, *How Land Use and Transportation Systems Affect Public Health*. Obesity associated with inactivity and poor diet still claims “300,000 deaths in the United States . . . second only to tobacco.”<sup>10</sup> The CDC attributes this outcome largely to the design of suburban environments that encouraged auto trips and discouraged walking. The study’s authors concluded that higher densities, mixed land uses, and pedestrian-friendly street design would promote better public health. Low-density, dispersed development patterns typical of suburbs increase the risk of traffic fatalities to a level three to five times higher than levels other comparably affluent countries experience—and makes traffic accidents a uniquely American phenomenon among developed countries. Over the past decade, Americans have sustained between 32,000

The incidental exercise that we have eliminated from our daily lives has had major negative implications on environmental pollution, mental health, and socialization, and especially on our own strength, activity levels, and obesity levels. While we focus on obesity, activity level is of equal importance. The estimated weight difference between people living in sprawling areas versus more dense areas, is on average, about six to seven pounds. Of that weight gain, it is likely that half or at least a third, are the result of lower activity levels.

Dr. Richard Jackson, former director of the National Center for Environmental Health at the Centers for Disease Control and Prevention



3.18 Driving/health chart (C1).



3.19 Driving/carbon footprint chart (C2).



3.20 Driving/financial costs chart (C3).

3.18–3.20 The health, environmental, and economic costs of decentralized development and associated automobile dependence are significant. Courtesy of Goody Clancy



and 43,000 traffic fatalities each year (compared to fewer than 2,000 fatalities for all other modes of transportation modes combined). Sixty percent of all accidental deaths for people under sixty-five are automobile-related.<sup>11</sup>

Meanwhile, the Environmental Protection Agency estimates that cars and trucks account for roughly half of all cancers attributed to airborne toxins. A century ago, tuberculosis and other communicable diseases contributed to the creation of single-use zoning, which ultimately spurred suburban development. But today Americans' life expectancy ranks below that of sixteen other wealthy nations; taken together, the public health impacts of suburbanized development and auto dependency—in the form of obesity, diabetes, and vehicular injury and death—contribute substantially to that mediocre ranking.<sup>12</sup>

It was in the 1980s that Americans began to recognize that fiscal and environmental realities would limit most regions' ability to expand roadway capacity. Without added lanes, the ever-increasing number of automobile trips resulting from decentralized growth began to translate into traffic congestion. A study published by the Reason Foundation suggests that hours lost to traffic congestion reduce economic productivity as much as 30 percent in highly congested regions.<sup>13</sup> An average automobile commuter spent the equivalent of almost a full workweek stuck in traffic in 2013—compared with just under two days in 1982.<sup>14</sup> While the main impact has been a loss of time for family and friends, education and other pursuits unrelated to the workplace have also been negatively affected. The financial impact is equally troubling: the Texas Transportation Institute calculates that time lost and extra fuel burned in congested traffic cost Americans more than \$121 billion in 2012.<sup>15</sup>

Car ownership comes with additional significant costs. Brookings Institution fellow Chris Leinberger calculates that the average household in

a car-dependent suburb spends roughly one-quarter of its disposable income on transportation; the figure for a household in a walkable urban setting drops to just one-tenth.<sup>16</sup> In 2013, the ability to make do with only one car saved a household between \$6,700 and \$11,600, depending on location, driving habits, and vehicle size.<sup>17</sup> In a country where roughly half of all households earn less than \$50,000 per year, that represents a substantial savings. The share of household income Americans spent on fueling their cars doubled between 2000 and 2010.<sup>18</sup> The cost of gas made headlines when it reached \$4 a gallon in 2008; how might people react to \$30-a-gallon gas, which urban economist Arthur C. Nelson suggests could be a reality by 2030?

Such economic pressures have begun to reshape attitudes toward automobiles. Americans may still want to own a car—or at least have access to one—but they increasingly tell pollsters they don't want to depend on one to get to work, shopping, school, or to visit friends. Americans under age thirty-five are much more likely to hold this view.<sup>19</sup> Not only are they the first generation to show less interest in owning a car than their parents but they are also the first generation to drive less. Per capita, vehicle miles by drivers under age thirty-five dropped by more than 20 percent between 2001 and 2009.<sup>20</sup> Similarly, Americans in many regions have historically associated public transit with poverty and crime. But younger Americans increasingly embrace public transportation, and their interest in using it increases with income and education levels—a sharp contrast to past patterns. Between 2001 and 2009, Americans under thirty-five who earned more than \$70,000 per year doubled their use of public transit.<sup>21</sup>

After years of unfavorable associations, the terms *urban* and *density* are enjoying a comeback; the growing view of cities as more environmentally sound, healthier, more convenient, and less expensive than suburbs goes



a long way toward explaining why. Falling crime rates also play an important role. But changing perceptions don't fully explain the rebounding popularity of living in cities.

Increased urban amenities have also boosted cities' appeal. Suburbs offered the amenities Americans wanted for much of the last half of the twentieth century: backyards, shopping malls, easy access to highways, and even a sense of refuge. Although the suburbs haven't really changed, Americans have. Today they value vitality, access to a broad range of choices, "authenticity," and sense of place much more than they did even twenty years ago; all are qualities that abound in cities. Indeed, increasing numbers of suburbs have turned to the creation of walkable centers with higher densities and a mix of uses—in essence, remaking themselves in a more urban image. This redevelopment of low-density areas into denser districts has spawned a wave of research and publications, most prominently *Retrofitting Suburbia*, by Ellen Dunham-Jones and June Williamson.

## New demographics

In the fifty years following World War II, America's housing market was dominated by the tastes and buying power of white middle-class families with children and two parents between thirty and fifty-five years old. Since around the turn of the millennium, however, the housing market has reflected the divergent preferences of increasingly diverse household types, cultural backgrounds, and personal values. When it comes to housing, in the words of land-use economist Leanne Lachman of the Urban Land Institute, America has become "a nation of niches." This dramatic shift occurred rapidly and has produced a generation more inclined to live in cities than any since the Great Depression.

The number of households with children, which drives the demand for detached, single-family houses, has shrunk steadily since the 1970s and will represent less than one-sixth of the projected growth in U.S. households between 2010 and 2030. By 2030 single-adult households will outnumber households with children by roughly one-third.<sup>22</sup> Today, single women represent a larger share of the housing market than do "traditional" families with two parents of different genders. In most regions, one- and two-person households now account for one-half to two-thirds of all households.<sup>23</sup> The traditional lure of suburban schools has not vanished, but it beckons to a much smaller slice of the housing market than it did fifty years ago. Walkable neighborhoods, Main Streets, the ability to walk to work, and diversity now lead the criteria that people cite when describing where they want to live. No mere blip, these changes represent a new chapter of American life that will continue for another twenty to twenty-five years.<sup>24</sup>

A related demographic shift could have an even greater impact. People older than sixty-five will be the fastest-growing segment of the population through 2030. This surge will translate into stronger demand for urban housing and a glut of suburban single-family houses. Around age sixty-two, Americans become net sellers of houses—particularly suburban single-family houses. Until recently, the number of younger buyers outnumbered the number of older sellers, creating demand for the development of new suburban houses and assuring a ready market for existing ones. The surplus of potential buyers also sustained the dominance of owner occupancy in suburbs. When aging baby boomers sell their single-family houses, a substantial majority also choose to rent their next home. Around 2016, these aging boomers will seek to sell roughly one million single-family houses every year for the next twenty years. These houses will not only flood a market



already saturated with suburban single-family houses, but they will also shift a larger share of housing demand in cities and suburbs from ownership to multifamily rental. This shift will boost downtowns and urban neighborhoods, but it will also alter the form and character of many suburban communities.

Cities have historically been bastions of racial, ethnic, and cultural diversity. While suburbs have grown much more diverse in recent years, urban environments have attracted a growing share of “non-traditional” households—a broad and loosely defined category that includes gay and lesbian couples and families, racially mixed couples and families, single-parent households, multigenerational households, and other families who don’t model themselves on the iconic white nuclear family of the twentieth century. Real estate analyst Laurie Volk points out that these nontraditional households will dominate the housing market over the next two decades, spurring demand for housing in urban neighborhoods. During this period, America will continue its demographic evolution toward a “majority minority” population; shortly after 2040, white Americans will no longer constitute a majority of the U.S. populace, although no other single racial or ethnic group will supersede them.<sup>25</sup>

Unlike many European countries, in which the poor eventually came to dominate suburbs and wealthy households claimed city centers, central cities in the United States have traditionally housed the disenfranchised and/or immigrant poor. Resurgent demand for urban living, however, has fueled gentrification, pushing long-term residents out of many traditionally lower-income neighborhoods and even displacing middle-class households in cities like Boston, New York, Washington, Chicago, and San Francisco.

These pressures on low- and moderate-income city residents will likely increase for two reasons. First,

poverty remains a persistent problem in the United States. The number of Americans living in poverty dropped between 1990 and 2000, but structural shifts in the economy, the Great Recession, and negligible real-income growth pushed more than 15.5 million Americans below the poverty line between 2000 and 2012.<sup>26</sup> Second, increased demand for urban housing bids up prices in all neighborhoods, putting more areas of more cities out of reach of residents who could once afford to live in them. This reflects a disturbing drift toward income inequality in America. Since the early 1960s, the bottom 40 percent of American households have seen essentially no increase in real income, while the top 40 percent have seen real income grow by more than 75 percent.<sup>27</sup> As affluent Americans return to cities, housing and other costs respond to their economic power, displacing those without growing incomes.

The Brookings Institution reported that the number of people living below the poverty line in suburbs increased by more than 50 percent between 2000 and 2010. For the first time, more poor people lived in suburbs than in cities. Unsurprisingly, the shift of poverty to suburbs was most dramatic in regions whose urban neighborhoods were attracting new, higher-income residents (who, by inference, displaced lower-income residents). For example, the suburbs of Chicago and Seattle saw the number of poor people rise by roughly three-quarters.<sup>28</sup>

Many observers initially applauded the “de-concentration” of poverty that occurs when low-income residents of a gentrifying central neighborhood scatter among the suburbs. Yet both the poor and the suburbs they have moved to have suffered. In a move to the suburbs, many households lose access to frequent transit service but often cannot depend on their cars for reliable transportation. (Even an old car can absorb more than half the disposable income of a household below the poverty



line.) Loss of reliable transportation means uncertain access to jobs, education, childcare and healthcare. Such households may also lose access to job training, social services, and other programs that represent the only paths out of poverty and that, in suburban settings, are often scattered across large areas poorly served by transit. At the same time, the impacts of growing poverty—homelessness, overburdened schools, pockets of declining property values, a need for more human and social services, and a long list of additional issues—have overwhelmed suburbs that lack the capacity and resources to deal with challenges long considered the province of cities.

## A new equation for economic development

As globalization has shifted the focus of the American economy from manufacturing products such as cars and refrigerators to knowledge industries like software, pharmaceuticals, and technology, an educated workforce has eclipsed natural resources and access to

highways as the most important element of regional economic competitiveness. A shortage of educated workers has prompted some knowledge businesses to relocate to attract the educated workers they need in order to grow, and regions now compete to retain and attract these workers, so as to lure the employers who need them.

Prior to about 2000, America produced enough workers to meet the needs of its growth industries. Today there is intense competition for workers: Just as demand for educated, creative workers has taken off, demographic factors have constricted the supply. Since 2000 the proportion of Americans actively participating in the workforce declined by roughly 8 percent, a trend that will continue as the nation's population ages.<sup>29</sup> The growth in the numbers of women entering higher education has tapered off just as educated baby boomers begin to retire. And projections show the percentage of total jobs that require a two- or four-year college degree will reach 63 percent by 2018,<sup>30</sup> even though the number of workers with such credentials stood just below 40 percent in 2010.<sup>31</sup>

## SOUTH COAST RAIL ECONOMIC AND LAND USE PLAN (MASSACHUSETTS)

### Smart-growth planning as an economic development strategy.

- **Program:** A regional plan that defines growth and conservation zones and outlines site-specific transit-oriented development plans for eleven stations along a future commuter rail line from Boston to southeastern Massachusetts
- **Area:** 750 square miles
- **Design team:** Goody Clancy (urban design)
- **Developer:** Massachusetts Department of Transportation and Executive Office of Housing and Community Development
- **Award:** CNU Charter Award, Grand Professional Prize (2011)
- **Web:** <http://www.southcoastrail.com/downloads/3%20-%20South%20Coast%20Rail%20Corridor%20Plan%20-%20Low%20Resolution.pdf>

This plan employs transit-oriented development to improve urban design by discouraging low-density sprawl; it will strengthen environmental protection and promote economic development in the fastest-growing region of Massachusetts. As the



state began planning for a new branch of its Boston commuter rail system, it sought to amplify the impact of the new rail line on the economic fortunes of former manufacturing centers like Fall River and Taunton. The connection to Boston would boost job creation in older cities, give residents easier access to the Boston job market, boost tourism in historic New Bedford, and put affordable housing in the state's southeastern region within reach of Boston residents.

The plan built on a comprehensive civic engagement process that drew input from hundreds of residents and brought together thirty-one municipalities, three regional planning

agencies, and a half dozen state agencies. Three elements make up the final plan. A land-use map encourages new growth in established communities and along existing infrastructure. It also defines conservation zones that protect farming areas and wetlands from development. Transit-oriented plans for each station on the train route encourage compact development that reinforces existing town centers; accommodates job and housing growth, and improves quality of life. A technical support component provides assistance for communities within the plan area in developing new zoning that can better control growth and promote clustered development.

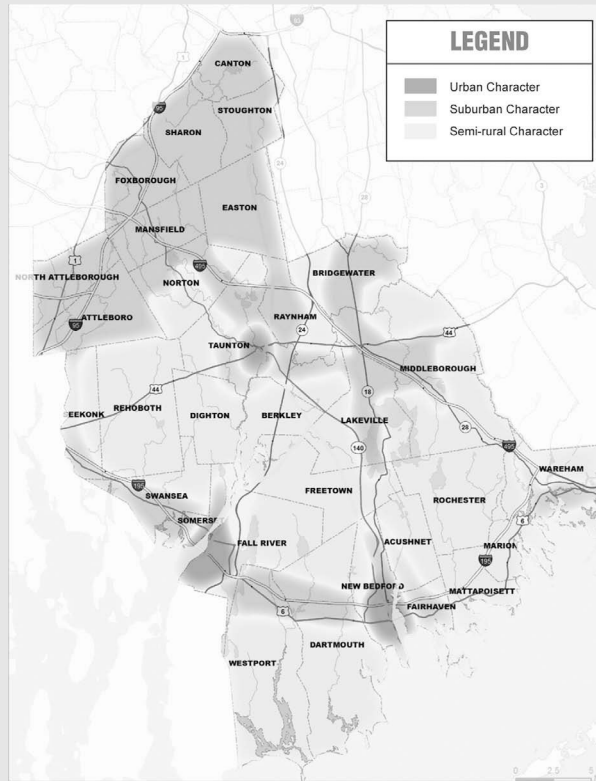


3.21 Courtesy Goody Clancy

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3.22 Courtesy Goody Clancy

## CITYGARDEN (ST. LOUIS, MISSOURI)

**An innovative urban garden attracts people to live, work, and play downtown.**

- **Program:** Design of a richly landscaped sculpture garden and park that can catalyze nearby development in a flagging downtown
- **Area:** 2.9 acres/two blocks
- **Design team:** Nelson Byrd Woltz (landscape architecture); Studio Durham (architecture)
- **Developer:** Gateway Foundation
- **Award:** ULI Amanda Burden Open Space Award (2011)
- **Web:** [www.citygardenstl.org/index.php/design/gateway\\_mall.php](http://www.citygardenstl.org/index.php/design/gateway_mall.php)



The Citygarden team designed a park with historical, cultural, and ecological relevance, taking design cues from regional forms and materials. Limestone walls reflect the Mississippi River bluffs; a serpentine wall suggests the meandering path of the region's waterways; a constructed hill echoes the form of the region's Native American burial mounds; and native species dominate park plantings. Paths recall St. Louis's heyday as the fourth-largest U.S. city, echoing routes and alleys shown on early twentieth-century maps. Departing from a long local tradition of monumental sculptures that isolate their subjects from their surroundings, Citygarden invites visitors to engage with its sculpture up close.

Funded largely by foundations, Citygarden may inspire additional investment from both the private and public sectors. As at New York's Bryant Park, the transformation of two neglected blocks appears already to have increased market interest in adjacent buildings and boosted business at nearby stores. The success of the park (and the positive media attention it has drawn) led the city to begin planning the renovation of the grounds around the Gateway Arch, on axis with Citygarden, and strengthen the arch's connections to downtown. The park's fountains, extreme permeability (visitors can enter it at virtually any point along its perimeter), and notable sculpture collection has drawn people of all ages and social strata downtown and sparked new interest in its revival.



3.23 Steven Hall / Hedrick Blessing

*(continued)*



(continued)



3.24 © Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



3.25 Nelson Byrd Woltz Landscape Architects

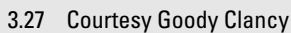


3.26 Courtesy Tyler Burrus via Flickr



## Rebuilding downtowns by rediscovering overlooked urban waterfronts.

- Since the 1990s, investment in urban livability, economic development, and the environment has increased. The UrbanRiver Visions program capitalized on that trend to help fourteen former industrial communities draw up economic development strategies for an overlooked asset—largely abandoned industrial waterfronts.



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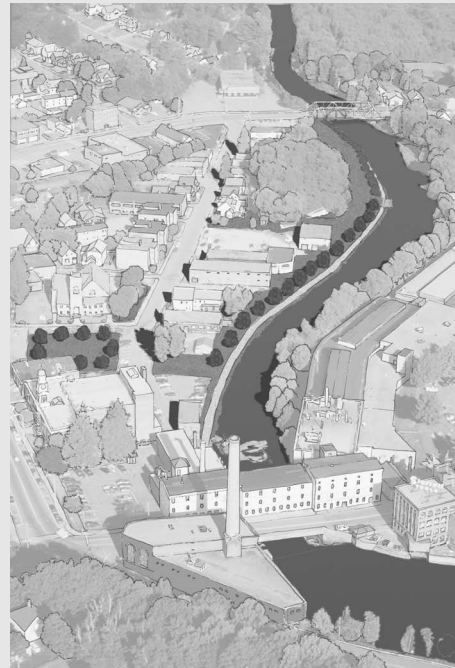


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The state's Office of Environmental Affairs launched the program in 2002 to encourage economically depressed communities to develop plans to improve the quality of their rivers, lakes, and decaying waterfronts, believing that such plans would attract new investment. Ideas at each community's charrettes reflected site conditions and local traditions, but the plans shared several elements. Each community created new waterside trails, parks, and other public spaces that would enhance quality of life and draw visitors. All recommended reuse of historic mills and other industrial infrastructure. All proposed new connections between the downtown and the water, making existing areas more appealing and attractive to new businesses. Unexpectedly, the charrettes also built bridges between long-term residents and recently arrived immigrants attracted by the inexpensive housing characteristic of weak local economies.

After working with the design team to refine their ideas, communities used their final plans to win project funding from the state and federal governments; many also used them to attract private-sector investment along their riverfronts.

The State of Massachusetts organized another round of planning for a second set of communities in 2007.



3.28 Courtesy Goody Clancy



3.29 Courtesy Goody Clancy



Regions with amenity-rich central cities are winning the battle for these workers. The number of college-educated millennials living within 3 miles of a central business district increased by more than 40 percent between 2000 and 2009 in eighteen major cities with lively, walkable downtowns and close-in neighborhoods.<sup>32</sup> Increasingly, regional jobs and investment strategies will profit from planning for urban development to retain and attract younger, educated employees. It's not just a company's recruiters that say access to these workers is important; markets value them highly, too. Companies with access to large pools of such workers have an easier time raising capital. In essence, the value of the workers' knowledge is as determinative of stock value as investments in plants and equipment.<sup>33</sup>

These trends have had a tangible impact in cities that have invested in making their downtowns and neighborhood Main Streets livelier and more accessible to pedestrians. From an industrial base, Pittsburgh has emerged as the center of a diversified knowledge economy. Columbus, once primarily an agricultural capital, has exploited its many colleges and universities (in particular Ohio State) to build a thriving new research and innovation economy. Denver and Charlotte have amplified the success of these policies by investing in transit. Atlanta and Washington have leveraged well-educated workforces to attract a growing base of information technology and other innovation industries. The next generation of regional winners will include Chattanooga, Tennessee; Fayetteville, Arkansas; and Wichita, Kansas,

which have begun a successful shift to technology-based manufacturing.

One corporate recruiter calls a well-regarded client located in a suburban office park "an amazing company," but notes that "they lose people because of location all the time."<sup>34</sup> By the late 2000s, employers had begun to pay closer attention to this shift in attitudes. Human resources directors reported that their companies would consider relocating if they found themselves unable to compete for educated, creative workers because their communities could not attract them.<sup>35</sup> The organization CEOs for Cities has studied these in-demand young and educated workers extensively. Its research suggests why educated millennials flock to vibrant urban centers—and appear likely to keep doing so. In earlier decades, educated workers settled where they could find good jobs. By the late 2000s, with a growing proportion of jobs in service and knowledge industries, CEOs for Cities found evidence of a new attitude among educated young workers: Analyzing census data in 2011, they found that educated young workers were 94 percent more likely to live in close-in urban neighborhoods than their contemporaries with less education.<sup>36</sup> In an earlier analysis, they found that "close-in neighborhoods with higher density, mixed uses, walkable destinations, lively commercial districts and interesting streets can make a region more competitive for talented workers. Good public services, including transit, schools and parks, make close-in neighborhoods even more appealing."<sup>37</sup>

## CAMPUS MARTIUS PARK (DETROIT, MICHIGAN)

### Public space reasserts a downtown's civic value.

- **Program:** The revitalization of Detroit's "Point of Origin" (a hub of radiating streets that marks the center point of the city's street numbering system) to create a high-profile open space

that will attract businesses to and increase job creation in a former industrial capital now known for postindustrial depopulation and economic distress.

*(continued)*



(continued)

- **Area:** 1.2 acres (2.4 acres with Cadillac Park)
- **Design team:** Rundell, Ernstberger Associates
- **Developer:** Detroit 300 with Project for Public Spaces
- **Awards:** ULI Amanda Burden Urban Open Space Award (2011); APA Top Ten Great Open Spaces (2010)
- **Web:** [www.campusmartiuspark.org/](http://www.campusmartiuspark.org/)

Campus Martius reflects the significant shift in urban design and planning that began in the 1990s. The field today focuses on revitalizing and rebuilding urban cores and not on the suburbs that occupied it for the last half of the twentieth century. Older manufacturing cities like Detroit have begun to see growth potential in older neighborhoods, brownfields, and disused infrastructure. As they work to draw new residents, young entrepreneurs,

and businesses (all urgent goals in Detroit), these cities often rediscover the value of high-profile public spaces like Campus Martius Park.

Having undergone several previous makeovers, Campus Martius emerged from a 2004 redesign as a revived park and a central gathering space for residents and visitors. Encroaching development, which the city had encouraged, left the park significantly smaller than it had been. As partial recompense for the park's shrinkage, the city built Cadillac Square Park in 2007 on the site of a former bus station; joining the two adjacent parks has cemented Campus Martius's role as downtown's leading public space. Re-creating, redesigning, and reprogramming this historic park, made safer by eliminating traffic from the street that separates it from Cadillac Square, has increased its popularity. Park programming ranges from familiar activities like ice skating, seasonal markets, a café, and concerts to free Wi-Fi and a pop-up sand beach in summer 2013.



3.30 © Randall Ernstberger Associates, LLC





3.31 © Randall Ernstberger Associates, LLC



3.32 © Randall Ernstberger Associates, LLC

*(continued)*



(continued)



3.33 Courtesy Flickr user Ellenm1

The post-World War II mentality that based the choice of where to live on a job's location has given ground to a strong desire to find a community that supports lifestyle goals. Surveys suggest that people who work from home or by themselves judge urban life to be as important as those who work outside the home.<sup>38</sup> Walkability is eclipsing proximity to a highway interchange as the litmus test of the best places to work and invest. Public investment in transit and new urban street grids yields far better economic development returns

than investing in a new highway or suburban interchange. The preference for walkable urban environments is refocusing urban design on adding housing to downtowns and close-in neighborhoods; nurturing popular places to eat, drink, and hang out; and supporting the creation of visual- and performing-arts venues—all of which have become economic development tools. It also creates an incentive for investment in a memorable public realm, the marker of an appealing, distinctive, and active community.

## THE FUTURE OF PITTSBURGH HILLSIDES (PITTSBURGH, PENNSYLVANIA)

### Preserving natural value to build economic and social value.

- **Program:** The revision of zoning guidelines to permit construction on hillsides with greater than 25 percent grade. Enforceable regulations would control development and preserve open space and green hillsides in highly visible locations.
- **Area:** One-quarter of Pittsburgh's land area



- **Design team:** Perkins Eastman and Three Rivers Second Nature of Carnegie Mellon University
- **Developer:** Hillside Steering Committee and the Heinz Endowments
- **Award:** AIA Honor Award for Regional and Urban Design (2007)

Like many older industrial cities in the Northeast and Midwest, Pittsburgh struggled to draw investment at the start of the 2000s. Despite regional decline in jobs and population, the city had attracted some new residents and jobs by capitalizing on its built and natural amenities—historic neighborhoods and Main Streets, a vibrant downtown, numerous educational and cultural institutions, and two riverfronts. Its dramatic hillsides were identified as potential locations for distinctive new urban housing that could woo suburbanites

with dramatic views and access to neighborhood commercial districts. The city did not have zoning or other regulatory tools to manage a growing interest in this kind of development.

The plan calls for targeted regulations governing the environmental, development, open space, and civic aspects of hillside development. It underscores the contributions that the highly visible hillsides make to the city's character and recommends development and open-space patterns based on each hillside's unique context. The design team worked with the Hillside Steering Committee to shape and test recommendations for each hillside at citywide, neighborhood, and site-specific levels. One of the plan's signal contributions is the argument that "enhancing urban identity should be a primary goal in planning a city's future. Strengthening and protecting physical characteristics that support identity should be an integral purpose of zoning."



3.34 Courtesy of Perkins Eastman

(continued)



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3.35 Courtesy of Perkins Eastman



3.36 Courtesy of Perkins Eastman



## A new equation for real estate development

In the book *Megapolitan America: A New Vision for Understanding America's Metropolitan Geography*, Arthur C. Nelson and Robert Lang project that twenty-three large metropolitan clusters—which will contain roughly two-thirds of U.S. population and even more of its economy by 2040—will experience more development in the thirty years between 2010 and 2040 than occurred in the sixty years between 1950 and 2010.

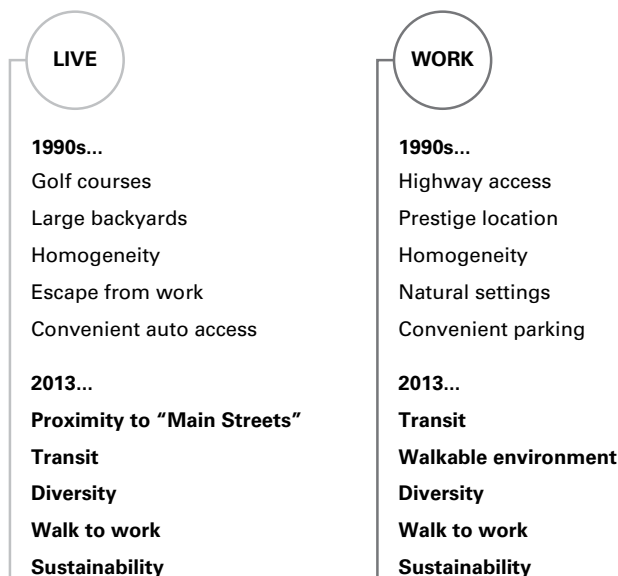
This next round of growth will not only be intense, but it will also take a profoundly different form. The undeveloped greenfields that accommodated the bulk of development for the last half of the twentieth century will give way to more concentrated development on grayfields and brownfields in the twenty-first. Unlike

in previous decades, much of this development will take place in cities. Understanding the dynamics that shape markets for different uses and in different places will be important to effective planning and memorable placemaking.

Maureen McAvey, a senior fellow at the Urban Land Institute, notes that “demographics are destiny” when explaining the dramatic contrasts between development patterns that predominated in the second half of the twentieth century and the patterns that will prevail over the next few decades. The demographic shifts previously described will alter real estate development at every level, from regional growth patterns to the configuration of individual projects. Convenient car access determined real estate values for the sixty years prior to 2010: the most valuable locations for developing virtually every use—housing, retail, office, distribution, and even manufacturing—were those that could offer easy access to regional highways. Stores, offices, and even some factories deemed direct visibility from limited-access highways or arterial roads critical. That era has ended.

In the coming decades, walkability will create value and shape development patterns. CEOs for Cities studied the correlation between walkability and real estate values in 2009 and determined that, in contrast to patterns of a decade earlier, values across most uses rose with higher Walk Scores,<sup>39</sup> a widely used gauge of a particular location's walkable access to a wide range of daily destinations, including stores, parks, schools and restaurants. Across twenty-four metropolitan areas, housing prices and rents rose as Walk Scores increased.<sup>40</sup> In thirteen of fifteen metropolitan areas, the analysis found a strong link between housing values and Walk Scores, with each extra Walk Score point adding between \$500 and \$3,000 in value for comparable homes within the same metropolitan area. In a location with a Walk Score of 50, a house or condo might have a value of \$100,000; a comparable housing unit in a location with

### TOP PRIORITIES FOR CHOOSING WHERE TO



SOURCE Zimmerman/Volk, 2013

3.37 Today people give priority to urban qualities when deciding where they want to live and work more than they did in the 1990s.



a Walk Score of 75 might be worth between \$112,500 and \$175,000. Similarly, Brookings Institution resident scholar Chris Leinberger has found that values for stores, hotels and office space all correlate with walkability.<sup>41</sup>

This “walkability premium” has many implications for urban design. For years, urban designers’ efforts to replicate the qualities of traditional walkable Main Streets or promote smart growth faltered because demand for suburban forms and locations dominated real estate markets. The new appetite for urban settings has turned those markets into powerful allies for promoting walkability and smart growth. Developers now seek out sites with transit access, insist that development enliven streets, construct buildings to the sidewalk edge, and house parking underground. Going further, many cities have begun to reduce parking requirements—in many cases cutting them to half or less of standards that were inviolable just ten years ago, and often at the urging of developers. These reductions unlock the economic viability of infill projects long stymied by sites too small to accommodate the parking required by zoning or to support the cost of underground parking. Increasingly, cities are replacing minimum parking requirements with maximum caps on parking and/or requirements for shared parking with neighboring projects. Such changes have shifted dollars from high-cost structured parking to streetscape and other amenities that enhance development value—while still yielding lower costs for developers.

It is instructive to compare the post–World War II growth of Hong Kong with that of American cities. Both had thrived for decades on industrial growth and began a shift to knowledge industries in the late twentieth century. Yet Hong Kong grew upward while American cities grew outward. Hong Kong developed shopping malls in multistory buildings above transit stations. The members of its rapidly expanding middle class moved into new towers rather than out to suburbs. At the same time that American cities rebuilt much of their cores

to accommodate the automobile, Hong Kong encouraged other means of traveling, in many cases adding multiple levels of pedestrian connections to accommodate increasing density and hilly terrain. The city’s compact, vertical, and dense development grew less from natural confines—which are no more limiting than San Francisco’s or Boston’s—than from cultural preferences. Many in China consider Hong Kong the country’s most livable city.

In the United States, as urban design goals and markets have aligned, the value of urban design has increased. A plan that brings streets to life, smoothly integrates housing and office buildings, creates lively public spaces that become destinations, and builds community support for these changes is a plan that increases real estate value. As Richard Florida has noted, such a plan strengthens a community’s ability to retain and attract educated, creative workers, who in turn attract jobs and investment.

Housing represents more than 50 percent of all private real estate development in the United States, and tops 60 percent in many years. A strong housing market can act as a powerful tool for revitalizing a downtown or urban neighborhood or creating a walkable suburban center. (Conversely, a market in decline offers few if any options for shaping the built environment.) Economist Arthur C. Nelson calculates that in 2000, America already had as many large-lot single-family suburban houses as it would need in 2030—but only half the small-lot urban housing. He projects that “by 2025, much of society will have been spatially rearranged” by the dramatic shifts in housing demand that created this imbalance.<sup>42</sup>

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**Most civic leaders, however, have failed to understand that what is true for corporations is also true for cities and regions: Places that succeed in attracting and retaining creative class people prosper; those that fail don’t.**

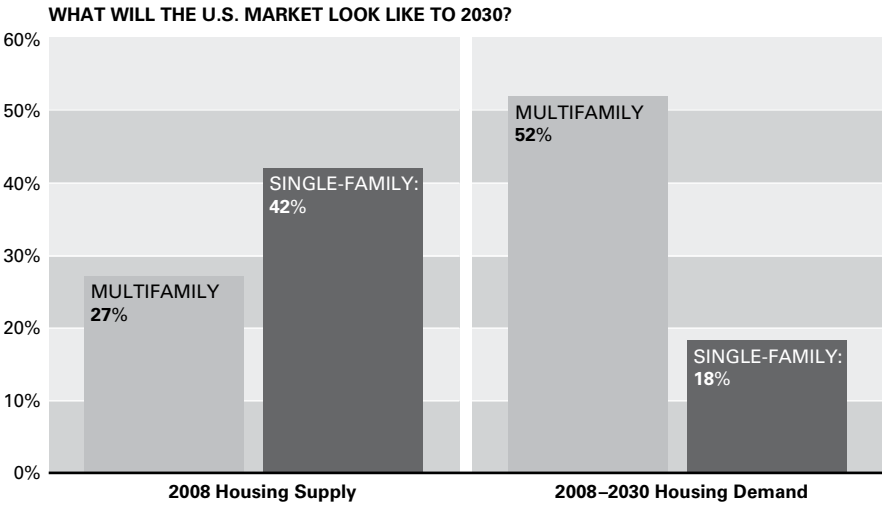
*Richard Florida, Washington Monthly, May 2002*

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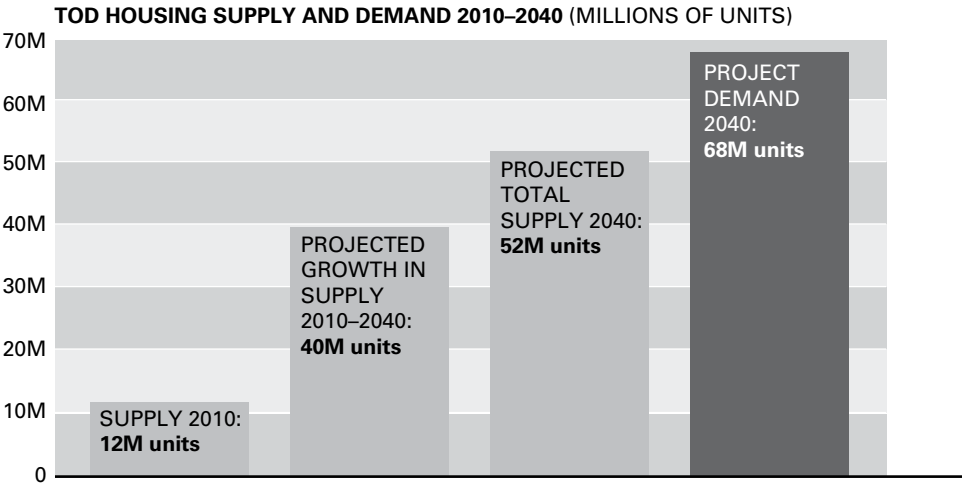


Nelson and Chris Leinberger have raised the specter of a surplus of suburban single-family houses. Identifying the primary source of demand for such housing as households with children, they argue that “there will be about four million more households

with children in 2025 than there were in 2000. . . . But more than ten million new single-family homes have already been built since 2000, most of them in the suburbs.”<sup>43</sup> As noted earlier, aging baby boomers selling their homes will add to that supply. Simultaneously,



SOURCE Arthur C. Nelson, keynote lecture, Pace University Land Use Law Center Annual Conference: “Places for People” (2012)



SOURCE Arthur C. Nelson, keynote lecture, Pace University Land Use Law Center Annual Conference: “Places for People” (2012)

3.38 a,b As demand for multifamily housing surpasses demand for single-family housing over the next few decades, urban neighborhoods—particularly those served by mass transit—face the possibility of housing shortages that will drive up prices.



the shrinking size of the average household has increased housing demand in cities. In 2005, John Rahaim, then urban design director for the City of Seattle, noted that the city had grown back to the same population now that it had in 1950—about 500,000 residents—but because Seattle households were so much smaller, the city needed 35 percent more housing units to house the same number of people. He noted that because 80 percent of existing housing was single-family, but 80 percent of the demand was for condos and lofts, this new demand “is not flowing evenly across Seattle’s neighborhoods, but instead concentrating within a couple of blocks of active and walkable Main Streets.”<sup>44</sup>

In 2008, detached single-family houses accounted for roughly 40 percent of America’s total housing stock, while multifamily housing units represented about 25 percent of the total.<sup>45</sup> Over the next two decades, that ratio will more than reverse. Demand for multifamily housing will rise to more than half of total housing demand, while demand for detached single-family housing will fall to roughly 20 percent of the total. This trend affects both suburbs and cities. Between 2010 and 2012, housing analyst Laurie Volk studied housing markets in two affluent suburbs—Dublin, outside of Columbus, and Sandy Springs, outside of Atlanta. She identified substantial demand for high-quality condominiums and lofts, housing types that scarcely existed in these communities of single-family houses. In Dublin’s case, Volk’s projections show that multifamily units will represent a third of the demand in a housing market long dominated by single-family housing—a demand that, albeit smaller, already existed but had gone unmet by the market.

The same forces are at work in nonresidential markets; developers have begun to recognize that walkability and urban amenities create value and attract development. Atlantic Wharf, a recently completed development in downtown Boston, exemplifies the strength and

speed of these market shifts. The complex combines historic wharf buildings and a thirty-story tower containing housing, a hotel, and office space. The developer’s initial plan, devised in the late 1990s, called for roughly one million square feet of high-end corporate office space no different from existing office towers elsewhere downtown and intended for law firms, financial service companies, and other traditional tenants willing to pay top dollar for prestige and location. But a very different mixed-use complex opened successfully in the more diverse marketplace of 2011.

The growing influence of a knowledge economy, which rewards innovation and depends on a workforce that seeks urban lifestyles, drove much of the change in Atlantic Wharf’s design. While traditional corporate tenants shed office workers and reduced their need for office space in the early 2000s, a new market appeared for what real estate analyst Sarah Woodworth of the W-ZHA partnership calls “cool space.” Software, design, arts, information technology, and similar creative companies constitute this market, and they prefer unconventional offices—including rehabilitated warehouses, downtown buildings past their prime, and outmoded industrial structures that may have stood vacant for decades.

The developer, one of the largest in the Northeast, described the impact of these marketplace changes on the company’s development model. “We started out to build space, and we finished building ‘space plus place.’ The office market we had known for decades was about the most efficient space, the most convenient parking, the highest-grade finishes, the best security. Those tenants are still here, but they have lots of new company. The new market—the market that is growing—is much more about the street outside than the space [itself]. The more we spend to make sure that the environment around our development is fun, diverse, and a great place to meet, the more [rent] we collect upstairs.”



Roughly half of the one-million-square-foot development resembled the original plan—a glass tower occupied by a law firm and a financial services company, its design similar to other downtown towers. The rest of the development—including a rehabilitated nineteenth-century warehouse and new construction with concrete floors and exposed HVAC ducts—represented a twenty-first-century vision of downtown. Roughly two-thirds of this space became “cool space” for software, design, and other small companies, most of which had not existed ten years earlier. The balance took the form of two hundred loft apartments (making this the developer’s first combined office/housing development), restaurants, and new headquarters for the Boston Society of Architects that animate the street with a public gallery and meeting spaces that help make the site a destination. One of the most visible signs of the developer’s pivot from the initial plan is a seven-story glass-roofed atrium. Initially intended as an elegant, private lobby accessible only to the high-end office tenants, the space ultimately emerged as a large public room enlivened by cafés, exhibits, and concerts and open to all.

In other cities, similar market changes have brought private developers to long-ignored urban areas. After years of public investment failed to spark a revival outside of the subsidized redevelopment of the Inner Harbor, Baltimore today boasts one of America’s fastest-growing downtown workforces thanks to a new generation of “cool” small businesses. Live/work development projects that attract a wide range of creative professionals and business startups, seen in just a few cities before the early 2000s, have brought new life to older neighborhoods in cities as diverse as Providence, Jersey City, Phoenix, San Diego, and Oakland.

Life sciences, information technology, materials technology, and other research-intensive fields, collectively an important driver of American economic growth, have also turned to urban neighborhoods.

Businesses in this sector, which tend to cluster near research universities, first settled in suburban research parks in locations like the Research Triangle in North Carolina; Route 128, “America’s Technology Highway” around Boston; and University of Utah Research Park. This kind of single-use, suburban environment has lost much of its appeal for corporations in knowledge-driven sectors. These businesses have found that lively, walkable, denser environments—urban environments—promote interaction, from formal meetings to chance conversations, that leads to the information exchange that translates into innovation.

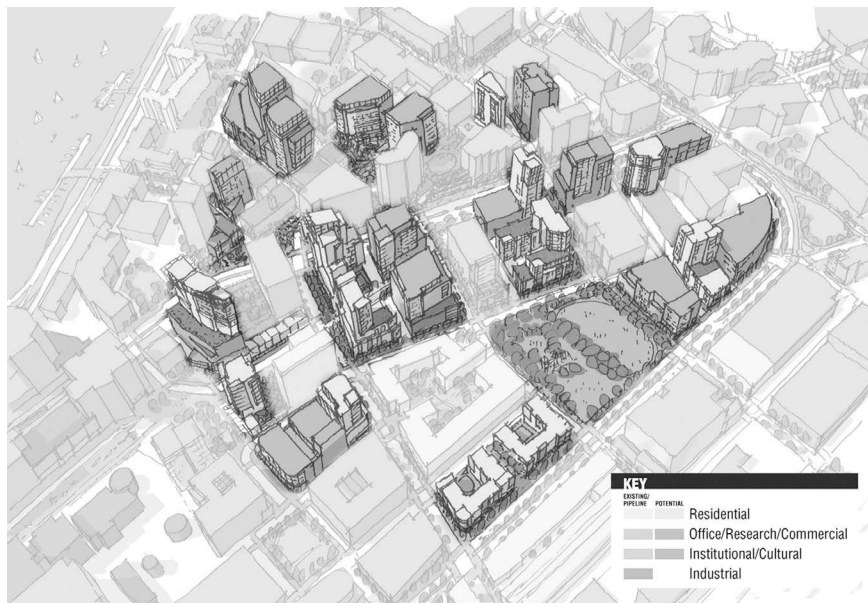
Spurred by the preferences of their workforce and by their interest in interdisciplinary research and collaborative innovation, these industries are expanding in or relocating to higher-density, more diverse urban districts like Seattle’s South Lake Union, Marina Bay in San Francisco, and Kendall Square, next to MIT in Cambridge. These three areas alone added more than 20 million square feet of development between 2002 and 2013, outpacing growth in the nearby downtowns that traditionally had been the epicenter for jobs.<sup>46</sup> A wave of knowledge-industry businesses made headlines in the early 2010s with suburb-to-city transfers that included Google’s move back into Pittsburgh; Motorola Mobility’s transfer of three thousand workers to Chicago’s North River area; and Pinterest’s move to downtown San Francisco (from Silicon Valley, no less). Dan Gilbert, CEO of Quicken Loans, famously bought and renovated more than 2.5 million square feet of office space during this period in order to relocate seven thousand employees in a half dozen companies he owns from the suburbs to downtown Detroit.<sup>47,48</sup>

Municipalities have begun encouraging developers to ensure that such districts evolve into live/work/play environments that create the lively, walkable, dense setting that attracts knowledge industry employers. In 2009, Forest City Enterprises,





NASA photograph



Courtesy Goody Clancy

3.39 a,b Once a manufacturing center, much of Kendall Square in Cambridge, Massachusetts, was cleared in the early 1960s to house the headquarters of the U.S. space program. When Lyndon Johnson became president, he sent the center to Houston instead, and the cleared land lay vacant for a decade until MIT-based research began to spur private-sector demand for research facilities located near the school—an appetite that has since increased steadily. Today, Kendall Square is a pillar of the Boston region's economy, and projections suggest it will add 6 million square feet of research and housing over the next decade—a nearly 50 percent increase in capacity. Commercial and residential space command some of the highest rents in the Northeast.



a leading developer of urban research space, went a step further. Instead of bringing urban amenities to a research district, the company decided to create a district from scratch. Forest City bought up parcels around the former San Francisco Chronicle plant in a gritty area south of downtown with the intent of developing more than 2 million square feet of mixed-use space to create an innovation district “where diversity comes together in the form of artists, makers, students, change-makers, entrepreneurs, techies, and local food purveyors.” The resulting \$5 million development established an urban location marked by “constant activity” that creates “a vibrant place for connection and innovation.”<sup>49</sup>

Business incubators have taken on growing importance as mature companies recognize the value of proximity to startups in a variety of fields. As these established companies move to innovation districts, they create new demand that drives up rents—even in less-desirable buildings—that create a barrier to the very startup firms they want to be near. One solution is for the incubators to find space elsewhere. The Cambridge Innovation Center, which houses more than five hundred entrepreneurs and start-ups in Kendall Square, did just that by opening a satellite center in downtown Boston. Another, unusual solution came from the City of Cambridge itself. Recognizing the problem in Kendall Square, the city amended its zoning code to require that new development in the area include dedicated space for incubating new businesses.

Planners and real estate investors long saw retail as the last use to arrive in a development—the icing on the built cake. Stores didn’t want to open their doors before they knew they’d have customers. By 2010, however, retail had emerged as a pioneer use that often presages new housing, office, and other activity. A typical year in the early 2010s saw the development of roughly 60 million square feet of new retail space, compared to more than one billion square feet

of housing. Despite its relatively small share of total development, retail has an outsize influence on development patterns, reversing the decades-old assumption that “retail follows housetops.” Today, urban housing often follows retail. In particular, places to eat, drink, and meet that generate buzz can pave the way for the dramatic revitalization of older neighborhoods and outmoded industrial districts.

Beginning around 1950, developers of retail space promoted a succession of new models, each of which undermined the model before it. Main Street and downtown retail thrived well into the 1960s, even as strip retail centers emerged in suburban settings. Malls followed, then regional malls, then big-box retail, then power centers and lifestyle centers. But beginning in the early 2000s, Main Streets and downtown retail began to return to favor, albeit in ways that do not resemble the 1950s. The Great Recession treated suburban shopping malls harshly: from 2007 to 2009, four hundred of America’s two thousand largest malls closed.

Technology disrupted other models of retailing (and likely drove many of the nails into those four hundred shopping-mall coffins). As online shopping grew in volume in the early 2000s, planners and public officials (and retailers themselves) expressed growing concern that one casualty would be the stores that enlivened urban streets, from neighborhood bookshops to downtown department stores.

Even as online commerce contributed to the demise of mall mainstays like Circuit City and Borders, emerging social media like Twitter and mobile apps bolstered other street-enhancing retail activities in urban settings. A new restaurant that would once have struggled can now open its doors on a neighborhood Main Street or in a former warehouse on a seedy block near downtown and quickly develop a loyal following. A new coffee shop—or bakery, bar, entertainment venue, or one-of-a-kind store—that once would have required a mall



location with good highway access can now cater to a narrowly tailored market segment and employ social media to draw customers from a wide area.

Urban retailers increasingly operate in a “nation of niches,” to return to economist Leanne Lachman’s felicitous shorthand. Just as a more diverse population has forged housing submarkets, it has created new opportunities for retailers in urban settings. Retail analyst Michael Berne of MB Consulting has pioneered a technique for analyzing retail markets similar to Laurie Volk’s demographics-based approach to housing markets. Rather than using traditional indicators, Berne employs demographic profiles and other data to predict emerging demand for new kinds of retail that reflect a range of lifestyles and personal values. “Malls are pretty much the same everywhere, except that they may market themselves to different income groups,” Berne told an audience of city leaders in downtown Albany in early November 2013. “The key to success in urban retail today lies in authenticity—local flavor and culture. These aren’t cookie-cutter stores; they’re distinctive.” While retail once strove for sameness across a region, today it is about marking distinctions of the city, of its neighborhoods, and even of different parts of a downtown.

## A new environmental equation

The real estate market has been the primary catalyst for reshaping America’s cities and suburbs since the end of World War II. That will continue over the next few decades, but another force will gain equal influence: planning for resilience. “While there is no consensus on how fast and how much our climate is changing,” the World Economic Forum notes drily in its *Global Risks Report 2013*, “the growing realization that some degree of climate change is inevitable is reflected in a shifting of the debate to how to adapt.”<sup>50</sup> Making our communities resilient in the face of a far harsher environment will emerge as a central focus for community-building and urban design for the foreseeable future.

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Because of the depletion of world resources, Americans during the twenty-first century will wish to collect, once again, into compact settlements—villages, towns, cities—that will be less resource-consumptive than the thinned-out suburban growth of recent decades. With the help of urban design, these re-concentrations will support a more richly varied, more socially communal, and more sustainable civic life.

*Robert Campbell, architecture critic for the Boston Globe*

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## EMSCHER LANDSCAPE PARK (RUHR VALLEY, GERMANY)

### Transforming an industrial wasteland into a postindustrial landscape.

- **Program:** A framework rather than a single “park,” designed to reconfigure, repair, and reunite an entire region degraded by more than 150 years of intensive mining and heavy industrial use
- **Area:** More than 175 square miles
- **Designers:** Peter Latz + Partner (Duisburg-Nord)
- **Developer:** Emscher Park International Building Exhibition
- **Award:** German National Prize for Integrated Urban Development and Building Culture (2009)



Long Germany's industrial powerhouse, the Ruhr Valley suffered severe environmental damage during 150 years of intensive mining and manufacturing. As both activities diminished in the late twentieth century, degraded physical, social, and economic structures left the region poorly equipped to compete in twenty-first-century Europe. Begun in 1989, Emscher Landscape Park is a visionary attempt to create a vibrant public realm atop a massive brownfield site, with a focus on repairing the environment, supporting the social and economic changes taking place in the Ruhr, and honoring the region's proud history. Still evolving, the park counts more than 450 individual projects that together have dramatically reshaped the region and the way the outside world sees it.

Success lies in the embrace of industrial ruins as integral to the park's design. Some of the old infrastructure remains accessible as a stark reminder of the area's history, but imaginative planning has given many sites creative new uses: an ore bunker became a rock-climbing center, and a giant gas-storage vessel became an aboveground diving tank. High-quality design pervades the park—from art installations to bike-path bridges to user facilities and gardens—but it has also infused redevelopment projects in the valley's cities, such as the Neue Mitte in Oberhausen, billed as "Europe's biggest shopping and leisure center." The park offers a provocative model for troubled U.S. regions like the Lehigh Valley and cities like



3.40

Detroit. The Emscher framework knits together a region long fragmented by industrial exploitation in a contiguous landscape of industrial ruins, cultivated plantings, and "wild" re-vegetation.

*(continued)*



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## SW ECODISTRICT (WASHINGTON, D.C.)

### Monumental Core Framework Plan: Connecting New Destinations with the National Mall.

- **Program:** The SW Ecodistrict Initiative is an outgrowth of the 2009 National Capital Planning Commission Monumental Framework Plan, an ambitious effort that over thirty years will guide planning, development, and investment decisions and transform Washington's core, long dominated by federal offices and national monuments clustered along the National Mall, into a more livable and sustainable environment.
- **Design team:** National Capital Planning Commission (NCPD) and the U.S. Commission of Fine Arts (CFA). Associate firm: EDAW-AECOM
- **Owner:** NCPD and CFA
- **Study area:** Fifteen-block area of Southwest Washington, D.C., bounded by Independence Avenue to the north, Maine Avenue to the south,

Twelfth Street to the west, and Fourth Street to the east.

- **Awards:** American Institute of Architects Institute Honor Award for Regional and Urban Design (2010); American Society of Landscape Architects Honor Award (2013)
- **Web:** <http://www.ncpc.gov/swecodistricthttp://www.aia.org/practicing/awards/AIAB082076>

The Monumental Core Framework Plan is a proposal for transforming federal precincts nearby and adjacent to the National Mall into integrated settings that reinforce the monumental core of the nation's capital while creating active new destinations and better connections between the Mall, the city, and the waterfront.

The proposal will showcase how a city can plan the extension of its initial, fundamental vision



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into new, sensitive mixed-use development, new economic activity, and an enhanced cultural landscape.<sup>51</sup> The project will be a model of sustainable urban development. It will create sustainable and resilient new neighborhoods, new public gathering spaces, and a new, green pedestrian mall with connections to vibrant activities, and an improved central transit station will serve regional commuters.

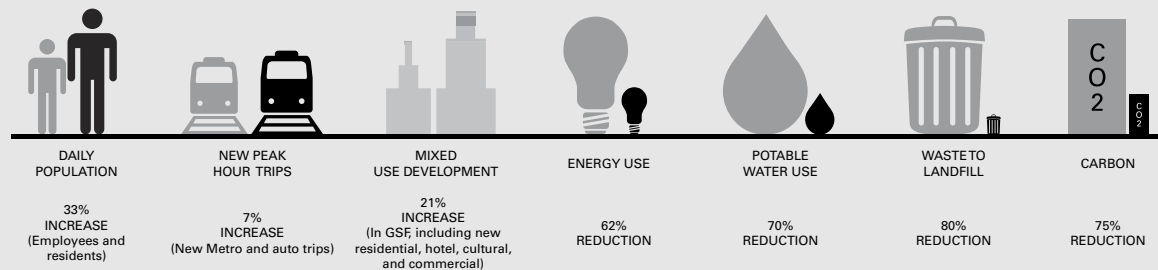
High-quality urban design, significant smart-growth strategies, and a commitment to sustainability shape all aspects of the plan. According to the 2010 AIA Award Jury, “This plan has four

goals: protect the Mall from overuse, create cultural and commemorative settings, improve connections between the Mall, the river, and the city, and bring vibrancy to the District’s monumental core. Marking the bicentennial of the original L’Enfant/Ellicott plan and the centennial of the McMillan Plan that together shaped the Mall as we know it today, this phased framework promises to stop the degradation of heavily used areas and encourage the appreciation and public enjoyment of less-used venues—all within the context of Washington’s expanding downtown.



3.44

A COMPARISON OF THE STUDY AREA TODAY AND IN 2030



3.45



In 2006, Vice President Al Gore released the film *An Inconvenient Truth*, intended to galvanize sustainable practices that would decelerate global warming. Today sustainability has become a best-practice standard in much of the U.S. economy and a widely adopted personal value that has reshaped life around the globe. In the fields of planning, design, and development, sustainability has quickly become a threshold requirement for good work. Unfortunately, this

progress has had little impact on the pace of global warming. The developed world lacks the political will to adopt the significant economic and lifestyle changes that could make a real difference in global warming; the developing world lacks the resources to do so. Today the world faces a more urgent task. Having failed to slow climate change, we must now learn to live with its escalating impacts on our communities and our lives.

