

ARCHITECTURAL RECORD

An aerial photograph of New York City at sunset. The Hudson River is on the left, and the city skyline extends to the right. The sky is a mix of orange, pink, and blue. The buildings are densely packed, with many skyscrapers. The lighting is dramatic, with long shadows and highlights on the buildings.

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
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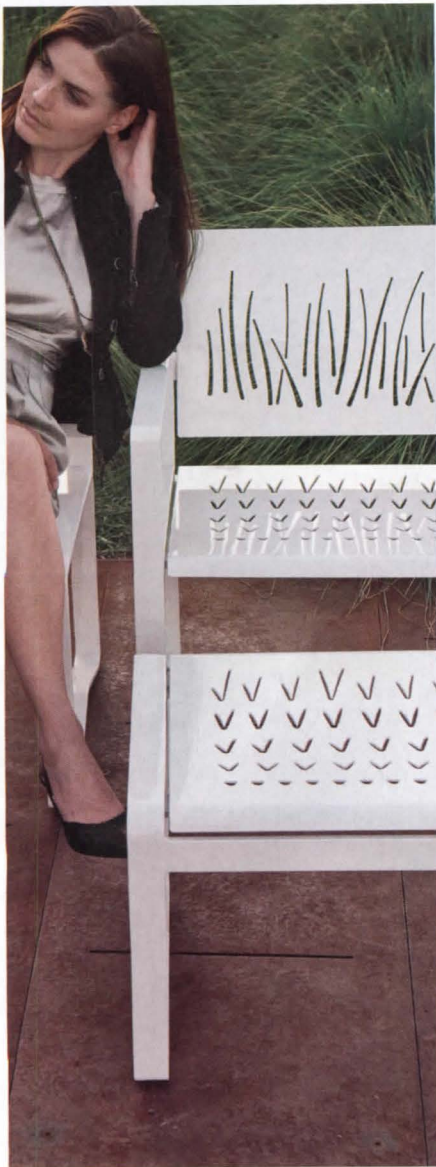


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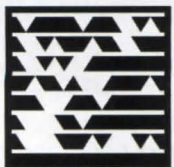
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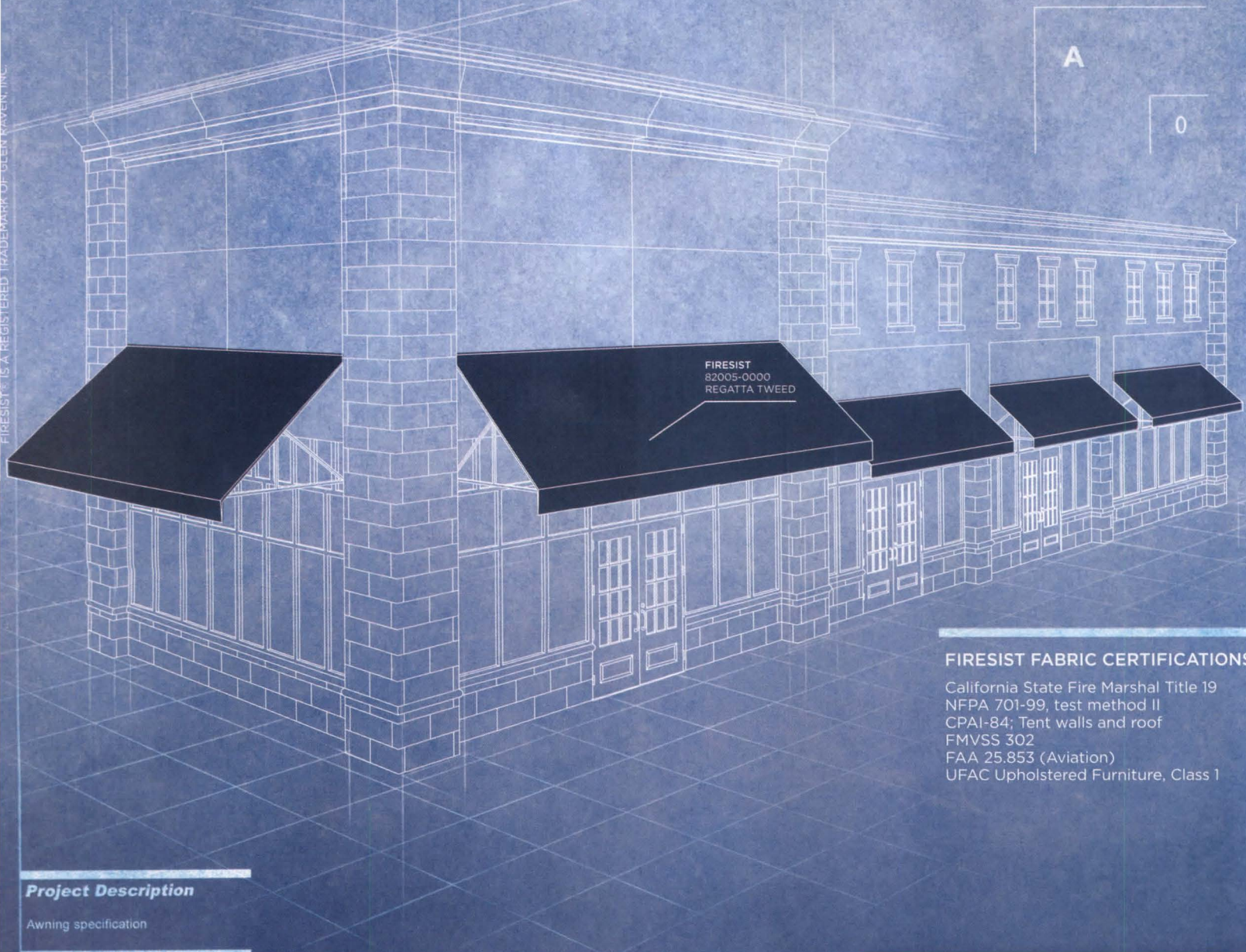
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THE DEATH AND LIFE OF A GREAT AMERICAN CITY

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[READER PHOTOS]



Two recent New York stories drew heated comments on our website: coverage of the Jerome Robbins Theater and DiMenna Center for Classical Music and news of the American Folk Art Museum's sale.

The image at left of Frank Gehry's IAC Building seen from the High Line on Manhattan's West Side is one of many submissions to our reader photo galleries. Visit them to browse more images and to share your own work.

[COMMENTS AND LETTERS]

(On the new performing art spaces built into an existing building at 450 West 37th Street)

"John Averitt's original design [for the building] should have been published by RECORD when it first opened. It was stunning – bold, edgy, elegant, and unsentimental."

James J. Williamson

(On the story "Tod Williams Worries That Folk Art Museum Will Be Razed Following Sale to MoMA")

"The wide array of encounters that one experienced in the building spoke directly to the discovery and exploration process of folk art." — *Anonymous*

"I loved the building's outside, but never felt it worked well for exhibiting art. The poorly lit boxes were affronts to the art they contained." — *Anonymous*

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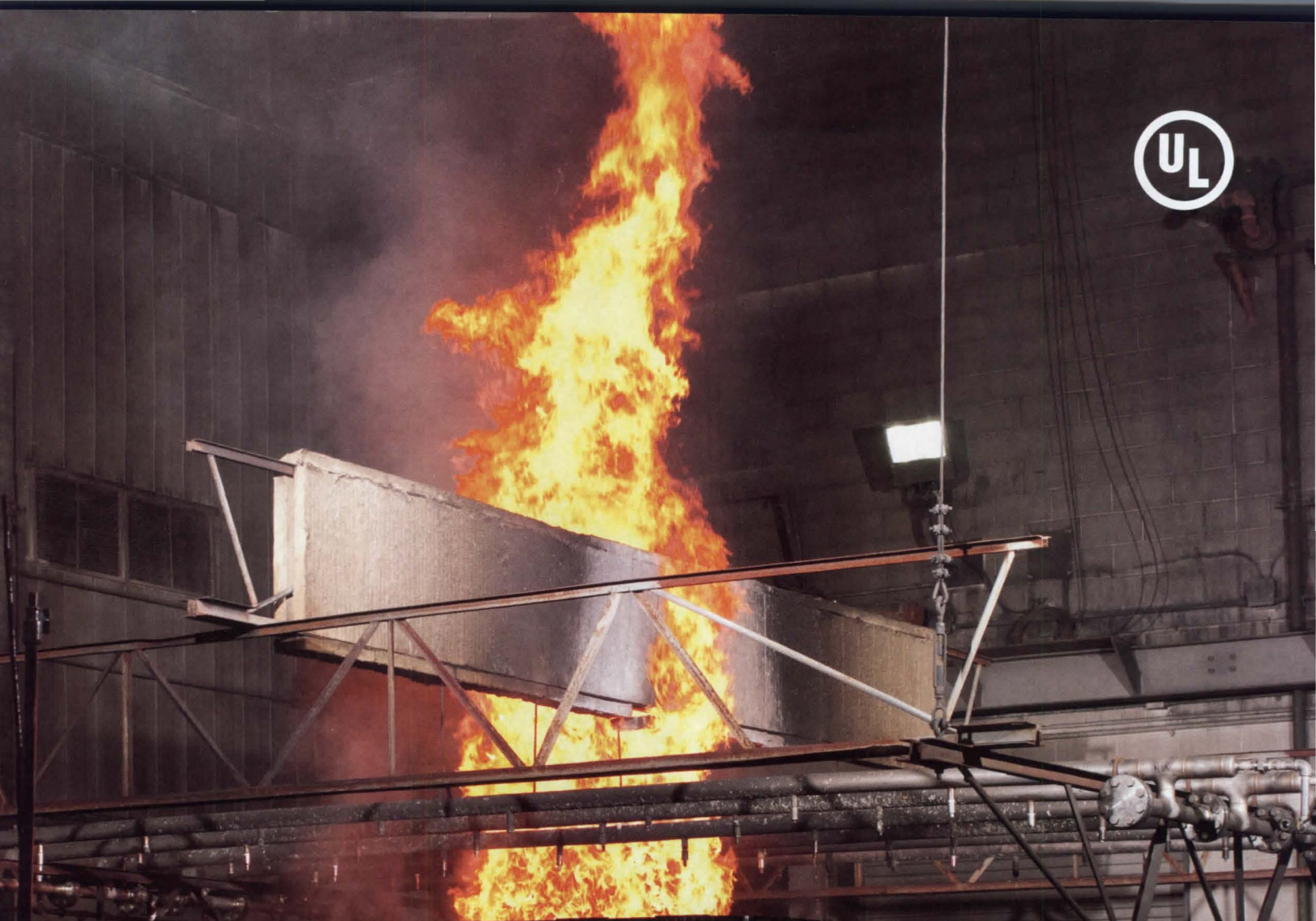


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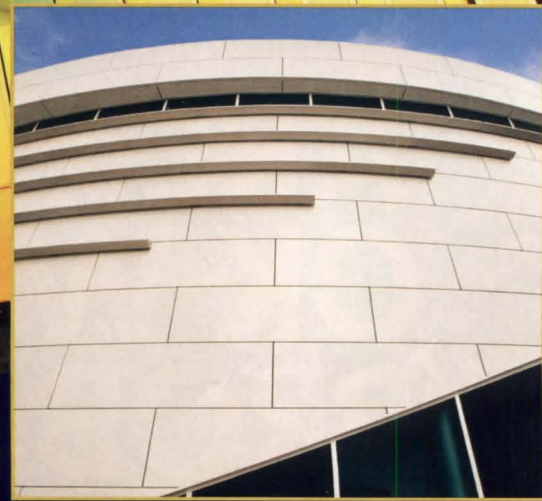
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F. Scott Fitzgerald, *The Great Gatsby*

I never tire of the New York skyline. It looks fresh on every return to the city, in every kind of weather and at every time of day, gleaming or gray, but always thrilling and full of that promise and mystery.

But in the weeks and months after September 11, the skyline became unbearably sad, bereft of the Twin Towers that had anchored the southern end of Manhattan like immense minimalist sculptures against a vast field of blue or cloud — beautiful at a distance in a way they never were up close. Their shocking disappearance was a powerful symbol of what had been lost — all the innocent lives as well as the innocence of the nation. Despite the immediate call by political leaders to rebuild, most New Yorkers were too stunned to think about what the city would become. It would survive, but what next?

Ten years after the terrorist attacks, as we remember those who lost their lives, we can't help but marvel at New York today. The decade has been a golden age for the city, a renaissance in architecture and urban design. World-class architects have come to build in New York — Norman Foster, Renzo Piano, Frank Gehry, Yoshio Taniguchi, Kazuyo Sejima and Ryue Nishizawa, Thom Mayne, Jean Nouvel, and Herzog & de Meuron. High-profile local firms have landed big projects on their home turf, while emerging architects have had new opportunities in both private and civic design.

Most remarkable has been the huge investment in the public realm. The High Line, the park created on a derelict elevated rail bed, is the most famous new public space, a tourist magnet that has drawn 5 million visitors since its first phase opened in the summer of 2009. Less publicized is the fact that since Mayor Michael Bloomberg took office in January 2002, the city has created more parkland — nearly 700 acres — than in any time since the era of Robert Moses in the 1930s. Many of the new parks show the power of rich collaborations between landscape architects and architects — such as the High Line itself, designed by a team led by James Corner Field Operations and Diller Scofidio + Renfro.

The seeds for this burst of urban regeneration were planted in the 1990s, with the bid to bring the 2012 Olympics to New York. Created under planner Alexander Garvin, the Olympics proposal called for athletic facilities — both new and renovated structures — to be placed throughout the five boroughs, to revitalize flagging neighborhoods long after the Games were over. When Daniel Doctoroff, the leader of the Olympics effort, became deputy mayor for economic development in 2002, many of those ideas infiltrated the plans for the city going forward, even after the 2012 bid was lost to London.



But it was also the aftermath of 9/11 that catalyzed the public desire for superior design and planning, a shout from ordinary New Yorkers who crowded into community meetings and spoke powerfully about what should be built at Ground Zero. After 4,000 people came together at the Javits Convention Center one summer's day in 2002 and roundly rejected the first, banal designs for the World Trade Center site, public officials were forced to hold an international design competition to try to corral the best ideas for those 16 acres.

Jane Jacobs, the late urbanist, whose famous book inspired the title of this issue, might not have been surprised that the rebuilding of Ground Zero has turned out to be a mixed success, with politics and real estate trumping the best intentions. And with a soaring economy and a big push for development under the Bloomberg administration, the decade brought aggressive change to many neighborhoods throughout the city — occasionally to the alarm of critics and communities, as in the case of the controversial Atlantic Yards arena project in Brooklyn.

Yet it's mostly been a vibrant time for architecture and urban design. Though the economy is shaky once again, the legacy of the last 10 years is everywhere — in the new waterfront parks and bike lanes, in the sparkling cultural centers, and in the planting of half a million new trees. While we remember 9/11, we also celebrate the transformation and life of a great American city.

Cathleen McGuigan

Cathleen McGuigan, Editor in Chief



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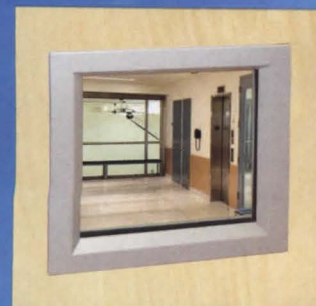
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
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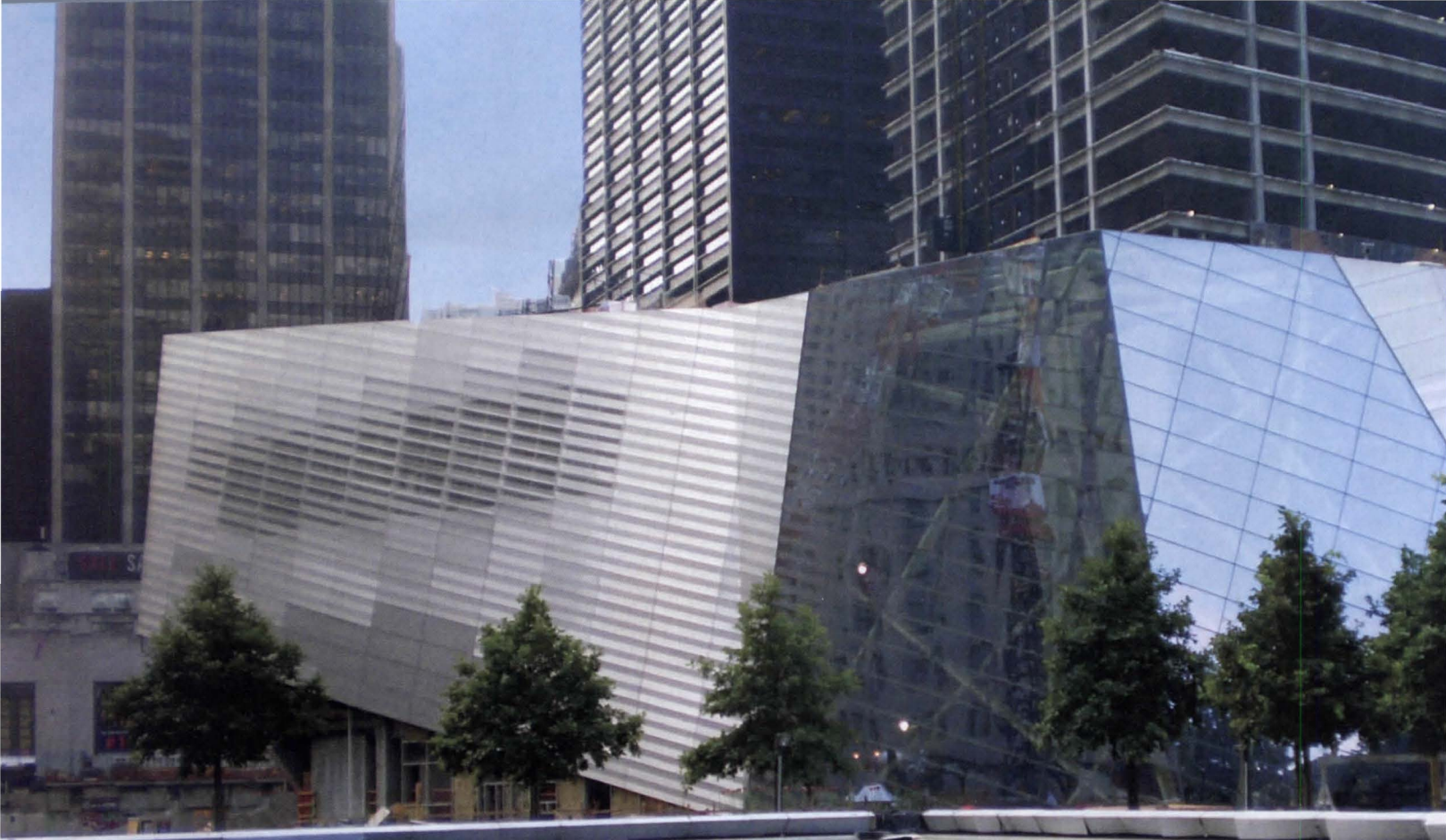
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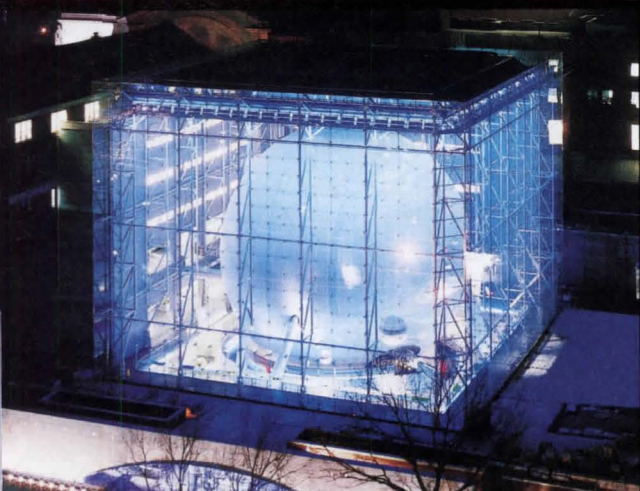
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National September 11 Memorial & Museum, NY Architect: Snøhetta



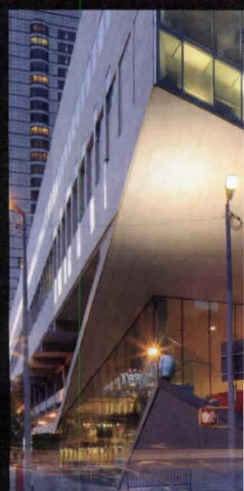
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Battery Park City: It's a Wrap

More than three decades after its inception, this planned community in Lower Manhattan is nearly complete.

THE VISIBLE PROGRESS at

Ground Zero might be New York's biggest construction news, but one block west, a project with greater influence on urban planning worldwide is quietly wrapping up. With two condominium towers nearing completion, every parcel in Battery Park City (BPC) has now been built out, fulfilling a master plan that has taken 32 years to realize.

Those towers are the 32-story Liberty Luxe and 22-story Liberty Green, both designed by Ehrenkrantz Eckstut & Kuhn Architects (EE&K), a Perkins Eastman company. Along with the 43-story Goldman Sachs headquarters completed last year by Pei Cobb Freed & Partners and an eight-story public school by Dattner Architects that was finished in time for the 2010 academic year, the buildings mark the final elements of a 92-acre plan first drafted in 1979. When it was conceived, the BPC scheme symbolized a pivotal moment in urban planning: the transition away from the Modernist "superblock" and a return to a more streets-and-blocks approach centered on attractive public spaces.

Located on the western edge of Lower Manhattan, BPC evolved from several proposals aimed at keeping the downtown area economically competitive. In 1968, New York governor Nelson Rockefeller established the Battery Park City Authority (BPCA), a public-benefit corporation charged with building and managing the new district.

Using fill excavated from the World Trade Center site and dredged up from the harbor near Staten Island, the BPCA created new land in the Hudson River where dilapidated piers once stood. In the late 1970s, it turned to two New York architects, Alexander Cooper and Stanton Eckstut, to dream up a master plan that was both innovative and

appealing to developers.

The crux of Cooper and Eckstut's proposal was to extend the Manhattan street grid into the site, creating traditional roads and blocks that could be developed in phases as market conditions allowed. A commercial hub was placed at the heart of the neighborhood, with residential buildings extending to the north and south along boulevards paralleling Broadway. Thirty percent of the site was reserved for public space, including parks. Later, the architects would propose detailed massing and design guidelines.

The plan won favor with developers. Olympia & York pledged to construct the World Financial Center, an 8 million-square-foot commercial complex, and other developers soon lined up to build out the southern residential zone.

After weathering several recessions, leadership changes, and September 11, BPC now covers roughly two dozen city blocks and contains more than 13,000 residents, 9 million square feet of commercial space, and several civic and cultural venues. "The buildings have a much more interesting program than we planned," Eckstut says, citing

Stuyvesant High School (Cooper, Robertson & Partners, 1992) and the Museum of Jewish Heritage (Kevin Roche John Dinkeloo and Associates, 1997). "These departures have made it more of a real city."

BPC's showpiece is the 1.5-mile-long waterfront esplanade, which features a plaza, marina, and views of the Statue of Liberty. Another vital community amenity: the Cesar Pelli-designed Winter Garden (1988), where free public events are presented year-round.

BPC's success is attributable to its sustainable aspects. A dozen projects have received or are expected to receive LEED certification, but as Cooper notes, the neighborhood's most important "green" features – open space, density, and proximity to transit – prefigured the sustainability discourse by decades.

Still, BPC has drawbacks. It's primarily inhabited by upper-income residents (though BPCA revenues from payment in lieu of taxes, ground rents, and civic facility fees have funded low-income projects elsewhere in the city). Its connectivity to the rest of New York will always be limited by West Street,

which obstructs pedestrians with an eight-lane barrier. Architecturally, the buildings are mostly uninspired brick-and-glass towers, and the block-wide parcel sizes, though attractive to developers, can make even the low-rise buildings seem overscaled. For now, the neighborhood also lacks the dynamism of districts that have grown organically over time, where historic architecture abuts modern buildings.

In 2010, the Urban Land Institute recognized Battery Park City with its international Heritage Award, bestowed occasionally to projects 25 years or older with a profound impact. Indeed, many of BPC's planning principles – street grids, phased development, flexible design guidelines – have become standard practice. This DNA is apparent in Cooper, Robertson & Partners's master plan for the Central Delaware in Philadelphia, EE&K's Southwest Waterfront in Washington, D.C., or any number of recently planned cities throughout the Middle East and Asia. When those developments are completed several decades from now, each will owe part of its success to this pioneering corner of Lower Manhattan. ■



The master plan for Battery Park City was created in 1979. More than three decades later, this 92-acre development in Lower Manhattan is almost finished.

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BY JENNA M. MCKNIGHT

[REDEVELOPMENT]

Harlem's New Renaissance

FOR MUCH OF the 20th century, private developers ignored Harlem, deterred by its high crime rate, profusion of subsidized housing, and long trek from Midtown. During the malaise of the 1970s, the city owned well over half of the real estate in this storied neighborhood, long regarded as the nation's black cultural capital.

Then, in the past decade, everything changed. As property values in other Manhattan districts soared, Harlem became the new development frontier. City leaders helped spur the transformation, cracking down on crime and rezoning key arteries such as 125th Street to make them more developer-friendly. Meanwhile, nonprofit groups, like the Harlem Children's Zone, continued to invest in the community.

The effects have been striking. Luxury condo buildings, bougie shops, and a surge of new residents have appeared. According to census figures, whites went from 2 percent of Harlem's population to 9.8 percent between 2000 and 2010. People of all ethnicities and income levels now consider Harlem when hunting for a Manhattan home, due largely to its real estate bargains. The average sale price of a two-bedroom unit here is \$694,000; in SoHo, it's \$2.1 million. "Harlem has become a viable alternative to markets in the south," says Jonathan Miller, president of real estate appraiser Miller Samuel.

But with change inevitably comes conflict. And perhaps no urban metamorphosis is more incendiary than the one taking place in Harlem, where Duke Ellington took the "A" train, Langston Hughes wrote racially charged poems, and Marcus Garvey launched his "Back to Africa" campaign. Tied to these memories is Harlem's milieu: housing projects, stately brownstones, soul-food restaurants, jazz lounges, hair-braiding shops, and churches large and small. With gentrification in full swing, Harlem residents don't just fear losing their homes; they fear losing their history, their culture.

Architecture plays a role in this saga. "It's starting to look like downtown," says Jaylene Clark, a young Harlem native who critiques the neighborhood's gentrification in her new play, *Renaissance in the Belly of a Killer Whale*. A mile-long stretch of Frederick Douglass Boulevard reveals how quickly redevelopment can take hold. In recent years, more than a dozen condo developments, plus a chichi hotel and bevy of fashionable stores and eateries, have cropped up in the area, rebranded as SoHa (South Harlem). Architecturally, some recent structures refer to the existing buildings – mostly brick tenements rising five to eight stories. Others, however, contrast with their 19th-century counterparts in terms of scale and aesthetics. The Parc Standard, a modern, charcoal gray mid-rise designed by Architects



New additions to Harlem include the modern Parc Standard (above) and the chic Aloft Hotel (left), both located on Frederick Douglass Boulevard.

Studio with Gene Kaufman, juts high above the roofline of two flanking buildings. The 28-unit Parc, with condos listed from \$375,000 to \$790,000, sold out within 11 months.

Surprisingly, Michael Henry Adams, a staunch local preservationist and author of *Harlem: Lost and Found*, is pleased with the new additions on Frederick Douglass Boulevard. For the most part, they "are quiet buildings that recede

into the background and become good neighbors," he says. "As a whole, it's remarkably harmonious, particularly given what could have been there." Once pockmarked with vacant lots, the area was rezoned in 2003 to promote residential and commercial growth. The new land-use regulations specified contextual design and capped building heights, preventing an invasion of glistening glass towers.

"You have to balance this need to develop properties and manage growth with a sensitivity toward what Harlem used to be, and what Harlem is to longtime residents. It's not easy," says Paimaan Lodhi, the district manager for Community Board 10, which covers central Harlem. The revitalization of Frederick Douglass Boulevard is a major success, he says, noting that crime has dropped 16.5 percent in 10 years and many of the new residential buildings contain affordable units. To critics of the redevelopment, he asks: "What's the alternative? Vacant lots? Prostitutes and crack peddlers? We have a vibrancy there that we haven't seen in decades."

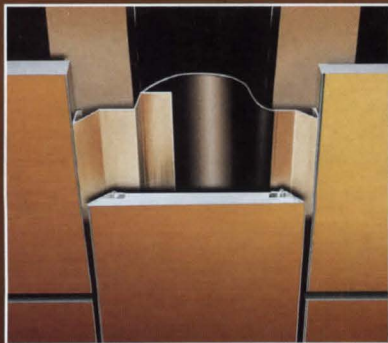
Even Clark acknowledges gentrification's benefits. "I do feel safer," the playwright says. But as for her preference for the old or new Harlem, there's no simple answer. "In an ideal world," she says, "I'd take elements of both and put them together." ■

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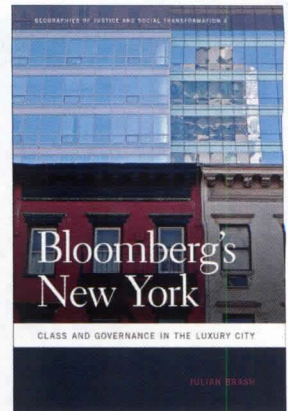
Bloomberg's New York: Class and Governance in the Luxury City, by Julian Brash. University of Georgia Press, 2011, 344 pages, \$25.

Roughly since the election of Andrew Jackson, American politicians have also been brands, competing for mindshare in the markets for "liberal blowhard," say, or "Second Amendment crank." In this field Mayor Mike Bloomberg of New York owns the trademark on "apolitical technocrat," a Northeastern niche market in which the absence of charisma is, like the hand-printed label on a jar of farmer's market jam, a signifier of authenticity.

But the secretive, imperious Bloomberg is also a billionaire whose fortune is tied to the world of international finance, giving rise to suspicions that he is motivated by more than a desire for congestion pricing on the bridges into Manhattan. Julian Brash, an assistant professor of anthropology at Montclair State University, thinks he knows what that motivation is. In *Bloomberg's New York: Class and Governance in the Luxury City*, he argues that Bloomberg's results-oriented, numbers-driven, post-ideological pragmatism masks an unspoken agenda to advance "the interests and desires of the postindustrial elites" seeking "a new class

hegemony" over the non-Gulfstream-owning masses.

Is Marxist analysis coming back into fashion? Certainly the last four years have given us ample evidence of what the rich are capable of pulling off behind our backs. But Brash inexplicably devotes half his book to a history of the Bloomberg administration's efforts to redevelop the far west side of Manhattan with a football stadium intended to attract the 2012 Olympics to New York. This was a terrifically important issue if you happened to live in the neighborhood, with significant implications on the future course of development in the city's central business district. But it was just another iteration in the struggle over New York's scarcest resource – real estate – that began even before the street grid filled Manhattan. Brash does not convince the reader that Bloomberg's landgrab on behalf of his cronies was any more brazen than, say, Nelson and John D. Rockefeller III's to create Lincoln



Center or their brother David's to build the original World Trade Center.

And since it ended with the stadium plan failing by the deus ex machina of a vote by a little-known state board, comprising a handful of politicians from New York's notoriously dysfunctional state legislature, the story is conspicuously lacking in drama, as well as relevance. Nor does it seem like a particularly telling example of how the group Brash

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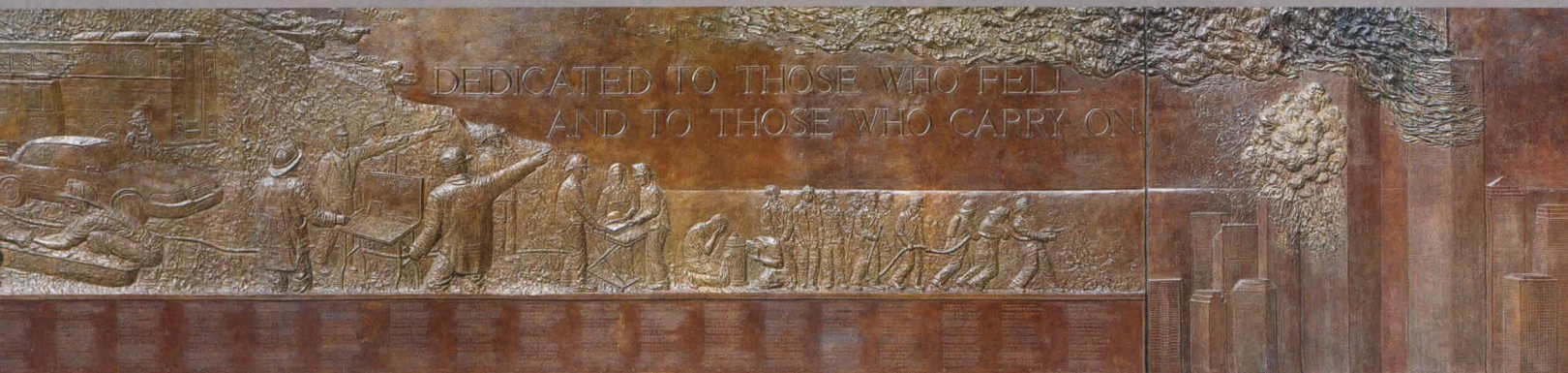
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calls the “transnational capitalist class” wields its influence. A new home for the Jets would not, on its face, seem like a particularly vital amenity to the fraternity of international bankers, a class not especially given to tailgate parties. The plan, to be sure, also envisioned tens of millions of square feet of office, residential, and retail space – a version of which is currently planned over and around the rail yards serving Penn Station. But even the city’s real-estate moguls were divided on the redevelopment, with some seeing it as competition for Lower Manhattan neighborhoods still recovering from 9/11. By Brash’s account, the stadium was the hobby horse of Bloomberg’s powerful deputy, Daniel Doctoroff, who, while watching a World Cup soccer match in 1994, had had the epiphany that what New York needed above all else was to host an Olympiad.

Bloomberg himself disappears from the narrative for long periods, except as a looming symbol of how

the austere values of the postindustrial corporation were encroaching on the rich panoply of boodling pols and ethnic hustlers who had dominated New York politics since the 1870s.

Brash has some interesting observations about Bloomberg’s propensity to run the city like a business – in fact, like the business he previously ran, which was privately held, meaning as CEO he was answerable to no one. In what Brash calls “the Bloomberg Way,” city government was conceptualized as a corporation, with the city itself as the product, other cities as the competition, and businesses, tourists, and residents as customers. Running the city like a corporation meant measuring success the way corporations do, by growth. “Such compulsion toward growth is inherent in capitalism,” Brash writes, attributing the insight to Marx; Bloomberg’s agenda was to “legitimize the power and wealth” of the ownership class and “reshape

the city in line with its interests and desires.”

You can believe that, if you choose, and still acknowledge that growth provides the tax revenues that keep the city running. Bloomberg’s loyalty to the moneyed class did not extend to cutting taxes; his policy was to increase them, to maintain a high level of government services. Service, after all, is how you build a brand, and as customers, we have that, at least, to be thankful for.

Jerry Adler is a former senior editor of Newsweek and author of High Rise (Harper Perennial, 1993).

Briefly Noted:

Aftermath (2011), by Joel Meyerowitz. Phaidon, 2011, 349 pages, \$40.

Given unusual access to Ground Zero right after the terrorist attacks, Joel Meyerowitz photographed the site as it evolved from a smoking mountain of rubble to an urban wound cleaned of debris. For nine

months he documented the Herculean tasks of searching for survivors, then removing 1.85 million tons of material. In his text and photographs, Meyerowitz captures the ghastly beauty of the twisted beams and melted facades, and, more important, the remarkable faces of the men and women who cleared the site so it could be rebuilt. First published in 2006, this book is back in stores and our consciousness.

The New York Public Library: The Architecture and Decoration of the Stephen A. Schwarzman Building, by Henry Hope Reed and Francis Morrone. Photographs by Anne Day. W.W. Norton, 2011, 320 pages, \$75.