## LLOYD CROSSING SUSTAINABLE URBAN DESIGN PLAN (PORTLAND, OREGON)

### District-scale planning shrinks development's environmental impact to near zero.

- **Program:** A plan to transform a low-density, near-downtown neighborhood into a high-density, sustainable district. The plan restores the site's original ecosystem and mimics the environmental functions of a pristine forest.
- **Area:** 60 acres/35 blocks



3.46 Courtesy of Mithun Architects + Designers + Planners

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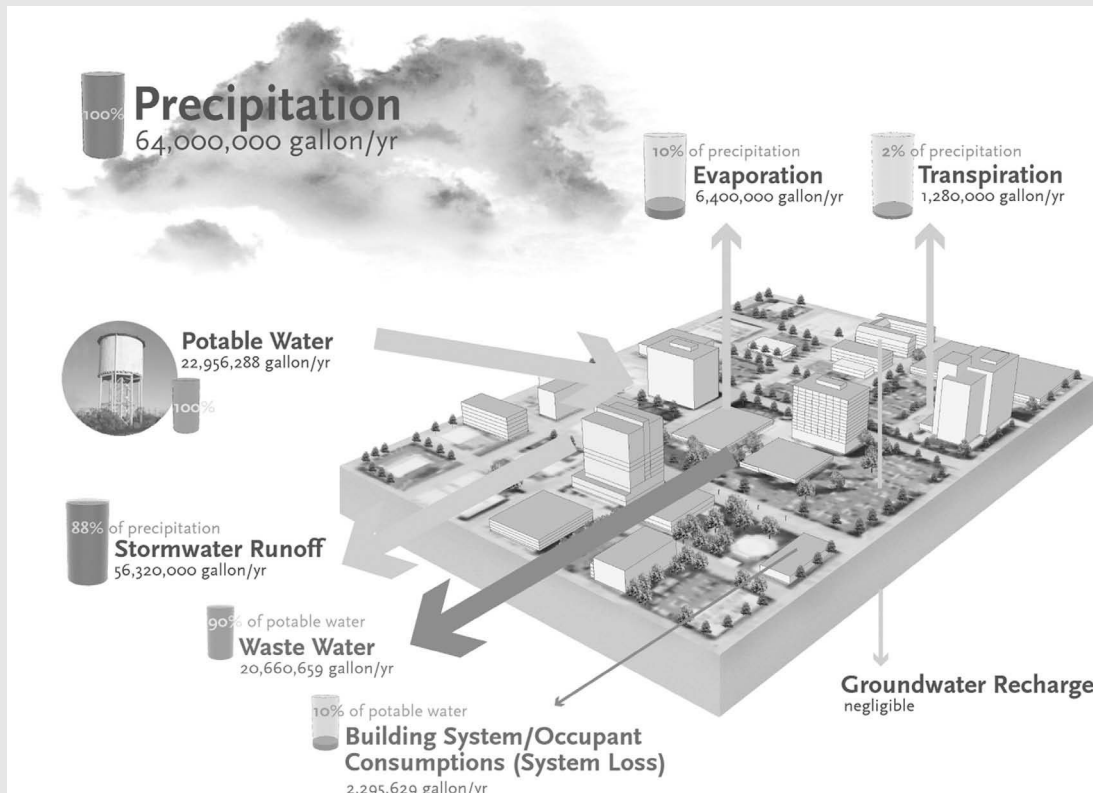


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- **Design team:** Mithun Architects + Designers + Planners; Greenworks
- **Developer:** Portland Development Commission
- **Awards:** AIA Honor Award for Regional and Urban Design (2006); ASLA Honor Award for Analysis and Planning (2005)

Woven into the fabric of this plan are initiatives for streetscape design, green building, tree planting, use of solar energy, and other measures that give the district a high level of environmental performance. When completed in 2050, Lloyd

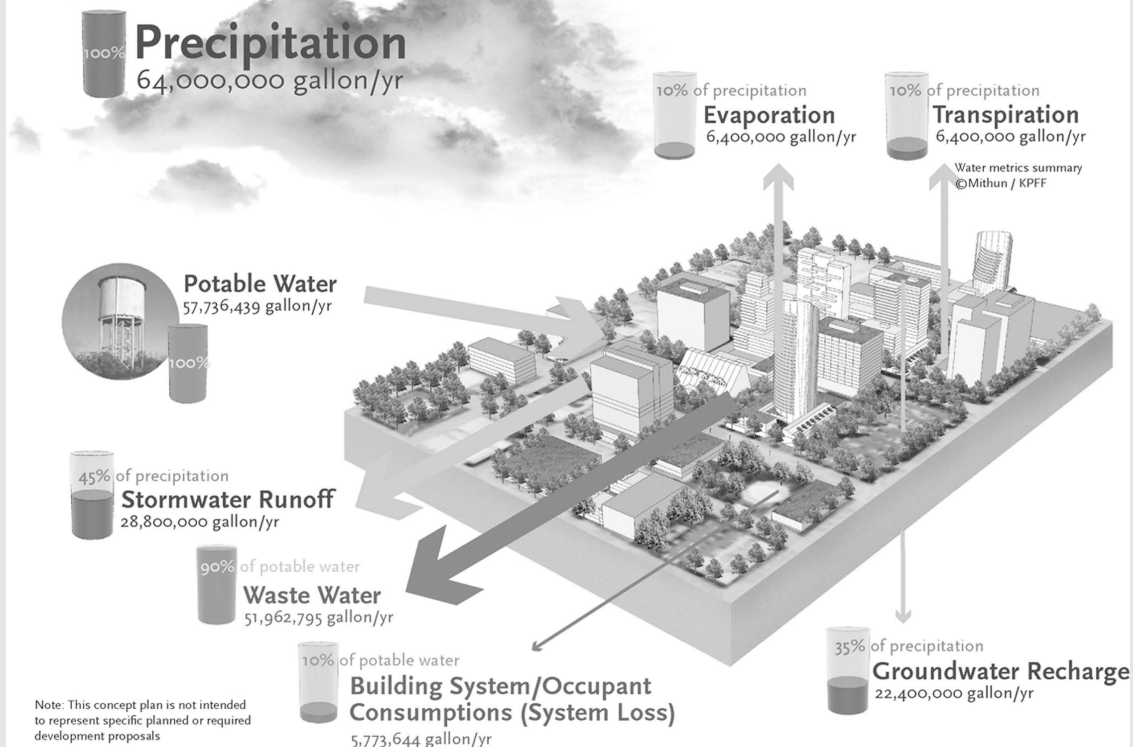
Crossing will have environmental impacts similar to an equivalent area of virgin forest as measured by groundwater recharge, carbon footprint, and other key metrics. The urban design will achieve these sustainability benefits via a lively public realm in which retail space and animated public squares ensure a significant level of human activity. Well-designed, higher-density development that fits respectfully into a lower-density context will play a critical role in meeting the project's goals. The plan includes a mix of towers, one rising more than 300 feet, that meet the street grid with active uses and step down to the scale of surrounding blocks.



3.47 Courtesy of Mithun Architects + Designers + Planners



## 2050 Per Plan Water Use Conditions



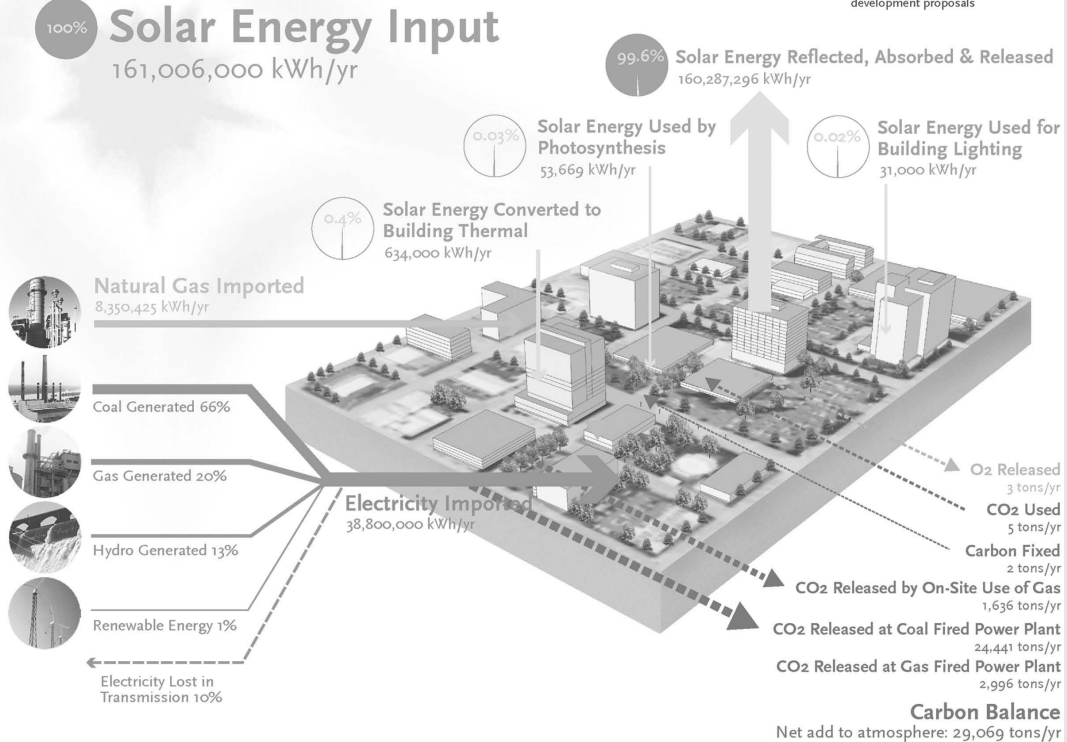
3.48 Courtesy of Mithun Architects + Designers + Planners

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## 2004 Existing Energy Use Conditions

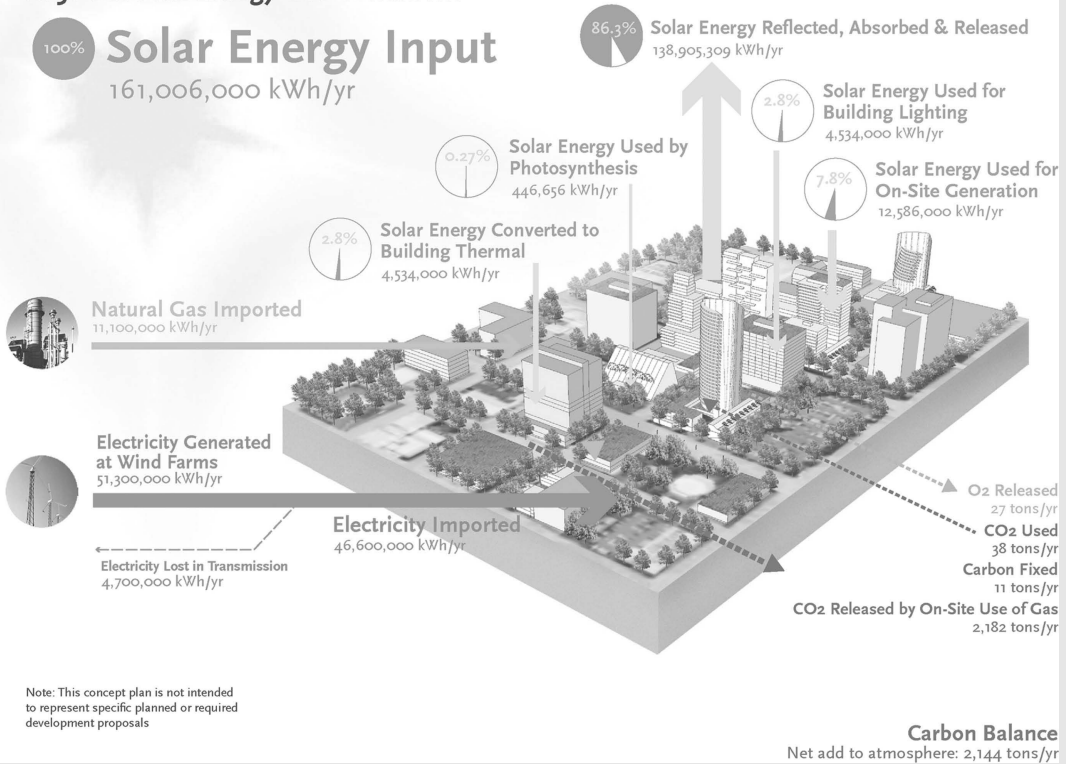
Note: This concept plan is not intended to represent specific planned or required development proposals



3.49 Courtesy of Mithun Architects + Designers + Planners



## 2050 Per Plan Energy Use Conditions

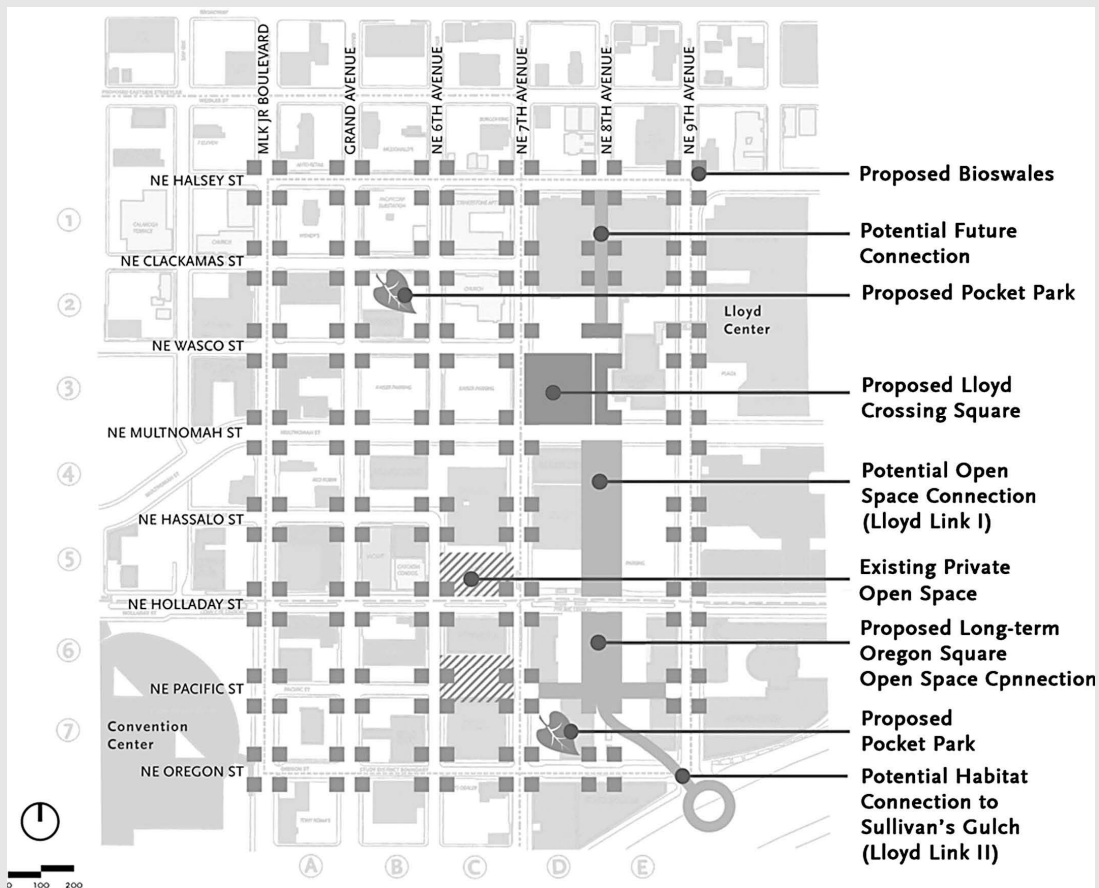


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3.50 Courtesy of Mithun Architects + Designers + Planners



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3.51 Courtesy of Mithun Architects + Designers + Planners

From 1900 to 2010, global mean temperature rose roughly  $0.7^{\circ}\text{C}$ , but with a measurably faster rise in the years beginning around 1980.<sup>52</sup> The Potsdam Institute for Climate Impact projects that over the next fifty years, global mean temperature will rise another  $4^{\circ}\text{C}$ . The *2011 World Energy Outlook*, issued by the International Energy Agency, calculates that existing government policies and declared policy intentions will translate into a global temperature rise of as much as  $6^{\circ}\text{C}$  by the end of this century.<sup>53</sup>

Federal, state, and local transportation policy must respond to the growing crises of global warming and diminishing supplies of oil. Public transit is one small but critical component of new urban strategies that allow the twenty-first-century planner to readjust land use, energy use, and environmental sensitivity to create a new model for quality of life.

*Robert Passwell, former director of Chicago's Metropolitan Transit Authority and director of the Urban Transportation Research Center, CUNY*

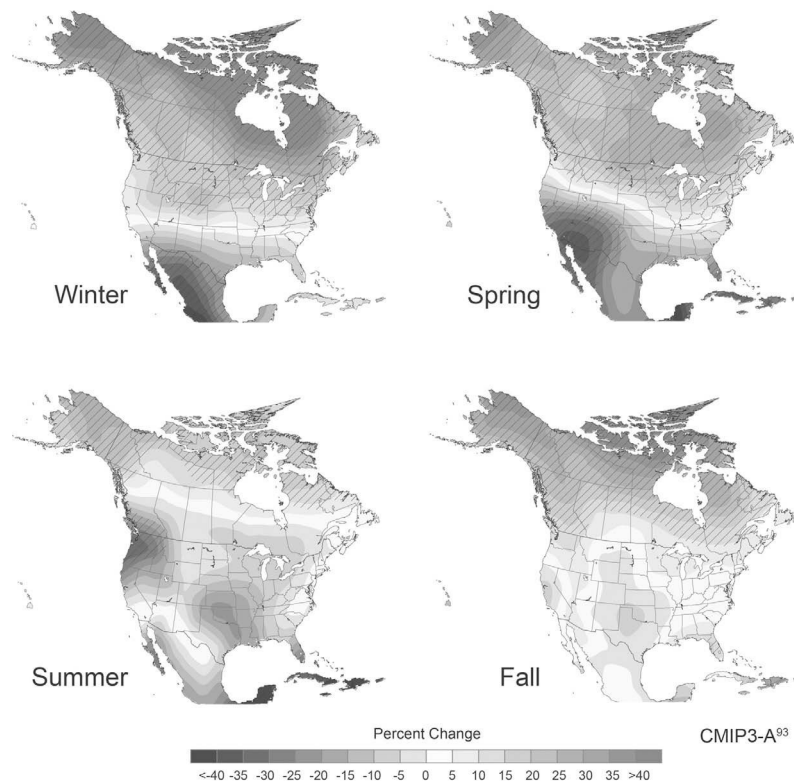


The impacts extend far beyond coastal areas. The Potsdam Institute's report points out that climate change will have a decisive effect on most of the inhabited world. In some places it will bring increased rainfall and severe flooding; in others it will mean drought and widespread crop failures. These changes in climate threaten to unleash political instability: as regions compete for food and clean water, the world will face a generation of environmental refugees in search of safety, food, and jobs.<sup>54</sup>

Catastrophic European flooding and heat waves, record-breaking typhoons in Asia, and flooding and drought in Australia suggest the high cost of ignoring

these impacts. In the United States, Hurricane Katrina (2005) and “superstorm” Sandy (2012) caused in aggregate nearly 2,000 deaths, displaced more than 100,000 people, and required more than \$200 billion in recovery and rebuilding spending. The *Wall Street Journal* projected that Hurricane Sandy would reduce U.S. gross domestic product in 2012 by 0.6 percent—equivalent to hundreds of thousands of lost jobs.<sup>55</sup> Estimates of Hurricane Katrina's impact on the U.S. economy have ranged widely, but all of them exceed that of Sandy.

The aftermath of Hurricane Katrina demonstrates why we cannot simply move out of harm's way or merely



3.52 These maps, prepared in 2013 by the U.S. Global Change Research Program, show changes in North America's precipitation levels as projected by fifteen different climate models. The simulations for the end of this century predict northern regions will get wetter while southern regions will become drier in the spring—with consequences for food production, drinking-water supplies, and flooding threats. (Hatching indicates areas where the models predict similar results, and, therefore, a high level of confidence about those particular projections.) Courtesy U.S. Global Change Research Program



stop investing in low-lying coastal areas where the threat of rising seas and increased storm activity is most tangible. Early in the recovery from Hurricane Katrina, several national organizations, along with some elected officials in Washington and New Orleans residents, called for turning a large section of the city into parklands and resettling 95,000 of its residents—roughly one-fifth of the city’s population—on higher ground. Beginning in the 1970s, the area, known as New Orleans East, had experienced significant suburban-style development and became home to much of the city’s African American middle class. After it became apparent that most residents of “the East” intended to return and rebuild their homes, Mayor Ray Nagin announced that the city could no longer afford to provide full services to the area’s low-density subdivisions. The roughly fifty thousand residents who had already returned to the East by the time Nagin announced the policy shift mobilized other elected officials and ultimately forced the mayor to retreat.

As the New Orleans East experience suggests, America lacks legal mechanisms for forcing tens of thousands of people to relocate, funding to support mass relocation, and a political process for determining whose neighborhoods remain and whose do not. In New Orleans, the fact that most proponents of relocation

lived in white neighborhoods uptown aggravated long-festering racial tensions that had already complicated recovery. Extrapolating from much smaller examples of neighborhood relocation such as the East Baltimore Development Initiative, which relocated several hundred households and neighborhood businesses a few blocks away, suggests that the costs of resettling tens of thousands of the East’s residents could easily top \$20 billion—far more than the roughly \$14 billion spent to build the levees that protect the entire city and adjacent parishes.

Ultimately, the East’s residents returned because their friends, families, caregivers, social service agencies, healthcare professionals, churches, and social and cultural organizations—the essential social networks upon which they depended—were rooted there. The human and financial costs of severing these networks would be immense. Nor would the positive environmental impacts necessarily represent a net benefit. Building sufficient housing for even half of the more than 10,000 households that have returned to the East—together with new roadways, utilities, and similar infrastructure—would generate massive sprawl and move residents much farther from jobs, educational institutions, and healthcare and increase distances between businesses and their employees.

## EAST BALTIMORE COMPREHENSIVE PHYSICAL REDEVELOPMENT PLAN (BALTIMORE, MARYLAND)

### “It takes a village” to relocate an urban neighborhood.

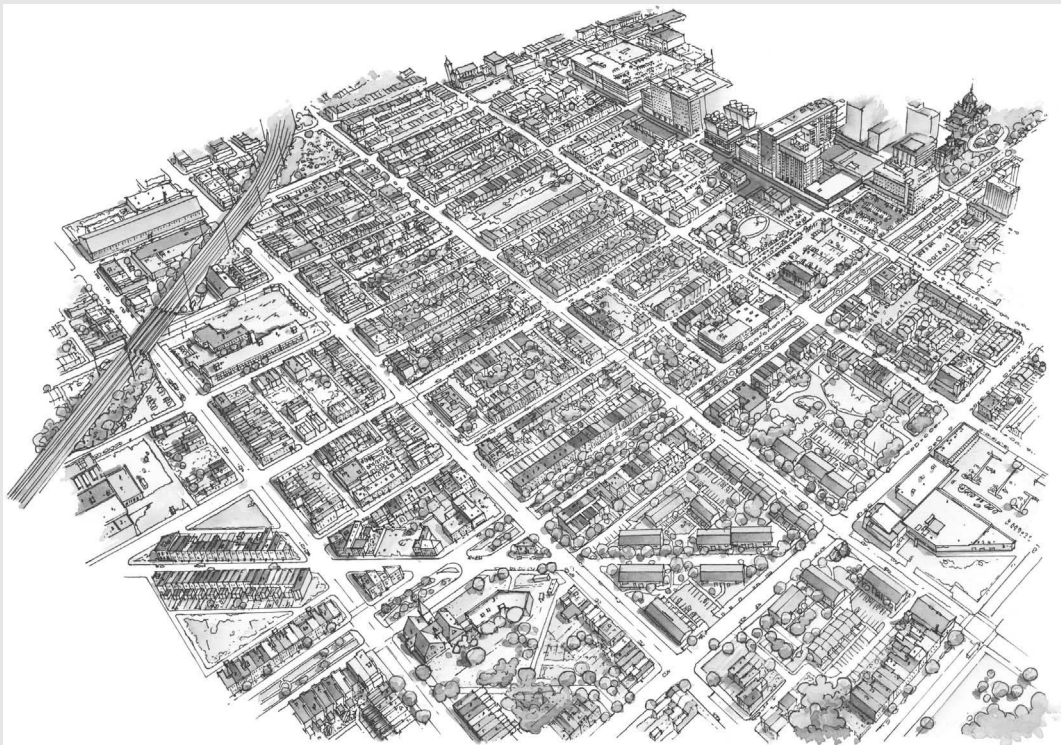
- **Program:** A comprehensive plan for the redevelopment of East Baltimore neighborhoods adjacent to a new life sciences campus at the Johns Hopkins Medical Center. The plan addresses housing, education, open space, and economic development.
- **Area:** 88 acres/1,200 housing units
- **Design team:** Urban Design Associates, the City of Baltimore, Johns Hopkins University, the Abell Foundation, the Goldseker Foundation, and the Annie E. Casey Foundation
- **Developer:** Johns Hopkins University
- **Award:** CNU Charter Award (2003)



The plan builds on the area's traditional character but integrates new elements to enhance livability and create both a mixed-income community and a location for scientific research. Principal elements include a new street grid and block pattern that connect landscaped blocks that can accommodate off-street parking (the area's small house lots, plotted before the automobile era, have no room for parking). A new park system takes advantage of a rail right-of-way to fashion a series of connected parks and public spaces. New mixed-income housing includes a variety of unit types, from single-family row houses to midrise multifamily buildings. Planning for a new biotech center reflects three must-haves identified in an earlier feasibility

study: a strong commitment to the planning process from all stakeholders—residents, city and state officials, and Johns Hopkins itself; a location that allows walkable access to the Johns Hopkins Medical Center; and “a bold redevelopment vision.”

Much of the project's success resulted from effective collaboration among the Annie E. Casey Foundation, Johns Hopkins University, and the City of Baltimore. Responding to the needs of a tightly knit neighborhood where networks extended far beyond an immediate family, the foundation set up a case-management approach to each household, thus ensuring safety for the residents in their new locations as well as access to jobs at the university.



3.53 © Urban Design Associates

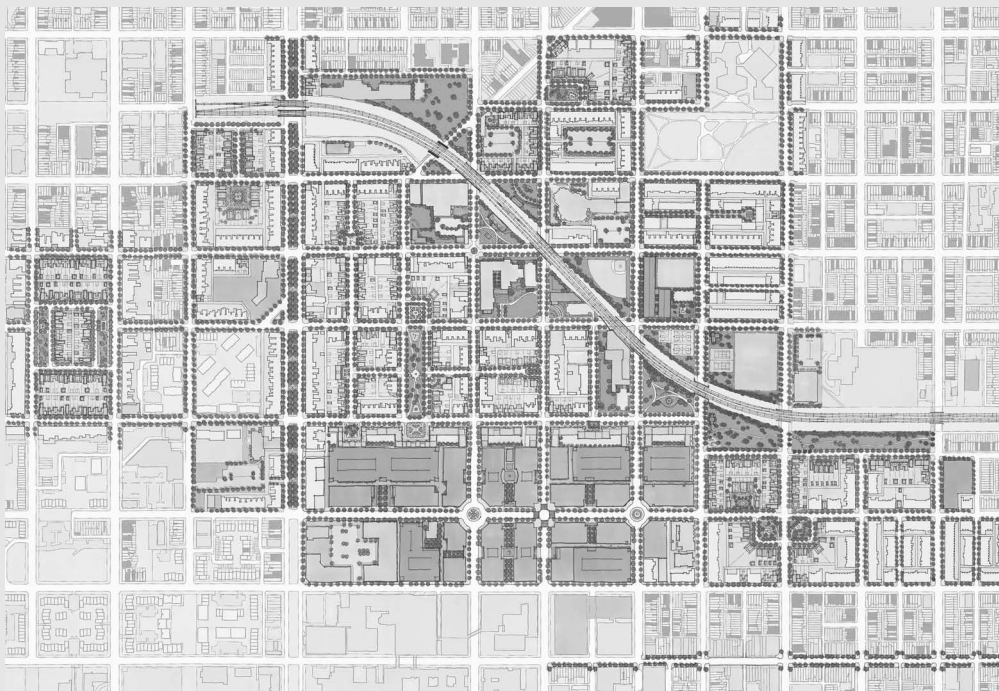
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3.54 © Urban Design Associates



3.55 © Urban Design Associates



Ultimately only one strategy makes sense for most American communities in pursuit of resilience—investing in the capacity to withstand and recover quickly from the impacts of global warming. At the same time, increasingly scarce public resources will make it essential that each dollar spent on resilience also represents an investment in livability and quality of life.

Projections involving a combination of natural defenses (such as restored wetlands) and engineered defenses (such as levees and seawalls) to protect both New York City and the Gulf Coast total roughly \$100 billion—less than one-third the costs of recovery, rebuilding, and lost economic output from these two storms. Yet, for a nation facing a long-term shrinkage in discretionary public spending at all levels, even \$100 billion represents a daunting figure. By the authors' estimate, the costs of protecting America's at-risk cities from rising sea levels could exceed \$1 trillion by 2050. In inflation-adjusted dollars, that equals about twice the cost of building the entire interstate highway system in the United States. Such expenditures would coincide with an explosion in healthcare costs<sup>56</sup>—which already account for nearly one-fifth of our economy—as America's population ages.

In the decades ahead, as the double burden of funding both resilience and healthcare plays out, the United States will find it increasingly difficult to secure public investment in transportation, affordable housing, rebuilding urban infrastructure, and similar essential building blocks of urban success. However, resilience measures lend themselves to doubling as means toward community-building. Seawalls can support entire high-density, amenity-rich, mixed-income neighborhoods at a time when demand for urban living is growing. Restored wetlands and levees that protect urban neighborhoods can become new urban wilds, parks, and beaches. The need to protect transit systems, the

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We're rediscovering that we can create buildings and neighborhoods responsive to their environment, just as a living system would. Indigenous peoples have used this approach for centuries. If our designs are informed by and embrace the climate, solar exposure, earth, water, and landscape, the resulting buildings and neighborhoods will be responsive and dynamic living systems.

*Bob Berkebile, FAIA, principal, BNIM Architects, Kansas City, and nationally known proponent of sustainable design*

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electrical grid, and utilities from rising seas can provide the rationale—and financial support—for a new generation of infrastructure.

## The costs of walkable urbanism

"Cities," Jane Jacobs said, "have the capability of providing something for everybody, only because, and only when, they are created by everybody." Yet, the cities leading the urban revival today—including New York, Washington, Chicago, and Seattle—do *not* provide something for everybody. Increasingly they seem incapable of providing anything for the poor.

Jacobs pilloried architects, planners, developers, and city officials in the 1960s and '70s for a blind devotion to single-use zoning, for elevating the car over the pedestrian, for designing and approving buildings that ignored the street, and for other practices that she saw undermining the vitality and diversity that drew people to cities. She framed cities' unique appeal—and virtue—as a strong sense of community that unifies an economically, racially, and culturally diverse population through interaction on urban streets.

The urban revival that Jacobs prescribed has taken hold in many American cities, but it has arrived at a



## TORRE DAVID INFORMAL SETTLEMENT (CARACAS, VENEZUELA)

### A favela in a high-rise raises questions about urban form and social justice.

- **Program:** The repurposing of an urban commercial tower into an informal vertical settlement
- **Design team:** Enrique Gómez (Confinanzas Tower architect); Urban Think Tank; Alfredo Brillembourg and Hubert Klumpner; ETH Zurich; photographer Iwan Baan; the SuAT Group (postoccupancy research and documentation)
- **Developer:** David Brillembourg, Confinanzas Tower
- **Award:** Golden Lion for Best Project of the Common Ground Exhibition to Torre David/Gran Horizonte (2012); 13th International Architecture Exhibition; Venice 2012 Architecture Biennale
- **Web:** [www.archdaily.com/388821/torre-david-informal-vertical-communities-exhibition/](http://www.archdaily.com/388821/torre-david-informal-vertical-communities-exhibition/)  
<http://vimeo.com/49094660#http://caracaschronicles.com/2012/04/18/a-tale-of-two-towers/>

Originally planned as a bank, Torre David is an unfinished glass curtain-wall tower rising forty-five stories in the mostly developed city center of Caracas. Following the death of the developer and Venezuela's 1994 financial crisis, construction was abandoned. What ensued was a profound act of collective urban occupation and, potentially, a glimpse into an alternative future: squatters took note of the desolate, high-rise real estate and moved in. Opinions on this emerging environment are mixed. Critics call for removal of the occupants—750 families and 3,000 residents

living in extralegal circumstances—but others suggest stabilizing the community and supplying a reasonable level of municipal infrastructure and services.

Torre David represents but one variation on the informal communities that, in aggregate, shelter 12 percent of all urban dwellers across the globe. The worldwide count of slum-dwellers stood at



3.56 Courtesy Daniel Schwartz/U-TT Chair, ETH Zurich



827 million in 2013 and will likely reach 889 million by 2020.<sup>57</sup> Many planning professionals believe that these informal communities could survive if their basic power, water, sewer, and safety infrastructure were brought up to code (or, in many instances, developed from scratch).

Reports suggest that Caracas may have more than twenty high-rise “squats” like Torre David. Many informal communities around the world are



3.57 Courtesy Daniel Schwartz/U-TT Chair, ETH Zurich

built of found materials on land controlled by the government; others exist in abandoned industrial buildings or unfinished construction reclaimed for domestic use.



3.58 Courtesy Daniel Schwartz/U-TT Chair, ETH Zurich



3.59 Courtesy Daniel Schwartz/U-TT Chair, ETH Zurich



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Issues of equity, inclusion, access, and opportunity remain unresolved in many American cities and in recent years have been magnified as income disparities increase the historic divisions between race, ethnicity, and class. Urban design, in collaboration with the disciplines of planning, architecture, and landscape urbanism, must reembrace its activism and obligation to tackle these issues through our design interventions if we are to have a more economically, environmentally, and socially sustainable impact on the improvement of both place and people. Design must contribute to a more just city.

*Toni L. Griffin, professor and director, J. Max Bond Center on Design for the Just City, City College of New York, Spitzer School of Architecture*

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time of greater economic inequality than Jacobs or anyone else imagined in the 1960s, a period when inequality actually shrank. Disparities in income have reached levels last seen in the 1920s. Economist Joseph Stiglitz, a Nobel laureate and former chair of the Council of Economic Advisors, notes that 93 percent of the growth in all income in 2010 wound up in the pockets of the top one percent of earners. By contrast, real-dollar incomes for middle-income families sank to 1996 levels.<sup>58</sup> Economists, including Stiglitz, have documented the shrinking ranks of America's middle class, the stalwarts of Jacobs' urban vision. America's middle class, which had grown steadily from the 1940s onward, began to shrink in the 1970s as wages for lower- and middle-income workers stagnated. Today, as urban streets recover the appealing qualities that Jacobs described, the most affluent Americans have flocked to live along those streets, and the demand they have created is pricing middle- and lower-income Americans out of cities.

Stiglitz calls middle-income households "the true job-creators" because they build urban prosperity in multiple ways.<sup>59</sup> For example, both middle- and

lower-income households in cities spend a far larger share of disposable income on urban retail than do the wealthy (and because they are more numerous, they have a greater impact). Middle-income households contribute a disproportionate share of city revenues and produce a substantial share of the entrepreneurs who start new urban businesses. As the number of middle- and lower-income residents shrinks, cities lose their most vocal advocates for effective public education.

As incomes for poorer households fall further behind 1980 levels in constant dollars, members of these households lose the resources needed to pursue education and job training that would, in aggregate, boost regional economic competitiveness and offer a route to individual self-sufficiency. Even with job training, the steady geographic dispersal of jobs across metropolitan regions means the poor increasingly lack access to jobs they may be trained for. Beyond the moral questions these issues raise, Stiglitz points out that communities with greater levels of income inequality generally experience recessions more severely and recover more slowly than other communities.

Ironically, as planners and designers help cities broaden the appeal of their urban centers to well-educated, higher-income residents, they aggravate the impacts of income inequality. This challenge extends far beyond the realm of urban design, but that doesn't absolve urban designers of the responsibility to address it. While Stiglitz acknowledges the role that global economic trends have played in exaggerating income inequality, he argues for the pragmatic as well as moral benefits of addressing income inequality at a local level. Aggressive initiatives to expand affordable housing for both low- and middle-income households can protect urban diversity. Incentive zoning programs that reward developers for meeting community goals can tap rising urban real estate values to support education and





3.60 Via Verde/the Green Way is a 222-unit mixed-income development in the Bronx. Developed by Phipps Houses and the Jonathan Rose Companies and designed by Dattner Architects and Grimshaw Architects, the project emerged from a competition sponsored by New York City's Department of Housing Preservation and Development and the American Institute of Architects' New York chapter. The development represents a joint effort to create a replicable model for sustainable, mixed-income urban housing that demonstrates how design and sustainability can cut across economic, social, racial, and other differences. Courtesy Phipps Houses, Jonathan Rose Companies, Dattner Architects, and Grimshaw Architects. © David Sundberg/Esto

job training. Transportation initiatives can link transit-dependent city dwellers to jobs. Social equity can and should become a fundamental principle of urban design going forward.

## Notes

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## CHAPTER 4

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# Recentralization: Twenty-First-Century Urbanism Takes Shape

In his 2008 book *Another City: Urban Life and Urban Spaces in the New American Republic*,<sup>1</sup> architectural historian Dell Upton calls American cities places of “perpetual ruin and repair.” Nothing has changed. By 2040, the United States will create as much built space as it did from 1950 to 2010.<sup>2</sup> As it does, the impact of the forces described in chapter 3 will grow stronger. We will build at an unprecedented pace even as we wrestle with greater income disparities, an aging population, shrinking households, increasingly fierce global economic competition, and accelerating climate change.

We don’t need to guess how these forces will reshape urbanism over the coming decades. Many areas

have already begun restructuring to support a shift from sprawl to compact growth, reinventing suburbs to reflect changing markets and evolving environmental and personal values, and retrofitting downtowns and urban neighborhoods to accommodate new growth.

### Traveling Along the Smart Growth Transect

Andrés Duany’s transect reflects a dramatic break with the laissez-faire attitude planners, public officials, and architects adopted toward regional growth between

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There are many individual examples of fine streets, attractive parks, active public spaces, and successful neighborhoods that, if brought together in one city, would create a magnificent urban place. The challenge today is to achieve consistent high design quality everywhere in every city.

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*Jonathan Barnett, FAIA, FAICP, professor of city and regional planning and director of the Urban Design Program, University of Pennsylvania*

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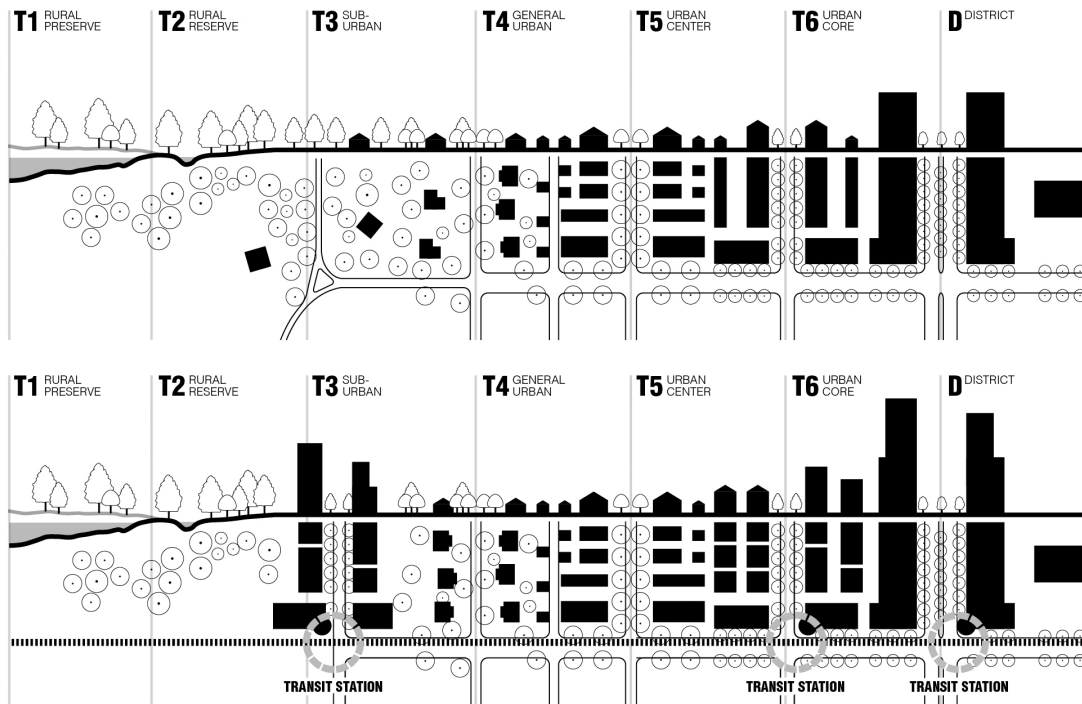
Green building is important, but Americans are rapidly learning that they can do far more to reduce their carbon footprint—and make a far more significant contribution to addressing global climate change—by supporting smart growth policies that promote walkable, mixed-use communities offering a range of transportation choices.

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*Kaid Benfield, director of the Natural Resources Defense Council Smart Growth Program*

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4.1 Borrowing a concept from ecology, the New Urbanists developed the idea of the transect, a diagrammatic cross-section that runs from a metropolitan area's outer fringes to its very heart. Starting at the edge—undeveloped rural zones—the transect moves toward the region's center, gradually increasing building heights and massing to reflect growing development intensity as it passes from rural and then low-density suburban neighborhoods to urban neighborhoods and finally arrives at the downtown core. The emerging demographic, economic, and related forces discussed in chapter 3 suggest that going forward, the transect's shape will morph, with new spikes in the suburbs describing transit-served, higher-density corridors and increasing concentrations of height and massing in urban neighborhoods and downtowns. Courtesy Goody Clancy

roughly 1950 and the early 1990s. For most of that time, few thought of regional growth as having limits (whereas the transect assumes an identifiable “edge” of the city). The transect of 1960 or 1980 would have resembled Frank Lloyd Wright's vision of endless, low-rise growth spreading toward the horizon.

The first substantive challenges to what we now call sprawl-form decentralized growth emerged in the 1970s. At the time, most Americans—including elected officials—believed market forces alone had to shape growth. Indeed, a tacit consensus saw this model as necessary and highly rational. In fact, growth in this period fed on a vast and unacknowledged public/private

partnership. The sprawl model required four significant supports: public funding of highway construction to ensure access to low-cost land, privately financed development that leapfrogged over built-up areas, low fuel costs that subsidized consumers' ability to travel increasing distances between home and work, and constant federal subsidies for maintaining highways, the infrastructure of sprawl.

The concept of “growth management” took hold in the mid-1970s as cracks appeared in this unacknowledged partnership. The 1973 oil embargo raised alarms about the long-term availability of cheap fuel. Some states began to consider the escalating costs, and

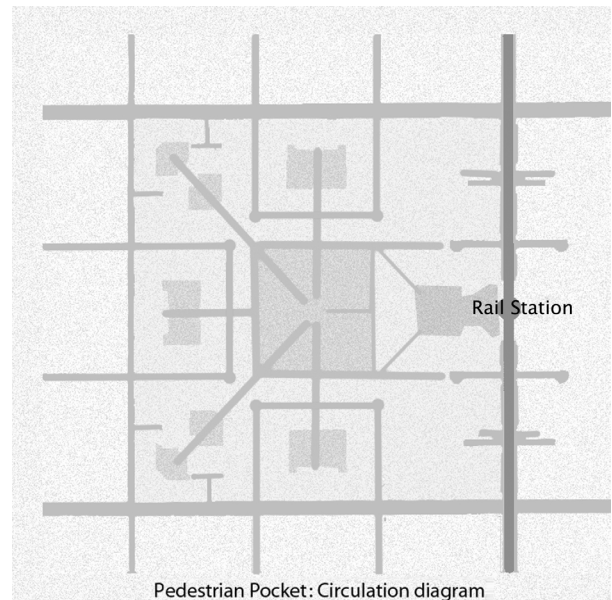




4.2 Portland, Oregon, established the first major city growth boundary in the United States in 1973. Its original goal was environmental protection, but over the past four decades Portland has continued to lead in creating public policy for smart growth. Courtesy Wikimedia user aboutmovies

diminishing fiscal returns, of extending highways to serve low-density development. Development of green-field sites sparked disputes between developers and federal and state governments responding to pressure from newly vocal environmentalists and wielding new legal tools for protecting the environment. Massachusetts governor Michael Dukakis, motivated by concerns about the mounting costs of the highways needed to support sprawl and a desire to preserve rural landscapes, became an early proponent of managed growth. He and other proponents ran into strong opposition from local leaders, however, who saw environmental protection as a new roadblock to creating more jobs and earning new revenue. Developers and business leaders often reinforced this opposition, characterizing managed growth as heavy-handed meddling in the marketplace.

In 1986, the planner Robert Yaro, who headed the Center for Rural Massachusetts at the University of Massachusetts (and who would go on to head the New York-based Regional Plan Association) invited Dukakis to attend a conference on the benefits of finding



4.3 Urban designer Peter Calthorpe's concept of the "pedestrian pocket" represented a novel alternative to the dominant model of suburban development in the late 1980s, a period during which suburbs continued to grow—and drain cities of people and investment. Courtesy Wikimedia user Fgrammen



new growth models for local governments, developers, and communities. Dukakis grasped the political advantages of reframing the public debate around benefits rather than regulation and made “smart growth” a cornerstone policy of his administration. The term quickly gained national currency but was still viewed skeptically by a majority of public officials—along with a majority of planners and urban designers. They recognized that sprawl imposed fiscal burdens (maintaining all those highways rarely paid for itself), threatened loss of prime agricultural land and wilderness, and increased costs to consumers, but no vision of smart growth had emerged that captured the popular imagination.

That began to change in the late 1980s. In 1989, the urban designer Peter Calthorpe, who found auto-dependent growth alienating and dehumanizing,

proposed the concept of “pedestrian pockets”—mixed-use communities linked by transit and entirely walkable—that offered a widely noted new model for compact growth. A decade later, when urban designer Dan Williams, FAIA, drew up the South Dade Watershed Plan, he upheld smart growth as a tool for addressing long-term regional health by adding an explicitly environmental dimension. Without appropriate regional development growth controls, Williams argued, South Florida risked draining away its last drop of drinkable water. “The ‘design of regions,’” he wrote, “may well be the future challenge for architects” if America’s urban development hoped to find a sustainable balance with nature. In a sense, he proposed expanding the scope of the pedestrian pocket from dozens of acres to a multi-county region in which policies would concentrate on the core.

## EASTWARD HO! (SOUTHEAST FLORIDA)

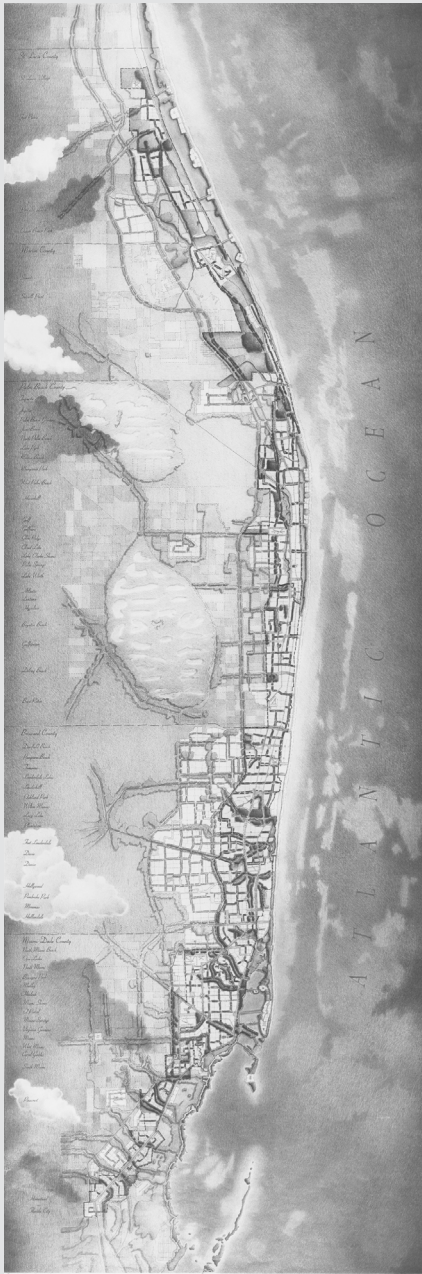
### A pioneering proposal grounds smart growth in local geological and environmental conditions.

- **Program:** A smart-growth vision for five Florida counties that reverses decades of development encroachment on the Everglades and critical agricultural areas and prepares the region to recover more quickly from flooding caused by hurricanes or rising sea levels driven by climate change
- **Area:** 120-mile stretch of Southeast Florida coast (seventy municipalities)
- **Designer:** Daniel Williams, FAIA
- **Developer:** Governor’s Commission for a Sustainable South Florida
- **Award:** AIA Honor Award for Regional and Urban Design (1999)

Emerging in response to hurricanes Katrina and Sandy, urban resilience planning has brought attention to using natural systems (often called “green infrastructure”) to help prevent flooding from increasingly stronger and more frequent storms. This plan, covering Southeast Florida up to 20 miles inland, represents a pioneering application of this thinking.

Eastward Ho! covers seventy municipalities with a combined 4.5 million residents and corresponds roughly to the region’s geohydrologic system. It focused intently on the costs of sprawl—still relatively unexplored at the time—and paired that analysis with proposals for open space, affordable housing, and neighborhood revitalization initiatives that make infill development attractive.





4.4 Illustration by John G. Ellis, 2004. Courtesy of Dan Williams, FAIA

“Designing an alternative to sprawl is the leading issue in urban and regional planning,” Daniel Williams, FAIA, wrote in his submittal to the AIA Honor Award competition. He described the project’s mission as “analyzing the ‘true cost of sprawl’ and ‘designing’ the urban and regional patterns that work within the sustainable resources base while creating livable communities.” Developed for a region that already included 4.5 million residents and looking ahead to 2040, the plan establishes a smart-growth boundary that cuts across municipalities. Based on ecologically derived criteria, the boundary preserves agricultural land while creating guidelines for livable communities and preserving urban heritage. By offering alternatives to the costs of sprawl, Williams asserts that a smart-growth plan would save taxpayers billions of dollars because preserving the area’s natural water supply “will be accomplished at less of a price than typical . . . engineering solutions.”



4.5 Illustration by John G. Ellis, 2004. Courtesy of Dan Williams, FAIA



Among the challenges facing smart growth at that point was popular opposition to the density it required. Community residents in the core fought the inward growth essential to successful smart growth. Fear of greater density—as a threat to neighborhood character and a cause of congested streets and crowded sidewalks—lay at the heart of much of this opposition. In 2003, the Boston Society of Architects (BSA) collaborated with three national AIA committees—Regional/Urban Design, Housing, and the Committee for the Environment—to sponsor “Density: Myth and Reality,” the first national conference to address this fear. The conference drew more than four hundred participants, including mayors, neighborhood leaders, and national and international journalists. Media coverage noted that by demonstrating the potential advantages of well-planned density, the conference had popularized it as a strategy that could benefit neighborhoods, cities, and regions.

Today the concept of smart growth is well established. Sponsors from the Environmental Protection Agency to foundations to civic coalitions have launched initiatives to curb sprawl, direct growth and investment into developed areas, and preserve the natural environment. Some initiatives, like Envision Utah, focus on an entire state. Regional initiatives underway for the District of Columbia, Chicago, Des Moines, and other metropolitan areas plan to arrest and reverse sprawl. Smaller communities such as Concord, New Hampshire, have launched projects intended to draw investment back into older neighborhoods and preserve undeveloped natural surroundings.

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**You can't regulate desirable growth without controlling the places where growth is less desirable or undesirable. As in sculpture, the positive form cannot be fully revealed unless the negative material is first removed.**

*Charles Zucker, senior urban designer, Office of Planning and Development Services, City of Boulder, Colorado*

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As smart-growth thinking has taken hold, it has introduced new challenges that require a new generation of innovative planning and policy. For example, coaxing growth back into core neighborhoods has succeeded well beyond levels envisioned at the 2003 density conference, but the resulting rise in real estate values threatens to displace growing numbers of long-time low-income residents.

Over the next two to three decades, highways will continue to attract investment, and suburban development won't grind to a halt. As America struggled out of the Great Recession, however, shifts in public opinion, public policies, and real-estate markets combined to produce a “new normal” much more supportive of smart growth and cities. In a 2012 analysis of census data, the Brookings Institution reported that for the first time in more than ninety years, cities in large metropolitan areas had grown faster than their suburbs from 2010 to 2011.<sup>3</sup> The Great Recession reinforced these changes, but city populations had begun growing before the recession, and more detailed analysis of the data reveals the growing appeal of city life to a wide range of demographic groups.

## CHARLOTTESVILLE COMMERCIAL CORRIDOR STUDY (CHARLOTTESVILLE, VIRGINIA)

### **By embracing density, a small city welcomes growth and preserves community character.**

- **Program:** Examine the economic expansion and redevelopment potential of fifteen corridors to create a revitalization master plan.
- **Area:** 10.3 square miles
- **Design team:** Torti Gallas and Partners; Land Planning and Design Associates
- **Client:** City of Charlottesville



- **Awards:** Congress for the New Urbanism Charter Award (2004); AIA Honor Award for Regional and Urban Design (2003)
- **Web:** <http://www.tortigallas.com/project.asp?p=50198>

In the late 1990s, members of the Charlottesville City Council decided their city should embrace growth in a then-novel way. They saw growing automobile corridors eating away at the historic downtown and its main street. Instead of continued auto-oriented growth, these corridors needed new commercial and residential infill to make them more walkable, more urban environments that could accommodate the city's growth. The council leaders therefore undertook a study aimed at revising the zoning code in what became an early instance of a community-based effort to counter sprawl and protect its character by promoting density.

In each of fifteen development corridors, the study team organized a charrette that

brought together property and business owners, residents, and other stakeholders. The charrettes produced individualized "corridor themes," flexible design strategies that strike a balance between neighborhood history and character and a vision for the future. Together the corridor themes formed the basis of a citywide master plan. The study also included recommendations for the plan's management and implementation.

The Commercial Corridor Study outlines short-, mid-, and long-term design recommendations for inclusion in the comprehensive master plan. These include creating a pedestrian-friendly environment with detailed guidelines for public infrastructure and private development; promoting round-the-clock activity as a by-product of mixed uses and encouraging pedestrian activity through human-scale development; preparing for technology-driven economic development; and coordinating corridor development to enhance the city's image and foster a stronger sense of community.



4.6 Rendering by Chris Johnson. Courtesy of Torti Gallas and Partners, Inc.

*(continued)*



(continued)



4.7 Rendering by Chris Johnson. Courtesy of Torti Gallas and Partners, Inc.



4.8 Rendering by Chris Johnson. Courtesy of Torti Gallas and Partners, Inc.



Aerial photos of almost any region of America from 1950 to 2000 show a steady outward spread of development with relatively little variation in intensity beyond central cities. The pattern initially followed the route of new highways, but eventually it spread out in an even pattern that covers much of the region.<sup>4</sup> But by 2030, such photos will likely reveal new patterns: darker corridors of more intense development along transit lines will crisscross regions and connect ever more developed suburban nodes and centers. Over the next few decades these centers will intensify, growing up, not out.

### **Across the transect: A new generation of “streetcar suburbs”**

In his classic study *Streetcar Suburbs*, historian Sam Bass Warner described the development of rings of neighborhoods within Boston and then around it that grew as a

result of the construction of streetcar lines from the late 1890s through the 1920s. The early twenty-first century will see a similar set of streetcar suburbs grow up along transit lines.

The Census Bureau projects that the U.S. population will increase by roughly 50 million between 2010 and 2030.<sup>5</sup> Research by the Center for Transit-Oriented Development concludes that by 2030, roughly one in four households “looking to rent or buy are likely to want higher-density housing near transit.”<sup>6</sup> Regions will experience intensifying infill development that concentrates growth along corridors that follow transit lines—with the densest development taking place within a ten-minute walk (roughly one-half mile) of transit stations. These corridors will house a disproportionate share of the knowledge industries that offer the best opportunities for good jobs and investment in a globalized economy.



4.9 American cities grew rapidly in the late nineteenth century, fueled by booming factories and ports and by immigration from Europe. Streetcar lines created arteries that shaped the growth of these cities (like Washington, shown here) until widespread automobile ownership arrived in the 1920s. Courtesy Library of Congress, Prints and Photographs Division





4.10 Planning study for Assembly Square, a mixed-use transit-oriented development 3 miles from downtown Boston. In the late 1990s, the City of Somerville had envisioned big-box stores on the site, which once held a Ford factory. A grassroots initiative and a new mayor joined forces to advocate for a mixed-use, transit-oriented district of more than 5 million square feet (now in development by Federal Realty Investment Trust). Economist Arthur C. Nelson projects a shortage of roughly 16 million housing units in transit-oriented developments by 2040. Rendering by Dongik Lee, courtesy Goody Clancy

### *Arlington County, Virginia*

The Washington region is a textbook case of how transit has begun shaping twenty-first-century urbanism at a regional scale and suggests the form that new development will increasingly take in growing metropolitan areas like Charlotte, Denver, and Phoenix. In 1977, the region inaugurated its rail-based Metro transit system, built primarily within the District of Columbia but today reaching well into suburban Maryland and Virginia. By 2013, Metro had grown to 106 miles of rapid transit lines serving 1,500 square miles with a population of 5 million people.<sup>7</sup> Originally intended to relieve congestion and improve Washington's air quality, the system has increasingly responded to regional growth patterns. Public policy has promoted this response by

encouraging denser development around Metro stations, but real estate markets have had an even stronger influence. Between 2000 and 2010, housing and commercial development within a five-minute walk of urban and a ten-minute walk of suburban Metro lines grew between 300 and 400 percent faster than elsewhere the region.<sup>8</sup> More significantly, 40 percent or more of total regional development for the knowledge industries that represent the future of the region's economy occurred in these corridors.<sup>9</sup>

Well into the 1970s, Virginia's Arlington County, across the Potomac River from Washington, consisted largely of post-World War II bedroom suburbs. Its transformation offers a vivid example of transit's power to shape development. In fact, it pioneered a new model





4.11 Arlington County began one of America's most ambitious transit-oriented development planning initiatives in the 1960s. County leaders persuaded planners for the new Metro transit system to locate the line passing through Arlington underneath Wilson Boulevard, the county's Main Street. Over four decades, changing leadership and professional planning staff have maintained remarkable continuity in focusing growth within a five- to ten-minute walk of Metro stations, creating a series of walkable, mixed-use urban districts (Ballston is pictured here) while preserving the character of traditional suburban neighborhoods on either side of the corridor. The result has served as a national model for higher-density, transit-oriented growth. Arlington residents take pride in "the Arlington Way," a tradition of community-based planning that has brought more than 120,000 jobs, 40,000 high-density multifamily housing units, and a new generation of walkable mixed-use Main Streets to within walking distance of traditional suburban subdivisions. Courtesy dbking via Wikimedia.org

for suburban growth: the urbanized corridor. Ironically, the county traced some of its earliest growth to 1896 and the inauguration of the Fairfax streetcar line that ran from the District to the village of Ballston.

In the late 1960s, concerned that investment had begun to bypass the county in favor of newer areas, the county commissioners seized on planning for the Metro system as a tool for economic development. They hoped to attract a larger share of the growing federal workforce and protect the value of existing residential

development. The commissioners saw what neighboring jurisdictions did not—that the county could use Metro to create employment centers in already developed areas that would attract jobs and investment.

In the early 1970s, the commissioners made four decisions that set the stage for the county to become an icon of smart growth and transit-oriented development years before those terms even existed. First, they embraced Metro and made sure that Arlington County actively participated in its planning. Second,



they persuaded the transit agency to move the proposed route from an alignment along the edge of residential neighborhoods to Wilson Boulevard, a corridor of strip development that served as the commercial center for these same neighborhoods. Third, they insisted on building the line belowground to encourage development near each station and avoid negative impacts on existing neighborhoods. Fourth, they created a countywide plan that promoted growth—and higher densities—on land within walking distance of each station and drew up supporting plans to guide development for all the stations.

This strategy shaped growth in Arlington County for four decades. Since the mid-1990s, the dramatic results of a transit-focused strategy have made it a model for other regions. In 1970, prior to the plan, the county counted roughly 100,000 jobs and 70,000 households, distributed more or less evenly across the county. Four decades later, the county had added roughly 120,000 jobs and 40,000 households, overwhelmingly concentrated in the Wilson Boulevard corridor and along a second Metro line that opened in 1978.<sup>10</sup> The pattern of this development—heavily concentrated near transit stations on the two lines—suggests how other regions will likely grow over the next few decades.

Arlington County expects to add another 80,000 jobs and 25,000 households by 2040, again largely concentrated in the Metro corridors.<sup>11</sup> Softened by mature trees lining its streets, low-density single-family houses and garden apartments and low-rise office buildings—the classic pattern of development in the 1960s and '70s—still dominate Arlington County. Through this suburban landscape, however, runs an urbanized corridor of mixed-use development that now accounts for roughly 60 percent of all housing units and 80 percent of jobs—on just 11 percent of the county's land area.

On closer examination, Arlington's urbanized corridors take the form of seven walkable “urban centers” linked by continuous mixed-use development. In 2010, these seven centers accommodated roughly 60,000 residents and 140,000 jobs in a mix of 20- to 30-story housing and office towers flanked by row houses, shops, and restaurants that frame lively streets and squares—all within ten minutes' walk of a Metro station. A few blocks away, suburban character reasserts itself on neatly trimmed blocks of single-family houses. Initial concerns that traffic and other impacts from dense corridor development would destroy these neighborhoods have not been actualized. Instead, residents take pride in their ability to walk to the rich array of amenities and jobs found in the corridor.

## CRYSTAL CITY VISION PLAN 2050 (ARLINGTON, VIRGINIA)

### Increasing density unlocks urban amenity for an edge city.

- **Program:** The creation of a transit-oriented redevelopment plan for a car-dependent suburb featuring affordable and subsidized housing, bus and streetcar transit, retail and office space, and parks and public spaces
- **Area:** 260 acres
- **Design team:** Torti Gallas and Partners; Kimley-Horn and Associates; DMJ Harris | AECOM; EDAW; Economic Research Associates; Nelson\Nygaard Consulting Associates; Robert Charles Lesser and Co.
- **Developer:** A partnership of the Arlington County Board, Crystal City Task Force, Arlington



County Management Team, Arlington County Project Team, and Anthony Fusarelli

- **Award:** CNU Charter Award (2009)
- **Web:** <http://sites.arlingtonva.us/ccpc/>

Like many suburban communities built from the 1950s through the 1980s, Crystal City found its low density and automobile orientation less of an advantage and more of a liability by 2000. Originally successful as an office district, this section of Arlington found itself competing with (and losing out to) newer, more pedestrian-friendly commercial areas. In response, it committed to a smart-growth strategy of pursuing transit-oriented development aimed at making it more walkable and less car-dependent (that is, less suburban in form and feel) and more mixed-use and dynamic (that is, more urban). While the plan

focuses on strategies for increasing density within the study area, it also outlines ways to increase density along transit corridors while preserving the character of the existing neighborhoods, following a formula that has yielded successful corridors elsewhere in Arlington County.

The plan calls for the addition of more than 8,000 new housing units and 11 acres of green space in anticipation of future growth: 17,400 people lived in Crystal City and Pentagon City in 2012, but projections suggest that the two neighborhoods will add a total of 8,500 residents and 35,500 jobs over 30 years. Creating a more vibrant urban center comes with the anticipation that an increase in residents and jobs before 2040 will require more services than the neighborhood currently offers. The plan also calls for a multimodal transit system to connect Crystal City to neighboring communities.



4.12 Vladislav Yeliseyev/Torti Gallas and Partners, Inc.

(continued)



(continued)



4.13 Vladislav Yeliseyev/Torti Gallas and Partners, Inc.



4.14 Vladislav Yeliseyev/Torti Gallas and Partners, Inc.



## SANDY SPRINGS CITY CENTER MASTER PLAN (SANDY SPRINGS, GEORGIA)

### An iconic suburb decides to build a real downtown.

- **Program:** The master plan for a new suburban downtown in a city that lacks any sort of center. Unmet demand for more urban-form housing assures the plan's financial feasibility; a wide mix of uses (offices, stores, restaurants, public spaces) will give the new downtown life, and the higher values created by denser development will help finance new parks, multiuse trails, and a more urban street grid.
- **Area:** 200 acres
- **Design team:** Goody Clancy (urban design)
- **Developer:** City of Sandy Springs

In the last decades of the twentieth century, the northern Atlanta suburb of Sandy Springs grew not as a true city but as a collection of low-density, upscale subdivisions built along multilane arterial



4.15 Courtesy Goody Clancy

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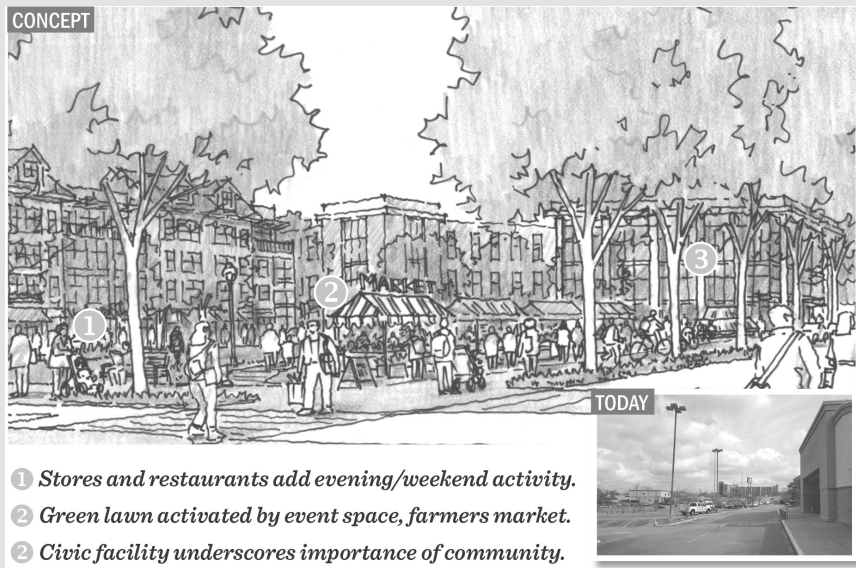
highways. It had no true center. Its residents expressed a strong interest in creating a place where they could shop, eat out, and meet friends without each activity's requiring a separate car trip. In response, the city set out to create a downtown from scratch. It began by purchasing faltering or shuttered shopping plazas near a main arterial road. It hired a consultant to explore how it could achieve the goals residents sought through private-sector redevelopment of its growing portfolio of properties—even in a community whose residents favor very limited government. (Private contractors provide most services in Sandy Springs.)

The planning process uncovered a robust unmet demand for housing unlike the existing housing stock of single-family houses and garden apartments. This demand for lofts and other urban forms of housing made potential development of a city center more valuable than the default approach of building more strip retail. The final master plan outlines a city center with a robust mix of uses, activity throughout the day, a network of green spaces connected by multiuse trails, and developer commitments to building close to 50 percent of the town center. The Sandy Springs plan is one of a new generation of walkable, urban-form downtowns grafted onto the low-density suburbs of the twentieth century.



4.16 Courtesy Goody Clancy





4.17 Courtesy Goody Clancy



4.18 Courtesy Goody Clancy



## ***Transforming an “edge city”: Rosslyn in Arlington County***

Housing density and easy regional access via mass transit support a growing cultural scene in the Arlington County city of Rosslyn that includes community theaters, music venues, and a robust visual arts community. Artisphere in Rosslyn—the first and most densely developed of the county’s seven transit centers—hosts a wide range of cultural activities that draw audiences from across the region. In place of strip retail, density and transit support retailers like an Apple Store and a Whole Foods market that thrive in walkable environments alongside distinctive locally owned restaurants, cafés, shops, and nightlife. Some developers even design and promote new housing as “high-density urban lofts.”

A closer look at Rosslyn reveals the evolving nature and the dynamics that drive the seven urban centers to grow upward, not outward. Located across the Key Memorial Bridge from the Georgetown section of Washington, Rosslyn sits astride both Metro’s Blue and Orange lines, which link it to the District, Reagan National Airport, and affluent Virginia suburbs. Like Ballston, Rosslyn also grew in response to the opening of the Fairfax Line streetcar service in 1896, but by the 1960s it was known mainly as an amorphous area of pawnshops and used-car lots. Connection to the regional highway system in 1964 accelerated commercial development that gradually gave Rosslyn the look of a city downtown and made it a model for the influential 1991 book *Edge City: Life on the New Frontier*, which described the rise of suburban centers that competed with—and some planners thought would ultimately displace—traditional downtowns:

Edge Cities represent the third wave of our lives pushing into new frontiers in this half century. First, we moved our homes out past the traditional idea of what constituted a city. This was the suburbanization of America, especially after World War II.

Then we wearied of returning downtown for the necessities of life, so we moved our marketplaces out to where we lived. This was the malling of America, especially in the 1960s and 1970s.

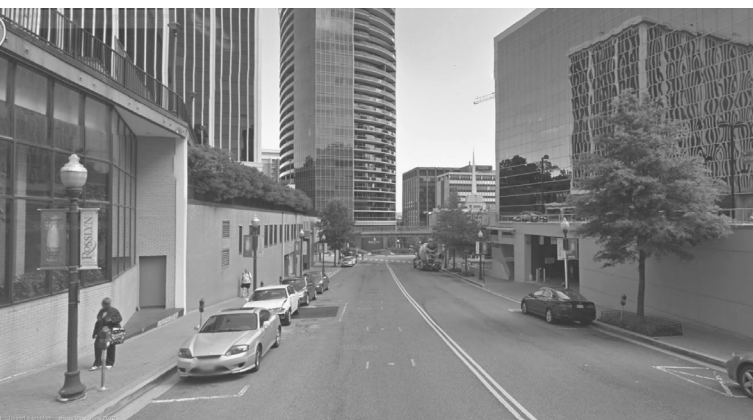
Today, we have moved our means of creating wealth, the essence of urbanism—our jobs—out to where most of us have lived and shopped for two generations. That has led to the rise of Edge City.<sup>12</sup>

In 1991, Rosslyn looked in some ways like a proper downtown. Its 7 million square feet of office space and six thousand housing units actually surpassed comparable numbers in many of America’s one hundred largest cities at the time. But Rosslyn was a profoundly suburban version of downtown, designed around the needs of cars and dominated by arterial highways built to speed traffic moving between Washington and its Virginia suburbs. A skywalk pulled pedestrians off the wide, often traffic-clogged streets. Neither the skywalks nor the streets supported many shops or restaurants, and pedestrians intrepid enough to travel at street level encountered the blank walls of parking garages.

In the late 1990s, developers’ views of Rosslyn shifted. Its excellent transit connections enabled it to compete for commercial tenants—law firms, technology companies, and other firms willing to pay top dollar for state-of-the-art office space—and for affluent households looking for high-end condominiums. The changing demographics and values described previously were at work in these markets: The same workers and homeowners drawn by Rosslyn’s excellent transit also wanted walkable streets and urban amenities. They wanted to work and live near a Metro station.

By 2009, the square footage of both office space and housing in Rosslyn had more than doubled since the opening of the Rosslyn Metro station in 1977. Three-hundred-foot-tall buildings had begun to replace structures built in the 1960s and ’70s. Developers pressed to build even higher, but the opposition they encountered





4.19 a,b Rosslyn, a dense cluster of office buildings mixed with limited housing, retail, and other uses, was the first of Arlington County's transit-oriented districts. The opening of Metro spurred roughly 10 million square feet of development in the 1970s and '80s, but it was primarily auto-oriented and relied on wide arterial streets and bountiful parking.

The forces described in chapter 3 have created new opportunities—and challenges—for Rosslyn. Working together, county officials, residents, and developers have created a plan that takes advantage of rising market pressures to build denser, taller buildings that create “walkable density.” This investment will transform traffic lanes into café-lined sidewalks, add a system of lively urban squares, and increase the number of residents and workers to support busy, retail-lined urban streets. The plan calls for several thousand units of high-density housing. Ganesh Ramachandran rendering, courtesy of Goody Clancy

came not from community members, as might be expected, but from the Federal Aviation Agency: Rosslyn's downtown sat on a flight path for Reagan National Airport. A 2013 downtown plan update recommended expanding Metro rail and bus transit services, adding streetcar service, and reallocating street space from vehicular lanes to sidewalks and bike lanes. This comprehensive overhaul of the area's transportation network formed part of a strategy for replacing Rosslyn's legacy auto-oriented development with new mixed-use development. Under the plan, Rosslyn would add more than 9 million square feet of offices, stores, and housing over twenty-five years, 70 percent of which would lie within a five-minute walk of its Metro station. The plan update also called for dismantling skywalks and taking advantage of the growing numbers of workers and residents and the increased investment generated by greater density to create an environment that welcomes pedestrians. Recommendations included narrowing streets, creating lively squares, adding street-level

shops, restaurants, and cafés, strengthening the burgeoning arts scene, and creating a chain of unique parks that connect to the Potomac River. The update reflected a dramatic reversal of decades of planning that favored the needs of cars over those of people.

The same scenario, in which transit allows increased suburban density, which in turn supports increased walkability, amenity, and livability—and, in the process, makes a community more competitive for residents and jobs—has played out across the Washington region. Suburban centers like Tysons Corner, Virginia, and Reston Town Center and Silver Spring, both in Maryland, have grown denser, more walkable, more urban—and more successful.

## At the core of the transect: Urban revival

During the Renaissance, city leaders throughout Italy sought to emulate classical Roman cities as they



expanded their own. But the emergence of a mercantile economy and a growing middle class required their cities to function in different ways than cities built 1,500 years earlier. Instead of new Romes, they rebuilt their medieval centers in ways that we might recognize. In a way, they invented the modern city. As urban living regains popularity in the United States, American cities face a similar task.

Americans returning to cities face very different social, economic, and environmental conditions than their parents and grandparents who left those cities in 1950 or 1970. American cities cannot simply pick up where they left off at the start of the great experiment with decentralized development. Early twentieth-century urban neighborhoods, classic Main Streets, and the bustling downtowns of department stores and ticker tape parades may hold important lessons for city-building today, but they cannot teach us everything we need to know. Today's planners and policymakers operate in a different world that requires a fresh approach that both addresses the problems and celebrates the opportunities of America's cities.

Across America that approach has begun to benefit neighborhoods bypassed by redevelopment, traditional Main Streets and new "knowledge neighborhoods," and redesigned downtowns. The planning and design behind new urban investment give priority to the needs of pedestrians over those of automobiles. Today developers increasingly take pride in greater density, mixed-use development, and sustainability, rather than in the highway access, single-use specialization, and lush landscaping that defined high-quality development for decades.

## Urban neighborhoods

### *The flight from urban neighborhoods*

America's industrializing cities grew rapidly in the decades after the Civil War, and neighborhoods sprang

up to accommodate burgeoning populations fed by immigration and farm-to-city migration. Most of these neighborhoods housed working-class families and were remarkably homogenous in terms of religion, family size, ethnic background, and income. Extended families were commonly concentrated along one block, and multiple generations of the same family might share the same apartment or "triple-decker" (a housing type popular in Northeastern cities that stacked three identical apartments atop one another in a structure that looked from the street like a large single-family house).

Residents either walked or, less frequently, rode omnibuses or streetcars to jobs, markets, or the city center.<sup>13</sup> The ability to walk to worship, shopping, and medical providers was a fundamental element of neighborhood life, and dense development patterns—few buildings had even a small yard—enabled people to live close to these destinations. Together these realities shaped the closely packed neighborhoods of single-, two-, and three-family houses that form the inner rings of development in many American cities.

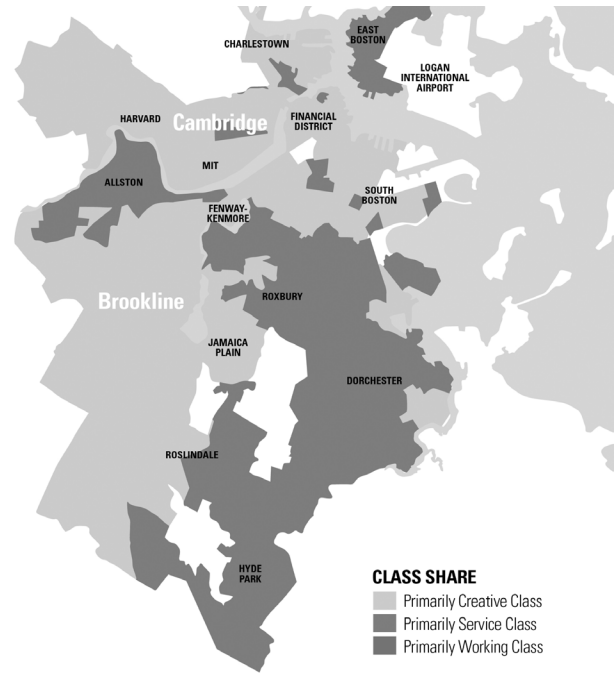
The Depression brought neighborhood-building in cities to a halt, and World War II extended the moratorium. A second generation of neighborhoods took shape after the war, and it reflected the aspirations of a growing middle class that enjoyed near-universal access to cars. Partly in reaction to the density of urban neighborhoods and partly due to pent-up demand for housing, these neighborhoods developed at the edges of cities. The suburban subdivision quickly became the standard template for second-generation neighborhoods, a role that endured into the 2000s. Even new neighborhoods built within cities in this period generally followed the suburban model of single-family homes on larger lots. As the Depression marked the end of the first generation of neighborhood-building, the Great Recession of 2007 halted the second. As America emerged from that recession, the focus of growth returned to cities.





4.20 Many older cities that lost industry after World War II, like Boston, did not recover from the Depression until the 1960s or after. The Prudential Center opened in 1964. With one exception, the city saw no other major commercial development in its core for more than twenty years. Courtesy Wikimedia user Piotrus

Around 2010, after losing on average more than one-third of their residents between 1950 and 1990, a majority of American cities with a population of more than 200,000 began to grow faster than their suburbs, and most were ill-prepared for that growth.<sup>14</sup> At just under 2.6 people, today's average American household is roughly one-third smaller than the average household in 1940.<sup>15</sup> In 2000, when Seattle returned to its 1960 population of roughly 560,000,<sup>16</sup> for example, the city needed 35 percent more housing units to house the same number of residents because, with fewer families and more singles, household size was significantly smaller on average than it had been forty years earlier. At the same time, this new population—with higher proportions of younger and older residents (and lower proportions of the the middle-aged), drawn from more cultures and ethnic background, and far less likely to have children—was far more diverse than Seattle's residents had been in 1960. The residents of Seattle's neighborhoods in 2000 looked very different from the largely



4.21 Many cities with strong economies, like Boston, have lost middle-income residents and experienced a growing gap between residents in low-paying service jobs and those in high-paying "creative class" jobs. Adapted from Richard Florida, "Class-Divided Cities: Boston Edition" at theatlanticcities.com

white, working-class families who left in the decades following World War II. A 2013 analysis by Richard Florida revealed that many cities once dominated by ethnically homogeneous working-class neighborhoods no longer contained a single neighborhood that could be defined as primarily working-class.

As suburbs grew in the last half of the twentieth century, the only significant investment many urban neighborhoods saw took the form of urban renewal programs, which often proved more destructive than restorative. With the exception of public housing developments, many of which worked well as neighborhoods until they were overwhelmed by the problems of generational poverty, very little new housing built under urban renewal represented neighborhood-building.



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Emory University formed a partnership with the surrounding neighborhoods because we believe that the community we share faces two options: we can pretend we have not learned the lessons that sprawl has taught us, or we manage growth to become denser and at the same time greener, more walkable, more livable, and more respectful of the [Frederick Law] Olmsted history that surrounds us and inspired our campus.

*Bryan Cooke, executive director, Clifton Community Partnership, Atlanta*

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## The return to urban neighborhoods

After decades of focusing on suburban expansion, developers, city officials, and even planners and architects initially failed to recognize the growth of American cities that began around 2000. But the shift set the stage for a third generation of neighborhood-building that had to respond to new economic and demographic realities.

In 2008, Kaid Benfield, director of sustainable communities at the National Resources Defense Council, reported on the recipients of the Philippe Rotthier European Prize, awarded for the best urban neighborhoods built in the European Union over the previous twenty-five years. A comparable American jury of architects and urbanists would have struggled to find any notable new neighborhoods in American cities built during the same period. Benfield described the winners as “fabulous projects featuring revitalization, walkable design, mixed use, sustainability, respect for historic precedent, and affordability—the building blocks of smart growth.”<sup>17</sup> While some of these prize-winning neighborhoods represented post–World War II redevelopment of older areas, several reflected that urban living had never declined in Europe as it had in the United States.

Amsterdam illustrates how European cities followed an urban model when they expanded following the

war—not a suburban one. Postwar areas of growth begin with bland neighborhoods of apartment blocks that reveal the influence of Le Corbusier and CIAM, but these give way to vibrant, mixed-use neighborhoods of lofts and townhouses framing walkable streets and lively squares. The Dutch advanced the idea of the *woonerf*, “a living street where pedestrians and cyclists have legal priority over motorists.”<sup>18</sup> Planners in the United States have adopted the vague term “shared space” for the concept. *Woonerfs* are the modern equivalent of historic European streets, which never lost their neighborhood quality after the advent of the automobile.

## Vancouver

In Canada, Vancouver offers a dramatic example of postwar urban development different from the U.S. approach. After slipping into decline in the 1970s, the city turned to Asian models and promoted higher-density, mixed-use redevelopment of older industrial sites and eroded neighborhoods near its downtown. The funding for the resultant towers and row houses came largely from affluent Asian expatriates. The results transformed the city into Canada’s densest in less than a decade. Unlike American urban renewal, that in Vancouver promoted greater density as a tool for improving livability.

Larry Beasley, the city’s planning director from 1994 to 2007, notes that Vancouver actively sought density for two reasons. First, more people and more disposable income translated directly into livelier streets and a wider range of choices for living, working, studying, and playing. Second, the city required developers eager to build higher to invest in new, well-designed cultural venues, parks, affordable housing, and other public amenities.<sup>19</sup>

The city also expanded its transit system to avoid turning growth into congestion. Obviating the need to include parking reduced developers’ costs, which in turn freed up money for additional public benefits.





4.22 Vancouver was the first city in North America to encourage higher-density, mixed-use development to enhance livability and attract people and investment to its center. To prevent buildings from overwhelming the human scale at street level, urban-design regulations required a mix of lower-rise housing and stores at the base of towers. © 2013 Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)

By the 1990s, Vancouver had shed its reputation as a pale West Coast imitation of Toronto or Montreal and today stands as an icon of urban livability. Since 1980, its population growth has outpaced all but a few Southern U.S. cities.<sup>20</sup> Not surprisingly, enhanced urban amenity has created significant value. Vancouver's success in attracting urban residents has raised housing costs to among the most expensive in North America, and the city continues to struggle to expand its pool of affordable housing.

### ***Preservation pioneers: Reclaiming historic neighborhoods***

Vancouver's strategy of increasing density to create greater amenity did not resonate in the United States. The term *dense* had a very different ring in nearby Seattle (and in every other American city), and American municipalities generally have fewer tools to shape urban character

than Canadian cities do. American cities have sidled up to the idea of density—and the diversity of choices and experiences density can produce—only recently, and they arrived at the idea by a different route than Vancouver did. In the United States, support for density has grown out of nostalgia: for historic houses and neighborhoods, for the vitality that Jane Jacobs described, and for the sense of community associated with small-town life most clearly expressed in the character of traditional New England villages. The earliest proponents of development that embodied this nostalgia were not city leaders but preservationists and developers who identified themselves with the New Urbanist movement. It is hard to overstate how completely most planners, architects, and public officials dismissed traditional urban qualities as irrelevant during the period from 1950 to 2000, when suburban style growth seemed inevitable.



The preservation movement played a pivotal role in reviving interest in urban neighborhoods. As early as the late 1960s, “urban pioneers” (a term that merits reconsideration, given that tens of millions of Americans never left cities, often because they couldn’t afford to) began rehabilitating rooming houses and abandoned town houses—preserving neighborhoods building by building—in places like Boston’s South End, Providence’s East Side, Philadelphia’s Center City, Washington’s Capitol Hill, Baltimore’s Federal Hill (where the city sold houses to urban homesteaders for one dollar each in the 1970s), Charleston, South Carolina, and Savannah, Georgia. In the process, the preservation movement inspired a renewed appreciation of urban life that other players tapped into as they took steps that unlocked today’s widespread revival of urban neighborhoods.

## Early adopters: New Urbanists

In the late 1970s, architects like Andrés Duany and Elizabeth Plater-Zyberk—partners in the firm Duany Plater-Zyberk (DPZ)—formed the nucleus of a small group of planners, architects, and developers who promoted a vision of walkable, traditional communities to counter what they saw as the sterility of automobile-oriented suburban development. They and like-minded practitioners coalesced under the banner of New Urbanism, advocating a set of design principles that included a regular grid of streets, traditional town centers, and a scale and character that recalled communities built before cars had become the dominant mode of transportation in the United States. Swayed by their critique, developer Robert S. Davis hired DPZ to recreate a traditional Florida town on 80 acres his family



4.23 The City of Baltimore launched a “dollar house program” in 1973, an alternative to urban renewal for attracting investment back into urban neighborhoods. The program quickly captured national attention and revealed a large reservoir of interest in living in historic urban neighborhoods. The resulting “urban homesteading” proved more critical than the Inner Harbor redevelopment effort in revitalizing Baltimore’s urban core, and sparked a national movement. Courtesy Flickr user dsearls





4.24 Kentlands, Maryland, challenged prevailing suburban development patterns by using New Urbanist principles to create a “village” of closely packed houses on narrow lots, many of which were a short walk from a new Main Street. Courtesy Goody Clancy

owned in the state’s Panhandle. The result, Seaside, quickly gained global attention for its success in evoking the ideal of small town America, replete with a town square encircled by narrow streets of bungalows and “cottages” (many designed in Victorian, Craftsman, and other traditional architectural idioms), churches, small shops, and other emblems of the early twentieth century.

Subsequently, developer Joe Alfandre, owner of a large unbuilt site in rapidly developing Montgomery County, Maryland, turned to DPZ to design a community less like a small town and more along the lines of a traditional urban neighborhood. While Kentlands remained indisputably suburban, DPZ substituted a street grid for conventional cul-de-sacs and lined the new streets with a mix of narrow-lot single-family houses, row houses, and apartments in place of a more conventional pattern of houses set away from the road and each other on large lots. Like Seaside, Kentlands attracted widespread attention and built interest in

New Urbanist approaches, but it remained a form—albeit a new one—of traditional greenfield suburban development.

### *Norfolk, Virginia*

In 1989, however, the City of Norfolk, Virginia, hired Urban Design Associates (UDA, another early practitioner of New Urbanism under principal Ray Gindroz<sup>21</sup>) to plan for the redevelopment of several hundred acres of downtown and nearby “blighted” neighborhoods that had been cleared but not rebuilt under urban renewal. The UDA plan successfully transformed roughly 100 acres in the distressed Ghent area into a latter-day version of an early twentieth-century urban neighborhood. Because most of the area had been cleared, UDA created an idealized neighborhood with a new grid of streets lined by narrow-lot bungalows, row houses, and two- or three-family houses that would look at home in many neighborhoods built in the early 20th century.





4.25 East Beach is the newest in a series of closely packed New Urbanist neighborhoods, many planned by Urban Design Associates, that have transformed Norfolk from a town focused entirely on Navy installations into a community of choice. The shift has helped Norfolk build the region's greatest concentration of small restaurants and entertainment unique to its downtown. East Beach Company

The neighborhood relies on small commercial centers and sits just a short walk from downtown—whose revival Ghent's rebuilding helped spark. Norfolk's success suggested that strong public leadership, good urban design, and a critical mass of developable land—in many cases the painful legacy of destructive urban renewal programs—could produce successful new and revitalized urban neighborhoods. Other cities followed suit. For example, the City of Memphis initiated redevelopment of its riverfront into Harbor Town—a nostalgic New Urbanist neighborhood of two- to three-story narrow-lot houses, attached row houses, and condominiums.

### ***New urban neighborhoods: Providence, Columbus, Baltimore, and Atlanta***

In Providence, developer Buff Chase drew on strong ties to both New Urbanism and preservation to push beyond the small-town model that had dominated

New Urbanist plans to create a successful, higher-density neighborhood. Chase turned pre-Depression office buildings into residential lofts and complemented this housing with cultural venues, distinctive local restaurants, and other small businesses. (Chase's strategic use of substantial federal and state tax credits for preservation and reuse of historic buildings demonstrated the catalytic role such programs can play in urban revival.)

As confidence in urban markets grew, others motivated by a commitment to their cities as well as by new market opportunities joined the movement. In 2000, Nationwide Insurance began developing an entirely new urban neighborhood in Columbus, Ohio, on 75 acres that had housed an historic penitentiary and old warehouses. Building on a plan developed by the firm MSKS, the Arena District incorporates traditional urban qualities such as a regular street grid and a mix of uses at greater densities than found in any other





4.26 a,b One of the most economically depressed cities on the East Coast in the 1970s and '80s, Providence began a dramatic turnaround under Mayor Buddy Cianci. He supported interrelated initiatives—some begun by previous administrations—that together transformed downtown and close-in neighborhoods into a lively urban center. Major components included daylighting the Providence River and two tributaries to create a landmark riverfront; providing economic incentives for artists to move downtown; supporting developers who pioneered beautiful conversions of vacant office buildings into lofts, contemporary restaurants, and entertainment venues; and launching festivals, including WaterFire, which brings hundreds of thousands of people downtown every year. Courtesy Wikimedia user WFPvidence

Columbus neighborhood. The developer banked less on traditional urban form than on the ability of a new sports arena to support an amenity-rich, walkable environment whose vitality would play as important a role as its form in attracting new city-dwellers. Baltimore's Harbor East, sponsored by developer John Paterakis and planned by urban designer Stan Eckstut, adopted a similar approach, building on the mix of food and entertainment in the adjacent inner harbor, long popular with tourists and Baltimore Orioles fans as an amenity base that would attract a new generation of residents to a high-rise urban neighborhood. Similarly, one of the largest recent developments in Atlanta—a city whose downtown lost so many jobs to the suburbs in the 1980s that it nearly disappeared as a business center—involves redevelopment of a 138-acre former industrial site into a mixed-use district called Atlantic Station. The development's 15 million square feet includes a wide range

of food and entertainment venues complemented by a new neighborhood of lofts and town houses.

### *The Pearl District, Portland, Oregon*

The Pearl District in Portland, Oregon, represents an increasingly influential model for urban neighborhoods that takes advantage of new market forces, density, and amenity but relies on the ability of transit and infrastructure investments to attract a wide range of developers and supercharge market demand. Removal of a viaduct in 1999, together with the announcement of a new streetcar connection to downtown, which opened in 2001, spurred widespread interest in redeveloping “the Pearl’s” collection of warehouses, surface parking lots, and rail yards into the city’s first new urban neighborhood since before the Great Depression.

In less than a decade, redevelopment transformed the Pearl with modernist midrise residential buildings,



warehouses converted to striking lofts, a thriving arts scene, restaurants and cafés, an active nightlife, and similar building blocks of twenty-first-century urban vitality. A mix of new and old, a wide range of architectural styles, a wealth of unique businesses, and neighborhood parks combine to give the Pearl an indigenous quality—and a powerful sense of connection to the area’s history and natural environment—and convey a strong sense of the Pearl as a neighborhood open to everyone.

The Pearl comes much closer than most American cities to the Vancouver model. The city collaborated with private developers to secure high-quality development and extensive public benefits. In particular, the Pearl benefited from the city’s openness to greater density and a mix of uses in spite of initial public opposition. This leadership yielded a diverse, high-quality public realm. Increased density helped fund a unique system of urban parks in the district and ensured that the parks would be well used. Two parks, each filling a city block, merit

particular note. Jamison Square, built around fountains and waterfalls, serves equally well as a stage for week-end concerts, for open-air dining and markets, and for meeting friends. Tanner Springs Park acts as its thematic counterpoint. Designed around a re-created natural wetlands, its walking trail and secluded spots to sit offer a setting for contemplation and a more personal, less social experience.

A measure of the Pearl District’s success lies in the public services the original plan did *not* include. Planning for the area assumed that the Pearl would function as a starter neighborhood, drawing young professionals who would decamp to less dense parts of Portland once they married and had children. Those settlers, it turned out, didn’t want to leave: they valued the district’s walkability, easy access, parks, and culture. As a result, the city had to find ways to insert family-oriented functions like schools into the district after the fact.



4.27 Development in the Pearl District took off after Portland inaugurated a downtown streetcar system. © 2013 Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



## PORTLAND STREETCAR (PORTLAND, OREGON)

### Portland builds a template for a North American transit-enabled city.

- **Program:** Connect the downtown core to surrounding districts with a modern streetcar system intended to encourage significant new investment in the neighborhoods along its line.
- **Area:** Initially a 3.9-mile route; a 2012 extension brings the total to 7.2 miles.
- **Design team:** Skoda-Inekon, United Streetcar, Stacey & Witbeck Inc.
- **Developer:** Portland Streetcar, Inc.
- **Award:** Congress for New Urbanism Charter Award (2001)

The Portland Streetcar ended an era of systematic dismantling of streetcar systems throughout North America. Its success roughly mirrored the spreading recognition over the last two decades that transportation systems reliant

exclusively on automobiles have seriously damaged North American cities. Just as accommodating the outsize needs of cars has hurt urban neighborhoods, Portland's streetcar system has shown that public transit can revive them. Since the announcement of the system in 1997, the Portland Streetcar has attracted more than 4.2 million square feet of new downtown commercial development and sparked more than \$3.5 billion in new investment—much of it in the formerly industrial Pearl District, now one of the city's most in-demand neighborhoods. Drawing funding from the incremental value the initial 3.9-mile system itself has created, the city opened a second, 3.3-mile line in 2012. City officials anticipate that this extension to the east bank of the Willamette River will fuel revitalization of light-industrial neighborhoods that resemble the Pearl District before redevelopment.



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The large economic returns on Portland's relatively modest investment in the streetcar system (a combination of city, state, and federal funds totaling \$103 million) has sparked a boom in construction of streetcar or light-rail systems and expansion of legacy systems, with more than forty planned or under construction in North America in 2013.



4.29 Courtesy Goody Clancy



4.30 © 2013 Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)

Not all new urban neighborhoods boast the polish of the Pearl and the Arena District. In 2012, the City of Columbus completed a plan (with Goody Clancy) for a new urban neighborhood in East Franklinton that the mayor envisages as “a place with more of an edge [than the Arena District] . . . that helps Columbus attract and retain creative young folks after they leave college.” Under this plan East Franklinton, one of the city's poorest neighborhoods, will reemerge as a mixed-income, arts- and innovation-oriented district.<sup>22</sup> The city has committed to subsidizing 30 percent of new housing for artists and to adding additional subsidies as needed to ensure that new development does not displace long-term

residents (a promise made significantly easier to fulfill by the high proportion of abandoned properties in the neighborhood). Even before the city had adopted the plan, one pioneering developer began rehabilitating two abandoned factories into artists' lofts, building new live/work housing, and creating venues for cafés and music. At the same time, Ohio State University bypassed more established locations to plant a new entrepreneurial center in the neighborhood. The city wrote innovative new zoning that encourages a level of use-mixing unusual for an American city. It would allow, for example, metal-working artists to live and work next to residential lofts and within earshot of music rehearsal studios.





4.31, 4.32 Arguing that Columbus, Ohio, needed a new neighborhood to help attract and retain struggling artists and entrepreneurs, Mayor Michael Coleman proposed revitalizing the depressed East Franklinton neighborhood (*top*) into an “arts and innovation” neighborhood. Although the idea was initially greeted by broad skepticism, the city partnered with its housing authority, the Franklinton Development Association (a community development corporation), and developers interested in converting empty factory buildings into arts studios to launch a community-based planning process. One year later, developers were competing to develop a mix of uses that included a 30 percent set-aside for affordable artist housing. Courtesy Goody Clancy

### ***Cambridge, Massachusetts***

In neighborhoods dominated by single-family houses, rising market demand would once simply have forced up prices for existing houses. Today it often sparks interest in adding multifamily housing options as a way to avoid pricing lower- and middle-income households out of the area while protecting traditional character.

In the 1980s, Cambridge, Massachusetts—home to MIT and Harvard University and one of the first U.S. cities to see a revival of demand for urban living—began approving proposals to build infill row houses and multifamily buildings as an alternative to meeting market demand by demolishing existing houses and redeveloping those sites. This policy enabled the city to



respond to the market while preserving its substantial stock of nineteenth- and early twentieth-century buildings. Hundreds of row houses and small condominium buildings, built in back and side yards, rarely altered the traditional look and scale of neighborhood streets. The results demonstrate one effective way to preserve valued character while responding to dramatic economic and social change.

### ***Santa Cruz, California***

Santa Cruz, California—established as a seaside community of modest houses and vacation cottages—hired

urban designer Bruce Race, FAIA, to help the community respond to a steep run-up in housing costs that threatened to displace long-term residents and erase the city's diversity, highly valued by residents. Adopted with strong community support after a year of intensive resident involvement in its development, the plan legalized accessory units such as converted garages, backyard cottages, and discreet additions to houses that created rental apartments. The plan included detailed design guidelines to ensure that new construction respected traditional neighborhood character. The city also offers subsidies to promote greater affordability.



4.33 Courtesy of James Herbert © six eight. Photo by Norm Daly, courtesy of the City of Santa Cruz

Urban designer Bruce Race worked with residents in one of the most expensive housing markets in the United States to craft an innovative approach to adding infill housing in existing neighborhoods. The program protects the area's beautiful coastal environment by reducing development pressure at the city's edge, and it adds more-affordable options for people who want to remain in or move to the city's diverse neighborhoods. The plan includes design guidelines developed with residents to ensure that infill construction reflects the character of the housing around it.





4.34 Accessory unit built under the Santa Cruz infill program. Photo by Norm Daly, courtesy of the City of Santa Cruz

### **A new model: The innovation neighborhood**

A rapidly changing economy, shifting demographics, and evolving community values have combined to generate demand for a new kind of urban environment. Often called an innovation neighborhood or district, it incorporates the functions of a traditional neighborhood—living, working, shopping, playing—but usually involves a partnership among a municipality (which can tailor regulations, zoning, and tax policies to support the district); the private sector—in particular, businesses in research-driven industries such as pharmaceuticals, technology, and specialized manufacturing; and, often, one or multiple educational or healthcare institutions. Well-known examples include Kendall Square in Cambridge, South Lake Union in Seattle, Chicago’s North Loop, and Detroit’s Midtown.

Innovation neighborhoods are an alternative to the corporate research parks that grew up around research

universities in the 1990s and 2000s. Facing increasing competition for educated, creative workers on whom research-based industries depend, cities that host these kinds of research centers have learned to create partnerships with universities and the private sector to transform manufacturing areas or suburban-form development into walkable, mixed-use, live/work neighborhoods.

### ***Kendall Square, Cambridge, Massachusetts***

Kendall Square, adjacent to MIT and America’s most successful biotech cluster, offers a clear example of this transition. Built in the 1960s on land cleared of industrial buildings and working-class housing through urban renewal, Kendall Square grew as a concentration of research and office buildings and parking structures. It served startups like Amgen, Biogen, and Genzyme that subsequently grew into multibillion-dollar corporations. Rebelling against the area’s single-use barrenness and incessant traffic, nearby neighborhoods petitioned the city council in 1999 to impose a moratorium that froze more than 12 million square feet of planned development. After eighteen months of planning, the community reversed its opposition to development in return for substantial community benefits, and the city lifted the moratorium. But the green-lit new development piled more offices and research space onto an already heavy concentration of such uses. Within ten years, the lack of street life had created a far more serious challenge to the square’s future than that posed by the moratorium. This time, rather than anxious neighbors, the issue involved the highly skilled workers on whom Kendall Square’s research tenants depend to succeed. They found the area dull and unappealing, which left its corporate tenants unable to grow or even remain in the area if they could not attract growing numbers of increasingly scarce knowledge workers. Kendall Square needed to make a transition from a single-use research park into a lively, walkable, mixed-use neighborhood.



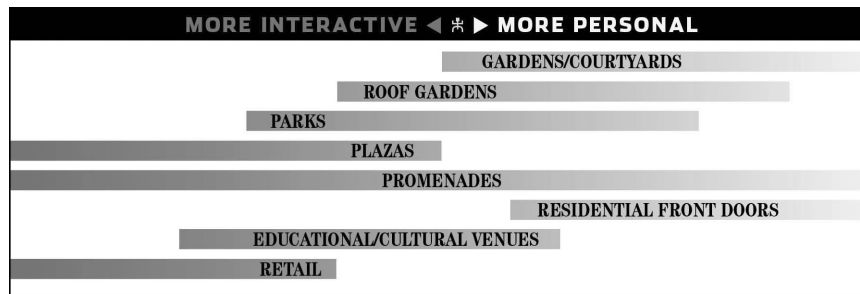


4.35 San Francisco is transforming Mission Bay, a 303-acre landfill developed for industrial uses after World War II, into a mixed-use \$15 to 20 billion innovation neighborhood anchored by a new University of California medical campus. Courtesy ProehlStudios.com

The city again convened key stakeholders, this time with the goal of making Kendall a great neighborhood that invited interaction at multiple levels. Ten years earlier, few people imagined housing in the heart of the square, yet by 2012, the few apartments that did exist commanded the highest rents in the Boston market. The plan called for adding 2,500 units among existing housing and not-yet-built research buildings and identified sites within a ten-minute walk that could support another 1,500 units. For years the square's employers, mainly biotech firms, had worked to keep employees on-site from the moment they arrived until they left in an

effort to avert the unintentional exchange of proprietary knowledge. By 2012, an influx of companies working in information technology, materials research, and other innovation fields had dramatically diversified the square's mix of businesses. Tight control of proprietary research had given way to interdisciplinary collaboration, both formal and informal, and workplaces had shifted toward more synergistic models. Freed by ubiquitous WiFi and cloud-based tools, young workers no longer felt bound to their offices; they wanted interesting places to head to during the day and after work, and they wanted them within walking distance of their workplace.





4.36 Creating a lively public realm that offers a hierarchy of public spaces from the least to the most interactive is a key step in the next stage of growth for Kendall Square—an innovation community that began as a biotech research district and is evolving into a broadly based center of innovation that benefits from a dense mix of life science, engineering, information technology, and similar fields that work more and more collaboratively. Courtesy Goody Clancy

The most recent plan creates a true town square that recalls, through contemporary uses, the vitality of a traditional Main Street. It adds 250,000 sq. ft. of new restaurants, cafés, entertainment, and other third-place destinations. By introducing a significant amount of housing and increasing density and heights, the plan supports a major expansion of the activities that bring streets to life: Kendall Square will see 100,000 sq. ft. of restaurants and stores reach 350,000 sq. ft. To ensure that these street-level uses actually get built—because developers could easily rent out ground-floor space at the same high rents they charge for the research space above—the plan requires new development to include these uses along streets designated as “walking streets.” A hierarchy of public spaces—from quiet and contemplative to large enough to accommodate soccer and other active sports—weaves through the neighborhood.

## Destination Main Streets

Traditional neighborhood commercial centers—Main Streets, in shorthand—display the cumulative impact of decades of urban transition—most recently in real estate markets, demographics, and values—more visibly than any other part of urban America. When Americans

walked to local stores and socialized in their neighborhoods, urban Main Streets thrived. These districts required no special effort to serve as destinations because they were so integrally woven into the fabric of everyday life. They functioned as “third places,” neither home nor workplace, but yet places where many other aspects of daily life played out. People went to the movies, ate at restaurants, attended church, and visited a doctor or dentist on Main Street. Familiar shopkeepers and chance encounters with neighbors yielded the same community-building effect that churches, schools, and union halls had.

Although Main Street may have played a central role in neighborhood life, its businesses relied on retail custom. As the United States emerged from the Depression and World War II, the rapid spread of car ownership and changing shopping patterns meant that very few neighborhoods could continue to support Main Street as a retail center, and as retail withered, so did other activities that it had supported.

While commercial districts in some affluent urban neighborhoods and small towns retained their traditional scale and character, most urban Main Streets did not. Handsome buildings dating to the early twentieth century that had housed local businesses gave way to



strip convenience centers set behind parking lots, body shops, and other auto-oriented businesses that couldn't afford to relocate or weren't welcome along suburban highways. Main Street districts now sat on once-pedestrian-scale streets rebuilt for the growing volume of commuter traffic moving between suburbs and downtown. Combined with the substantial collapse of their retail base, they became prominent symbols of urban decline. By the end of the twentieth century, millions of Americans' only experience of a traditional Main Street came from visiting a Disney theme park or viewing a film set in an earlier America.

In the 1960s and '70s, many cities had used urban renewal as a tool to fight the economic and social forces favoring suburban competition. Some tried creating car-free zones in downtown shopping districts—an ironic effort, given urban renewal's emphasis on designs that gave driving priority over walking. A postcard of Kalamazoo, Michigan's Burdick Street, converted by Victor Gruen into a pedestrian shopping mall in 1959, extols its "parklike" atmosphere as ideal for shopping. Inspired by initiatives like Kalamazoo's, older cities like New London (Connecticut), Providence, Buffalo, and Trenton (New Jersey) removed cars from important downtown Main Streets. But these efforts hurt remaining retailers by denying them easy access to potential customers passing by. This loss compounded the impact of a shrinking retail base in nearby neighborhoods as households left the city for the suburbs. Many of these Main Streets faced further problems as stores succumbed to competition from malls and discount retailers, almost invariably suburban.

Meanwhile, from the 1960s to the 1990s, suburban malls grew larger and came to dominate their markets. While a Main Street had drawn its customers largely from within a mile radius, the suburban malls served car-borne markets that extended for twenty miles or more. As they sought to compete over increasingly large catchment areas, malls appropriated the social and

entertainment roles that Main Streets had once filled. This trend may have reached its peak in 1992 with the opening of the 4.2 million-square-foot Mall of America in Bloomington, Minnesota. The mall, which incorporates America's largest indoor amusement park, an aquarium, a multiplex theater, and music venues, doubled as a regional entertainment destination.

The past two decades, however, have seen strong interest in the revival of neighborhood Main Streets. Housing market studies by analyst Laurie Volk and research by CEOs for Cities both report that by 2000 living near a walkable Main Street ranked among top five priorities when people choose where to live. In response, Main Streets have come back to life. But just as third-generation urban neighborhoods differ from their first-generation forebears, today's Main Streets now play different roles and exist in different forms that respond to twenty-first-century markets.<sup>23</sup>

Competition from online shopping, social networking, and the long reach of suburban malls has eroded the capacity of even the most affluent urban neighborhood to support a Main Street. Like malls and "power centers," urban Main Streets can only succeed today by competing as destinations for customers from across a region. Unlike their suburban counterparts, they can't compete on convenience and mass appeal; instead, they must focus on amenity, walkability, and authenticity—distinctive, local experiences that are the antithesis of the formulas and mass production that drive suburban malls.

### *Third Street, Santa Monica, California*

In 1965, Santa Monica, California, converted three blocks of Third Street, the heart of its business district, into a pedestrian mall. Unlike many other cities, Santa Monica defined its problem as the increasing difficulty in competing as a shopping district. Unwilling to abandon its Main Street, the city committed to making Third Street not only a community shopping district but also a regional and tourist destination. The logic





4.37 Third Street has evolved from a last-ditch effort to save Santa Monica's downtown Main Street into a nationally recognized visitor destination too costly for small independent businesses. Third Street's newfound economic success, however, supports a year-round schedule of festivals and entertainment that reinforce its role as the center of the community. © Lowe R. Llaguno/Shutterstock.com

of this decision seems clear today, when Americans spend a much smaller share of disposable income on nearby retail than they did fifty years ago: aggregate annual household income within one mile of the project area in 2012 was roughly \$1.8 billion; a destination that could draw customers from a five-mile radius could compete for an additional \$10 billion in disposable income.

By 1970 the pedestrian mall's three blocks of entertainment, shopping, food, and the arts had proved a success. Ten years later, however, increasing competition from suburban retail had sent Third Street into a second decline. Even the addition of an enclosed mall designed by Frank Gehry made little difference. So the city hired ROMA Design Group to rethink its approach to the mall. ROMA's plan created Third Street Promenade, a blend of festival marketplace and traditional Main Street. At the same time, the city established an improvement district funded by local businesses to manage the area and provide programming for it and much of the rest of

downtown. The management organization assembled a year-round schedule of activities, including concerts, street performances, a farmers' market, and outdoor film screenings. Unlike malls, which typically ban any political activity, the Promenade remains a public street, so soapbox speakers, people gathering signatures for petitions, and other political activity remain part of the area's mix. Even though Third Street has lost many traditional Main Street qualities—small local businesses have mostly disappeared, and tourists often outnumber locals—it has succeeded as a vigorous center for community life, a place where people of different ages, races, cultures, and economic backgrounds hang out on weekends or meet friends.

### **Preservation pioneers: National Trust Main Street Program**

The preservation community has played a significant role in reinvigorating many traditional Main Streets by



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I grew up in the preservation movement, and I love it. We fought a war against urban renewal and won. I think it is entirely fair to say that in the process we saved America's cities. But times have changed, and the task of preservation today is not to fight change but to embrace it and own it. We won the war to save history; now we need to launch a grand collaboration with community activists, developers, mayors, planners, urban designers, and others to make sure that this history inspires rather than constrains the future.

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*Mary C. Means, founder of the National Trust for Historic Preservation's Main Streets Center*

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building on their familiar character. Responding to “continuing threats to traditional commercial architecture” in economically declining cities, the National Trust for Historic Preservation launched the National Main Street Program in 1977.<sup>24</sup> The program initially focused on reinforcing and reviving Main Streets in smaller cities, beginning with Galesburg, Illinois; Madison, Indiana; and Hot Springs, South Dakota. Its early leaders quickly found that evolving demographics and markets meant that few if any towns or urban neighborhoods could fully support a local Main Street. They shifted the goal to a more pragmatic one: preserving traditional building stock (the Trust's primary mission) while helping these districts evolve to compete. Happily, traditional building stock offered many Main Streets a powerful advantage over suburban retailers; the buildings' authenticity and visible community roots ultimately became important tools for making Main Streets more competitive.

The success of the National Main Streets program derives from its ability to help Main Streets present themselves as alternatives to the sameness of suburbia through context-sensitive blends of independent stores and local restaurants and the experience of a walkable urban setting. Just as Main Streets once helped build a sense of cohesion for the neighborhoods around them,

their contemporary incarnations have become places where people from many backgrounds and venues—and who often participate in narrowly defined communities in the virtual world—can share a sense of broad community. Destination Main Streets have played a critical role in attracting new residents, jobs, and investment to many beleaguered neighborhoods and downtowns.

The Main Street Program inspired redevelopment initiatives that sought to restore vitality to downtowns and urban neighborhoods. An influential early effort unfolded in Greenville, South Carolina, which set up an ambitious public/private partnership to revive its downtown in the early 1980s. The initiative promoted the rehabilitation of historic buildings and created a contemporary Main Street that reestablished downtown as the region's civic and commercial center. Redevelopment mixed new and old buildings, active public spaces, a performing arts center, and a new mixed-use project built around an indoor marketplace of shops and restaurants. Begun before the general revival in downtown living of the early 2000s, Greenville's downtown initiative has benefited from that movement and attracted a sizable new residential population. Consciously planned to draw national attention, the initiative has made the city a Mecca in recent years for civic leaders from other small cities seeking to revive their own central neighborhoods.

The market's embrace of traditional Main Street form triggered a surprising suburban response: “lifestyle centers,” floundering malls and strip retail rebuilt as Main Streets of food, entertainment, and shopping, usually surrounded by vast parking lots and disconnected from the surrounding community. The first of these, the Shops of Saddle Creek, opened in 1987 in suburban Memphis. By the early 2000s, lifestyle centers had evolved to include housing and offices. Their planning began to include local governments, which increasingly led planning for and sometimes even took part in their redevelopment.



## Belmar, Lakewood, Colorado

In the late 1990s, Lakewood, Colorado, an inner-ring suburb of Denver, decided to take the lead in redeveloping the failing 104-acre Belmar shopping center—at the time of its opening in 1966, the largest enclosed mall between Chicago and Los Angeles. A multiyear slide in mall sales and tax revenues spurred the city to act. But first it had to find a developer partner willing participate in a community-based planning process. Most companies that Lakewood officials approached disliked the idea, but its ultimate choice, Denver-based Continuum, embraced such a process and worked closely with the city and residents to devise a plan to replace the 800,000-square-foot mall with twenty-two blocks of mixed-use development centered on a new Main Street woven integrally into the community. During the planning process, Continuum argued that a redeveloped Belmar would have to compete as a regional destination if it hoped to offer the range of shopping, living, working, and entertainment choices the city's residents and leaders wanted to include.

While clearly an invented place, Belmar connects to the surrounding community physically and culturally and serves as its commercial hub. Structured parking replaced surface lots, allowing the construction of new streets that tie directly into the neighborhoods around the site. Continuum commissioned local artists to produce innovative, often whimsical designs that turned

Throughout history, the process of city-building has been directed by those individuals with political and financial clout—the king, the mayor, the developer. This narrow power base has broadened due to the tectonic shifts in data, communications, and how infrastructure is funded. Residents, business owners, and employees will more directly influence the financial and market forces impacting critical decisions shaping the public realm. When neighborhood stakeholders can align agendas, they will in turn coalesce to form special districts that can upgrade services, facilities, and amenities to improve the quality of place while lowering infrastructure costs to individual owners and developers. Static urban design plans will give way to more dynamic district planning frameworks, likely managed by nonprofit development entities that can orchestrate infrastructure investment, enhance community-building, and leverage private development.