To celebrate the 100th anniversary of the so-called “People’s Palace,” Norton has published an updated edition of Reed’s 1986 classic on Carrere and Hastings’s Beaux-Arts monument, with new color photography by Anne Day that shows off the building’s recent renovation. ■

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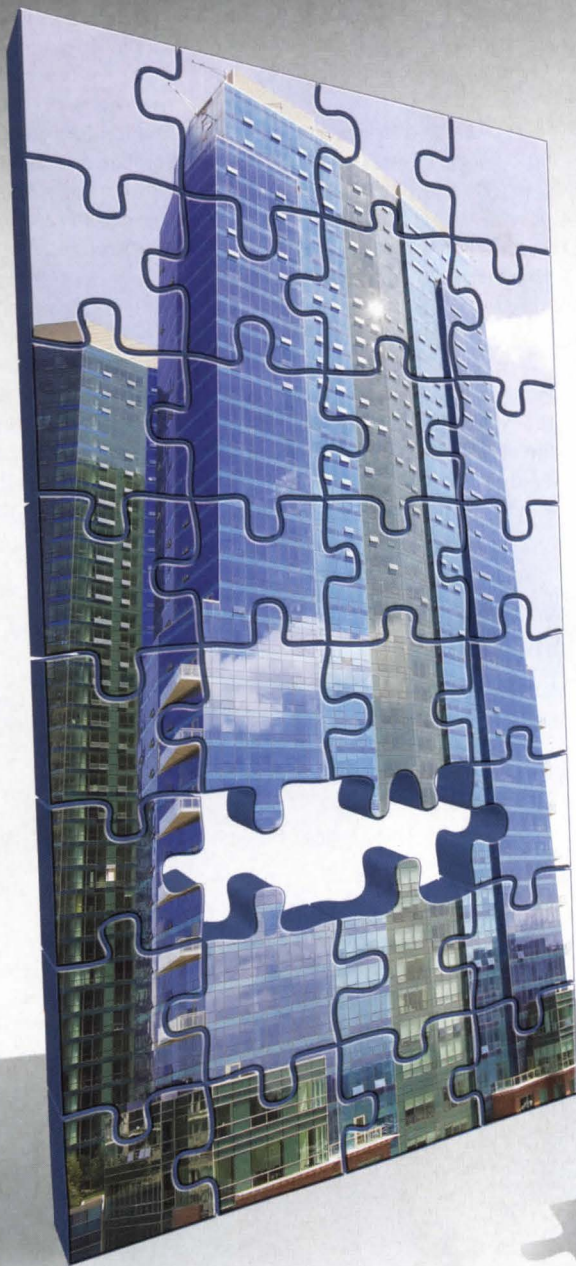
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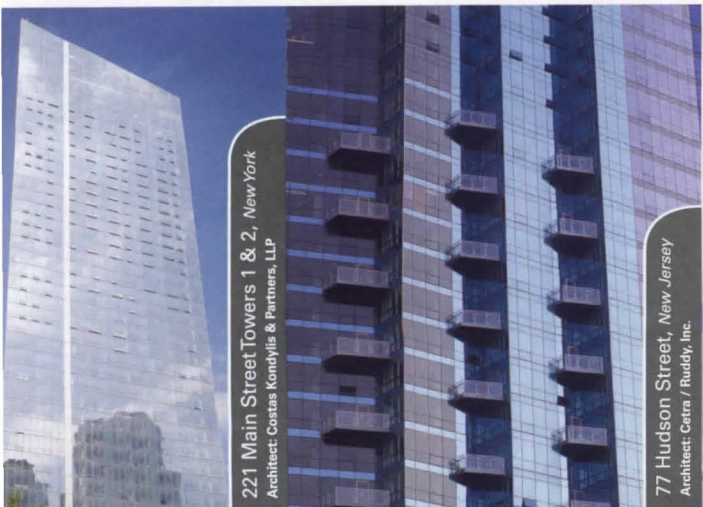
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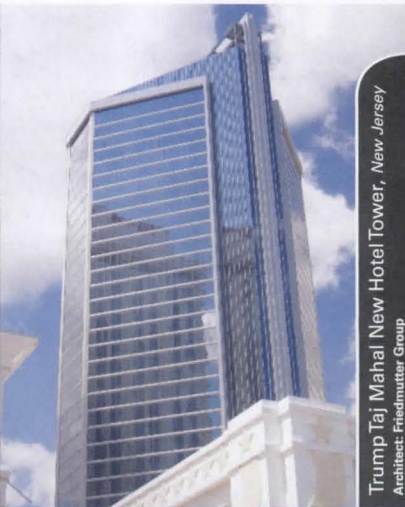


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Native New Yorkers

The current state of manufacturing building products within the five boroughs.

By Rita Catinella Orrell

ACCORDING TO A recent report from the New York City-based think tank Center for an Urban Future, while there are more designers in New York City than ever before, fewer products are now actually made there. A recent announcement from the mayor's office, however, may give hope to building product manufacturers who want to set up shop in the city.

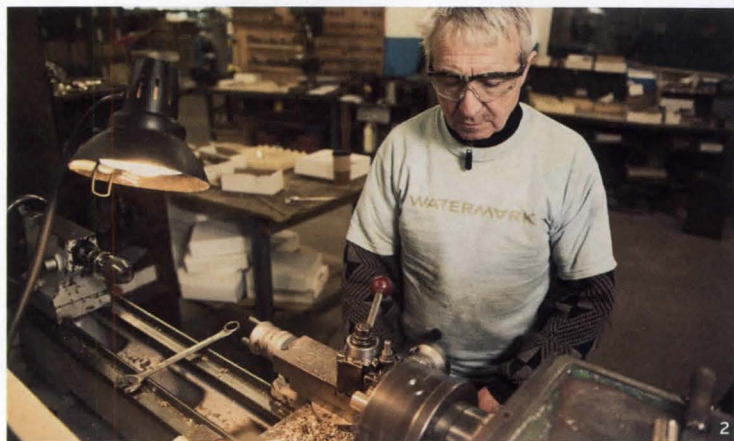
In June, New York City mayor Michael Bloomberg announced a \$10 million fund to "activate, modernize, and preserve" out-of-date industrial space across the five boroughs, as well as 20 other initiatives to strengthen the city's industrial sector and help small industrial businesses stay and grow in New York City. Areas to receive capital include the Brooklyn Navy Yard, a city-sponsored 300-acre industrial district supporting more than 275 businesses and 5,800 jobs. Nearly 70 percent of the tenants at the Yard produce building products, including surfacing maker IceStone, prefabricated unit manufacturer Capsys, and metalworking firm Ferra Designs. The Navy Yard is in the midst of its largest expansion since World War II, adding 1.5 million square feet of new industrial space and over 2,000 jobs over the next two years.

According to the Brooklyn Chamber of Commerce's Brooklyn Labor Market Review, pockets of manufacturing of furniture and home products are already on the rise. "This represents one of the types of niche manufacturing that has found a home in Brooklyn," says Chamber of Commerce president Carl Hum, "and is probably attributable to the fact that many graduates of design meccas such as Pratt Institute stay in Brooklyn."

Maintaining a factory in New York City is challenging, whether it's the high real estate costs or lack of building stock appropriate for



1. An aerial view of the Brooklyn Navy Yard, where 70 percent of the current tenants make building products.



2. Watermark employs skilled laborers to craft high-end bathroom fittings at its Canarsie, Brooklyn, factory.

3. The LEED Gold headquarters for Remains Lighting, a lighting fixtures manufacturer in Bushwick, Brooklyn.



modern industrial uses. Labor shortages are part of a vicious cycle: the lack of industrial jobs means schools no longer offer machinery classes, which means local skilled labor is harder to find. "We need to make sure that we create jobs for people without advanced degrees," says Brooklyn borough president Marty Markowitz. "The kind of stable, union-backed manufacturing jobs that were once the hallmark of this country."

On the other hand, many companies feel the advantages of being near a wealthy customer base, wielding the New York brand, and

maintaining deep historical ties outweigh the negatives. Add to that increasing offshoring costs, a large population of creative talent, and proximity to one of the nation's busiest ports (based on import volume), and it's easy to see why some refuse to move elsewhere.

The Bronx has been the home of sealing-systems manufacturer Zero International for almost nine decades. "New York's high taxes and labor costs might favor other locations," says the company's president, Elias Wexler. "But we have an efficient organization and plant, and we continue to work in partner-

ship with city development officials to further enhance our operations." For Watermark, a manufacturer of high-end plumbing fixtures in Brooklyn, its location is central to its identity. "Ten years ago being from Brooklyn was a negative stereotype," says Watermark president Avi Abel. "Now there is a love affair with not just New York, but Brooklyn in particular." If the mayor's plans succeed, more companies may soon profit from that rekindled passion for products manufactured in the city. ■

See page 40 for some of the NYC-based building product manufacturers.

New York City Manufacturing Source Guide

A few of the companies fabricating building products by hand or machine in NYC.



MANUFACTURER: Atta Studios
LOCATION: Hells Kitchen
PRODUCT: Custom cast resin surfaces and objects
FOUNDED: 1985
NO. OF EMPLOYEES: 9
 attainc.com
 (bar countertop, shown)



MANUFACTURER: Think Fabricate
LOCATION: Downtown Brooklyn
PRODUCT: Indoor/outdoor seating, side tables, cabinets, storage units, credenzas, radiator covers, mirrors
FOUNDED: 2009
NO. OF EMPLOYEES: 10
 dobanarchitecture.com

MANUFACTURER: Capsys Corp.
LOCATION: Navy Yard, Brooklyn
PRODUCT: Prefabricated modular units and bathroom pods
FOUNDED: 1996
NO. OF EMPLOYEES: approx. 100
 capsyscorp.com

MANUFACTURER: IceStone
LOCATION: Navy Yard, Brooklyn
PRODUCT: Recycled glass and concrete surfaces
FOUNDED: 2003
NO. OF EMPLOYEES: 45
 icestone.biz

MANUFACTURER: Zero International
LOCATION: The Hub, the Bronx
PRODUCT: Door sealing systems, security and safety systems, fire and smoke protection
FOUNDED: 1924
NO. OF EMPLOYEES: 125+
 zerointernational.com



MANUFACTURER: Crystal Window & Door Systems
LOCATION: College Point, Queens
PRODUCT: Vinyl and aluminum windows and doors for residential and commercial applications
FOUNDED: 1990
NO. OF EMPLOYEES: 275 (in NYC)
 crystalwindows.com

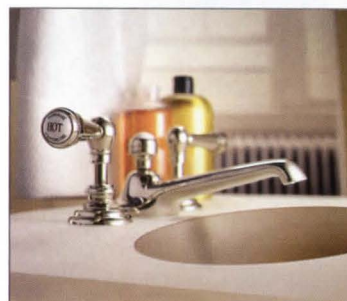


MANUFACTURER: Remains Lighting
LOCATION: Bushwick, Brooklyn
PRODUCT: Indoor and outdoor lighting fixtures; mirrors
FOUNDED: 1986; in Brooklyn since 2008
NO. OF EMPLOYEES: approx. 50
 remains.com

MANUFACTURER: Architectural Grille
LOCATION: Gowanus, Brooklyn
PRODUCT: Custom linear bar grilles and perforated grilles
FOUNDED: Under current name since 1983 (original co. founded 1945)
NO. OF EMPLOYEES: 47
 archgrille.com

MANUFACTURER: Urban Archaeology
LOCATION: Tribeca
PRODUCT: Lighting fixtures, hardware, furnishings; restores salvaged products
FOUNDED: 1978
NO. OF EMPLOYEES: 68
 urbanarchaeology.com

MANUFACTURER: Dakota Jackson
LOCATION: Long Island City, Queens
PRODUCT: Seating and case goods for residential and commercial projects
FOUNDED: 1970 (in L.I.C. since 1979)
NO. OF EMPLOYEES: 75
 dakotajackson.com



MANUFACTURER: Raydoor
LOCATION: Greenpoint, Brooklyn
PRODUCT: Sliding doors and walls; interior dividing solutions
FOUNDED: 2000
NO. OF EMPLOYEES: 10
 raydoor.com



MANUFACTURER: Depp Glass
LOCATION: Long Island City, Queens
PRODUCT: Custom-designed and -fabricated specialty architectural glass for flooring, stairs, walls, and walkways
FOUNDED: 1863
NO. OF EMPLOYEES: 14
 deppglass.com

MANUFACTURER: Watermark
LOCATION: Canarsie, Brooklyn
PRODUCT: Decorative plumbing and lighting fixtures, bathroom accessories, and hardware
FOUNDED: 1976
NO. OF EMPLOYEES: 55
 watermark-designs.com

MANUFACTURER: Fabulux Inc.
LOCATION: Navy Yard, Brooklyn
PRODUCT: Lighting and fixture design
FOUNDED: 1991
NO. OF EMPLOYEES: 2-5
 fabuluxinc.com



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CIRCLE 81

PRODUCTS IN BRIEF GLASS & GLAZING

WE TAKE A CLOSER LOOK AT SOME RECENT PROJECTS IN MANHATTAN THAT FEATURE INTERESTING GLASS APPLICATIONS – FROM A RESIDENTIAL BATH TO A POLICE STATION. RITA CATINELLA ORRELL



166 Perry Street

Bendheim Wall Systems bendheim.com
The interiors of this West Village luxury residential building, designed by New York City-based Asymptote Architecture, are defined by the use of blue and white Bendheim glass in combination with custom-formed white features, stone, and hardwood floors. The apartment bathrooms are finished with etched panes of translucent blue glass on shower enclosures and sliding doors. **CIRCLE 200**

Central Park Police Precinct

GlasPro glas-pro.com
Originally designed in 1870 by Jacob Wrey Mould and Calvert Vaux, the Victorian Gothic Central Park Police Precinct is nearing the end of a restoration by the recently defunct architectural firm Karlsberger. For the insulated glass facade, GlasPro provided a lower row of bullet-resistant glass panels and an upper row of panels with a graduated frit pattern and lettering. **CIRCLE 201**

510 Madison Avenue

Guardian guardian.com
Over 311,000 square feet of SunGuard High Performance AG43 glass makes up the exterior facade of 510 Madison, a Modernist 30-story office building by design architect Moed de Armas & Shannon Architects. The glass was chosen to deliver medium-to-high visible light transmission, moderate reflectivity, and provide energy savings that meet or exceed energy-code requirements. **CIRCLE 202**

One Bryant Park

PPG ppg.com **Viracon** viracon.com
The exterior curtain wall for the 55-story Bank of America tower at One Bryant Park, designed by Cook+Fox Architects, features clear PPG Starphire glass. Fabricator Viracon applied a low-E coating and frit to turn the glass into an IGU installed by glazing contractor Permasteel-isa. The ceramic fritting on the glass helped the architects control glare and meet the building's stringent LEED Platinum energy requirements. **CIRCLE 203 (PPG), CIRCLE 204 (VIRACON)**

Museum for African Art Condominium

Pulp Studio pulpstudio.com
The Museum for African Art, slated to open in 2012, was designed by Robert A.M. Stern Architects in close conjunction with the 19-story residential tower housing it. For the lobby of the condo, artist/photographer Amanda Weil collaborated with architect Andre Kikoski and Pulp Studio to create an 8' x 14.4' installation that transforms an image of alabaster into a striking laminated glass wall. **CIRCLE 205**

601 Lexington Avenue

W&W Glass wwglass.com
This steel-and-glass box is a recent addition by KlingStubbins to the Citicorp Tower. The addition, which creates a secure lobby entrance for employees, uses 6,000 square feet of low-iron laminated Pilkington Planar glazing distributed by W&W Glass (also the engineer and installer of the system). The custom plate-beam steel structure supporting the glass was engineered by Thornton Tomasetti and supplied by TriPyramid Structures. **CIRCLE 206**

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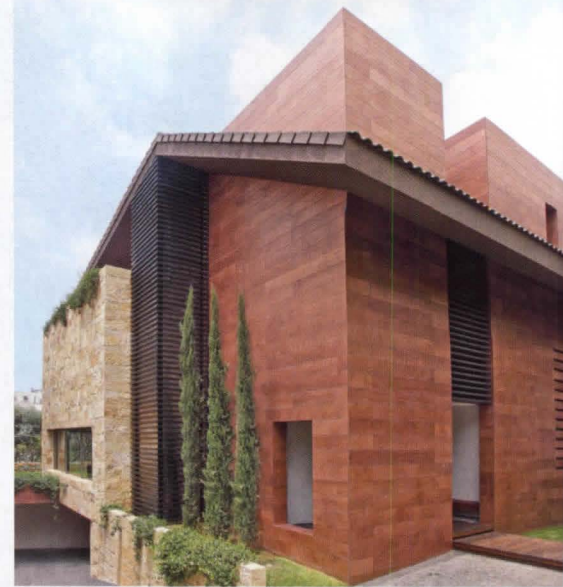


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Architect: Gensler
Photo: Nic Lehoux

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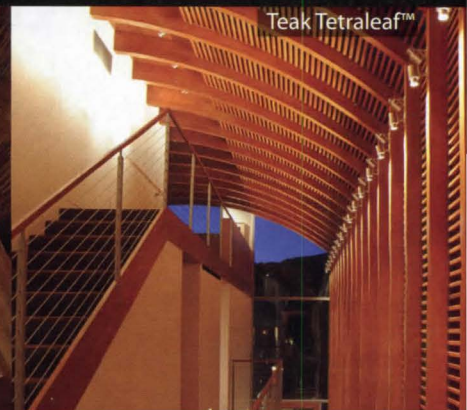
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CIRCLE 07

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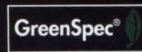
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THE DEATH
AND LIFE
OF A GREAT
AMERICAN CITY

2001-2011

This issue of RECORD is unabashedly devoted to New York City. We are not just commemorating the 10th anniversary of September 11. We want to give the city its due as a 21st-century design capital. There are more architects here than in any other U.S. city, but for decades, New York didn't construct many innovative buildings. The city was a think tank for architecture — with its schools, institutes, and critics — a crucible for big ideas that got built elsewhere, if at all.

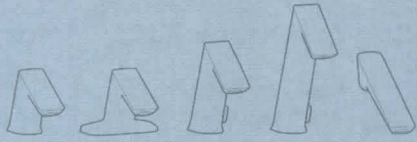
About ten years ago, that scenario began to shift. Not just because of the international stars who came to design here — Foster, Piano, Nouvel — though they helped raise everyone's game. There was a change in the culture, a new awareness that all the elements of great cities were here to build on — the streets, the waterfront, the density.

Architecture and urban design advanced at every scale: from Gehry's 76-story tower downtown to a children's library in Queens by 1100 Architect; in parks and plazas; and renovations that breathed life into old public spaces.

Several factors jump-started the transformation. The international focus on Ground Zero, for one. The powerful economy, for sure. And a mayor whose mantra is "quality of life." New York came back as a great global city, with architecture, design, and planning at center stage.



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CIRCLE 76

SLOAN

The City Rebuilds

SIX DAYS after the 2001 terrorist attacks, critic Ada Louise Huxtable warned in the *Wall Street Journal* of the coming dangers to innovative design and planning: "This city can show its compassion, and its resolve, as it is doing now, but it is also a city incapable of the large, appropriate gesture in the public interest if it costs too much. . . . If the usual scenario is followed, the debate will lead to a 'solution' in which principle is lost and an epic opportunity squandered." Ten years later, was she correct? From its inception as an urban renewal project that erased a 13-block area, the World Trade Center and its Twin Towers represented the last gasps of big ideas that were just about to expire. Today, the new WTC embodies a different set of ideas. Streets ripped out 50 years ago are returning — to better connect the complex to adjacent areas, which have evolved into real, 24/7 neighborhoods. In the pages ahead, you can begin to see if Huxtable was right.

A REMNANT OF THE DESTROYED
WTC STANDS IN THE ENTRY
PAVILION TO THE 9/11 MUSEUM.

New York 2002-2011

A sampling of citywide activity:
master plans, buildings, parks

06.2002

Perry Street Towers, Richard Meier & Partners.



12.01.2003

Forest City Ratner unveils plans for Atlantic Yards, with New Jersey Nets arena by Gehry Partners.

03.25.2004

City and state officials announce plans to build 75,000-seat West Side stadium for New York Jets and possible 2012 Olympics.

04.26.2004

MTA releases plans to build Second Avenue Subway.

04.01.2002

President Bush, Governor Pataki, and Mayor Bloomberg announce federal government will sell Governors Island to the city for \$1.

11.02.2002

United States Olympic Committee names New York as U.S. Candidate City for 2012 Olympics.

02.15.2003

Columbia University hires Renzo Piano Building Workshop and Skidmore, Owings & Merrill to design Manhattanville expansion.



11.2004

Museum of Modern Art expansion and renovation, Yoshio Taniguchi with Kohn Pedersen Fox Associates.

The Rebirth of the World Trade Center (and New York)



World Trade Center, New York City, Yamasaki and Associates/ Emery Roth and Sons, 1972.

07.24.2001

Developer Larry Silverstein signs lease for World Trade Center with Port Authority of New York and New Jersey.

09.11.2001

World Trade Center collapses following terrorist attack.

11.01.2001

Sixteen architectural, engineering, and planning organizations join to create New York New Visions to offer recommendations for further redevelopment of WTC site to present to private and public interests.

11.29.2001

Governor Pataki and Mayor Giuliani, with Mayor-elect Bloomberg, announce creation of Lower Manhattan Development Corporation, a joint state-city corporation to oversee redevelopment of Lower Manhattan.

01.17.2002

A New World Trade Center: Design Proposals, invited exhibition of ideas for World Trade Center, opens at Protetch Gallery.

02.2002

New York New Visions releases *Principles for Rebuilding of Lower Manhattan*. They include: an open memorial process; a flexible mixed-use future; design excellence; sustainability for NYC; and an effective and inclusive planning process for the WTC area.

03.11.2002

Tribute in Light is turned on. The project was created by Municipal Art Society and Creative Time with John Bennett, Gustavo Bonevardi, Richard Nash Gould, Julian Laverdiere, Paul Myoda, and lighting designer Paul Marantz.

05.2002

Beyer Blinder Belle (with engineers Parsons Brinkerhoff) named by LMDC as master planners of the WTC site. BBB wins against five teams who responded to RFQ:

- Kohn Pedersen Fox/ Frederic Schwartz
- Hardy Holzman Pfeiffer/ Fox & Fowle/Gruzen Samton
- Ehrenkrantz Eckstut & Kuhn
- Robert A.M. Stern
- Rem Koolhaas/Davis Brody Bond

07.16.2002

Port Authority of New York and New Jersey and LMDC unveil six planning options for development of WTC site. BBB presents four schemes, and Peterson/Littenberg, consultants to LMDC, present two. In addition, two independent plans — one by Cooper, Robertson for Brookfield Financial Properties, the other by David Childs/SOM for Silverstein — are incorporated into BBB's presentation.



07.16.2002 Beyer Blinder Belle concept plan, incorporating contribution of Cooper, Robertson for Brookfield, leaves the footprints for the WTC towers intact.

07.20.2002

Civic Alliance to Rebuild Downtown New York hosts Town Meeting at Javits Center with 4,000 attendees. Many object to dense commercial development.

08.14.2002

LMDC and Port Authority announce Innovative Design Study with new teams to be selected to prepare additional concept plans for next phase of the planning process.

12.18.2002

LMDC presents seven Innovative Design Study proposals for WTC site in Winter Garden of the World Financial Center. The presentations of nine schemes by seven teams receive extreme media attention and lead to public conviction that winner of study will be the official master planner for the site. The future would show that other forces at work would determine the design for the site.

(see next page for designs)

"Tomorrow New York is going to be here. And we're going to rebuild, and we're going to be stronger than we were before. . . . I want the people of New York to be an example to the rest of the country, and the rest of the world, that terrorism can't stop us."



MAYOR GIULIANI. 12.31.2001



03.11.2002 Tribute in Light, temporary installation.

05.2006
Apple Store at Fifth Avenue, Bohlin Cywinski Jackson.



10.2006
Hearst Tower, Foster + Partners.

04.2007
IAC Headquarters, Gehry Partners.



11.2007
MTA opens two-week exhibition of five proposals for development of Hudson Yards.

07.2005
New York State designates joint venture of Related Companies and Vornado Realty Trust as developers of new Moynihan Station (Farley Post Office west of Penn Station).



11.28.2006
Whitney Museum agrees to buy city-owned land at High Line for new museum, canceling plans for Madison Avenue expansion.

04.22.2007
Mayor Bloomberg releases PlaNYC 2030.



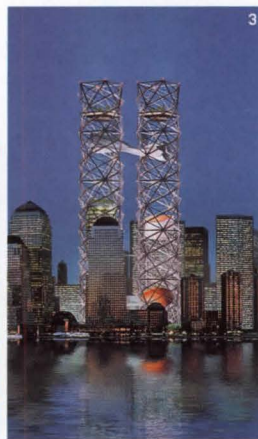
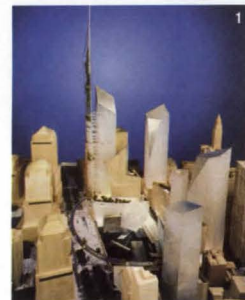
2006

2007

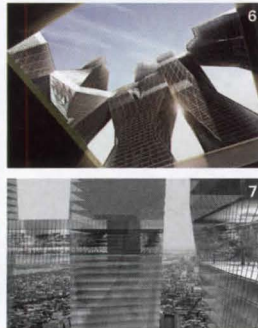
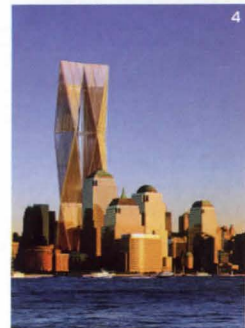
2008

In the decade following the tragic events of September 11, 2001, the redevelopment of the World Trade Center site took many turns while the rest of the city underwent a building boom. **By Gregory Wessner**

12.18.2002
LMDC INNOVATIVE DESIGN STUDY PROPOSALS



"The Libeskind plan promises to add an element of modern vision and magnificence to the already striking New York City skyline. These buildings will stand proudly as living reminders of New Yorkers' and Americans' strength and resilience for decades to come." **GOVERNOR PATAKI, 02.27.2003**



02.27.2003
LMDC and Port Authority select Daniel Libeskind to provide design concept for World Trade Center site.

04.28.2003
LMDC announces international design competition for WTC memorial.

07.2003
David Childs and Daniel Libeskind reach an agreement to collaborate on design of Freedom Tower.

11.19.2003
LMDC announces eight finalists for memorial design competition. (see next page for designs)

12.19.2003
Pataki and Bloomberg unveil torqued and tapered design for Freedom Tower by David Childs and his collaborator Daniel Libeskind.

01.06.2004
World Trade Center Memorial Competition jury announces winning design by Michael Arad and Peter Walker.

01.22.2004
Santiago Calatrava unveils design commissioned by Port Authority for WTC transportation hub.

TEAMS:

1. Studio Daniel Libeskind
2. Richard Meier & Partners Architects, Eisenman Architects, Gwathmey Siegel & Associates, Steven Holl Architects, and engineers Büro Happold
3. THINK Design: Rafael Viñoly Architects, Frederic Schwartz Architects, Shigeru Ban Architects + Dean Maltz, Ken Smith Landscape Architect,

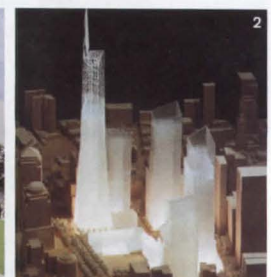
4. Foster + Partners
5. Steven K. Peterson & Barbara Littenberg Architecture and Urban Design
6. United Architects: Foreign Office Architects, Greg Lynn FORM, Reiser + Umemoto (RUR),

7. UNStudio, Kevin Kennon Architects, Imaginary Forces NYC, and engineers Thornton-Tomasetti, Arup
7. SOM, SANAA, Michael Maltzan Architecture, Field Operations, Tom Leader Studio, Iñigo Manglano-Ovalle, Rita McBride, Jessica Stockholder, Elyn Zimmerman

1. 01.22.2004 Santiago Calatrava's design for a transportation hub at the WTC site is presented.

2. 12.19.2003 David Childs and Daniel Libeskind unveil torqued and tapered design for Freedom Tower.

3. 05.19.2005 Pataki and Bloomberg unveil design by Snøhetta for cultural center at edge of memorial site.



06.2009

41 Cooper Square (The Cooper Union), Thom Mayne/Morphosis Architects.

07.08.2009

NYC DOT announces 200 miles of bike lanes completed throughout the city.



10.28.2009

New York City Department of City Planning announces 100th rezoning plan under Bloomberg Administration.

06.08.2011

Section 2 of the High Line opens to the public extending from 20th to 30th Streets.

9.11.2011

2009

2010

2011

01.2009

The Standard Hotel at the High Line, Polshek Partnership.

06.09.2009

Section 1 of High Line opens to public, from Gansevoort to 20th Street.



03.22.2010

Pier 1 of Brooklyn Bridge Park opens.



The Rebirth of the World Trade Center (and New York)

"I am amazed by what we have been able to accomplish in a few short months." LARRY SILVERSTEIN. 09.07.2006

05.19.2005

Pataki and Bloomberg unveil design by Snøhetta for cultural center that houses the International Freedom Center and Drawing Center.

06.29.2005

Pataki, Bloomberg, Larry Silverstein, and David Childs present revised design for Freedom Tower after NYPD voices concerns over safety vulnerabilities.

09.25.2005

Pataki evicts International Freedom Center from site, after Drawing Center voluntarily withdraws. Snøhetta redesigns center as entrance pavilion to memorial museum.

03.13.2006

Construction begins on the National September 11 Memorial & Museum.

04.25.2006

Larry Silverstein cedes control of redevelopment of Freedom Tower to Port Authority but retains control over WTC Towers 2, 3, and 4.

04.27.2006

Groundbreaking ceremony for Freedom Tower.

05.01.2006

7 World Trade Center opens, designed by David Childs/Skidmore, Owings & Merrill, with Silverstein Properties, client.

09.07.2006

Governor Pataki and Larry Silverstein unveil designs for WTC Towers 2, 3, and 4.

ARCHITECTS:

- Tower 2: Foster + Partners
- Tower 3: Rogers Stirk Harbour
- Tower 4: Fumihiko Maki

05.23.2007

Insurance companies reach a final settlement agreement with Larry Silverstein over destruction of WTC, bringing the total payout to more than \$4.5 billion.



07.20.2011 The World Trade Center site showing the National September 11 Memorial & Museum.

11.19.2003/01.06.2004 FINALISTS AND WINNER FOR MEMORIAL DESIGN COMPETITION



1. Brian Strawn and Karla Sierralta
2. Pierre David with Sean Corriel and Jessica Kmetovic
3. Toshio Sasaki
4. Bradley Campbell and Matthias Neumann
5. bbc art + architecture
6. Joseph Karadin with Hsin-Yi Wu
7. Norman Lee and Michael Lewis
8. Michal Arad, winner; revised scheme with Peter Walker, 01.06.2004

09.09.2008

Design for National September 11 Memorial & Museum interiors unveiled by Davis Brody Bond.

03.26.2009

Freedom Tower renamed One World Trade Center.

05.10.2010

Park51, a proposed Muslim community center in Lower Manhattan, is presented publicly for the first time at meeting of Community Board 1.

08.03.2010

New York City Landmarks Preservation Commission votes against landmark status for buildings at 45-47 Park Place, clearing way for Park51 Muslim community center.

05.04.2011

Port Authority announces that steel has risen to 64th floor of One World Trade Center; to the 23rd floor of

Four World Trade Center; and that the foundations for Two and Three World Trade Center are complete.

05.25.2011

Condé Nast signs deal to lease 1 million square feet of office space on 21 floors at One World Trade Center.

09.11.11

Dedication ceremony for National September 11 Memorial & Museum.

Gregory Wessner is exhibitions director at the Architectural League. The material presented here is based on "The City We Imagined/The City We Made," the League's 2010 exhibition about architecture and development in New York City since 2001. Online exhibition at archleague.org.



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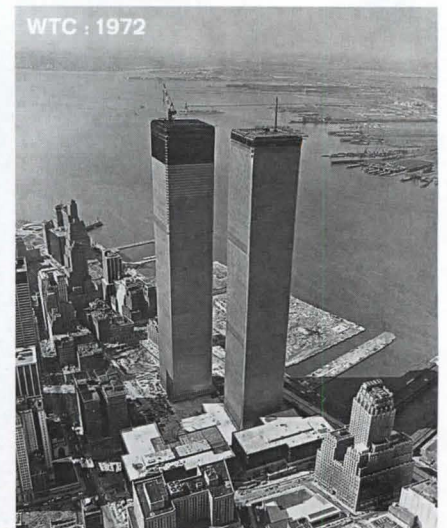
CIRCLE 37

The WTC, Then and Now

TO CREATE THE ORIGINAL WORLD TRADE CENTER, the Downtown Lower Manhattan Development Association and the Port Authority of New York and New Jersey closed five streets and carved out a 16-acre superblock in the first half of the 1960s. The new WTC is reinserting some of those lost streets in an effort to better connect the complex with the rest of Lower Manhattan. While two towers are rising aboveground and the memorial is open, most of the work so far has been building underground infrastructure and transportation connections.

RIGHT: To make way for the World Trade Center, the public-private agencies developing the site razed 164 buildings from the area of electronics stores known as Radio Row.

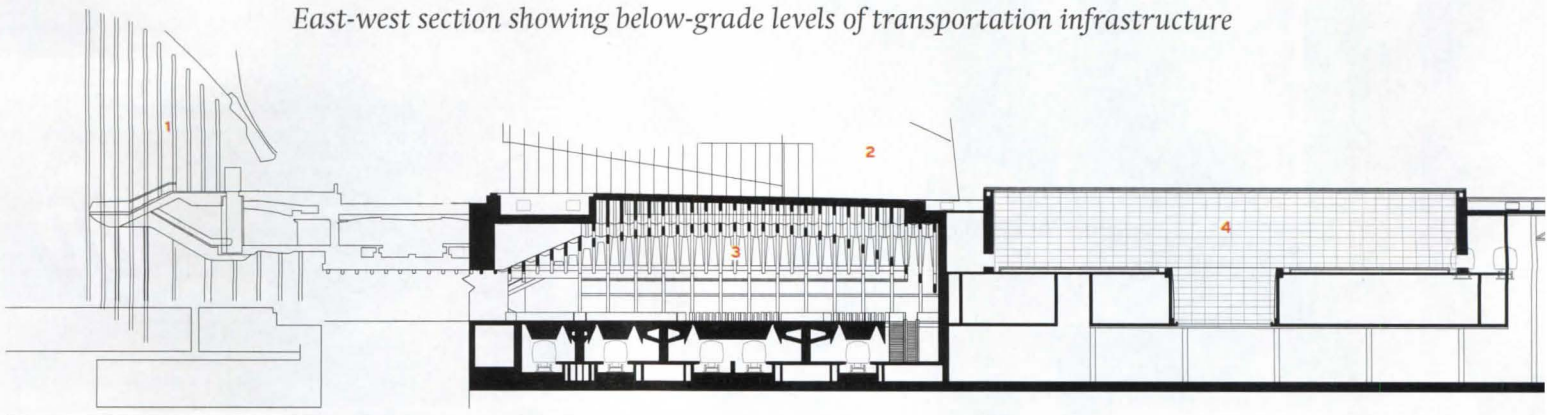
FAR RIGHT: The Twin Towers rose 1,368 and 1,362 feet and opened between 1970 and 1973. Contractors used the 1.2 million cubic feet of earth excavated for the complex to create 23.5 acres along the Hudson River that became Battery Park City.



PHOTOGRAPHY: © ENGINEERING NEWS-RECORD ARCHIVE

CROSS SECTION THROUGH MEMORIAL FOUNTAIN AND PLAZA

East-west section showing below-grade levels of transportation infrastructure



1 WORLD TRADE CENTER
 Skidmore, Owings & Merrill
COMPLETION:
 Late 2013

Formerly known as the Freedom Tower, this building will rise 104 floors (1,776 feet, including its antenna) to become the tallest in the United States.

PERFORMING ARTS CENTER
 Gehry Partners
COMPLETION:
 Not yet determined

Plans call for a 1,000-seat hall for the Joyce Theater, but funding is still being secured.

NATIONAL SEPTEMBER 11 MUSEUM
 Snøhetta and Davis Brody Bond Aedas
COMPLETION:
 September 11, 2012

Snøhetta's entry pavilion will bring visitors down to the underground museum by Davis Brody Bond Aedas.

2 WORLD TRADE CENTER
 Foster + Partners
COMPLETION:
 Not yet determined

The underground structure for this office tower is under construction, but the rest will wait until demand revives.

TRANSPORTATION HUB
 Santiago Calatrava
COMPLETION:
 2014

This complex will serve commuters traveling to New Jersey on PATH trains and connect to NYC subways. It will accommodate 250,000 pedestrians per day.

GROUND ZERO: 2014
WTC SITE, 1973 (in white)



1. Transportation hub main hall
2. Museum entry pavilion
3. Transit concourse
4. Memorial fountain
5. Memorial plaza

NATIONAL SEPTEMBER 11 MEMORIAL

Michael Arad and Peter Walker and Partners
COMPLETION:
 September 11, 2011

This competition-winning scheme features a street-level plaza embracing the empty footprints of the Twin Towers.

4 WORLD TRADE CENTER

Maki and Associates
COMPLETION:
 2013

When done, this 72-story building will offer retail at its base and 2.3 million square feet of office space.

3 WORLD TRADE CENTER

Rogers Stirk Harbour + Partners
COMPLETION:
 Not yet determined

Silverstein Properties, the developer, is currently building the first few floors to be used for retail. The rest of this 80-story office tower will wait until the market dictates.

ONE WORLD TRADE CENTER | SKIDMORE, OWINGS & MERRILL

Controversial Tower Rises at Ground Zero

PART MONUMENT, PART SPECULATIVE REAL ESTATE VENTURE, THE NATION'S SOON-TO-BE TALLEST BUILDING TAKES SHAPE.

BY JOANN GONCHAR, AIA



PHOTOGRAPHS BY JAMES EWING

There is no denying that One World Trade Center (WTC), the 104-story tower now rising at the northern end of the Ground Zero site, is a tremendously ambitious commercial real estate venture. The building, owned by the Port Authority of New York and New Jersey with the developer Durst Organization holding a 10 percent stake, will contain 3.1 million square feet of office space when completed in late 2013. Below grade, connected to the WTC site's vast underground transportation infrastructure, there will be 55,000 square feet of retail, and near the top, the tower will include a two-level observation deck and a restaurant. But when the designers of the \$3.19 billion project describe the building, they generally focus first on its potential as a symbol: "It will serve as the marker of the 9/11 memorial on the skyline," says David Childs, consulting design partner to Skidmore, Owings & Merrill (SOM).

This hybrid of a civic emblem and a speculative office building, which now has framing approaching the 80th floor, will have a stainless steel capped glass parapet whose edges mark 1,362 feet and 1,368 feet. The elevations are the heights of the original Yamasaki & Associates–designed Twin Towers completed in 1972. With the help of a spire that extends 408 feet above the parapet, One WTC will reach 1,776 feet — a height set in Studio Daniel Libeskind's 2002 Ground Zero master plan, making it the tallest building in the Western Hemisphere (for more on Libeskind's role, see page 65).