*William Fleissig is a developer trained in public finance, policy, and design. He has been the master developer for multiple mixed-use projects, including West Village at the University of California, Davis and Belmar in Lakewood, Colorado. Earlier in his career Will worked as an urban design consultant to public agencies, as the director of planning and development for the City of Boulder, Colorado, and as the director of downtown planning and development for the City of Denver.*

parks, lighting standards, street benches, and even door handles into public art. The ground floor of one garage houses work/sell spaces for artists that attract thousands of visitors to open-gallery nights. Unique local businesses share the new Main Street with national retailers.<sup>25</sup>

### BELMAR (LAKEWOOD, COLORADO)

#### A low-density suburb finds success in high-density redevelopment.

- **Program:** Redeveloped shopping mall in Lakewood, Colorado, completed in 2008. Belmar is the first walkable downtown district for a 1960s-era suburb of Denver.
- **Area:** 104 acres/22 blocks
- **Design team:** Elkus Manfredi Architects; Civitas Urban Design, Planning & Landscape Architecture
- **Developer:** Continuum Partners
- **Award:** CNU Charter Award (2005)

(continued)



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Redevelopment of the Villa Italia site, the largest indoor mall in the western United States when it opened, demonstrates the evolution of lifestyle centers, popular in the 1990s, into fully integrated and walkable transit-oriented destinations. Belmar's developer created a distinctive sense of place through high-quality design; the team even enlisted area artists to help design street furniture and signage. Belmar's initial phase included retail, office, and entertainment uses, which proved successful. The development team then recruited other firms to build multifamily housing around the retail center, although it later said that fully integrated housing would have strengthened the original development. Finding it difficult to fill storefronts at the base of a parking garage, the developer relaunched them as inexpensive work spaces for artists. A series of gallery nights showcasing the studios quickly proved popular,



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boosting sales for nearby retailers and restaurants and increasing the area's cachet. Final build-out includes 1,300 homes and apartments, 900,000 sq. ft. of retail space, and 269,000 sq. ft. of commercial space.

Belmar reflects key current trends in urban design, including the introduction of dense, walkable downtowns into low-density suburbs. At roughly thirteen households per acre, Belmar's density matches downtown Denver's and significantly

surpasses other parts of Lakewood. The project also embraced green development strategies. Continuum recycled 88 percent of existing site materials (by weight) for use in new construction and has taken advantage of government programs to add renewable-energy generation features: a 1.7 megawatt solar array powers the site's parking garages, which represent 5 percent of the development's electricity needs; wind turbines power Belmar's streetlights.



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### *Edgewood, Atlanta*

At about the same time, a developer purchased a 44-acre former utility site in the midst of Atlanta's older Edgewood neighborhood. Christening it the Edgewood Retail District, the Sembler Company took a different approach than Continuum had at Belmar, seeking to meld Main Street and suburban retailing. Working from a plan by Robertson Loia Roof, Sembler recruited

eight big-box retailers to occupy 540,000 square feet of retail space served by acres of surface parking. However, that familiar suburban landscape sits hidden behind the shops, cafés, and lofts that line both sides of Caroline Avenue, a new walkable Main Street that cuts directly across the site and connects it to adjacent neighborhoods. The development's blend of suburban mall and urban Main Street—sometimes separated by only 100 feet—can





4.41 Edgewood, a mixed-use development in an older Atlanta neighborhood, created a walkable retail Main Street, but behind the street's buildings the developer erected big-box retail and vast parking lots, largely hidden from the site's Main Street. New housing merges into the adjacent neighborhood at either end of the three-block Main Street. Photo © 2013, Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)

feel disorienting. A visitor might wander past shops located below loft apartments along Caroline Avenue, completely unaware of the profoundly suburban scene just behind what looks and feels like an urban Main Street.

### ***Making a virtue of the urban: Santana Row and Bethesda Row***

In the late 1990s, yet another kind of Main Street development emerged, one that embraced density and urban retailing and focused less on attracting tourists than on meeting the everyday needs of nearby residents and workers. Federal Realty Investment Trust (FRIT)—working with urban design firms like Streetworks, Cooper Cary, and Elkus Manfredi, all of which had begun retrofitting older shopping centers and other sites as walkable, mixed-use environments—built developments that traded on their urban qualities, such as Bethesda Row outside of Washington and Santana Row in San Jose.

Integrated into downtown Bethesda, Maryland, Bethesda Row wove more than 500,000 square feet of new construction into existing urban fabric, mixing new

shops, restaurants, and entertainment among established businesses. In keeping with the downtown's traditional scale, the new construction included at least four floors of offices or housing above active street-level uses. Rather than create new streets or public spaces, Bethesda Row filled in ten blocks around Bethesda Avenue, including a failed shopping center and nearby parcels. In San Jose, FRIT transformed a 42-acre site that had included a shopping center and car dealership into a Main Street flanked by ten blocks of housing and retail. In contrast to Belmar, which maintained the low-scale character of nearby single-family residential areas, Santana Row celebrated density with buildings of five to nine stories that augment several hundred thousand square feet of shopping and entertainment with more than eight hundred loft apartments and town houses as well as a hotel.

### ***Main Streets as portals for urban revival: Seattle and Boston***

The next step in the evolution of neighborhood Main Streets emerged in the early 2000s, as demand mounted





4.42 Santana Row replaced the Town and Country Village shopping center in San Jose with a mixed-use complex that includes more than one million square feet of housing and creates a series of narrow, walkable streets lined with diverse activities. Courtesy Flickr user Allie\_Caulfield

for lofts and other higher-density urban housing. Zoning and opposition from established neighborhoods often blocked construction of these and other novel forms of multifamily housing, which appeared out of scale and character to many residents. That resistance steered this new demand toward underutilized sites along eroded commercial streets in these same neighborhoods. Main Street environments like the Pike/Pine corridor in Seattle’s Capitol Hill and “upper” Boylston Street in Boston’s Fenway became avenues where higher-density living flowed into older, low-density neighborhoods. These latter-day Main Streets observed the spirit, if not the letter, of their predecessors. Typically, the new development arose on parking lots built on the sites of earlier two- and three-story buildings. Those earlier buildings had included a couple of floors of housing or offices above street-level stores.

The new buildings that reclaimed these parcels were a response to unmet demand for urban housing. Like

their predecessors, they located shops and restaurants along the street. But these new retailers operate differently in the twenty-first century than their twentieth-century predecessors did. In place of the necessities of daily life Main Street once offered, today’s Main Street more likely boasts chef-owned restaurants, privately owned coffee shops, one-of-a-kind stores, and other retailers and service providers not found in mass-market malls. Main Street has become a highly valued amenity for many neighborhoods and as a result has in many places begun to reclaim its role as a “third place” where neighborhood residents share public life.

Former Seattle urban design director John Rahaim has said that opposition to higher-density housing along neighborhood Main Streets in Seattle generally turned into support when residents began to see density’s benefits at street level. Every new loft building brought more customers who supported restaurants, bakeries, and small shops. Neighbors learned that not only did new



buildings bring new amenities but that their residents could help local businesses survive by serving the community rather than focusing on tourists. Property owners saw the value of existing houses and condos rise as the area's Main Street rebounded.<sup>26</sup>

The rezoning that opened the door to Seattle's denser, mixed-use Main Streets grew out of a smart-growth master plan completed in the 1980s. The plan put a growth boundary in place and steered new development back to the city's core. With the new zoning in place, the market went to work. In a 2010 feature story on the city's Pike/Pine corridor, the *Seattle Times* described how, over the previous decade, a fifteen-block collection of gritty, unloved service businesses like auto shops had remade itself into a bustling urban village with roughly 4,000 residents. The article could have borrowed its description of the neighborhood from *The Life and Death of Great American Cities* given the diversity of races, ethnicities, and sexual orientations that animate Pike/Pine's streets. "It's the character of these urban neighborhoods that's

attracting people back to the city," a developer involved in the neighborhood's evolution asserted in the article. But that character and other factors draw "mostly young, mostly single urban dwellers"—a gentrifying force that Jacobs never anticipated.<sup>27</sup>

Seattle has tried to balance gentrification by funding new, affordable housing across the city. In Boston, in the late 1990s, the Fenway Community Development Corporation (FCDC) tried a different approach for encouraging the revitalization of Boylston Street, a main commercial avenue whose parking lots, shabby storefronts, and fast-food outlets had attracted no significant investment for decades. To some extent, well-organized residents themselves blocked that investment, fearing congestion and gentrification from projects proposed by developers, nearby educational institutions, and even the Boston Red Sox, whose stadium sits a block off the street.

Some neighborhood leaders anticipated that real estate values in the area would eventually rise even before many planners and public officials did, and they



4.43 The Fenway Community Development Corporation in Boston initiated a community-based “urban village plan” that reversed years of community opposition to denser development along nearby Boylston Street and led to a city-sponsored plan that linked dense, mixed-use development to a mix of community benefits that includes affordable housing, a lively Main Street, and a state-of-the-art neighborhood health center. Courtesy Goody Clancy



mobilized the community to act in order to shape the changes they saw coming. In the early 1990s, the FCDC organized a neighborhood-wide process to draft a grass-roots vision for the future. That vision looked a lot like any current smart-growth proposal, although the residents didn't use that term. A decade later, in an often contentious process, they worked with the city's planning agency to translate their vision into new zoning that allowed substantial increases in height and density in return for mixed-use development that would bring more retail that served the neighborhood, increased affordable housing, and much improved streetscapes. Within a little more than a decade after adoption of the rezoning, developers had built a series of 12- to 25-story, mixed-use developments that brought more than 1,700 new units of mixed-income housing, as well as sports bars, fine dining, cafés that spill out onto the streets, an urban-format Target, and a nationally recognized community health center.

## Rebounding downtowns

While Main Streets may offer the most visible face of urban revival, downtowns and the eroded industrial areas that surround many of them have also undergone dramatic change. This transition should come as no surprise given the demographic, social, and environmental shifts discussed in chapter 3. Between 2000 and 2010, enough people moved into the core areas of New York, Chicago, Philadelphia, San Francisco, and Washington to fill

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Creating positive change in a downtown is immensely complex. It requires creating vision, motivating the property owners, collaborating with community groups, getting governmental support, securing funding, jumping through regulatory hoops, working with the press, overseeing design. It requires leadership every step of the way, and for every step a different leader may emerge.

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*Martha Lampkin Welborne, FAIA, managing director, Grand Avenue Committee, Inc., Los Angeles*

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4.44 In 2000, Chicago was one of the few cities that did not actively discourage tall buildings. Skidmore, Owings, & Merrill's Lakeshore East Master Plan proposed a new, high-density, mixed-use downtown Chicago neighborhood—roughly 10 million square feet on a 26-acre site a few blocks north of the Loop, the downtown core—at a time when *density* remained a pejorative term. Courtesy Skidmore Owings & Merrill

75,000 to 100,000 new housing units—an increase in population of as much as 20 percent.<sup>28</sup> For context, only New York's Lower Manhattan—technically its downtown—had added residents in previous decades; the other cities began to reverse long-term population declines only after 1990. (Despite a drop in population following the World Trade Center attacks, Lower Manhattan saw its population more than double between 2001 and 2010.<sup>29</sup>)



## BRYANT PARK (NEW YORK, NEW YORK)

### Private management redeems a piece of the public realm.

- **Program:** The restoration of Bryant Park and the development of new management and revenue mechanisms that established new models for the maintenance and upkeep of urban parks
- **Study area:** 9.6 acres
- **Design team:** Hanna/Olin Ltd. and Lynden Miller (landscape architecture); Hardy Holzman Pfeiffer (facilities architecture)
- **Developer:** Bryant Park Redevelopment Corporation
- **Awards:** American Society of Landscape Architects/National Trust for Historic Preservation Landmark Award (2010); American Planning Association Great Places in America:

Public Spaces Award (2010); Urban Land Institute Award for Excellence (1996); AIA Honor Award for Urban Design (1994)

A host of urban ills in the 1970s, including drug dealing, prostitution, and large gatherings of homeless people, rendered venerable Bryant Park all but useless as a public space. The park's social collapse cast a pall on the office buildings around it, and owners could no longer charge rents comparable to what office buildings brought in comparable Manhattan settings. Foundation funding helped a private park-improvement corporation undertake a thorough redesign and restoration during the 1980s. As important, owners of buildings



4.45 © OLIN / Sahar Coston-Hardy



near the park contributed to the redesign. Their support reflected their belief that urban design could improve quality of life, which in turn could increase the desirability of their buildings. The redesign and aggressive new programming—from concerts to pop-up kiosks—helped cut crime in the park by

92 percent and draw as many as four thousand lunchtime users in good weather.<sup>30</sup>

Today a magnet for tourists, office workers, and residents, the park's unquestioned success shows that a privately managed facility can function effectively as a public space. But it also



4.46 Courtesy Flickr user Nouhailler



4.47 © OLIN / Sahar Coston-Hardy

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(continued)

raises troubling questions about the increasing role of “business improvement districts” (in which property owners pay for the care of public spaces that cities once provided) and other private funding of public amenities in cities. Such

funding generally gravitates to facilities in wealthy neighborhoods, but instead of freeing up public funds to support less well-known facilities in poor areas, it can actually amplify any existing gap between the two.



4.48 © OLIN/ Sahar Coston-Hardy

## PARC ANDRÉ CITRÖEN (PARIS, FRANCE)

### From urban brownfield to urban playground.

- **Program:** Create a large urban park on a former industrial site as the centerpiece of a redeveloped mixed-use district.
- **Area:** 35 acres
- **Design team:** Patrick Berger, Jean-François Jodry, and Jean-Paul Viguier (architecture); Alain Provost, Gilles Clément; motion garden design: Gilles Clément (landscape architecture)

- **Developer:** City of Paris
- **Web:** [http://academia.edu/1745339/Landscape\\_design\\_and\\_urbanism](http://academia.edu/1745339/Landscape_design_and_urbanism)

As with other postindustrial cities around the world, Paris began to accommodate growth in the late twentieth century by redeveloping dormant industrial sites. The city has built at least five such



brownfield parks: parcs de la Villette, de Bercy, de Belleville, Georges Brassens, and André Citroën. These parks were part of a program to reconfirm Paris's role as a global cultural center. Parc de Bercy, built on the former site of a winery, was intended to anchor city's east side; Parc André Citroën, on the site of the original Citroën automobile factory,

anchors the west. Both serve as expansive green centerpieces for mixed-use redevelopment.

Parc André Citroën opened in 1992 as the city's largest new park in more than a century—and the only one that abuts the River Seine. The city had razed the Citroën complex for an exposition, erasing all historical connections and freeing the park's design



4.49 Courtesy Flickr user awduthie



4.50 Thierry Guillaume / Mairie de Paris et le concours de la Mairie du 15ème arrondissement

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team to introduce a cerebral, postmodernist design. Notable features of the largely passive park include two severe and imposing greenhouse pavilions, a playground, a pavement fountain (technically off-limits to everyone but often teeming with children in warm weather), exotic trees (including some planted in the

four-story pavilions), a vast central lawn that runs to the Seine, and multiple sections whose plantings explore various themes—colors, the senses, motion. A tethered balloon takes visitors 450 feet above the park for a bird's-eye view of Paris—a rare experience in the city's height-limited central area.



4.51 Fiona Stewart / Mairie de Paris et le concours de la Mairie du 15ème arrondissement



4.52 Courtesy Flickr user Stéphane D.



The growth in downtown residents since 2000 has taken place mostly in America's largest metropolitan areas—those with populations topping five million—but the trend also extends to smaller metropolitan areas. Across America the growth of core cities outpaced that of their suburbs in a substantial majority of America's top one hundred metropolitan areas between 2000 and 2010.<sup>31</sup> A 2013 Brookings Institution report noted that over the course of the recession in many regions jobs losses were concentrated in outer suburbs.<sup>32</sup> The data

don't just emphasize the rapid pace of change; they also illustrate a profound shift in attitudes about downtowns. Recently dismissed as dull centers of commerce and government, downtowns had become decidedly “cool” by 2010. The evidence again lies in the numbers: the number of college-educated twenty-five- to thirty-four-year-olds in downtowns and close-in neighborhoods grew substantially between 2000 and 2010—25 to 50 percent in cities as diverse as Columbus, Detroit, and Boston. Most of this increase took place after 2005.<sup>33</sup>

## BARCLAYS CENTER (BROOKLYN, NEW YORK)

### An arena brings civic amenity to downtown Brooklyn.

- **Program:** The centerpiece of enormous and controversial mixed-use development, this arena includes a 38,885-square-foot public plaza built around a “transit connection” structure serving a vast underground train station.
- **Area:** 675,000 square feet
- **Design team:** Ellerbe Becket and SHoP Architects (architecture); Thornton Tomasetti (structural design)

- **Developer:** Forest City Ratner
- **Awards:** Architizer A+ Award (2013); Society of American Registered Architects, New York Council, Urban Catalyst Award (2013)
- **Web:** [http://www.craigslistnewyork.com/article/20130714/REAL\\_ESTATE/307149992](http://www.craigslistnewyork.com/article/20130714/REAL_ESTATE/307149992)

The Barclays Center is the centerpiece of a \$4.9 billion project first proposed in 2003. The plan won



4.53 Bess Adler / Thornton Tomasetti

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4.54 Bess Adler/Thornton Tomasetti

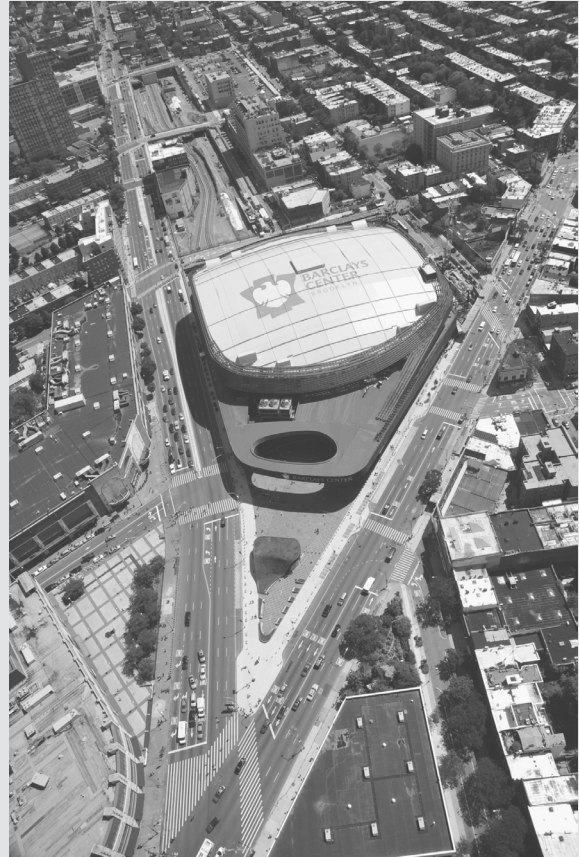


4.55 Bess Adler/Thornton Tomasetti



approval on the developer's promise to provide at least 2,250 affordable apartments, devote 8 of 22 acres to open space, and create 10,000 jobs. Controversy over the use of eminent domain for land acquisition dogged the project; as of 2013, only the arena had been built, although an apartment building that would use innovative manufacturing methods for its units had also broken ground. Despite strong criticism of the project for displacing low-income residents, the arena has proved a successful addition to downtown Brooklyn, adding a level of civic amenity well beyond expectations. Its design—a standard arena with a distinctive wrapper—has given the area around the intersection of Flatbush and Atlantic avenues a new identity and added outdoor gathering space. Feared traffic congestion failed to materialize, thanks partly to robust subway connections in a transit hub below the arena.

Completion of Barclays Center marks the return of major league sports to Brooklyn, which still mourns the 1957 departure of the Dodgers baseball team for Los Angeles. The lavish 18,000-seat arena can be configured for basketball, hockey, and concerts. The arena's urban plan integrates it into a busy intersection with a glazed concourse that connects to the street, and a 30-foot-high canopy with a distinctive, programmed oculus marquis above the plaza, which can host outdoor cultural performances. The entire Atlantic Yards project is scheduled for completion by 2031.



4.56 Julian Olivas, Air-to-Ground

Downtowns have begun to reclaim their pre–World War II role as economic engines and social and cultural centers for their regions. Increasingly, people look to the vitality of a city's downtown to judge the economic health of both the city and the region around it. The many explanations for downtowns' rediscovery share a common theme: in postindustrial America, diverse activities

and people most reliably mix downtown, and that mixing powers the exchange of ideas and information, encourages innovation, and nurtures knowledge economies. Former head of CEOs for Cities Carol Coletta takes the benefits of a robust downtown a step further: "Across America, cities with healthy downtowns are surrounded by suburbs with stronger property values."<sup>34</sup>



After the visible failures of urban renewal during the 1960s and '70s, the leaders of most American cities resigned themselves to the decline of urban downtowns. In most cases, white flight—exacerbated by the race riots many cities experienced in the 1960s—played as big a role as economic change in that decline. Cities saw jobs and investment migrate from downtowns to emerging “edge cities” like Rosslyn in the Virginia suburbs of Washington; Buckhead, one highway interchange away from downtown Atlanta; and Clayton, outside of St. Louis. Detroit, Cleveland, Pittsburgh, and Chattanooga watched their manufacturing sectors collapse—the result of outsourcing to lower-wage countries in the developing world—and their populations dropped by 50 percent or more. Despite rapid suburban growth, even Sunbelt cities wrestled with the deterioration of their downtowns. In places like Los Angeles, San Diego, and Portland, some residents voiced pride in never having to set foot in once-robust downtowns. A 1959 article about Boston in *Harper's Magazine* captured the despair that dominated attitudes about downtowns in the 1950s and '60s: “Downtown Boston at night is a dreary jungle of honky-tonks for sailors, dreary department-store windows, Loew's movie houses, hillbilly bands, strippers, parking lots, [and] undistinguished new buildings.”<sup>35</sup>

Despite the decline, emotional ties to downtown proved powerful, even in the face of severe strains—particularly racial tensions. The impact of race relations on American cities in the decades following World War II was determinative. The civil rights movement made very real progress in securing political and economic rights for African-Americans, but to this day America still struggles with the issue of race. At a conference with leaders of Boston's business community in the 1980s, Steve Coyle, then head of the city's redevelopment agency, noted that lingering racial tensions from the court-ordered desegregation of the city's schools in

the 1970s undermined the ability to revitalize downtown. As long as Boston's business community considered minority neighborhoods off-limits for investment, he asserted, those neighborhoods would languish, and it would remain hard for the city to persuade suburban businesses to relocate the city. Coyle launched the first of a long string of city-sponsored efforts to attract investment into these neighborhoods by linking the right to build a new downtown office building to a commitment to develop office space in predominantly African American Roxbury.

### *Atlanta*

Atlanta has also grappled with racial fears and distrust. In 1973, the election of Maynard Jackson, the city's first black mayor, was a triumph for the city, the product of a collaboration between African American and white leaders to address racial tensions that threatened to undermine economic growth. Under Jackson, Atlanta adopted the informal slogan “The city too busy to hate.” Jackson ensured that everyone, black *and* white, benefited from the rapid growth that helped hold together the black-white political coalition he needed to launch initiatives that continue to shape the city and its downtown even today. The coalition enabled the city to invest in transforming a regional airport into an international hub and the downtown into a world business center. Black and white leaders worked together to build regional support for a transit system that helped propel Atlanta past other Southeastern cities that failed to make comparable investments. Mayor Jackson pushed Atlanta's successful bid for the 1996 Summer Olympics, a feat that would have been impossible for a city riven along racial lines. Downtown's Olympic Park and the development the Games helped spark memorialize the city's conscious effort to deal with race as much as the Olympics themselves.





4.57 The Beltline, a linear park being built along an old railway line through one of Atlanta's central neighborhoods. © Atlanta Beltline, Inc.; image by AECOM



4.59 Atlanta's downtown neighborhoods have seen significant walkable and mixed-use development since 2000. Courtesy Goody Clancy



4.58 Atlantic Station, built on a brownfields site, helped Atlanta's Midtown grow in the early 2000s. © Sean Pavone Photo/Shutterstock

## DISCOVERY GREEN (HOUSTON, TEXAS)

### A new central park helps create a walkable civic core.

- **Program:** Transformation of a previously unprepossessing collection of parcels into a new destination for residents, a new front yard for the city's convention center, and a new focus for downtown development
- **Area:** 12 acres
- **Design team:** Hargreaves Associates; Page Southerland Page; Lauren Griffith Associates; artists Margo Sawyer and Doug Hollis
- **Developer:** Discovery Green Conservancy; City of Houston
- **Award:** Finalist, ULI Amanda Burden Urban Open Space Award (2011)

*(continued)*



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Working with a nonprofit conservancy supported by foundations and the business community, the City of Houston assembled a 12-acre parcel between downtown and the city's convention center. It sought to create an urban park that would "serve as a village green, a source of health and happiness for

our citizens, and a window into the diverse talents and tradition that enrich" the city. Houston also hoped the park would spur development and inject new energy into an underutilized area of downtown.

As with New York's High Line, Chicago's Millennium Park, and Birmingham's Railroad



4.60 Courtesy Hargreaves Associates



4.61 © James LaComb, courtesy Discovery Green Conservancy



Park, the introduction of a high-quality public park with broadly appealing programming has flipped perceptions of the area around it, conferring a new attractiveness on long-overlooked parcels. The Discovery Green Conservancy calculates that in its first five years the park sparked new development

worth \$625 million, including the central city's first new residential tower in forty years. An annual schedule of more than eight hundred events (mostly public, mostly free) has lured tens of thousands of city residents and suburbanites downtown, giving an important boost to nearby small businesses.



4.62 Discovery Green Conservancy via ULI



4.63 Courtesy Flickr user Erion.Shehaj



From 2000 to 2010, downtown Atlanta, deemed a ghost town a decade earlier, added residents and wealth faster than the city as a whole and the surrounding region. Consistent advocacy by Central Atlanta Progress and the Livable Communities Initiative—working with allies like Georgia State University—focused on mixed uses, walkability, and diversity. As a result, life in downtown Atlanta has begun to emerge from indoor malls and pedestrian connectors onto its streets. Redevelopment of surface parking lots and outmoded commercial buildings has created new loft apartments, stores, cafés, and entertainment, which in turn have supported population growth, attracting younger professionals in particular. That group will play a central role for a city whose educated workforce allows it compete for jobs and investment.<sup>36</sup> Perhaps most telling, the city has advanced two major downtown initiatives: a new streetcar and the National Center for Human and Civil Rights.

### *Chattanooga*

When Ron Littlefield, a former city planner, took office as mayor of Chattanooga, Tennessee, in 2005, an aide

warned him that the city had fallen out of an annual ranking of the top ten places for industry. Reviewing the list, Littlefield saw that it was dominated by older manufacturing centers, even though they continued to lose jobs and investment. Chattanooga was in the same boat: over sixty years, the share of its workforce engaged in manufacturing had fallen from 35 percent to less than 15 percent.<sup>37</sup> Littlefield saw the city's future in its downtown and a ten-year, \$120 million waterfront redevelopment that had built the new Tennessee Aquarium and dramatic waterfront parks that supported a growing tourist economy.

Even though other Southern cities continued to wage bidding wars, competing for manufacturing jobs with traditional financial incentives, Littlefield announced that Chattanooga would compete on its quality of life. "If we attract good people," he argued, "good jobs will follow."<sup>38</sup> Chattanooga turned its downtown into a 24/7 live/work/entertainment/culture district. Howard Wial, a Brookings Institution fellow and coauthor of a 2012 study on U.S. manufacturing trends, endorsed the new strategy. "As U.S. manufacturers use more automation,



4.64 a,b Chattanooga's investment in its waterfront created a widely popular downtown destination and recast the downtown's image from a declining business district to an amenity-rich center for regional life. © 2013 Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



robots, and computers to produce new products, workers are being hired more for their brain than their brawn, and the costs of property and taxes comprise less of the overall production costs.”<sup>39</sup>

Littlefield’s strategy proved successful. The city has attracted more than \$3 billion in new manufacturing investment since 2008 and saw manufacturing employment rise by roughly 13 percent between 2010 and 2012.<sup>40</sup> While this increase brought more traditional blue-collar jobs, it also brought more positions for engineers and others with strong technology backgrounds. Civic gains have proved equally important. Downtown has returned as a destination that draws people from every neighborhood and livelihood, and a notable arts district has begun to take form at its southern edge. A new art museum faces downtown from across the Tennessee River; the new waterfront offers children and adults the opportunity to splash in an urban river; and young adults crowd downtown bars and cafés. Intent on ensuring that every investment in downtown contributes to its energy and sense of place, Littlefield insisted that a pedestrian bridge linking walkable districts on both sides of the river also double as a work of public art. The result: a bridge paved with glass panels through which pedestrians can gaze down at the river 80 feet below.

Believing that public infrastructure could also be public art, the city worked with River City Company, a nonprofit developer, to encourage all new development to enhance the character of downtown. Architect and urban designer John Coddington became downtown’s de facto design manager, and the quality of new buildings and public realm alike suggest the high value accorded good design: they telegraph the civic, social, and cultural importance that downtown holds for the entire community. Waterhouse Pavilion, located at one of Chattanooga’s busiest intersections, demonstrates how this approach has paid off for the city. The brick-and-glass “public room” holds several hundred people



4.65 Chattanooga’s multidimensional approach to revitalizing downtown integrated highly visible initiatives, including a new waterfront and art museum; new housing that ranges from condominiums and townhouses to lofts in renovated downtown buildings; and support for the arts and entertainment, which has nurtured new galleries and other businesses and created a lively South Side arts district. Courtesy Goody Clancy

and sits in Miller Plaza, a parklike square that incorporates an outdoor performance stage. Constantly filled with events and markets organized by community, arts, and other organizations from across the region—and a popular lunchtime destination for downtown workers—this distinctive public space symbolizes the integral role that downtown again plays in the life of the city and its region.





4.66 a,b To emphasize the downtown's role as the center for regional life, the city developed a highly innovative, and ultimately successful, strategy—creating a building whose sole purpose is to serve as a “public room.” The result is a civic space sought after not only for important regional meetings and public gatherings but also by neighborhood organizations and clubs of all sorts. Courtesy Goody Clancy

## Wichita

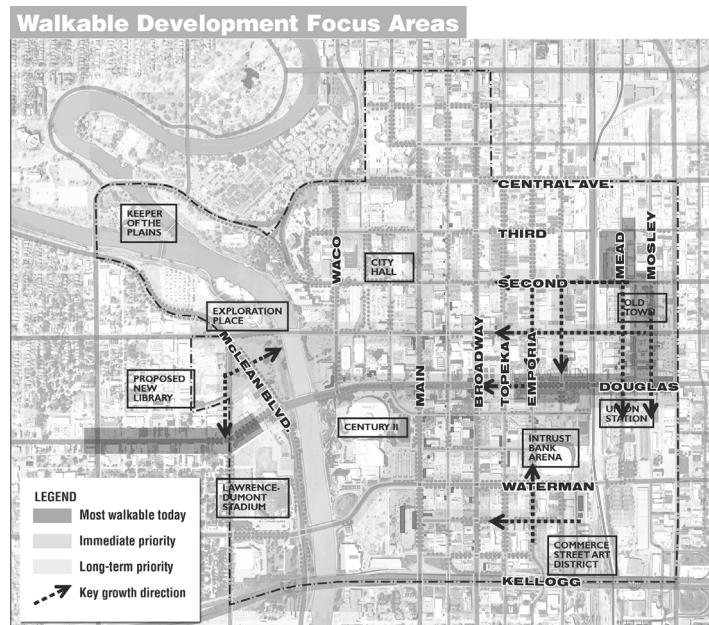
In October 2009, more than fifty civic leaders from the public, private, and nonprofit sectors of Wichita, Kansas, arrived in Chattanooga intent on studying how the city had achieved such dramatic changes in its downtown. Concerned about shifts in the regional economy and a growing income gap between the urban center and its suburbs, the Wichita Chamber of Commerce had five years earlier launched *Visioneering*, a freewheeling community conversation about the region's future. The program had forged a broad consensus among public and private leaders about how the city and region should move forward together. The resultant plan yielded a commitment from private, public, and community leaders to work together toward downtown Wichita's revitalization. One sign of community commitment: participants paid their own way for *Visioneering* field trips to Chattanooga and other cities.

When the *Visioneering* initiative began, reviving downtown Wichita seemed unlikely. Following a familiar twentieth-century pattern, businesses, professional

firms, restaurants, stores, and other businesses that had called downtown home up until the 1960s had largely decamped for the suburbs by 2009. One area flourished, however, even as the area around it continued to decline: Old Town. Twenty blocks of old warehouses and factory buildings had drawn little attention until the early 2000s, when a business owner noticed that the area around his restaurant had quietly developed a passionate following. Teaming up with an architect, he began buying and rehabbing older buildings, creating restaurants, entertainment venues, unique small businesses, two hotels, and, eventually, loft apartments. By the late 2000s, a growing Old Town supported flourishing nightlife, restaurant, and arts scenes. These amenities had in turn attracted several hundred urban pioneers to move to rehabbed lofts in the neighborhood.

These amenities also attracted the imagination of a group of engineers whom the manufacturer Airbus relocated to Wichita in 2008. Community leaders involved with *Visioneering*, including the mayor, took note: the engineers had insisted on locating their office in Old





4.67 a,b,c Walkability stood as the critical goal for the Downtown Wichita Master Plan. A key strategy involved targeting new investment in housing, retail, offices, and hotels to reinforce vitality along priority walkable streets that connected a new arena, the convention center, Old Town, and other downtown destinations. Downtown stakeholders supported concentrating private and public investment along these corridors for at least five years to reinforce all of downtown's appeal as a live/work/play environment. Soon after the master plan's approval, the city and county joined with a developer to redevelop a brownfield site that could not accommodate extended periods of occupation (such as housing or offices) as a shared parking facility (faced by a climbing wall) and a small park. Together with housing and retail on adjacent surface parking lots, the development brought the area next to Old Town to life and strengthened walkable connections to nearby parts of downtown. Courtesy Goody Clancy



Town rather than in the suburbs. In 2009, Mayor Carl Brewer announced a partnership between the city and the Wichita Downtown Development Corporation (WDDC), a business-supported advocacy and management group, to produce a downtown master plan. The plan sought to unlock downtown's ability to enhance quality of life, economic opportunity, and sustainability across the region, thereby boosting the region's efforts to build a knowledge economy that could offset the decline of manufacturing.

The community-based planning process, run by the urban design firm Goody Clancy, produced information that surprised even downtown's most enthusiastic advocates. A housing market study revealed demand for one thousand loft apartments across downtown over five to seven years—double the existing supply, located mainly around Old Town. A commercial market study revealed demand for nearly 700,000 square feet of upscale office

space from a growing pool of mostly younger technology and design entrepreneurs, along with unexpected new demand for downtown hotel space. The analysis also suggested that a lack of suitable office space after decades of disinvestment had locked out some suburban employers interested in returning to downtown.

Downtown's latent strengths became increasingly obvious during the planning process. Enthusiasm grew in proportion to confidence in market potential. The entire community rallied around a successful effort to maintain the state's historic-preservation tax credit program, which legislators had proposed eliminating. Before plan completion, several developers announced new housing investment, and one of the region's largest private employers decided to relocate a planned innovation center to downtown. In place of a signature project or urban design gesture, the plan called for multiple catalyst projects strategically located throughout downtown and programmed



4.68 Wichita's Old Town district had attracted several hundred residents to lofts, renovated from outmoded industrial buildings and warehouses, over the previous decade. The market study prepared for the master plan by team member Zimmeran/Volk revealed a demand for roughly two hundred new downtown units per year, suggesting that in five years Wichita could double its downtown population. In the two years since the master plan was enacted, the downtown's residential population has grown by more than three hundred per year and is leading the way toward downtown revival. Courtesy Goody Clancy



to bring a critical mass of new activity to walkable streets linking destinations like Old Town, a new sports arena, and a popular new park along the Arkansas River.

The year following the plan's adoption brought announcements of a new boutique hotel; plans to rehab former office buildings for residential use; reuse of the historic Union Station complex for offices, stores, and housing; new restaurants; and other new investments. Old Town's cachet has moved well beyond its original boundaries, and its trademark walkability has begun to spread as well. Much of this progress reflects the effectiveness of the partnership model the city and the WDDC have followed. The city has invested in infrastructure, revised zoning, built parking garages, and adopted policies to encourage development that ties together existing downtown destinations and Old Town, promotes walkability, and fills in gaps in the streetscape. The WDDC can recruit the developer best suited to a particular site or project, encourage high-quality design, and work to maintain enthusiasm and consensus about downtown's ongoing revival.

## *Los Angeles*

GIs returning to Los Angeles after World War II found a downtown that might well have served a twenty-first-century city. Union Station, opened in 1939, was the most modern major train station in America. Eleven hundred miles of streetcar lines fed into downtown from across the region. A growing population and a booming economy promised a bright future.

But in a step that made sense only in the postwar zeitgeist, Los Angeles cast its lot with the car. Intent on living up to its reputation as a city of the future, LA rushed to plan a vast freeway system and by 1950 was hard at work bulldozing those freeways through peripheral communities, opening orange groves and rangeland to development, and dramatically reshaping the region in just a few years. By the mid-1960s, even as the city's population and economy grew rapidly, the streetcar lines had disappeared, Union Station had developed an

unsavory reputation, and major employers had deserted downtown for affluent Beverly Hills and the rapidly developing San Fernando Valley. During the 1960s and '70s, downtown took on a new role—as an entry point for hundreds of thousands of Mexican and Central American immigrants who brought a vibrant new culture as they settled into adjacent neighborhoods—that has helped shape its current revival.

Beginning in the mid-1950s, the city began a string of investments and interventions in an effort to stem the outflow of employers and reverse downtown's decline. Despite fierce opposition from a small band of preservationists, the redevelopment authority used its powers of eminent domain under urban renewal to level the historic Bunker Hill neighborhood on the western edge of downtown. New office towers rose on the rubble of Victorian mansions, consigning downtown to a nine-to-five business environment. Yet rather than drawing new employers, these sparkling towers hastened the decline of the other parts of downtown by luring tenants out of existing commercial buildings. Goaded by a business community convinced that continuing decline would hurt the region's economy, the city sought to add cultural institutions as downtown anchors. It worked with private donors to create the Los Angeles Music Center, which opened in 1964 as the home of the Los Angeles Philharmonic and a marquee venue for performing arts, from Broadway shows to opera and ballet. Yet the high-profile complex produced little of the economic impact its planners had expected; for the most part, audiences drove in from the suburbs, enjoyed performances, and then climbed back into their cars and left without patronizing nearby restaurants or businesses.

The launch and expansion of the Metro subway system in the 1990s, together with burgeoning interest in downtown living, began to shift the balance in the area. New restaurants opened, artists and other urban pioneers trickled in to claim cheap space in vacant historic office buildings, and a booming Little Tokyo on the





4.69 a,b Frank Gehry's Walt Disney Concert Hall cost more than half a billion dollars (adjusted to 2013 value) and replaced the 1970s-era Dorothy Chandler Pavilion. It ranks alongside the Bilbao Guggenheim Art Museum as one of the most successful efforts to combine culture and spectacular architecture in order to recast a city's image. It is not surprising that the city's business community, early supporters of downtown revitalization, came to the rescue when the project stood on the brink of cancellation, contributing more than one-third of the final cost. © 2013 Sitephocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



4.70 Commentators often call Frank Gehry the most important architect of his time (a *Harvard Business Review* writer, for example, flatly declares him "America's most celebrated living architect"). Perhaps dazzled by his buildings' forms, commentators tend to overlook his deep understanding of the urban landscape and how deftly he integrates architecture, open space, public space, and infrastructure in his work.

When Gehry's Guggenheim Museum Bilbao appeared on the cover of the *New York Times Magazine*, coverage focused on the structure's quality as an object. But the museum merits attention as much for its artful bridging of a highway that has divided Bilbao's downtown from its riverfront and for its success as a symbol of twenty-first-century vitality that nevertheless respects the historic character and scale of the city around it. Wikimedia user Xauxa (Hakan Svensson)



eastern edge of downtown began to attract tourists and other businesses. Hoping to build on this momentum, the city turned to large-scale attractions. In 1999, the Staples Arena opened (it now draws more than four million visitors annually), and business leaders raised more than \$100 million to complete the Walt Disney Concert Hall, designed by Frank Gehry, which opened as part of the Music Center campus in 2003. In the early 2000s, the city and county began planning the Grand Park project, a 12-acre park with lawns, cafés, and performance spaces between the Music Center and City Hall.

Architects and planners like Bill Roschen, FAIA, president of the LA's planning commission, began to push for more comprehensive planning that linked these attractions to new housing and jobs. They argued for a more holistic approach to downtown as a distinctive environment that draws character from its simultaneous roles as a network of unique neighborhoods, a regional destination for entertainment, and a global business

center. Most notably, this approach led to the creation of the Los Angeles River Revitalization Master Plan.

For most of its 48-mile length, including its entire passage through downtown, the river runs through concrete spillways that date to the 1940s and give it the appearance of an open sewer flanked by parking lots and industrial sites. Led by landscape architects Mia Lehrer + Associates and urban designers Civitas, the community-based planning process drew in residents of neighborhoods along the river. The master plan adopts a sophisticated approach to the redevelopment of an urban riverfront. It layers multiple missions—a neighborhood park for downtown residents, a setting for cafés and other attractions that will draw nonresidents, a spectacular venue for regional festivals—atop a sensitive understanding of ecological systems and their application as green infrastructure that can provide flood control and water-purification services at a far lower cost than if they were engineered.



4.71 The Los Angeles Metro system spawned a transit-oriented housing boom. Less than ten years after it opened, the Hollywood station had spurred development of more than six thousand housing units. This new generation of higher-density housing stirred controversy in Hollywood neighborhoods that had witnessed little new investment for decades. Urban designer Bill Roschen, FAIA, was hired jointly by the city and a developer to work with the community and create a plan for “Hollywood and Vine,” a site that included the iconic Schwab’s lunch counter, where legend has it that Mervyn LeRoy discovered Lana Turner. Roschen’s work demonstrates that a new generation of mixed-use development could preserve—and breathe new life into—traditional Hollywood neighborhoods. Courtesy Roschen Van Cleve Architects with Nakada + Partners; developed by Bond Companies





4.72 Known as a drag-racing site in the 1950s and '60s, the Los Angeles River has resembled an open sewer since it was encased in a concrete channel in the 1940s. Landscape architects Mia Lehrer + Associates and urban designers Civitas led a community-based planning process to transform the river into an amenity serving several new and revitalized downtown neighborhoods. Courtesy Wikimedia user downtowngal



4.73 Los Angeles River Master Plan rendering. Mia Lehrer + Associates Landscape Architecture



## CHEONGGYEcheon Stream Daylighting (SEOUL, SOUTH KOREA)

### Trading an elevated highway for 3.6 miles of cutting-edge urban amenity.

- **Program:** Removal of an aging elevated highway, daylighting the small river buried beneath it, restoring the waterway to a more natural state, and creating a linear public park
- **Area:** 3.6 miles (100 acres)
- **Design team:** SeoAhn Total Landscape
- **Developer:** Seoul Metropolitan Government
- **Award:** Veronica Rudge Green Prize in Urban Design (Harvard University Graduate School of Design) (2010)
- **Web:** <http://www.lafoundation.org/research/landscape-performance-series/case-studies/case-study/382/> <http://korea.fas.harvard.edu/print/550> [www.smithsonianmag.com/artsculture/Providential\\_Happening.html](http://www.smithsonianmag.com/artsculture/Providential_Happening.html)

“Daylighting”—uncovering paved-over streams and rivers in urbanized areas and, often, restoring them to more natural conditions—emerged as an

urban-redevelopment and sustainability strategy in the mid 1990s. U.S. cities as varied as Trenton, New Jersey; Kalamazoo, Michigan; Seattle, Washington; and Arcata, California, have uncovered waterways buried under freeways and parking lots. A Providence, Rhode Island, artist organized an installation celebrating his city’s three daylighted rivers; over two decades it has evolved into a recurring series of warm-weather festivals where residents and tourists throng firelit riverbanks by night. (Uncovering the rivers also spurred new housing and commercial development on their banks.) Daylighting projects have created wetlands for stormwater treatment, flood control, and nurturing fish populations; attracted people to parks or playing fields; and raised property values. In most cases, daylighting rectifies shortsighted planning and design decisions made during the twentieth century.

Cheonggyecheon Stream is a striking example. The five-year project began with the



4.74 Courtesy Flickr user Zooley

(continued)



(continued)

demolition of an elevated freeway that bisected Seoul's central business district. The waterway itself was then uncovered and restored to more natural conditions. A linear park along both sides of the stream alternates highly designed sections with areas of more naturalistic landscaping. The

project draws more than 60,000 visitors daily; has yielded enormous increases in biodiversity; lowered summer temperatures by as much as 10°F compared with nearby blocks; measurably reduced air pollution; and raised property values along the park by 30 to 50 percent.



4.75 Courtesy Flickr user RiNux



4.76 Courtesy Flickr user RiNux





4.77 Courtesy Flickr user TomPageNet



4.78 Courtesy Flickr user Hojusaram

By the mid-2000s, housing had become a critical component of downtown development. But concerns shifted from attracting residents—whose number grew by more than 80 percent, to an estimated 52,000, between 2006 and 2013, despite the recession<sup>41</sup>—to finding ways to accommodate everyone, regardless of income level. In the fourth-most expensive housing market in the United States, the least expensive new market-rate housing required a household income of at least \$75,000 per year—nearly five times the income of a full-time worker earning minimum wage. Los Angeles's aggressive plan for affordable housing sought to harness some of the increase in economic value resulting from downtown development. But even though it promised to produce more new affordable housing units elsewhere in the city, tapping this value-added funding proved politically untenable. It threatened to transform downtown into a gated community that relied not on physical walls but on the intangible barriers of cost and income to keep all but the wealthiest residents out. To preserve a measure of

diversity downtown, Mayor Antonio Villaraigosa secured city council approval in 2007 for a plan to tap rising housing values in a different way: the city would provide a 35 percent density bonus for downtown developments that made 15 percent of its on-site units affordable.<sup>42</sup>

The high-profile LA Live development—a \$2.5 billion project with more than 5 million square feet of entertainment, hotels, offices and housing—has introduced a significant new level of density to downtown Los Angeles. Its density—conventionally measured by the ratio of total building square footage to the square footage of the building's site ("FAR," or floor area ratio)—of roughly 5.0 is not high for an older, East Coast city but surpasses that of the rest of downtown. LA Live fills several city blocks with a 24/7 live/work/play environment that feels as intense as New York's Times Square. Its chaotic energy would violate the traditional spirit of most downtowns—and its commercial excess has offended many design critics—yet LA Live's concentrated vitality offers a choice to people who seek an urban lifestyle that only a downtown can offer.



## LA LIVE (LOS ANGELES, CALIFORNIA)

### Bringing Tokyo-style vitality to a city discovering the joys—and economic value—of walkability.

- **Program:** A 24/7 sports, entertainment, and residential development that anchors for southwest corner of downtown Los Angeles and complements the Staples Center
- **Area:** 27 acres
- **Design team:** RTKL Associates Inc.; Gensler; and ELS Architecture and Urban Design
- **Developer:** Anschutz Entertainment Group with MacFarlane Partners
- **Award:** ULI Global Award for Excellence (2010)

The \$2.5 billion mixed-use LA Live complex—a redevelopment of previously low-rise light-industrial land—includes approximately 5 million square feet of restaurants, office space, hotels, luxury residences, and entertainment venues that host sports events, concerts, and large corporate meetings. The campus sits near two regional highways as well as stations on three lines of the Los Angeles Metro system.

The developer envisioned LA Live as the entertainment Mecca of Los Angeles. It houses the Nokia Theatre, the Grammy Awards museum, a multiscreen cinema, the West Coast studios for the ESPN sports network, and the Staples Center, home to four professional basketball and hockey teams. The development has generated contradictory reactions. Critics argue that it represents nothing more than an enormous corporate mall awash in marketing and contrived “experiences” that aggressively keeps visitors from venturing into surrounding blocks, where their presence might benefit other businesses. Supporters praise it as an innovative model of urban redevelopment that takes effective advantage of the presence of the Staples Center and attracts tourists and suburban residents (and their spending) who might not otherwise set foot in downtown.



4.79 © John Edward Linden



4.80 © Ryan Gobuty/Gensler



LA Live pushes Los Angeles's downtown into a derelict district filled with low-intensity businesses like warehouses and truck distribution centers. Many U.S. downtowns abut at least one such district, often one contaminated by past industrial uses. These brown-fields typically comprise large areas of vacant or underdeveloped land close to downtown but long ignored by the market. Their proximity to downtown and their low values make them well suited for moderate- to higher-density mixed-use development that responds to emerging markets. Taking advantage of these new markets, however, requires significant up-front investment, not just in environmental remediation but also in planning and new infrastructure. LA Live serves as a prime example: it depended on a robust public/private partnership that delivered early public infrastructure investment and a significant increase in permissible density to make relatively high development costs supportable.

The lofts, hotels, clubs, theaters, arenas, and convention center that make up LA Live constitute a new downtown district but have preserved little of the area's industrial past. Redevelopment of old industrial districts elsewhere—in, for example, Tampa's Ybor City, Cleveland's Flats, Milwaukee's Third Ward, and Denver's LoDo—has reused historic warehouses and even anonymous single-story industrial buildings for lofts, performance venues, stores and restaurants, start-up offices, and other uses that now thrive in downtowns but don't require traditional downtown environments. After declining over three decades as industry and warehousing left the banks of the Milwaukee River for suburban industrial parks and distribution centers, Milwaukee's Third Ward emerged as an "arts and fashion district" in the 1990s. Construction of a continuous riverwalk connecting

the river's banks to downtown accelerated revitalization and development of residential lofts, locally owned restaurants and stores, music venues, and other uses reminiscent of LA Live. While LA Live asserts coolness through architecture, lighting, and public art that welcome the future, the Third Ward declares coolness by reclaiming a rough-edged past to create a defiantly anti-suburban present.

## **The emergence of resilience**

Over the next twenty to thirty years, America's coastal cities, along with a majority of the world's major cities, will experience rising sea levels, while increased rainfall and flooding or prolonged droughts will affect virtually every part of the United States—and most of the rest of the habitable world. A number of American cities are transforming their urban landscapes as they take steps to become more resilient in the face of increased flooding and droughts. The Natural Resources Defense Council (NRDC) cites Philadelphia's citywide stormwater management initiative as "the most ambitious green infrastructure plan in the country." High-visibility structures like green roofs, new parks, porous pavement, planted medians, green swales, and rain gardens will replace approximately one-third of the impermeable surfaces in roughly 60 percent of the city, making a visible mark on these neighborhoods and lessening flooding citywide by eight billion gallons each year. Faced with eight years of drought, Denver is changing its urban landscape, but in a very different direction. Xeriscaping—landscapes that require very little water and are more familiar in desert cities like Phoenix—is replacing acres of green lawns and lush planting as the city adapts to the reality of a more arid climate.



## MARINA BARRAGE (SINGAPORE)

### With multitasking infrastructure, investments in resilience build quality of life.

- **Program:** Flood control, protection against rising sea levels, and the creation of a new source of fresh water for Singapore. Use of infrastructure spending to deliver multiple quality-of-life benefits, including water-based recreation and a park that delights both residents and visitors.
- **Area:** 1,150-foot-long barrage dam and 140,000-square-foot pump house/visitor center; reservoir covers roughly 12 acres
- **Design team:** Architects Team 3; CDM Smith
- **Developer:** PUB (Singapore's national water agency)
- **Awards:** Urban Land Institute Global Award for Excellence (2011); Excellence in Environmental Engineering Superior Achievement Award from the American Academy of Environmental Engineers (2009)

As the impacts of a changing global climate become more evident, cities have turned to a mix of “hard” (man-made) infrastructure and “soft” natural systems to protect themselves against

new climatic extremes. High costs have led many cities to examine ways to reap greater value from engineered projects by exploring ways in which these investments can deliver quality-of-life benefits alongside resilience.

The iconic Marina Barrage represents just this kind of multitasking. The 1,150-foot-long dam across the Marina Channel creates a reservoir that can supply 10 percent of Singapore's fresh water. The barrage also acts as a flood barrier, reducing the threat of flooding in low-lying areas of the city, which receives 100 inches of rain annually, a volume that will increase according to many climate-change modeling projections.

Following heavy rains, the water authority can regulate water levels to accommodate stormwater arriving through the reservoir's five tributaries. At low tide, the barrage's massive gates can be lowered, allowing water to pour into the Straits of Singapore. As the tide rises and the gates are raised, high-speed pumps can force water out.

Most residents and visitors, however, know Marina Barrage as a recreational facility. The



4.81 Courtesy PUB, Singapore's national water agency



new reservoir attracts kayakers, boaters, and windsurfers. The pump house building hosts not just a control center (with sophisticated energy-saving and -generating features) but also an environmental museum, a fountain-studded play area for children, conference facilities, and a



4.82 Courtesy Flickr user Chinnian

140,000-square-foot green roof that rises along a gentle ramp from ground level and functions as a passive park. Despite its out-of-the-way location, the park, with dramatic views of downtown, has become a popular destination for picnickers and kite flyers.



4.83 Courtesy Flickr user Birantf



4.84 Courtesy Flickr user ErwinSoo



## MASDAR CITY (ABU DHABI, UNITED ARAB EMIRATES)

### Building a carbon-neutral city from scratch.

- **Program:** Plan and build a mixed-use, low-rise, high-density city that is carbon-neutral and produces zero waste. Accommodate the headquarters for the International Renewable Energy Agency and the Masdar Institute.
- **Area:** 64.5 million square feet (6 million square meters)
- **Design team:** Foster & Partners (architecture); Cyril Sweet Limited (quantity surveying); WSP Transsolar (mechanical and electrical engineering); Gustafson Porter, ETA, Flack + Kurtz, Systematica (additional consulting); Mott MacDonald (engineering and environmental consulting)
- **Developer:** Masdar-Abu Dhabi Future Energy Company
- **Awards:** Transatlantic 21 Association World Clean Energy Award (2007), AJ100 Sustainability Initiative of the Year (2008), and others
- **Web:** [www.fosterandpartners.com/projects/masdar-development/](http://www.fosterandpartners.com/projects/masdar-development/) [www.masdarcity.ae/en/110/frequently-asked-questions/](http://www.masdarcity.ae/en/110/frequently-asked-questions/)

This ambitious initiative aims to create the world's first carbon-neutral and zero-waste city. Like a half dozen other experimental new cities or additions to existing cities, the initiative strives to produce an urban environment that can exist without oil. The government of oil-financed Abu Dhabi intends to make Masdar a world center for research on and demonstration of novel approaches to energy production from clean and renewable resources.



4.85 Copyright Nigel Young/Foster + Partners





4.86 Copyright Foster + Partners

Masdar City's design reflects its desert context. Its compact grid creates narrow streets shaded from the sun by the street wall. Its design as a walkable environment limits to 650 feet the longest walk to a rapid transit link or community amenities. Street orientation takes advantage of prevailing breezes for cooling, and smart green and water techniques help reduce radiant temperature. Ideas and methods developed during the ongoing experiment of the city's design will have global applications.

The master plan builds in enough flexibility to allow its modification as new information, concepts, and technology emerge. Car-free and pedestrian-focused, the city's footprint will remain compact by design, with no suburban sprawl. Masdar City will incorporate electric vehicles and connect to



4.87 Copyright Foster + Partners

neighboring communities, the international airport, and other cities using existing road and rail routes. Solar arrays, wind farms, and other methods of noncarbon energy generation methods will ensure self-sufficiency.

Meanwhile, escalating concern about the combined impacts of increasingly intense, increasingly frequent storms and rising sea levels has begun to spur visible change, particularly along America's East Coast,

which appears destined to experience the country's most dramatic climate-change impacts. New York City has taken the most significant steps. Just eight months after Hurricane Sandy slammed into the city in October



2012, Mayor Michael Bloomberg's administration released *A Stronger, More Resilient New York*, a blueprint for helping the city defend against and rebound from similar storms.

The press greeted the plan as a groundbreaking attempt to plan a major city's adaptation to rising sea levels. The plan drew, however, on a long tradition of living with water pioneered by the Dutch. As early as 1400, much of the Netherlands was protected by a system of dikes and canals. Today, more than ten million people—in a country with one of Europe's healthiest economies—live below sea level, protected by a complex system of dikes designed to hold back rising seas and rivers, barrier islands to slow the force of storms, floodgates to close off rivers to surging sea waters, wetlands, and other natural and engineered defenses.

The experience in the Netherlands offers three lessons that inform every dimension of *A Stronger, More Resilient New York*. First, “don't retreat”—the understanding that the human and economic value of cities is too great to abandon them in the face of turbulent seas and the belief that human ingenuity is up to the task of creating new defense methods. Second, celebrate your community's relationship to water. Third, treat every investment in resilience as an investment in community-building that can provide human and economic value in addition to protection.