The building should be immediately identifiable, and not only because of its height: The scheme has a simple, iconic form, much like that of the Washington Monument, says Childs. It includes an 84-story shaft rising from a base that, in plan, measures 187 feet tall and 200 feet wide. Above this almost cubic pedestal, which contains mechanical floors stacked on top of a 50-foot-tall lobby, One WTC's corners are chamfered back, creating progressively smaller floor plates that gradually shift from a square above the podium to an octagon at midsection. At the top, it is once again square, but 150 feet on a side and rotated 45 degrees from the base.

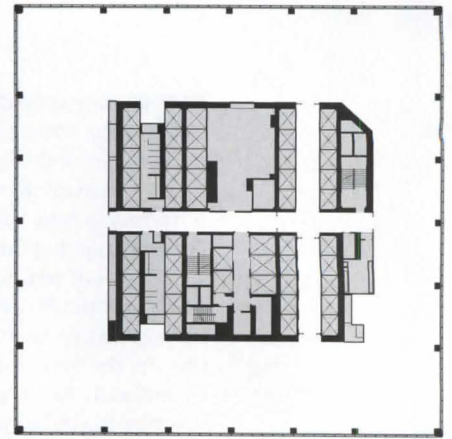
Although the "twisting" of the floor plates produces a tapering tower with a complex geometry, it is a geometry that is much more straightforward than that of an earlier version designed by SOM in collaboration with Libeskind. Then referred to with the emotionally charged name the "Freedom Tower," the building had a torqued cable-net exterior and an off-center spire intended to evoke the torch of the Statue of Liberty. This proposal was scuttled in 2005 and the site shifted, after New York City police objected to its proximity to the busy roadway at the western edge of Ground Zero. Both the abandoned scheme and the tower under construction were commissioned by developer Larry Silverstein, who ceded control of the project to the Port Authority in April 2006 (see time line, page 56).

Despite One WTC's adjusted location, some still regard it as an obvious terrorist target. However, its designers point out that it will have enhanced security and life-safety systems, including a robust, reinforced concrete shear-wall core surrounded by a steel moment frame spanning 45 feet to perimeter columns. The building is part of a post-September 11 trend for New York City office towers to move away from all-steel structures toward composite systems. And although concrete shear-wall construction is just one way to design and harden a core, in the case of One WTC, the approach was deemed the most appropriate due to the tower's

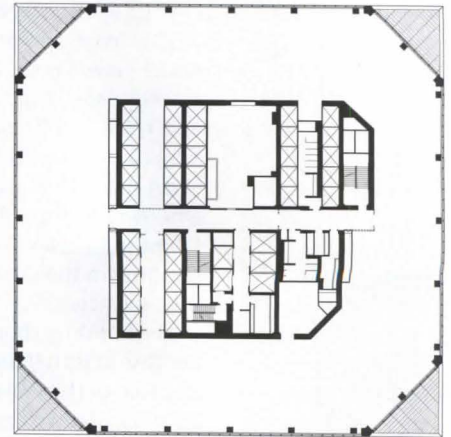
LEFT: At one side of Ground Zero, the sliced-edge, tapering form of One WTC has begun to reveal itself.

BELOW: The eventual 104-story tower, slated for completion in late 2013, sits just to the north of the voids in the footprints of the original Twin Towers, and catercorner to the 52-story 7 WTC, an office building that opened in 2006.

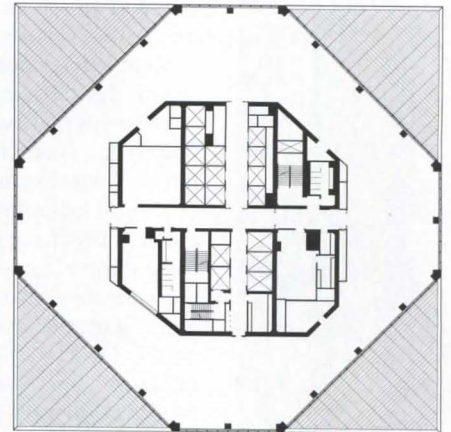




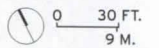
TYPICAL LOW-RISE FLOOR PLAN



TYPICAL MID-RISE FLOOR PLAN



TYPICAL HIGH-RISE FLOOR PLAN



LEFT: By late July, steel framing had passed the 70th floor.

OPPOSITE LEFT: One WTC's core will enclose two egress stairs that lead to a transfer floor just above the lobby and four exits at grade.

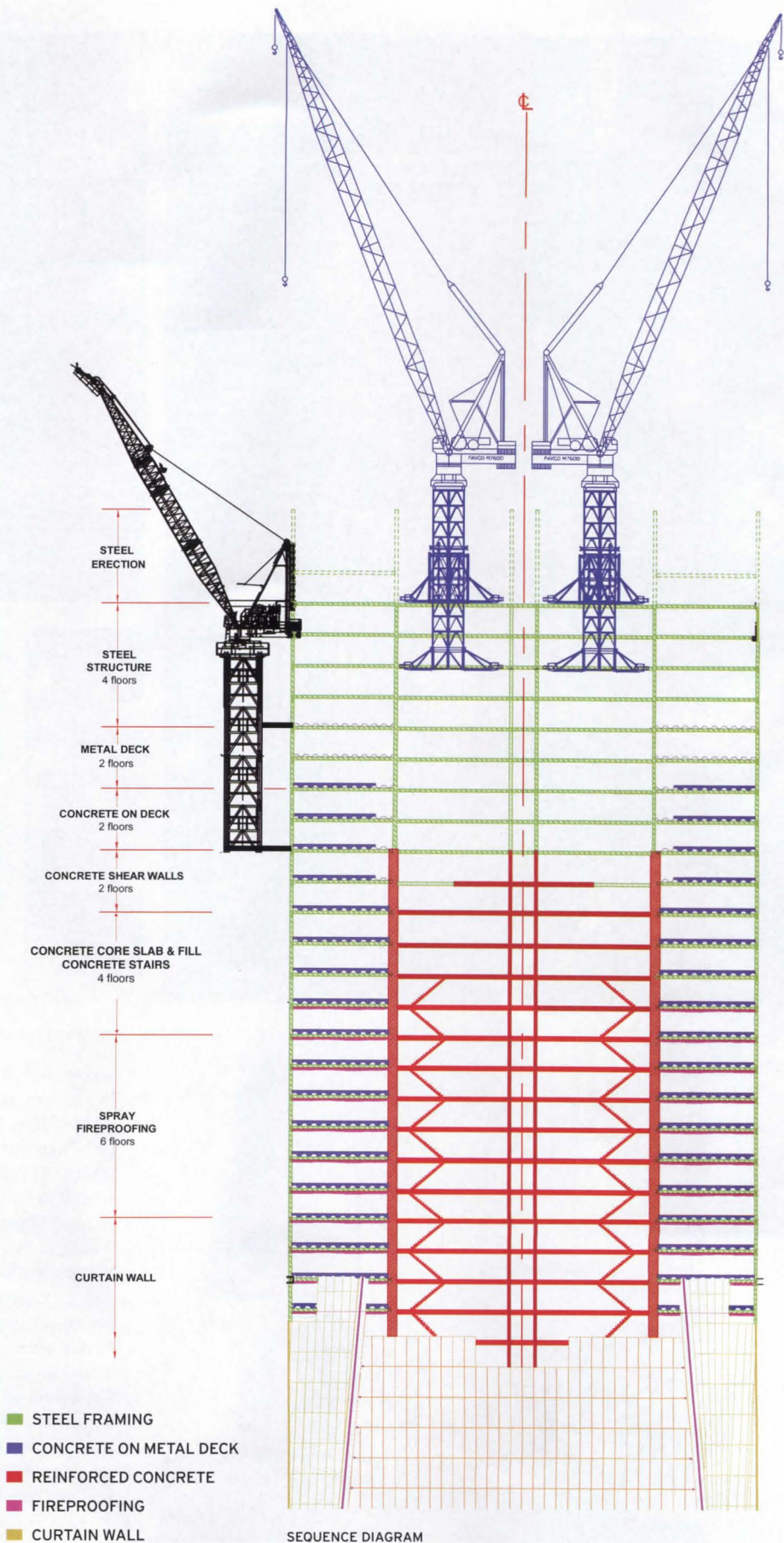
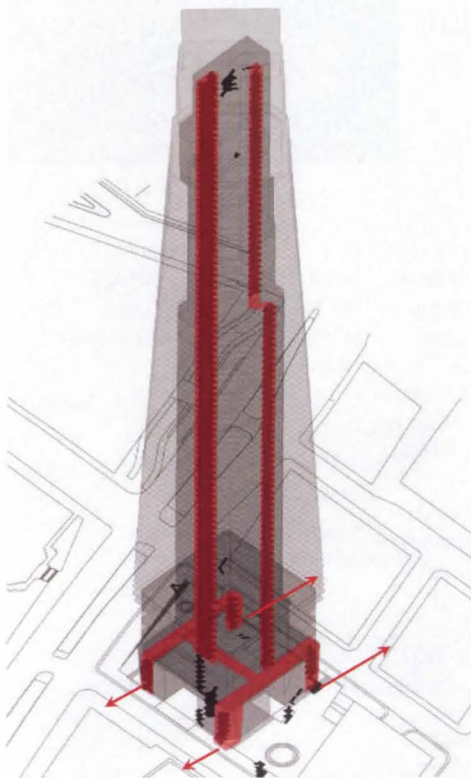
OPPOSITE RIGHT: On any given day, forming of the core lags behind erection of the surrounding steel moment frame by about 10 stories.

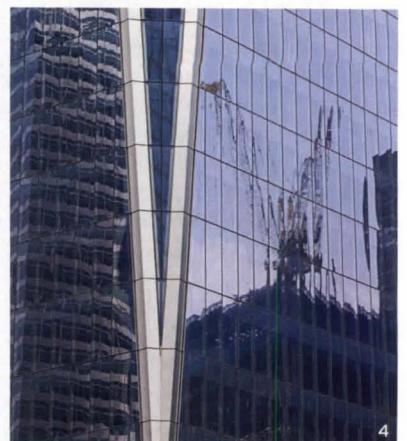
height and slenderness, according to Ahmad Rahimian, CEO of WSP Cantor Seinuk, the project's structural engineer. "For tall and supertall buildings, a reinforced concrete core provides excellent resistance to wind, earthquake, and gravitational loads by virtue of its mass, strength, stiffness, and fire-protection properties," he says.

If the tower, with its composite structure, were under construction in another locale, pouring of the concrete core would likely have advanced ahead of the surrounding moment frame's erection. But the sequence at One WTC is reversed, with steel work leading core construction by about 10 stories on any given day due to "union jurisdictional issues" peculiar to New York City, says Mel Ruffini, executive vice president at Tishman Construction. The company, part of AECOM, is the project's construction manager.

Pouring of the slabs on the floors' metal deck lags about eight levels behind the top of steel erection, with other trades following core forming, including application of cementitious fireproofing and curtain-wall installation.

When designing the structure, engineers took this sequence into account, incorporating a steel ring beam into the core. Although the surrounding steel superstructure ties into this beam, its primary purpose is to serve as anchorage for erection steel and for the self-climbing concrete formwork that contractors





CREDITS

ARCHITECT: Skidmore, Owings & Merrill – David Childs, consulting design partner; T.J. Gottesdiener, managing partner; Kenneth A. Lewis, managing director; Nicholas Holt, technical director; Nicole Dosso, senior technical architect; Mihai Craciun, senior designer; Julie Hiramoto, project manager; Donald Marmen, exterior enclosure

CONSULTANTS: WSP Cantor Seinuk (structural); Schlaich Bergermann and Partner (spire/cable-net wall); Jaros Baum & Bolles (m/e/p); Philip Habib & Associates (civil/transportation); Mueser Rutledge (geotechnical); Peter Walker and Partners (landscape); Claude R. Engle/Brandston Partnership (lighting); Ducibella, Venter & Santore/Weidlinger Associates (security)

CLIENT: 1 World Trade Center LLC – a wholly owned subsidiary of the Port Authority of New York and New Jersey (owner, developer, ground lessor); the Durst Organization (development adviser)

CONSTRUCTION MANAGER: Tishman Construction Corporation

SIZE: 3.5 million square feet

COST: \$3.19 billion

SOURCES

CURTAIN WALL: Benson Industries

STAINLESS CORNER CLADDING: Pohl

GLAZING UNITS: Viracon

GLASS: Guardian

EXTERIOR SEALANT: Dow Corning

CABLE-NET ENTRANCES: American Architectural

ELEVATORS/ESCALATORS: ThyssenKrupp

1. Mechanical levels stacked on top of a 50-foot-tall lobby make up the building's almost cubic base. 2. The architects had planned to cover the concrete walls surrounding the base with prismatic glass panels but have devised an alternate solution after encountering fabrication problems. 3. The tower's shaft is clad in IGUs spanning the entire floor-to-floor height. 4. Stainless steel emphasizes the edges of the building's chamfered corners. 5. The interior of the lobby behind glazed entry portals will be sheltered with concrete walls more than 2 feet thick and slotted to allow daylight to penetrate.

"jump" within the core void using hydraulic jacks. "We needed to consider both temporary and permanent conditions," says Rahimian.

Surrounding the moment frame, cladding operations are well under way, with installation of the curtain wall's low-iron insulated glazing units (IGUs) already extending from the top of the cubic podium past the 50th floor. The IGUs are 5 feet wide and 13 feet 4 inches tall — the largest production IGUs available. They have thicker than typical outer lites ($\frac{3}{8}$ -inch thick versus the more standard $\frac{1}{4}$ inches) and laminated inner lites whose thickness varies depending on location (some are thicker than others due to security concerns). Although the IGUs are heavier than standard units, which complicates installation, the panels' size allows them to span the full floor-to-floor height without intermediate mullions or spandrels. The thickness of the outer lites, along with inner lites' lamination, should also prevent "oil canning," or pillowing of the glass panels, says SOM managing director Kenneth Lewis. The goal is to create a "uniform and crystalline" surface — or one that appears to be "shaved and carved," adds Childs, again alluding to the form of the Washington Monument.

At the ground, each side of the building will have a cable-net-supported glazed portal, 60 feet tall, although the lobby will be otherwise surrounded in concrete. The architects had planned to camouflage the podium with tempered and laminated prismatic glass panels that would reflect, refract, and transmit light, in order to "establish a relationship with the water cascading in the memorial pools," says Childs. However, after discovering that tempering caused the panels to bow, interfering with the laminating process, the project team devised another solution. The alternate, which sources describe as glass fins projecting from the facade at various angles, is now in the bidding phase but has yet to be finalized.

Many of the life-safety strategies being implemented at One WTC were pioneered at 7 WTC — the 52-story office building that sits just beyond the edge of the Ground Zero site, catcorner to One WTC. Completed in 2006, by an almost identical design and construction team — including SOM, WSP Cantor Seinuk, and Tishman — it has features that exceed the requirements of the New York City Building

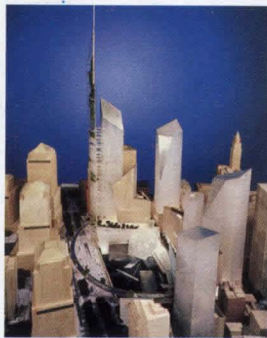
Libeskind Looks Back

Although his design for a "Freedom Tower" was replaced by SOM's One WTC, Daniel Libeskind helped shape the rebuilding at the World Trade Center through his competition-winning master plan. RECORD editors Cathleen McGuigan, Clifford Pearson, and William Hanley interviewed Libeskind in his New York office overlooking the WTC site. Here are some excerpts from the conversation. To watch the video, you can go to archrecord.com.

ON THE SPECIAL CHARACTER OF GROUND ZERO: This is now a site that has memory in it. This is a site where people perished. This is a site which forever has altered how we view New York and the world. And so you cannot just rebuild in a careless way. You have to pay homage to that act, to that memory. You know you can't just rebuild two towers again because things have changed. But at the same time you have to reaffirm that New York is a 21st-century city in terms of public space, accessibility, a good environment, and creating neighborhoods, not just stand-alone buildings.

ON THE PLANNING PROCESS: It's like a ticking clock and every second there's someone calling, someone coming up to say I want this, I want that. As the master planner, my responsibility is to move the project ahead in a positive way, to understand it as a dynamic process. It's getting all these diverse and powerful interests aligned to create a place in the city that is meaningful.

ON CRITICISM THAT HIS PLAN HAS BEEN SUBVERTED: I disagree. Many people think the plan has changed. It hasn't. The fundamental idea was: Don't build where people perished. Create a site of memory. But at the same time create something positive. Don't shift New York into a register of sadness. Create vital streets. Create a central community. I think we have done this. The end result is very, very close to what I was trying to do — which was to devote almost half of the 16-acre site to public space — almost 8 acres — not just open space, but street connections and links to neighborhoods like Chinatown, Battery Park City, the World Financial Center, and Tribeca. We were successful in moving the large tower, One WTC, away from Wall Street where the developers originally wanted it and locating it near the Hudson where there's air to breathe.

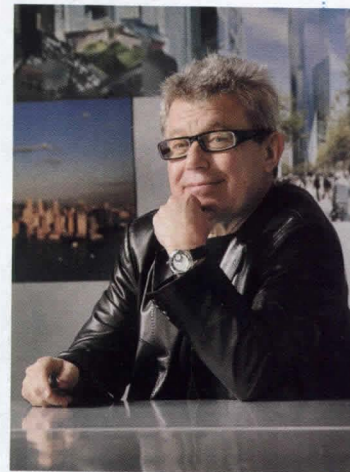


The fundamental idea was: Don't build where people perished. Create a site of memory. But at the same time create something positive.

ON SECURITY: We live in a democracy; democracies are vulnerable. We have to address threats, but we don't have to be stupid about security issues. We have to create a city that is not a fortress — a city that is accessible, fun to be in, pleasant.

ON WHETHER HE LIKES ONE WTC: I do. It's not my tower. I wouldn't have designed it the same way. But it's a very successful tower.

ON WHETHER HE WILL BE THERE ON SEPTEMBER 11: Yes, of course.



ABOVE: THE ARCHITECT LEFT: LIBESKIND'S MASTER PLAN WITH HIS FREEDOM TOWER DESIGN.

Tower's Topper Designed with Potential Tenants in Mind

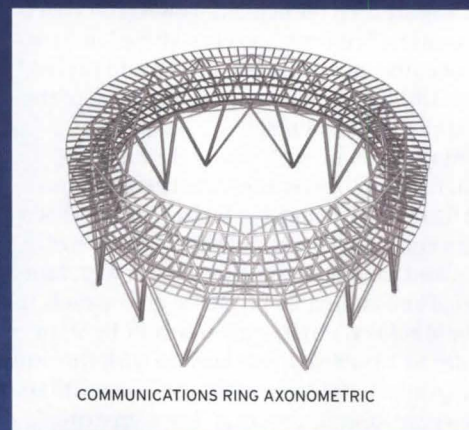
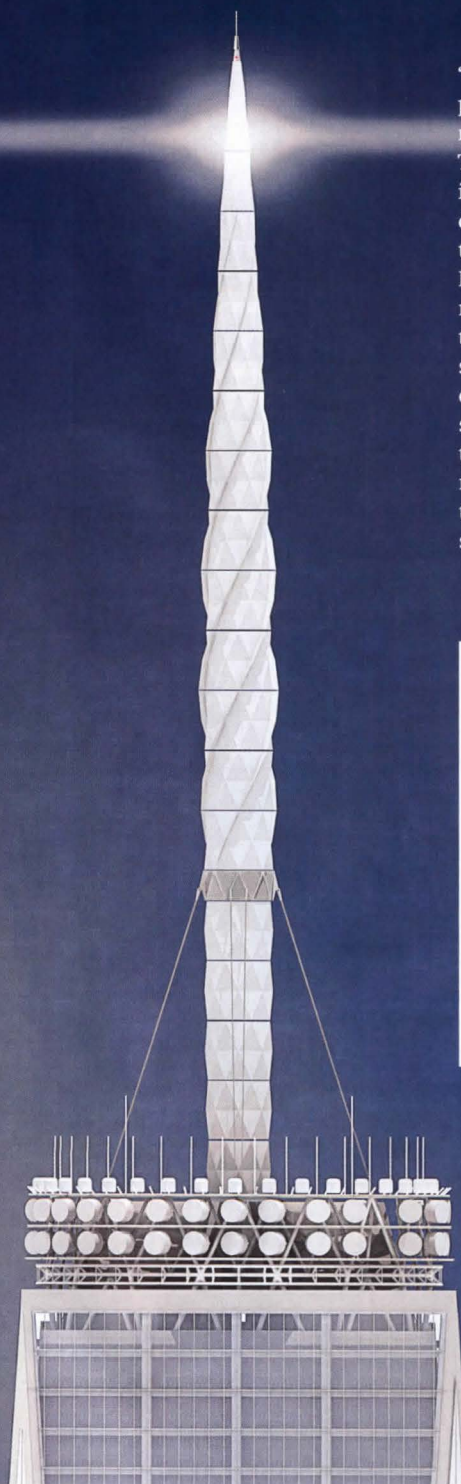
A spire extending 408 feet above the roof parapet of the 104-story One WTC will make the building 1,776 feet tall — an elevation set in the Ground Zero master plan. For the building's architects, the element is more than a tactic for helping the tower achieve a symbolic height. "It is critical to the nature of the design," says David Childs, SOM consulting design partner. He explains that it visually completes the tower, much the same way a capital completes a column.

For One WTC's developers, the piece serves another purpose: It is a potential revenue source, providing leasable space for broadcast equipment. And although there are not yet tenants for this real estate, the spire has been designed to meet broadcast industry criteria, including tight limits on lateral movement. Near its tip, the underlying armature is engineered to deflect only 0.5 degrees in a sustained 50-mile-per-hour wind, according to Christian Rieser, an associate with Schlaich Bergermann, the structural consultant for the antenna.

Rieser's firm devised a 411-foot-4-inch-tall mast with a base and seven stacked sections that gradually decrease in diameter (an eighth section contains an illuminated beacon whose enclosure marks a point 441 feet 4 inches above the roof slab and the 1,776-foot elevation). The mast sections, which range from 40 feet to just over 100 feet long, have different shapes and rely on different fabrication methods. For example, some sections will have 20 sides, others only four. Some will be made of steel plate with cutout zones so that equipment can be inserted, while others will have latticelike construction, affording equipment attachment points. Cast-steel connectors will allow for transition between adjacent sections with differing geometries.

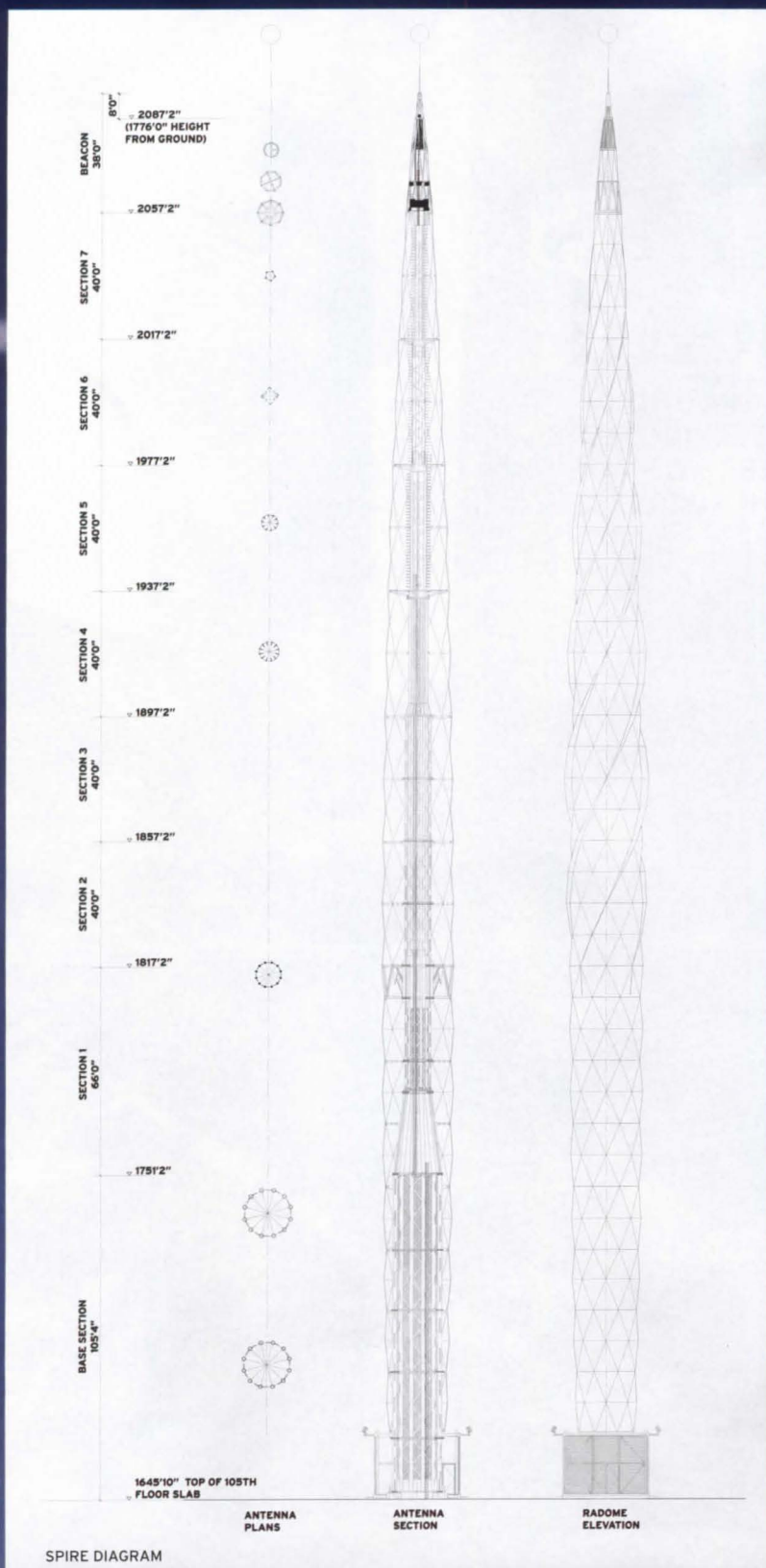
Cables of aramid, a synthetic fiber selected because it does not obstruct broadcast signals, will anchor the antenna under a 65-foot-tall, 125-foot-diameter lattice ring at the mast's base. The ring will support additional equipment, lighting, and window-washing rigs.

As with the cable stays, a radio-frequency "transparent" material was required for the protective shroud, or radome, covering the mast and sheltering maintenance platforms. The tapering enclosure, 30 feet in diameter at its widest point, will have inherent stiffness due to its folded-plate assembly of 2.5-inch-thick fiberglass-and-foam sandwich panels. Finlike "strakes" will protrude from the radome. These were added after wind tunnel testing revealed the need to mitigate vortex shedding — a phenomenon that creates wind eddies on two sides of a cylinder, inducing side-to-side movement that could cause structural fatigue. But if the architects' rendering resembles reality, the strakes also enhance the radome's sculptural qualities as they spiral from its base to the glowing beacon.



COMMUNICATIONS RING AXONOMETRIC

One WTC is topped by an antenna that extends 408 feet above the building's parapet, providing space for broadcast industry equipment. It has a cable-stayed steel mast protected by a radio-frequency "transparent" cylindrical enclosure, with a communications ring for additional equipment, lighting, and window-washing rigs at its base.



SPIRE DIAGRAM

Code, which are also included in the newer tower. For example, air intakes are located well above grade, which make it difficult to introduce biological or chemical contaminants into the ventilation system. Both towers also have widened egress stairwells for emergency evacuation with doors positioned so that anyone entering easily merges with the flow of exiting people. In addition, the stair landings have designated "areas of refuge" where occupants who are unable to descend on their own can wait for assistance.

The tower's life-safety features new to New York City skyscraper design include a stair for use only by first responders and a "fireman's lift" — an elevator used as a service elevator during the building's day-to-day operations but equipped with water-resistant controls and a second door that opens onto a pressurized, dedicated fireman's lobby. The other service elevators have water-resistant controls as well, and are contained within a smoke-resistant enclosure, allowing first responders to press them into service if needed.

Tenants have begun to make commitments for space in the building. In May, the Port Authority finalized a deal with magazine publisher Condé Nast for one million square feet on 21 floors. (Last year, the Chinese real estate company Vantone signed a lease for 200,000 square feet on floors 64 through 69.) It's not clear whether the appeal is in the attractive lease terms, the advanced security features, or the finally visible iconic geometry of the structure. Whatever the lure, New York's tallest skyscraper is beginning to fill up, a sign of upturn for downtown. ■



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Learning Objectives

- 1 Explain One WTC's security and life-safety features.
- 2 Discuss the construction methods being used to build One WTC.
- 3 Describe One WTC's structural system.
- 4 Describe One WTC's cladding system.

AIA/CES Course #K1109A

NATIONAL SEPTEMBER 11 MEMORIAL & MUSEUM
MEMORIAL: MICHAEL ARAD AND PETER WALKER AND PARTNERS
MUSEUM: SNØHETTA AND DAVIS BRODY BOND AEDAS

Creating a Place to Honor the Past and Look Ahead

TO BUILD ON HALLOWED GROUND IN
A DENSE URBAN SETTING, ARCHITECTS
HAD TO BALANCE THE NEEDS OF
MANY DIFFERENT STAKEHOLDERS.

BY CLIFFORD A. PEARSON

PHOTOGRAPHS BY JAMES EWING

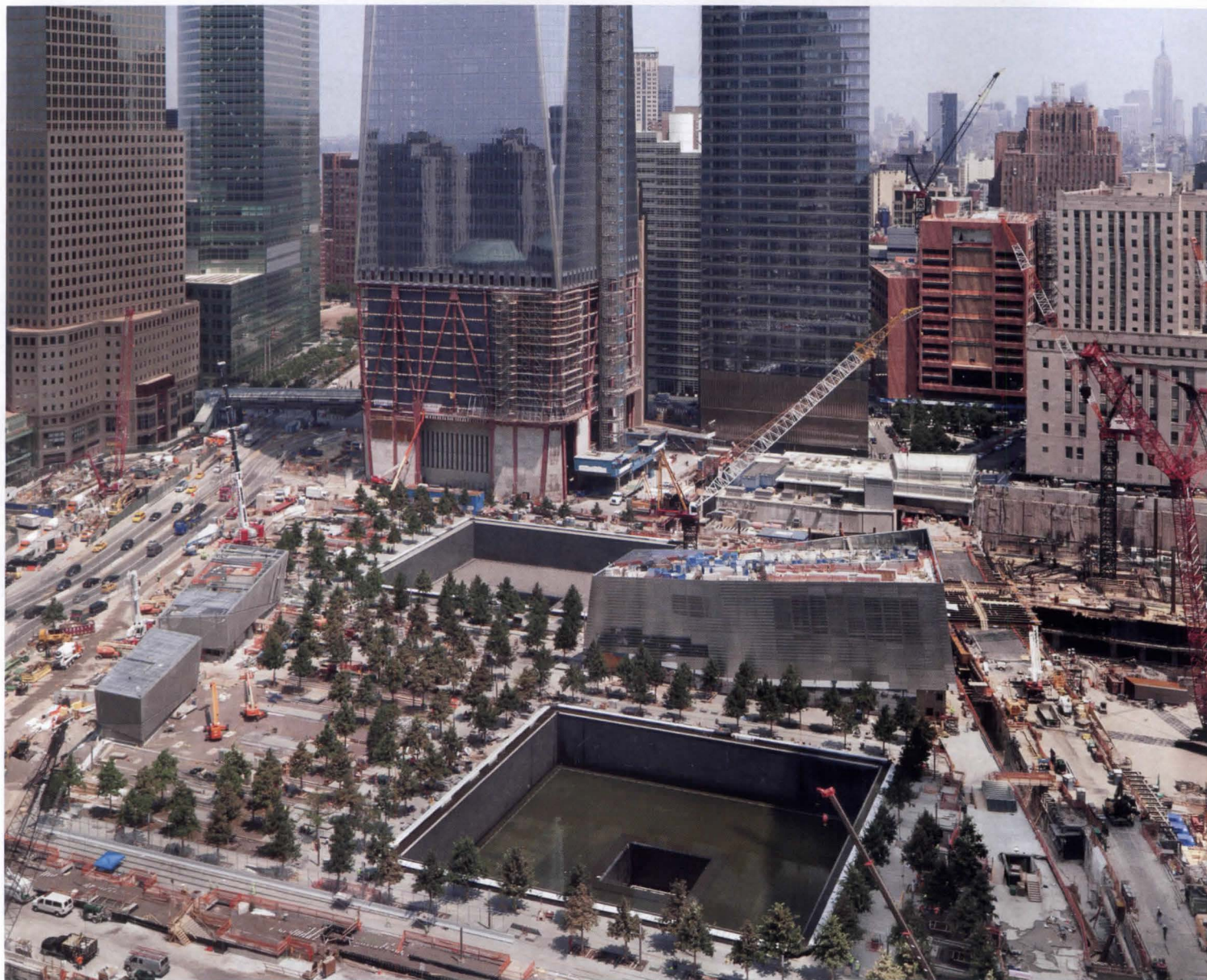


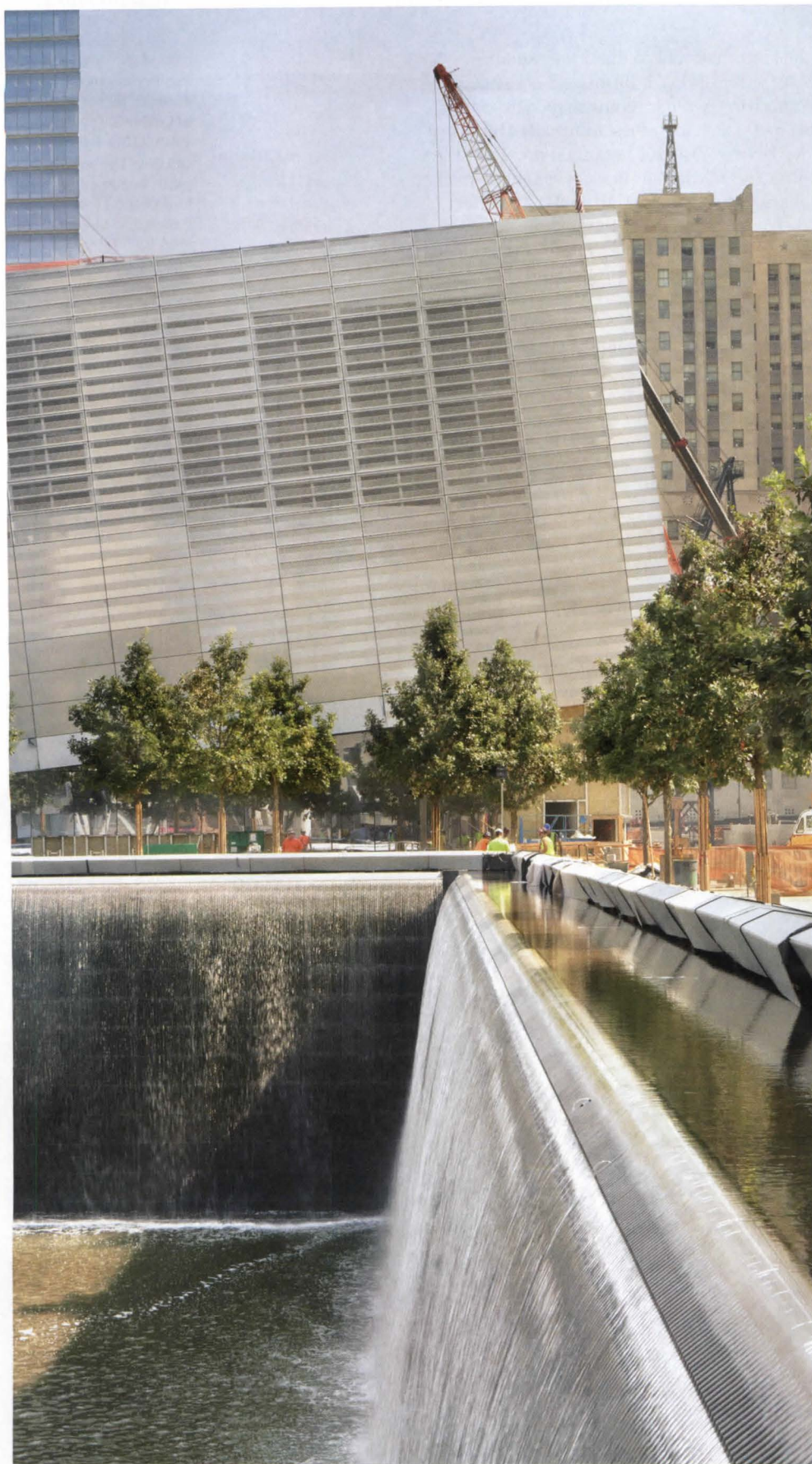
Remembering the dead and embracing the living are the twin forces driving the architecture of the National September 11 Memorial & Museum. Although designed by different teams and created for different purposes, the Memorial and the Museum overlap physically and metaphorically. For many people visiting Ground Zero, the two projects will fuse together as a single experience — a continuum of outdoor and enclosed spaces that elicit a range of emotions and interpretations.

The memorial, designed by Michael Arad and Peter Walker, opens this month on the tenth anniversary of the attacks on the World Trade Center. Based on Arad's entry to the

2003 international competition that drew 5,201 submissions, it forms an 8-acre plaza comprising outdoor rooms shaped by granite, bronze, water, and trees. Arad called his entry "Reflecting Absence" because it preserves the footprints of the Twin Towers as square holes where water cascades into pools that reflect the Lower Manhattan skyline. "I imagined a pair of voids cut into the surface of the Hudson River," says the architect of his original idea. "Instead of an object, I designed a plaza where people could gather." He recalls going to Washington Square around 2:00 a.m. a couple of days after the attacks and sharing the park silently with others who had come there. "I realized the important role that public places

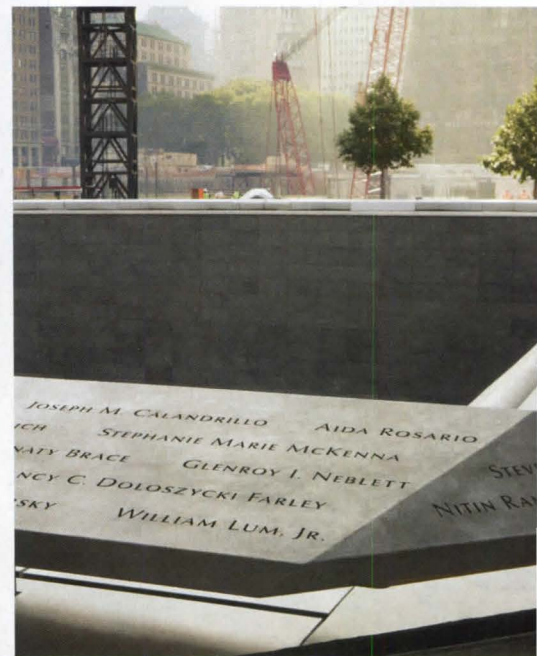
OPPOSITE: Water around and in the memorial pools reflects the skyline of Lower Manhattan without the Twin Towers. **BELOW:** The memorial plaza occupies nearly half of the 16-acre site with a pair of voids identifying the footprints of the destroyed skyscrapers.





play in our civic life," he says. "They're the glue that binds us together as a society."

After the competition jury (which included designer Maya Lin, architect Enrique Norten, landscape architect Michael Van Valkenburgh, and artist Martin Puryear) put Arad's design on a short list of eight finalists, it recommended he team up with a landscape architect. So Arad brought in Walker to collaborate on the project. Responding to criticism that the original scheme was too austere, Arad and Walker integrated more greenery into the plan and used trees to reinforce its geometry. "We envisioned the trees as points on an abacus," explains Arad. "When approached from the east or west, you see the trees in rows. But from the north and south, they appear to be placed randomly, as in a forest." Walker notes, "Our challenge was to create a park here yet maintain the strength of the plane."



LEFT: Water falls over serrated stainless steel weirs and down granite walls around the two voids.

ABOVE: The names of the dead have been stencil-cut into angled bronze plates so sunlight catches them during the day and backlighting illuminates them at night. The names are organized by groups of people who worked or died together, based in part on adjacencies requested by the families and colleagues of the victims.

OPPOSITE: A combination of glass and stainless steel panels animates the museum pavilion's skin with changing daylight. The pavilion points west, helping to orient visitors on the site.



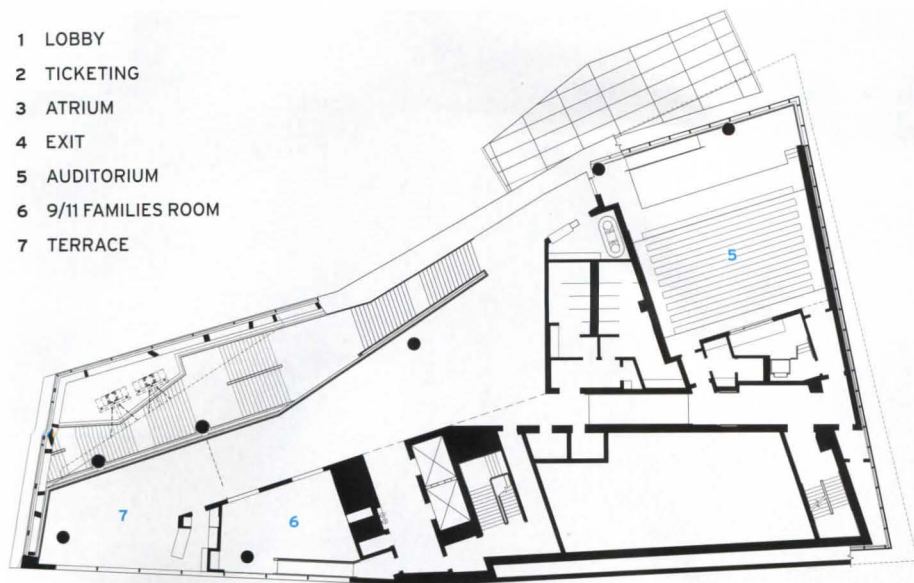
Daniel Libeskind's master plan for Ground Zero placed the memorial 30 feet below the streets, so parts of the massive slurry walls surrounding the site could be integrated in the design. Arad, however, brought his memorial plaza to street level, wanting to connect it with the rest of the city. Underneath the plaza, though, he inserted galleries that would look through the cascading water into the voids of the missing Twin Towers and display the names of the 2,982 people who lost their lives in the WTC attacks of 2001 and 1993.

Even after the jury selected "Reflecting Absence" as the winning design in January 2004, Arad and Walker continued to make changes in response to comments from many different groups. The process wasn't always pretty and often involved heated debate, but Arad says he's proud of the result and feels it retains the integrity of his original design.

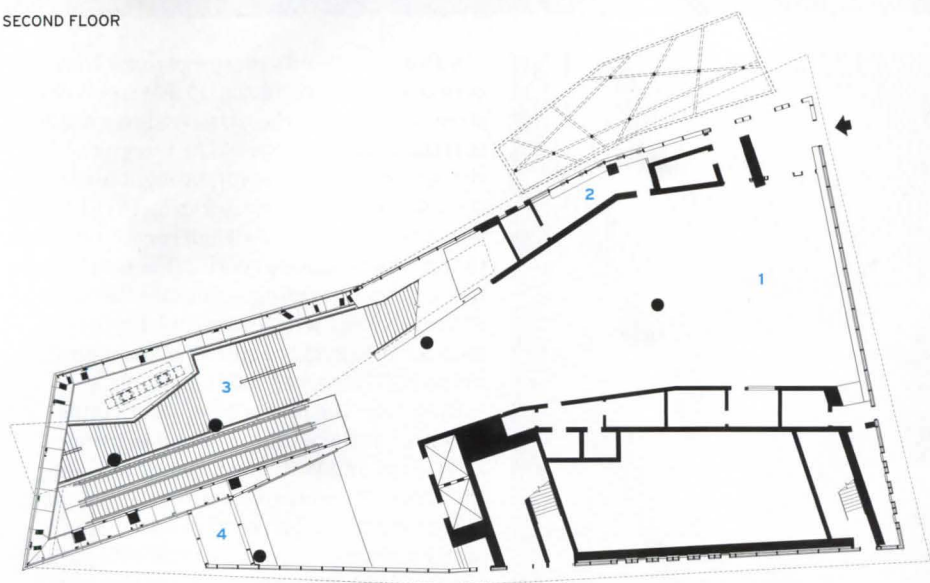
The biggest change was eliminating the underground galleries, which he says was painful at first but brought the plaques with the names of the victims up to the plaza level. "Now we have a more seamless sequence of sidewalk, plaza, names, water, and voids," says Arad. Other changes came in response to various interest groups, such as the disabled, who said people in wheelchairs would have trouble seeing the voids beyond the bronze panels displaying the names. So Arad chamfered the corners of the panels wrapping the voids and cantilevered them above the walkways so wheelchairs could roll underneath. "These changes made the design better," states Arad.

Finding the right trees for the plaza proved to be a complex task, because they needed to grow in a tough urban environment in just 6

- 1 LOBBY
- 2 TICKETING
- 3 ATRIUM
- 4 EXIT
- 5 AUDITORIUM
- 6 9/11 FAMILIES ROOM
- 7 TERRACE

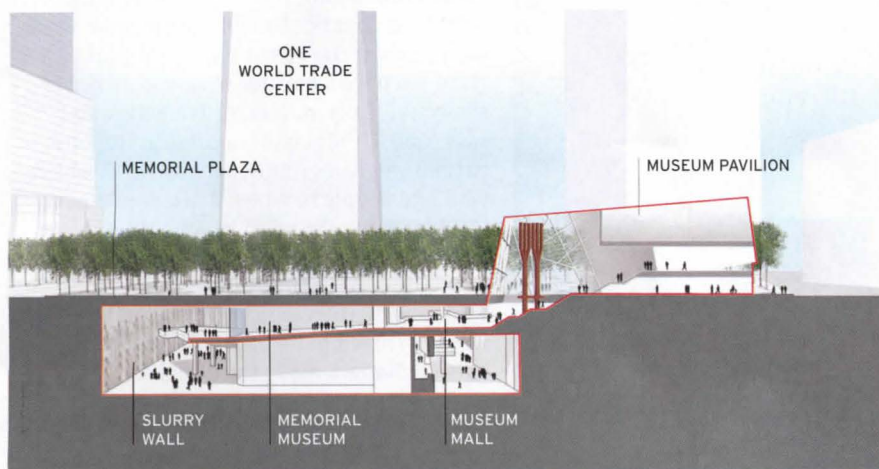


SECOND FLOOR



FIRST FLOOR

0 20 FT.
6 M.



SECTION THROUGH PLAZA

feet of soil and create a uniform leaf canopy. The designers ended up selecting white oaks, growing them in New Jersey, then transferring them to the memorial plaza.

Just as the memorial navigated a tortuous process of design and redesign, so did the September 11 Museum. Begun as a cultural facility with two mismatched institutions, the Drawing Center and the International Freedom Center, as tenants, the project morphed in concept and design as those organizations dropped out for different reasons. After winning the competition to design the cultural center in 2005, the Norwegian firm Snøhetta had to shift gears several times as the program and size of the project changed (and shrank) radically. When Arad was forced to abandon his scheme with galleries tucked around voids, the Lower Manhattan Development Corporation needed to find a new way of bringing visitors underground. So Snøhetta partner Craig Dykers suggested using his building as an entry pavilion to an underground museum that Davis Brody Bond Aedas would design. Although it will occupy some of the space that Arad's galleries would have, the museum will not look into the voids, display the names of the dead, nor have the same connection to the memorial.

While the museum isn't scheduled to open until September 11, 2012, the entry pavilion's exterior is mostly done and provides a sense of scale to the memorial. To help emphasize the horizontal nature of the memorial, Dykers and his team tilted their building up to the east so the plaza seems to slide underneath it. Visitors will enter on the east where the building is widest, go through security, get tickets, and then move downstairs to the museum or upstairs to a small auditorium. A private room on the second floor for family members of 9/11 victims will provide views of the memorial and space for contemplation.

Dykers had originally wanted to clad the building with glass prisms, but that strategy proved too expensive. So his team developed a system of stainless steel panels in which some are perforated and some are opaque. Bead-blasted and scratched finishes help catch the changing daylight while providing blurred reflections of people visiting the site. The architects designed the steel-frame pavilion with angled supports that respond to the different structural demands of the varied infrastructure below it. "The memorial looks to the past and the skyscrapers to the future," says Dykers. "We wanted our building to be about the present, the everyday."

On a site that had for a decade seemed frozen at the moment of loss, time is finally moving forward. ■



CREDITS

PROJECT: National September 11 Memorial at the World Trade Center

DESIGN ARCHITECT: Handel Architects – Michael Arad and Gary Handel, partners; Amanda Sachs, David Margolis, Robert Jamieson, Cristóbal Canas, and Garrett Brignoli, project team

ARCHITECT OF RECORD: Davis Brody Bond Aedas – Steven Davis, Carl Krebs, David Williams, Joseph Grant, Richard Franklin, project team

LANDSCAPE ARCHITECT: PWP Landscape Architecture – Peter Walker, Douglas Findlay, David Walker, Matthew Donham, project team

ENGINEERS: WSP Cantor Senuik (structural); Jaros Baum & Bolles (m/e/p)

SOURCES

METAL FOUNTAIN WEIRS: 4 J's Plumbing; Delta Fountains

PLAZA LIGHTING: Selux

BRONZE NAMES PANELS: Service Metal Fabricating; KC Fabrications

CREDITS

PROJECT: National September 11 Memorial Museum Entry Pavilion

ARCHITECT: Snøhetta – Craig Dykers, partner in charge; Anne Lewison, project manager; Aaron Dorf, project architect

ARCHITECT OF RECORD: Adamson Associates International

ENGINEERS: Buro Happold (structural, m/e/p, sustainability, and fire protection); Weidinger (blast engineering)

CONSULTANTS: Fisher Marantz Stone (lighting); Front, Inc. (cladding)

SOURCES

STAINLESS STEEL PANELS: A. Zahner

METAL-PANEL FABRICATION: Island Exterior Fabricators

GLASS: Viracon

ATRIUM GLASS FRAMING: Post Road Iron Works

LEFT: One of the tridents from the Twin Towers stands (temporarily wrapped) in the stair atrium of the museum pavilion. The glass-and-steel pavilion sits atop a hybrid steel-and-concrete structure with many layers of transportation and mechanical infrastructure below it.

WORLD TRADE CENTER TRANSPORTATION HUB | SANTIAGO CALATRAVA

Bringing Space and Light to the Underground

AN IMAGINATIVE PLAN FOR A TRANSIT HUB HAS HAD A BUMPY RIDE IN THE PROCESS OF BEING REALIZED.

BY C.J. HUGHES

PHOTOGRAPHS BY JAMES EWING

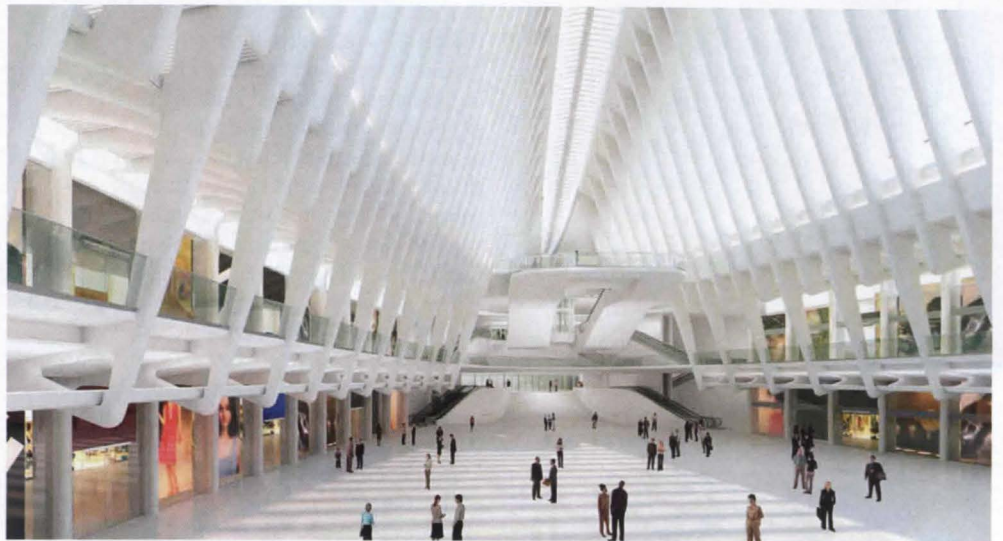


In 2004, when Santiago Calatrava unveiled his plans for the World Trade Center Transportation Hub, an 800,000-square-foot complex knitting together underground train lines, he explained his vision at a press conference by sketching an image of a bird taking flight.

A winged creature was an apt symbol. The part of the hub that was to stand above ground would feature two upturned roof sections, ribbed with steel and webbed with glass, that could actually rise and fall like gently flapping wings.

Not only would that flapping motion open and close a skylight along the spine of the hub's massive main hall, but it promised to make the building look as if it could almost soar itself. Yet in other ways, a bird might have been an unfortunate metaphor: It's a creature that can be brought down to earth.

Indeed, in the years since the Spanish architect's dramatic presentation, the escalating cost of labor and materials for the immense project — it will reach four stories under-

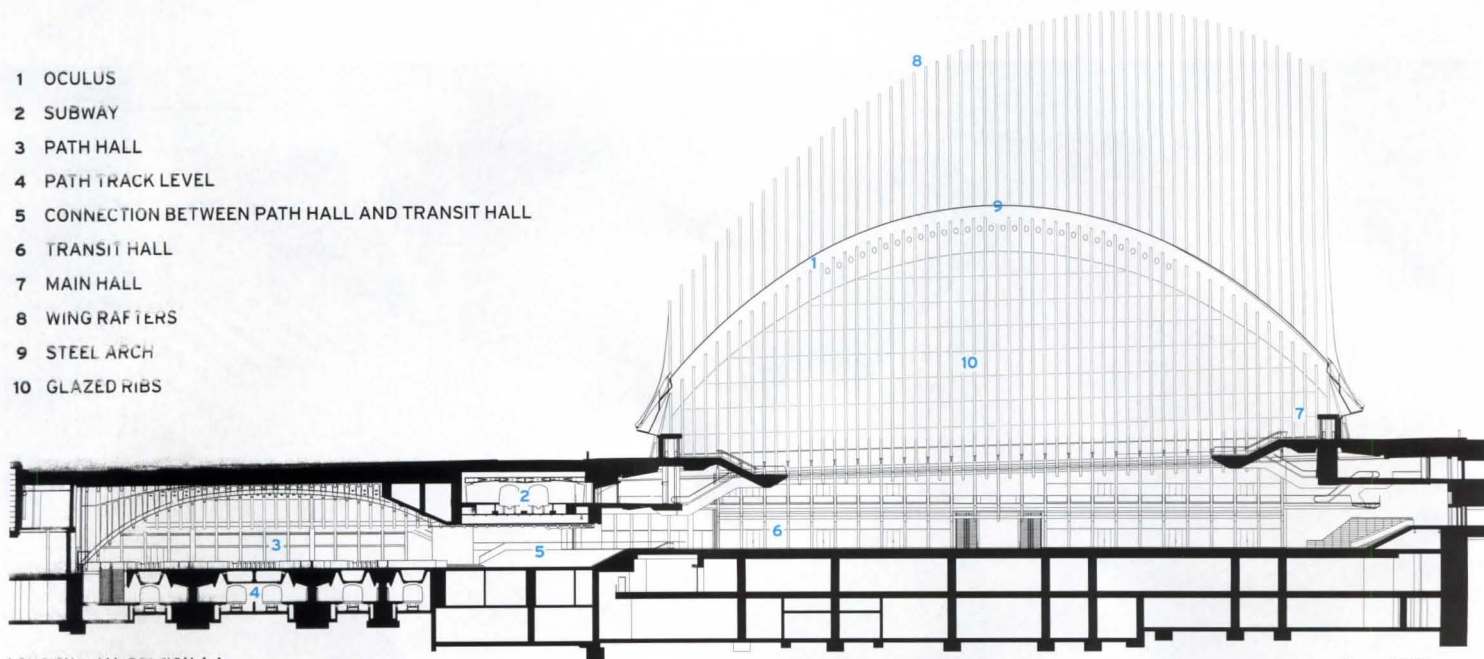


OPPOSITE: The transit hub's arched steel beams in the PATH hall give a sense of the spatial drama awaiting when it opens in 2014.

TOP: The wings of the hub, as shown in this rendering from the Church Street entrance, were originally designed to open and close.

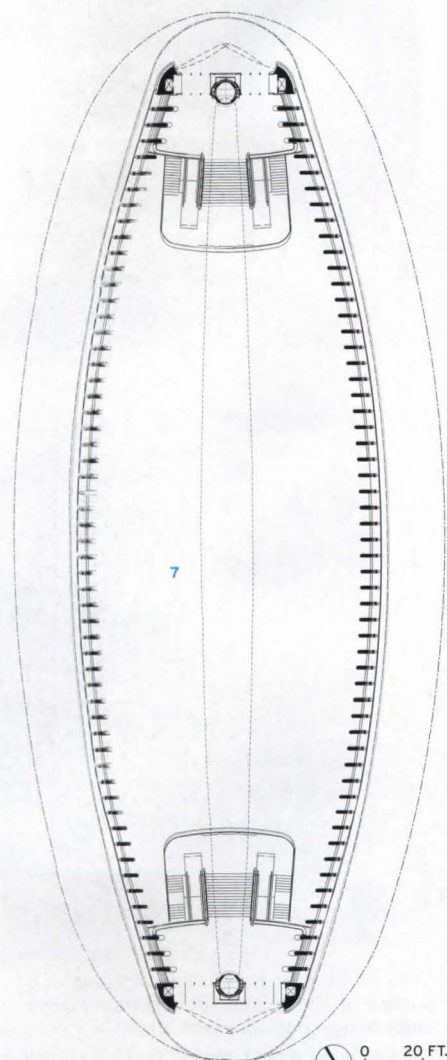
ABOVE: The hub's main hall, 161 feet high, will have a glazed spine that opens to a width of 30 feet.

- 1 OCULUS
- 2 SUBWAY
- 3 PATH HALL
- 4 PATH TRACK LEVEL
- 5 CONNECTION BETWEEN PATH HALL AND TRANSIT HALL
- 6 TRANSIT HALL
- 7 MAIN HALL
- 8 WING RAFTERS
- 9 STEEL ARCH
- 10 GLAZED RIBS



LONGITUDINAL SECTION A-A

0 30 FT.
0 9 M.



MAIN HALL

0 20 FT.
0 6 M.

ground, with a five-track New Jersey PATH train terminal, 200,000 square feet of retail, and concourses for 12 subway lines — has caused the project's price tag to jump from \$2.2 billion to \$3.4 billion. Because of that spike, the client, the Port Authority of New York and New Jersey, forced Calatrava two years ago to make major changes to his design, including immobilizing those eagle-like arcing steel canopies. In other words, the bird's wings have been clipped.

And those aren't the only changes to address budget woes, although some of Calatrava's expensive specifications remain. One is the beautiful, custom, curved steel beams that the architect had fabricated in Spain by a company with which he had previously worked. (Other elements are being made in Canada, South Carolina, and Italy.)

The hall west of, and down from, the main one, where commuters will access PATH trains, was conceived as a sweeping column-free space. It now has four columns, rising as high as 46 feet, on which a plate girder sits — a decision made to simplify construction and shorten the time it takes to build the hall's roof, which supports an outdoor plaza.

In addition, tunnels for the No. 1 subway line, which slices through the site, will now be reinforced concrete, instead of steel, as originally planned by Calatrava (who trained as an engineer as well as an architect). The idea is, again, to hurry along a project that

OPPOSITE: A temporary construction platform in the PATH station gives a close-up view of the arched steel ribs of the roof structure under the Memorial Plaza.

broke ground in 2005 and was supposed to be completed by 2010. While construction proceeds apace, the hub is not slated to open until 2014.

Calatrava acknowledges that spiraling expenses have cast a bit of a shadow over public perception of the project. "The cost for us has always been a concern," he says. The transit project, which rises only two stories above grade but sprawls underground across four and a half city blocks, is incredibly complicated, he notes, adding, "Building vertically is much easier to do than moving in the horizontal. When you are working with these kinds of projects, you have to be aware that they take a long time."

Changes to any architect's plans may be inevitable with a project of this scope, especially at a site fraught with so much emotional significance about what should go where. And Calatrava's hub is not the only project at Ground Zero to undergo significant revisions since being proposed (see One World Trade Center, page 60). Some of the hub's tweaks have more to do with those who lost



their lives at Ground Zero and the prevention of future attacks than with cutting costs. To wit: Early on, the glass panels that were to be part of the roof's wings were eliminated over fears that, in the event of explosions, the glass could shatter and rain down on people below. Those wings will now be made only of steel ribs, so that the overall effect will be one of long, curving pergolas. (The ribbed body of the main hall will still be glazed.)

Also, the plaza on the west that sits atop the PATH hall was originally to have rectangular glazed slots to allow daylight to reach the train platforms below. Yet the planners of the adjacent World Trade Center memorial decided that something more contemplative was needed for the plaza. So instead, a grove of swamp white oak trees was planted. "It is more important for the memorial to be able to use that space," Calatrava says. Now a honeycomb concrete structure covers the PATH hall's arches to accommodate soil for trees.

Calatrava has designed a number of train stations worldwide, including the Oriente

Station in Lisbon, whose concrete forms evoke the shape of the New York hub's main hall, and the Liège-Guillemins TGV Station in Belgium [RECORD, March 2010, page 87], characterized by delicate steel arches. The architect insists that what makes the World Trade Center hub truly special has not been compromised. The arched-glass and steel-ribbed enclosure sheltering its main hall will allow natural light to wash through the space where 250,000 commuters and visitors are expected to pass daily through two levels of restaurants and shops.

Moreover, the skylight along the curved roof's spine, which reaches a height of 161 feet, will open to a width of 30 feet, letting in fresh air and offering glimpses of the sky. And because of the hub's angled orientation, sunlight (weather permitting) should pour through that skylight unencumbered by shadows every September 11 between the key times of 8:46 a.m. and 10:28 a.m., a feature of Daniel Libeskind's master plan that survived.

Illuminating transportation centers with

daylight has been a priority of Calatrava's since he first saw the famous historic photo of Grand Central Terminal in which ethereal beams of light slant through the vast space.

The luminous, airy quality, accentuated by the white-painted arches, will be a direct rebuke, says Calatrava, to the modern-day Penn Station, a windowless space that stands in stark contrast to its light-filled predecessor. "We wanted to do exactly the opposite," says Calatrava about what will be his first completed New York City project. "We want to give the people the comfort of space and light, and easy orientation."

Although the transit center is a long way from opening, as the 10th anniversary of the terrorist attacks arrives, there are signs of progress. The foundations are in place, as are the beams on the western side of the PATH hall under the plaza, says architect Mike Garz, project manager for the Downtown Design Partnership, a joint venture of STV Group and AECOM, which serves as the hub's architect and engineer of record. Garz, on the project



The roof's steel arches curve in two directions, as evident when standing on the construction platform of the PATH mezzanine looking north.

since 2004, understands that the public might be frustrated with the pace of construction, especially as so much that is happening is not visible. But if people can just be patient, they should be pleased with the results. "What we've been trying to achieve is something that is rich, rewarding, and uplifting," he says, "while recognizing where it is."

Whether or not the lack of daylight in the PATH hall ends up playing to Calatrava's

worst fears — and commuters feel they are passing through Penn Station instead of Grand Central — remains to be seen. But in many ways the hub could strike an appropriate balance between the needs to memorialize and yet go on with everyday life. ■

C.J. Hughes is a RECORD contributing editor. His articles have appeared in the New York Times, This Old House, and Departures UK.

CREDITS

ARCHITECT: Santiago Calatrava, design architect; Downtown Design Partnership (a joint venture of STV Group and AECOM), architect and engineer of record.

ENGINEERS: Downtown Design Partnership, Santiago Calatrava, Parsons Transportation Group, Weidinger, Lucius Pitkin (structural)

CLIENT: Port Authority of New York and New Jersey

SIZE: 800,000 square feet

COST: \$3.4 billion

COMPLETION DATE: 2014

SOURCES

CUSTOM-SHAPED STEEL: DCM Erectors, Skanska Koch (contractors)

INTERIOR METAL WALL PANELS: Environmental Interiors

ACOUSTICAL CEILING: Lindner USA, Ceilings Plus



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Smoke and Mirrors

By Michael Sorkin

GROUND ZERO is a buzzing hive of activity — cranes and construction everywhere, crowds of tourists and vendors. Projects are shaping up, too. David Childs's One World Trade Center (WTC) — the erstwhile "Freedom Tower" — has passed 78 stories en route to 104, the Fumihiko Maki tower at the southeast corner of the site is more than 30 and heading for 72, and the National September 11 Memorial opens this month.

Although Santiago Calatrava's bony train station — morphed by budget cuts, according to wags, from bird to stegosaurus — has yet to emerge from the ground, it remains the only piece of architecture with any real ambition on the site. But its price tag — about \$3.4 billion — strikes some observers as a tad dear.

The Norman Foster and Richard Rogers towers — two tepid snoozers — are stuck on hold, awaiting word from the market, although the podium of the Rogers tower will be built as a retail "taxpayer." And Condé Nast has announced it will move its publishing empire and its 5,000 employees to One WTC from Times Square. Those of us in the neighborhood surely look forward to flocks of queuing town cars and many delirious new places for lunch. Anticipating the influx, commercial rentals in the neighborhood are on a dramatic upswing. The two towers under way (by Childs and Maki) will be hyper-bland corporatist products that might have been designed decades ago. Both deploy similar formal strategies, chamfering and carving rectilinear volumes in a wan attempt to bur-nish imaginative nothingness.

As the two new skyscrapers receive their hermetic skins (some of the dreariest-looking curtain wall in the catalogue) it's clear that the scale of the complex will be huge and the effect glassy. Because of their load-bearing walls, the original Twin Towers were read as opaque, solid.

The new buildings are shiny, reflective, thin-walled, veneered, and smooth. Their ensemble will be a Monsieur Hulot confusion of mirrors, of uniformity — an infinitely regressive back-and-forth, trying to pick up the reflection of something actually authentic. (Already, Ralph Walker's beautiful, noble Barclay-Vesey Building of 1926 has been

dwarfed by the looming hulks that now butt against it.) This blinding misdirection is the architecture of paranoia. By obliterating their own interiority, by concealing their structures, by an endless gasketing against the foreign gaze (and substance), by laying in a monster infrastructure of surveillance and "security," this is going to be one very strange and unpleasant place, overscaled and aggressively bereft of humane meaning.

The concealment offered by this nominal transparency has also been pointed up by the announcement that the base of One WTC will not receive the coating of special shimmery prismatic glass originally intended (and on which \$10 million had already been spent). This veneer was meant to hide the fact that the building's massive, 187-foot-high base is designed as a bombproof bunker, a thick concrete redoubt against any future assault. The glass camouflage proved technically beyond its Chinese manufacturer's ability and so the skin will be more conventional. However, it will presumably still efface the difference between the more vulnerable upper stories (with their actual windows) and their impregnable footing, all in service of an uninterrupted visual ascent up this Everest of bad design and a steady lowering of architectural expectations.

The melding of memory and profit will be the "theme" of the site, echoing the idea that public space must pay for itself directly.

To be sure, we can be grateful that what's being built has largely been pared of the overwrought semiotics of the original master plan, although its less controversial reinstatement of Greenwich and Fulton Streets remains. The one visible remnant of Daniel Libeskind's manic cloak of angularity is the little building — by the usually excellent Snøhetta — that will serve primarily as entry for the subterranean memorial museum. Can't say what it will be like inside, but outside it is shaped and decorated in homage to the otherwise vanished spirit of skew, which the more symmetrical chamfering of the two towers in no way evokes. Along with several

extremely obtrusive service structures along the West Side Highway, it seems cruelly placed — smack between the two dignified and apt footprint-fountains. Its relationship to the horizontal serenity of the memorial plaza is carbuncular, disruptive, needless. The mechanicals made us do it!

A controversy that broke out this summer concerns admission to the September 11 Museum, which may not be free and could be as much as 20 bucks. Here's a small reprise of the crisis at the root of the entire redevelopment, one that garishly represents the nature of the split between public benefit and private aggrandizement. One of the hallmarks of American polity is the increasing pervasiveness of so-called "public-private partnerships" and with them the idea that public space must pay for itself directly, that a park must have a café or a condo in it to cover its costs. At Ground Zero, the melding of memory and profit will, in fact, be the "theme" of the site. As the disproportion between the gigantic exclusionary skyscrapers, the hemmed-in memorial, the pay-to-enter museum, and the upmarket shops in Towers 2, 3, and 4 makes legible, it will be a record of much that is wrong, ungenerous, and crass about American culture today. And I keep wondering when the

pious rage that thwarted the proposed Islamic center nearby will turn on the cadre of halal kebab carts that dot the periphery of the site.

As someone who had advocated that the site remain unconstructed, I think wistfully of what might have been, the development that might have been directed elsewhere in the city, the creation of a magnificent and useful civic space, and an expansive act of reverent commemoration. The memorial will surely be noble but it will be overshadowed by too much that is not. ■

Michael Sorkin heads Michael Sorkin Studio and directs the urban design program at CUNY.

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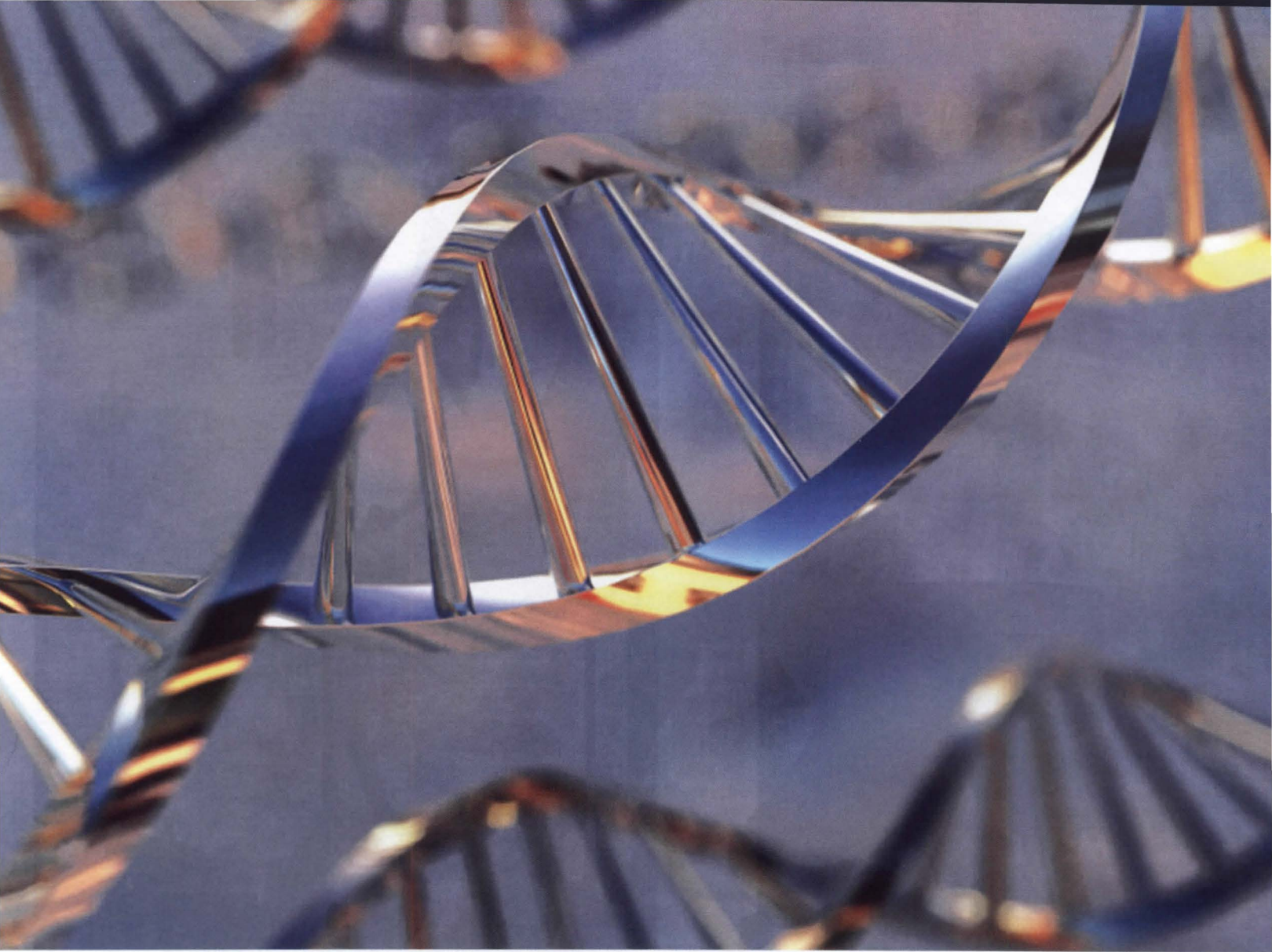


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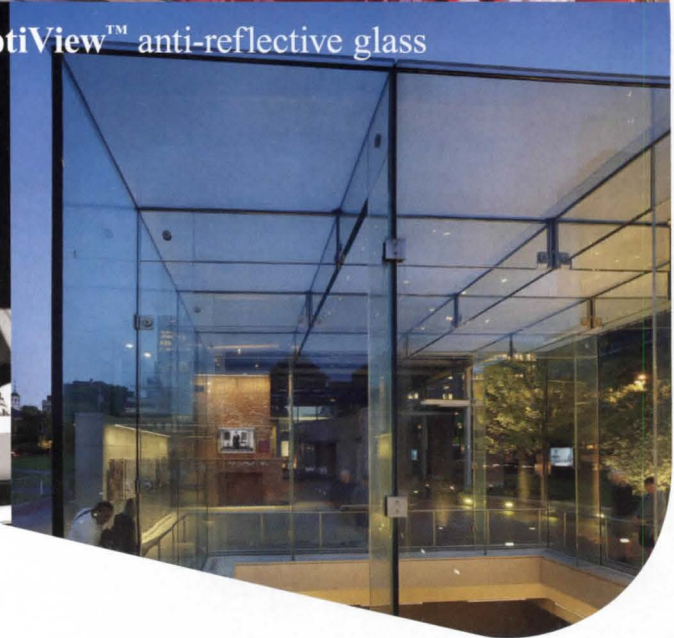
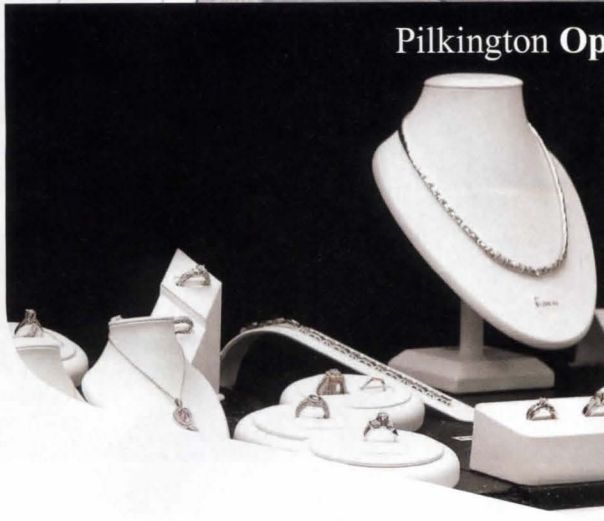
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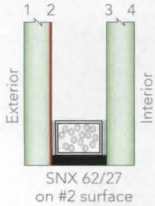


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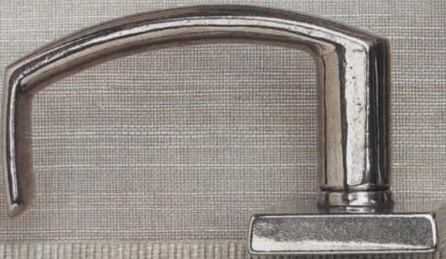
THE DEATH
AND LIFE
OF A GREAT
AMERICAN CITY

2 The City Redefined

LOOK AT New York's waterfronts and neighborhoods. Explore its outer boroughs. Everything is changing, even if at first glance it looks the same. Piers on the Hudson and East Rivers are busier than ever, but not with teamsters unloading shipping containers. Now they serve as parks for families and tourists. Parts of Brooklyn and Queens have become magnets for architecture firms and other creative enterprises, not just bedroom communities. Cultural landmarks such as the Museum of Modern Art and Lincoln Center have undertaken major building projects, while smaller ones have helped rebrand down-and-out avenues. (Think of the New Museum and the newly chic Bowery.) Architecture has played an enormous role in these transformations, upping the design ante in affordable housing, luxury condos, police stations, and branch libraries all around town. In many cases, architects have collaborated with landscape architects and other designers to turn derelict viaducts and even landfills into civic and recreational attractions, softening a city once known for its hard edges.