New Orleans's experience in the aftermath of Hurricane Katrina taught Americans the first two of these lessons. As discussed in chapter 3, the controversy surrounding the rebuilding of New Orleans East demonstrated that retreat is neither desirable nor realistic for most cities. In a different way, New Orleans's experience demonstrated the value of celebrating water rather than viewing it strictly as a threat. For years, New Orleans had covered the canals that shunted stormwater to the pumps that forced it into Lake Borgne. Covering the canals removed what most residents considered an unsightly bit of infrastructure (and a reminder of the

city's vulnerability), but it also severely reduced their capacity to handle large volumes of water, and they repeatedly failed to perform during flooding.

Dutch experts, invited to help the city's recovery planning by architect David Wagoner, FAIA, and the American Planning Association, brought with them a very different sensibility. They worked with a broad cross-section of residents to develop a vision of a city that embraced water: the creation of a “blue signature” of canals that, with interconnected rain gardens and swales, would introduce a greatly enhanced system for absorbing heavy rains and holding stormwater until it could be pumped out.

The third lesson from the Dutch will prove the most significant for urban design over the coming decades. In an era of scarce public resources and growing demand for urban development and infrastructure, every dollar invested in resilience should also be a dollar invested in community-building. Until the second half of the twentieth century, the Dutch resisted and fought flooding—building more, ever-stronger dikes and other protections whose sole purpose was to hold back storm-driven flooding. While effective, this approach grew increasingly costly and offered only a “passive” long-term return—lives and money saved when damage did not occur.

But in recent decades, the Dutch have shifted to a more nuanced approach, permitting flooding in areas that can tolerate it; mixing protection with the adaptation of buildings and land uses to enable other areas to experience limited, periodic flooding without significant damage; and—most important for urban design—creating a mix of natural and engineered protections that also improve quality of life. One very visible benefit: these strategies leverage the high real estate and recreational value of waterfronts to provide a near-term flow of financial and social benefits in addition to the longer-term benefits of lives and dollars saved. Barrier islands and man-made dunes that absorb the force of wind-driven waves (which can more than double the height of



flooding associated with ocean storms) take the form of public beaches and even sea resorts. Seawalls become foundations to support a new generation of growth for historic downtowns. A polder—an area reclaimed from the sea with a system of dikes—built to protect its neighboring region also functions as a new smart-growth, transit-served suburban center called Almere, located a few kilometers from Amsterdam.

*A Stronger, More Resilient New York* applies all three lessons. First, Bloomberg himself called for investing roughly \$20 billion to protect flood-prone parts of New York City. Second, the plan uses resilience measures to expand beaches and introduce sand dunes on Staten Island and in Queens; creates a major new waterfront park on Staten Island; and offers financial incentives for building owners to invest in making threatened

buildings safer in the event of future storms instead of abandoning them. Third, rather than pull back from vulnerable areas that now house 400,000 people and 70,000 buildings, the mayor seeks to *increase* both numbers. He proposes developing a major new mixed-use neighborhood—Seaport City—on the scale of Battery Park City to protect Lower Manhattan, one of New York’s most vulnerable areas and one that suffered significant damage from Hurricane Sandy. The plan advocates using landfill that extends out to the pier line as a seawall to protect Lower Manhattan and create a platform for a new neighborhood that will attract billions of dollars in mixed-use investment.

Since the early 1970s, governors, mayors, developers and Columbia University’s Center for Urban Real Estate had all proposed landfill-based projects for the



4.88 In response to Hurricane Sandy, Mayor Michael Bloomberg’s administration issued a \$20 billion plan to make New York City more resilient in the face of rising sea levels. Its signature urban-design proposal: Instead of retreating from its waterfront, the city could build an entirely new neighborhood that doubles as a protective seawall along the East River. Tapping the high value of waterfront development, high-density, mixed-use Seaport City could help fund resilience. NYC Mayor’s Office, Special Initiative for Rebuilding and Resiliency



area, ranging from a museum designed by Frank Gehry to more than 80 million square feet of mixed-use development (termed “LoLo” for “Lower Lower Manhattan”). The Seaport City proposal, however, relies on a different logic, one that makes it a compelling model for other cities. As Vishaan Chakrabarti, director of Columbia’s Center for Urban Real Estate (and author of the LoLo proposal) points out, “Instead of . . . running from the waterfront, we need to protect it.” Tapping the significant real estate premiums offered by waterfront environments can pay for the costs of protecting the waterfront and the adjacent city. Seaport City offers two other opportunities to leverage investment in resilience. First, these dollars can create a lively addition to Manhattan’s public waterfront—promenades and parks inspired by the vitality of twenty-first-century urban renaissance and animated by food, entertainment, art, and culture. Second, the neighborhood itself can accommodate millions of square feet of housing, offices, hotels, and other activities that take advantage of excellent transit

infrastructure and invigorate Manhattan without intruding into established neighborhoods defined by their traditional scale and character.

Proposals like Seagate signal another role for resilience planning—providing an opportunity for urban designers, landscape architects, ecologists, and others to reevaluate environmental regulations that date largely from the 1970s and were developed to fight the battles of that era. Some of these regulations constrain innovative urban development today in ways that benefit neither the environment nor cities. Ironically, constraining intense development along urban waterfronts can reduce a city’s ability to become more resilient. Urban designer Stan Eckstut, FAIA, who prepared the master plan for Battery Park City, points out that cities like New York will need to revise key environmental regulations. He notes that “ever since Battery Park City, you basically can’t do landfills in America anymore. . . . But the mayor’s idea is exactly right, and it’s something that has been desirable from lower Manhattan’s perspective for a long time.”<sup>43</sup>

## HAFENCITY (HAMBURG, GERMANY)

### Investing in resilience and good design to build a new future.

- **Program:** Expand the city center and establish Hamburg as a European hub for commerce and trade that pursues sustainability aggressively.
- **Area:** 300 acres/123 hectares of land in the city’s old industrial harbor
- **Design team:** 700 architects involved in individual buildings. Firms include Kees Christiaanse & ASTOC; EMBT Architects; WES & Partners; Dietmar Feichtinger; and Herzog & de Meuron
- **Client:** HafenCity Hamburg GmbH, City of Hamburg

- **Award:** ULI, Global Awards for Excellence Finalist (2013)
- **Web:** <http://www.hafencity.com/en/home.html>

Globalization and accelerating climate change have forced cities to develop innovative infrastructure and planning approaches to make themselves rugged and adaptable. Coastal cities face special risks from rising sea levels, which will increase the extent and power of storm surges.

In response, Hamburg has launched a vast harbor-regeneration project, HafenCity (Harbor City),



where the River Elbe reaches the North Sea. The plan builds far-reaching measures for flexibility into the district's expanding footprint and will continue to adjust them during the thirty-year build-out. The project aims not to prevent flooding, but rather to shape the new district's urban form around the inevitability of flooding, just as waterfront activities like shipping, warehousing, and fishing determined the historic harbor's original urban fabric.

The mixed-use plan (50 percent commercial, 30 percent residential, and 20 percent divided among culture, leisure, tourism, retail, and higher education) organizes all development into five levels:

- Floating docks and public space
- Slightly higher waterfront promenades
- Still higher terraced public spaces
- Elevated streets and emergency walkways
- Residential and public spaces that begin more than a story above the street

This hierarchy of spaces will create a community capable of bouncing back from flooding. The paving of low-lying areas can be power-washed after flooding; more-elevated public spaces should remain untouched by even the most serious storm surges. Residential development codes also forbid building below elevations that models show will be susceptible to storm surges. The plan for HafenCity represents an audacious attempt to use urban design to prepare for a warming world.



4.89

(continued)



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4.90 Courtesy ELBE&FLUT; Source: HafenCity Hamburg GmbH



4.91 With parks, esplanades, and walkable edges below roads and buildings, HafenCity's design creates a manmade flood plain. Courtesy Wikimedia user Florian

Four thousand miles to the east, Hamburg, Germany, began to develop a prototype for its own “Seaport City” more than a decade ago. Faced with the task of retreating from the impact of global warming to the perceived

safety of its seawall, Hamburg decided instead to build a new downtown quarter lining the waterfront outside of the seawall and planned and designed to flourish in an era of intensifying storms and flooding. When completed



in another decade, the result, HafenCity, will accommodate roughly 12,000 residents, 45,000 jobs, and 4 to 5 million square feet of retail, food, entertainment, arts and culture, and education, together with roughly 6 miles of continuous waterfront that will include more than 60 acres of lively squares, quiet parks, floating platforms, interactive public art, and unique public spaces that celebrate Hamburg's history as a port.

By seizing the opportunity to make significant investments in its waterfront that adapt to rising sea levels, Hamburg will leverage its most valuable asset—its dramatic waterfront—to create economic, cultural, and social value. HafenCity provides the historic downtown with new jobs, cultural venues, retail, and other traditional downtown activities. Of particular interest, employers seeking large, modern floor plates unavailable in the historic center and a monumental new performing arts center too large for the historic center can both locate downtown rather than in underdeveloped parts of the region.

HafenCity's waterfront location offers value premiums that fund a complex system of floating platforms, waterfront esplanades, midlevel walkways, and higher-elevation streets that will make the new quarter feel open and inviting yet capable of withstanding 30-foot waves and wind-driven flooding. These economic premiums also help underwrite the cost of an amenity-rich public realm enlivened by food, entertainment, and culture that is expected to draw more than 16 million visitors per year to HafenCity—and to the heart of Hamburg as well. The quarter is also a unique residential neighborhood in which most housing will overlook the harbor, creating a destination for affluent young professionals and empty nesters that will help fund significant affordable housing to ensure that HafenCity contributes to Hamburg's commitment to embrace its growing diversity.

More than seven hundred architects thus far have created a mix of bold—and in some cases iconoclastic—buildings that proclaim cutting-edge design values and

offer Hamburg an opportunity to express its twenty-first-century vitality in a way not possible in its historic center. At the same time, the plan strives to maintain physical and social continuity. Block sizes are smaller than those in extensions of the historic center developed in the nineteenth century in order to preserve the center's rhythm and variety. Connecting streets are lined with stores, restaurants, and cafés to ensure continuous pedestrian interest. In a notable departure from many current practices, the plan does not gather corporate buildings with larger floor plates close to one another or in a dedicated precinct (as is the case in La Défense in Paris or Pudong in Shanghai) but instead mixes them among buildings of very different scales and uses to avoid, in the words of Jürgen Bruns-Berentelg, CEO of HafenCity Hamburg GmbH, “non-Jane Jacobs spaces.”

The concept of resilience is shaping cities in other ways. At a January 2013 conference sponsored by the Land Use Law Center at Pace University School of Law, economist Arthur C. Nelson predicted that gas will sell for \$16 a gallon by 2030, a sign of increasingly prohibitive energy costs. Also inspired by environmental responsibility, a number of developers have begun to experiment with self-sufficient “net zero” cities that produce all of the energy they require. A sign of growing interest in this approach, the first annual Net Zero Cities Symposium took place in October 2012.

The most ambitious initiative to date is Masdar City in Abu Dhabi (see case study, p. 204), a city of 50,000 residents and 60,000 workers scheduled to be complete by 2025. Masdar City's extensive mass transit system (including trial Personal Rapid Transit technology), futuristic energy-efficient architecture, walkable density, and narrow, car-free, shaded streets contribute to achieving its net zero goal. While some of the transportation and other anticipated energy-saving technology has proven too expensive, and net zero remains an elusive goal, Masdar City is the most advanced city-scale model to date for planning and designing for energy self-sufficiency.



Like similar projects, such as Babcock Ranch in Southwest Florida, Masdar City could only be built from scratch; the cost of retrofitting existing urban environments is prohibitive and will likely remain so for the foreseeable future. New energy-efficient cities, even if they attain net-zero status, pose serious challenges to the concept of sustainability. They encourage greenfield development, require substantial investments in new infrastructure, and compete with existing cities for jobs and residents. The very high costs of building a de novo city could also pose very real challenges to promoting social and economic diversity.

## The Costs of Success

### Social equity

American society has become less equitable over the past decades. In 2012, more poor people lived in suburbs than in cities for the first time, and the distance between high- and low-income households has reached levels not matched since before the Great Depression. New Orleans offers an example of the complexities and challenges of mitigating inequality. One of America's poorest cities in the 1990s, New Orleans had begun to recover for the same reasons other walkable, historic cities began to revive: the mix of historic character, living culture, and walkability that its inner-city neighborhoods offer—a mix essential to remaining competitive. When Hurricane Katrina devastated the city, however, New Orleans still had the reputation, and self-image, of a declining city steadily losing investment and people to its suburbs. The recovery effort brought new opportunities to New Orleans and to its poorest residents, who were largely African American.

The Housing Authority of New Orleans (HANO) decided to use the recovery effort to rebuild its entire public housing portfolio while reducing the number of low-income housing units. Many former residents of the

city's public housing developments, evacuated after the hurricane but too poor to return without a guarantee of long-term housing—did not come back. Lower-income refugees from the storm resettled in cities like Houston and Atlanta, where they found better jobs and public schools. In the first years after the storm, New Orleans's population shifted from a black to a white plurality. The implications of that transition became apparent as a semblance of normalcy returned to the city. The gentrification that had occurred in many older cities now began playing out in New Orleans's older inner neighborhoods as housing costs escalated and developers transformed empty industrial buildings into lofts that rented as quickly as they hit the market.

In 2012, New Orleans launched the Livable Claiborne Communities (LCC) Study (led by Kittelson Associates and Goody Clancy) to assess the costs and benefits of removing the Claiborne viaduct—an elevated expressway whose construction in the 1960s cut off Treme and other African American neighborhoods from downtown. While removing the viaduct raised difficult regional transportation issues, it offered a tantalizing array of possible urban design benefits, including a chance to restore Claiborne Avenue as a lively, mixed-use Main Street that served rich and poor neighborhoods alike; reconnect a series of historic neighborhoods to downtown; and remove a major obstacle to investment around the heart of the city's healthcare economy (including \$2 billion in new hospitals built after the storm). However, removing the viaduct might also accelerate gentrification, which threatened to dislocate households whose families had lived in the neighborhoods along Claiborne Avenue for generations. Controversy dogged community meetings about the plan, as many community leaders acknowledged the viaduct's negative impacts but argued for keeping it in place to avoid upward pressure on housing costs.

New Orleans's director of place-based planning, William Gilchrist, FAIA (who in a previous role had





Courtesy Goody Clancy



Ganesh Ramachandran rendering courtesy Goody Clancy

4.92 a,b In response to community concerns that tearing down the elevated Claiborne Expressway (initially intended in part to “protect” downtown from African American neighborhoods like Treme) would displace long-term residents, a city-led study recommended that half of all new housing (projected at more than 15,000 units over twenty years) be affordable—enough to ensure that current residents living in below-market rental units could find affordable housing.

championed Railroad Park in Birmingham, Alabama, described below) determined that the LCC study should focus on keeping the community intact, and only then assess the feasibility of removing the viaduct. The study recommended a comprehensive initiative—with or without removal of the viaduct—to transform the existing neighborhoods into mixed-income communities in which current residents benefited from new investment in revitalization. Their neighborhoods would add 15,000 to 20,000 new housing units over twenty years—many refilling vacant lots left from decades of economic decline and Hurricane Katrina’s destruction. Crucially,

half of these housing units would be made available to households that fit the economic profile of existing residents, an amount sufficient to accommodate all current households in rental housing that might face displacement by redevelopment. The study also tied billions of dollars of anticipated investment to funding programs to prepare residents for better-paying jobs and to support the indigenous neighborhood cultural life that serves as the backbone of the neighborhoods’ social networks and safety nets—including crafts such as intricate beadwork, traditional organizations such as Mardi Gras Indians, and the musicians who lead second lines.



## FAIRMOUNT LINE SMART-GROWTH CORRIDOR (BOSTON, MASSACHUSETTS)

### Turning transit-oriented development into transit-oriented equity.

- **Program:** A plan for four smart-growth centers built around new stations on an existing commuter rail line in some of Boston's poorest neighborhoods
- **Area:** 200 acres
- **Design team:** Goody Clancy (urban design)
- **Developer:** Fairmount/Indigo Line CDC Collaborative
- **Awards:** AIA Honor Award for Regional and Urban Design (2007); CNU Charter Award (2006)

Social inequality, in the form of disparities in education, income, and measures of health, grew during the slow recovery from the Great Recession. Along Boston's Fairmount commuter rail line, inequity meant that residents of middle-class communities at the end of the line could travel quickly to jobs in downtown Boston, but residents of poorer neighborhoods closer to downtown but without a station could not.

A coalition of community development corporations (CDCs) in the low-income neighborhoods organized a study of development potential around four possible sites for new stations. The CDCs sought to quantify the economic benefits of wider access to the rail service with two goals in mind. First, they hoped to persuade the Commonwealth of Massachusetts to build the four stations and increase rail service. Second, they wanted to use transit-oriented development around the stations to rebuild the neighborhoods physically, strengthen them economically by adding residents and businesses, yet avoid displacing existing low-income residents

by increasing the supply of affordable housing. The modestly funded plan helped the coalition win more than \$5 million in foundation funding for further studies and provided a firm basis for a campaign that ultimately persuaded the state to build the stations and add service. As a result, the coalition has moved to implementation, with aggregate plans for 1,500 units of housing and more than 800,000 square feet of new commercial space around the new stations.



4.93 Courtesy Goody Clancy





4.94 Courtesy Goody Clancy



4.95 Courtesy Goody Clancy



4.96 Courtesy Goody Clancy



## ELLEN WILSON NEIGHBORHOOD REDEVELOPMENT (WASHINGTON, D.C.)

### Building social value and community character.

- **Program:** Transform an institutional public housing project into a successful mixed-income enclave. Use a HOPE VI grant to replace and add housing, build a community center, and create new public streets.
- **Area:** 5.3 acres within the Capitol Hill Historic District and abutting an elevated highway
- **Designer:** Weinstein Associates Architects
- **Client:** District of Columbia Housing Authority; Ellen Wilson Neighborhood Community Development Corporation
- **Award:** AIA Honor Award (1998)

This project incorporated a broad set of thoughtful strategies to address equity issues and weave residents and their homes “physically, economically, and socially” into the surrounding

community. Design strategies supporting this goal included building new connections to existing streets and using architectural designs inspired by the rich Victorian vernacular of Capitol Hill. Key strategies for forming an economically heterogeneous community that reflected the area included maximizing density, promoting a sense of community and ownership, and mirroring the income distribution of the surrounding neighborhood.

To support the goal of income diversity, the redevelopment included 20 units throughout the site that were sold to families with incomes of 80 to 115 percent of the area median income (AMI).



4.97 Courtesy of Weinstein Associates Architects



4.98 Courtesy of Weinstein Associates Architects



One hundred thirty-four rental units replaced the public housing units built on the site in 1941; at least one-quarter were reserved for residents with incomes below 25 percent of AMI. Organized as a housing cooperative, the affordable rental units maintain household income diversity within the development. Resident-selection criteria include income qualifications, background checks, and references. The use of uniform unit designs provides management flexibility and strengthens a sense of community—no one can determine a household’s income by the unit’s finishes or design, a pitfall in some mixed-income developments. The plan introduces two public streets that retain the unusual parcel shapes dictated by the L’Enfant plan for the District of Columbia. To reinforce the importance of streets as shared public spaces, all buildings have individual street-facing entrances.



4.99 Courtesy of Weinstein Associates Architects

## Ghost urbanism

The healthy optimism expressed in this chapter requires some counterbalancing words of caution. Empty suburban houses, condominium towers, office buildings, and shopping malls, many built shortly before the onset of the Great Recession in 2007, offer a bitter reminder of the cyclical nature of real estate markets. Much of this vacancy stemmed from the rapid shift away from suburban markets. But the same “innovative” financing that triggered an economic collapse had previously fueled an irrational boom, with substantial overbuilding in both urban and suburban areas. Many of the European countries struggling to recover from the collapse of the credit bubble display the ruinous results

of this overbuilding. In the Valencia region of Spain, for example, a gleaming new €150 million airport failed to attract a single commercial airline. The city of Valencia’s new cultural center, designed by Santiago Calatrava and intended to put the city on the map, failed to attract visitors, while the region’s unemployment soared to almost 30 percent. Empty residential towers dot Madrid’s satellite cities. In Ireland, excess building has resulted in the demolition of new homes and buildings that were falling into decay; even though practically new, they were actually viewed as blight. Even rapidly urbanizing China, which seeks to relocate 240 million rural dwellers to cities by 2035, has thousands of empty housing towers built on confidence rather than market data.



## Balancing Individual and Community: The Public Realm

“Are white Americans unusually individualistic?” asked *The Economist’s* political blogger “Lexington” in 2013. Lexington pointed to a study showing that white male college students reported less interest than female students or students of color in a course whose subject matter offers benefits to society rather than the individual taking the course.<sup>44</sup> The results appear to support the argument that many aspects of American life—from a preference for suburbs to concerns about the role of government—stem from a deeply ingrained streak of individuality. Crediting the blandness of America’s urban squares to a lack of interest in shared public life, the urban designer Alex Krieger has quipped that “if we want to re-create lively European squares, we need to import lively Europeans.”<sup>45</sup> Some trace this streak to America’s frontier heritage; others see it in the independent spirit that propelled tens of millions of immigrants to cross oceans to build a better life.

Neither explanation is fully convincing: relatively few Americans descend from frontier families, and immigrants typically settle into tight-knit communities with a strong sense of communal responsibility and culture. The answer may prove much simpler. Just as during the Great Depression Americans embraced the New Deal and its emphasis on interdependence and community, the explosive rise of a large new middle class after World War II allowed tens of millions of Americans to

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The measure of a society’s humanity is not the magnificent office towers or the state-of-the-art laboratories it builds, but the care and attention it pays to its public realm of landscaped streets, lively urban squares, and beautiful parks that belong to everyone—rich or poor, young or old, black or white.

Joseph P. Riley, mayor, Charleston, South Carolina

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flee the urban neighborhood life they associated with poverty for a new life in the suburbs that celebrated their individual achievement.

The rediscovery of community by the children of first-generation suburbanites seeking an alternative to “white-bread environments” has fueled a renewed interest in shared community that will prove central to shaping twenty-first-century neighborhoods. While this revival takes many forms, three stand out for their impact on urbanism today: a growing desire to share a public realm that helps break down social isolation and celebrate community; a growing awareness that technology appears capable of bringing people together in previously unimagined ways; and a growing awareness of the moral, political, and economic costs of ignoring social inequity.

Writing in the architectural journal *Places*, the architect Hugh Hardy noted that “[Architect] Charles Moore’s observation nearly forty years ago that the best new American public space was Disneyland, and that you have to pay to use it, seemed prophetic to many of us at the time. But now I think that Moore was onto something else: American public space is evolving, not evaporating.”<sup>46</sup> That evolution has continued into the

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Urban space is as much a design product as the geometries that define it. Architects who practice urban design understand this. Just as space and form are inextricably connected, there is another relationship that is crucial for us to understand—that between space, form, and the important dimension of time. Their interdependence is critical to cities for establishing identity and memory; it defines the city’s living and breathing places of everyday life. It is this urban “time-form” that establishes the city’s contextual field, of which buildings are a part and on which a city’s civility is established.

William H. Fain Jr., FAIA, partner in charge of urban design and master planning, Johnson/Fain, Los Angeles

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early twenty-first century. Disneyland does not represent a new model for public realm in part because Americans ask for—and increasingly the public sector delivers—public places that are both engaging and truly public.

In recent years, two trends have converged to elevate the role of the public realm in urban design. The renewed embrace of urban living stems in significant part from an appetite for the sense of community that Americans have historically found along Main Streets and in urban squares and public parks. At the same time, surveys show that Americans today not only accept diversity, they seek it out. As noted in chapter 3, Americans also appear far more interested in living in diverse neighborhoods and working in diverse companies than at any time in this country's history. They mourn the loss of community that their parents

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**"A very important task for environmentalism is to participate in creating great public places that people enjoy and [that] enrich cities."**

Ethan Kent, Project for Public Spaces

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and grandparents tell them once flourished in churches, union halls, and schools that served the homogenous neighborhoods of the first half of the twentieth century, yet today no one would accept the idea of a neighborhood in which everyone shares the same religion, jobs, or stage in life. The public realm has evolved because expectations for how it looks and functions have evolved; Americans today demand that it deliver something new—community experiences created out of diversity.

## **NORTH WHARF PROMENADE/JELlicoe STREET/SILO PARK (AUCKLAND, NEW ZEALAND)**

**Rather than hiding an active industrial waterfront, a plan showcases it to create an urban amenity.**

- **Program:** Initial phase of a district-wide, mixed-use redevelopment that reprograms and pedestrianizes an active waterfront to create a walkable and sustainable urban amenity
- **Design team:** Taylor Cullity Lethlean and Wraight + Associates (landscape architecture); Design Flow (water-management features); Beca (civil engineering, general structural engineering); Felicetti, BGT Auckland (gantry structural engineering); Electrolight: eCube (lighting design); Feron Hay Architects (North Wharf buildings architecture)
- **Area:** 9 acres/3.7 hectares
- **Awards:** World Architecture News Urban Regeneration Award (2012); Waterfront Center Excellence on the Waterfront Honor Award (2012)

- **Web:** [www.landezine.com/index.php/2012/09/north-wharf-promenade-by-taylor-cullity-lethlean/](http://www.landezine.com/index.php/2012/09/north-wharf-promenade-by-taylor-cullity-lethlean/)

With two decades of examples under our collective belt, the reuse of industrial waterfronts is no longer unusual. What remains unusual is the embrace of an active, industrial waterfront as an urban amenity. Auckland's Wynyard Quarter sits on land filled in the 1930s at the western edge of the city's waterfront. North Wharf Promenade and parallel Jellicoe Street introduce infrastructure—including seats made from shipping crates and a four-story observation gantry—designed to encourage pedestrians to linger and observe the area's container shipping, ferry services, and commercial fishing. New structures that house restaurants along the promenade incorporate physical components

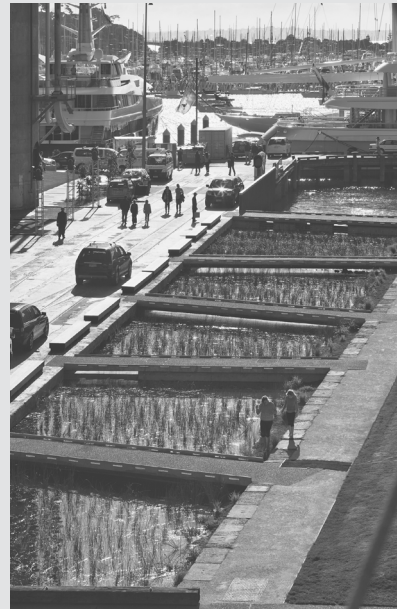
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salvaged from the waterfront. New energy-efficient buildings complement existing 1930s structures and boast sustainability features including solar-heated hot water systems and rainwater harvesting.

Lush native plantings line Jellicoe Street, and sculptural bioretention rain gardens between the street and the promenade feed into a larger wetland next to nearby Silo Park. That, in turn, spills into the harbor over a stone staircase that allows people to interact directly with the harbor and its dramatic daily tidal changes. Silo Park itself, a triangle of grass veering off from the promenade axis, retains a grain silo once slated for demolition. Its cast-concrete exterior serves well as a screen for outdoor films. The district's nuanced design carefully weaves together homages to past activities and even preindustrial Maori uses. The development elegantly salvages and celebrates the cultural, ecological, industrial, and economic layers underlying Auckland's waterfront while adding its own distinct imprint.



4.101 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight + Associates



4.100 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight + Associates



4.102 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight + Associates





4.103 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight + Associates



4.104 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight Associates

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4.105 Photo Simon Devitt and Taylor Cullity Lethlean/Wraight + Associates

The expectation of diversity surfaced in 2010 focus groups comprising mainly well-educated, white professionals under the age of forty, assembled during planning for a new higher-density, walkable downtown in suburban Dublin, Ohio. Participants noted that they wanted to live in “social places” and not have to drive to find them. One attendee asserted that “you can find apartments for the same rent in Chicago and Dublin—but you get a lot more in Chicago.” He clarified his comment, noting that “obviously, you get more space in Dublin, but you get life outside your door in Chicago.” These same focus group members repeatedly underscored the importance of diversity: a homogenous community, they said, “doesn’t feel real.”<sup>47</sup>

Although most focus-group participants did not want to leave Dublin, they clearly wanted the suburb

to change: they wanted lively, walkable streets and squares, and they wanted a central park. They did not want new public spaces to reflect “conventional programming and design.” Instead, they desired a new generation of public realm that would not just draw residents together but promote socializing and introduce new opportunities for spontaneous interaction—in the words of the Dutch writer Wilfried Hou Je Bek, they wanted to see places that respond to an “active search for, and celebration of, chance and coincidence.”<sup>48</sup> Hou Je Bek evokes the spirit of psychogeography, an approach to urban public spaces that the writer Joseph Hart describes as advocating “a whole toy box full of playful, inventive strategies . . . just about anything that takes pedestrians . . . and jolts them into a new awareness of the urban landscape” and each other.<sup>49</sup>



## Gardens of delight: Millennium Park (Chicago) and the High Line (New York City)

This new sensibility has imbued even the most traditional types of public spaces—signature urban parks—with a new vitality and originality. The most discussed and visited recent American parks— Millennium Park in Chicago and the High Line in New York—each functions more as a garden than a conventional park.

Each includes noteworthy and beautiful traditional landscaping that tells a story about its setting's ecology. And each draws millions of visitors annually for the unique and engaging experiences it offers. Millennium Park is a latter-day, consciously urban Tivoli Gardens (Copenhagen's "pleasure garden," opened in 1843) that juxtaposes fantastical, interactive sculpture and fountains, jubilant architecture, live-performance spaces, whimsical public art, and other artful follies that constantly startle and delight.

### MILLENNIUM PARK (CHICAGO, ILLINOIS)

#### Transforming America's largest green roof into a garden of delights.

- **Program:** Completing Chicago's hundred-year-old vision for an enlarged Grant Park with a park of spectacularly designed elements built on air rights over a multimodal transit center
- **Area:** 24.5 acres
- **Design team:** Skidmore, Owings & Merrill (master planner); with McDonough Associates; Teng & Associates; Frank O. Gehry & Associates; Harley Ellis Devereaux; Gustafson Guthrie Nichol; Muller & Muller, Ltd.; Hammond Beeby Rupert & Ainge; Krueck + Sexton

Architects; OWP/P; Renzo Piano; and City of Chicago staff

- **Client:** City of Chicago
- **Awards:** Rudy Bruner Award for Urban Excellence (2009); AIA Honor Award for Regional and Urban Design (2006).
- **Web:** [www.brunerfoundation.org/rba/pdfs/2009/MP.FINAL.pdf](http://www.brunerfoundation.org/rba/pdfs/2009/MP.FINAL.pdf)

Since the mid-nineteenth century, rail yards, and later parking lots, occupied the park's current site. In 1997, Mayor Richard M. Daley, prompted by civic

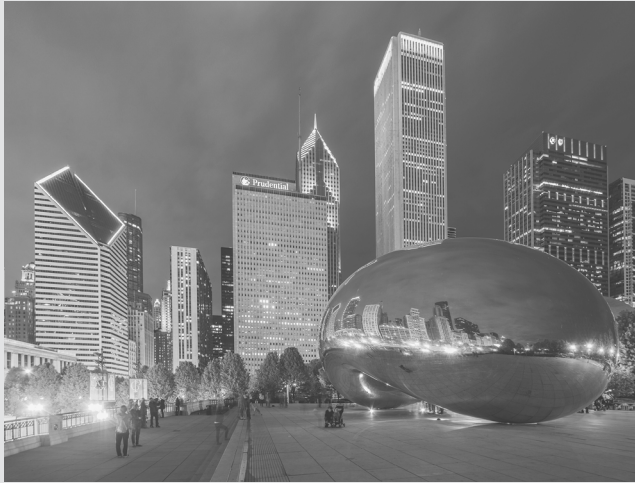


4.106 © Skidmore, Owings & Merrill LLP and Steinkamp Ballogg Photography

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4.107 Courtesy Wikimedia user David Iliff

leaders, announced that the city would transform the dilapidated parcel into a parking and transit center topped by the world's largest green roof—an entire park that would extend waterfront Grant Park, a key element in the 1909 Burnham plan for the city. The plan reflects the widespread interest in replacing or reusing industrial infrastructure to create a new urban public realm.

Wagering that a landmark park could attract significant private investment to neighboring blocks, the mayor agreed to a plan that would create a series of attractions designed by world-renowned architects and artists. The bet paid off. By the time the park opened in 2004, the area around it had become Chicago's hottest real estate market.



4.108 © iStockphoto.com/DLewis33

The plan created a setting for pavilions, performance spaces, and sculpture, each a significant design work or destination in its own right. It strategically sites cafés and other functions to disguise elevation changes of the transportation infrastructure that lies beneath it. The park blends traditional elements like cafés and beautifully maintained landscaping with an eclectic set of landmarks such as a performance stage and shell (designed by Frank Gehry), crowd-pleasing Crown Fountain (Jaume Plensa), and the mirror-finished Cloud Gate (Anish Kapoor) to produce a well-loved park, which the AIA Honor Awards jury in 2006 called the “most beautifully executed new urban public space in America.”

The High Line represents a new conception of a downtown park that passes above the city rather than sitting within it. Conceived of and assiduously promoted by residents Joshua David and Robert Hammond and designed by a large team led by landscape architect James Corner, the linear park snakes for twenty-five

blocks through Manhattan's Chelsea neighborhood on the bed of an abandoned elevated railroad line. It offers views of the ever-changing street scene below it, providing a way to interact with the city itself that is every bit as kinetic as Millennium Park's more tangible delights.<sup>50</sup>



## THE HIGH LINE (NEW YORK, NEW YORK)

### Rethinking industrial infrastructure creates a park that sparks urban investment.

- **Program:** Creating a linear urban park atop a decommissioned railroad viaduct that takes design cues from the site's industrial history and surroundings; establishing multiple points of access; and designing a lush but low-maintenance landscape with regionally appropriate species, including the "volunteers" that established themselves on the viaduct during decades of abandonment
- **Area:** 1.45 acres in Manhattan's Chelsea and the Meatpacking District
- **Design team:** James Corner Field Operations; Diller Scofidio + Renfro Architects; Piet Oudolf (planting)
- **Developer:** City of New York, Department of Parks and Recreation; Friends of the High Line
- **Awards:** ASLA Honor Award for General Design (2010); Doris C. Freedman Award (2010); New York Landmarks Conservancy Lucy G. Moses Preservation Award (2010); AIA New York Chapter Award for Urban Design (2010)
- **Web:** [www.thehighline.org/](http://www.thehighline.org/)

The High Line may well be the world's best-known reuse of urban industrial infrastructure. Inspired by the Promenade Plantée in Paris, this project demonstrates how a strikingly designed open space can change perceptions of an older urban area, dramatically increasing investment in the process. As opposed to single-site development, the High Line has galvanized an entire underutilized district. Art galleries and artists had already revived some pockets, but the overall neighborhood



4.109 © 2013 SitePhocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)

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remained underused. Completion of Hudson River Park to the west and the rising appeal of the Chelsea Historic District to the east made the no-man's land alongside the viaduct an enticing zone for new development. The Friends of the High Line, a nonprofit formed in 1999 by Joshua David and Robert Hammond, advocated the viaduct's reuse as public open space, in the face of considerable skepticism. The park has gone on to become one of the city's most celebrated attractions, drawing more than four million visitors a year.

The result of an international competition, the design is much admired for its embrace of the site's industrial bones as a framework for an entirely contemporary and sophisticated armature. The High Line has played a key role in reversing the perception of adjacent blocks from moribund to highly desirable. Based on the park's almost instantaneous appeal, the Whitney Museum of American Art chose a site for its new home at the High Line's southern gateway; other buildings by world-famous architects have arisen nearby.



4.110 © 2013 SitePhocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



4.111 Courtesy Flickr user Sue Waters





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## PARCO SAN GIULIANO (VENICE, ITALY)

### Forging social as well as physical connections around a shared waterfront.

- **Program:** Transportation and infrastructure improvements, reforestation and land reclamation, and the development of 2.2 million square feet of cultural, recreational, sports, commerce, and transportation facilities
- **Area:** Thirteen strategic sites across 1,500 acres of land, water, and marshes
- **Design team:** Antonio Di Mambro + Associates
- **Client:** City of Venice
- **Award:** AIA Honor Award for Regional and Urban Design (1997)
- **Web:** <http://www.veneziasi.it/content/view/?id=452&lang=en>

Most twentieth-century postindustrial cities found themselves with a surfeit of degraded and underutilized industrial land, much of it on waterfronts once dominated by manufacturing and trade. Created out of such a landscape, Parco San Giuliano is one of Venice's most important public works and one of Italy's largest metropolitan parks. Separating Venice and its twin, Mestre, the former marshland had become "an isolated toxic waste dump with physical degradation, traffic problems, and visual pollution. Yet a place full of opportunities," according to a submission prepared for the AIA's Honor Award in Regional and Urban Design.

In addition to remediating centuries of environmental degradation and transforming an

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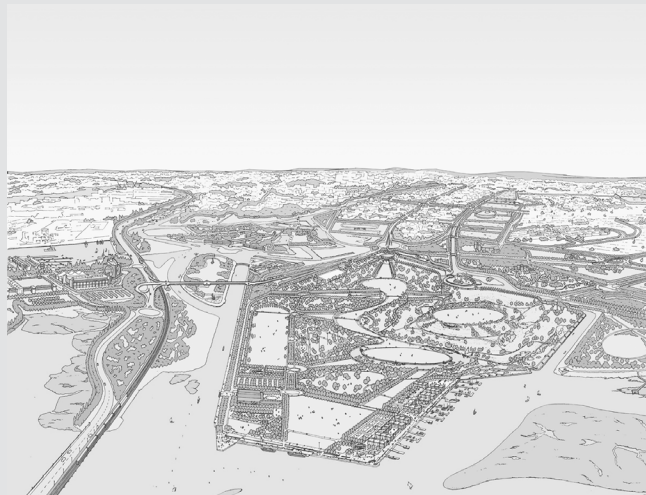
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industrial landfill into active-use open public space and new development, the plan had to resolve four issues:

- Connect the site to both Mestre and Venice in ways that would make it and other facilities inviting and highly accessible.
- Create a new “meeting ground” to draw residents from both cities together.
- Provide a catalyst to attract hundreds of millions of dollars of private investment to the area.
- Establish a new image for the once-polluted marsh by telling the lagoon’s ecological story and providing visible continuity with the culture and history of the cities on either side.



4.113 Courtesy of Antonio DiMambro + Associates, architects; Ing. Giovanni Cocco, structural engineer; photograph © Alberto Bevilacqua



4.114 Courtesy of Antonio DiMambro + Associates

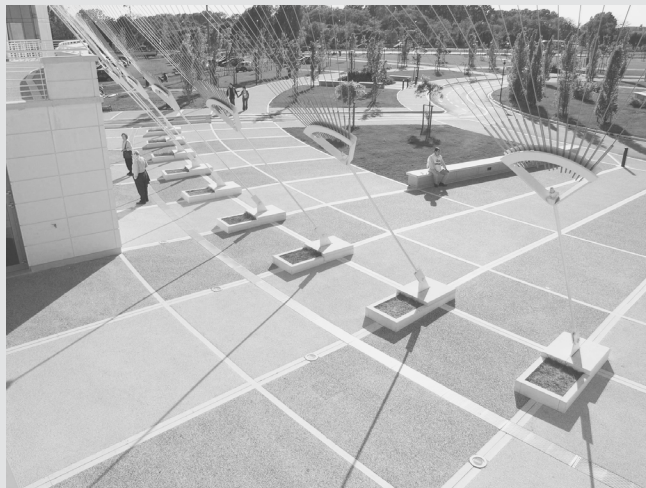


The design team organized the complex park plan around four elements: regional transportation, land use, circulation, and environmental reclamation. The primary uses developed within this framework include a biology center,

recreational and sports facilities, a cultural center with two museums and an aquarium, exhibition and performance facilities, university activities, and industrial redevelopment areas.



4.115 Courtesy of Antonio DiMambro + Associates



4.116 Courtesy of Antonio DiMambro + Associates; photograph © Filippo Leonardi



## SWISS GOVERNMENT PLAZA (BERN, SWITZERLAND)

### Making public space ceremonial, monumental—and playful.

- **Program:** Rescue a plaza used for parking and transform it into a public space that plays an active role in the city's daily life.
- **Area:** 2,400 square feet; Federal Plaza in front of the Swiss Bundeshaus (parliament building)
- **Design team:** Lee + Mundwiler Architects; Stauffenegger & Stutz Visual Design (associate architect)
- **Developer** City of Bern Tiefbauamt (Civil Engineering Office)
- **Award:** AIA Honor Award for Regional and Urban Design (2006)
- **Web:** [http://www.prominent.co.uk/desktopdefault.aspx/tabid-3536/1786\\_read-62192/](http://www.prominent.co.uk/desktopdefault.aspx/tabid-3536/1786_read-62192/)

For one hundred years, the plaza in front of the Swiss Parliament Building, part of the UNESCO Cultural World Heritage Site that encompasses the Old City of Bern, served as a parking lot. In the absence of open-space protections, automobile parking gradually overtook the scarce, often cramped squares and plazas that dotted classical European cities built before automobiles existed. Even Florence's Piazza Santissima Annunziata, dating from the 1600s and defined on the eastern side by Brunelleschi's sublime Foundling Hospital, succumbed to this fate.

The Swiss Government Plaza lies at the center of Swiss civic life, a forecourt to the country's parliament and other significant federal buildings. It lies at the heart of medieval Bern, a classic Zähringer New Town dating to 1192. Its location meant that its redesign had to achieve a timeless quality and harmonize visually with the historic public

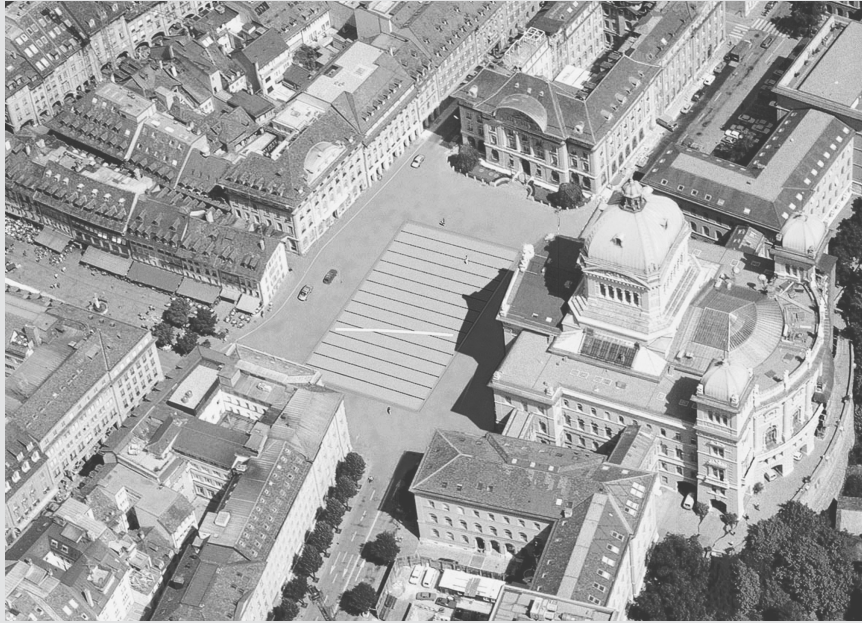
buildings around it. At the same time, the design needed to animate a large space and transform it from a vast expanse of pavement into a valued public space in its own right.

The winner of an international competition held in 1991, this design transformed the plaza into an elegantly understated space able to host a range of daily activities, from markets to political demonstrations to visitor orientation. At the same time, the plaza reinforces the dignity of the federal capital and commemorates Switzerland's twenty-six cantons with a celebrated yet playful fountain of twenty-six flush-mounted jets.



4.117 Photo courtesy of Ruedi Walti





4.118 Courtesy of Lee + Mundwiler Architects



4.119 Photo courtesy of Ruedi Walti



## A neighborhood living room: Pearl District Parks, Portland, Oregon

The 1999 plan for Portland, Oregon's Pearl District is a conscious effort to use parks to create a sense of community for a highly diverse urban neighborhood. These parks break "community" into its constituent parts on a spectrum that moves from neighborhood-wide events to personal interaction. The North Park Blocks offer basketball courts, host a holiday parade and seasonal art fairs, and invite residents from across the region to enjoy Portland's International Beer Festival. A few blocks away, Jamison Square includes a fountain-fed basin that one parent described on Yelp

as "happy madness"—a place that invites kids of all ages to play while their parents and friends hang out and meet each other.

Tanner Springs Park offers a quieter, more personal experience. Herbert Dreiseitl, whose firm completed the design with GreenWorks PC, describes the park as a site where "the urban skin of one downtown block is peeled back" to reveal underlying wetlands. The park presents opportunities to touch, wade into, and play in water that seems a natural feature of the site (but is in fact designed and engineered) and to sit and contemplate the natural substrate beneath the Pearl's (and, by extension, the city's) urban landscape.

### TANNER SPRINGS PARK (PORTLAND, OREGON)

#### A dense, bustling neighborhood makes room for a contemplative public space.

- **Program:** As part of a considered network of open spaces in the Pearl District, create a contemplative retreat in a dense urban setting. Design the park to make the site's predevelopment natural character clear and to serve as a model of sustainable urban design.
- **Area:** One block (approximately 1 acre/40,000 square feet)
- **Design team:** GreenWorks PC, Atelier Dreiseitl
- **Developer:** Portland Parks and Recreation
- **Award:** ULI Open Space Award finalist (2012)

Distinctive water features, an undulating glass and metal wall, and partial depression below street level give Tanner Springs Park a quiet, contemplative feel in the midst of a highly developed urban district. Beginning on one side as a street-level grassy sward, the park slopes downward toward an irregularly shaped pond that

suggests a creek bordered by marsh grasses. The pond serves as the heart of a stormwater-management system that turns the block into a large rain garden. Rather than feeding the city's storm sewers, adjacent sidewalks drain toward the park to deliver rain runoff, which works its way down to the pond, irrigating park plantings along the way. Those plantings, in turn, absorb pollutants from the water, helping clean it as it descends toward the pond. A pump recirculates the water, sending it back uphill to return to the pond through small man-made streams that delight visiting children.

The park's design reveals the natural topography beneath the site. In fact, Tanner Creek once bisected the area, which sits atop wetlands and abuts the Willamette River. A tannery, rail yards, and industry occupied the area throughout the twentieth century before its redevelopment as a transit-oriented and highly walkable neighborhood began in the late 1990s.





4.120 © Greenworks



4.121 © Atelier Dreisseitl

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4.122 © Atelier Dreiseitl



4.123 © 2013 SitePhocus, LLC

## Common ground: Railroad Park, Birmingham, Alabama

Birmingham, Alabama's Railroad Park opened in 2010 and takes a further step toward creating community, consciously forging common ground for a city long divided by race. Known as the scene of racial clashes that defined the civil rights movement of the 1960s, Birmingham today seeks recognition of its conscious effort to build a new sense of shared community across racial lines (few American cities devote as much public discussion to issues of race and class as Birmingham).

The city has also struggled with the stresses facing other former industrial centers. Its downtown's decline parallels the decline of a substantial industrial economy—the city once went by the nickname the “Pittsburgh of the South”—and the departure of middle-class residents of both races for the suburbs. A final blow came after a decade of bank consolidations ended the city's status as a regional financial center. At the same time, the University of Alabama Birmingham (UAB) campus—cut off from downtown by a railroad line—flourished as downtown shrank.

### RAILROAD PARK (BIRMINGHAM, ALABAMA)

#### Creating an iconic park that builds physical and social connections.

- **Program:** A park to reconnect downtown with the nearby University of Alabama campus and to draw residents from all parts of the region to build a sense of community
- **Area:** 19 acres
- **Design team:** Tom Leader Studio; Macknally Land Design; KVA; GA Architecture; HKW



Associates; Khafra Engineering; and Walter Schoel Engineering

- **Developer:** City of Birmingham; Railroad Park Foundation
- **Award:** ULI Urban Open Space Award (2012)

As do many projects focused on urban open space, Railroad Park has sparked a conversation about urban redevelopment. Many cities hoping to improve quality of life and jump-start investment will find in the park an example of landscape architecture as an urban generator. Cities with decommissioned industrial sites will see it as another model for creating open space destinations for residents (see the case studies for the High Line, Discovery Green, Millennium Park, and Citygarden).

Dubbed “Birmingham’s living room,” Railroad Park celebrates the region’s industrial and cultural history. It sits on the edge of an eleven-track railroad viaduct that rises roughly 15 feet above the surrounding grade, effectively forging an east-west connection to downtown. Previously underused land, the park has restored the relationship between downtown Birmingham and the University of Alabama, Birmingham, an increasingly important regional employer.

The park highlights the central role that well-designed open spaces can play in reinvigorating urban areas. Railroad Park’s design engages both art and social service by drawing visitors of all races and income strata. Railroad Park has established itself as an iconic space that appeals broadly to diverse crowds and that has begun generating new development in adjacent blocks.



4.124 © Tom Leader Studio

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4.125 © Tom Leader Studio



4.126 © 2013 SitePhocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



The city's planner, William Gilchrist, FAIA, saw the opportunity to transform abandoned industrial sites along the railroad right-of-way into a park that could reconnect suburbs and downtown, white Birmingham and black Birmingham, UAB and downtown. Gilchrist asked landscape architect Tom Leader to "design a great park but create a better common ground." The design process conveys the complexity of designing for community. "[W]e started over ten times, and each time we learned, as different kinds of people joined the process," said Cheryl Morgan, the head of Auburn University's Urban Studio, who helped facilitate active community engagement throughout the design process. "In the end, this kind of engagement paid off because all these people now feel Railroad Park is theirs." When an Urban Land Institute jury visited the park in 2012, members reported finding people of all races and ages jogging, holding community potlucks, exercising, lying

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Urban design can result in visions and new public policies that establish long-term legacies, offering guidance for shaping growth and change for generations to come. In accomplishing any of these tasks, urban design can never be a solitary endeavor; urban designers must constantly reach out to the communities we serve for information and inspiration alike.

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*William Gilchrist, FAIA, former director of planning for Birmingham, Alabama*

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in pairs in the sun, charging in small groups along a narrow stream, and sharing tables at the food pavilion. A potluck organizer told the visiting jury, "This is the first time suburban neighborhoods have had a place to gather downtown. . . . I know at one point the committee rejected an offer of \$5 million to build a fancy restaurant. . . . I think they were right—potlucks are a much better idea."

## SUPERKILEN PARK, NØRREBRO (COPENHAGEN, DENMARK)

**An open space built from the symbols of disparate cultures to make everyone feel welcome.**

- **Program:** A park built in a district known for ethnic tension attempts to turn a kilometer-long corridor into the city's most culturally diverse area. The park design incorporates iconography and activities from dozens of cultural communities that have taken root in adjacent residential blocks.
- **Area:** 2,460 linear feet/320,000 square feet
- **Design team:** Bjarke Ingels Group (BIG) Architects; Topotek 1 (landscape architecture); Superflex (artists collective)
- **Developer:** RealDania Foundation and the City of Copenhagen
- **Award:** AIA Honor Award for Regional and Urban Design (2013)

Superkilen responds to growing tensions around ethnic and religious diversity in Europe. The design team invited representatives of more than sixty cultures living in the blocks around the 0.6-mile linear site to recommend furnishings and design elements from their homelands so they could be included in the park. As a result, the playful design—unified by the repeated use of red, orange, and magenta—includes furniture, signs, structures, plants, soil, and even manhole covers from more sixty countries. Like Chicago's Millennium Park, this is a "garden of delights" that offers a collection of compelling attractions for everyone. Whether tied to Morocco, Jamaica, England, Thailand, Palestine, or Russia, each object represents another country or culture,

*(continued)*



(continued)

and the cacophony of visual echoes reflects the groups' coexistence in the surrounding district.

Because the site was relatively new and built around a well-functioning bike path, the design incorporated as much of the existing landscape and pavement as possible. To save money and reduce environmental impact, the design stressed reusing, rather than removing, existing soil, and specified durable and sustainable materials on resurfaced areas.

With dramatic urbanization projected around the world, Superkilen offers a lesson for cities everywhere. Relatively inexpensive and not a conventional work of art, Superkilen weaves a rich tapestry of symbols into a paradigm of a diverse yet inclusive society.



4.127 Image by Iwan Baan, courtesy of BIG



4.128 Illustrative plan courtesy of BIG





4.129 Image by Iwan Baan, courtesy of BIG

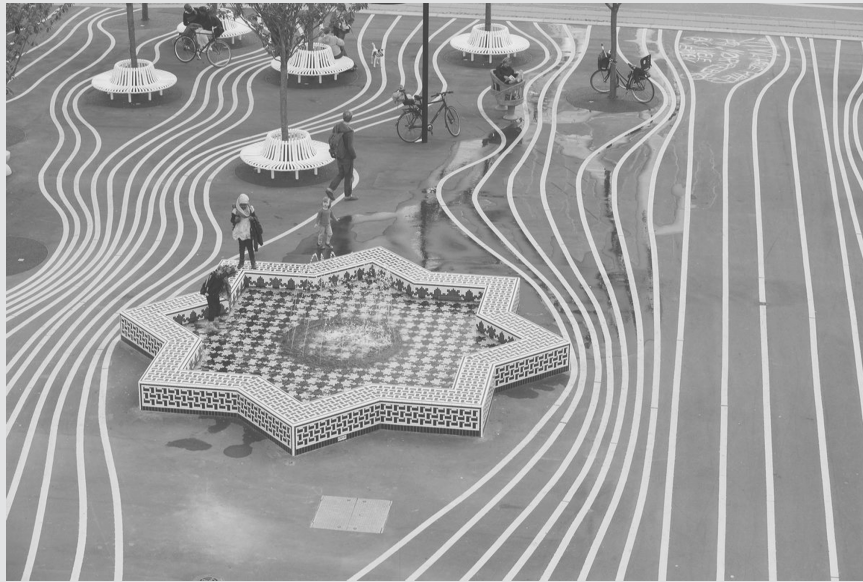


4.130 Image by Iwan Baan, courtesy of BIG

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(continued)



4.131 Image by Iwan Baan, courtesy of BIG

## SANTA MONICA BOULEVARD MASTER PLAN (WEST HOLLYWOOD, CALIFORNIA)

### A city with limited land turns a major boulevard into a successful central park.

- **Program:** Transform a major Los Angeles thoroughfare into a multimodal boulevard that provides community-oriented public spaces, particularly in densely developed West Hollywood, while continuing to handle high volumes of vehicular traffic. Make the public process a model of efficiency and effectiveness. Pursue simple solutions that improve the everyday lives of visitors and residents.
- **Area:** 2.7 miles
- **Design team:** Zimmer Gunsul Frasca (ZGF) Partnership; Patricia Smith ASLA, AICP; Walkable Communities; and Santa Monica City Planning
- **Developer:** City of West Hollywood
- **Award:** AIA Honor Award for Regional and Urban Design (2001)

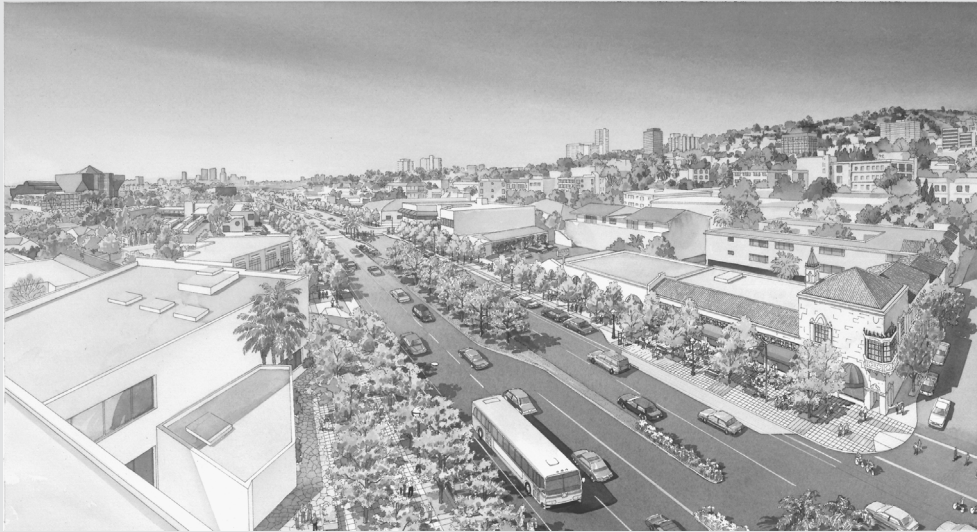
The plan for Santa Monica Boulevard reveals a tectonic shift in thinking about urban street design that began in the late 1990s. Previously, planning efforts assumed that major streets had only one function: moving the highest volume of traffic in the shortest period of time. Many grassroots groups and even some municipal governments had begun to question this assumption; they argued that streets should serve all users,



including pedestrians, cyclists, and transit riders. Densely built West Hollywood “is a relatively small city with limited open spaces,” the design team explained in its application to the AIA Honor Awards competition. “Residents and visitors depend on the boulevard for the social,

recreational, and cultural activities associated with daily life and major civic events.”