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CHELSEA MODERN. AUDREY MATLOCK ARCHITECT. 2008



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FOR DECADES after World War II, New York City's private developers were able to attract the affluent classes to perfunctory, low-ceilinged apartments in upended brick shoe boxes. To be sure, in the 1980s some architects embellished new buildings with classical furbelows and pushed ceilings from 8- to 9-foot heights. But rarely was adventurous architecture part of the equation.

The situation began to change at the end of the 20th century: The conversion of light-industrial lofts in SoHo and Tribeca to residential uses starting in the late 1960s whetted the public's appetite for more spacious apartments with larger windows. A new breed of developers, lured downtown by rezoning and lower land prices, found that hiring architects with high-design profiles would help sell or rent apartments off the beaten track. Richard Meier's Perry Street Towers (2002) at the west edge of Greenwich Village, facing the Hudson River, is generally credited with setting a new standard by virtue of the architect's elegant, sleek, white metal

and glass structures with ceilings rising more than 10 feet high.

By the first decade of this century, Herzog & de Meuron, Ateliers Jean Nouvel, Deborah Berke & Partners, Gluckman Mayner Architects, Bernard Tschumi Architects, Smith-Miller + Hawkinson Architects, and Gwathmey Siegel & Associates were invading the turf of the brick-box boys, even if they still occupied the fringes.

In recent years the High Line park on Manhattan's West Side, with its special district zoning, has prompted a slew of rakish towers by Audrey Matlock Architect, Neil M. Denari Architects, and (again) Nouvel, as well as Shigeru Ban Architects (page 90), and Selldorf Architects (page 94). Down by City Hall, Frank Gehry's 76-story, stainless steel, faceted high-rise (page 98) shimmers on the skyline.

The new New York apartment house follows Meier's Perry Street example with large glazed expanses and high ceilings. But the latest crop (e.g., Gehry, Matlock, and Nouvel) shows a tendency to manipulate the skin of the building for an architectonic dimension. True, the special effects may remain on surfaces that wrap conventionally stacked floors with orthogonal plans, but some architects (such as Denari) have altered the form of the building as it rises, or introduced subtle sectional variations in the apartment ceilings (Matlock and Nouvel). Ban and Selldorf overtly manipulate the section to create duplex units. In addition, Ban's adjustable exterior walls and Selldorf's apartments with private garages-in-the-air deploy mechanical features to intriguing ends.

No longer is the standard vertical shoe box acceptable for those who can afford to demand more. Space, light, view, and enriched amenities (such as pool, gym, and private entertaining areas) plus architectural variation in plan, section, and elevation seem par for the course. Some of the shapes overreach with au courant contours, some surfaces are contrived, and who knows if movable windows and garages will appeal over a building's lifetime. Today's dash may seem to be tomorrow's gimmickry. But at least the architects and developers are establishing new standards for this historic building type. ■

METAL SHUTTER HOUSES | SHIGERU BAN

A SHUT-AND-OPEN CASE

SHIGERU BAN TRANSPORTS HIS UNIQUE JAPANESE SENSIBILITY TO A CHELSEA CONDOMINIUM WITH HIGH LINE VIEWS.

BY NAOMI R. POLLOCK, AIA

Whipping around the globe, Shigeru Ban designs everything from major museums to modest relief projects when and wherever disaster strikes. And the Japanese architect regularly wields his craft to make walls that move, rooms that roll, and entire buildings that can be packed up in shipping crates. The realization of Metal Shutter Houses marks another feat for Ban — this time in the heart of Manhattan.

Located on a quiet street between the High Line [RECORD, October 2009, page 84] and the Hudson River, the 11-story condominium features a layered facade — one that opens completely. Enclosed by perforated-steel shutters that roll, and hangarlike bifold doors that fold up, the building front literally peels away, so that its eight units are filled with daylight, air, and marvelous city views. According to Ban, “I wanted to open the living room to the cityscape because most apartments in New York are very closed.” But it took five years to bring his unconventional idea to fruition.

The project began in 2005 when gallery owner Klemens Gasser, impressed with Ban’s Nomadic Museum — a traveling structure on view in New York that year made of stacked shipping containers and showcasing photographs by artist Gregory Colbert — contacted the architect for a potential two-story building renovation. The scope of the job changed when the High Line’s refurbishment triggered rezoning in the surrounding West Chelsea area and local property owners were granted special development rights. Taking advantage of the revised legal restrictions, the client decided to team with a developer and rebuild instead.

There was no getting around the site’s tight conditions. Just 50 feet wide and hemmed in





by the Frank Gehry IAC building on its west side and Annabelle Selldorf apartments on the east, the project was saddled with a 120-foot height restriction, plus setbacks front and rear. "That's when Ban's creativity took over," says Jeffrey Spiritos, who partnered with Gasser to form HEEA Development. Making the most of the property's assets for his clients, Ban proposed dividing the permissible building volume into duplex units that run the lot's full 92-foot depth and benefit from both northern and southern exposures.

Sites with a height restriction of this size often hold 10-story buildings. But Ban needed an even number of floors for the duplexes in addition to a ground-floor lobby and gallery. So he incorporated mezzanine levels into the apartment plans, and created minimized 8-inch-deep floor slabs. In so doing he was able to redistribute the allotted space for the necessary horizontal levels, providing the units with dramatic double-height living rooms to boot. Vertically, he sliced the permissible volume into three bays. The result is a mixture of three-, four-, or, in the penthouse, five-bedroom apartments — every one facing the street with retractable walls and an engawa-like indoor-outdoor veranda.

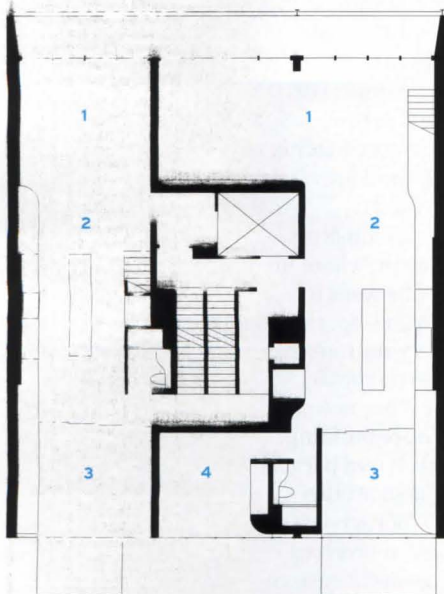
A signature element of Ban's architecture, shutter walls are common in Japan, where he grew up, and California, where he went to graduate school. However the idea is foreign to New York City. "Metal security shutters are a common element [for commercial businesses] in the West Chelsea area, but never before have they covered an entire building," says Dean Maltz, New York City-based partner at Shigeru Ban Architects. Made of off-the-rack components, the 16-by-20-foot screens open and close using a standard, motorized rolling mechanism. Yet they needed a customized perforation pattern with a 50/50 aperture

ABOVE: Appearing like a traditional curtain wall, the expansive thermal bifold doors open fully, blurring the line between indoors and out.

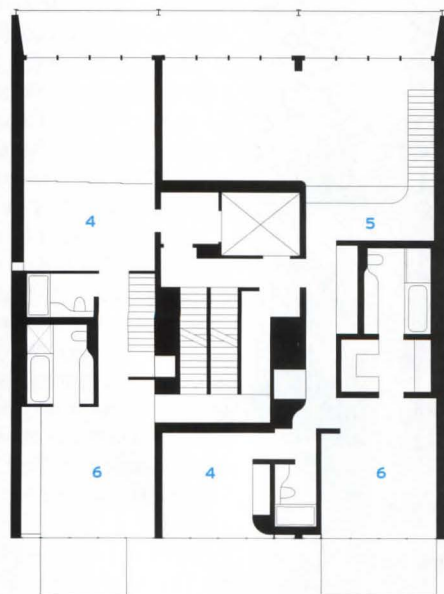
OPPOSITE AND LEFT: The perforated shutters and glass bifold doors provide two protective yet transparent layers of privacy when lowered. Raised, they open the individual "houses" to the city and vice versa.



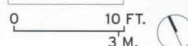
- 1 LIVING ROOM
- 2 KITCHEN/DINING
- 3 LIBRARY/BEDROOM
- 4 BEDROOM
- 5 STUDY
- 6 MASTER BEDROOM



LOWER LEVEL: WEST AND EAST UNITS



UPPER LEVEL: WEST AND EAST UNITS



CREDITS

ARCHITECT: Shigeru Ban Architects + Dean Maltz Architect – Shigeru Ban, Dean Maltz, partners; Nina Freedman, projects director; Grady Gillies, Chad Kraus, Michael Joy, Grant Suzuki, project team

ARCHITECT OF RECORD: Montroy Andersen DeMarco

ENGINEERS: Robert Silman Assoc. (structural); ICOR Assoc. (m/e/p/fp)

CONSULTANTS: Focus Lighting (lighting); Cerami & Assoc. (acoustic); Israel Berger & Assoc. (exterior wall); Langan (environmental)

CLIENT: HEEA Development

SIZE: approximately 35,000 square feet

COST: undisclosed

COMPLETION DATE: May 2011

SOURCES

BIFOLD DOORS: Schweiss Doors; Uni-Systems (latching system)

METAL SHUTTERS: Cornell Iron Works

METAL FRAME: Schüco USA

GLAZING: Oldcastle BuildingEnvelope



ratio to comply with city regulations for a building facade that encloses habitable space.

Five and a half feet behind the shutters, a curtain wall system integrating the bifold doors protects the residences from drafts, dirt, noise, and rainwater. Normally used for industrial buildings and airplane hangars, these hybrid doors comprise double-glazed window sashes (rather than metal panels) with a central horizontal hinge, and are operated by motorized belts that cause each steel-framed door to jackknife up and out of the way. Ample gaskets and a mechanized latch maintain an airtight seal when they are closed. “We took a standard [door] system and improved it acoustically and thermally,” says Ban.

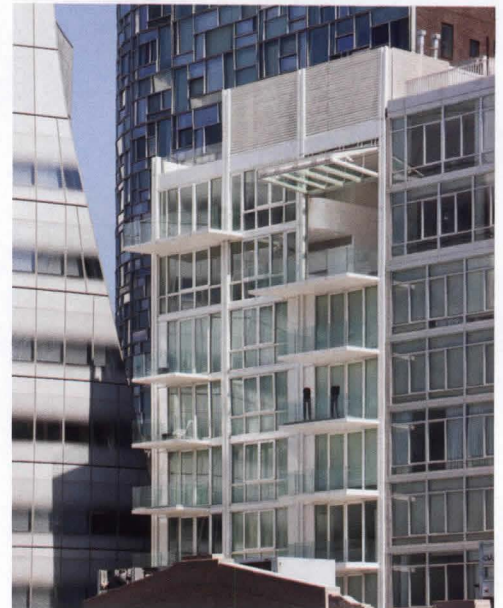
When the doors and shutters are raised, the loftlike units are unlike any other in the city. Each is a fluid space with lower-level living, dining, and kitchen areas as well as a library or bedroom set apart by sliding glass doors. Stairs with transparent glass rails ascend to private bedrooms and bathrooms upstairs. “The apartments are so unique that they don’t feel like apartments, they feel like houses,” says Maltz, explaining the building’s name.

Two built-in elements underscore the north-

south axis in most of the apartments: a cantilevered kitchen island and a functional wall that houses the adjacent kitchen cabinets and appliances, the stairs, and full-height storage (in the dining/library areas). The tall white lacquer doors of the latter also conceal HVAC ducts and plumbing chases. By concentrating the mechanicals here, and by embedding the sliding-door tracks and recessed downlights directly into the slab, the design team was able to eliminate the need for a plenum, which enabled maximum room height.

The cantilevered counters and multifunctional built-in housing for storage and equipment are details Ban devised for Japanese homes he designed, many of which (as stated previously) blur the lines between indoors and out. Though Ban had to adjust to the style and ability of New York construction crews, and U.S. liability concerns spooked some of his overseas suppliers, Metal Shutter Houses evokes the spirit of his Japanese buildings — a feat that, in New York, is nothing short of heroic. ■

Naomi R. Pollock is RECORD's Tokyo correspondent and the coauthor of New Architecture in Japan (Merrell, 2010).



ABOVE: A view of Ban's Metal Shutter Houses' shutterless south side reveals Frank Gehry's IAC building (left) and apartments by Jean Nouvel (rear) and Annabelle Selldorf (right).

TOP: The living rooms seem to spill onto the verandas, whether the doors are open or shut.

200 ELEVENTH AVENUE | SELLDORF ARCHITECTS

THE HEIGHT OF CONVENIENCE

YOU CAN PARK YOUR CAR RIGHT OUTSIDE YOUR APARTMENT DOOR IN AN ANNABELLE SELLDORF-DESIGNED 19-STORY TOWER.
BY SUZANNE STEPHENS



It is a poorly kept secret that many Manhattanites own cars — even in a city that prides itself on a plethora of transit choices. The developer of 200 Eleventh Avenue condominiums at the western edge of Chelsea, where art galleries and apartment buildings have replaced light industry, knew this. But he did not just build underground parking in his new residential project; he created New York City's first apartment tower with a high-rise car elevator and private garages. “We wanted a building that would stand out in concept and architecture,” says Young Woo, the developer whose eponymous firm put together the \$41 million real estate deal with Urban Muse Management. Woo had seen automated high-rise parking being used in Japan and Korea and was certain that even in a city of pedestrians it would give his apartments a certain edge.

After interviewing a handful of architects, Woo enlisted Annabelle Selldorf to design the 19-story tower with a manageable density of 16 apartments, 14 of which are served by his trademarked sky-garage system. In integrating the car into the tower, Selldorf has residents enter a driveway on Eleventh Avenue, pull up to the car elevator on the tower's east side, then ascend to the garages adjoining the individual apartments. (Passenger elevators and a stairwell buffer the garages from the apartments' front doors.)

Upon arriving at their dwellings far above the street, residents find a panorama of the Hudson River unfolding before them. Ceilings heights are typically 11 feet high but soar to 23 feet in a dozen duplexes and to 15 feet in the remaining simplexes. The expansive and well-proportioned design of Selldorf's plan for the poured-in-place concrete-frame structure bears a certain affinity to the Immeuble Villas in Le Corbusier's Contemporary City for 3 Million People (1922). Selldorf remarks half-jokingly, “You have to look at Corb: I do every night before going to sleep.” The major difference: Whereas Le Corbusier envisioned an outdoor terrace for relaxing or exercise within the building's volume, Selldorf has inserted space for a BMW.

In working with this small 7,400-square-foot corner site with unimpeded views of the Hudson over a park, Selldorf faced certain zoning restrictions, including a street wall that rose 60 feet before setting back and an overall height limit of 250 feet. With a Floor Area Ratio of 7.5 for the lot, the developers and architect realized they could offer residents both duplexes and extremely high ceilings yet stay under the obligatory height cap.

Needless to say, permits were also required for a sky-garage, along

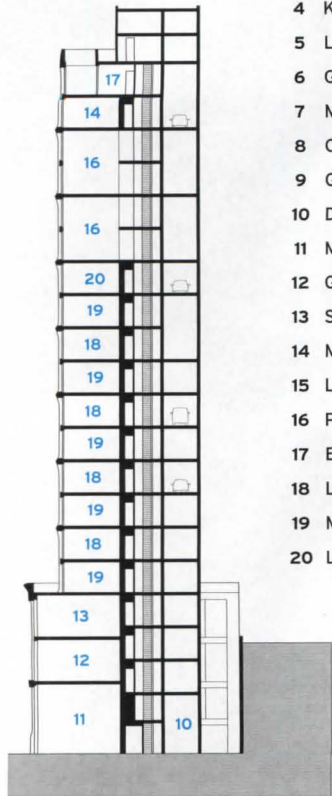




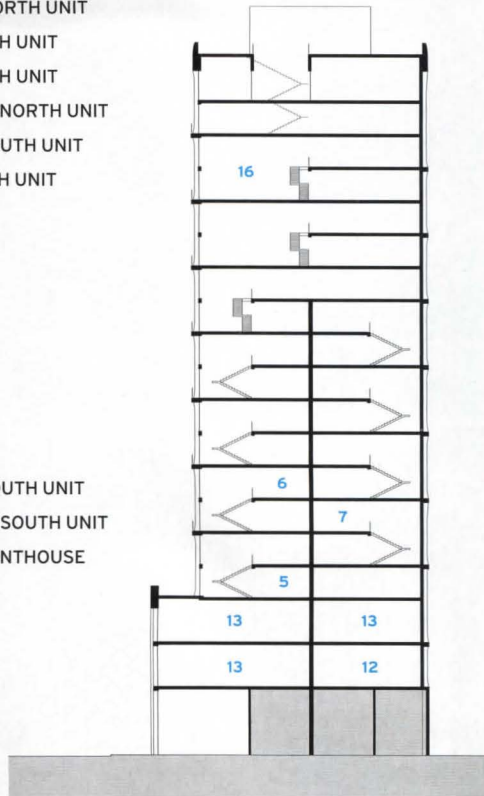
ABOVE: A high-rise elevator system provides private parking in the sky for 14 of the 16 condominiums in the building.

OPPOSITE: The tower sits on a terra-cotta-clad base, while the shaft itself features a stainless steel rainscreen jutting out past the glass window walls.

- 1 CAR ELEVATOR
- 2 GARAGE NORTH UNIT
- 3 FOYER NORTH UNIT
- 4 KITCHEN/DINING NORTH UNIT
- 5 LIVING ROOM NORTH UNIT
- 6 GUEST ROOM NORTH UNIT
- 7 MASTER BEDROOM NORTH UNIT
- 8 OPEN TO BELOW SOUTH UNIT
- 9 GUEST ROOM SOUTH UNIT
- 10 DRIVEWAY
- 11 MECHANICAL
- 12 GYM
- 13 SIMPLEX
- 14 MASTER BEDROOM
- 15 LIVING/KITCHEN
- 16 PENTHOUSE
- 17 ENTRY FOYER
- 18 LIVING/KITCHEN SOUTH UNIT
- 19 MASTER BEDROOM SOUTH UNIT
- 20 LIVING/KITCHEN PENTHOUSE



SECTION A-A 0 20 FT. 6 M.



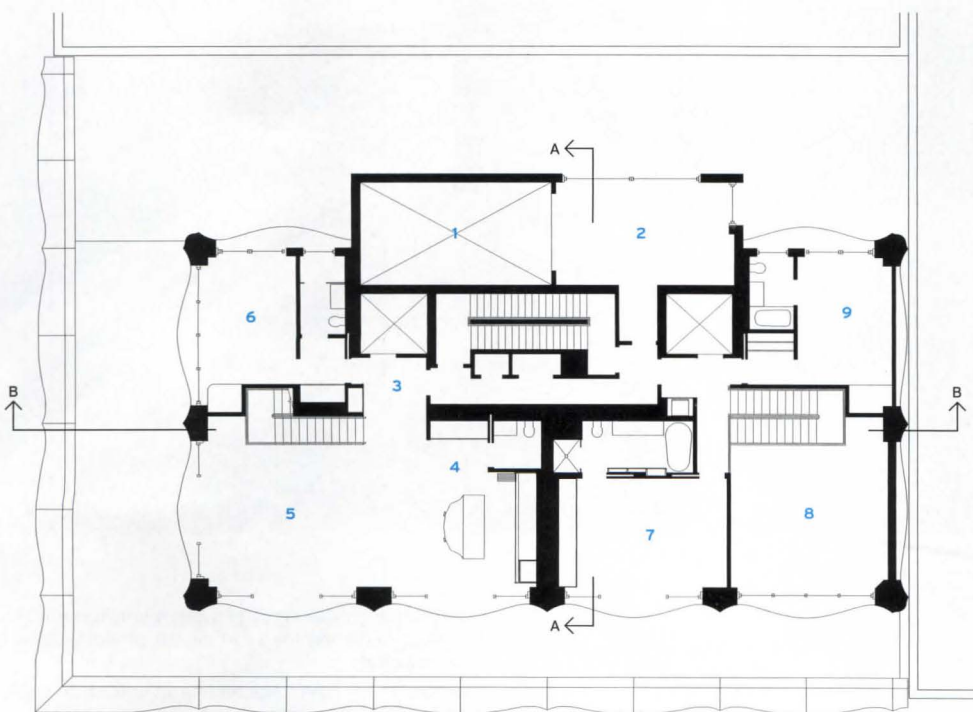
SECTION B-B

with special monitors that help coordinate movement and parking in the air. Fire safety precautions called for building the garage as a separate concrete structure.

The tower's three-story base contains the lobby, a gym, and several simplex apartments. Clad in gunmetal glazed terra-cotta blocks, the base intentionally refers to the vintage materials and solidity of existing loft structures in Chelsea, many now converted to art galleries. Since Selldorf had designed two galleries for dealer Barbara Gladstone, plus another apartment building there, she was familiar with the neighborhood's architecture and wanted to retain its industrial character.

"The streetscape is already starting to get lost among glass high-rises," Selldorf points out, explaining why she opted for the tactility of the terra-cotta. Similarly, the faintly rounded elements framing the openings recalls 19th-century arched facades nearby. Above the three-story podium the architect designed a stainless steel rainscreen for the 16-story shaft — detailed with curvilinear profiles — which juts forth from the glazing to create deep shadow lines.

Because of its referential quality, the tower appears less assertive in the cityscape than the bold or brash apartment buildings by Jean Nouvel, Audrey Matlock, or Neil Denari a few blocks away. Nevertheless, it maintains a civilized commonality with both the existing neighborhood structures and the new construction now going up along the High Line. These houses, with garages in the sky, tap tellingly into the American dream, even if out of reach for the typical home buyer. ■



TYPICAL DUPLEX FLOOR

0 20 FT. 6 M.

CREDITS

- ARCHITECT:** Selldorf Architects – Annabelle Selldorf, principal; Sara Lopergolo, partner in charge; Marc Pittsley, project manager; Cory Taylor, project architect
- ARCHITECT OF RECORD:** Steven Kratchman
- ENGINEERS:** GACE Consulting (structural); Ettinger Engineering (m/e/p)
- CONSULTANTS:** Gordon H. Smith (window wall); IROS Elevator Design Services (elevator)
- CLIENT:** Urban Muse Management and Young Woo & Associates
- SIZE:** 61,000 square feet
- COST:** \$41 million
- COMPLETION DATE:** October 2010
- SOURCES**
- STAINLESS STEEL RAINSCREEN:** Zahner
- TERRA-COTTA:** Boston Valley Terra Cotta
- CAR ELEVATOR:** The Peele Company
- INSULATED GLASS:** Oldcastle BuildingEnvelope



ABOVE: Spacious duplexes soar to 23-foot heights. The views of the Hudson River to the west will remain unimpeded since a park occupies the Eleventh Avenue site between the building and the river.

FAR LEFT: The apartment house lobby, entered from a side street, looks west to the Hudson while the garage entrance is on the east.

LEFT: Black anodized aluminum window frames are set back from a stainless steel rainscreen.

8 SPRUCE STREET | GEHRY PARTNERS

MAKING WAVES IN THE SKYLINE

FRANK GEHRY DRAPES HIS FIRST SKYSCRAPER IN RIPPLING STAINLESS STEEL, BRINGING LUXURY LIVING TO LOWER MANHATTAN. BY LAURA RASKIN

One survived and one didn't," says Frank Gehry, referring to two of his New York City projects commissioned by developer Bruce Ratner. The one that didn't was Gehry's master plan for Atlantic Yards, the controversial mixed-use development on 22 acres in Brooklyn, which included an arena to house the New Jersey Nets. Gehry's design was dropped in 2009 due to its high cost. An Ellerbe Becket and SHoP-designed arena is currently the only building under construction there.

The one that survived has thrived, asserting itself on Manhattan's southern skyline. The 76-story, 870-foot-tall luxury residential tower — officially named New York by Gehry at 8 Spruce Street — holds the title for the tallest residential tower in the Western Hemisphere and is Gehry's first skyscraper. Its stainless steel facade ripples like laundry caught in the breeze, except for one smooth facade. A public school, which Gehry clad in staid brick, occupies a five-story podium. (Swanke Hayden Connell did the interior fit-out.)

From some units one can see the 1913 Woolworth Building. "What pleases me is that I don't preempt the Woolworth building," says Gehry. "We stand side by side and talk to each other. Usually [New York City] buildings are just neo-historic. Up close they fall apart."

Bay windows in a two-bedroom unit on the ninth floor frame views of the handle-barred arteries that feed the Brooklyn Bridge. This 1,100-square-foot apartment also happens to be the "Frank unit." The architect designed



many of the furnishings – Hat Trick chairs, a Cloud Lamp, and custom furniture in Douglas fir – and handpicked others, such as an Alvar Aalto chair upholstered in a zebra print. In all other apartments, Gehry selected finishes and fixtures. He designed the lobby's undulating Douglas-fir concierge desk and other built-in elements. Because the irregular facade resulted in over 200 unique floor plans, 20 model apartments are being shown to

prospective renters. Gehry Partners selected the furniture and lighting for these.

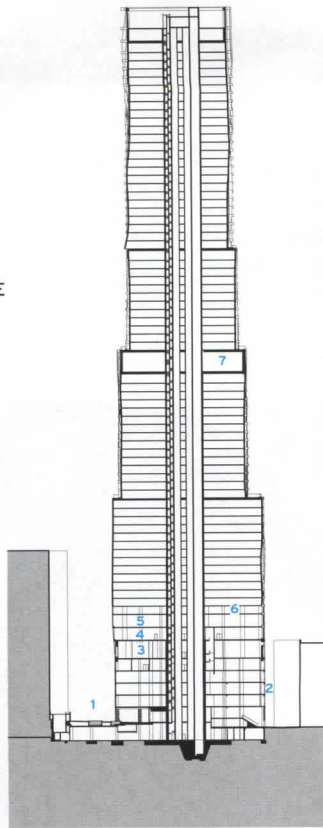
Still, the building shares its biggest move – the facade – with the city. The interior layouts of the poured-in-place concrete structure are status quo by contrast. The market dictated their dimensions. “People are used to a way of living,” says Gehry. In order to make the building “special,” he added bay windows on every floor. “I started moving them, and

OPPOSITE: 8 Spruce Street's ripples contrast with Cass Gilbert's Woolworth Building (1913).

BELOW: A bay window in the model apartment designed by Gehry overlooks the Manhattan Municipal Building (1914) by McKim, Mead & White.



- 1 RESIDENTIAL LOBBY
- 2 FLOORS 1-5: SCHOOL; 5TH FLOOR, DOCTORS' OFFICES
- 3 6TH FLOOR: GAME ROOM, GRILLING TERRACE
- 4 7TH FLOOR: POOL, FITNESS CENTER, RESIDENCES BEGIN
- 5 8TH FLOOR: LIBRARY, PRIVATE DINING ROOM, CHILDREN'S PLAYROOM
- 6 9TH FLOOR: FIRST FULL RESIDENTIAL FLOOR
- 7 MECHANICAL-TRANSFER
- 8 RESIDENTIAL LOBBY
- 9 SPRUCE ST.
- 10 BEEKMAN ST.
- 11 NASSAU ST.
- 12 GARAGE RAMP



SECTION A-A

0 50 FT.
15 M.

SITE PLAN

0 20 FT.
6 M.

The 1,100-square-foot, two-bedroom "Frank unit" on the ninth floor is outfitted with furniture designed by the architect, like a coffee table and "Hat Trick" table and chairs.

I realized I got the freedom of the folds I was looking for." Gehry dismissed the idea that his rippled approach was achieved at random. It comes from a career-long study of the emotion of movement, he says – Greek sculpture, Michelangelo, Bernini, and dancing Shiva figures. "The fold is very primitive," says Gehry. "Fabric resonates with people."

And something about the stepped-back tower is resonating with New Yorkers. As of early August, more than 400 of the 903 units had rented since leasing began in February, according to Gehry's office. Moving to the financial district is on the rise: Census figures show that about 82,000 people live south of Canal Street, a 43 percent increase from 2000. Amenities could also be a draw – 22,000 square feet of indoor/outdoor health club and entertainment space and the 50-foot pool. Finally, "New York by Gehry," another moniker, may be irresistible packaging.

The architect claims that his complicated facades didn't cost Ratner any more than the flat southern facade. "The premium here was zero," he says. "If people choose not to make a building with character, it's because they don't feel like it." ■

CREDITS

ARCHITECT: Gehry Partners - Frank Gehry, design partner; Terry Bell, project partner; Craig Webb, project designer; John Bowers, project manager

ENGINEERS: Philip Habib & Associates (civil); WSP Cantor Seinuk (structural); Jaros Baum & Bolles Consulting Engineers (m/e/p)

CONSULTANTS: Field Operations (plaza and landscape design)

CLIENT: Forest City Ratner Companies

SIZE: 1.1 million square feet

COST: \$875 million (development)

COMPLETION DATE: opened for rentals, Spring 2011; expected full completion, Summer 2012

SOURCES

BUILDING ENVELOPE: Permasteelisa, steel panels and glazing

FLOORING: Armstrong, Bruce

CUSTOM FURNITURE: PGS Millwork, Tomas Osinski Design

PODIUM CLADDING: I·XL Brick

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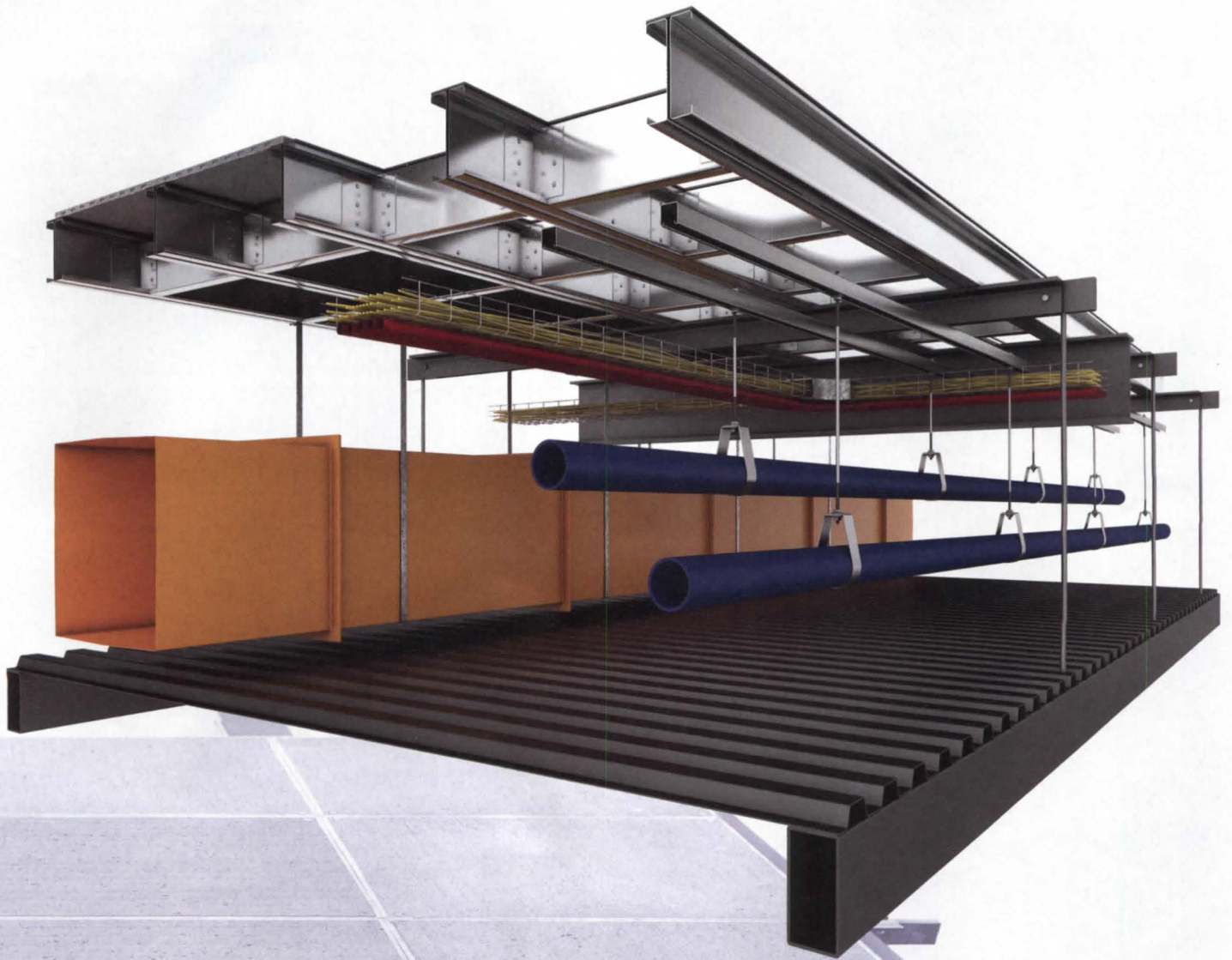
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DESIGN FOR LIVING: PARKS AND PUBLIC SPACES

They Unpaved Paradise and Took Out a Parking Lot

NEW PARKS ARE OPENING
AND OLD PARKS ARE
BEING REVITALIZED AT A
PACE NOT SEEN SINCE
ROBERT MOSES'S HEYDAY.

BY FRED A. BERNSTEIN

PHOTOGRAPHS BY
JEFF MERMELSTEIN



The corner of 157th Street and River Avenue in the Bronx, just south of Yankee Stadium, is a good place to examine the results of a decade of New York City's park-building binge.

Two former parking lots have become playgrounds. One, for toddlers, features fountains activated by the motion of the elevated subway line nearby, a device that makes the once-unsettling urban experience playful. The other, for teens, is a skateboard jungle of half-pipes, ramps, stairs, rails, and ledges bearing the influences of Isamu Noguchi and Zaha Hadid. (Both were by Patricia Clark, a landscape designer for the New York City Department of Parks and Recreation.)

But these two pocket parks, swirling with activity on a recent afternoon, are just the foreground. A pop fly away is the astonishing Heritage Field Park (on the site of the original Yankee Stadium), nearing completion in time for local kids to hold their own World Series. From there, a plaza opens onto Macombs Dam Park, a recreational facility with the crisp design of an Olympic training center. A highway overpass leads to the new Mill Pond Park, with 16 tennis courts and waterfront trails that make the Harlem River suddenly approachable.

PUGSLEY CREEK PARK

PREVIOUS SPREAD, LEFT. According to the parks department, Pugsley Creek Park in the Bronx was originally used by the Siwanoy Indians to reach their village near the tip of Castle Hill Neck. Today it is a nature preserve, with signs promising "Forever Wild," a claim unimaginable in the Bronx just 15 years ago.

BROOKLYN BRIDGE PARK

PREVIOUS PAGE AND THIS SPREAD: Designed by Michael Van Valkenburgh Associates, Brooklyn Bridge Park's 85 acres will eventually span the East River waterfront near the Brooklyn Bridge. A "stairway to nowhere" (right) is a great spot for taking in the Manhattan skyline.



NEW YORKERS ON NEW YORK

Rosanne Cash, singer-songwriter and author

I know a lot of people who complain about these new little pedestrian plazas with outdoor



tables and chairs, but I really like the one by the Flatiron Building, where Broadway and Fifth Avenue split. It brings a breath of air to that very

busy intersection.

And to the north, the Depression-era John Mullaly Park, is emerging — with its rose gardens, Louis Kahn-esque bathing pavilions, and ingenious playground equipment — from an extensive but sensitive renovation.

And that's just in one small section of the Bronx. All over New York, new parks are opening, and old parks are being revitalized at a rate not seen since Robert Moses's heyday in the mid-20th century. Indeed, one of Moses's triumphs, Riverside Park, has spawned an archipelago of bold waterfront parks in all five boroughs.

Ten years ago, with smoke rising from the World Trade Center site, parks were the last things on New Yorkers' minds. But during his first year in office, New York City mayor Michael Bloomberg lifted the death warrant on the High Line, a railroad viaduct that the city had been planning to tear down, signaling his intent to make parks a priority.

From then on, money for parks projects flowed like Central Park's Bethesda Fountain. Capital outlays reached as much as \$500 million a year, dwarfing expenditures by

previous administrations. Altogether, Bloomberg and his high-energy parks commissioner Adrian Benepe have spent more than \$3 billion on parks renovation and construction. The achievements include adding 700 acres of new parkland (and not, Benepe points out, through Moses's controversial tools of eminent domain and landfill), bringing the city parks acreage to near 29,000. But to New Yorkers, the parks are a necessity. "There are eight million people in the city, and most of them live in houses without backyards," Benepe says.

Even now, 10 years into the Bloomberg-Benepe era, park expenditures continue to hit record levels. Some 600 parks projects, worth about \$1 billion, are in the design, bidding, and construction stages. That doesn't include vast swaths of federal and state parkland within the city limits, the ingenious plazas created along Broadway by city transportation commissioner Janette Sadik-Khan, the memorial grove at the World Trade Center site, the acres of parks planned by Columbia University for its new Manhattanville Campus, and other





MILL POND PARK

ABOVE: Not far from Heritage Field Park in the Bronx, the site of the original Yankee Stadium, Mill Pond Park has 16 tennis courts, sprinklers, and water-front trails that make the Harlem River approachable.



CONCRETE PLANT PARK

LEFT: On the site of a former "batch mix" facility, this park has become a highlight of the Bronx River Greenway. It features a canoe and kayak access point, bike and pedestrian routes, and entrances at Westchester Avenue and Bruckner Boulevard.

contributions to the city's open-space bonanza.

Benepe, a lifelong New Yorker who took his first parks job as a teenager in 1973, knows as well as anyone that parks don't maintain themselves, and that public spaces that are allowed to deteriorate can be a liability to the city, rather than an asset. It was only 30 years ago that, in some parts of the city, proximity to parks decreased real estate values, which is almost unimaginable today.

Yet perhaps it's important to imagine the new parks in 10, 20, or 50 years. At the same time that Benepe is opening and refurbishing parks at a feverish rate, the city has been cutting his budget by as much as 9 percent a year. Most of the impact will be seen in diminished maintenance. Already, there are signs of promises not kept in the form of threadbare lawns and overflowing trash pails. One *New York Times* columnist recently led a "requiem march" through the deteriorated archways in Brooklyn's Prospect Park.

Though Benepe cites statistics to show that park maintenance is "holding its own," the typical park looks nothing at all like Central Park and the High Line — the department's manicured poster children, both of which

depend on private funding. Critics say the city is creating a caste system of idyllic privately funded parks and struggling publicly funded ones. There is some truth to the charge: The High Line costs a staggering 50 times as much per acre to maintain as the typical parks department property. (The city kicks in only for security and structural inspections; private philanthropy covers the rest.)

Benepe has little patience with critics who say that by relying on public-private partnerships, the city is selling its soul, or at least its soil. Of the 5,000 sites the parks department maintains, only about a dozen have significant sources of private funding. The Central Park Conservancy raises \$25 million a year, but the park borders some of the world's most expensive real estate, creating sui generis fund-raising opportunities. The Prospect Park Alliance in Brooklyn, which has nearly three quarters as many acres to maintain, takes in just \$5 million a year.

Making matters worse, Benepe concedes that no one knows how much it will cost to keep the new parks in good shape. And the waterfront parks are largely built on piers and pilings, which are "notoriously expensive to

EAST RIVER WATERFRONT ESPLANADE

BELOW: This two-block esplanade in lower Manhattan opened in July as part of a \$165 million project to revitalize two miles of city-owned shoreline property. A dog park and inventive seating options are part of its allure.







maintain.” In several interviews Benepe was candid about the possibility that the city won’t be able to maintain all the parks in the pipeline. His department has lost about 1,000 full-time jobs — one-eighth of its workforce — in the last three years, and faces an indefinite hiring freeze.

Still, the parks keep coming. And it takes more than money — coming from the record city budgets during the post-9/11 boom years — to explain it. By the time Bloomberg and Benepe took office in 2002, the city’s waterfront, no longer in commercial use, was ripe for transformation. Young New Yorkers were staying in the city and demanding playgrounds for their kids and more places to run or bike. The influx of immigrants has played a role, too, as parks begin to reflect the city’s ethnic diversity. A planned renovation will bring the mini-volleyball courts favored by Ecuadorians, for example, to a neighborhood park in Queens.

Not coincidentally, as the funds available for new parks burgeoned, landscape architecture was entering a golden age. Someday, James Corner, the lead designer of the High Line, and Michael Van Valkenburgh, the mastermind of the new Brooklyn Bridge Park, may be as well known as their 19th-century idols Olmsted and Vaux. One of the features of the new Brooklyn park, a stairway to nowhere constructed from the remains of an old granite bridge, proves Van Valkenburgh’s talent for placemaking. Similar innovation has come from Thomas Balsley, at Queens’s Gantry Plaza State Park, which incorporates remnants of the area’s industrial past, and from Ken Smith, whose new East River Esplanade is a kind of upside-down High Line, with its smartly designed amenities beneath an elevated road.

Architects, too, have had a big hand in the parks. Jean Nouvel designed the carousel house in Brooklyn Bridge Park; Toshiko Mori, the Poe Park Visitor Center in the Bronx; and Tod Williams and Billie Tsien, a stunning new skating facility under construction in Prospect Park. Those projects will join Diller Scofidio + Renfro’s glorious High Line amenities, a playground designed by Frank Gehry for Battery Park (to break ground in 2013), and SHoP’s structures at the East River Esplanade.

Other architects engaged in the design of urban oases include Smith-Miller + Hawkinson, who have refitted the sculpture-studded Louise Nevelson Plaza in lower Manhattan with slumped-glass benches and Nevelson-friendly fixtures, and WXY, a young firm charged with reinventing Astor Place, just north of the Cooper Union, under the sponsorship of the city’s Department of Design and Construction.

PIER 62 SKATEPARK

This 15,000-square-foot skatepark in Chelsea was designed and built by California Skateparks/Site Design Group. Constructed on a pile-supported marine platform, the designers used structural foam to create its curvy forms.

HUDSON RIVER PARK

BELOW: A man lounges near Hudson River Park's pedestrian path. The waterside park extends from Battery Park to 59th Street. The first section opened in 2003 and the five-mile stretch of greenery is now nearly 80 percent complete.

NEW YORKERS ON NEW YORK**Woody Allen, filmmaker**

The Meatpacking District has gone from a drab area of wholesalers to an exciting neighborhood, full of young people, art galleries, and high-end shops. It's now an extremely desirable place to live or visit.



In Brooklyn, the vast McCarren Park Pool, opened by Robert Moses in 1936, is undergoing a painstaking renovation by Rogers Marvel Architects. On Roosevelt Island in the East River, the Franklin Delano Roosevelt Memorial designed by Louis Kahn more than 45 years ago is finally being built, with an expected completion date of fall 2012.

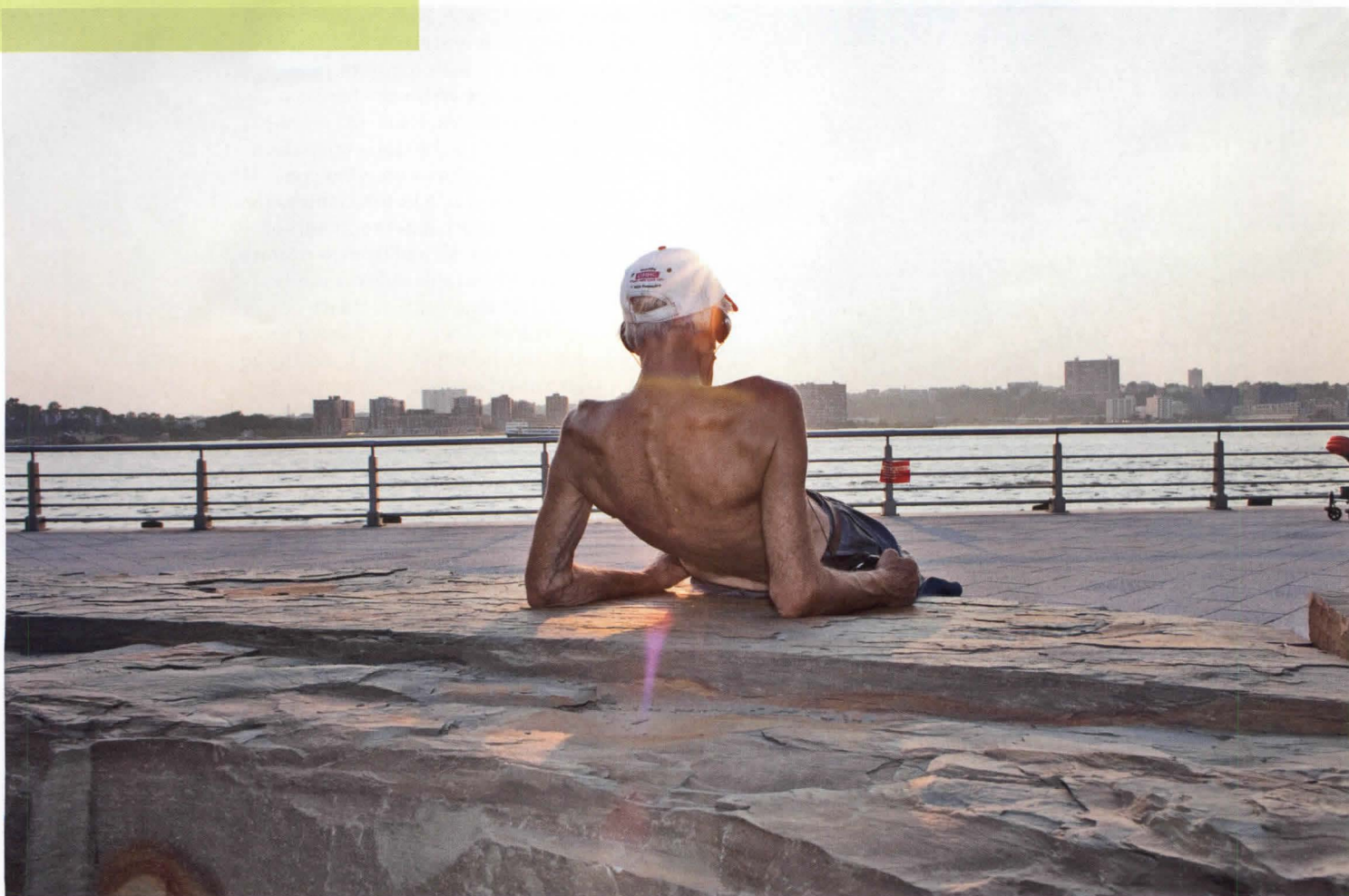
Yet it is back up in the Bronx — the city's poorest borough, where tourists rarely venture — that the parks renaissance is most apparent. In 2004, the city began tearing up a section of Van Cortlandt Park in order to install an underground water filtration plant. As compensation, it gave the borough \$200 million for 75 park projects. The resulting gems include Pugsley Creek Park, a nature preserve where signs promise "Forever Wild" — unimaginable as a slogan in the Bronx just 15 years ago — and Concrete Plant Park, a former "batch mix" facility that is now a highlight of the new Bronx River Greenway.

But with all that good news, is it possible that Van Valkenburgh's stairway to nowhere could become a symbol of over-reaching?

Brooklyn Bridge Park is less than half complete, its future dependent on a complex city plan to rezone nearby property in order to generate new tax revenue. Phase three of the High Line, which would sweep around the Hudson Yards to 34th Street, is still owned by CSX Transportation. Most critically, will future city administrations have the money to maintain these completed parks?

Such questions don't seem to dampen the ambitions of Benepe, who still has hundreds of green acres to create before Bloomberg leaves office in 2013. Was the commissioner wrong to build so many parks without guarantees of money to maintain them? After a pensive moment of silence, Benepe says he's proud of his achievements. "No one can predict the future," he notes. "But if there's a chance to acquire parkland, you do it. Because you may never have the chance again." ■

Fred A. Bernstein has degrees in architecture and law and writes about both subjects. He has visited scores of New York City parks with his two sons.





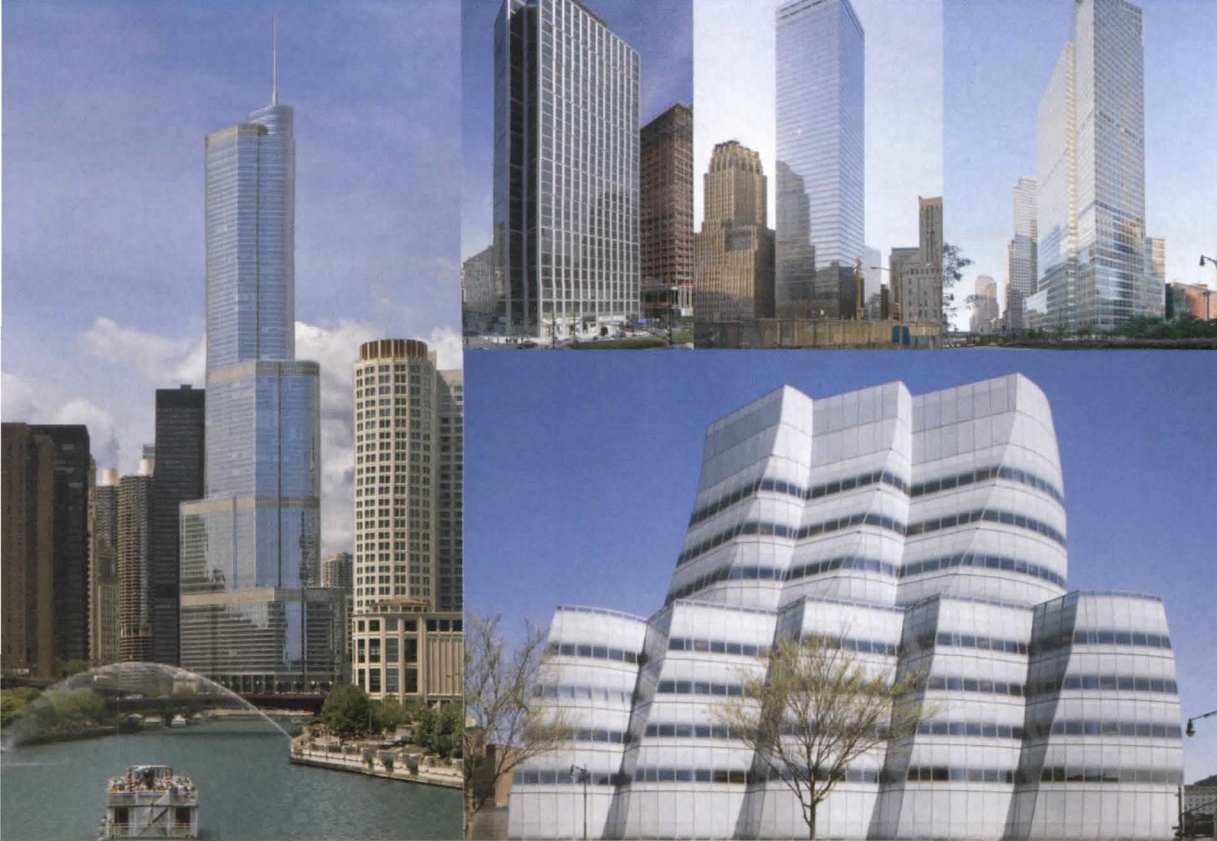
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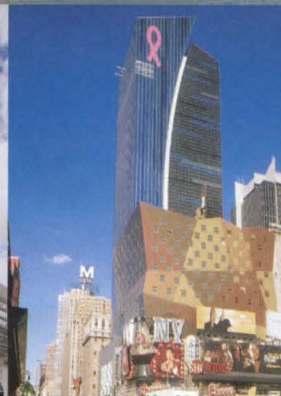


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DESIGN FOR LIVING: ARTS SPACES

A New Era for the City of Culture

SPURRED BY CITY FUNDS, ARTS ORGANIZATIONS HAVE BUILT AND EXPANDED ALL OVER TOWN
BY WILLIAM HANLEY
PHOTOGRAPHS BY JEFF MERMELSTEIN



MUSEUM OF MODERN ART
SCULPTURE GARDEN



In the last decade, the New York building boom spread to museums and performing arts organizations, with the construction or renovation of facilities all over the city. Thanks to years of a strong economy, there were generous private donors. But there was also a new patron for capital funds: the city itself. In 1998, then-Mayor Rudolph Giuliani announced the city would pay 10 percent of the projected construction costs for the expansion of the Museum of Modern Art, designed by Yoshio Taniguchi. That \$65 million was the first major bricks-and-mortar contribution from New York City's Department of Cultural Affairs (DCA) to a non-city-owned project. Since 2002, the DCA has helped fund some 600 cultural construction projects, dispensing a total of \$1.8 billion. "Funding culture has a huge economic impact in terms of both tourism and quality of life," says DCA commissioner Kate Levin.

Here are the numbers: 21.4 million tourists visited New York's arts institutions last year and left a \$21 billion contribution to the city's economy behind. New cultural buildings have helped transform neighborhoods, too — just look at how the New Museum, which opened a building by the Tokyo firm, SANAA, in 2007, has glamorized a once-gritty stretch of the Bowery. And despite the economic downturn, the DCA still has \$600 to \$700 million to spend on capital projects before the Bloomberg administration exits the stage in 2013.

What follows here is a glimpse of the impact of all that new architecture for the arts — as well as a look at the visitors and New Yorkers who flock to it to see the city's exhibitions, screenings, and performances, or, often, just to hang out. ■



NEW YORKERS ON NEW YORK Maira Kalman, artist

I have been sitting, staring, writing, thinking, not thinking in the garden of the Museum of Modern Art for over 40 years. I was very worried that the latest iteration of the building would be death to the garden. But somehow the architecture, the Bertoia chairs, the trees, the fountains, the sculptures, and the quiet have prevailed, and it is still one of the most magical spaces in the city.



THE MUSEUM OF MODERN ART

Taniguchi Architects with Kohn Pedersen Fox Associates

Opened: November 2004

Total cost: \$425 million

(\$65 million from New York City)

Annual visitors: 2.75 million

In a move to expand its audience and capacity to show more — and bigger — artworks, MoMA increased its exhibition space by nearly 50 percent to 125,000 square feet (oriented around a 110-foot-tall atrium) and enhanced its education and research facilities. It also added circulation, restaurants, and shops. Last year's attendance was up from just under 1 million in 2002 (the year the museum closed to build). Its vast presence on the Midtown Manhattan block that it has occupied since 1932 will only grow when a proposed Jean Nouvel–designed mixed-use tower is built (detailed on page 137).



THE METROPOLITAN MUSEUM OF ART GREEK AND ROMAN GALLERIES

Kevin Roche John Dinkeloo and Associates

Opened: April 2007

Total cost: \$225 million (\$10.8 million from New York City)

Annual visitors (entire museum): 5.68 million

The biggest tourist attraction in New York City, the venerable Met can no longer expand its footprint into Central Park; instead the museum has created new space by building within its vast complex. One of its most successful rehabs, the 30,000-square-foot Greek and Roman galleries, with a splendid, skylit sculpture court at its center, greatly increased space for the museum's renowned collection of Classical art, placing work that had long been confined to storage on display. The opening of the new galleries marked the culmination of a 15-year project to overhaul the museum's southeast corner, clarifying visitor circulation among several of its collections.

NEW MUSEUM OF CONTEMPORARY ART

SANAA Kazuyo Sejima and Ryue Nishizawa with Gensler

Opened: October 2007

Total cost: \$55 million (\$5.9 million from New York City)

Annual visitors: 300,000

Even as years of gentrification brought cafés and boutiques to the tenement-lined streets of the Lower East Side, the Bowery remained a gritty, exhausted stretch of restaurant-supply stores and single-room-occupancy hotels until SANAA's museum, which looks like a set of irregularly stacked boxes, arrived. With open gallery spaces as well as a café, bookstore, and auditorium, the 58,700-square-foot building provides the 34-year-old contemporary art museum with its first tailor-made home. Its opening kicked off a migration of art galleries to the surrounding blocks, along with a wave of hip restaurants, bars, and retail. Though much of the area's scrappy character remains, the New Museum has demonstrated how a high-profile cultural project can jump-start an entire neighborhood.



NEW YORKERS ON NEW YORK

Kate D. Levin, commissioner, New York City Department of Cultural Affairs

Building a glass building in the middle of Times Square is the craziest thing I've ever agreed to do. But the outcome was amazing. ... Good design doesn't necessarily cost more. Our theory is that a project has to be good, and it has to serve the public. Ideally, it has to be on time and on budget, but beyond that, because our portfolio is so big, we're not pushing an ideology other than public service.



TKTS DISCOUNT BOOTH FATHER DUFFY SQUARE

Perkins Eastman and PKSB
Opened: October 2008
Total cost: \$19 million
(\$11.5 million from New York City)
Annual tickets sold: 1.3 million
(Times Square location)

A cultural landmark since the early 1970s for its day-of-show discounted theater tickets, the Theatre Development Fund's TKTS booth witnessed the long transformation of once-seamy Times Square and the theater district into a frenetic, family-friendly entertainment center. Three years ago, the "booth" underwent its own metamorphosis from a humble temporary trailer into a wedge-shaped, glass-walled pavilion as one part of the larger redevelopment of Father Duffy Square. The booth's tiered roof (based on a competition-winning concept by Australian firm Choi Ropiha Figuera) creates an elevated public space, where visitors climb above the swell of pedestrians to sit among the video screens and neon and gawk at the noisy show that is Times Square's street life.







NEW YORKERS ON NEW YORK

**Edgar Howard, founder,
Checkerboard Films**

Before Diller Scofidio + Renfro's renovation of Lincoln Center, the central plaza just got you from here to there. Now the new fountain anchors a vibrant public performance space.

**MUSEUM OF THE MOVING IMAGE**

Leeser Architecture

Opened: January 2011

Total cost: \$67 million

(\$54.7 million from New York City)

Projected annual visitors: 156,000

By 1920, when Paramount Pictures built a new studio in Astoria, Queens, most of the American film industry had migrated to Hollywood. In 1988, when the Museum of the Moving Image opened in one of its buildings, the project was part of a decade-old effort to bring filmmaking back. Now, television shows from *Sesame Street* to *Law & Order* shoot at the facility, and the museum — dedicated to film, TV, and video — recently unveiled an addition that includes a 267-seat theater and 68-seat screening room. Beyond its programming, the museum is an emblem of New York's reemergence as a center of film production.

**LINCOLN CENTER FOR THE
PERFORMING ARTS**

Diller Scofidio + Renfro with FXFOWLE Architects

Scheduled completion: Spring 2012

Projected total cost: \$1.2 billion

(Up to \$240 million from New York City)

Annual visitors: 5 million

Built in a then-rough area of the city, Lincoln Center was a travertine fortress raised on a plinth when it opened in the 1960s. Patrons accessed performance halls via parking garages tucked safely below its plazas. Now that the Upper West Side is a desirable area, the 16-acre campus is undergoing a six-year-long face-lift to undo its inward-looking planning. Renovating performance spaces, adding a new restaurant, and revamping plazas, it aims to open the campus to the neighborhood, welcoming patrons and the public alike.



DESIGN FOR LIVING: CIVIC BUILDINGS

Investments in Public Architecture Pay Off for the City

NEW YORK CHAMPIONS DESIGN IN MUNICIPAL PROJECTS FROM FIRE STATIONS AND GARAGES TO LIBRARIES AND COURTHOUSES.
BY JAMES MURDOCK




ENGINE COMPANY 27
STV GROUP

1. The architects enclosed the upper two floors of this Brooklyn station in glass, while red doors open on the ground floor, creating a street-facing facade that reads as both a contemporary facility and a traditional firehouse.

RESCUE COMPANY 3
ENNEAD

2. Ennead used immediately identifiable firehouse doors set into alternating glass and metal panels and wrapped in a form inspired by a firefighter's helmet for this Bronx station housing a specialized rescue unit.

DELANCEY AND ESSEX
STREET MUNICIPAL
GARAGE
MICHIELLI • WYETZNER
ARCHITECTS

3. Charged with rehabilitating a municipal parking facility on Manhattan's Lower East Side, the architects draped the structure's east-facing facade in cables made of a lightweight composite metal sheathed in stainless steel. The practical design allows light and air to penetrate while recalling the neighborhood's history as a center of textile production.

Located in Hunters Point — a formerly industrial neighborhood in the midst of a transformation every bit as sweeping as its view of Manhattan across the East River — a new branch of the Queens Public Library, designed by Steven Holl Architects, will be the jewel in a crown of several projects slated for the area. In their design, Holl and senior partner Chris McVoy blow apart the Carnegie library archetype, punching irregularly shaped windows into an 80-foot-tall facade clad in aluminum panels. These curvy openings will showcase the movement of bodies, like video game characters on an iPad screen, to underscore the library's evolution from a place that circulates books to one where communities mix and mingle.

When it opens in 2013, the Hunters Point library will join scores of other new branches, cultural facilities, police stations, firehouses, and clinics constructed during New York City's civic building boom of the last decade. The city's Department of Design & Construction (DDC), which manages these projects, has become a sterling advocate for innovative architecture. The bureau has not only had a positive impact on neighborhoods in all five boroughs, it has been an important source of commissions for the city's architects. The DDC also helped institute a high-performance building program to promote New York City sustainability, paving the way for a law passed in 2005, which mandates that most municipal construction projects that cost more than \$2 million must achieve a minimum LEED Silver certification. Doing public work has become alluring for architects who want to create "buildings that are clearly about the user," says Rick Bell, executive





NEW YORKERS ON NEW YORK
Kenneth Jackson,
 historian

director of the AIA's New York chapter.

The DDC completed nearly \$6 billion in new projects and upgrades between 2002 and 2010, and is currently managing the construction of nearly \$3 billion more, with \$2 billion in additional building in the pipeline. It's a staggering amount that recalls the days of master builder Robert Moses. In spirit, however, it may more closely resemble Mayor John Lindsay's Urban Design Group, which sought to bring high-quality architecture to public projects in the late 1960s.

While Mayor Michael Bloomberg often gets credit for the DDC's success, his predecessor, Rudolph Giuliani, actually created the agency in 1996. But it was Bloomberg who tapped David Burney to become DDC commissioner in 2004. An architect by training, Burney was previously the director of design and capital improvement for the housing authority. One of his first initiatives at the DDC was to create the Design and Construction Excellence (D+CE) program. "When you think about all five boroughs and how much is controlled by the city — the streets, the museums, the libraries — civic architecture is responsible for quite a lot of our environment," Burney says. "That makes design quality all the more important, right down to the smallest projects."

The D+CE did away with a procurement process that awarded design contracts to the lowest bidder. In its place, Burney created a quality-based system in which architects apply to join an approved roster. Twenty small firms vie for jobs under \$15 million, while

What New York City does successfully is adaptive reuse. Look at the



High Line, or Chelsea Market. They show how you shift from being a manufacturing center to basing a new economy on quality of life. People can move anywhere these days.

When they're trying to decide should I live in Dallas, where I can get free parking, an acre of land and a swimming pool, or should I live New York, quality of life matters. Architecture is a big part of that.

eight large offices compete for those between \$15 and \$50 million. All architects, including others beyond the list, may go after the biggest projects — the largest to date has been Perkins + Will's New York City Police Academy in Queens. With few exceptions, design fees depend on the construction budget: A certain percent for projects under \$15 million and another for those over it.

The D+CE program echoes that of the Federal General Services Administration, led until 2005 by Ed Feiner, whom Burney refers to as his mentor. But the federal program relies on well-established architects, while Burney seeks younger and smaller firms.

"A program like this really means everything to us," says Sara Caples, one-half of

the husband-and-wife team Caples Jefferson, whose work for the city includes the Weeksville Heritage Center in Brooklyn — an exhibition building and park incorporating the 200-year-old houses of freed slaves — and an addition to the Queens Theatre in the Park. "It's allowed us to win national design awards and be published around the world."

The New York office of the British firm Grimshaw Architects has doubled in size since taking on projects that include renovating the Queens Museum of Art, as well as designing a new Fulton Street Transit Center and the Via Verde housing complex. "We can do what architects were doing 75 or 100 years ago when they were building great public libraries and so forth," says partner Andrew Whalley.

Such civic work helps architects weather inevitable economic downturns. "It's very important for any firm to have a consistent level of work," says James Garrison, whose small, eponymous office has designed six city projects, including a revamped Roberto Clemente pedestrian plaza in the Bronx and the new Staten Island Animal Care Shelter. "Downturns can decimate architectural practice. The big recession of the '70s cut a tremendous amount of technical knowledge, and this one could do the same."

Still, there's a downside to Burney's approach: The design-build process tends to be arduous. The various clients, or city agencies, control their own construction budgets, and other stakeholders such as city council members, borough presidents, and local community boards all have their say. Depending on the project, the Public Design Commission — which reviews construction on city-owned property — must grant final approval.

To expedite the process the DDC assigns to each project a liaison staffer whose sole responsibility is to champion design, not to watch budgets or schedules. "A lot of clients can be wary of architects, especially in city work, thinking they're going to get something they didn't ask for," says Todd Schliemann, an Ennead design principal. "The DDC has been really good about backing us up with the user." The liaisons also shepherd plans through the maze of city bureaucracy. "We joke that we're like the dating agency that then becomes the guidance counselor," says Burney.

With so many reviews and voices involved, the time frame for D+CE projects is typically longer than in the private sector. "And your fee doesn't go up if your project lasts five years as opposed to two," says Frank Michielli, a principal of Michielli + Wyetzner Architects.

Critics contend that the program's focus on small projects distracts from larger issues in Bloomberg's development agenda. "At some

MCKINLEY COMMUNITY CENTER

ALEXANDER GORLIN ARCHITECTS

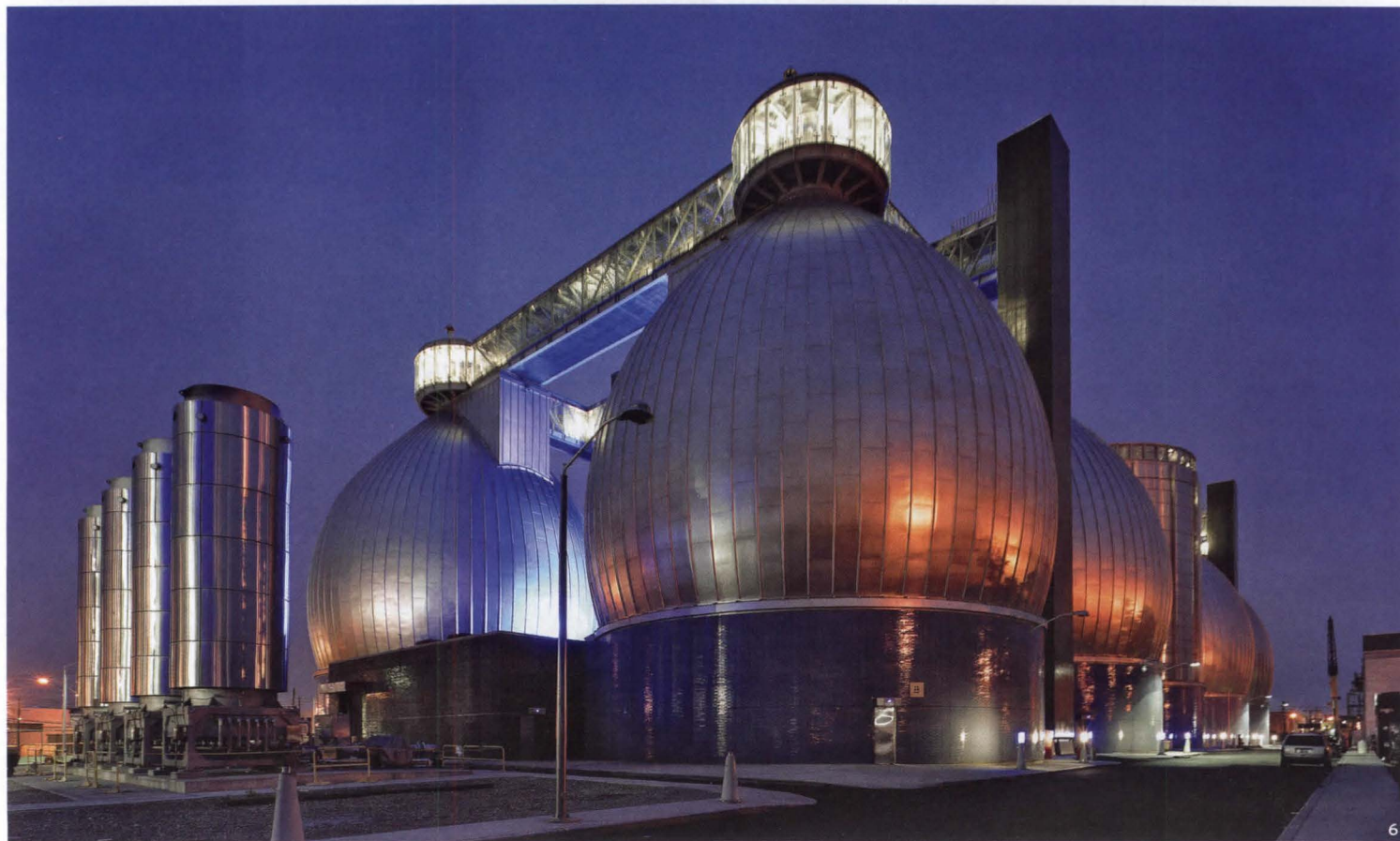
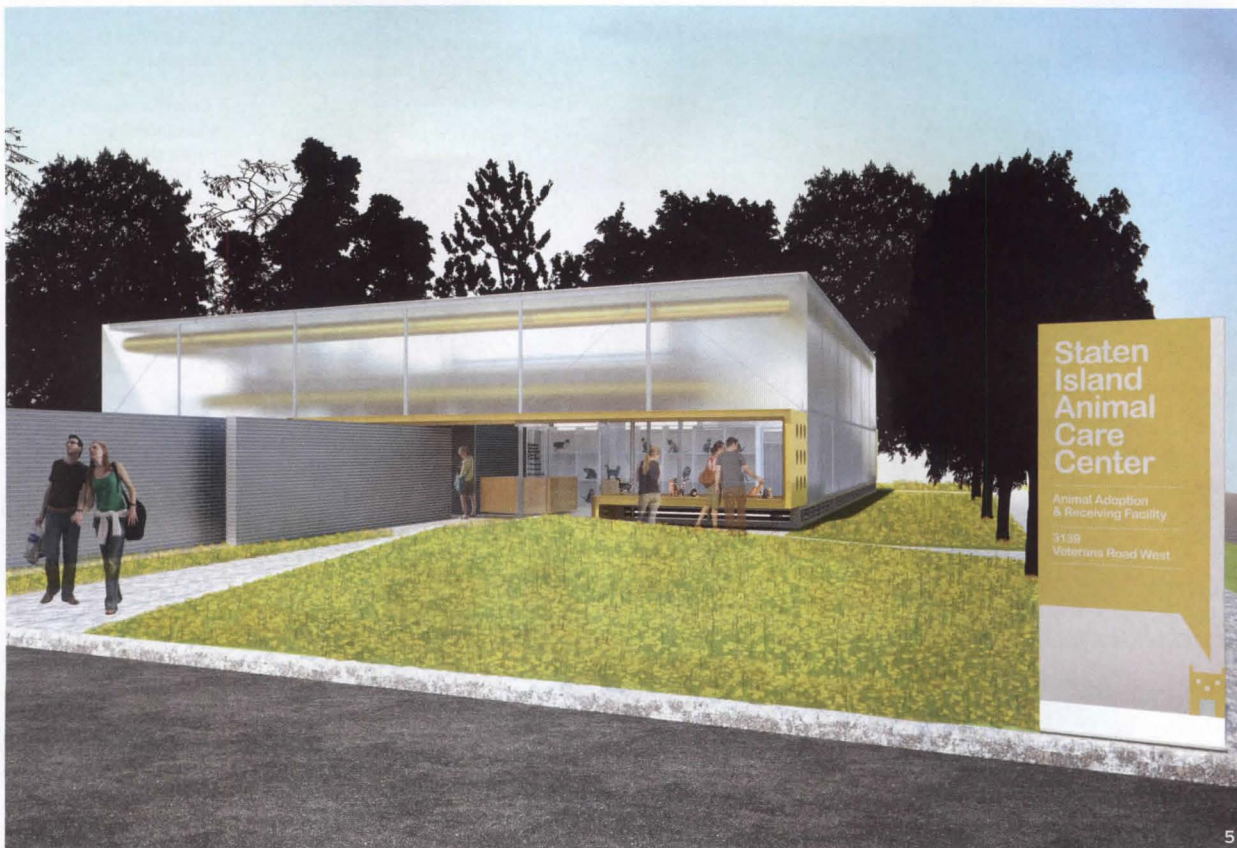
4. Commissioned by the DDC for a Bronx public housing complex, this community room incorporates generous fenestration to distinguish it from surrounding brick-clad buildings.

STATEN ISLAND ANIMAL CARE CENTER

GARRISON ARCHITECTS
5. Garrison gave animals prime window space both to lure would-be adopters and to allow daylighting.

NEWTOWN CREEK WATER POLLUTION CONTROL PLANT

ENNEAD
6. Working for the Department of Environmental Protection, Ennead wrapped this facility's "digester eggs" in stainless steel. At night, they look almost too glamorous for their function, processing wastewater.





QUEENS CENTRAL LIBRARY CHILDREN'S DISCOVERY CENTER
1100 ARCHITECT

7. Colorful pathways and signage guide visitors through this new children's library adjacent to the borough's main branch, also master-planned by 1100 Architect. Activities inside connect to the surrounding neighborhood through sidewalk-facing glass walls.