In famously car-dependent Los Angeles, many residents and business owners worried that shifting the boulevard’s focus even slightly would yield unbearable traffic congestion and hurt retail.



4.132 Courtesy of Zimmer Gunsul Frasca Architects LLP



4.133 Courtesy of Zimmer Gunsul Frasca Architects LLP

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To address these concerns, the city undertook unusually broad community outreach, establishing a forty-one-person steering committee and organizing a year of preliminary visioning workshops for residents and business operators. The final plan called for a striking rebalancing of the boulevard's functions. Gaining space by using an abandoned streetcar right-of-way, the implemented redesign introduced wider sidewalks, new street furniture, intersection bulb-outs, bike lanes, parking, dedicated bus-loading islands, heavily landscaped new medians, pocket parks, and more than 1,100 new street trees. The plan helped turn the boulevard, once an eyesore, into a high-profile and welcoming public face for West Hollywood.



4.134 Courtesy of Zimmer Gunsul Frasca Architects LLP

## Claiming city streets as public places

Recognition that public streets should support more functions than simply moving vehicles first emerged in Oregon as an outgrowth of the environmental movement of the late 1960s. In 1971, the state legislature passed a bill requiring local governments to accommodate pedestrians and bicyclists on new and substantially rebuilt roadways.<sup>51</sup> Over the next three decades, the rules that guide the planning and design of streets nationally began to give increasing priority to the needs of all users, including pedestrians, bicyclists, and transit riders. Most recently, the paradigm for urban streets has added a new dimension: support for community gatherings traditionally associated with urban squares or public parks.

In 1981, the urban designer Donald Appleyard published the landmark *Livable Streets*, in which he made the case that planning and designing streets to reduce traffic and invite more pedestrian activity significantly enhanced neighborhood livability and sense of

community.<sup>52</sup> In the late 1980s, New Urbanists began to argue that neighborhood character should take precedence over moving traffic efficiently, a principle that translated into reducing streets widths, accommodating curbside parking, and designing intersections for pedestrian convenience rather than around such criteria as the turning radii of trucks.<sup>53</sup> In 1996 the Maryland Department of Transportation hired an urban planner, Yolanda Takesian, to help it reorient transportation investments toward enhanced community character, quality of life, and economic competitiveness. Takesian helped introduce the concept of “context-sensitive design,” which emphasizes the importance of place-making and qualities like “walkable communities” to guide the design and funding of roadway improvements.<sup>54</sup> In 2001, West Hollywood, California, approved a plan that represented a significant next step in this evolution. It assigned its major public street, Santa Monica Boulevard, dual responsibility as the city’s main traffic artery and its central park. It created a series of small parks out of underutilized right-of-ways and sidewalks



and converted a landscaped median to a pedestrian promenade. The city closes the boulevard to traffic periodically for community-wide events and celebrations.

By the late 2000s, many cities and states had inaugurated “Complete Streets” initiatives focused on redesigning streets for multiple users, including pedestrians, bicyclists, and transit users, as well as automobile users. For example, noting that streets represent 56 percent of city-owned land and “define the character of Boston’s neighborhoods,” the city’s transportation department issued Complete Streets design guidelines in 2013. In Mayor Thomas Menino’s words, this comprehensive and highly detailed document aimed to “rebalance our streets so that walking, cycling, and transit are as safe and convenient as driving a car.” In effect, the city declared a break with policies designed to maximize street capacity for motor vehicles, policies in place since the advent of widespread auto ownership in the late 1920s. Henceforth, it would plan and redesign streets to improve their ability to fulfill multiple roles—only one of which would be carrying traffic.<sup>55</sup>

Meanwhile, in 2009 the New York City Department of Transportation, led by Janette Sadik-Khan, took West Hollywood’s plan for a Santa Monica Boulevard a step further. Facing traffic congestion and pedestrian gridlock in Times Square, the city launched “Broadway Boulevard,” an intervention that claimed varying portions of the traffic right-of-way exclusively for pedestrians and created a sort of linear park dotted with tables,

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**Boston’s Complete Streets initiative aims to improve the quality of life in Boston by creating streets that are both great places to live and sustainable transportation networks. The Complete Streets approach places pedestrians, bicyclists, and transit users on equal footing with motor vehicle users.**

*Vineet Gupta, director of Policy and Planning, Boston Transportation Department*

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umbrellas, chairs, food vendors, performers, temporary public art, bike lanes, and other amenities. The popularity of the change prompted its expansion to include two miles of Broadway. (Even some drivers admitted that it improved traffic flow, despite widespread fear that it would worsen traffic congestion before its implementation.) The park fluctuates, expanding at Times and Herald squares on weekends or for festivals and sometimes closing sections of Broadway to vehicular traffic entirely. The city quantified the results of the change—a step that many more urban design initiatives should undertake—and determined that injuries to auto occupants fell by more than 60 percent and pedestrian injuries dropped 35 percent; bike ridership rose significantly; pedestrian traffic volumes increased, and pedestrians spent more time in the area, benefiting nearby businesses.<sup>56</sup> A Manhattan architect rendered a positive verdict in anecdotal terms: “I never thought in my lifetime that New Yorkers would be hanging out together on Broadway.”<sup>57</sup>

## BROADWAY BOULEVARD (NEW YORK, NEW YORK)

### Reclaiming pavement for people.

- **Program:** Rebalance the functions of an iconic thoroughfare by introducing a pedestrian promenade, introducing bicycle infrastructure, reducing space devoted to motor vehicles, and

creating plazas at major intersections. All changes should contribute to improved safety, mobility for all users, and quality of life.

*(continued)*



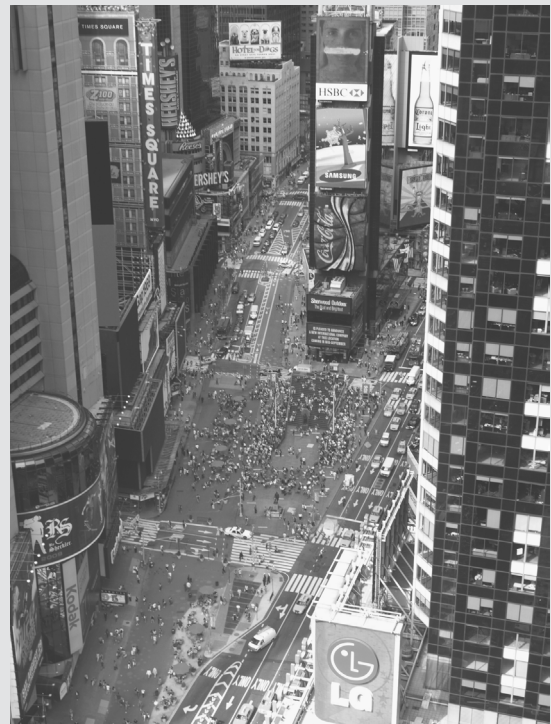
(continued)

- **Area:** 45 blocks (more than 2 miles) between Columbus Circle and Union Square
- **Design team:** New York City Department of Transportation with Jan Gehl, Gehl Architects
- **Developer:** New York City Department of Transportation
- **Award:** Best New Public Space, the 2008 Streetsie Awards (Streetsblog.org NYC)
- **Web:** <http://www.pps.org/reference/broadway-boulevard-transforming-manhattans-most-famous-street-to-improve-mobility-increase-safety-and-enhance-economic-vitality/>  
<http://www.nyc.gov/html/dot/downloads/pdf/broadwayblvd.pdf> [http://www.nyc.gov/html/dot/downloads/pdf/World\\_Class\\_Streets\\_Gehl\\_08.pdf](http://www.nyc.gov/html/dot/downloads/pdf/World_Class_Streets_Gehl_08.pdf)

Beginning in the 1990s, cities around the world began to examine the previously unquestioned priority given to motor vehicles in street design. Many cities began to make streets more welcoming to and useful for people on foot and on bicycles. Broadway Boulevard serves as a model of this change. Its catalytic urban design transformed a congested and auto-dominated corridor into an inviting public space that has balanced transportation choices more evenly and improved the area's economy.

New York City's Department of Transportation launched the project between Thirty-fifth and Forty-second streets in 2008. It temporarily reduced vehicular lanes from four to two, limited parking and turning, and altered signal timing for many adjacent intersections. In the decommissioned traffic lanes, the design introduced active public plazas with café chairs and tables, planters, new signage, and protected bicycle lanes. A business improvement district agreed to clean and maintain the open space.

Despite widespread predictions of massive traffic jams, this initial test proved so successful that the city extended Broadway Boulevard north to Fifty-ninth Street and south to Fourteenth Street and made the temporary changes permanent over the next two years. Pedestrian traffic increased 11 percent in Times Square alone. This vision of a more accessible urban environment continues with the reconstruction of Times Square following a design by the design firm Snøhetta. The redesigned square, at Forty-second Street and Seventh Avenue, represents the next generation of public space in New York, taking cues from the pre-automobile past to define a future of public spaces designed for people rather than cars.



4.135 Courtesy New York City Department of Transportation





4.136 © 2013 SitePhocus, LLC, [www.sitephocus.com](http://www.sitephocus.com)



4.137 Courtesy New York City Department of Transportation



4.138 Courtesy New York City Department of Transportation

Noting that “more than 25 percent of the city of San Francisco consists of streets—a far larger share than parks,” the city’s planning commissioner, John Rahaim, describes San Francisco’s Pavement2Parks initiative as “a citywide laboratory in which all kinds of people are

helping us figure out what to do with all the wasted pavement we have in our city, the legacy of decades when we sized our street network the way shopping centers size their parking lots—for the equivalent of demand on the day before Christmas.”<sup>59</sup> Businesses, neighborhood





4.139 San Francisco planning commissioner John Rahaim describes the city's Pavement2Parks initiative as "a laboratory in which all kinds of people . . . figure out what to do with all the wasted pavement we have in our city."<sup>58</sup> Courtesy San Francisco Planning Department

organizations, artists, and other sponsors have built more than one hundred temporary "parklets" and plazas (with four hundred more proposals in the pipeline). The smallest of these installations transform parking spaces into anything from outdoor lounges to cafés to interactive public art; the largest claim portions of streets as temporary plazas with tables, chairs, musicians, and a constantly changing roster of attractions.

## Tactical urbanism

During the decade Birmingham, Alabama, stakeholders spent planning and designing Railroad Park, a new school of thinking about the public realm emerged. Various called guerilla, tactical, or "pop-up" urbanism, it takes a different approach to promoting community by creating immediate, usually temporary, and often unauthorized changes in public places to show how much better those places would look and function if the changes were made permanent. The Dallas-based

Build Better Blocks advocacy group, for example, demonstrates potential improvements in targeted areas by introducing temporary bike infrastructure, landscaping, café seating, pop-up retail, art installations, and performances, and it encourages community groups to copy or alter its model for their own neighborhoods. Tactical urbanism sometimes also addresses more abstract issues, as when urban design student Matt Tomasulo challenged car-focused thinking in downtown Raleigh, North Carolina, by posting homemade signs with directions and walking times to nearby attractions.

In these examples, as in much of truly grassroots tactical urbanism, the design often encodes a political message. Build Better Blocks projects show how a different approach to streets and sidewalks can create a more appealing (and often more economically successful) urban realm. Tomasulo's signs contained an implicit rebuke of car culture and suggested that simply communicating the existence of walkable connections might have almost as much impact as actually creating those



connections. Tactical urbanism has gained momentum as municipal governments have begun to see it as a way to field-test ideas that yields quick, visible results.

## **Enduring and new forces shaping public realm: Protest and social media**

Serving as the primary forum for public protest has been a fundamental role, and perhaps the most complex dimension, of public realm from the first days of urban settlement. The modernist László Moholy-Nagy's statement that "no history was made in villages" is not about condemning rural life to obscurity but emphasizing how many of the great turning points in human history took place in urban streets and squares. Crowds gathered in ancient Mesopotamian cities to impel their leaders to war—or to sue for peace. In *How the Greeks Built Cities* (1976), the historian R. E. Wycherley describes the agora as the place where early democracy took root. Romans rallied in their city's squares to oust kings and centuries later to install emperors. In the squares of Renaissance Europe, an emerging middle class claimed power from feudal lords and launched a long march toward modern Western democracy. The Arab Spring took hold in places like Cairo's Tahrir Square. In America, public demonstrations built the momentum that ended slavery and won women the right to vote. The battles over civil rights took place along public streets and in public parks. More recently, the Occupy Movement woke Americans to the reality of growing economic disparity.

But the right to protest has never been secure in America or the rest of the world. This insecurity stems, of course, from the fact that those in power frequently seek to suppress dissent. Other factors, however, also contribute significantly. By its very nature, protest calls into question the status quo, and the public realm is very much about enshrining the status quo. Wycherley notes that the Greek agora had many other purposes—commerce, religion, social life, and celebrating the

rituals that enshrined existing conditions. Virtually all of the worthy roles described above for the public realm—including the opportunity to experience community—are disrupted by protest. The Pulitzer Prize-winning architect and critic Robert Campbell observed after chancing upon a New York Yankees celebration in New York City in 2010 that "the best open space . . . for any kind of demonstration is one that normally has another use but has been appropriated by the demonstrators. The act of annexation becomes a metaphor for the energy of the cause."<sup>60</sup>

Often subtly and in ways we may not recognize, Americans, like members of every other society, discourage this annexation and limit protest in public places. The methods by which we discourage protest are not always overtly political, and sometimes begin with design and then extend to policy. Trees, fountains, cafés, and similar amenities invite people to enjoy a public space, but one that can therefore be damaged if used for protest. Requiring permits for using a public space can safeguard the public's enjoyment of a park but make exercising the right to protest expensive and more difficult. These challenges can be resolved for public space by ensuring that the public realm is also a civic realm—that it includes prominent places that are designed to allow large crowds to gather. When the space a community considers public realm is, in fact, private, resolving these challenges grows more problematic.

The Occupy Movement in New York highlighted this shift. The very place where people gathered to protest cooption of the public good by private enterprise, Zuccotti Park, was in fact owned by private enterprise. America has a long tradition of turning to private wealth to pay for the public realm (which in recent decades has extended to affordable housing and other public benefits). Industrial magnates funded many of the civic spaces that we revere today as gestures of civic noblesse oblige. These gestures brought prestige—and even political clout for a period of time—but the public





4.140 a,b Zuccotti Park full of protestors and after police evicted Occupy participants. The 2011 Occupy Movement reminded Americans that the foremost role of public space is to accommodate the right to protest—and raised serious questions about the expansion of privately owned “public space” created through development negotiations and often without regard for the full meaning of public realm. Courtesy Wikimedia user David Shankbone

owned the spaces, and the city could be held accountable for limiting exercise of citizens’ First Amendment rights. Over the past three decades in particular, a new generation of public/private partnerships has produced a wealth of “public” spaces built by private interests in return for zoning variances and other development incentives. These spaces are often function as the core element of an ambitious redevelopment initiative and may become integral to community life. However, these spaces represent innovative business deals and not civic

contributions, and they typically remain under private ownership.

The occupation of Zuccotti Park revealed the loss of civic capacity when private interests own seemingly public spaces. The corporate entity that owned the park appealed to the sacrosanct right of property owners to evict the protesters—and in the process made clear that Zuccotti Park and similarly conceived spaces across America do not truly belong to the public realm unless the right of public protest is central to their very conception.

## POPOS: PRIVATELY OWNED PUBLIC OPEN SPACES (SAN FRANCISCO, CALIFORNIA)

### Public space under private control: Making an uneasy partnership work.

- **Program:** With downtown boasting one of the strongest real estate markets in the United States, use private development to create new open spaces—terraces, plazas, and landscaped alleys—accessible to the public.
- **Area:** 68 urban spaces
- **Design team:** Various
- **Developer:** San Francisco Planning Department; private property owners

Inadvertently at first, then as a matter of intentional policy, San Francisco has created a network of sixty-eight publicly accessible but privately owned open spaces—street-level plazas, interior gardens, and rooftop terraces—in its densely built downtown. Two-thirds of the spaces date from the period 1959 to 1985, when zoning allowed developers to trade such spaces for density or height bonuses. The city’s 1985 Downtown Plan required such spaces of new construction, devising a formula



for determining size and establishing guidelines for how the spaces should function. The largest POPOS created since 1985 is a park designed by PWP Landscape Architecture that will crown the Transbay Transit Center when it opens in 2017.

San Francisco's POPOS network has required fine-tuning over the years in reaction to several concerns. First, the features and functions promised in order to win project approval don't always materialize once a building opens. Prodded by critics, the city recently launched an assessment of how well spaces fulfill regulatory requirements.

Second, despite the spaces' public accessibility, few people know about the POPOS network. As part of its 2013 review, the city introduced new regulations requiring uniform identification and information at each space. Private groups and even hackers have pitched in, creating maps, apps, and ratings<sup>61</sup> to give the spaces a presence online. Third, private ownership of public space creates a gray area. Can an owner restrict visitors' behavior or free speech? Should spaces stay accessible outside of business hours? Those questions, in San Francisco and elsewhere, remain unresolved.



4.141 Courtesy Noah Christman/SPUR



4.142 Courtesy Noah Christman/SPUR



4.143 Courtesy Noah Christman/SPUR



If the issues raised by public protest may be the oldest challenges associated with public realm, those raised by social media may be the newest. Social media represent yet another in a chain of technological developments that, over a little more than a century, have threatened the end of public life and, therefore, of public realm. In the nineteenth century, Austrian architect and theorist Camillo Sitte worried that “modern life” undermined the capacity to appreciate the beauty and civic value of public spaces. The telephone, automobile, television, computer, laptop computer, and Internet have all, in their turn, caused observers to worry over the impending abandonment of public parks and squares in favor of the comfort, familiarity, and safety of private domains. In the 1960s, architect Robert Venturi mounted an exhibit at the Los Angeles County Art Museum that argued that the universal popularity of telephones, cars, and televisions made cities unnecessary. For example, television-equipped family rooms had made gathering in downtown squares for major events appear outmoded; suburban backyards had done the same thing for public parks. In the early 1990s, many observers predicted that the combination of telephones and computers would unleash an era of telecommuting, then a novel concept, that would render cities—and their public spaces—anachronistic.

Technology has, in fact, changed the ways in which people use the public realm. Most notably, as cars fostered a mass exodus to the suburbs, bustling urban squares once full of people of every social class increasingly became the domain of the urban poor, while new regional parks—and park systems—became destinations for suburban families. Interestingly, universal access to computers and the Internet has had an effect on behavior opposite to that predicted. Focus group studies with younger technology workers who have no office have revealed that technology-related isolation fuels a desire to live and work in places with lively, walkable public realms that provide a ready sense of community.

The impact of social media continues to unfold. However, earlier fears that mobile devices that allow people to connect anywhere, instantly, would rob public streets, squares, and parks of their central role in public life have proven unfounded. Instead, social media enhance the personal and social value of the public realm. People use the ability to share information in real time to expand and intensify the ways they use public spaces. Friends make spur-of-the-moment plans to meet at a café, or even conjure up a flash mob in which ten or one hundred or more people perform a coordinated act in a public space, such as a dance at Grand Central Station in New York City. And thousands can be summoned quickly for a political protest. Social media brings immediate, widespread attention to aspects of the public realm—a new work of public art or a recently scheduled outdoor performance, for example—that for centuries have been the esoteric province of a few. The ability to post a video that can instantaneously be viewed by millions all around the world means that public places have assumed the role of a public stage unimagined just a decade ago. The same technology that might have empowered people to retreat to their private realms has instead unleashed a new generation of opportunities for the public realm.

## Urban agriculture

Tactical urbanism also feeds into the urban agricultural movement of the last decade. The Natural Resources Defense Council’s Kaid Benfield points out that concerns such as sustainability, nutritional deficits that plague poor neighborhoods, and even the “slow food” movement have all fueled urban agricultural efforts, and urban agriculture shares tactical urbanism’s interest in exploring ways to create and celebrate community.<sup>62</sup> In the spirit of San Francisco’s Pavement2Parks initiative, this dimension builds on the tradition of World War II victory gardens to reclaim vacant or underutilized urban sites or to colonize the flat roofs of industrial buildings as





4.144 Urban farming in Chicago is a symbol of community spirit that is reemerging as a neighborhood-based business. Courtesy Flickr user Hayal Oezkan

places where neighbors can garden together and enjoy the harvest in neighborhood restaurants or at community fairs and communal meals.

The urban agriculture movement, largely unnoticed until recent years, has been around since just after World War II, when residents of poorer urban neighborhoods began turning vacant lots into community gardens and parks. In New York City's Harlem and Lower East Side, residents used these open spaces to grow both food and flowers, and the gardens themselves often became rallying points for organizing against development plans by property owners, usually the city itself, when the real-estate market shifted. A flowering of interest in sustainability and locally produced food that began in the 1990s made urban farming more popular—to the point that some proponents began to see the commercial possibilities of urban farming. The increasing sophistication of technology for green roofs, originally an energy-saving strategy, encouraged the development of arable rooftops and supported the emergence of sizable urban farms like Brooklyn Grange, Chicago Botanic Garden, and Boston's Higher Ground.

By 2012, following the Occupy Wall Street movement and the attention it brought to the nature of public space and the right to use it, organizations like 596 Acres

began lobbying for the right to garden and farm unused urban land. In a bankrupt Detroit and financially troubled Louisville, the use of inner-city land for agriculture recalls the victory garden movements of the two world wars. Guerilla gardening emerged in the 1960s—gardening on vacant property without the owner's permission. Initial examples include People's Park in Berkeley, California, and Adam Purple's Garden of Eden on New York City's Lower East Side.

Two examples demonstrate the community-building potential of urban agriculture. Both represent a commitment not to reduce density or urban vitality to make room for agriculture, but rather to employ agriculture to enhance livability and vitality. The architecture firm Perkins + Will's plan to redevelop the City Centre Airport in Edmonton, Alberta, proposes establishing a small urban farm in place of decorative landscaping or a passive park as a focus for life in a new neighborhood.<sup>63</sup> Via Verde, a mixed-income housing development in the Bronx, won a national competition for sustainable and healthy affordable housing sponsored by the New York City AIA chapter. Designed by Grimshaw Architects and Dattner Architects, it incorporates a series of cascading roofs designed to support community agriculture.<sup>64</sup>



## Notes

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- 11 Ibid.
- 12 Joel Garreau, *Edge City: Life on the New Frontier* (New York: Random House, 1991). Garreau, a *Washington Post* reporter, coined the term "edge city."
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## CHAPTER 5

# Theories of Urbanism

In an essay in his 1997 book *Common Place: Toward Neighborhood and Regional Design*, Doug Kelbaugh—former dean of the Taubman School of Architecture and Planning at the University of Michigan—uses Paris to illustrate three very different approaches to urbanism. In a chapter titled “The Three Urbanisms,” Kelbaugh asks readers to pick an area in Paris they like most, so as to understand which urbanism best aligns with their values.<sup>1</sup>

Few urban designers today would admit to preferring the first area, widely admired forty years ago—the “free-standing high-rises of La Défense, [the] twentieth-century office complex.” Kelbaugh sees this inclination as shaped by heroic individual effort, faith in experimentation for its own sake, and a belief that great cities can be achieved by drawing inspiration from a “personal design portfolio, which is typically more self-referential than contextual.” A second urbanism, the “medieval streets and buildings

of the Marais district,” continues to hold strong, romantic appeal. Lovers of le Marais embrace “everyday urbanism,” a rejection of formal schools of thought and a preference for “urban design by default [rather] than by intention.” To prefer the third urbanism, “grand monuments and boulevards of nineteenth-century Paris” laid out by Georges Eugène Haussmann, reveals an inclination toward “formal urbanism,” an internally consistent school of thought “utopian” in its deep belief that its approach to placemaking improves the quality of people’s lives; “inspirational” in its commitment to particular styles that embody deeply held community values; and “structuralist” in its assumption of “a direct . . . relationship between physical form and social behavior.”<sup>2</sup>

Kelbaugh, one of America’s most rigorous and accomplished urban design theorists, argues for formal urbanism in the form of New Urbanism, which he believes offers a valuable perspective on the issues facing American communities. He also counsels (indirectly) taking a more syncretic<sup>3</sup> approach to urban design. Underlying debates over the merits and moral weight of conflicting approaches to shaping human settlement, he suggests, invariably are personal likes and dislikes of buildings, spaces, and cities; different tolerances for highly or loosely structured thought systems; and even the influence of personal relationships. What

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**Urban design is an art, not a science or an engineering discipline, a social and public art rather than a personal or fine art. Unlike a painter or sculptor, in every aspect of my work I am responsible not only to myself, but to my fellow man and to future generations.**

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*Douglas Kelbaugh, FAIA, dean, Taubman College of Architecture and Urban Planning, University of Michigan, Ann Arbor*

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Courtesy Wikimedia user Aschaf/Andrea Shaffer



Courtesy Wikimedia user Sailko

often complicates discussions of urban design is an attempt to rationalize these personal inclinations into objective and internally consistent systems of thought.<sup>4</sup> The wisdom in Kelbaugh's advice lies in directing urban designers to develop an understanding of each project that enables them to make best use of the constellation of urban design theories.

Kelbaugh's essay also supports another interpretation, which extends beyond a case for New Urbanism.

5.1 a,b,c In *Common Place: Toward Neighborhood and Regional Design*, author Doug Kelbaugh, former dean of the Taubman School of Architecture and Planning at the University of Michigan, asks his readers to choose one of the following areas of Paris, so as to understand which urbanism best suits their values: the "free-standing high-rises of la Défense, [the] twentieth-century office complex" suggests a preference for urbanism shaped by heroic individual effort and a faith in experimentation for its own sake; the "medieval streets and buildings of the Marais district" suggests a rejection of formal schools of thought and a preference for "urban design by default [rather] than by intention"; the "grand monuments and boulevards of nineteenth-century Paris" laid out by Haussmann suggest a preference for "formal urbanism," an internally consistent school of thought "utopian" in its deep belief that its approach to placemaking improves the quality of people's lives."

Many planners find it far easier to be normative—that is, to fit the context we work in to instinctive planning and design prescriptions—than to be empirical and put our values to work to plan and design in response to the realities we uncover. Urban design challenges practitioners because it's neither completely abstract nor completely data-driven—a quality many architects feel sets it apart from architectural and landscape design. Urban design begins and ends with facts on the ground. The best work



in our discipline derives from a deep understanding of the forces that shape people's lives and a commitment to meet the aspirations of the people it serves and to the health of the planet. In fact, Kelbaugh's *Common Place* makes a thoughtful case for New Urbanism—arguably the most influential form of urbanism of the past half century—in part by defining an urban designer's duty as understanding and *managing* the process of change—rather than simply letting it happen organically—for the best long-term outcomes. In *Common Place*, Kelbaugh argues that “in all sorts of historical, social, cultural, economic, architectural, and urbanistic ways, New Urbanism is what the American metropolis would most benefit from now.”

We hope our readers will take a slightly different approach: accepting Kelbaugh's call to take responsibility for the future, learning as much as possible about the forces shaping that future, and adopting the most useful ideas that each school of thought about urban design offers without feeling the need to wave the flag of any of them.

Periods of social turbulence have proved fertile breeding grounds for the emergence of new schools of urbanism. In the late nineteenth century, multiple movements arose in response to the rapid industrialization of North America and Europe and the excesses of that industrialization. The City Beautiful, urban parks, and Garden City movements preceded the emergence of “urban design” as a deliberate field of endeavor, yet they represented highly developed schools of thinking about cities whose influence is ongoing. The City Beautiful and urban parks movements established the importance of planning to enhance the aesthetic, civic, and natural qualities of cities, elevating this enhancement to the level of moral responsibility. The Garden City movement suggested theoretical and, again, moral underpinnings for suburbia, asserting utopian qualities for early suburbs, many of them planned as a response to problems of industrial cities. World War I sparked a widespread rejection of “traditional” ideas and values

among European and North American cultural elites and gave birth to the modernist movement. Young architects embraced modernism in the interwar years, and as they rose to professional prominence after World War II, modernism came to dominate thinking about architecture and planning. It underscored the value of the new (suburbs, shopping malls, and anything else shaped by automobiles), undervalued the value of the old (cities built before World War II and scaled for human rather than vehicular use), and provided a theoretical foundation for the urban renewal movement.

After World War II, the blossoming of suburbs, the collapse of cities, and the heavy-handed nature of urban renewal set the stage for the rise of urban design and, later, various convictions about it. It also provoked a visceral and fast-spreading rejection of the destruction of traditional urban forms by a de facto alliance of activists from poor neighborhoods and mostly affluent preservationists. Famously personified by New York City's powerful planner and “master builder” Robert Moses, the urban renewal movement drew design inspiration and confidence from modernism, an internally consistent system of thought that met Kelbaugh's basic test for opinions about urban design thinking. Modernism offered a utopian vision of a new and rational approach to city building that rejected elitist, Old World values—and conveniently benefited American elites. Inspired by a belief that architecture should promote the contemporary cultural values of modern art, it embraced a structuralist faith that the physical forms it favored would educe better social behavior. Many of Moses's early opponents coalesced around the work of Jane Jacobs, whose influence has grown steadily over the half century since publication of her touchstone work, *The Death and Life of Great American Cities*. While Jacobs today remains the most influential urbanist of the twentieth century (and—at least so far—of the twenty-first), she neither proselytized nor sought to translate her work into an identifiable school of thought that could replace modernism. The



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Cities are more than sculptures to be seen only from bird's-eye views and figure-ground diagrams. They are constantly changing entities with unique physical and social landscapes made vibrant by the people who live, work, and celebrate in them. The chemistry of that interaction between people and environment gives value and identity to the places where we live. Urban design continues to be a vital discipline because the care and shaping of our cities are too complex and too important to be left to those who see them only as objets d'art.

*M. David Lee, FAIA, vice president, Stull & Lee, architects and planners, Boston*

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collapse of urban renewal, which in effect took modernism down with it, left a void that remained unfilled until the rise of New Urbanism in the early 1990s.

Changing conditions in American cities and suburbs today, driven by the demographic and other shifts discussed in chapters 3 and 4, have produced newer schools of urban design thinking. These have readily taken up the mantle of movements that seek to reshape how we organize and build regions and cities. These still-evolving theories are guiding planning responses to the new forces at work in American cities.

## Formal Urbanisms

New Urbanism is the most developed and prominent school of urban design today, and it offers valuable insights into twenty-first-century community-building. Some practitioners call themselves “Old Urbanists” or in other ways claim that no one—not Jacobs, not New Urbanists, not any school of thought—holds a patent on historic forms like the lively streets and mixed-use neighborhoods widely admired today. But New Urbanism and all the other “urbanisms” should be approached with respect for their ability to integrate utopian goals, inspire design, and, in some cases, improve human behavior. Rather than committing to an urban design Ravenclaw or

Gryffindor (see Harry Potter), urban designers can learn from each school and should find the most effective, humane ideas and practices for a given time and place. Nor does urban design itself offer every answer: an age of widespread and rapid social and economic change has stimulated innovation in the allied disciplines of planning, transportation, real estate development, landscape design, and economic development. Emerging theories and best practices address issues directly relevant to urban design, such as the promotion of diversity, choice, social equity, and economic opportunity.

The various schools and disciplines within urban design also influence planners' thinking, and experience suggests that there is no single best way to analyze a site's context and prepare a design response to it. Different ways of thinking may appear to occupy parallel theoretical universes when, in fact, they add compatible perspectives that enrich one another as often as they contradict one another.

Each school of thought—or “urbanism”—that influences urban design practice begins with a rich and cohesive case for the values it advocates. This chapter lays out the various urbanisms and demonstrates how designers can adapt them to the opportunities and challenges that cities face today. Chapter 6 then discusses a set of urban design principles that represents one way of applying the values of the various urbanisms to planning and urban design.

## New Urbanism

The Congress for the New Urbanism (CNU, [www.cnu.org](http://www.cnu.org)) describes its mission as “the revival of our lost art of placemaking . . . essentially a reordering of the built environment into the form of complete cities, towns, villages, and neighborhoods—the way communities have been built for centuries around the world.” New Urbanism has established itself as the most influential successor to modernism. Its biggest contribution lies in its redirection of the debate about urban design to one of extended,



car-oriented precincts versus walkable, people-oriented placemaking. Although most New Urbanist buildings and plans reflect a strikingly similar aesthetic, New Urbanism relies less on a particular style than on replacing form-driven architecture and urban design with buildings, neighborhoods, cities, and regions shaped to promote community. New Urbanism expresses this pursuit of community most directly through its focus on both human needs and the health of the public realm. The plan and architecture of many New Urbanist projects visibly recall historic European and American precedents—particularly the form and iconography of New England villages—but this visual echoing says less about design intent than about a sense of shared experience that communities’ physical forms encouraged in the era before cars became America’s dominant mode of transportation.

The influence of New Urbanism—which traces its roots to the early 1990s<sup>5</sup>—stems from three elements. First, the Charter for the New Urbanism (CNU), adopted by the organization in 1993, offered a clear, compelling, and holistic alternative to the prevailing assumption that the needs of automobiles should shape the physical form of a community. Since at least the 1930s, planners, urban designers, architects, civil engineers, developers, environmentalists, public officials, and members of the public

had shared this assumption widely without examining it very closely, if at all. The Charter offered a very different view. It said that human experiences and aspirations should dictate urban form. In essence, it imagined the car in service of people rather than the other way around.

Second, CNU promoted an interdisciplinary culture and, in a continuing effort to improve the application of its values, created the first body of multidisciplinary thinking about community-building in a post-automobile age. This interdisciplinary thinking in turn produced new tools—the third element—to connect theory directly to practice. These tools ranged from new models for projecting traffic congestion (which often revealed that different transportation modes performed better than cars in many circumstances), to new regulatory models designed to encourage street-oriented, human-scale development, to “form-based codes” that replaced sometimes-rigid use-based zoning. The pattern books created by Miami Beach–based urban designer Steve Mouzon provide one of the clearest examples of New Urbanism’s skill at translating theory into practice. They provide an exhaustive and internally consistent set of design instructions for buildings of practically any use, style, or scale, all consistent with New Urbanism’s preference for buildings no taller than the five stories that most building codes permit for lower-cost, wood-frame construction.

## SEASIDE TOWN SQUARE AND BEACHFRONT MASTER PLAN (SEASIDE, FLORIDA)

### Adding a new layer of urbanism to an New Urbanist icon.

- **Program:** A plan for improvements in the town square, the construction of a beachside plaza and new market buildings, the installation of a civic tower, and the addition of 20,000 square feet of retail space and thirty low-rise apartments and town houses
- **Area:** 5 acres
- **Design team:** Opticos Design in partnership with Leon Krier
- **Developer:** Robert Davis of Seaside Community Development Corporation
- **Web:** [www.seasidefl.com/](http://www.seasidefl.com/)

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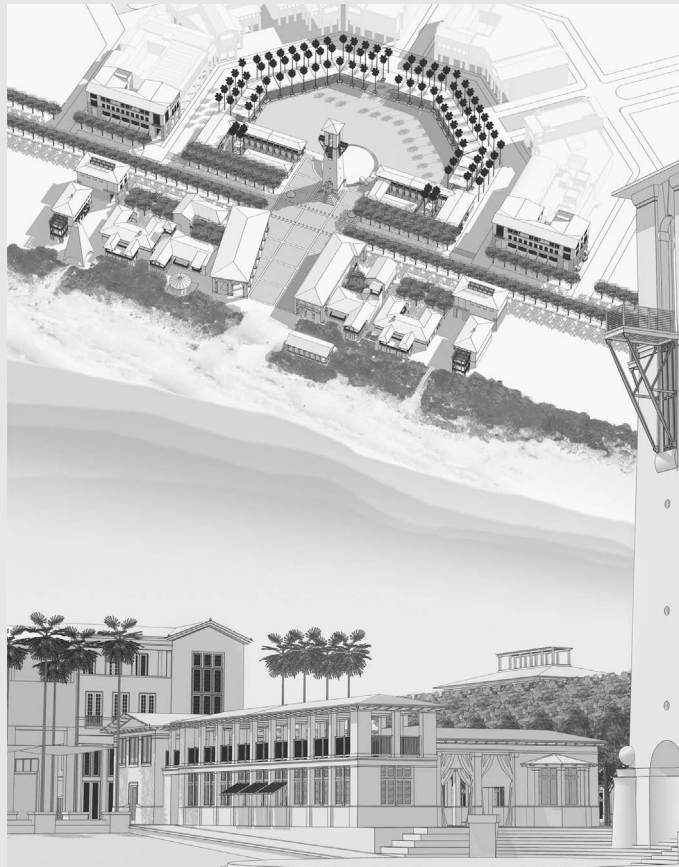


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From its beginning in 1981, Seaside has proved a model development, staying true to its founding principles and aesthetic (which emphasizes traditional design) and emerging as the iconic early model of New Urbanism. Less colonial and more a reincarnation of the turn-of-the-twentieth-century neoclassical streetcar suburb, Seaside manifests its goals physically, but without the socioeconomic diversity of its predecessors.

The town square and beachfront master plan adds improvements to the existing town square, a new beachside plaza, new market buildings, and a civic tower. With these additions

and improvements, scheduled for completion in 2030, the plan aims to reinforce the community's center, energize the space, and attract new commerce. In a sense it proposes a contemporary agora (the architecture even makes reference to classical Greek forms) that can stimulate social interaction and provide more services for residents. Increasing retail space will strengthen the center's businesses, thereby reinforcing its appeal as a meeting place. The plan continues Seaside's evolving urbanity with the design of an architecturally suitable urban core and strengthens beachfront connections.

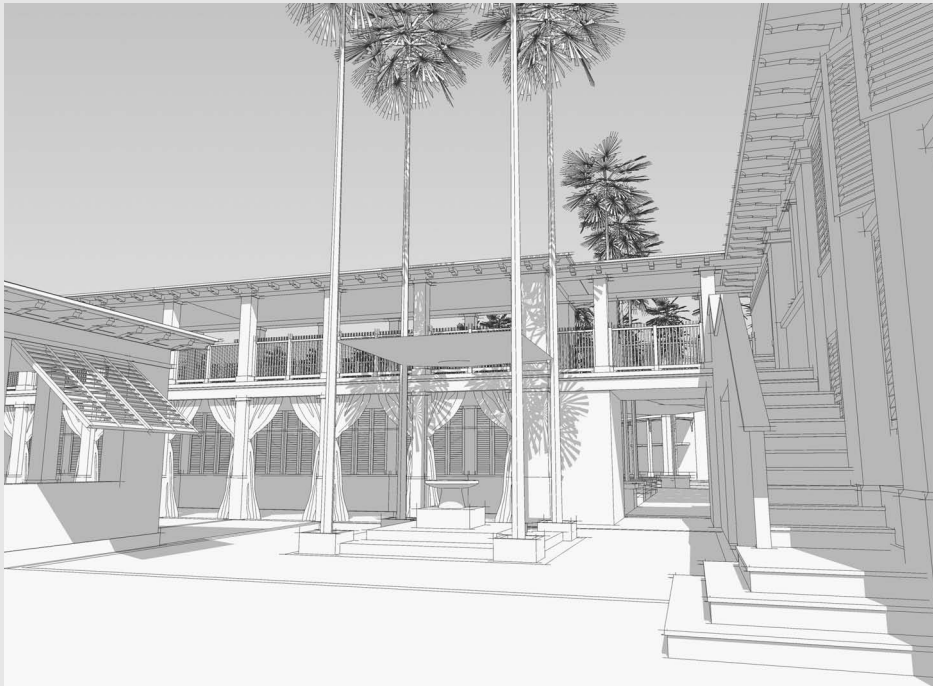


5.2 Courtesy Opticos Design, Inc., Daniel Parolek





5.3 Courtesy Opticos Design, Inc., Daniel Parolek



5.4 Courtesy Opticos Design, Inc., Daniel Parolek



## Landscape urbanism

A well-publicized and determined challenger to New Urbanism, “landscape urbanism” deems itself “a mode of thinking about the design and functioning of cities that uses landscape as the lens by which cities are both understood and shaped” (<http://landscapeurbanism.com>). This school of urban design represents a new interpretation of the work of landscape architect Ian McHarg, elevating his arguments in order to assert a dominant role for ecology and natural systems in shaping form. McHarg’s influential 1969 book *Design*

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We are discovering new ways to build places for human beings that at the most fundamental level “do no harm” but that also steward the regeneration of the city, the earth, connective layers of the environment, and of the human spirit itself. We are on the threshold of the new: economic thinking is rapidly converging with environmental reality, and the sustainable city will emerge from landscape urbanism—inspired design.

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*Joe Brown, FASLA, chief executive officer, EDAW, San Francisco*

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with *Nature* pinpointed natural systems and ecological thinking as the critical starting points for planning regions and cities. Landscape architect James Corner expanded and updated McHarg’s message in “Terra Fluxus,” a 2006 essay in *The Landscape Urbanism Reader* ([www.theconstructs.com/main/wiki/Landscape+Urbanism](http://www.theconstructs.com/main/wiki/Landscape+Urbanism)). In this essay, Corner—best-known for leading the design team that created Manhattan’s High Line park—outlined the broad themes that define Landscape Urbanism: organizing communities around natural and man-made landscape systems rather than transportation or other infrastructure; using existing natural ecology to shape the built environment, from regional to building scales; and making rich and varied opportunities to interact with nature the primary responsibility of planning and urban design. In a debate at the 2011 CNU national congress, Charles Waldheim, chair of the Landscape Architecture Department at Harvard University’s Graduate School of Design, argued that landscape urbanism had superseded New Urbanism as the fundamental framework for organizing, planning, and designing urban environments.

## MADRID RÍO (MADRID, SPAIN)

### Replacing roadways with a grand public space that blends nature, culture, and recreation.

- **Program:** A green linear park with cultural, recreation, and sports opportunities that connects the neighborhoods on each side of the Manzanares River
- **Area:** 6.2 miles (1,603 acres) in 6 segments
- **Design team:** West 8 and MRIO Arquitectos (joint venture of Burgos & Garrido Arquitectos Asociados, Porras La Casta Arquitectos, and Rubio & Álvarez-Sala)
- **Developer:** Municipality of Madrid

- **Award:** Condé Nast Traveller Innovation and Design Awards (nominee, 2009)
- **Web:** <http://www.esmadrid.com/en/madridrio>

Cities around the world have reclaimed land appropriated for automobile use in the second half of the twentieth century, creating striking amenities where highways and parking lots once stood. The City of Madrid constructed 26.7 miles of urban amenities along the Manzanares River by burying roadways in a complex of tunnels that



restores connections among neighborhoods long separated from the river and from each other. Freed of the highways, the riverbanks and adjacent areas have become six distinct new venues for cultural activities, sporting facilities, and recreation.

Significant components of the project include seventeen new walkways with bridges that connect along and across the river; twenty-five thousand new

trees as part of the greening strategy; 6 kilometers of tree-lined promenades to link the six new venues; cycling routes; and facilities and environments for children. The entire design gives priority to walking and biking connections that make the river a center for daily life at both neighborhood and city scales. Madrid Río, as Madrileños call it, borders the Matadero Madrid, the city's former slaughterhouse. This large



5.5 © West 8



5.6 Courtesy Flickr user Luiyo

*(continued)*

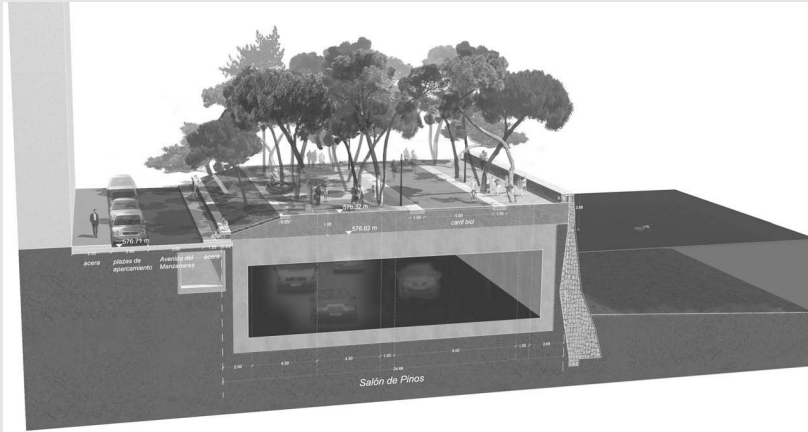


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adaptive-reuse project hosts an array of cultural activities, including exhibitions, music festivals, and plays, all of which articulate with Río Madrid.

The park's urban design distinguishes the six areas from one another with orchards, landmark and

slow-traffic bridges, water channels, and other features that animate the environment, engage visitors, and allow for a wide variety of rich programming.



5.7 © West 8



5.8 Courtesy Flickr user GonzaloMMD



Landscape architect Charles Anderson, FASLA, argues for a poetic variation of landscape urbanism that he calls “emo urbanism” (*emo* meaning “emotional”) and that he links directly to an “ecologically modern approach” to urban design, one that responds to a basic human desire to connect with nature. “Urbanature,” he says, “like architecture, involves the making of place. Both are grounded in the physics of material, but the former is specifically guided by the landscape of time. This urbanism makes vital the natural processes that sustain a dynamic, more human-centered world.” He advocates introducing Henry David Thoreau’s concept of “authentic wildness” into the urban environment. The job of urbanaturists who practice emo urbanism, he asserts, is to “insist that exquisite urbanism [formal urban design] be paired with natural system functions.”<sup>6</sup>

## Green urbanism

“Sustainable urbanism” is a more loosely organized school of thought, less a self-aware movement than a coalescing of like-minded practitioners around environmental sustainability as the generative principle for urban design. In contrast to New Urbanism or landscape urbanism, its advocates—such as the urban designer Doug Farr (also a leading spokesperson for New Urbanism), planner Charles Beatley (of the University of Virginia), and urban designer and architect Steffen Lehmann—offer perspectives and recommend best practices that together suggest varied approaches to sustainability as an organizing principle. They agree on the essential role cities play in reducing greenhouse gas emissions in the fight against global climate change, the related importance of reducing the consumption of fossil fuels and other extractive resources, and the need to preserve natural environments. Unlike New Urbanism and landscape urbanism, which focus more on the form and character of placemaking and which generally accept the idea of greenfield development “done right,”

sustainable urbanists make a consistent case for smart growth and compact development, so as to avoid colonizing new land for development.

Within the smart-growth paradigm, sustainable urbanism’s richness stems from varying levels of emphasis that advocates place on different sustainability principles and practices. Some see working toward zero greenhouse gas emissions as the overriding responsibility for development at any scale. Others focus on retrofitting existing environments to operate within ecological limits rather than ignoring them. Seattle architect Dan Williams (see case study “Eastward Ho!”), for example, argues that every region should shape its development practices around water self-sufficiency. Others give priority to food production, building construction that uses only local materials, or regional self-sufficiency in energy. Another group, including the planner Doug Farr, promotes compact development because it encourages residents to live healthier lives through walking and biking. They also underscore compact development’s ability to help cities support the vibrant urban neighborhoods and Main Streets that attract skilled workers and investment. Green urbanists have emerged as the leading advocates for using new development to create “eco-districts” that end building-by-building management of infrastructure and resources. Applying a district-wide approach to energy, groundwater, and waste distribution and management significantly increases efficiency and reduces an area’s collective environmental footprint. Not surprisingly, green urbanists emphasize site and building design that promote a better fit with local climate and ecological systems.

## Grassroots urbanism

Formal schools of thought typically adopt a strongly theoretical approach to urban design and seek a broad generative precept to shape a comprehensive understanding



of the built and natural environments. That understanding, in turn, dictates their ideas on how urban design should proceed. Grassroots urbanisms, by contrast, tend to adopt a much less cohesive approach, constantly reshaped by a changing roster of participants. At the 2013 Tom Dent Congo Square Symposium, addressing community-based culture in New Orleans, one speaker proposed the term *polilog* to describe the freewheeling, inclusive participation that fuels grassroots movements, thus distinguishing that from a structured and rules-bound *dialog* that takes place in top-down movements. In grassroots urbanisms, say their champions, more voices make urban design more spontaneous, democratic, and aesthetically appealing—worthwhile ends in their own right but also an invitation to continue to explore boundaries, view the world in new ways, and constantly reinvent urban design.

Mike Lydon, principal at Brooklyn's Street Plans Collaborative and author of *Tactical Urbanism, Volume 2* (<http://www.streetplans.org/>), asserts that "tactical urbanism" can make "Everyone . . . an urban planner, and that's a good thing." Tactical urbanism promotes the discovery and use of the many—sometimes unexpected—opportunities to enhance and animate urban places. Also referred to as "pop-up urbanism," the movement focuses on "quick, often temporary, cheap projects that aim to make a small part of a city more lively or enjoyable."<sup>7</sup> Examples have appeared across North America, most focused on reclaiming streets from cars for use by people. Parking Day is the best-known example. Now a global event that takes place in September, it transforms parking spaces in well over one thousand communities into everything from microparks to bike-repair shops to art installations—all tiny and all temporary. The originator of the idea, San Francisco design studio Rebar, has intentionally kept the model unstructured, to encourage projects that harness local enthusiasm, align with local culture, and respond to local issues. But Parking Day

projects all share some fundamental DNA: they aim to highlight the amount of the public realm dedicated to automobiles and to assert the importance of reclaiming some of that space for people.<sup>8</sup> Municipalities have begun to embrace Parking Day, including large cities such as Boston, Philadelphia, San Francisco, and Los Angeles.

Almost by definition, tactical urbanism has a decidedly local flavor. A business improvement district in Rosslyn, Virginia, turned an empty traffic island into a lively "parklet" animated by local coffee vendors.<sup>9</sup> Activists in Memphis painted a temporary bike lane on a run-down stretch of Broad Avenue, installed temporary art galleries in vacant storefronts, and attracted 13,000 people over the course of a weekend to an arts festival with dance performances, painting classes for kids, a rock-climbing wall, food vendors, and sidewalk chalk drawings.<sup>10</sup> The organizers called the event "A New Face for an Old Broad," capturing an essential element of tactical urbanism: the transformation of familiar infrastructure (which, not entirely coincidentally, underscores how smart marketing can increase the impact and appeal of pop-up projects).

Tactical urbanism has introduced both guerrilla gardening—the reclamation of ignored or abandoned parcels as community-planned and community-run green spaces—and guerrilla planning—ground-up initiatives that launch new ideas without official approval. Sanctioned or not, tactical urbanist projects serve as an inexpensive way to beta-test ideas for changing the built environment. Often, savvy marketing or an appealing idea can jolt official thinking in new directions. As Mike Lydon notes, "More and more of these tactics are popping up and leading to longer-term change."<sup>11</sup>

"Peer-to-peer (P2P) urbanism" shares tactical urbanism's grassroots spirit but focuses on processes, not on



outcomes. The P2P Foundation ([http://p2pfoundation.net/Peer-to-Peer\\_Urbanism#Introduction](http://p2pfoundation.net/Peer-to-Peer_Urbanism#Introduction)) promotes replacing experts—urban designers and similar professionals with technical expertise—with broadly democratic participation stressing grassroots input and consensus, at least during a plan’s or project’s conceptual stage. P2P methodology leans heavily on cloud-based and mobile technologies to link participants and bring many voices into the decision-making loop. Like tactical urbanism, “participatory urbanists often establish operations at the fringe of cultural production (and sometimes at the edge of the law), and they can teach us a fair amount about how to generate a more effective, user-friendly built environment.”<sup>12</sup> Interestingly, P2P also focuses on more enduring and potentially much larger-scale initiatives, but it takes a very different approach than other movements and disciplines: it sets up conditions for change instead of delivering a fully formed product, arguing that these conditions set the parameters for technical experts to help communities translate concepts into specific plans and policies.

## Other perspectives on urbanism

While less likely to treat their perspectives as self-conscious schools of thought, professionals from other disciplines have articulated new paradigms for their

fields. Their thinking has yielded new data and analytical tools with great value for urban design and has expanded the goals toward which urban designers strive and the best practices they follow. Some representative examples suggest the breadth of exploration and thinking underway in allied fields that contribute directly to urban design.

New Urbanism’s interdisciplinary culture and consistent advocacy deserve credit for much of the transformation that has occurred in transportation planning since the 1990s. Once a discipline devoted almost entirely to the needs of the automobile, transportation planning now generally promotes mobility choices attuned to the character and needs of specific communities. This flexibility has unlocked the ability to improve walkability, plan successful mixed-use development, promote denser development, and realize similar aims. The “complete streets” concept has emerged as a multidimensional paradigm that treats the needs of pedestrians, bicyclists, transit, and automobiles as equally critical to the healthy functioning of urban streets. A renewed interest in urban streetcars has grown from the success of a few pioneering systems, most notably in Portland, Oregon. Transportation planners now see streetcars as a way of reducing car trips in urban settings, greatly expanding transit-oriented development, and accelerating economic development. Streetcars can serve many more destinations than light- or heavy-rail transit but provide the permanence and high-quality ride those modes deliver. That, in turn, holds significant implications for density, the ability to serve diverse markets, and sustainability, among other valuable outcomes. New analytical and zoning tools that enable multiple users to share the same parking spaces over the course of a day dramatically reduce the amount (and cost) of parking needed to meet the needs of colocated individual uses—in effect, they create a subsidy for mixed-use development. Reconnecting America

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**What does urban design need most? In a word, collegiality. Urban design is only possible when people from various disciplines and professions, and from arts and sciences, agree to work together. In the past, when it was civic design, it focused on the public realm. It was sponsored by civic associations and enriched by civic art. Today the field of urban design is unbounded, intellectually and physically. Architecture extends from room to region.**

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*Robert Geddes, FAIA, dean, Princeton University School of Architecture*

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(<http://reconnectingamerica.org/>) provides good overviews and news about transportation that can inform and inspire new thinking about urban design.

Real estate consulting has undergone a similar transformation into a discipline offering a much broader set of perspectives and best practices that can identify important shifts in real estate markets. Zimmerman/Volk Associates—housing market analysts who have been national leaders in quantifying renewed demand for urban living and shifts such as increased interest in living in diverse neighborhoods—have developed analytical tools that shift the focus of projecting market demand from examining comparable projects (which only measures past demand) to sifting through demographic data to project future demand. Their work enables urban designers to identify market trends and use that information to educate communities about their own changing housing needs. The data also help urban designers develop more effective proposals for reinvigorating urban neighborhoods and Main Streets, reinventing suburban greyfields as walkable centers, and addressing similar issues. W-ZHA has pioneered new approaches to public/private partnerships that transform public subsidies into public investments and in the process significantly expand the public sector's ability to fund revitalization initiatives and encourage redevelopment. MJB, a retail consulting firm, has pioneered the use of “psychographics,” which—in a way similar to the techniques used by Zimmerman/Volk—seek to isolate market trends for retail businesses. Armed with this information, an urban designer can propose ways to enliven streets and squares, reinvigorate older Main Streets, and create unique opportunities for local small businesses and entrepreneurs to animate portions of the public realm.

Changing thinking about economic development, which involves establishing policies and mechanisms for attracting and retaining businesses and jobs and preparing people for these jobs, has profoundly affected

urban design. Richard Florida's influential 2002 book *The Rise of the Creative Class* linked the vibrancy of a community's Main Streets, the vitality of its downtown, and the diversity of its neighborhoods to its ability to attract jobs and investment. Florida popularized a new paradigm that moved the focus of economic development from natural resources and highway infrastructure, which once attracted manufacturers, to the amenities and environments that attract the talent essential to the knowledge industries that drive growth of the U.S. economy. In the period since this book appeared, these industries have reinforced his argument. Increasingly, these industries see that the same kinds of dense, lively, walkable environments that attract talent are also critical to the innovation that enables these companies compete and grow. Economic development professionals continue to explore this transition and in the process have offered compelling insights into the possibilities of urban design.