MARINERS HARBOR BRANCH LIBRARY
ATELIER PAGNAMENTA TORRIANI ARCHITECTS

8. A skylit central corridor separates book stacks from a community room and staff offices in this one-story library. The design brings daylight into the building and, the architects say, was inspired by a cracked oyster — recalling the Staten Island neighborhood's maritime past.



level, design excellence is a sideshow that takes people's eye off the bigger problems of the city," says Alexander Gorlin. He and some other architects believe that the public-private partnerships behind massive projects outside DDC's purview, such as the Atlantic Yards redevelopment in Brooklyn, often result in bland architecture that is out of scale with their surroundings. "Economic models drive these projects, not quality," says BKSK Architects partner Joan Krevlin.

But other observers credit the Bloomberg administration with making New York a more livable city. "Personalities matter," says Kenneth Jackson, a professor of history at Columbia University. "In the 1960s people said New York was going to hell. Who would have thought that we'd now be selling quality of life? That's an enormous change. Municipal leadership has a huge amount to do with it."

Improving quality of life creates a positive cycle, according to Jackson, and this ultimately "underpins the architecture." Giuliani helped lower crime rates, which lured people back to New York in the Bloomberg era and gave developers confidence to build new apartments. Furthermore, projects like the High Line spur development and propel the idea that good design can be an economic engine.

For now, with the economy in decline and budgets slashed, the number of DDC projects is shrinking. But architects hope that when activity picks up again, the public will retain its newfound appreciation for good design — and the city will continue to take a chance on emerging and established architects alike.

"[The D+CE] just seems like what cities should be doing," says Deborah Berke, of Deborah Berke & Partners. "It's so enlightened, particularly for New York, where so many great architects work all over the globe. To have them actually working for their own city is both brilliant and a no-brainer." ■

James Murdock is a writer and filmmaker based in New York City.

HUNTERS POINT LIBRARY
STEVEN HOLL ARCHITECTS

9. Windows on the west-facing side of this aluminum-clad Queens Library branch will give Manhattanites, directly across the river, a view of patrons walking between floors in the 80-foot-tall building.





BRONX COUNTY HALL OF JUSTICE
RAFAEL VIÑOLY ARCHITECTS

10. Displacement ventilation inside and a glazed curtain wall paired with interior light shelves are two of this building's sustainable strategies.

HARPER STREET YARD RECONSTRUCTION
NARCHITECTS

11. Next to the Van Wyck Expressway in Queens, the architect's revamp of a maintenance and refueling station for Department of Transportation vehicles includes a monitoring station with a shape and facade that reference traffic signs.



Amanda Burden in the Zone

UNDER MAYOR BLOOMBERG, NEW YORK CITY PLANNERS LAUNCHED AN AGGRESSIVE INITIATIVE TO COMPETE IN THE GLOBAL ECONOMY.

IN AN INTERVIEW with RECORD, City Planning Commissioner Burden, appointed by Mayor Bloomberg in 2002, discusses key accomplishments over the last nine years.

THE EFFECT OF 9/11 ON CITY PLANNING

Mayor Bloomberg had extraordinary challenges when he took office in 2002 because people had lost confidence in the city after the events of 9/11. He had to regain that confidence in New York as a place for investment.

The first thing he said was that we are a city of five boroughs — Staten Island, the Bronx, Brooklyn, Queens — not just Manhattan. He wanted to see economic opportunity encouraged in each. Since the city is expected to expand to 9.1 million people by 2030, we had to figure out how and where it should grow. Our goal was to direct development to centers of transit in downtown Brooklyn or Jamaica, Queens, or Long Island City — or to 125th Street — by creating mixed-use regional business districts that would provide jobs, new housing, and taxes.

We sought to preserve the DNA and the character of each neighborhood by working with communities to develop plans to accommodate growth. For example, the Coney Island initiative aims to recapture what was so special about the area's great beach, boardwalk, and amusements. Yet the rides are a seasonal event, and they have been closing one by one. Through zoning we created an indoor and outdoor entertainment and amusement district to last year-round.

At the same time the mayor started the largest affordable housing program in the country both to accommodate existing New Yorkers and arriving New Yorkers. He called for 165,000 new affordable units by 2013. Our inclusionary housing program gives a bonus within a height limit to a developer providing 20 percent affordable housing.

THE HIGH LINE

Before 2002, the High Line, a mile-and-a-half elevated former railway, was slated for demolition, but I knew this incredible piece of urban infrastructure could become the defining

feature of a new neighborhood. The High Line was owned by the federal government — by CSX Transportation. It was willing to transfer the railroad to the city for nothing, but only if every single property owner in the area approved. People who owned land under and adjacent to the High Line opposed it, since



“Bloomberg stressed from the beginning, design is a component of the city’s attractiveness to the world. Good design is good economic development.”

they wouldn’t realize the value for their property. So we used the old zoning tool of a transfer of development rights to create the Special West Chelsea district.

If you owned land within this special district, under or adjacent to the High Line, you could transfer and sell your property rights to a property owner on 10th or 11th Avenues. Property owners were deliriously happy. The city acquired the High Line from CSX.

To protect the integrity of this beautiful garden in the sky, and keep light, air, and its character as a garden, we formed strict design controls — not only height limits, but restrictions on how much of a block could be developed, and how far away from the High Line you had to put your buildings.

HUDSON YARDS

When Mayor Bloomberg was elected, Midtown Manhattan could really only expand on the west side, from Times Square to 30th Street, Eighth Avenue to the Hudson River. We created an urban design master plan to redefine a mostly industrial area — 59 blocks — as a new central business district, with infrastructure, parks, and public open space next to the waterfront. We even put a new boulevard between 10th and 11th Avenues. And through rezoning from industrial use to residential and commercial ones, we had \$2 billion for new infrastructure, especially the extension of the No. 7 subway line from Times Square, west across 41st Street and down 11th Avenue.

A big portion of the district is in fact the rail yards, controlled by the MTA, which awarded Related Companies the right to develop on those yards. And Related Companies hired Kohn Pedersen Fox to do its master plan (see page 138 for details). The Floor Area Ratio (FAR) in the zoning district is very high to encourage development, although there are prescriptive requirements for street walls in

certain places. The actual rail yards have an even higher density, since the streets aren’t mapped: some buildings can have a 30 FAR and may be well over 1,000 feet tall.

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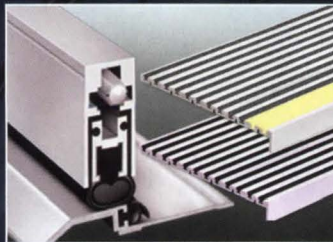
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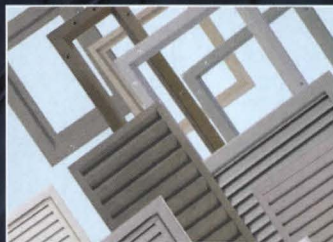
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3 The City Reimagined

FOR AN EVER-EVOLVING METROPOLIS, A NUMBER OF TRANSFORMATIVE PROJECTS ARE IN PROGRESS, FROM SOARING GLASS TOWERS TO VERDANT MEGA-PARKS.

BY JENNA M. MCKNIGHT AND LAURA MIRVISS

MORE THAN a century ago, the author O. Henry said about New York City, "It'll be a great place if they ever finish it." The point, of course, is that the city will never be finished: It's always been driven by the tireless impulse to tear down and build up. Rather than revel in its history like many cities, New York pushes for the new — though a reverence for the mammoth structures of its industrial glory has led to innovative plans for adaptive reuse.

As the Bloomberg years wane and the recession grinds on, a number of high-profile projects remain unfinished. Construction spending (including infrastructure) has dropped in the city from a peak of \$33 billion in 2008 to a projected \$26 billion this year. New building permits are down considerably; the city issued 2,110 in the first half of 2008, compared to 764 in the first half of this year. "Huge question marks remain, especially for publicly funded projects," warns Richard Anderson, president of the New York Building Congress.

Still, grand ambitions persist. From affordable housing and open space — hallmarks of PlaNYC, one of the mayor's legacies — to cultural facilities and commercial development, the transformation of the cityscape may slow, but it will never stop.

FRESHKILLS PARK

Staten Island
James Corner Field Operations
Under construction

IN 1948, the City of New York opened the 2,200-acre Fresh Kills Landfill along a marshy shore of Staten Island. By 1955, it was the world's largest waste depository — a claim to fame that infuriated the borough's residents, who lobbied fiercely to close the stinky dump. At its peak, 29,000 tons of trash arrived daily.

Environmental regulations ultimately led to the landfill's closure in 2001. That same year, the city put forth an ambitious proposal to transform the site into a beautiful green space that would be almost three times as large as Manhattan's 843-acre Central Park. A design competition was launched, and six teams were invited to conceive a master plan.

Then September 11 hit. In need of a place to store debris from the World Trade Center site, the city reopened Fresh Kills. Workers sifted through 1.2 million tons of material, eventually burying it in a 48-acre parcel, and the landfill was closed again in July 2002.

Planning for Freshkills Park, amazingly, never stopped. In December 2001, the city announced three competition finalists, and in 2003, it chose James Corner Field Operations.

The firm's scheme showed playing fields, bike paths, and equestrian trails, among other features. While praised, the plan endured years of environmental planning, and construction didn't begin until spring 2010. The project will take 30 years to complete, at a reported cost of \$1.4 billion. "This is

the largest landfill-to-park transformation in the world," notes Freshkills Park administrator Eloise Hirsh. Residents will finally see some results later this year, when a new playground and a cluster of basketball and handball courts opens. In 2012, work is scheduled to begin on a 3.3-mile bike path and the restoration of a 2-acre wetland area.

The plan is essentially divided into five districts. At the park's center is the 70-acre Confluence zone, which contains streams, a small marina, a restaurant-lined promenade, and an open-air market. The other districts will be built atop four capped trash mounds, ranging in height from 90 feet to 225 feet:

South Park will include a track, equestrian facilities, playing fields, and event spaces; North Park will offer hiking and biking and a tree nursery; East Park will have a large meadow; and West Park, where the Ground Zero remains now lie, will feature a September 11 memorial.

The lion's share of the project has yet to be funded. The city has committed only \$160 million, a downgrade from the \$200 million it initially promised in 2006. Hirsh remains hopeful, noting that New York is dedicated to revitalizing land that has fallen into disuse. "The city has taken this kind of restoration to be part of its central civic mission," she says.



53 WEST 53RD

Midtown Manhattan
Ateliers Jean Nouvel
Revised design under review

IN EARLY 2007, Hines purchased an empty lot on West 53rd Street from the Museum of Modern Art for \$125 million. Soon after, the mega-developer unveiled its design for the 17,000-square-foot site: a slender, 75-story steel-framed skyscraper (at left) by French architect Jean Nouvel.

Plans for 53 West 53rd, more commonly known as Tower Verre or the MoMA Tower, included 120 condominiums, a 100-room hotel, a restaurant, and 50,000 square feet of gallery space for MoMA. Most notably, the building was slated to rise 1,250 feet, which would have made it taller than the 1,047-foot-tall Chrysler Building.

The height of the building in the middle of a Midtown Manhattan block sparked an uproar among some neighbors and certain city officials. During a September 2009 meeting, the planning commission expressed aesthetic concerns about exposed mechanical equipment in the upper portion of the tower

and demanded a 200-foot height reduction. "They were asking special permission to penetrate an iconic zone of the skyline, and they hadn't finished the design. I was stunned," Amanda Burden, the city planning commissioner, told the *New York Observer* in 2009. Nouvel likened the cut to facing the guillotine.

The project receded from the headlines. Then, this past May, Hines submitted new schematic drawings to the city that comply with the lower height.

Meanwhile, another property on 53rd Street has been in the news. This past spring, the American Folk Art Museum sold its iconic home, designed by Tod Williams and Billie Tsien and completed in 2001, to MoMA. Some fear the 30,000-square-foot building, sandwiched between MoMA and the Hines lot, will be demolished to make more room for the Nouvel tower. However, the city would have to approve any major changes to the Folk Art property because city bonds helped build it.



WEST 57

West 57th Street, Manhattan
Bjarke Ingels Group (BIG)
Seeking land-use approval

PLANS FOR a pyramid-shaped building on Manhattan's West Side are as ambitious as its young architect, Bjarke Ingels, 36, who recently opened a New York City office, the first outside his native Copenhagen.

The striking, 870,000-square-foot edifice will rise on West 57th Street, between 11th and 12th Avenues, on a site that looks toward the Hudson River. Ingels describes the 700-unit structure as a "courtscraper," a fusion of a Manhattan high-rise and an enclosed European courtyard. A large, deep gash on one side of the 467-foot-tall building will create a central, light-filled void; at its base, a verdant courtyard designed by landscape architect Starr Whitehouse will add a natural dimension to the building. "Let's see what happens if you take the idea of Central Park and introduce it not at the scale of a city," Ingels says, "but at the scale of a city block."

The slanted pyramid will sit atop a podium



containing a lobby, shops, and cultural space. Ingels says the sloping facades will ensure that tenants in an adjacent structure still have river views. The slopes also respond to their context metaphorically: The building angles upward from west to east (from the shoreline to the city) and from south to north (from the low-rise Clinton district to high-rise Midtown).

West 57 would mark BIG's first building in the United States. Its design is reminiscent of prior work by the firm, such as 8 House in Copenhagen [RECORD, August 2011, page 44],

which, in addition to courtyards, features balconies angled to maximize views.

Expected to cost more than \$500 million, West 57 has far to go before becoming reality. Developer Durst Fetner Residential is seeking land-use approval and hopes to begin construction in early 2012. In the meantime, BIG, whose New York outpost has 20 employees, is pursuing commissions across the Americas. Currently, it's designing a master plan for a 40 million-square-foot neighborhood on the South Chicago waterfront.

HUDSON YARDS

Midtown Manhattan, West Side
Kohn Pedersen Fox Associates
Awaiting tenant commitments

CITY OFFICIALS and developers have long imagined a dazzling future for the airspace over the gritty, 26-acre West Side Rail Yard, near Pennsylvania Station in Midtown Manhattan.

Starting in the late 1990s, the city proposed constructing a platform over the below-grade portion of the rail yard and building a stadium on the site for the New York Yankees. That initiative, along with succeeding plans to build arenas for the New York Jets and 2012 Olympics, never came to fruition. The city eventually shifted gears and set out to transform the rail yard into a mixed-use district speckled with modern glass towers and pockets of green space (see Burden, page 128).

That idea has gained traction. In 2007, the developer Related Companies (then partnered with Goldman Sachs) tapped Kohn Pedersen

Fox to design a master plan for the so-called Hudson Yards. The following year, in May 2008, Related struck a deal with the Metropolitan Transit Authority to lease the rail yard (bordered by 10th and 12th Avenues and West 30th and West 33rd Streets). A series of twists ensued. In early 2010, Goldman Sachs pulled out, jeopardizing the project's future, yet months later, Related brought on a new partner, Oxford Properties Group. Hudson Yards now appears to be moving forward.

Assuming all goes as planned, the \$15 billion, 12 million-square-foot development will feature three office towers, nine residential towers, a 750,000-square-foot retail complex, a school, and a cultural center, plus 12 acres of open space. The scheme might

sound idealistic, but it has a precedent: More than a century ago, swanky Park Avenue was created atop sunken railroad tracks leading to Grand Central Terminal.

If tenants can be secured, Related hopes to break ground on the project in 2012. Two important additions to the area should help the cause: A subway line is being extended into the district, and the recently expanded High Line park now reaches to 30th Street. Still, even if Related starts construction of this colossal project next year, it will be at least a decade before this glistening new neighborhood has fully taken shape.





THE NEW DOMINO

Williamsburg, Brooklyn

Rafael Viñoly Architects, Beyer Blinder Belle
Searching for additional investors

WITH ITS large, bright yellow sign and front-row seat along the East River, the 155-year-old Domino Sugar plant has long served as a symbol of New York City's industrial heritage. But like so many manufacturing facilities here, the plant was shuttered, in 2004, presenting developers a sweet opportunity to acquire waterfront property in the desirable

Williamsburg neighborhood. Real estate values here have skyrocketed in the past decade, and condo buildings, galleries, and restaurants are emerging at warp speed. Some luxury residential units are selling for up to \$1,000 per square foot.

The Community Preservation Corporation Resources and the Katon Group swooped in

to buy the Domino Sugar property for roughly \$55 million. The developers then hired Rafael Viñoly Architects (RVA) to transform the grubby, 11.2-acre factory complex into an attractive, mixed-use community.

RVA's master plan calls for a series of masonry-and-glass buildings of varying heights, including four waterfront towers rising between 30 and 34 stories. While most of the old structures would be razed, three landmarked ones — the Pan House, Finishing House, and Filter House, collectively referred to as the Refinery — would be revamped and topped with a four-story rooftop addition with setbacks (Beyer Blinder Belle, which specializes in historic architecture, was tapped to oversee the Refinery's adaptive reuse).

In total, the massive project features 373,000 square feet of retail, office, and community space and 2,200 apartments, 660 of which are labeled affordable. A four-acre park and esplanade are also envisioned for the site, along with the insertion of public streets.

The controversial \$1.5 billion project has received all necessary approvals, including a green light from the city's Landmarks Preservation Commission. The developers are now in search of additional investors and aim to begin construction in 2012.



BAM CULTURAL DISTRICT

Fort Greene, Brooklyn

Various firms

Under construction

IN 2000, the city drew back the curtain on its plans to develop a cultural district around the Brooklyn Academy of Music (BAM), a thriving performing arts center established in 1861. The 6-acre master plan, conceived by Office for Metropolitan Architecture and Diller Scofidio + Renfro (who were both replaced by WORKac in 2005), called for performance venues, mixed-income housing, and ample public space. The \$650 million endeavor was to be financed through public and private dollars, with BAM Local Development Corporation, a nonprofit planning group, overseeing the project.

Despite much hoopla, the district has been slow to materialize, due in large part to the recession. Only one project has come to fruition: a 2004 renovation, by Lyn Rice Architects, of the James E. Davis Arts Building, a 30,000-square-foot building for nonprofit groups. Other key components are languishing, and two projects — a mixed-use tower by studioMDA and Behnisch



Bloomberg administration. Two major projects are finally under way. In the spring of 2010, renovation work began on the Richard B. Fisher Building, a former Salvation Army headquarters that will be transformed into a 263-seat theater; the \$52 million project, designed by H3 Hardy Collaboration Architecture, is slated to wrap up in 2012. And this past June, construction started on the Theatre for a New Audience (at left), a new, 30,000-square-foot venue dedicated to Shakespearean and classical works. H3 Hardy

Architekten and a visual and performing arts library by Ten Arquitectos — have been shelved for now.

Yet supporters continue to push forward. The city has committed \$100 million in capital funding, and, in 2006, it shifted control of the development to the Downtown Brooklyn Partnership, an organization created by the

is leading the design (Frank Gehry initially was involved but stepped down in 2009).

Other projects in the pipeline include an arts plaza by Ken Smith Landscape Architect and a renovation, led by Leeser Architecture, of the vacant Strand Theater. Despite this recent activity, the BAM Cultural District is still years away from its big debut.

WHITNEY MUSEUM

Meatpacking District, Manhattan

Renzo Piano Building Workshop

Under Construction

LIKE EVERY Manhattan resident, the Whitney Museum has long griped about the need for more space. In the mid-1980s, the institution unveiled plans for a 10-story Michael Graves-designed addition to its famous Marcel Breuer home, which opened in 1966 on the Upper East Side. The project sparked considerable opposition and was abandoned. Other schemes followed, by Rem Koolhaas and then Renzo Piano, but none stuck.

In May 2010, the museum's board voted to build an entirely new facility, by Piano, in Lower Manhattan's Meatpacking District. It would mark the Italian architect's third completed building in New York, the other two being the Morgan Library & Museum addition (2006) and the New York Times Building (2007).

Piano's signature style — elegant, subdued, confident — is evident in renderings for the new Whitney. The asymmetrical glass, steel, and concrete building will rise near the southern entrance of the High Line. The east elevation shows stepped, horizontal volumes that draw back from the elevated park, while the western half consists of a monolithic



nine-story block that faces the Hudson River. The street-level entrance will open onto an expansive public plaza.

Exhibition space totaling 63,000 square feet, including outdoor galleries, are planned for the 200,000-square-foot building, giving the museum ample breathing room. Other programming includes an education center, two theaters, and a café. Cooper, Robertson & Partners is serving as executive architect.

The groundbreaking took place in May, with demolition of a vacant warehouse beginning in August. The new museum is scheduled to open in 2015, though the institution still needs to raise about \$200 million more for the \$720 million project. As for the Breuer building uptown, the Metropolitan Museum of Art — in need of more space itself — has agreed to lease the facility for at least eight years, starting in 2015.

VIA VERDE

Melrose, South Bronx
Grimshaw Architects, Dattner Architects
Under construction



THE NOTORIOUS South Bronx has come a long way since the 1970s, when burnt-out buildings and drug dealers were common sights. While poverty is still prevalent, the area has seen a flurry of development in the past decade, with a number of residential, commercial, and public projects either finished or under construction.

One such project is Via Verde, or the Green Way — an affordable housing complex rising on a 1.5-acre remediated brownfield in the Melrose neighborhood. Conceived by Grimshaw Architects and Dattner Architects, who won the project through a 2004 competition sponsored by the city and AIA New York, the 300,000-square-foot development comprises a series of townhouses, a mid-rise building, and a 20-story tower, all organized around a central landscaped courtyard. The project's units are a mix of 71 middle-income co-ops and 151 low-income rentals. Amenities will include a fitness center, edible garden, and bicycle storage, plus ground-level retail and a health clinic.

Designed to achieve LEED Gold, the complex boasts an impressive list of sustainable

elements, such as green roofs and photovoltaic panels. "It's projected to have 30 percent energy savings over a baseline building," notes Ari Alowan Goldstein, project manager with Jonathan Rose Companies, which is developing the project with Phipps Houses Group, a nonprofit entity.

Since site work began in March 2010, the \$100 million project has progressed quickly. The superstructure is in place, and prefabricated facade panels made of concrete, wood, and aluminum are now being installed. The project's co-op units will come on line later this year, with rental units ready for occupancy in early 2012. Unlike in many big projects, the architects' vision wasn't compromised, says Goldstein. "We're really proud of how much the building actually matches the original design intent and renderings," he says. "It's something we strived for."

NEW YORKERS ON NEW YORK Michael Bloomberg, Mayor of New York City

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HUNTERS POINT SOUTH

Long Island City, Queens
FXFOWLE, SHoP Architects, Ismael Leyva Architects
Under construction

SIMILAR TO many postindustrial districts, Hunters Point is undergoing a remarkable transformation. In the past decade, warehouses and factories in this Long Island City neighborhood have given way to glass towers and waterfront promenades. Now, construction has begun on a multiphase affordable housing

complex that eventually will provide thousands of units for low- to middle-income tenants.

The 30-acre development, Hunters Point South, is a key component of Bloomberg's New Housing Marketplace Plan, an \$8.4 billion initiative to build 165,000 affordable housing units by the end of the 2014 fiscal year. The Hunters Point development, in terms of units, will be the largest affordable housing complex built in the five boroughs since the early 1970s, when Co-Op City (Bronx) and Starrett City (Brooklyn) were completed.

Hunters Point South will sit across the river from the United Nations headquarters. Over the years, ambitious plans for the high-profile Queens real estate emerged and fizzled. Most notably, it was the cornerstone of New York's failed bid to host the 2012 Olympics (a competition-winning design by Morphosis would have transformed the area into a sustainable, futuristic Olympic Village).

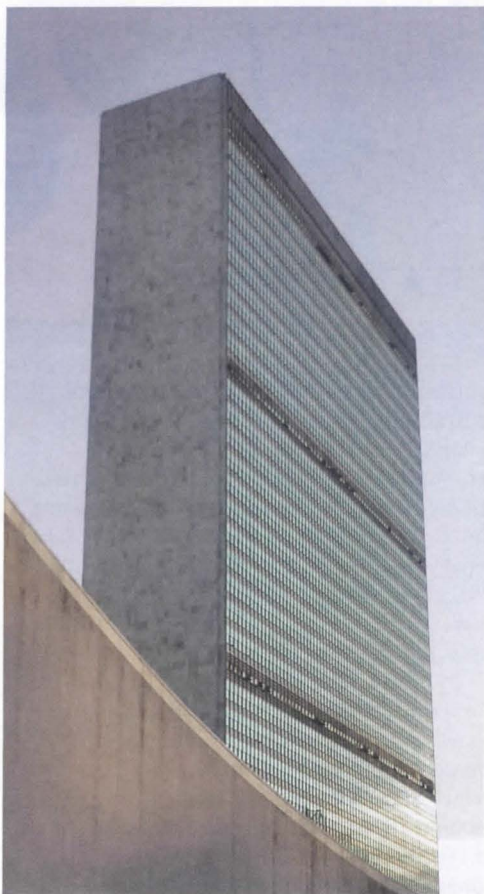
In 2006, amid local fears that private developers would invade and build luxury condos, Mayor Bloomberg announced that the city would build affordable housing on the site. In 2009, the city bought the property for \$100 million from the Empire State Development Corporation and the Port Authority of New York and New Jersey. FXFOWLE was tapped to design the master plan.

In March, construction finally began on phase one. In addition to five acres of parkland

and a public school, the 800,000-square-foot project includes two high-rise buildings by SHoP Architects and Ismael Leyva Architects. The towers will contain 20,000 square feet of retail space and 900 residential units (685 of them are labeled affordable). Related Companies, the nonprofit Phipps Houses Group, and Monadnock Construction are developing the \$360 million first phase; completion is slated for 2014. The city has yet to issue RFPs for future phases.

The complex will be near a prominent amenity: a public library designed by Steven Holl (see page 123). Expected to open in two years, the library will serve as yet another signal that Hunters Point has entered a new era.





UN CAMPUS UPGRADE

Midtown Manhattan

Various firms

Under construction

WHEN THE 17-acre United Nations headquarters opened between 1950 and 1952 along the East River, its sleek, 39-story Secretariat tower and low-slung General Assembly and Conference buildings became instant icons of the International style. Now, more than a half-century later, the complex is getting its first major overhaul. Construction is progressing on a sweeping, \$1.87 billion project to upgrade the campus, whose original design team included Wallace Harrison, Le Corbusier, and Oscar Niemeyer.

The grounds consist of five buildings totaling 2.6 million square feet and a 7-acre lawn. When work is complete, the aesthetic differences between the old and new will be slight, as renovation efforts are focused on making the buildings more energy-efficient and modernizing their infrastructure.

Architectural and engineering contractors under the supervision of UN assistant secretary-general Michael Adlerstein, an architect, designed the master plan. Various firms were then tapped for specific aspects of the project, including HLW International, Einhorn Yaffee Prescott, Perkins+Will, R.A.

Heintges & Associates, and Syska Hennessy Group.

Key components include replacing the copper cladding on the General Assembly building's dome, along with reglazing the Secretariat tower with bluish-green windows that are laminated to prevent them from shattering in an explosion. In addition, part of the General Assembly building will be converted into three large meeting rooms.

The project also calls for removing asbestos, creating more communal spaces in office areas, and installing new heating and cooling units. Sprinklers, wheelchair ramps, and fire barriers in mail chutes also will be added to the buildings.

More than 3,000 UN employees are temporarily working in various offsite facilities during the renovation. For the secretary-general and his staff, the UN built a temporary 230,000-square-foot building on the north lawn of the campus; the facility, designed by HLW, also is used for conferences and will be dismantled once the campus renovations are complete. The project is scheduled to be finished by 2014.

COLUMBIA EXPANSION

Manhattanville, Manhattan

Various firms

Under construction

COLUMBIA UNIVERSITY is pressing ahead with its 17-acre expansion into Manhattanville, a West Harlem neighborhood just north of the school's main 32-acre campus in Morningside Heights. Preconstruction work on the \$6.3 billion project began in 2008, with completion of the first building expected in 2016.

The project has faced considerable opposition since it was proposed. In 2003, Columbia assembled a star-studded cast — Renzo Piano Building Workshop (RPBW), Skidmore, Owings & Merrill, and James Corner Field Operations — to design the master plan. Their scheme, unveiled in 2004, featured tree-lined quads and 16 new buildings for academic, administrative, and housing purposes. All but four of the area's structures, mostly warehouses and tenements, were targeted for demolition.

Columbia purchased most of the land it needed, but a few property owners resisted. The Ivy League school acquired the remaining

parcels via eminent domain, which was challenged by several landowners. Their case ascended to the U.S. Supreme Court, which declined to hear it, ultimately giving Columbia the green light. Tensions still run high in the neighborhood: This spring, residents accused the university of quietly downsizing a public school it promised to open in the area.

The school has lined up several high-profile architects for the project's first phase. Diller Scofidio + Renfro and FXFOWLE are designing two Business School buildings, and RPBW is partnering with Davis Brody Bond Aedas to design facilities for the School of the Arts and School of International and Public Affairs. They are also behind the 450,000-square-foot Jerome L. Greene Science Center, slated to be the first finished building on the Manhattanville campus.

Future phases include facilities for urban and population studies, biomedical engineering, and nanotechnology, in addition to housing for graduate students and faculty. The Manhattanville campus is expected to be fully complete by 2030.



GOVERNORS ISLAND PARK & PUBLIC SPACE

New York Harbor
Team led by West 8
Under environmental review

IN ONE sense, Governors Island is treasured real estate: Located a half-mile from Manhattan's southern tip, the 172-acre island, a former military base, offers stunning panoramic views of New York City and its waterways. But the tree-dotted island lacks sufficient infrastructure (no potable water, for starters) and can only be reached by boat. Moreover, its land deed prohibits residential development.

In 2006, the city and state launched a competition that asked designers to devise a grand plan for 87 acres of public space on the island. A proposal by the Dutch firm West 8 (with several partners, including Rogers Marvel Architects and Diller Scofidio + Renfro) won. If all goes as planned, their visionary scheme will not only be realized; it also will trigger a mini construction boom on the island. There are about 33 acres available for development, along with a number of historic buildings suitable for adaptive reuse. "The island is not just a park," explains Leslie Koch, president of the Trust for Governors Island, which oversees development and operations for the city-owned portion of the island.

West 8's plan is divided into several phases. The initial stage calls for the creation of a



sweeping 11-acre lawn, a tree grove featuring hammocks and winding paths, and a plaza with flowerbeds and café carts. It also entails redesigning the ferry landing and sprucing up 33 acres of green space within an existing historic district.

Future phases are more ambitious. A 2.2-mile-long promenade will encircle the island, and an extravagant viewing terrace will face the Statue of Liberty. Most notably, four landscaped hills rising up to 82 feet will be constructed on the island's flat southern half (below). This creation of topography "has become the basis for the extraordinary transformation of Governors Island," says Koch.

Last year, the city took full control of the 150 acres it once shared with the state (the island's remaining 22 acres are owned by the National Park Service). Mayor Bloomberg has committed the \$330 million needed to finance the project's first phase and various



infrastructure improvements, including installing a pipe to transport water to the island from Brooklyn. If the plan passes through environmental review, demolition of nondescript structures built between the 1960s and '80s is slated to begin at the end of this year, and construction will begin in fall 2012. "This is actually happening," Koch says. "We are going to have shovels in the ground next year." Phase two awaits funding.

In the meantime, Governors Island, reached by a quick ferry ride, has become a popular haven for city dwellers, who travel there to picnic, bike, attend concerts, and, this year, view an outdoor exhibition of Mark di Suvero sculptures (above right). The island is drawing a record number of visitors. When it first opened to the public in 2003, a few hundred people ventured out to the island during its 58-day season. This year, that number is expected to reach half a million.

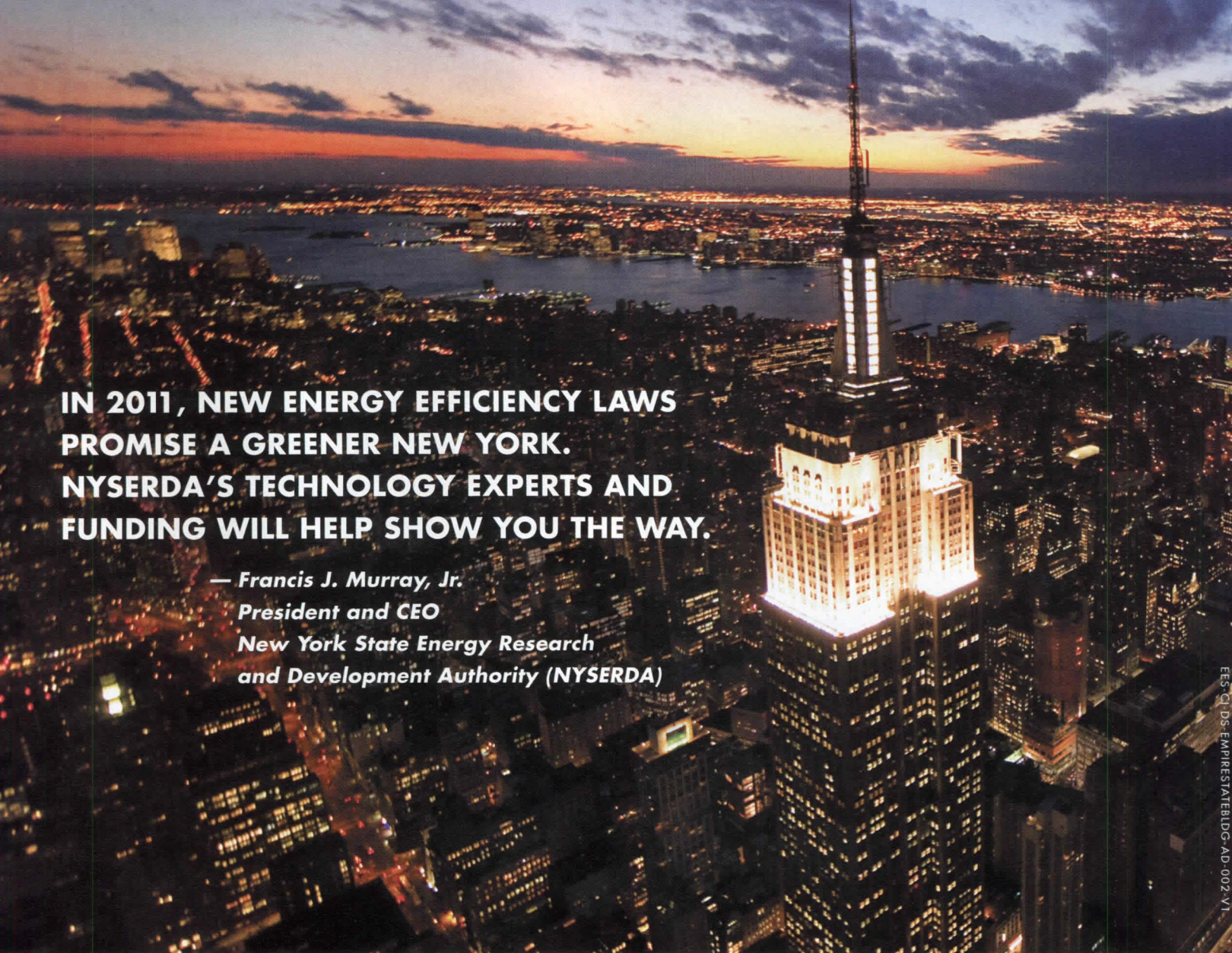




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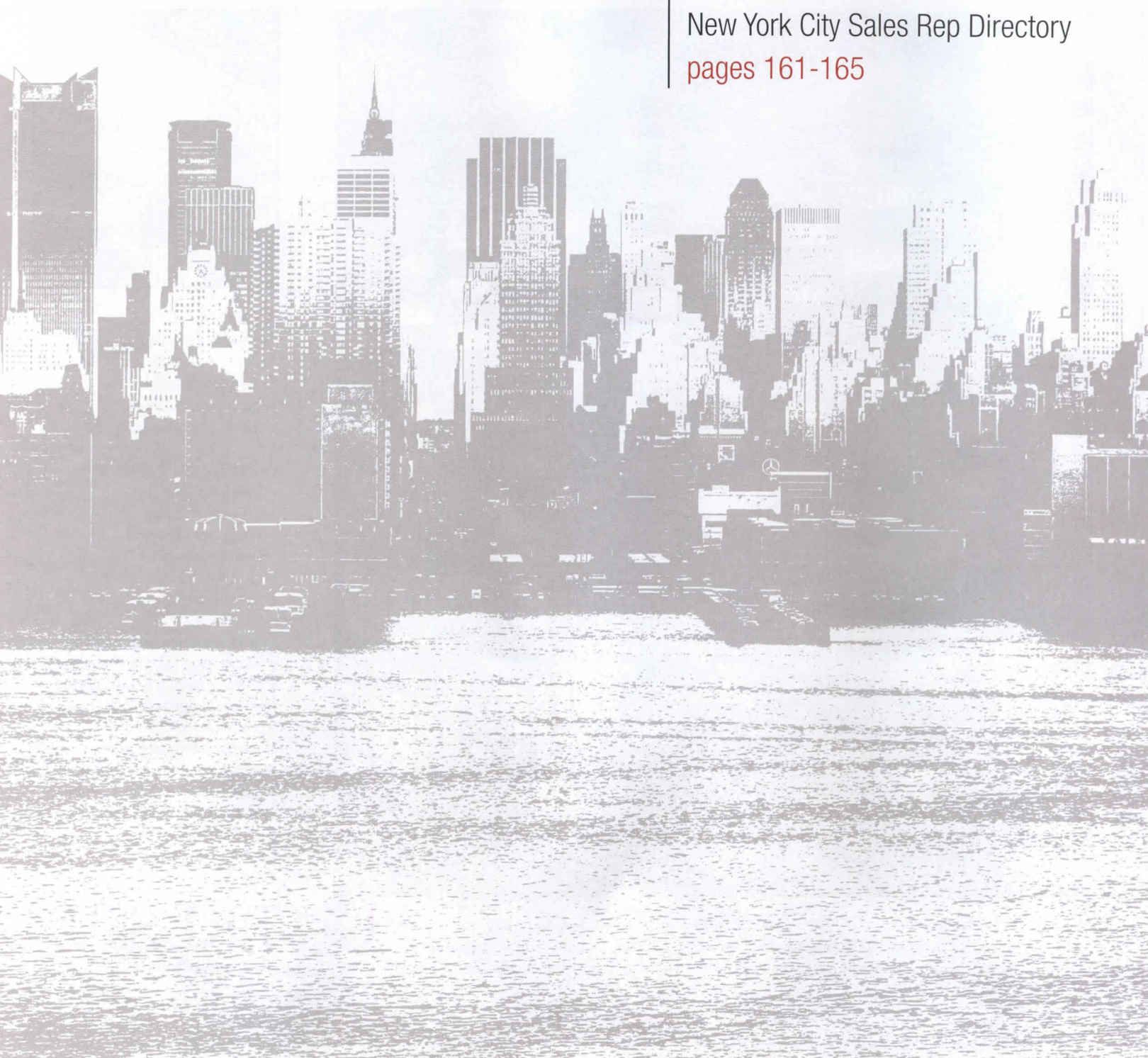
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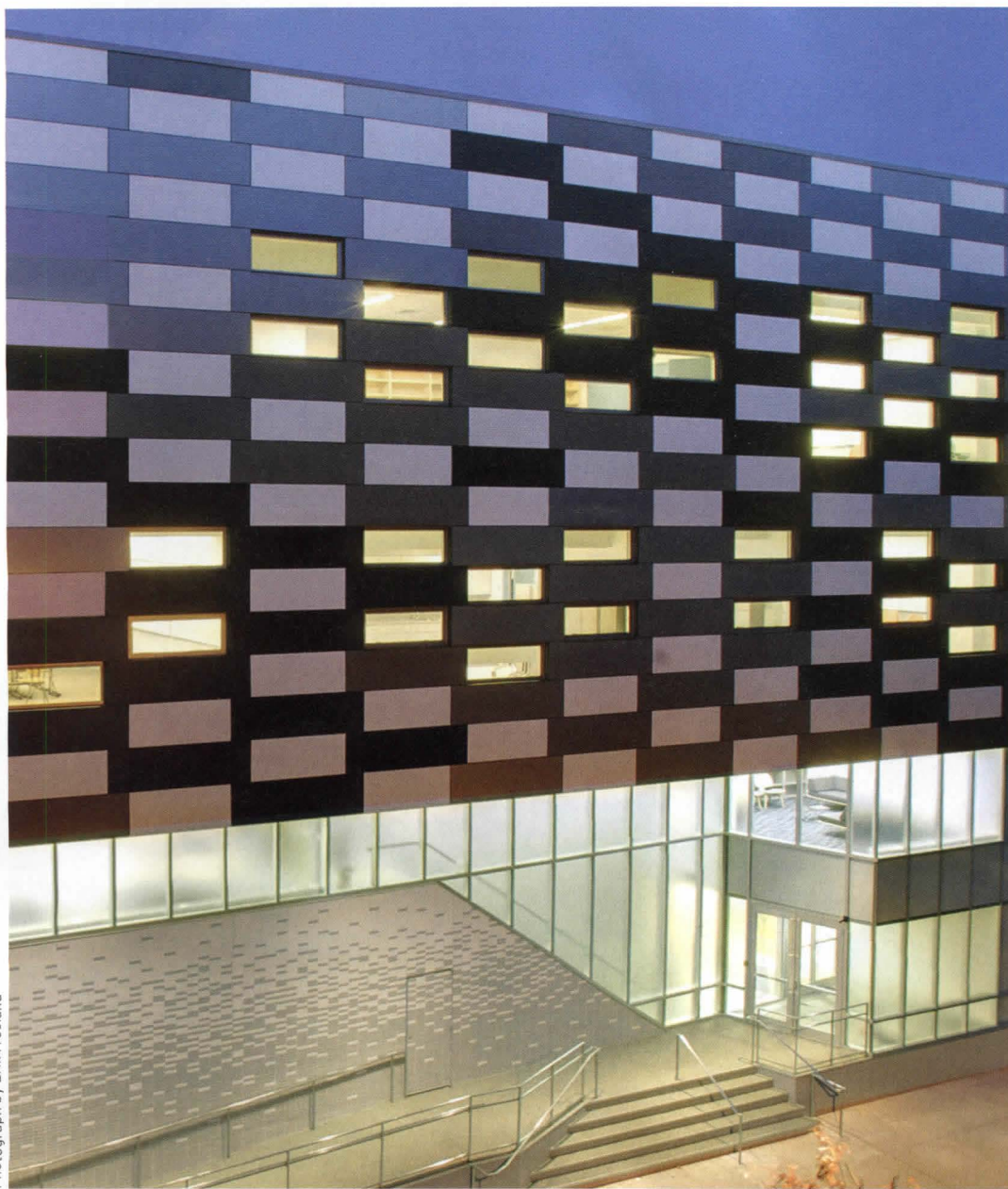
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Case Study