## Syncretic Urbanism

Kaid Benfield, director of sustainable communities for the Natural Resources Defense Council (NRDC), captures the need for a syncretic approach to urban design: planning and designing communities, he writes, “is not about advocating any script or preset system of belief but instead about thought, the pursuit of truth, and, yes, sometimes about finding a *balance* among the various competing interests—planetary health, local

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Urban design “is less a technical discipline than a mind-set among those . . . seeking, sharing, and advocating insights.”

*Alex Krieger, former chair of the urban design program at the Harvard University Graduate School of Design, in Alex Krieger and William S. Saunders, eds. Urban Design (Minneapolis: Univ. of Minnesota Press, 2009), 129.*

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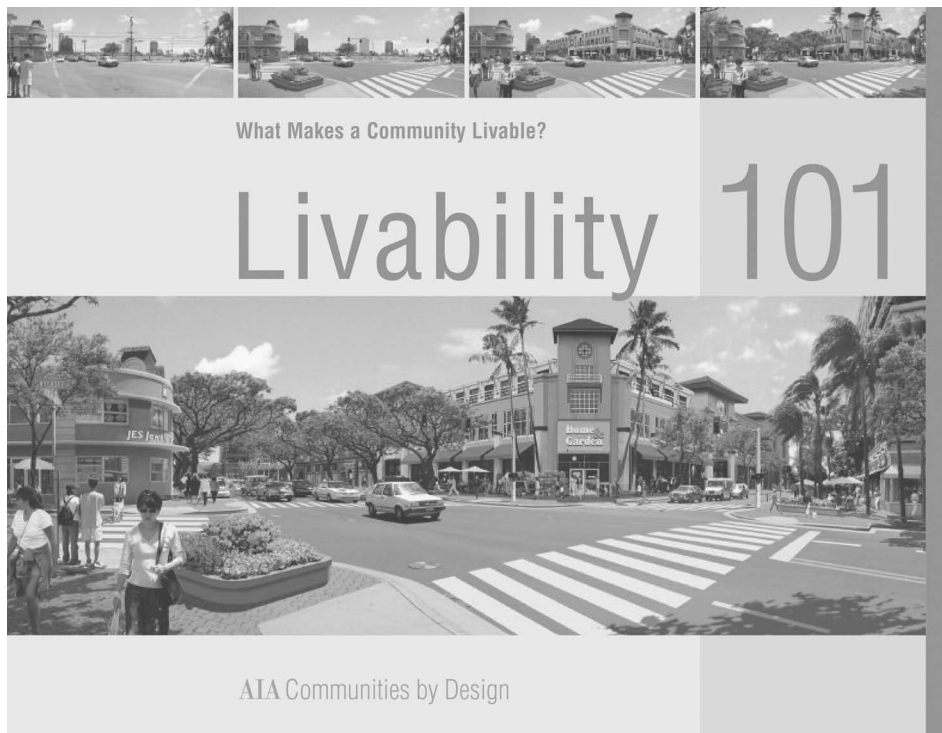


environmental health, individual aspirations, community, solitude, economy, equity, the whole messy gumbo—that, pretend as we may, cannot always be aligned when it comes to cities, neighborhoods, or the environment. ‘Isms’ of any sort can get in the way of those objectives. . . . I would rather discuss what makes a particular solution appropriate to a particular situation than apply a formula.”<sup>13</sup> (Benfield’s blog at <http://switchboard.nrdc.org/blogs/kbenfield/> offers a refreshingly iconoclastic perspective on urban design at the intersection of “community, development, and the environment.”)

Two high-profile initiatives since 2000 demonstrate an open-minded, ism-free approach to urban design worth emulating. Benfield himself led the

Experience is teaching that prescriptive templates do not hold up well when market forces, changing programs, and new needs come into play. What are needed instead are flexible frameworks that allow for innovation, hybridization, organic growth, change, and surprise. [The] inherent pragmatism [of this approach] has the potential to liberate design and harness many kinds of creativity coming from others. Urban design becomes more like improvisational jazz. In Stuart Brand’s terminology, we are learning “how cities learn.” Rather than producing finite products, urban design is increasingly about the anticipation and guidance of long-term transformations without fixed destinations, mediating between values, goals, and actual outcomes.

*Ken Greenberg, architect and urban designer, principal, Greenberg Consultants, Toronto, Canada*



5.9 *Livability 101* Courtesy American Institute of Architects and the Department of Planning and Permitting, City and County of Honolulu



first of these: the development of LEED standards for neighborhood planning and development. LEED for Neighborhood Development, or LEED ND (<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>), at first glance looks like a set of standards for guiding and measuring environmentally sustainable planning and urban design for a neighborhood or large-scale development. In fact, the effort began with that goal in mind, but as the two-year process unfolded, its sponsors (NRDC, CNU, and the U.S. Green Building Council) and the blue-ribbon panel they had assembled from many disciplines came to feel that no single perspective could cover every contingency. Instead, the participants ultimately defined sustainability not as a strictly environmental goal but as a holistic paradigm that recognizes a broad range of social, economic, cultural, and environmental qualities that work together to create a sustainable community.

The American Institute of Architects (AIA) launched the second of these initiatives, its Center for Communities by Design program. It promoted the concept of “livable communities” grounded not in a theoretical framework but in pragmatic best practices for urban design, given emerging demographic, social, economic, and environmental trends. The Center’s *Livability 101* focuses on a complementary set of “essential elements” that show how planning and urban design can support quality of life. The book identifies “ten principles for livable communities,” which addressed the pressing issues of 2005, the year it was published. For example, the book discusses best practices for creating a distinctive sense of place, rethinking the role of streets, designing communities to enhance personal health, and protecting environmental resources. A comparable publication issued ten years from now will probably identify a different set of principles—which is precisely the point, since they are intended to reflect the real-time issues facing communities and urban design.

The burst of intellectual ferment that this chapter describes began at the 1956 Harvard Conference where Josep Lluís Sert first used the term *urban design* barely six short decades ago. This chapter—and this book as a whole—are an invitation to build on previous work and produce a body of urban design theory as yet unimagined and more humane than we have yet envisioned.

## Notes

- 1 Doug Kelbaugh, *Common Place: Toward Neighborhood and Regional Design* (Seattle: Univ. of Washington Press, 1997).
- 2 Ibid.
- 3 The term *syncretic* refers to a fusion of differing systems of belief.
- 4 Kelbaugh, *Common Place*.
- 5 The primary founders of CNU included Peter Calthorpe, Andrés Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides, and Dan Solomon.
- 6 Charles Anderson, interview by Jose E. Gutierrez, *Neto Design TV*, Vimeo, June 1, 2013. <http://vimeo.com/67474930>.
- 7 Nate Berg, “The Official Guide to Tactical Urbanism,” *Atlantic Cities*, March 2, 2012. [www.theatlanticcities.com/neighborhoods/2012/03/guide-tactical-urbanism/1387/](http://www.theatlanticcities.com/neighborhoods/2012/03/guide-tactical-urbanism/1387/).
- 8 Anderson, interview by Gutierrez.
- 9 Ironically, Joel Garreau’s influential 1991 book *Edge City: Life on the New Frontier* used Rosslyn as a model of newly emerging suburban downtowns shaped around automobiles.
- 10 American Grapefruit Media, *A New Face for an Old Broad*, Vimeo, April 7, 2011. <http://vimeo.com/22106488>.
- 11 Berg, “Official Guide.”
- 12 Matthew Passmore, “Participatory Urbanism,” *Urbanist*, no. 489 (Feb. 2010). <http://www.spur.org/publications/urbanist/2010-02>.
- 13 Kaid Benfield, “Cities, Sustainable Placemaking, and the Careful Use of Words,” *Switchboard: Natural Resources Defense Council Staff Blog*, Sept. 5, 2012. [http://switchboard.nrdc.org/blogs/kbenfield/cities\\_sustainable\\_placemaking.html](http://switchboard.nrdc.org/blogs/kbenfield/cities_sustainable_placemaking.html).



## CHAPTER 6

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# Urban Design for an Urban Century: Principles, Strategies, and Process

For roughly sixty years, the American dream of a community shaped around a suburban single-family house with a yard and two cars in the driveway promising easy access to jobs, shopping, recreation, and education served as a near universal template for shaping American communities. This dream drew on a powerful American belief in self-reliance and the rewards of individual endeavor. A man's home was his castle, went the pre-feminist formulation, and hard work would guarantee anyone the ability to buy that castle.

The dream grew naturally from its era. In the 1950s and '60s, individual hard work did pay off for many Americans: the middle class grew while income disparities shrank; industries and their jobs stayed put. The "environment" for most people meant a national park. A sense of community developed naturally in ethnically and culturally homogenous neighborhoods: three-quarters of all households included children, and residents in the same neighborhoods shared the same schools, parks, and churches. Main Streets were for running errands. In an entirely human reaction to two

decades of economic depression and wartime privation, most Americans concentrated on achieving middle-class economic status and enjoying the material comfort that came with it—most visibly, a chance to trade the confines of a small urban apartment for a car and a detached house in the suburbs. While this picture oversimplifies the era, it does suggest a widely shared and culturally reinforced system of perceptions and ideals. Most Americans considered them common sense.

This belief system combined two sets of values that can appear contradictory, one with deep roots in the American psyche and one that became widely influential only after World War II. Dating back to the Colonial era, owning land had *mattered*, conferring the right to vote in the early days of the republic, lauded by the Founding Fathers as a bulwark of democracy, and endorsed by waves of European immigrants who arrived throughout the nineteenth century. That ingrained tradition joined with a self-conscious desire to embrace the new and "modern" that emerged after World War II. The modernist movement increasingly influenced American



culture during this period with its dismissal of all things old-fashioned. In architecture and planning, it sought to replace traditional urban form (styles, materials, and the relationship of buildings to each other and their settings) with new forms and physical environments considered more rational, egalitarian, and democratic. In a sense, the modernist impulse combined with the established love of land ownership to articulate a moral rationale for suburban living. Not only did suburbia offer middle-class families an opportunity to own their own castles, it was also an opportunity cast off the pall of the Depression and the war and celebrate the values of this new age.

The American dream circa 1960 no longer fits American society today, which by comparison looks like an alternate reality. Today the middle class continues a decades-long contraction, income disparities have returned to the levels of the 1920s, and owning one's own castle has moved beyond the reach of millions of households. Today hard work is most likely to pay off if it sits on the foundation of an expensive college education, but economic circumstances for roughly one-third of Americans make this education impossible to attain, and for another large slice of the population it requires painful sacrifice to pay for. Cities today compete to attract highly mobile knowledge industries and jobs. The word *environment* often seems married to the word *crisis*. Neighborhoods have become more fragmented economically, and with far fewer children (today living in only one-quarter of all households), the sense of community that once derived through shared schools today seems difficult to achieve (new technologies that have turned communication and play into solitary pursuits hardly encourage a sense of community). Main Streets have become "third places," less shopping destinations than alternatives to home and work and hoped-for antidotes to isolation. Realtors today tout a property's Walk Score—a measure of walkability—the way their 1960s counterparts highlighted the quality of the local schools or easy highway access. Authenticity matters. Whereas

1960s eyes saw row house neighborhoods as outmoded and single-family subdivisions as satisfyingly modern, today's eyes see the row houses as beautiful and the subdivisions as stultifying.

When Josep Lluís Sert proposed the concept of "urban design" at a formal conference held at Harvard in 1956, he assigned it a goal well outside that of the then-prevailing idea of the American dream: reviving cities at a time when economic, political, and social forces all strongly favored suburban development. Sert knew that decaying cities faced much more complex challenges than booming suburbs. He acknowledged that complexity by describing urban design as an integration of architecture, landscape architecture, and planning with a mission "wider than the scope of these three professions."<sup>1</sup> Reviving cities would require an in-depth understanding of tangled social, economic, and cultural forces. It would also require a broadened definition of "design."

By the 1950s, architecture had fully embraced the modernist movement, in part as a reaction to thirty years of social inequality, militarism, and economic trauma in the United States and Europe. Modernism transformed architecture, including its subspecialty "city design," into a fine art that sought generally to create beautiful works rather than a civic art that aimed to balance aesthetics and function. Urban renewal—a broad movement to rebuild "archaic" city centers to accommodate cars and match an academic notion of "modern"—showed the dangers of divorcing city planning from social, cultural, economic, and environmental realities. Sert wanted to destroy the idea of architecture and landscape architecture as fine arts that produced beautiful building-objects. By integrating these disciplines with planning, he thought, urban design could emerge as a social or civic art whose charge was the creation of successful communities.

Chapter 3 described dramatic changes in the conditions that gave rise to the midcentury American dream. A new constellation of forces has given cities—and urban design—new prominence. Chapter 4 dealt with



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The city is like jazz, and the job of urban designers is to repair the dissonant melody, enhance the rhythm, and make it easier for our fellow musicians to arrive on the stage and play new, more entrancing riffs.

*Brenda Case Scheer, dean, College of Architecture and Planning, University of Utah*

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opportunities for urban communities unimagined since the Great Depression, and chapter 5 enumerated schools of urbanism whose theories offer different approaches to achieving these goals. Together these chapters suggest

that the time has come to formulate a new and more urban American dream. This chapter doesn't attempt to do so, but it does offer something just as important: an urban design paradigm that adapts Sert's idea of a civic art to the realities of America in the twenty-first century. This paradigm starts with principles for applying urban design—concrete and designed with plenty of flexibility to address the varying dynamics that govern a given time and place. These principles build on Sert's belief that urban design represents a melding of planning and design. They also recognize that today policy also plays a central role in shaping urban design outcomes.

## BRIDGE STREET CORRIDOR PLAN (DUBLIN, OHIO)

- **Program:** Rethink how a successful suburb can grow by redirecting 10 to 15 million square feet of sprawl development expected over twenty-five years to a higher-density, walkable new center.
- **Area:** 1,000 acres on either side of a mile-long section of Bridge Street
- **Design team:** Goody Clancy (urban design)
- **Developer:** City of Dublin
- **Award:** CNU Charter Award (2012)
- **Web:** <http://dublinohiousa.gov/planning/bridge-street-district/>

With affluence, fifty thousand high-quality jobs in corporate office parks, and high rankings on national lists of best places to live, Dublin had earned the right to be complacent.

Long committed to its self-image as a preeminent golf-course community dominated by large-lot, single-family homes, two concerns prompted officials and residents to explore a new direction: an aging population meant that sellers in the housing market (mostly old) would soon

outnumber buyers (mostly young), while high-tech businesses facing stiffening competition for educated, creative workers—even during the recession—had begun to talk about following their workers to more urban environments.

Dublin launched a community-based visioning process to create a “lively, walkable, higher-density” downtown that would dramatically reposition it as a suburb known for urban amenity and smart growth. Market studies demonstrated that demand already existed for compact, mixed-use development. The city organized a series of public meetings focused on changes in the real estate and job markets and featuring nationally recognized speakers, who also met with public officials, property owners, and developers. Residents talked about wanting a community that welcomed people of all ages, incomes, and backgrounds—and of creating a new central park that could bring the entire community together. A series of charrettes formulated a vision and shaped a planning framework and an extensive revision of the zoning code. Ultimately, both residents and elected officials embraced a plan that few imagined possible a few years earlier.

*(continued)*



(continued)



6.1 Ganesh Ramachandran rendering, courtesy Goody Clancy



6.2 Ganesh Ramachandran rendering, courtesy Goody Clancy





6.3 Courtesy Goody Clancy

## Principles

The previous five chapters set the stage for identifying core principles to guide urban design for this era. These principles begin with enhancing livability, which in turn represents a key step toward achieving the second principle—creating a greater sense of community. Together, these are prerequisites for the principles of expanding opportunity and promoting greater equality. Finally, these four form a necessary foundation for the fifth principle: fostering sustainability. We don't claim these principles will prove timeless or are universal. They do, however, identify essential priorities for urban design over the next decades of extraordinary growth and change in the United States. The

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In fixing broken urbanism, in the words of Jan Gehl, principal, Gehl Architects, think, "First life, then spaces, then buildings: the other way around never works."

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principles, and the strategies that go with them, will need to evolve in response to changes in demographic, economic, social, economic, cultural, and environmental conditions.

1. **Enhance livability:** Offer the widest possible individual choices for living healthier, more satisfying lives.

America abounds in drivable environments that offer limited choices for living, working, shopping, and entertainment. That model might have worked universally in 1960, when mass-market culture ensured that everyone could find satisfaction by choosing from a few defined options. But that doesn't work today. We live in a far more diverse society and have the capacity to connect with people of similar tastes and interests to create smaller but viable markets (land use economist Leanne Lachman calls the United States today "a nation of niches"). Today, livability benefits strongly from



walkable environments that offer ready access to a broad range of life choices, and urban designers should make creating such environments their top priority.

2. **Create community:** Invite people from all walks of life to engage each other.

For generations, most Americans of all races and incomes found ready community in the churches, schools, parks, and even workplaces they shared. Ironically, segregation, suburbanization, and single-use zoning reinforced the homogeneity that nurtured this sense of community. As America increasingly becomes a “nation of niches,” people increasingly seek the experience of community that American life no longer provides as a matter of course. The work of urban design is to nurture that sense of community.

3. **Expand opportunity:** Make cities and regions more economically competitive.

As knowledge industries grow more important to the U.S. economy, thriving cities become essential to regions hoping to lure better jobs and the investment the companies hiring for those jobs bring with them. Cities can provide the dense, walkable environments that attract talent, promote culture, and nurture innovation. The trillions of public dollars invested in regional highways and sprawl since 1950 have undermined cities’ ability to do these things, in the process leaving them ill-prepared to compete in a global knowledge economy. Urban designers must equip cities to compete by creating livable, community-rich urban centers.

4. **Promote equality:** Advance equitable access to livability, community, and opportunity.

A growing “opportunity gap” has raised income disparities to record levels and pushed millions of

poor Americans out of center cities and further from access to transit, jobs, healthcare, and education—the very resources they need to succeed. Displacement deepens the misery, longevity, and social costs of poverty—which research shows degrades quality of life across all income and social levels. Urban design plays a central role in creating environments that help make society more equitable.

5. **Foster sustainability:** Pursue a full agenda of environmental responsibility and resilience.

A growing awareness of the costs of sprawl and the rapid acceleration of climate change have set the stage for a new era of regional cooperation. Governments will spend tens of trillions of dollars to improve environmental performance, reverse sprawl, and achieve resilience. Urban designers have a responsibility to ensure that investments in resilience translate into improved livability, community, opportunity, and equity.

## Strategies for Achieving the Principles: Policies, Planning, and Placemaking

Urban design relies on three core strategies: policies that translate political, social, environmental, and similar values into concrete goals; planning that provides a broad framework for achieving these goals; and placemaking that translates these frameworks into the physical environment we inhabit.

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Placemaking provides the link between urban excellence, economic development, and sustainability.

*Larry Beasley, former codirector of planning, Vancouver, B.C.*

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**Table 6.1 Policy, Planning, Placemaking**

Policy	Planning	Placemaking
Create a comprehensive transportation network	<ul style="list-style-type: none"> <li>• <b>Connect people from home to the region</b> via an integrated hierarchy of walkable streets (safe, and animated by retail or other activity); bikeways; bus, streetcar, and innovative neighborhood-scale transit; and rail transit.</li> <li>• <b>Integrate transit into a walkable environment.</b> “Extend the walk” by creating a network of walkable streets that connect public transportation to neighborhood destinations within a 5-minute walk in the core (1/4 mile) and a 10-minute walk (1/2 mile) elsewhere.</li> <li>• <b>Give priority to people over traffic.</b> For example, emphasize walkability over promoting traffic capacity; choose curbside parking along a retail or residential street over enhanced vehicle capacity; and reserve neighborhood streets for neighborhood uses—through traffic belongs on arterial roads.</li> <li>• <b>Establish a connected system of complete streets</b> that balances the full range of users, including pedestrians, bicyclists, motorists, and transit riders. Make them accessible to people of all ages and levels of mobility.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Make transit a focus and animator of the public realm.</b> Design transit stations as public spaces that are civic, inviting, and prominent. For example: <ul style="list-style-type: none"> <li>✓ <b>Design bus and streetcar stops as civic art</b> that contributes to and celebrates community character, offers protection from weather, clearly announces its presence, and can generate revenue.</li> <li>✓ <b>Design rail-transit stations as civic amenities</b> and make the most of their ability to enliven squares and other public places through both their design and their ability to draw many members of the community by including stores and similar uses.</li> </ul> </li> <li>• <b>Design urban streets to play a variety of roles in community life.</b> In addition to moving traffic, streets can: <ul style="list-style-type: none"> <li>✓ <b>Serve as places for informal and chance meetings.</b></li> <li>✓ <b>Meet different community needs at different times of day, on different days of the week, in different seasons</b> with uses such as evening strolls, weekend markets, and seasonal festivals.</li> <li>✓ <b>Convey neighborhood identity and character</b> through each element, from paving to lighting to streetscape design.</li> </ul> </li> </ul>
Concentrate growth in transit-served nodes.	<ul style="list-style-type: none"> <li>• <b>Use land efficiently.</b> Ensure that every investment contributes to quality of life, walkability, sense of community, and similar goals.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Assume that the primary responsibility of buildings</b> is enlivening, framing, and enriching the public realm.</li> </ul>

*(continued)*



**Table 6.1 (continued)**

Policy	Planning	Placemaking
<p>Concentrate growth in transit-served nodes (<i>cont.</i>).</p>	<ul style="list-style-type: none"> <li>• <b>Seek a mix of uses and proximities, densities, and heights</b> that support community needs and aspirations, quality of life, character, and values.               <ul style="list-style-type: none"> <li>✓ <b>Mix uses and proximities.</b> <ul style="list-style-type: none"> <li>◦ <b>Create walkable neighborhoods.</b> <ul style="list-style-type: none"> <li>■ <b>Urban core</b> (<i>Generally within 3 miles of downtown in highly urbanized metro areas of more than 2.5 to 3 million [e.g., Baltimore, Pittsburgh, Seattle]; within 1 to 2.5 miles for other regions.</i>): Concentrate a variety of housing, retail, entertainment, public space, work, and other quality-of-life choices within a 5-minute walk of each other.</li> <li>■ <b>Outside the urban core:</b> Concentrate quality-of-life choices within a 10-minute walk of each other.</li> </ul> </li> <li>◦ <b>Create Main Streets.</b> Concentrate one to two thousand housing units within a five-minute walk (urban core) or a 10-minute walk (elsewhere) to support each block of walkable, mixed-use activity.</li> <li>◦ <b>Create innovation communities:</b> Add several million sq. ft. of research and education to the choices available in a walkable neighborhood.</li> <li>◦ <b>Create downtowns.</b> Add several million sq. ft. of office, cultural, civic, educational, healthcare, and/or similar uses to the choices available in a walkable neighborhood.</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Value local urban design “culture,”</b> which plays a strong role in shaping placemaking. For example, Chicagoans take pride in tall downtown buildings, while Washington, D.C., forbids them. Bostonians tend to favor contextual design, while Seattleites tend to prefer a strongly contemporary appearance. Virtually every community, however, recognizes the virtue of consistent street walls that define and animate public streets.</li> <li>• <b>Use building rhythm, articulation, and human scale, and active uses</b> at street level to animate the public realm.</li> <li>• <b>Design height and massing</b> to respect and reinforce existing context, but not to duplicate it:               <ul style="list-style-type: none"> <li>✓ <b>Modulate height</b> to embody and celebrate traditional character and emerging character and to advance other goals. For example:                   <ul style="list-style-type: none"> <li>◦ <b>Visibly respect the lower scale of an adjacent neighborhood or historic district,</b> often by stepping down rather than limiting maximum height.</li> <li>◦ <b>Celebrate the character of a traditional Main Street,</b> often by matching traditional cornice lines (often 35–85 ft.) and setting upper stories back from the street.</li> </ul> </li> <li>✓ <b>Vary massing, mix materials, match bay rhythms,</b> and take similar steps to express continuity with existing context as well as to add visual interest. For example:                   <ul style="list-style-type: none"> <li>◦ <b>For places with distinctive historic or traditional character,</b> match predominant floor plates.</li> </ul> </li> </ul> </li> </ul>



Policy	Planning	Placemaking
	<ul style="list-style-type: none"> <li>✓ <b>Density</b> <ul style="list-style-type: none"> <li>○ <b>Respect and reinforce historic districts:</b> Preserve existing densities.</li> <li>○ <b>Create sufficient value to trigger redevelopment of strip retail or other auto-oriented environments:</b> Often 2 to 4 times existing (usually very low) density.</li> <li>○ <b>Create “walkable densities”</b> that support choices for living, working, shopping, socializing, and recreation: <ul style="list-style-type: none"> <li>■ 30–60+ units/buildable acre within a 5- to 10-minute walk to bring a Main Street to life</li> <li>■ 80–100+ units/buildable acre within a 5- to 10-minute walk of a supermarket</li> </ul> </li> </ul> </li> <li>✓ <b>Height</b> <ul style="list-style-type: none"> <li>○ <b>Bear in mind that the default height for new buildings is 4 or 5 stories in most communities,</b> the height permitted under local codes for less-expensive frame construction.</li> <li>○ <b>Respect and reinforce historic districts and traditional neighborhoods,</b> generally by matching prevailing heights.</li> <li>○ <b>For more eclectic areas</b>—downtowns, urban Main Street, outmoded industrial areas, innovation communities, grayfields—existing heights don’t necessarily signal appropriate new heights. A variety of taller heights, possibly with innovative design, can convey a spirit of change, new vitality, a transition to mixed uses, or serve other purposes, such as celebrating a new identity or adding a new generation of housing.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ <b>In walkable settings, avoid a single continuous facade</b> that continues beyond 150–200 ft. (roughly half the length of a conventional city block).</li> <li>● <b>Design a building’s base, middle, and top</b> to play different roles in helping the building relate to its context. For example: <ul style="list-style-type: none"> <li>✓ <b>The base (street level) frames and animates the public realm.</b></li> <li>✓ <b>The top conveys “headlines.”</b> Is this building unique or part of an ensemble? Would its setting benefit from an iconic element or shape visible from other areas? Does the building announce changes in its environment (e.g., an edgy design that proclaims evolving community values) or affirm the status quo (e.g., a traditional design that proclaims a commitment to staying the course)?</li> <li>✓ <b>The middle offers more information.</b> Transparency reveals the life of a civic building and animates the public realm.</li> </ul> </li> <li>● <b>Express community values</b> with direct relevance to the built environment. For example, a building can showcase its commitment to sustainability and diversity through green roofs and walls, and public spaces that clearly welcome everyone; a community’s focus on art, civil rights, or music can take the form of public art and street-level programming; and architecture can readily convey the innovative focus of a research district or a commitment to tradition along a 19th-century Main Street.</li> </ul>

(continued)



**Table 6.1 (continued)**

Policy	Planning	Placemaking
<p>Concentrate growth in transit-served nodes (<i>cont.</i>).</p>	<ul style="list-style-type: none"> <li>○ Avoid creating new shadows, wind, and other impacts on valued public spaces through the careful massing of buildings, limitations on height, and similar means.</li> <li>• <b>Examples of transit-served nodes</b> (synergistic mix of uses, proximity, density, height): <ul style="list-style-type: none"> <li>✓ <b>Mixed-use suburban center</b> (e.g., Reston Town Center): <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR<sup>+</sup> of 2.0–4.0+</li> <li>▪ <b>Height:</b> 3–7+ floors</li> </ul> </li> <li>✓ <b>Walkable, mixed-use neighborhood outside the core:</b> <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR for buildable sites of 1.0–2.0+</li> <li>▪ <b>Height:</b> 3–7+ floors</li> </ul> </li> <li>✓ <b>Walkable, mixed-use neighborhood in the core</b> <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR for buildable sites of 1.5–2.5+</li> <li>▪ <b>Height:</b> 3–7+ floors</li> </ul> </li> <li>✓ <b>Walkable urban Main Street</b> <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR for buildable sites of 2.0+</li> <li>▪ <b>Height:</b> 3+ floors</li> </ul> </li> <li>✓ <b>Walkable innovation community</b> <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR for buildable sites of 3+</li> <li>▪ <b>Height:</b> 7+ floors</li> </ul> </li> <li>✓ <b>Walkable downtown</b> <ul style="list-style-type: none"> <li>▪ <b>Density:</b> FAR for buildable sites of 4+</li> <li>▪ <b>Height:</b> 7+ floors</li> </ul> </li> </ul> </li> </ul>	



Policy	Planning	Placemaking
Promote social and economic inclusion.	<ul style="list-style-type: none"> <li>• <b>Address the impacts of transition for communities facing dislocation.</b> Measures might include increasing density to add new residents without displacing existing ones, ensuring housing affordability through set-aside provisions or other mechanisms, and preserving traditional neighborhood culture.</li> <li>• <b>Practice “targeted universality.”</b> Plan for the transportation, housing, and employment needs of the entire community, with a particular focus on those most in need.</li> <li>• <b>Link education, workforce readiness, healthcare, and other human-service initiatives</b> to physical development projects.</li> <li>• <b>Preserve and expand neighborhood diversity</b> with housing and services targeted to people of many ages, incomes, and backgrounds who want to contribute to a vital, diverse neighborhood.</li> <li>• <b>Promote densities that preserve neighborhood character while accommodating diversity.</b> For example, add accessory units in single-family neighborhoods and introduce appropriately scaled new housing to bring moderate- and higher-cost options into the mix while preserving existing low-cost housing.</li> <li>• <b>Preserve neighborhood culture that contributes to identity and character.</b> For example, musicians who lead street parades and funerals through local neighborhoods in New Orleans; pioneering artists who convert industrial space and lay the groundwork for residential redevelopment; long-time restaurants and unique businesses; and other distinctive neighborhood elements that contribute to inclusive placemaking.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Create design models for making diversity work.</b> For example: <ul style="list-style-type: none"> <li>✓ <b>Design housing that serves a diverse community</b> by mixing a range of types—for example, micro apartments, apartments sized for families, and a range of other options within new developments and scattered among existing housing.</li> <li>✓ <b>Practice “inclusive design”</b> that does not distinguish subsidized from market-rate housing.</li> <li>✓ Create social spaces that draw together people of different ages, backgrounds, and incomes.</li> </ul> </li> </ul>

(continued)



**Table 6.1 (continued)**

Policy	Planning	Placemaking
<p>Create a complete public realm.</p>	<ul style="list-style-type: none"> <li>• <b>Make the public realm the focus at every level of development.</b> For example: <ul style="list-style-type: none"> <li>✓ <b>Region:</b> prominent woodlands and farmlands, accessible natural resources like lakes and beaches, outdoor recreation</li> <li>✓ <b>City:</b> a central park</li> <li>✓ <b>Neighborhood:</b> walkable streets, squares, and parks</li> </ul> </li> <li>• <b>Let streets, squares, and parks evolve over the day, the week, and the year with “temporary urbanism,”</b> such as parklets, food trucks, limited-run art installations, and pop-up stores and performance spaces.</li> <li>• <b>Link all elements of the public realm</b> with a network of bikeways, jogging trails, and walking trails or pedestrian-focused sidewalks.</li> <li>• <b>Create a continuum of choices in urbanized areas for the public realm:</b> <ul style="list-style-type: none"> <li>✓ <b>Offer experiences ranging from the most personal to the most public,</b> from a porch or stoop to a street shared with neighbors, to a lively park and Main Street serving the entire neighborhood, to active public squares and activities like festivals that draw the full community.</li> <li>✓ <b>Support activities from quiet to loud, solitary to crowded.</b> For example, designate areas that allow late-night music (and loud fun) and others that protect quiet contemplation.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Design the public realm to delight the senses.</b> Make placemaking about people—trees that shade, uses that animate the street, places to lie in the sun or watch wildlife (a fish ladder, a nesting area for ducks), opportunities to touch and play in water or watch people in a public square, public art that intrigues and tells stories about a place and time and any amenities that offer a rich mix of sounds, sights, and scents to engage users and passersby.</li> <li>• <b>Encourage walking, rather than simply making it possible.</b> People will generally walk about a quarter mile to a familiar destination, but fostering less intentional connections or creating new ones often requires concerted efforts to animate the pedestrian experience with continuous retail or other engaging uses; clear, coordinated, and well-designed signs and map systems; building facades that offer human scale and interest; plaques or markers that explain local history; or intriguing vistas of a destination or important connection.</li> <li>• <b>Shape the public realm around human activity,</b> and pay special attention to walkable areas. For example: <ul style="list-style-type: none"> <li>✓ <b>Use space “consciously” to animate the pedestrian experience.</b> For example, favor outdoor dining, people-watching, or interactive public art over ornamental landscaping.</li> </ul> </li> </ul>



Policy	Planning	Placemaking
		<ul style="list-style-type: none"> <li>✓ <b>Match the dimension of every element of the public realm to its function.</b> For example, sidewalks should be wide enough to accommodate pedestrian traffic, street trees and other streetscape elements (including bike parking), and, where appropriate, activities such as outdoor dining. Do not plan sidewalks using abstract widths; they should rarely exceed 24 ft. from curb to building line, and 6–12 ft. is often sufficient (except where accommodating a specific activity such as outdoor dining requires greater depth).</li> <li>✓ <b>Configure neighborhood parks to house intended activities and amenities</b> to support their role as centers of community life. Avoid parks too large for their purpose, which can become barriers. One block is generally sufficient for a neighborhood park; a park with recreational activities may require two to three acres.</li> <li>✓ <b>Make squares and plazas sufficiently compact</b> (generally no more than a city block) so that people can readily cross from one side to the other.</li> </ul>
Create “common grounds.”	<ul style="list-style-type: none"> <li>• <b>Establish a civic “forum”</b>—a central gathering place for public celebrations and shared grief, free speech, and similar aspects of public life.</li> <li>• <b>Plan, program, and design public places that actively invite people to transcend physical and social dividing lines</b> that reinforce race, class, income, and other divisions. For example, include play fountains, an eclectic mix of sports, a carousel, festivals that draw on diverse cultures, and similar attractions.</li> </ul>	

(continued)



**Table 6.1 (continued)**

Policy	Planning	Placemaking
<p>Create “common grounds” (<i>cont.</i>).</p>	<ul style="list-style-type: none"> <li>• <b>Manage public places to foster community.</b> Create or designate an organization to animate a public space with music, food, technology, and other amenities that mix culture, fun, and commerce.</li> <li>• <b>Designate portions of the public realm for shared endeavors.</b> These could include community gardens, a regular farmers market, or boat-rental programs in a park or on a river.</li> </ul>	
<p>Plan and design to promote environmental responsibility.</p>	<ul style="list-style-type: none"> <li>• <b>Aim for zero impact</b>—in carbon and other footprints.</li> <li>• <b>Favor engineered ecological systems over traditional infrastructure wherever possible.</b> For example, use rain gardens to capture and clean stormwater, and rooftop agriculture to save energy and diminish the heat island effect.</li> <li>• <b>Integrate new and existing development into “eco-districts” to improve the performance of buildings.</b> For example, use emerging technologies to generate energy and manage demand spikes, to manage and reuse graywater, and to conserve resources.</li> <li>• <b>Create dynamic zoning and other development regulations</b> that adapt environmental goals and measurements to evolving performance standards and technologies (e.g., green building, emissions, energy, waste water).</li> <li>• <b>Pursue green energy</b> and other environmental initiatives that offer residents and businesses cleaner air and water, predictable energy prices, and regional energy solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Celebrate sustainability in both the public realm and buildings:</b> <ul style="list-style-type: none"> <li>✓ <b>Endow the public realm with opportunities to enjoy urban nature</b>—for example, gardens, bioswales, and landscaped canals in place of infrastructure and hardscape.</li> <li>✓ <b>Make green design conspicuous</b> by using green roofs, planted walls, renewable and recycled materials, and publicly accessible data reporting to show such things as real-time building energy use.</li> </ul> </li> <li>• <b>Find artful ways to use green energy that enrich the public realm.</b> For example, incorporate wind turbines or solar panels as architectural or sculptural elements.</li> </ul>



Policy	Planning	Placemaking
Promote smart growth.	<ul style="list-style-type: none"> <li>• Collaborate across political boundaries to <b>target growth and investment</b>. For example, consider the “growth boundary” model pioneered in the Pacific Northwest that directs growth and infrastructure investment to built-up areas.</li> <li>• <b>Retool suburbs and cities alike for an era of more concentrated growth</b>, including regional investment in transportation, public spaces, and similar quality-of-life infrastructure.</li> <li>• <b>Reclaim brownfields and grayfields</b> by investing in transportation, the public realm, and street grids.</li> <li>• <b>Conserve undeveloped lands and habitats.</b> <ul style="list-style-type: none"> <li>✓ Pare damage to natural systems and preserve them for the future by cleaning air and water, restoring natural habitat, and protecting threatened species.</li> <li>✓ Transfer development rights from undeveloped to developed areas.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Integrate new urban growth—including brownfields and grayfields redevelopment—into the existing urban context.</b> For example, connect new streets into the existing grid, and create parks and public spaces that serve both new and existing development.</li> <li>• <b>Create low-impact design guidelines for the edges of natural habitats, woodlands, agricultural land, and sensitive wetlands or watershed areas.</b></li> </ul>
Build in resilience: reinforce rather than relocate communities.	<ul style="list-style-type: none"> <li>• Recognize the extraordinary human, social, and economic costs before considering relocating all or part of an intact community.</li> <li>• <b>Make sure that investments in resilience are investments in community-building.</b> For example, the dollars spent on protecting a community can also fund parks, improve transit, revitalize waterfronts, fund housing improvements, and support similar community-building measures.</li> </ul>	<ul style="list-style-type: none"> <li>• Approach resilience as placemaking: <ul style="list-style-type: none"> <li>✓ Design “soft” measures as public realm. For example, wetlands, barrier islands, and canals can serve as urban wilds, nature refuges, beaches, and greenways. Explore innovative strategies for adding these features to development sites, such as engineered wetlands or induced oyster beds. To address rising temperatures, plant trees, create “cooling parks,” and add fountains. Enrich architectural expression with rooftop gardens, brise-soleils, and overhangs that shelter pedestrians and shade buildings; and expressive structural systems that add seismic hardening.</li> </ul> </li> </ul>

(continued)



**Table 6.1 (continued)**

Policy	Planning	Placemaking
Build in resilience: reinforce rather than relocate communities (cont.).	<ul style="list-style-type: none"><li>• <b>Use natural and engineered approaches to protect developed areas.</b> For example, follow the Dutch example of mixing wetlands with man-made structures ranging from barrier islands to floodgates and seawalls to protect against the impacts of climate change and rising sea levels.</li><li>• <b>Harden infrastructure</b> to survive natural events. For example, design and engineer utilities, transit, communications, and similar systems to resist floods, winds, earthquakes, and similar hazards.</li><li>• <b>Create places of refuge as an alternative to evacuation to minimize disrupting community life.</b> For example, transform community facilities such as police stations, libraries, and health clinics into places of refuge.</li></ul>	<ul style="list-style-type: none"><li>✓ <b>Design “hard” measures as city-building.</b> For example, seawalls can become waterfront promenades, the foundations for expanded downtowns, or found land for a cultural facility.</li><li>✓ <b>Design new infrastructure as public art.</b> For example, elevated subway ventilation grates can do double duty as artful street sculpture or benches; water infiltration from rising sea levels can become cascades that enliven public spaces.</li><li>• <b>Prepare resilience design guidelines</b> to ensure that houses elevated to withstand floods include porches and other elements that keep them connected to the street; that civic buildings designed to shelter neighbors during severe weather remain good aesthetic neighbors at other times; and that older commercial buildings use retrofitting for high winds, other severe weather, or earthquakes to enhance their relationship to the street.</li></ul>

\*FAR: As defined in chapter 4, floor-area-ratio, a measure of density and intensity of site coverage. A FAR of 1.0 for a parcel, in its simplest form, means a one-story building that covers the entire parcel. That massing, however, could be arranged in other ways to cover less of the parcel with a taller building. For example, a building that only covers one-quarter of the parcel would still have a FAR of 1.0 if it were four stories high. For the purposes of this discussion, FAR is based on the net buildable site, not including public streets, parks, and environmentally protected areas.

## Process that Supports the Principles

### The devil you know: Moving past NIMBY

The architect Michael Pyatok, widely admired for his mixed-income urban housing, argues that a term often used to criticize opposition to development, “NIMBY”

(not in my back yard), oversimplifies and misstates neighborhood concerns. “Today,” as he noted in a 2012 address, the increasingly uncharted nature of urban growth “brings change to people’s front doors . . . and in most cases that change is not exactly familiar or instinctively welcome.”<sup>2</sup> Saying no to unfamiliar change can be a fully rational default reaction when the speed of development has accelerated and the scale of development



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**My job as an urban designer is to collaborate with people in many disciplines to bring creative problem-solving, big-picture perspective, and innovative thinking to the implementation of a wide range of public policies that otherwise might have been guided only by economics or politics.**

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*Rebecca Barnes, FAIA, university architect, University of Washington, Seattle; former chief planner, City of Boston*

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has increased. Many communities may legitimately fear a repeat of negative impacts that resulted from previous development—including increased traffic, gentrification, and loss of traditional neighborhood character. A city hall, hospital, or recreation center can trigger this reaction as readily as an office building or housing development. It can occur in a suburb or a city, in rich or poor communities, and across regions or in a specific neighborhood.

Until roughly thirty years ago, urban design operated essentially as a command-and-control process. From highways that cut entire neighborhoods in half to urban renewal measures that eviscerated others, this model rarely produced the best plans (which, in a top-down process, may not even be the ultimate intention). Command-and-control works when a leader—a mayor, a university president, or a developer—can execute a plan regardless of community buy-in. It has become increasingly rare, because the idea that a project can succeed without community support almost inevitably turns out to be wrong. Where it does occur—for example, in the early recovery planning for New Orleans following Hurricane Katrina or in the wholesale conversion of large industrial districts—urban designers carry an extra responsibility to seek out stakeholders, possibly from focus groups or proxies, who can best represent the perspectives of stakeholders who lack a voice in the process.

Proponents of top-down planning often argue that it saves time and enables experts to develop a better plan

than a “messier” open process would yield. Aside from the ethical weakness of that argument, community-based urban design—the second approach—has generally yielded better plans and makes implementing a plan much easier. A community-based process draws ideas from diverse stakeholders, provides a forum for testing those ideas from multiple perspectives, and compels participants to work with one another to define and improve cost/benefit trade-offs. In an era of increasingly scarce public resources and a growing role for public/private partnerships, a community-based process delivers two additional benefits: it brings decision-makers and funders to the table from the start, and it builds the widespread political will necessary to make a strong claim on resources—both public and private. This is the kind of process that supports the principles set out above.

What can happen when change knocks at a neighborhood’s door? Alexandria, Virginia, offers a useful illustration. The beneficiary of a strong regional economy, endowed with miles of waterfront, and served by one of the country’s best regional transit systems, Alexandria’s neighborhoods sit in a strong position to realize the benefits of the current urban revival.

As her first major project, the city’s then new planning director, Faroll Hamer, invited residents of one neighborhood to help the city create a transit-oriented district plan that would take advantage of the presence of a Metro rapid transit station. Hamer and the city envisioned new, high-value development on vacant land close to the station, whose benefits could include transformation of concentrated public housing into mixed-income housing; funding of a needed park; easing a shortage of retail that served the neighborhood; and addressing other longstanding problems. Community leaders had balked at similar planning efforts for five years, during which the city presented ambitious proposals from respected developers, explained their benefits, asked for community support—and met full-throated resistance. Neighborhood



leaders knew that planning within a ten-minute walk of any Metro station in the region raised the possibility of significant new development. They disliked the status quo, but the prospect of more intensive development—no matter the reassurances offered by the city’s planners—sounded worse.

Hamer decided to change the process. She invited stakeholders to engage in a community conversation, with no topic barred, and then to plan. She brought in consultants and speakers, sponsored workshops that brought together public housing residents and newly arrived professionals, and led neighborhood walking tours. The conversation began by asking community members to set the agenda. What did they like about the neighborhood? What did they want to change? How did they think the community should approach the starkly different opinions of longtime public housing residents and affluent new residents? Where was the common ground? As the discussion proceeded, participants began to translate anxieties into questions. How do we decide what kind of higher density—if any—is good for our neighborhood? How many new residents and what kind of development would it take to support a new neighborhood Main Street? Does mixed-income housing really work—and in the marketplace, not just in the hearts of city officials?

Consultants provided hard data about the economics of redeveloping public housing into mixed-income housing and the densities required to prevent the displacement of current residents. Residents were invited to explore trade-offs such as lowering below-grade parking requirements in return for requiring developments to share the cost savings by investing in a new park and street trees. The city and its consultants provided information about the feasibility of developing a public square lined with neighborhood retail to replace a parking lot across from the Metro station—including the densities required to fund a lively public space. Community members then worked with consultants

to create design guidelines that shaped the necessary height and density in ways that would respect adjacent row house blocks. The city openly debated alternative implementation strategies with community members—for example, height and density bonuses in return for additional community benefits and different approaches to design review—and invited community leaders to take a substantive role in managing implementation.

Conversation morphed into an urban design process on the community’s terms, and eight months later Hamer had achieved a remarkable turnaround: strong neighborhood support that crossed lines of race, income, and other divisions, together with unanimous City Council support for a plan shaped around urban design principles that put forces for growth and change in the service of the full community’s needs and aspirations.

## **Community-based urban design: Early in the process**

### *Urban design starts with the stakeholders*

Identifying which stakeholders need to participate in the process starts with questions. Who will be affected by the outcome? Who lives, works, operates a business, or owns property in the study area? What agencies, institutions, developers, or other potential funders will be responsible for implementation? Who are the elected officials or other decision-makers? What historic preservation, sustainability, or other advocates have a stake in the outcome?

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The people who live where place improvement is happening must be involved; the disciplines whose work shows up in the process must coordinate; and the public-private partnerships that drive design and development in the public realm must work more aggressively to include the community voice.

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*Mike Dobbins, urban designer and professor, College of Architecture, Georgia Institute of Technology*

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## NATIONAL 9/11 MEMORIAL (NEW YORK, NEW YORK)

### A community-based planning process synthesizes people, politics, and place.

- **Program:** A museum and memorial commemorating the terrorist attacks on the World Trade Center on September 11, 2001, and February 26, 1993. (The memorial and museum also commemorate the September 11 attacks on the Pentagon and the crash of an airliner in Pennsylvania hijacked to carry out a third attack.) The memorial plaza forms the centerpiece of a larger commercial redevelopment of the World Trade Center site.
- **Area:** 8 acres
- **Design team:** Michael Arad, Handel Architects (architects); Davis Brody Bond (associate architects); PWP Landscape Architecture (landscape architects)
- **Developer:** National September 11 Memorial and Museum
- **Awards:** AIA Honor Award for Regional and Urban Design (2013); American Society of Landscape Architects Professional Award for General Designer (2012)

The 9/11 Memorial demonstrates that a community-based process can produce a sophisticated design solution that integrates multiple functions for a large and complex urban site. The memorial will need to fill an unusually broad set of roles: commemorating the more than 3,000 deaths in the September 11, 2001, destruction of the World Trade Center and other sites; accommodating an intricate layering of subterranean infrastructure, including subways; supporting nearly 12 million square feet of new commercial development around the site; housing both a museum and a cultural facility/meeting space; and restoring connections

to adjacent neighborhoods erased by the original 1960s-era site plan. In fact, the site's emphasis on restoring connections and permeability departs decisively from a venerable American tradition of stand-alone memorial statues and structures.

The design organizes the plaza around two 30-foot-deep shafts that mark the foundation of the destroyed towers, each nearly an acre in size and lined by waterfalls. In addition to its elegant reconciliation of many site functions, the memorial



6.4 Courtesy Michael Arad/Handel Architects

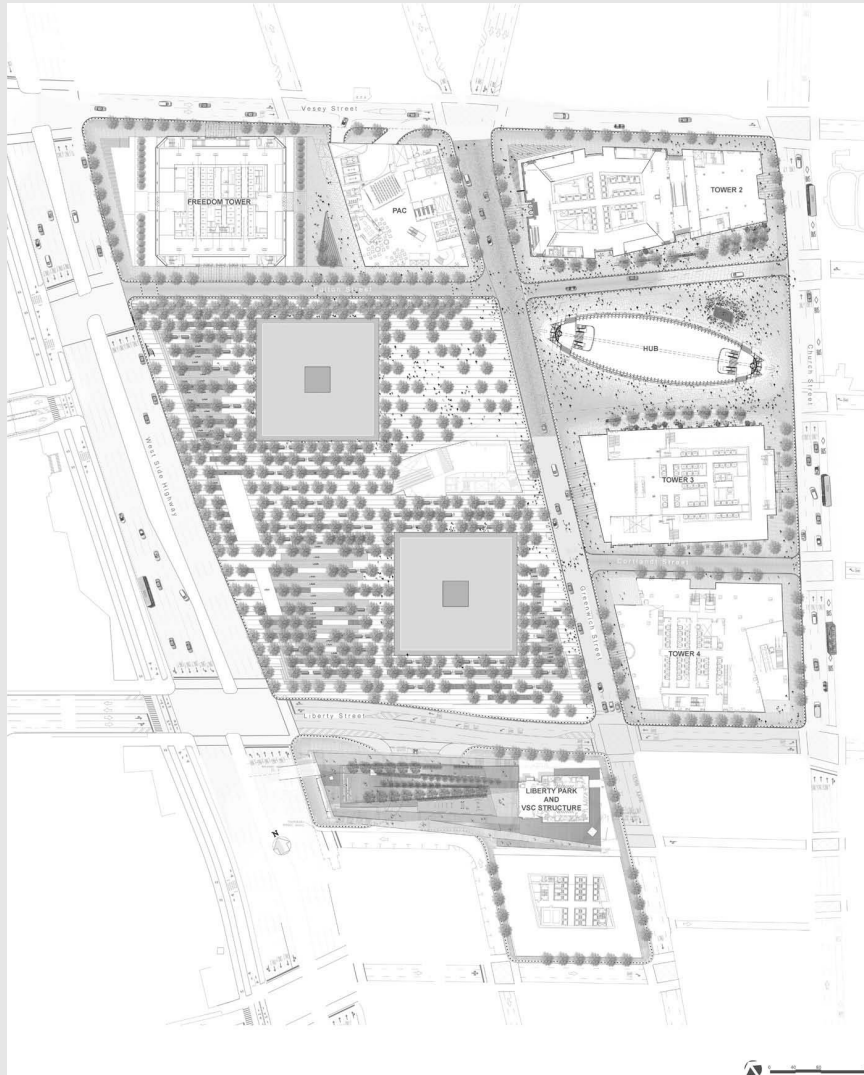
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reflects the emphasis on sustainability that has emerged as an urban design priority. The plaza recycles collected rainwater and snowmelt through a high-efficiency irrigation system to provide most

of the water for a memorial grove of more than 400 oak trees. As it matures, the grove will reduce temperatures on the plaza and cool air throughout the district through evapotranspiration.



6.5 Courtesy Michael Arad/Handel Architects





6.6 Courtesy Michael Arad/Handel Architects



6.7 Courtesy Michael Arad/Handel Architects



Bringing all these stakeholders together to listen to one another, absorb the same technical information together, learn to trust one another, and ultimately make trade-offs and decisions together represents a critical first step toward layering ideas necessary to craft a relevant, rich, and nuanced vision that captures a community's spirit and enjoys widespread support. The full spectrum of the community should be directly involved in the process from start to finish. At the same time, an advisory committee that represents points of view across this spectrum and meets (and debates) regularly plays a particularly valuable role—as community leaders empowered to make decisions and as advisors to the urban designer in shaping the plan (and sometimes the process as well) by adding the right information and perspective.

There is no right way to engage stakeholders. Different approaches work in different circumstances.

A politically divided community may require a series of workshops and charrettes over several months to find common ground. In other communities, an intensive multiday charrette (a method favored by New Urbanists) can produce a great plan as well as support for its implementation. No matter the structure chosen, however, certain ground rules can have a positive impact. These include transparent information sharing and decision-making; agreeing that “100% of zero is zero” (meaning that trade-offs produce better results than refusing to compromise); and a commitment to granting every participant the right to speak freely without retribution in another forum or later in the process. Still relatively new as an urban design tool, social media have demonstrated rich possibilities for broadening engagement in the form of dedicated Twitter feeds, Facebook pages that encourage feedback, crowd-sourced mapping tools for pinpointing areas that require attention



6.8 No single approach to engaging the community works universally. Most processes benefit from a round of (often extensive) one-to-one meetings with key individuals and groups to ensure that everyone has the same understanding of the issues and that everyone gets to know one another in the context of a shared task. After all stakeholders' perspectives are understood, the moment is right to bring the full range of stakeholders together—across lines of income, race, background, role in the process, and other differences—to move from a parallel to a shared planning process. Courtesy of Goody Clancy



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Campus Partners was charged with revitalizing a community of more than 40,000 people that surrounds the Ohio State University. The place-making elements associated with good urban design broke through years of impasse to unlock our ability to achieve long-term success and vitality and has resulted in more than \$100 million in new mixed-use development, including a ground-breaking mixed-use project that will significantly energize the overall revitalization initiative.

*Terry Foegler, former president, Campus Partners for Community Revitalization, Ohio State University, Columbus*

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or offer new opportunities, and online polling tools like SurveyMonkey.

### ***Every idea develops its meaning from its context***

Context involves far more than the study area and its vicinity. It begins with learning and documenting the full spectrum of stakeholder needs and aspirations. Context also means understanding what mix of physical, social, economic, cultural, and environmental issues will shape urban design and determine its success or failure. These will include national demographic, economic, and other trends that have local implications. Yet context must also incorporate a clear sense of place. What are the physical conditions—surrounding uses and character, topography, and views? What are the environmental and climate conditions? Can the project build new social connections between racially or economically divided communities? Can it create amenities that will attract knowledge workers and the investment that follows them? Can it take advantage of predictable demographic changes, from a surge of school-age children learning English as a second language to a wave of retiring baby boomers? Can additional density fund a desired performance hall or theater? Can the project form the nucleus of an eco-district?

### ***Stakeholders as educated decision-makers***

A successful urban design process is in many ways a community-education process. From beginning to end, the urban designer and community members learn from one another. Conveying data and studying their implications in public sessions can build a shared and realistic understanding of opportunities and challenges. A transparent process builds trust among all participants and can defuse opposition from skeptics or people working with outdated information. Participants in the community-education process deserve real information and make far better decisions when they have it. A fully informed process will likely not only produce better results, but produce them faster and with more political momentum: diverse stakeholders armed with the same information and understanding are far more likely to reach consensus.

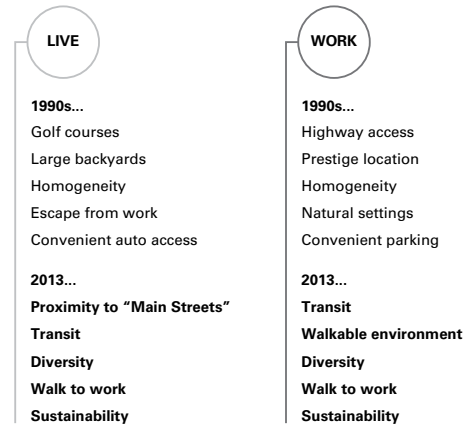
### ***Inject implementation strategies into every step of the process***

The reality of reduced public resources today means that most projects require complex public, private, and institutional partnerships to ensure funding, management, and implementation. Considering potential implementation strategies at the process's inception can identify key stakeholders and help determine the program mix for a real estate development (for example, which uses would create the value needed to pay for affordable housing, public space, or other civic benefits for which no public money exists). Making all stakeholders aware of implementation issues from the start can set realistic expectations and help a community understand the need to build broad political support to secure funding for an ambitious project. Bringing potential partners to the table at the start helps all stakeholders understand one another's goals and gives them a chance to shape a project that meets multiple goals—and has a better chance of winning the support of multiple partners.

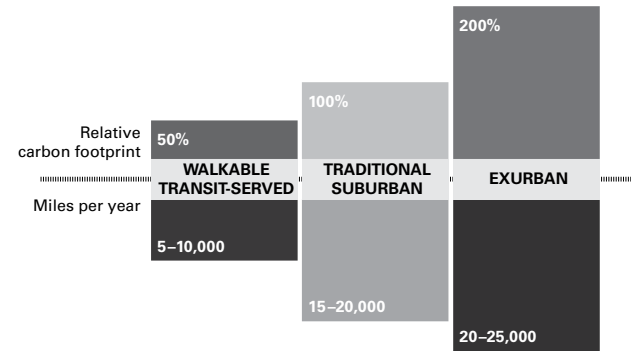




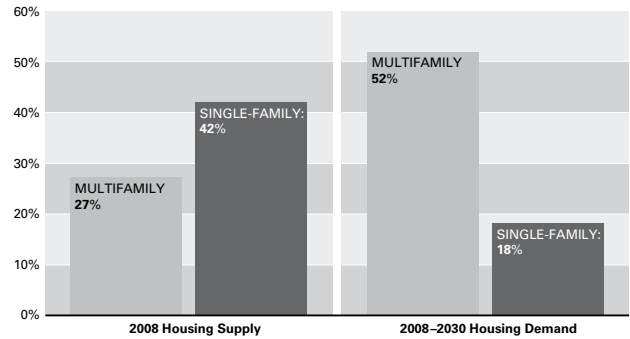
#### TOP PRIORITIES FOR CHOOSING WHERE TO



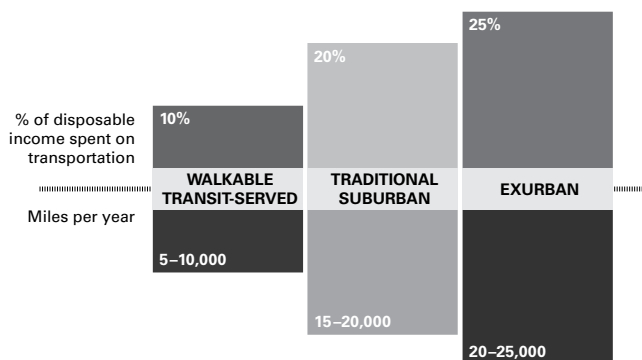
SOURCE Zimmerman/Volk, 2013



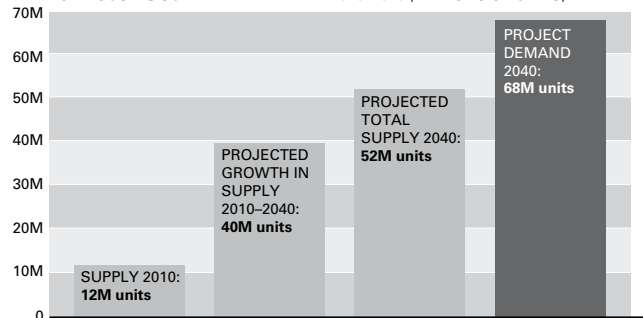
#### WHAT WILL THE U.S. MARKET LOOK LIKE TO 2030?



SOURCE Arthur C. Nelson, keynote lecture, Pace University Land Use Law Center Annual Conference: “Places for People” (2012)



#### TOD HOUSING SUPPLY AND DEMAND 2010–2040 (MILLIONS OF UNITS)



SOURCE Arthur C. Nelson, keynote lecture, Pace University Land Use Law Center Annual Conference: “Places for People” (2012)

6.9 Information that bears on a variety of perspectives—social, economic, and environmental—is critical to providing stakeholders with an understanding of the challenges and opportunities that face them and their community. Courtesy of Goody Clancy



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If they take the long view and get involved with neighborhood actors as part of a strategic framework, universities can be positive forces for building the social fabric of the surrounding area.

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*Patrick E. Clancy, president and chief executive officer, The Community Builders, Inc., Boston*

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## Midway through the process

### *An achievable vision*

Every plan should include a vision—a compelling picture of the future that meets the needs and captures the aspirations of the community. It functions as a kind of mission statement for the community and an organizing framework for the plan itself. A poor understanding of implementation options or an overly ambitious vision can make a plan unworkable. That plan will sit on the shelf (the profession's code for a plan that never gets

implemented) and waste the time, money, and community energy spent on developing it. Plans that are never implemented undermine the value and credibility of urban design.

Part of creating a vision is determining when sufficient information, analysis, and perspective are in hand. Crafting the vision too early can yield a plan that fails to address the full range of opportunities and challenges or does so in a tentative way because participants lack confidence in the implementation. Achievability lies in identifying a believable path to implementation for every concept within the plan document. Funding or legislation may not yet be in place, but each recommendation has a champion, a believable near- and longer-term funding strategy, and broad political support.

### *Giving form to urban design*

An urban design vision exists in two dimensions. One is placemaking, a framework for the physical qualities



6.10 Equipped with a shared understanding of the issues and trends, a highly interactive charrette in which stakeholders from every neighborhood and livelihood work together and make trade-offs can lead to a vision that is both fully achievable and more ambitious than visions brought to the process by different groups of stakeholders. Courtesy of Goody Clancy





6.11 Bringing stakeholders together around a shared vision yields enthusiasm and political will—important outcomes and essential implementation tools. Courtesy of Goody Clancy

of a place that may encompass a plan of streets and squares; the scale, character, and quality of the buildings that frame this public realm; the experience of moving through the spaces the plan creates; the way development fits with nature; vistas to and from the plan area; and other qualities that define the experience of a place. The second involves the functions of a site—decisions about the uses that occupy buildings and public spaces; access to transit; diversity of incomes, ages, and backgrounds; and other policy and planning decisions that will bring a physical place to life.

Placemaking often results from the creative work of an individual urban designer, but, rather than an abstract process, every step toward its realization should be informed by and shared with the larger community through the engagement process. The best urban designers understand that the many levels of community

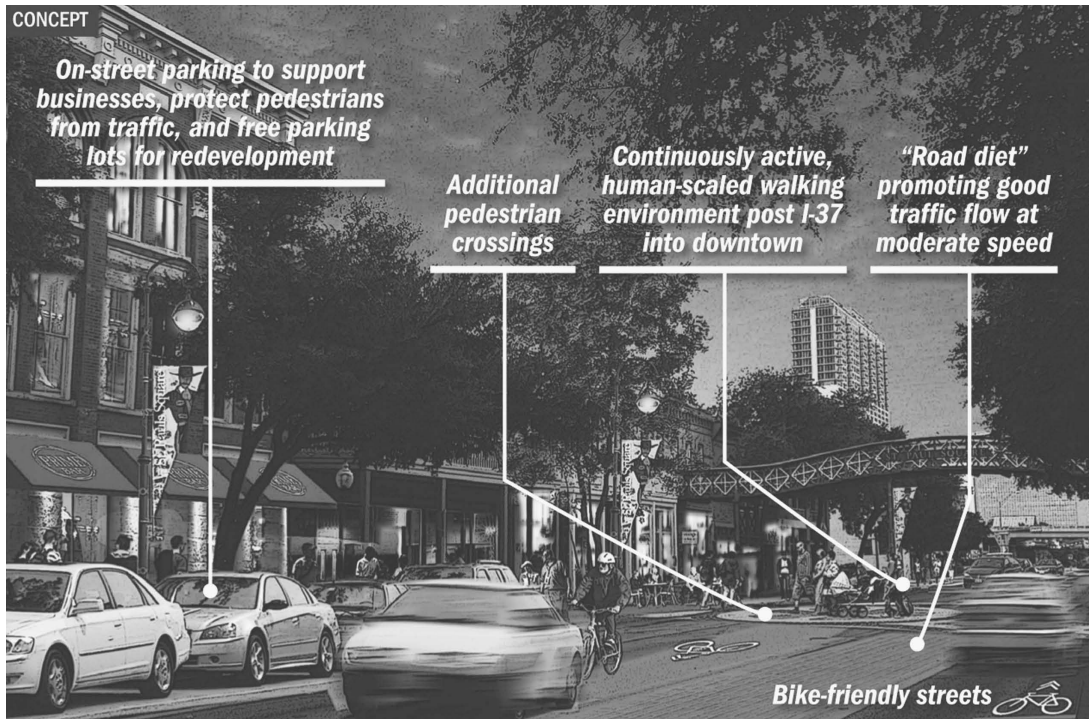
input—design preferences identified through visual surveys, design workshops that address the tough issues of height and massing or street design, guidance on trade-offs between alternatives like massing or locating particular uses—don’t replace individual creativity; they enrich it. They ground it in the realities of people and place. The community owns the needs and aspirations that should inspire the plan, and it is critical that they feel ownership of the results.

## Later in the process

### *Create an urban design plan*

Translate the vision into urban design that connects principles to proposals and proposals to implementation. The kind of guidance needed and the intended audiences should drive a plan’s form, content, and level of detail.





6.12 a, b Sunset Station District Charrette, for the Zachary Companies, San Antonio. Demonstrating the direct connection between later proposals and the values articulated by participants in the vision process can help stakeholders see their input in the urban design concepts that emerge. Courtesy of Goody Clancy



Plans often address multiple audiences—residents, advocates for specific issues, elected officials, developers, property owners, institutions—which means they need to respond to multiple agendas. Those might include the basis for new zoning, a call for developer proposals; implementation of a regional smart-growth strategy; creation of an innovation district; and/or the encouragement of community interest in an environmental initiative.

The product generally takes the form of a report, online or in print, and usually involves drawings; three-dimensional computer models; fly-through computer animations; presentation materials for public meetings; and websites, posters, or other communication tools.

### ***Engage partners***

As the plan takes shape, engage city, businesses, developers, and other potential partners in attaching specific implementation strategies to every recommendation to ensure that the vision is achievable. Have both residents and elected officials agreed to the idea of new zoning? Do developers believe that potential private-sector development—and associated community benefits—are feasible? Does the transportation department support reduced parking ratios? Is a local institution or bank willing to set up a revolving community investment fund? Getting answers to such questions doesn't represent cutting backroom deals but rather a public and transparent effort to ensure that the plan will adhere to the community's vision.

### ***Report to the community***

Never deliver a plan without fanfare. Publicizing the thinking behind the vision, the vision itself, and how it

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**Urban design all comes down to the management of change.**

*Kevin Lynch, What Time Is This Place? (Cambridge, MA: MIT Press, 1972)*

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will be achieved is an important component of implementation—as well as a civic responsibility. The larger community not involved in the urban design process should understand the plan and their stake in its success. No plan—or study area or concern such as sustainability or economic development—exists in isolation. Every plan deserves to be understood, and embraced, as part of the larger and continuous process of community building.

### ***Next steps***

Without champions committed to seeing it carried out, an urban design plan can easily end up on a shelf. The process will have involved collaboration among multiple members of the community, professionals, and public officials. Each of these groups will now play an important role in implementing the plan, and a key function of any plan should be to identify them.

## **Notes**

- 1 Alex Krieger, "Territories of Urban Design," in *Urban Design Futures*, ed. Malcolm Moor and Jon Rowland (New York: Routledge, 2006), 18.
- 2 Michael Pyatok, keynote address, conference sponsored by *Residential Architect* magazine (Chicago, November 6, 2012).



# Afterword

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What I see more than anything is the inability of almost every political system to anticipate, mobilize, and take precautions for the future, even when it is obvious that cities will grow or shrink rapidly. At the same time, the reinvention. . . of cities is taking place all over the world.

*Rem Koolhaas*<sup>1</sup>

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For a book that looks to the future of urban design, there is no more fitting conclusion than New Orleans.

Two months after Hurricane Katrina flooded the city, Governor Kathleen Blanco organized the Conference on Recovery and Rebuilding. Despite weeks of nonstop media coverage of the hurricane's aftermath, the sight and stillness of New Orleans—now missing more than 300,000 of its residents—stunned conference-goers from outside the city, who joined roughly 700 New Orleanians to begin planning the recovery. The staggering losses told two distinct stories.

The first story spoke of a devastation impossible to comprehend fully—even while standing in its midst. Hurricane Katrina had achieved in one week destruction comparable to what in countless cities across America had taken decades of economic decline.

The second story offered more hope. New Orleanians from every walk of life, all of whom had weathered profound personal loss, crafted a vision for their city that was as humane as it was beautiful and as bold as it was realistic. Their vision could serve as a manifesto for twenty-first-century urban America: rein-vigorate a tradition of lively Main Streets and historic

neighborhoods that had long supported a rich mix of lifestyles; draw on cultural heritage to animate a public realm that invites people to cross long-standing racial divisions; reassert a tradition of economic innovation; reestablish the economic and social equity the city had enjoyed before losing its blue-collar economy; and commit to building resilience for a community too valuable to be surrendered to the impacts of global climate change.

Less than a decade later, this vision remains alive. After years of taking a laissez-faire approach to their city's future, New Orleanians have committed to a new era of engagement—with each other and with the forces shaping their city. New Orleans adopted its first master plan in more than sixty years, and citizens voted to give it the force of law. An activist candidate, Mitch Landrieu, won election as mayor with a majority of both black and white voters' ballots—the first time in history the city's African Americans and whites had joined forces to support a single candidate. His administration moved forward with an agenda of transit expansion, neighborhood revitalization, and economic development that contrasted sharply with the city's legacy of benign neglect.

Yet with its vision within reach, New Orleans—like virtually every American city—lacks necessary financial resources and tools. After decades in which public investment in its neighborhoods, Main Streets, and downtown failed to halt decline, New Orleans cannot afford to make essential investments in transit, public spaces, and resilience. The loss of eminent-domain powers has left the city unable to assemble scattered vacant sites, buy and clean up outmoded industrial



buildings, and remove blight to unlock pent-up demand for private investment. Without the funding to build sufficient affordable housing, residents fearful of displacement fight keep an elevated highway the proposed removal of which would restore a quality of life they once enjoyed, but which they now fear would drive them from their homes.

In the 1950s Josep Lluís Sert coined the term *urban design* in an effort to spur architects and planners to advocate for the funds and tools essential to revive U.S.

cities at a time of unprecedented urban challenges. Urban designers must invoke that spirit again, this time to advocate for the funds and tools that can unleash an era of unprecedented urban opportunity.

## Note

- 1 Paul Fraioli, “Reinventing the City: An Interview with Architect Rem Koolhaas,” *Christian Science Monitor*, July 20, 2012.



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# From Mesopotamia to The Present: Precedents to Contemporary Urbanism

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C.1 Like urban design from every era, the Ishtar Gate (seventh century BCE) tells important stories about the society that created it. This reconstruction of the gate showcases its formal design and rich ornamentation, underscoring the importance attached to a city that was home to gods as well as mortals. Courtesy Wikimedia user Gryffindor





C.2 The rediscovery of Greek and Roman ideas at the end of the Middle Ages—ideas about philosophy, science, and even the design of cities—sparked the emergence of a humanist worldview that characterized the Renaissance. In 1459, Pope Pius II launched the reconstruction of the center of Pienza, Italy, his childhood home. The resulting public square, above, demonstrates the revival of principles of order and public space that had lain dormant for almost ten centuries. Courtesy Flickr user letorrivacation



C.3 Cracow's Market Square, Europe's largest Renaissance plaza, evolved from an active marketplace into the elegant center for the city's civic and social life. Courtesy Jorge Lascar via Flickr





C.4 Rockefeller Center, which covers three city blocks and includes the seventy-story RCA Building, is a quintessential celebration of twentieth-century industrial modernity. The project remains an elegant model for dense urbanism—subterranean walkways connect its fourteen towers to the subway, shops and restaurants line its street level, and its plaza remains one of New York City's iconic public spaces. Courtesy David Shankbone via Wikimedia



C.5 Boston welcomed the construction of the Prudential Center, completed in 1964, as a massive intervention whose sheer size, civic leaders hoped, would stave off economic collapse as industrial jobs and middle-class residents poured out of the city and into its suburbs. The project reflected contemporaneous urban planning theory, which used redevelopment as a tool for remaking cities to accommodate cars. © Shutterstock





C.6 In Boston, one of America's poorest cities after World War II, leaders embraced urban renewal as a tool for erasing the evidence of poverty near downtown. They cheered demolition of the historic blocks and 1,000-plus building that made up the city's boisterous red light district, Scollay Square. Courtesy Boston Public Library, Leslie Jones Collection



C.7 Kallmann McKinnell & Knowles's brutalist design for Boston City Hall signaled the city's aspirations to modernity. Completed in 1968, it is the centerpiece of the Government Center Urban Renewal Project, planned by I. M. Pei, which arrayed a half dozen massive new office buildings around an 11-acre plaza inspired by Siena's Piazza del Campo. A classic urban-renewal-era super-block, it replaced ten blocks around teeming but tawdry Scollay Square. Except for special events and occasional sports-team celebrations, the plaza's vast brick expanse typically feels overwhelming and empty; it provokes widespread disdain among Bostonians. Courtesy Art Poskanzer via Flickr





C.8 Empire State Plaza in Albany, the capital of New York, was conceived jointly by Governor Nelson Rockefeller and architect Wallace Harrison. It fills 98 acres with looming modernist office towers and other buildings set atop a base consisting of mammoth parking garages and a shopping mall. Thousands of state office workers can come and go without ever setting foot in the surrounding historic downtown. Courtesy Flickr user Jer21999



C.9 Built for the Montreal world's fair in 1967, Habitat (designed by Moshe Safdie) expressed a futuristic vision of manufactured housing that could provide city dwellers with the individual identity and gardens characteristic of suburban housing. Courtesy Sylvain Pastor via Wikimedia





C.10 The transformation of historic Faneuil Hall (1742) and Quincy Market (1826) into Faneuil Hall Marketplace in 1976 (Benjamin Thompson and Associates) was a milestone in American urban planning: it repudiates urban renewal and celebrates traditional urban qualities instead. The first of America's festival marketplaces, it has consistently ranked as one of the country's most popular visitor destinations. © Chris Wood via Wikimedia Commons



C.11 At the same time that Boston's leaders focused on remaking their historic market building into a tourist attraction, Seattle residents blocked the demolition of the Pike Place Market, which had housed a farmers' market since 1907. By the mid-1970s, rehabilitation had created a marketplace on a very different model than Boston's. Rather than focusing on drawing tourists, Pike Place brought back long-term farmer/vendors and fish sellers to serve city residents. Courtesy Loren Javier via Flickr



C.12 Beginning in 1978, the Savannah College of Art and Design (SCAD) led redevelopment of this historic Georgia city's downtown by acquiring buildings abandoned by retailers and office tenants. "Rebranding" Savannah as a center for the arts, SCAD helped reconstitute downtown as a live/work/play/environment. Courtesy Savannah College of Art & Design



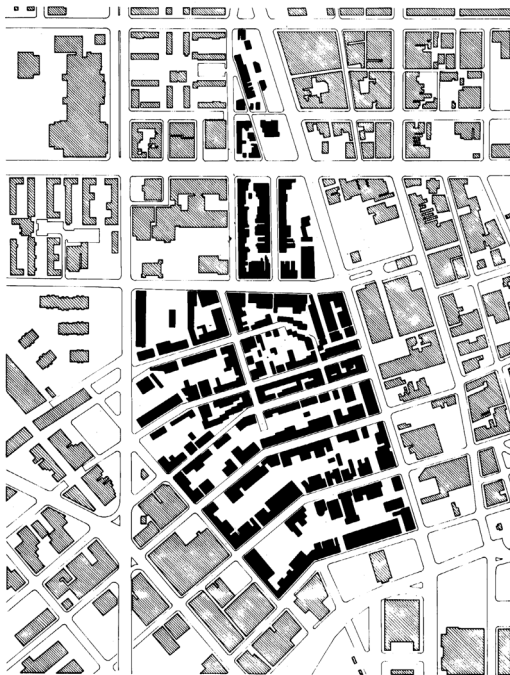


Figure Ground, 1950

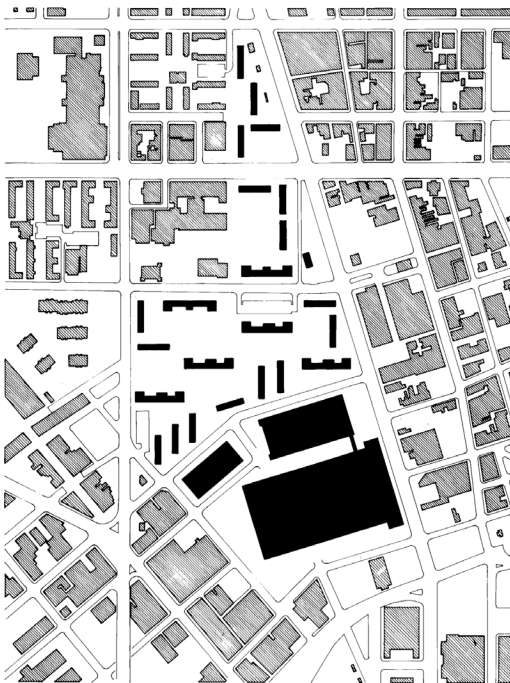
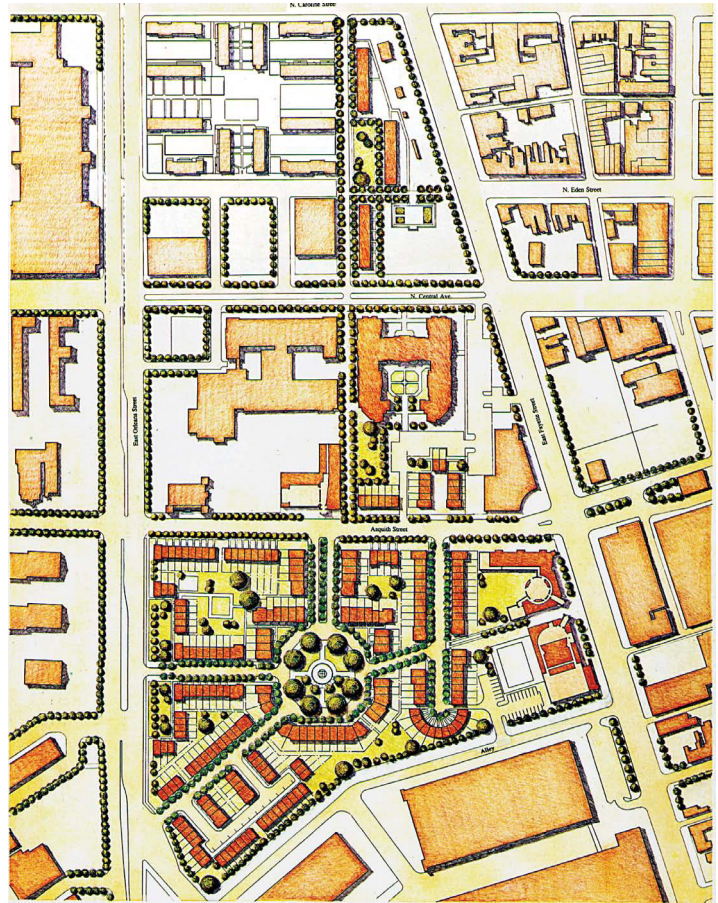


Figure Ground, 1960

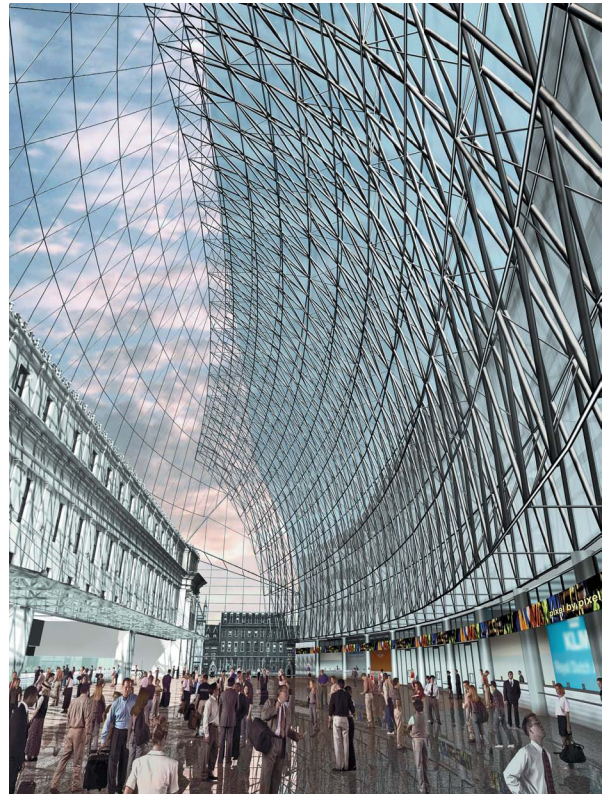


C.13 a,b,c Torti Gallas & Partners created a plan for completely rebuilding high-rise public housing in Baltimore, beginning with its 1996 Lafayette Courts plan, which replaced an isolated urban renewal superblock with six smaller-scale blocks. The plan created a mix of row houses and midrise buildings that restored much of the historic grid of streets and squares. The plan aimed to create a neighborhood that is “socially and economically integrated with the rest of the city.” Courtesy Torti Gallas & Partners





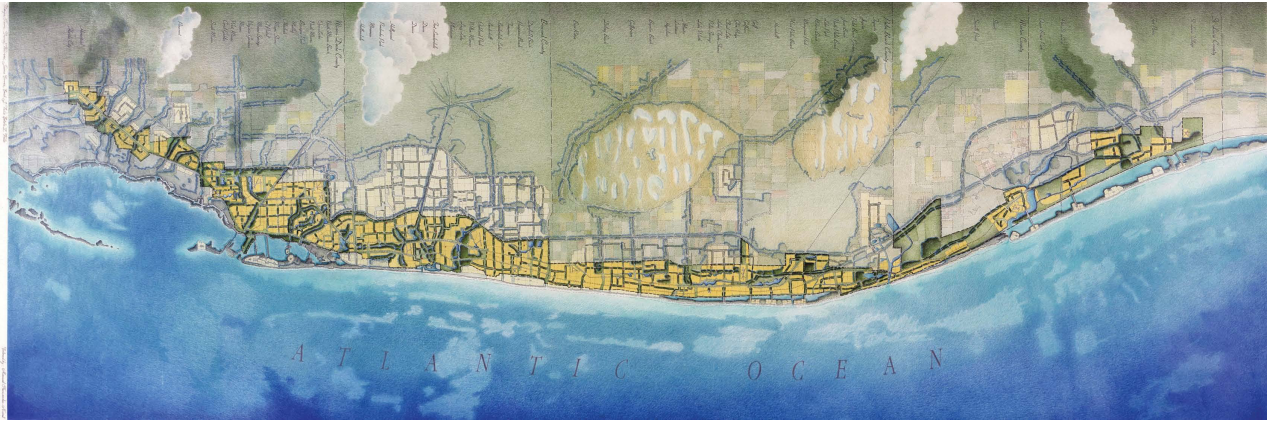
C.14 Honored for its design quality, the 5.3-acre Townhomes on Capitol Hill (Weinstein Associates), completed in 1999, created new streets and employed architecture visibly inspired by Victorian vernacular styles to integrate new construction, replacing a public housing development, into Washington's Capitol Hill neighborhood. Courtesy Weinstein Associates Architects



C.15 a,b A well-known 1998 plan proposed moving New York's Pennsylvania Station train operations into the adjacent Farley Post Office Building, a dignified, neoclassical structure designed by McKim, Mead & White to complement the original Penn Station (right). The Skidmore, Owings & Merrill plan (above right) inserts a modern interior into the building and responds to a yearning for the grand public spaces destroyed by urban renewal and subsequent years of disinvestment. Photo courtesy Library of Congress, FSA-OWI Collection; rendering courtesy Skidmore, Owings & Merrill, LLP







C.16 This vision for Southeast Florida, devised by Daniel Williams, FAIA, was one of the first regional plans in the United States organized around environmental principles. Eastward Ho! proposed reversing decades of filling in Everglades wetlands for suburban development, arguing that the practice reduced the capacity of natural systems to handle heavy rainfalls, jeopardized South Florida's drinking-water supply, and increased settlement in areas vulnerable to flooding and sea-level rise. The plan called for investments in open space, preservation of agricultural land, and a smart-growth approach that would redirect growth to already developed areas. Courtesy Daniel Williams, FAIA

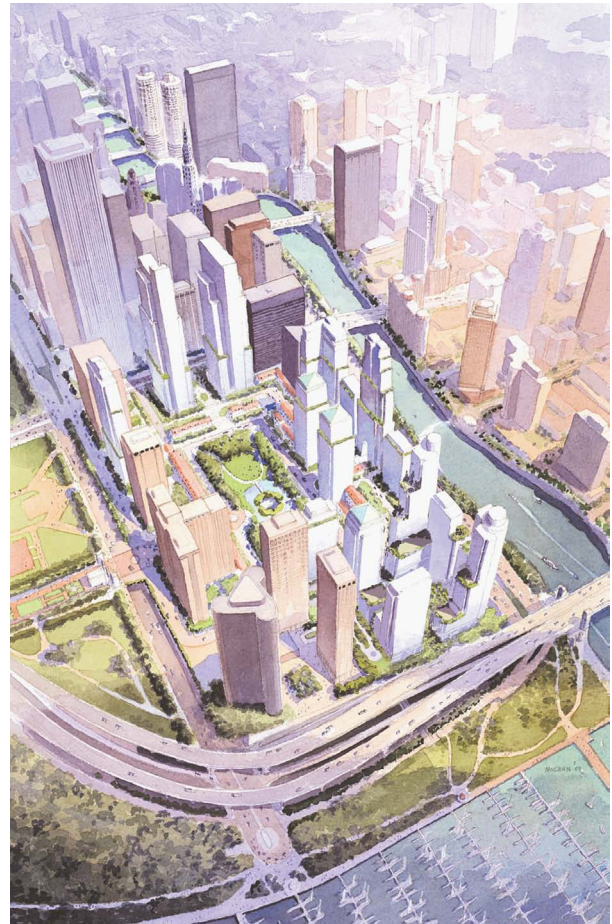


C.17 Developed throughout the 1980s, Seaside (Duany Plater-Zyberk & Co.) is an iconic expression of New Urbanism that emulates traditional small-town Main Streets. Its emphasis on walkability, and street life are central to its vision of the public realm, and it has influenced urbanism in high-density downtowns and modest neighborhoods alike. Courtesy Daniel Spiess via Flickr





C.18 In 2000, the City of West Hollywood issued a plan to transform a portion of Santa Monica Boulevard into a linear central park without reducing through-traffic. The plan, developed by Zimmer Gunsul Frasca, reflects a broad shift in thinking about urban planning: instead of viewing streets solely as conduits for cars, this emerging approach treats them as elements of a public realm that can serve multiple functions and users. Today, the lively and walkable boulevard hosts, among other events, a Halloween parade that in recent years has drawn 400,000 to 500,000 people. Courtesy ZGF Architects



C.19 The Lakeshore East master plan's exuberant celebration of high-rise living transforms a megablock into a high-density development. The Skidmore, Owings & Merrill plan for 10 million square feet of development supports a vibrant public realm, including a large new active park and a grid of new city streets—all on a platform located above parking. Courtesy Skidmore, Owings & Merrill, LLP







GROWING SANTA CRUZ'S NEIGHBORHOODS FROM THE INSIDE



## ACCESSORY DWELLING UNIT PROTOTYPE PLAN SETS

SANTA CRUZ, CALIFORNIA

Office of Planning and Community Development  
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Santa Cruz, CA 95060

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**Prototype #1**  
Detached Single  
Story ADU  
Prefabricated Wall  
Panels



**Prototype #2**  
Detached ADU Over  
Existing Garage



**Prototype #3**  
Detached Single  
Story Facing Alley



**Prototype #4**  
Detached Single  
Story ADU  
Alternative Materials  
and Techniques



**Prototype #5**  
Attached Garage  
ADU Conversion



**Prototype #6**  
Detached  
Story-and-a-Half  
ADU



**Prototype #7**  
Detached ADU Over  
New Garage

Prepared by the City of Santa Cruz • 2003  
Funded by the California Pollution Control Financing Authority  
Sustainable Communities Grant and Loan Program

C.22 In response to one of America's most expensive housing markets, the City of Santa Cruz, California launched a community-based planning process, led by RaceStudio, to create an accessory-housing program designed to add affordable units and protect the area's coastal environment from sprawl. Strong design guidelines, developed with residents, overcame concerns that accessory units would undermine neighborhood character. Courtesy James Herber, © six eight





C.23 This plan by Skidmore, Owings & Merrill tackles a critical challenge for China—accommodating explosive urban growth—with a smart-growth model for municipalities that depend on revenue from the sale of land at their fringe. The plan transforms Chongming Island, north of Shanghai, into an ecologically sensitive community for 800,000 people. It organizes new development around eight urban centers and a system of restored lakes. Courtesy Skidmore, Owings & Merrill, LLP



C.24 Northeastern University used investment in student housing to weave its campus into the surrounding city. The 2002 campus plan (William Rawn & Associates) introduced a generation of buildings and spaces that “welcome the city onto the campus” with large, formal arches and multiple entrances connecting nearby neighborhoods to the heart of the university. Courtesy William Rawn Associates Architects





C.25 Mayor Richard M. Daley announced in 1997 that Chicago would build a downtown parking structure and transit center topped by the world's largest "green roof." Convinced that a landmark park would justify its cost by attracting significant private investment, the mayor committed to a world-class park created by marquee designers. The result, the work of more than thirty designers, forgoes a formal design in favor of a garden of wonders—innovative and interactive public art, spectacular fountains, seductive cafés, and other sensual delights. Courtesy Wikipedia user Diliff

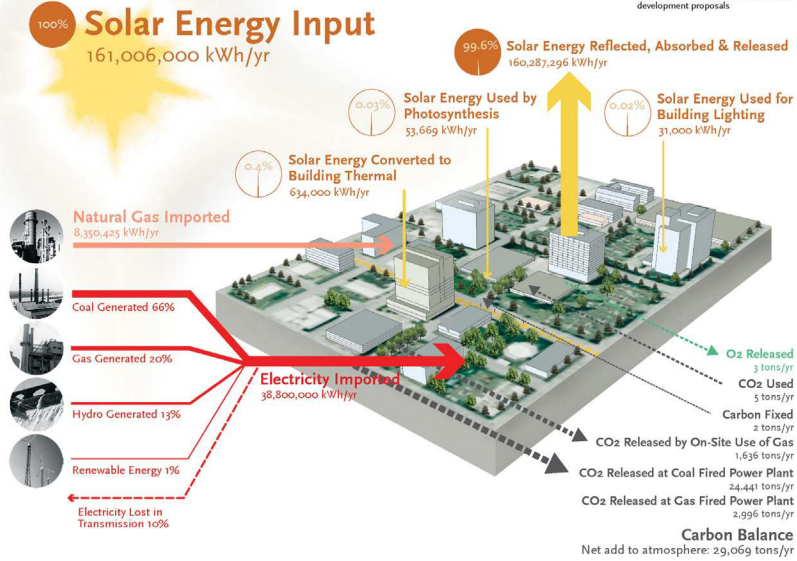


C.26 Based on zoning and design guidelines (Goody Clancy) that address community concerns about "anonymous" mid- and high-rise housing, the master developer's plan (Ken Greenberg and CBT Architects) calls for lining streets with stores and individual town house units to animate the public realm. Courtesy CBT Architects

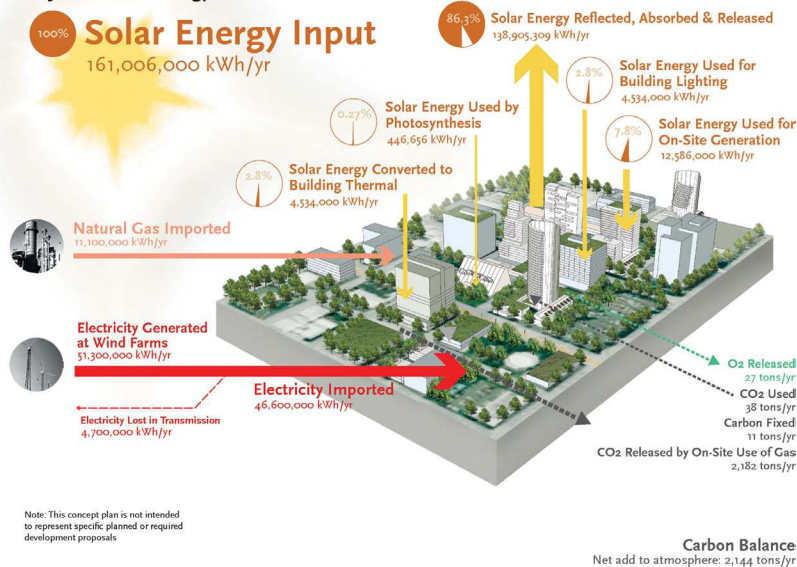


## 2004 Existing Energy Use Conditions

Note: This concept plan is not intended to represent specific planned or required development proposals



## 2050 Per Plan Energy Use Conditions



Note: This concept plan is not intended to represent specific planned or required development proposals

C.27 a,b By increasing the density of a thirty-five-block section of central Portland by 500 percent, this 2005 plan by Mithun is the first widely recognized "eco-district." It envisions an urban district with a carbon footprint comparable to an equivalent area of virgin forest. Courtesy Mithun Architects





C.28 In the wake of 9/11, the New York Stock Exchange seemed like an obvious target for future terrorist strikes. Could this iconic facility in the heart of Manhattan's Financial District be made safe without appearing to be under siege? Rogers Marvel Architects created a plan that strengthens security through landscaped squares, fixtures that do double-duty as security barriers and street furniture, and other amenities that contribute to a distinctive public realm. Courtesy Rogers Marvel Architects

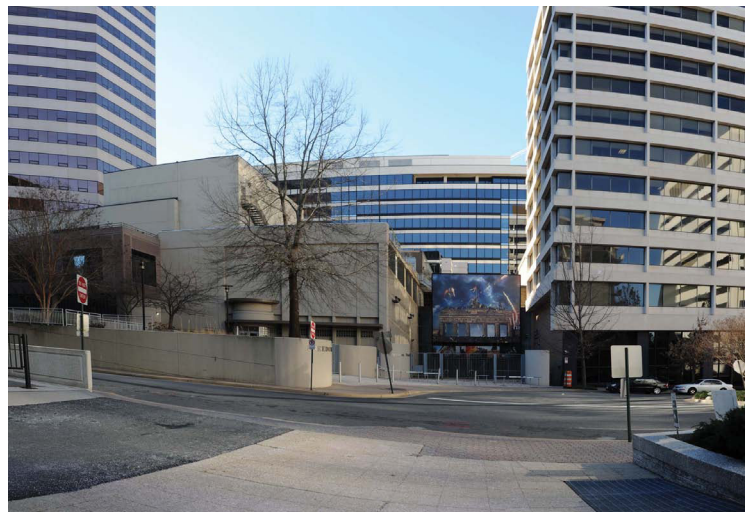


C.29 In the early 1970s, Arlington County, Virginia, responded to the planned launch of the regional Metro system with a countywide plan for higher-density, mixed-use growth within walking distance of new stations. Four decades later this planning has shaped a corridor that houses more than 120,000 jobs and 40,000 residents in a series of lively, walkable centers within a short walk of quiet suburban neighborhoods. Courtesy Flickr user MrPanyGoff



# Looking Forward: Projects That Help Define a More Livable, Equitable, and Resilient Future

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C.30 a,b A high-density suburb shaped around the automobile, Rosslyn, Virginia, evolved in the 1970s and 1980s as an “edge city,” a class of communities that competed with—and many planners hoped would ultimately displace—downtowns. A 2013 plan by Goody Clancy aims to reshape Rosslyn around transit and walkability. It maximizes the value of new mixed-use development and leverages some of that increased value into narrowing streets and bringing them to life with wide, tree-shaded sidewalks and stores and cafés; adding bike lanes; breaking up superblocks; and creating bustling new public spaces. Both courtesy Goody Clancy (Ganesh Ramachandran rendering)





C.31 The resurgence of interest in walkable, transit-connected communities positions urbanism to recapture some of the exuberance of early twentieth-century cities. The Transbay Transit Center, described by its sponsors as the “Grand Central Station of the West,” brings together eleven transit systems that serve eight counties around San Francisco Bay. As the anchor for a new transit-oriented district with more than 6 million square feet of mixed-use development, the center demonstrates the potential for significant growth within mature urban centers. © Transbay Joint Powers Authority

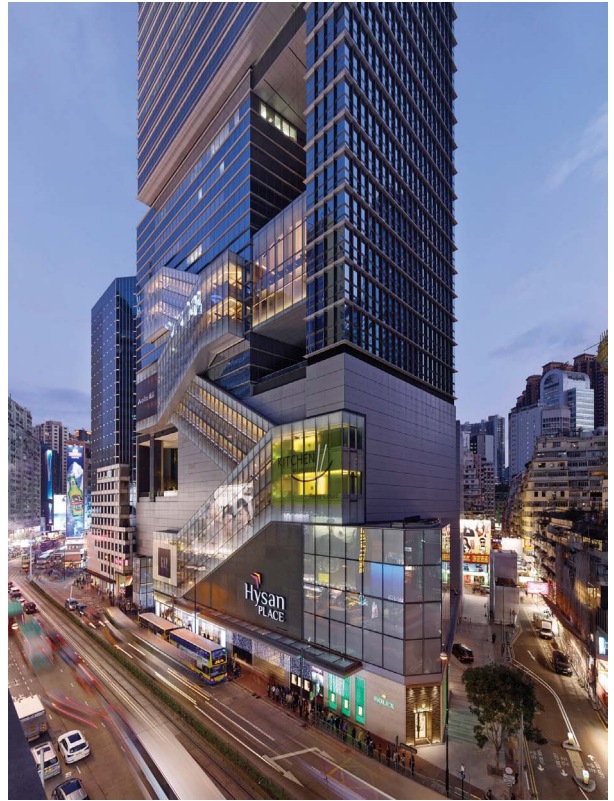


C.32 In 2009, leaders of Ohio’s second-wealthiest city, Dublin, endorsed a vision that would give the Columbus suburb a much more urban feel. They hoped to attract knowledge workers and affluent residents by transforming a corridor of shopping centers and outmoded office parks into a “higher-density, mixed-use, walkable downtown.” A community-based plan (Goody Clancy) created a framework for denser, midrise redevelopment organized around a large riverside park. The plan has spurred 1.5 million square feet of development, and the city expects to add another 8.5 million by 2030. Ganesh Ramachandran rendering courtesy Goody Clancy





C.33 Finished in 2013, this 620-foot Manhattan tower (Cetra/Ruddy), whose floors measure roughly 3,500 square feet, demonstrates how a new generation of urban housing has pushed the Vancouver model of small floor-plate towers to new dimensions, demonstrating the variety, iconicity, and audaciousness that urban housing can express. This model has limited application; only a small and wealthy portion of the housing market can support its stratospheric costs. Courtesy Dan Costin via Flickr



C.34 Hysan Place (Kohn Pedersen Fox) poses challenging questions about when to break classic urban design rules. In the heart of Hong Kong, a city already teeming with street life—and with precious little public green space—this mixed-use development adds an internal shopping mall with seventeen levels of retail space topped by public gardens. Will complex mixed-use developments like Hysan Place become valued additions to the public realm, or private alternatives? The project also boasts large openings in its facade that add visual interest and enable greater height within the site's density limits. Grisch Rueschendorf photo courtesy Kohn Pederson Fox





C.35 A plan prepared for New York's Columbia University by Renzo Piano Building Workshop and Skidmore, Owings & Merrill would expand the Columbia campus into the former Manhattanville manufacturing zone of West Harlem. It illustrates a tendency among urban universities to grow by breaking down traditional barriers between campus and community. The mixed-use site, directly adjacent to transit, will connect to the larger city programmatically and physically. The plan incorporates civic, cultural, recreational, and commercial activities alongside academic and research facilities. Pedestrian-friendly streets and publicly accessible open spaces will link West Harlem to a new Hudson River waterfront. A lengthy, often contentious planning and approvals process has exemplified the challenges of building a more integrated relationship between campus and community. Courtesy Renzo Piano Building Workshop



C.36 In 2008, New York adopted an ambitious "tactical urbanism" policy that asserts the value of streets as great public places and reimagines Broadway not as a conduit for cars but as a public space that serves people. While still accommodating traffic, the plan turns former traffic lanes into places for pedestrians with large spaces for a wide variety of social, cultural, and commercial activities. People playing music, performing, dancing, and entertaining each other create a unique vitality. The reconfigured street has evolved into a string of lively, often surprising "street parks" that together form a grand pedestrian promenade more than two miles long called Broadway Boulevard. Courtesy New York City Department of Transportation





C.37 a,b,c Aided by rapidly evolving technology and supported by patrons ranging from universities to developers to governments, “futurism” draws on an architectural tradition that is sometimes confused with urban design. It differs from the utopian work of architects like Le Corbusier, who challenged convention to achieve social and political goals. Sculptural, often fantastical, and always highly personal and attention-getting, those designs often win acclaim as innovative works of art and helped “rebrand” a neighborhood or entire city. Rather than promoting a greater sense of shared community by programming and design that animates the public realm and helps form civic spaces traditionally associated with landmark buildings, however, such buildings have emphasized their role as designed objects rather than their role as works of urban design. Three examples demonstrate futurism’s global reach: the Marina Bay Sands hotel in Singapore (Moshe Safdie, upper left); 8 House, outside Copenhagen (Bjarke Ingels Group, upper right); and the Burj Khalifa in Dubai (Skidmore, Owings & Merrill, above), whose design recalls Frank Lloyd Wright’s 1956 proposal for a mile-high tower in Chicago. Singapore Sands courtesy Flickr user Erwin Soo via; 8 House courtesy Flickr user Frans Drewinak; Burj Dubai courtesy Flickr user TausP





C.38 a,b Another rich tradition, which could be termed “iconographic architecture,” has produced buildings such as the Opéra de Paris by Charles Garnier and Barcelona’s still-unfinished Sagrada Familia cathedral by Antonio Gaudí. They have become emblematic buildings that uniquely symbolize the spirit and character of their cities, yet nonetheless function well as urban design. More recently, Frank Gehry has produced landmarks such as the Guggenheim Museum in Bilbao, Spain (left), and the Walt Disney Concert Hall in Los Angeles; such buildings are not only boldly sculptural and highly personal but also represent responsible urban design that enlivens sidewalks, creates public spaces, and honors their contexts—if often in unconventional ways. The decision by authorities in Medellín, Colombia, to build a series of boldly architectural libraries—in part to underscore the city’s humanity in an effort to mitigate its violent recent past—has produced striking modern buildings, including the Biblioteca España (Giancarlo Mazzanti, right). These symbols of Medellín’s commitment to social equity, contributed to its designation by the Urban Land Institute as the 2013 Innovative City of the Year. Guggenheim Bilbao courtesy Flickr user Cecilia; Biblioteca España courtesy Wikimedia user Albeior24





C.39 Completed in 2000 at a cost of almost \$1 billion, the mixed-use Sony Center (Murphy/Jahn) rises around a public space that quickly became one of the most controversial, striking, and successful urban squares built in the West since World War II. As one of two major redevelopments charged with bringing Potsdamer Platz—the center of pre-World War II Berlin—back to life, the Sony Center surrounds a public square topped by an immense, luminous “umbrella” and feels both like a privatized world sponsored by the Sony Corporation and an animated public space that merits comparison to Rockefeller Center. Praised by some critics as architecture designed to create an environment rather than a series of objects and criticized by others as too blatantly commercial, the Sony Center offers an intriguing vision of great public space inherent in public/private partnerships. The full test of how truly public a space like this can be will be its ability to accommodate protest as well as fun. Courtesy Wikimedia user Stefan-Xp





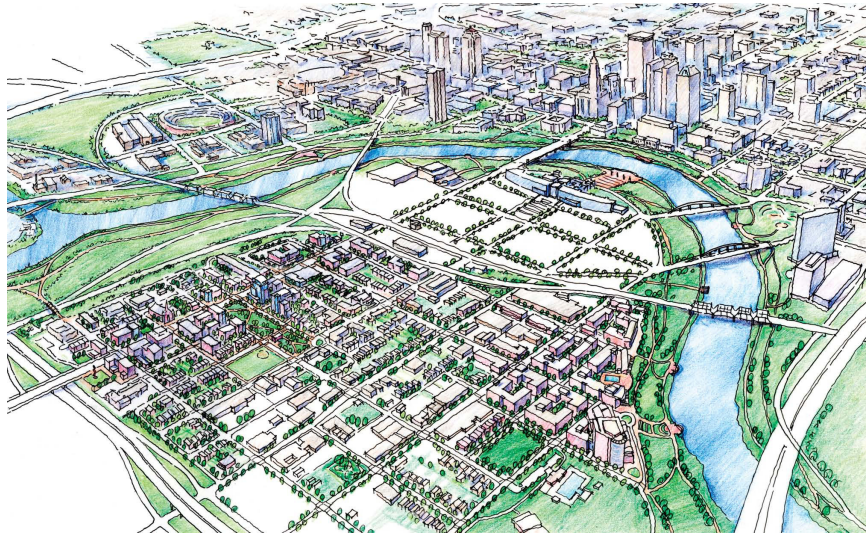
C.40 This plan by Suisman Urban Design demonstrates with a simple, powerful gesture the role transit can play in organizing regional as well as local development. The Arc ties together the major Palestinian communities in Gaza and the West Bank with a rail link that constitutes a new “national Main Street.” The Arc connects directly to the principal street of each major West Bank community, and the plan locates higher-density growth within walking distance of new stations just beyond historic city centers, providing a smart-growth template that preserves historic city centers and the surrounding countryside. Courtesy Suisman Urban Design/RAND Corporation





C.41 a,b This study (Kittelson & Associates with Goody Clancy) examined options for the future of the 2.2-mile elevated Claiborne Expressway that separates neighborhoods like Treme from downtown New Orleans. Built in the 1960s as an alternative to an expressway that would have heavily damaged the French Quarter, the expressway instead destroyed the heart of a healthy African American commercial district. Yet in 2013, many residents opposed removing the overpass, fearing it would lead to gentrification and destroy their tight-knit community. In particular, the dispersion of its residents to other neighborhoods would threaten a cultural heritage that stretches back to free and enslaved African Americans in the eighteenth century and takes the form today of Mardi Gras Indians, second-line bands, and other distinctive local cultural expressions. For many residents, this shared culture provides a supportive community structure, and especially for low-income families that face unemployment and health-related challenges. As culture bearers pass their unique heritage on to their children, they also build community cohesion and shared responsibility for one another. Both images courtesy Goody Clancy (Ganesh Ramachandran rendering)



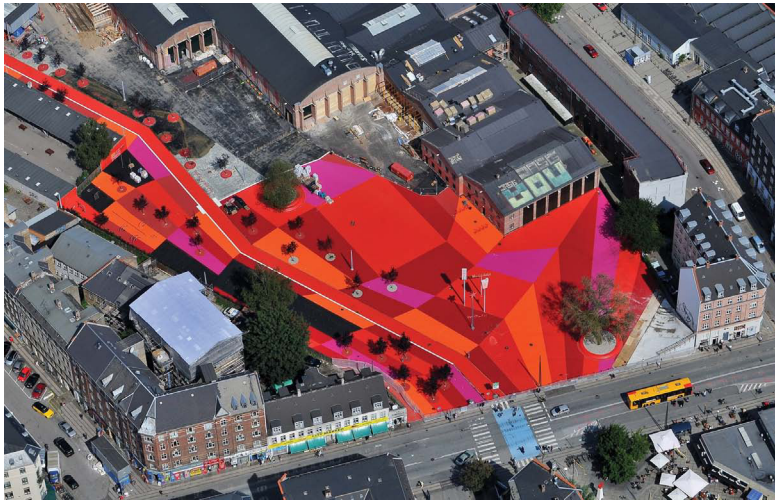


C.42 Seeking “an edge that helps Columbus attract and retain creative young folks after they leave college,” the Ohio city’s mayor launched a plan to revitalize the East Franklinton neighborhood as a mixed-income arts and innovation district. To ensure that the neighborhood emerged as a genuine arts district, the city committed to subsidizing 30 percent of new housing for artists and supported partial renovation of older factory buildings into Spartan but affordable studio space. Wei Jin rendering courtesy Goody Clancy



C.43 The Via Verde project (Dattner Architects and Grimshaw Architects) won New York City’s first competition for affordable housing design, sponsored jointly by the city’s Department of Housing Preservation and Development and the American Institute of Architects New York chapter. The planning that set the stage for the competition established high standards for design, affordability, sustainability, and replicability—all of which the development has met. Via Verde stands as a dramatic example of the rebirth of the South Bronx, which suffered devastating middle-class abandonment, municipal neglect, and social breakdown in the 1960s and 1970s. © David Sundberg/Esto. All rights reserved





C.44 Bjarke Ingels Group worked with residents of Copenhagen neighborhoods around a proposed public square—residents who hail from at least sixty different cultures—to create a public space dedicated to social and culture diversity. The square’s design incorporates street furniture, artifacts, iconic shapes and patterns, and even soil representative of all sixty cultures as physical emblems of the plan’s inclusive goals. Courtesy Flickr user Comrade Foot



C.45 Zuccotti Park (Cooper, Robertson & Partners) was ground zero for the 2011 Occupy Wall Street protest movement. In addition to the political issues dramatized by the protest, questions of the right to “public spaces”—including those controlled by private owners but theoretically dedicated to public use—played an integral role in the protest. The Zuccotti Park protest echoed the Arab Spring demonstrations in Cairo’s Tahrir Square, which encouraged the occupation of urban spaces in cities around the world. Disputes over the political uses of privately owned public spaces, introduced in New York in the 1960s as a feature of zoning-bonus agreements, have generated further debate about the design, role, and nature of urban open spaces. © Brennan Cavanaugh Photography





C.46 In the spirit of the Landscape Urbanism movement, a plan for the Mississippi riverfront in Minneapolis by Stoss Landscape Urbanism enlists ecosystems to improve water quality and to restore the river's banks to a more natural state. The project also creates new recreational areas that, in addition to introducing engineered elements, promote the "sheer, unfiltered experiences of direct contact with the river and river life, in many ways and at multiple moments . . . and weaving these experiences back into the everyday city." © Stoss Landscape Urbanism





C.47 a,b In 2008, Singapore completed the 1,150-foot Marina Barrage to strengthen the city's resilience in the face of rising sea levels and increased rain-driven flooding (above). The project's urban design value stems from the way it turns a significant investment in climate-change infrastructure into an urban amenity. A 140,000-square-foot green roof atop the complex's pump house serves as a major new park, while the lagoon formed by the barrage functions as a center for boating and other recreation. The adjacent Gardens by the Bay (below), designed to demonstrate Singapore's commitment to green technology, flips this model on its head but achieves the same result—it uses a significant investment in public open space to enhance sustainability. The park draws no energy or water from outside its boundaries. Two sculptural glass structures, filled with exotic plants, demonstrate innovative cooling techniques, and sculptural "supertrees" harvest solar energy with photovoltaic cells, filter air, and collect rainwater used to irrigate the glass-house plants. Courtesy PUB, Singapore's national water agency (above); courtesy Flickr user Allie Caulfield (below)





C.48 This mixed-use redevelopment (SHoP Architects, James Corner Field Operations) integrates new construction with historic elements on the site of a former Domino Sugar refinery in Brooklyn, New York. Following Hurricane Sandy, the plan underwent a major restructuring to improve the development's responsiveness to rising sea levels and increasingly frequent storms. The revised plan did not reduce the size of redevelopment (3.3 million square feet, including 2,200 apartments), but it added 60 percent more open space and more community amenities. It also pulled development back from the water's edge by roughly 25 feet and replaced a breakwater with a landscaped, gradually rising shore that will allow high tides or storm surges to recede naturally. The plan also turns the development to face the adjacent neighborhood with commercial activity intended to energize street life. SHoP Architects rendering courtesy Two Trees Management





C.49 Laying the groundwork for a 25,000-person suburb on the edge of Stockholm in the 1990s, planners jettisoned a traditional greenfield approach in favor of dense, compact development on an industrial brownfield site. The result, Hammarby, blends urban development and nature in ways usually seen only in the lowest-density suburbs. This eco-district approach allows Hammarby to consume roughly half the energy and water of a typical Swedish development. The community taps wastes to generate energy and recycles drinking water as graywater for use in toilets and to irrigate plantings. Courtesy Flickr user La Citta Vita





C.50 Hamburg, Germany, began to develop HafenCity, the prototype for New York City's proposed Seagate City, more than a decade ago. Built atop wharves no longer needed by the port and located outside of the seawall that protects Hamburg's center, HafenCity's design anticipates storm surges with a sequence of levels that rise from waterfront public spaces to streets to occupied space 30 feet above the water line. The district's lively mixed-use ambiance complements the historic downtown by providing contemporary urban housing, modern commercial floor plates, and a monumental new concert hall that the historic center could not accommodate. Investing heavily to adapt to rising sea levels, Hamburg has capitalized on its most valuable asset—its dramatic waterfront—to create significant economic, cultural, and social value. Courtesy Flickr user Scratomato\_HR



C.51 Less than one year after Hurricane Sandy struck New York City, Mayor Michael Bloomberg's administration issued a request for proposals from architects, planners, and developers for creating a lively, dense, mixed-use urban neighborhood perched above the East River that would serve as a seawall to protect 1.5 miles of the Manhattan waterfront. Rather than retreat from rising sea levels, the mayor argued for capitalizing on the high value of waterfront development to build a new neighborhood that can both protect the city and contribute to its economy and quality of life. Courtesy NYC Mayor's Office