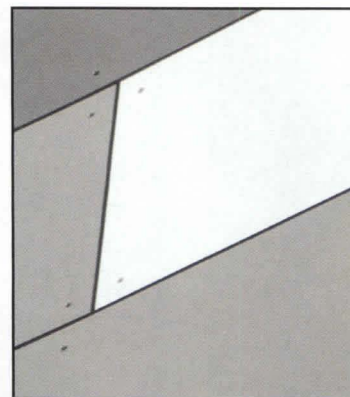
EAST HARLEM SCHOOL AT EXODUS HOUSE: NEW YORK, NEW YORK

A Study in Design Excellence - This middle school, constructed on the former site of a rehabilitation center, is dedicated to investing in the future of at-risk children. Ivan Hageman, co-founder and head of the school, says, "The building embodies our work with a strong but serene face to the community...and a clean austerity of design that is both calming and expressive of our energy and determination." Project architect, Stacie Wong chose Trespa® Meteon® panels because they "were one of the few products that had the bright white, matte black, reflective aluminum and gradations of grey that were necessary to make a composition both sophisticated and playful."



Photograph by Erik Freeland

Not only do the Trespa® Meteon® panels create a fabric-like weave of varying colors and degrees of reflectivity, they are a functional drained and back ventilated rain screen cladding system – improving air quality indoors, reducing the chance of mold, accommodating exterior insulation and reducing energy consumption.



Architect:

Stacie Wong, Peter Gluck and Partners

Products Used:

Trespa® Meteon® decorative
high pressure laminate panels

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- 2240 Washington Avenue –
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Homeless in the Bronx
- Strong National Museum of Play
- Isis & Hudson Hill Condominiums

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Case Study

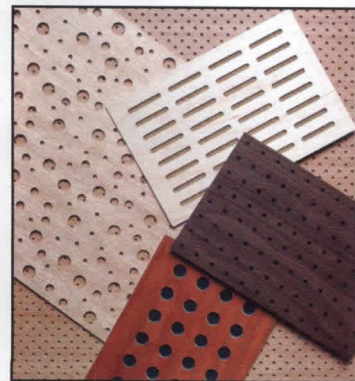
KAPLAN HALL AT SUNY ORANGE: NEWBURGH, NEW YORK

Wood Ceiling and Wall Panels Provide Quiet Elegance – The wood ceilings in this second-story community room are visible through glass facades, offering a warm invitation to the public below. Ceilings Plus panels with Arboreal® FSC-certified veneer on aluminum with 85% recycled content contribute to the project's anticipated LEED Silver certification. Perforated panels are backed with recycled-fabric insulation for outstanding acoustics. George Green, AIA, principal with JMZ Architects and Planners, says, "We use Ceilings Plus when we're trying to create interesting ceiling materials and forms that are also accessible and lightweight. Ceilings Plus offers designers great flexibility; we can do a lot with their panels."



© 2011 David Lamb Photography

Ceilings Plus fabricates panels to realize the designer's concept. Subtly folded panels keep the emphasis on joint lines leading the eye to the front of the room. Lighting, ventilation and other services are beautifully integrated into lightweight, acoustical and FSC-certified walls and ceilings.



Architect:

JMZ Architects and Planners, P.C.,
518-793-0786, jmzarchitects.com

Owner:

Orange County, NY
Newburgh Campus, SUNY Orange,
Newburgh, NY

Contractor:

Worth Construction Company, Inc.
Installer: Kane Contracting, Inc.

Products Used:

Ceilings Plus Illusions™ panels
with Arboreal® real wood veneer

Performance Data:

- FSC-certified wood veneer
- Micro-perforated
- Acoustics up to 0.95 NRC
- Class A rated

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- Hayden Planetarium Sphere
- Meadowlands Stadium
- Yankee Stadium

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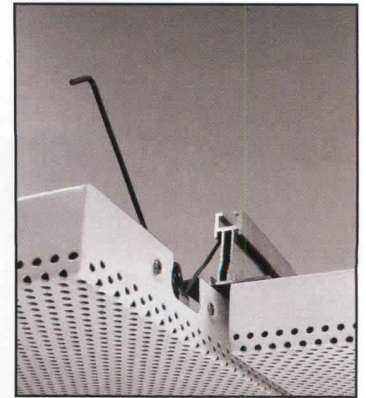
WORLD TRADE CENTER TRANSPORTATION HUB: NEW YORK, NEW YORK

Building New Solutions – is the mantra of Lindner, and this project is a great example. Lindner's engineering and nearly unsurpassed manufacturing techniques are all incorporated into the design and application of fit out for several of the finishes for one of the world's most complicated designs. Lindner is proud to be part of this monumental project.



© Santiago Calatrava

Interior view of the PATH Hall. Lindner's scope of work includes the integration of custom acoustical metal panels between the structural ribs shown above. There are over 200 custom sizes and shapes – from simple curves to trapezoid panels, and complex curves that make up the acoustical Torsion Spring system; Lindner LMD-TS - Building New Solutions.



Architect:

Santiago Calatrava /
Downtown Design Partnership

Owner:

The Port Authority of NY / NJ

Contractor:

Skanska Granite Skanska JV /
New England Construction (installer)

Products Used:

- LMD-TS Custom Torsion Spring Ceiling System
- LWD Custom Acoustical Wall Panels

Performance Data:

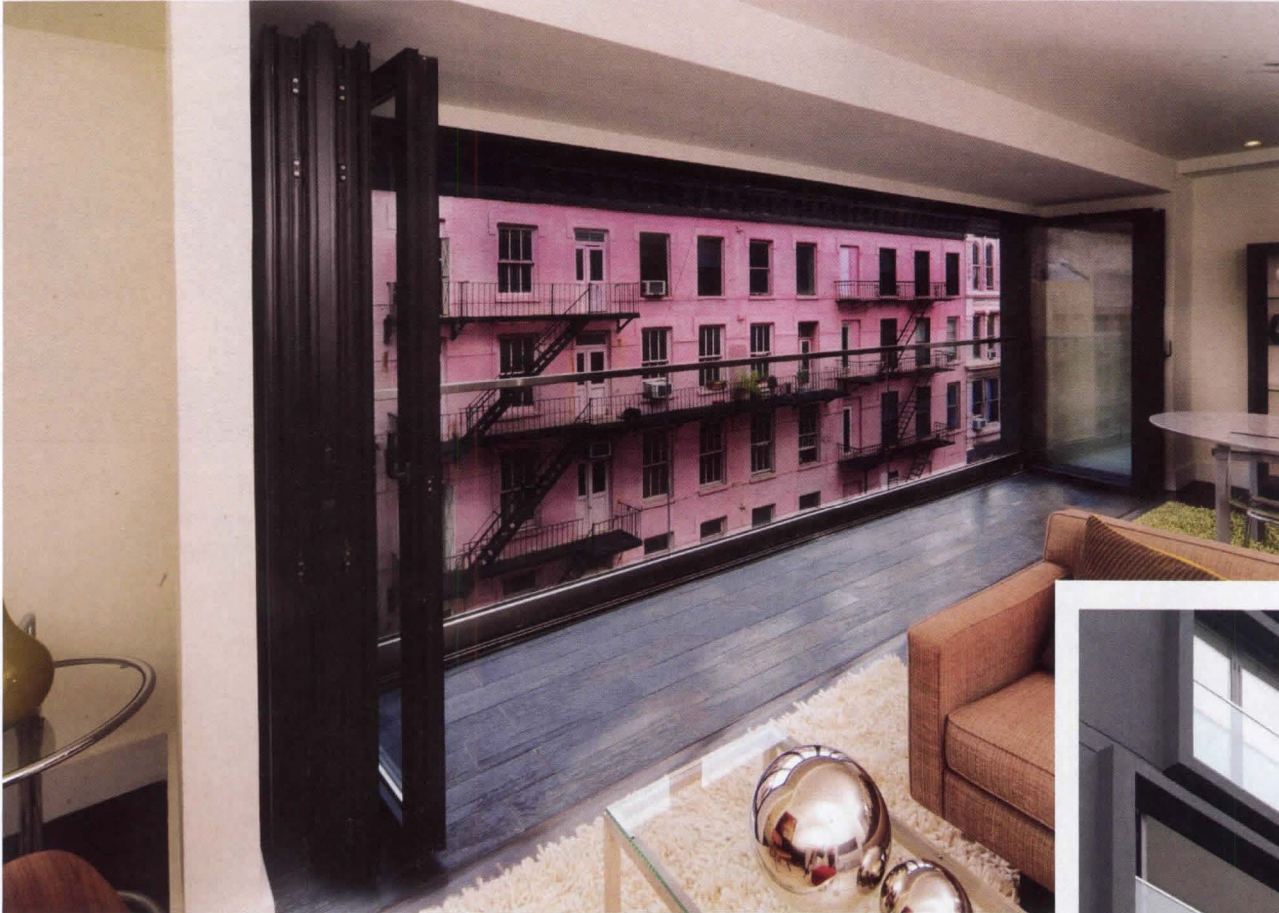
- Custom sized / flat and curved perforated metal panels with welded corners
- Custom T and H shaped extruded aluminum slotted grid system

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Case Study

60 ORCHARD ST., LOWER EAST SIDE NEW YORK, NEW YORK

NanaWall's SL70 Transforms the Façade and Reclaims the Balcony for Interior Living Space—GAteliers Architecture had the challenge of creating a sleek, modern luxury condo building from an old store-front building in New York's Lower East Side. 60 Orchard is an eight-story multifamily building with seven condo units and a penthouse on the 8th and 9th floors. A key design attribute was to eliminate the balconies to reclaim the space for interior usage without losing the outside connection. The NanaWall SL70 Thermally Broken System enabled the architect to create open views, fresh air ventilation, and natural daylighting while increasing usable living space.



The modern steel and glass façade features NanaWalls in each unit opening to frameless Juliette balconies. Six panels of SL70 NanaWall allow the residents to open up 18 feet of exterior glass to the balcony space—providing unobstructed open views and fresh air ventilation.

Architect: GAteliers Architecture

Contractor: 60 Orchard Street LLC, Marshall Sohne

Products Used: NanaWall SL70, Thermally Broken

Performance Data:

- Unit with Low E Insulated Tempered Argon Filled
 - U value .38
 - STC value of 32
- Unit with Raised Sill
 - No uncontrolled water entry @ 12psf
- Acoustical Performance STC Value of 32



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Case Study

WEILL CORNELL MEDICAL COLLEGE: NEW YORK, NEW YORK

Clear Views and Maximum Fire Safety at Weill Cornell Medical College – Weill Cornell Medical College on 525 East 68th Street is a unique 2-hour fire-resistive curtain wall that SAFTIFIRST collaborated on with both the architect and glazing contractor. The architect wanted an exterior curtain wall system with large glass lites wrapping around the building. However, this area leads into a parking garage, which needed to be fire rated. To achieve the transparency that the architect desired and the building code requirements for this application, SAFTIFIRST provided a 2-hour fire-resistive curtain wall comprised of SuperLite II-XL 120 IGU and SAFTIfire CW Framing made here in the USA.



Architect:

Ennead (formerly known as Polshek Partnership)

Owner:

Cornell University

Contractor:

W&W Glass, LLC

Products Used & Performance Data:

This 2-hour fire-resistive curtain wall is comprised of SuperLite II-XL 120 IGU and SAFTIfire CW Framing, providing superior clarity and performance. This complete system meets the stringent ASTM E-119 wall criteria, is impact safety rated to CPSC Cat. II, has high STC ratings and provides additional energy performance. SuperLite II-XL 120 and SAFTIfire CW are proudly made here in the USA and are listed and labeled by UL and Intertek/Warnock Hersey. SAFTIFIRST is a leading USA manufacturer of fire-rated glass and framing products and a preferred choice of architects for 30 years.

To meet all the design and building code requirements, SAFTIFIRST provided a 2-hour fire-resistive curtain wall comprised of SuperLite II-XL 120 IGU and SAFTIfire CW Framing.



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Case Study

RUTGERS UNIVERSITY: CAMDEN, NEW JERSEY

University Designs in Urban Chic – The new 12,688-square-foot Early Learning Research Academy on the campus of Rutgers University in Camden, NJ was designed by The Biber Partnership. The facility provides high-quality early childhood education and child care programs, as well as research opportunities for students and researchers of education, child development, health care and teaching. This designed-build project required value-driven product choices which made Nichiha fiber cement claddings a perfect fit. By integrating three colors of the same block style, the Early Learning Research Academy facility provided the appropriate urban aesthetic for the university to fit the surrounding area.



The new Early Learning Research Academy integrates a three-color design utilizing Nichiha's SandStone™ II, providing the appropriate design for the surrounding vicinity. Nichiha fiber cement cladding was an ideal cost-effective solution for the new Rutgers University facility.



Architect:

The Biber Partnership

Principal-in-Charge:

Peter Biber, AIA, PP, NCARB

Project Manager: Derrick Overbay, AIA

Owner:

Rutgers, The State University of New Jersey

Contractor:

Michael Riesz & Co.

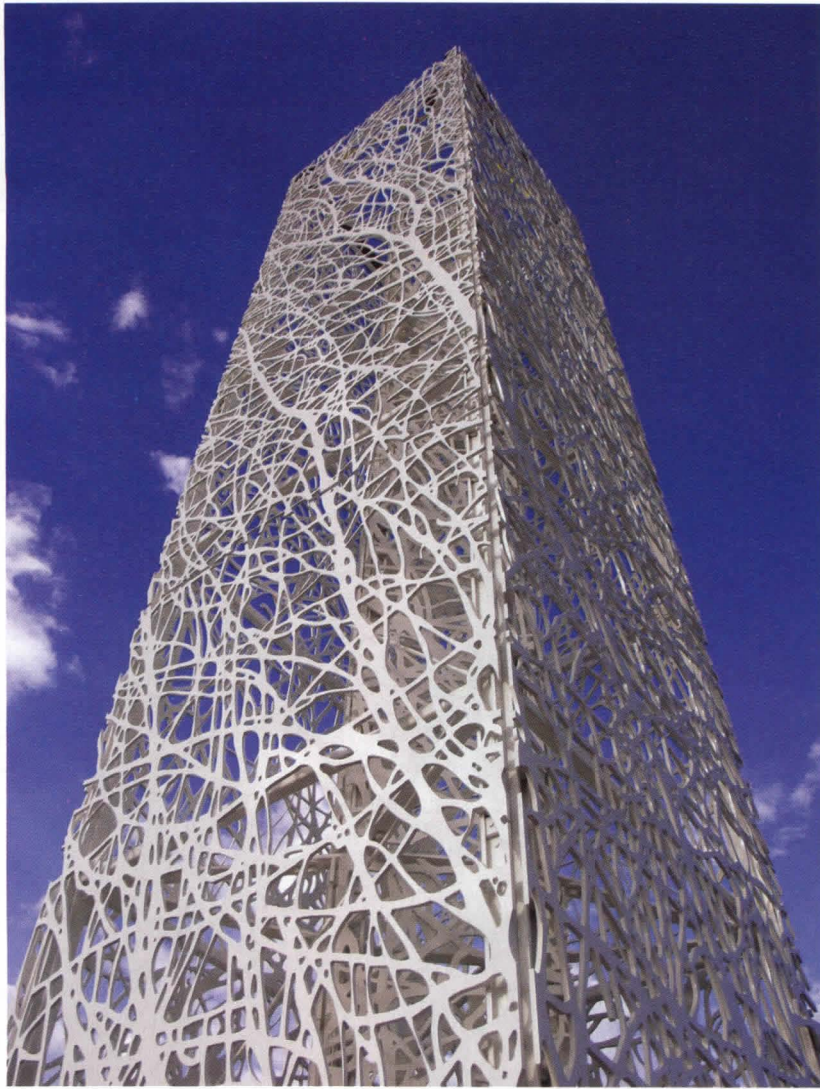
Products Used:

Cladding: Nichiha SandStone™ II fiber cement panels

Colors: Autumn Brown, Desert Beige and Sedona



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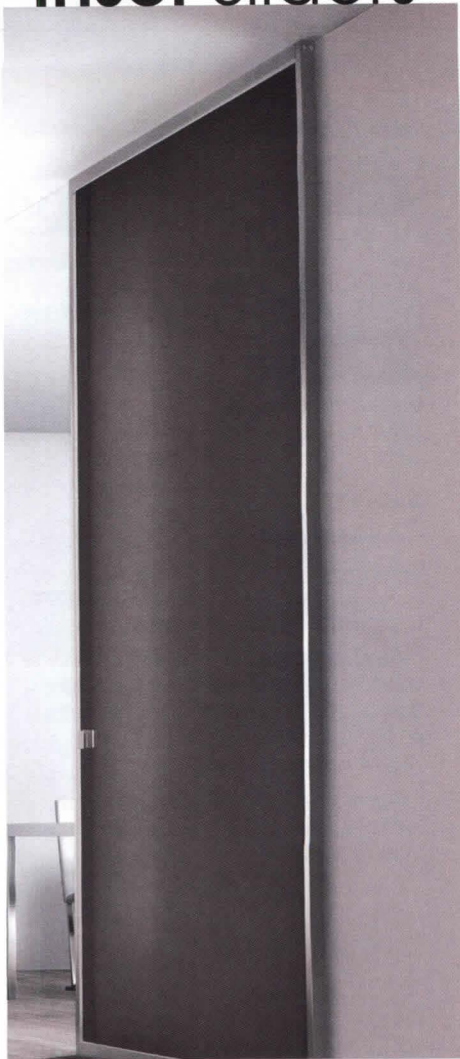


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DATES & EVENTS

New and Upcoming Exhibitions

Structure of Spirit, Design of the Heart

Washington, D.C.

September 1-October 31, 2011

For more than 30 years Ken Wyner has been the photographer of choice for many of the nation's leading architects and designers, but his own artwork is rarely exhibited. At the American Institute of Architects national headquarters, Wyner will show more than 40 works, most of them created in the past few years. Visit structureofspirit.org.

Palladio and His Legacy: A Transatlantic Journey

Pittsburgh

September 3-December 31, 2011

Andrea Palladio was one of the most influential architects in the Western world, having designed public and private buildings that incorporate classical design elements while exploiting Renaissance advances in engineering and construction. Through rarely seen drawings and books, modern bas-relief models, and specially commissioned models, the exhibition documents this transatlantic migration of architectural thinking. For more information, visit web.cmoa.org.

Building a Masterpiece: Santiago Calatrava and the Milwaukee Art Museum

Milwaukee

September 8, 2011-January 1, 2012

The Milwaukee Art Museum hopes to attract architects and visitors from around the world to see the Museum's Quadracci Pavilion, the first building Calatrava completed in the United States. For more information, visit mam.org.

stillspotting nyc: manhattan

New York City

September 15-25, 2011

Estonian composer Avro Part and Norway-based architecture firm Snøhetta have selected, and in some cases subtly altered, urban spaces. Visitors will experience this confluence of music and architecture at five locations downtown that quietly celebrate the city, 10 years after the September 11 attacks. Visit stillspotting.guggenheim.org.

Picturing the City: Downtown Pittsburgh, 2007-2010

Pittsburgh

September 17, 2011-March 25, 2012

Nine Pittsburgh photographers have turned their lenses toward Pittsburgh's downtown neighborhood to document the significant changes in the natural and built environment brought on by an unprecedented development boom. The exhibition reflects the evolution of the city's downtown and features

the finest works created by photographers Melissa Farlow, Richard Kelly, Jim Judkis, Kenneth Neely, and more. Visit web.cmoa.org.

Deep Surface: Contemporary Ornament and Pattern

Raleigh

September 24, 2011-January 2, 2012

The first major exhibition to examine the re-emergence of ornament and pattern over the last 15 years, Deep Surface celebrates its reinvigoration as a communicative, functional, and desirable form of cultural expression, across all of the disciplines of design. For more information, visit camraleigh.org.

Social Cave at Beijing Design Week

Beijing

September 28-October 3, 2011

This project is an interactive installation developed by 24 international architecture students. The students had the challenge of organizing an assembly of 100 percent recyclable polystyrene polygons, which could continuously reconfigure its spatial environment according to different users' behaviors. For more information, visit arch.columbia.edu.

Sympathetic Seeing: Esther McCoy and the Heart of American Modernist Architecture and Design

West Hollywood, California

September 28, 2011-January 8, 2012

The first exhibition to present the life and work of Esther McCoy (1904-1989), this exhibition recognizes an American original and affirms her role as a key architectural writer and historian in American modernism. The exhibition is part of Pacific Standard Time, the Getty-organized initiative that brings together more than 60 Southern California cultural institutions to explore the birth of the Los Angeles art scene. For more information, visit makcenter.org.

Jim Olson: Architecture for Art

Pullman, Washington

September 30-December 10, 2011

A graduate of the University of Washington's department of architecture, Olson has long been inspired by the relationship of architecture, art, and nature. The exhibition features projects from as early as 1959, presented through drawings, models, plans, and photographs, and a specially built "ideal room" so visitors can experience Olson's architecture firsthand. For more information, visit wsu.edu.

Pacific Standard Time: Art in L.A. 1945-1980

Los Angeles

October 1, 2011-April 1, 2012

Set to be the largest cultural collaboration in Southern California's history, Pacific Standard Time's exhibitions and programs encompass a broad range of developments, including Modernist

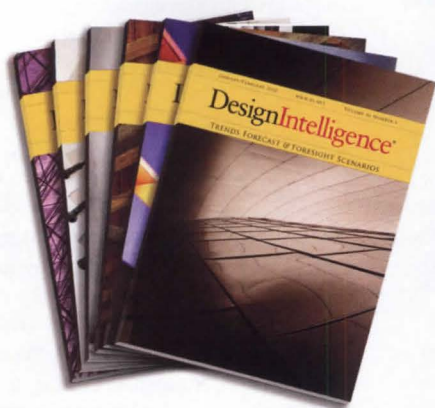
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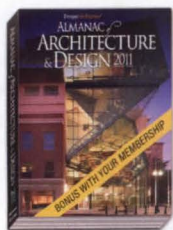
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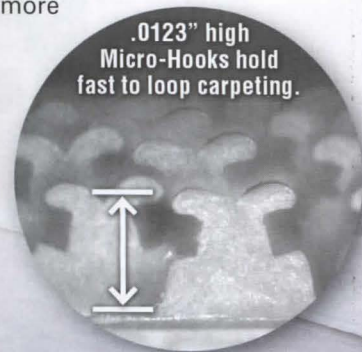
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CIRCLE 87

2011



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DATES & EVENTS

architecture and design; African-American artistic networks; Mexican-American and Chicano artists and movements; craft; photography; and performance art. Visit pacificstandardtime.org.

Ongoing Exhibitions

Public Domain: Public and Civic Spaces in the Arab World

London

Through September 24, 2011

Using material drawn from photojournalists, professional photographers, and architectural practices, the exhibition will provide a journey through the public and civic spaces of the Arab world and showcase daily life in the region. For more information, visit london.gov.uk/shubbak.

The Life and Death of Buildings

Princeton, New Jersey

Through November 6, 2011

This exhibition explores the unique relationship uniting architecture, photography, and time. The 115-plus works of art on display are an indirect meditation on the upcoming 10th anniversary of September 11. The exhibition doubles as a survey of extraordinary photographs from the 1840s to the present. Visit artmuseum.princeton.edu.

Talk to Me

New York City

Through November 7, 2011

This exhibition by the Department of Architecture and Design at the Museum of Modern Art investigates the communication between people and objects, which range from interfaces and products to diagrams, visualizations, and furniture by designers, students, and scientists – all created in the past few years or under development. For more information, visit moma.org.

SUPERTALL!

New York City

Through January 2012

The Skyscraper Museum presents a survey of superlative skyscrapers worldwide, featuring projects that have been completed since 2001, are under construction, or are expected to top out by 2016. This recent generation of giants, generally 100 stories or higher, represents a new paradigm of slender mixed-use towers. The installation includes models, renderings, animations, photographs, and films. Visit skyscraper.org.

194X-9/11: American Architects and the City

New York City

Through January 2, 2012

This exhibition examines the work of leading architects in light of the history of urban renewal in the United States. The selections trace an arc from the idealism of the World War II years through

the subsequent criticisms of the 1960s and '70s, to the threshold of today's post-September 11 period and the debates catalyzed by the rebuilding of Ground Zero, through 85 drawings and models drawn from MoMA's collection by renowned architects. For more information, visit moma.org.

Building Blocks: Contemporary Works from the Collection

Providence

Through March 25, 2012

Contemporary sculpture, painting, photography, prints, video, and collage illuminate relationships between architecture and art and heighten perception of the spaces around us. In some cases, artists engage with the structural possibilities of architectural form, and in others, the elements and characteristics of architecture are explored and represented through a new lens. For more information, visit risd.edu.

Lectures, Conferences, and Symposia

Thinking into the Future: The Robie House Series on Architecture, Design, and Ideas

Chicago

September 9, 2011

Led by Chicago architect Stanley Tigerman, this lecture will engage leading international, national, and Chicago voices in architecture, design, and contemporary culture that point to a bright and promising future for the next generation. Tigerman is currently renovating the building next to Frank Lloyd Wright's Robie House on the University of Chicago campus for the Seminary Co-op Bookstore. For more information, visit gowright.org.

Irish Architecture Now

New York City

September 26, 2011

Architects from six leading contemporary Irish practices will showcase their work and discuss the profession at leading U.S. architectural schools and institutions this fall. Merritt Bucholz and Karen McEvoy of Bucholz McEvoy Architects, Niall McCullough of McCullough Mulvin Architects, and Shih-Fu Peng of heneghan peng architects will speak at The Cooper Union. For information on all of the events, visit architecturefoundation.ie.

Made Expo

Milan

October 5-8, 2011

The Made Expo will focus on cutting-edge, high-tech innovations in design materials. The show takes a holistic approach to building design and construction, examining all the steps of the building process, from initial design and planning through construction and fit-out. A returning event this year will be the



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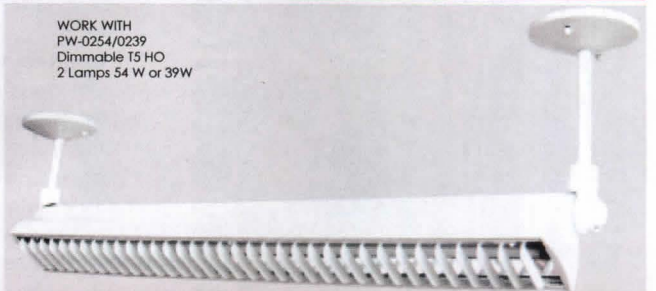
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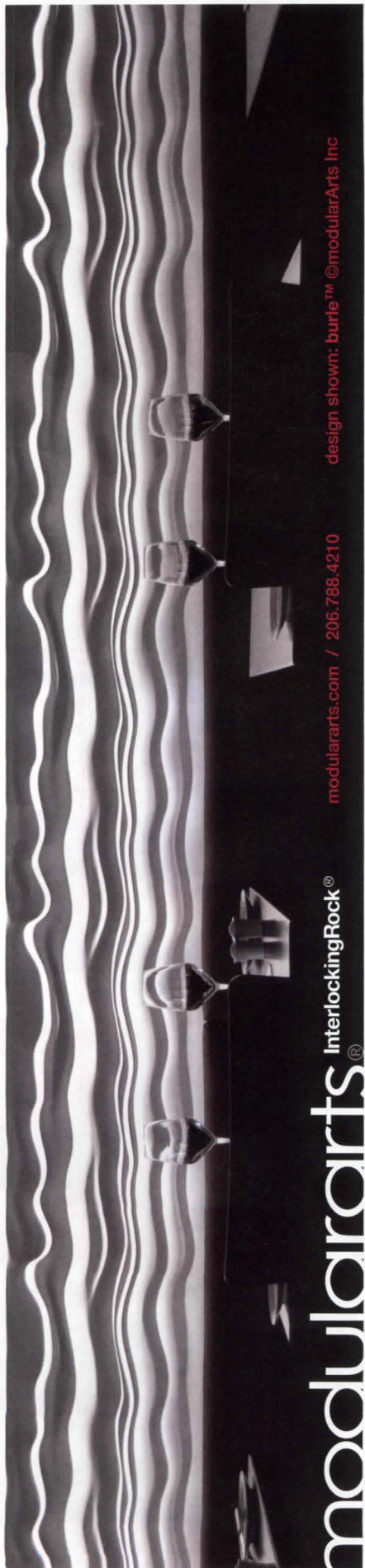


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CIRCLE 24



CIRCLE 50

DATES & EVENTS

Building Technology Forum, which provides a collaborative setting for exchanging ideas on the building process. For more information, visit madeexpo.it/en.

CTBUH 2011 World Conference

Seoul

October 10-12, 2011

This conference will focus on the significant value of high-rise buildings in modern society from three perspectives: sustainability, safety, and livability. The goal of the conference is to provide an opportunity to share information with top industrial and academic experts in the field of high-rise buildings as well as to experience dynamic aspects of Seoul. For more information, visit ctbuh2011.org.

American Society of Landscape Architects Expo 2011

San Diego

October 30-November 2, 2011

More than 6,000 landscape architecture professionals from across the United States and around the world will gather for this annual expo to earn up to 21 professional development hours and to reconnect with the fundamental elements of design. For more information, visit asla.org.

Future Cities 2011

London

December 15-16, 2011

Future Cities is an annual conference series dedicated to the sustainable development of England's cities and urban areas. During the two-day event, more than 700 delegates from across the globe will listen to a range of presentations. They will discuss key issues and topics. Visit www.ranrad.co.uk/ranrad-future-cities.

Competitions

SHIFT**oston** WHY STOP Competition

Submission Deadline: September 16, 2011

In this competition, SHIFT**oston** is challenging urban planners, architects, urban designers, and landscape architects – professionals and students – to explore and visualize destinations along the proposed South Coast Rail extension, which will connect Boston to Taunton, New Bedford, and Fall River, Massachusetts. Visit shiftboston.org.

The Greatest Grid: A Call for Ideas

Deadline: September 26, 2011

This competition invites architects, landscape architects, urban designers, and other design professionals to use the Manhattan street grid as a catalyst for thinking about the present and future of New York City. For two centuries, the grid has demonstrated an astonishing flexibility to accommodate the architectural gestures and urban



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CIRCLE 08

planning theories of successive generations of architects, urban designers, private developers, and city officials. Visit archleague.org.

ARCHIVE: Three Competitions

Submission Deadlines: September 30, 2011; November 15, 2011; December 31, 2011

ARCHIVE, an online resource sponsored by the Association of Collegiate Schools of Architecture, is hosting three upcoming competitions for architecture faculty and students. For more information, visit separate websites for each competition: archive100.org/users/m45/project/767; archive100.org/users/m45/project/967; and archive100.org/

users/m45/project/969.

Symbiosis With the Landscape: Green Building in the Humid Tropics of Costa Rica

Deadline: October 10, 2011

This competition offers architects the opportunity to propose cutting-edge, responsible environmental design solutions for the headquarters of FUNDECOR, a Costa Rican NGO dedicated to the preservation of the natural environment. As an environmentalist institution, the new building must be exemplary in green design and construction. The project is to be located in Puerto Viejo de Sarapiquí, in the Caribbean region of Costa Rica.

The jury includes architects Carlos Jiménez, Thomas Spiegelhalter, and Mauricio Quirós of the CCA in Montreal. Visit fundercor.org.

PAVE the Way: 3-D Design Challenge

Submission Deadline: October 21, 2011

This is an opportunity for students to showcase their work at an industry event, GlobalShop 2012. College students who are enrolled in accredited store design, interior design, visual merchandising, and industrial design programs are invited to design, develop, and construct a store fixture for an existing cosmetic brand. Visit paveinfo.org.

Tile of Spain Awards

Deadline: October 25, 2011

The Spanish Ceramic Tile Manufacturers' Association sponsors these annual awards with a prize fund of about \$75,000. Awards are divided into three categories: architecture, interior design, and degree projects. Architect Benedetta Tagliabue will chair this year's jury. For more information, visit tileofspainawards.com.

Parks for the People

Stage 1 Proposals Deadline: November 1, 2011

This competition invites student and faculty teams to help build a common foundation of design principles for America's national parks as the U.S. National Park Service embarks upon a new century of park design. For more information, visit vanalen.org/parksforthepeople.

inNatur Open Ideas Competition

Registration Deadline: November 11, 2011

This open ideas competition seeks innovative proposals committed to a strategy of implementing architecture in a protected natural environment. Approaches should find synergies between nature and the building itself. Visit opengap.net.

LINEL Design Award

Submission Deadline: June 5, 2012

Registered architects and architectural students are invited to pursue this first annual award. The judges will be seeking the next innovative generation of architectural thinking, part of which is the utilization of high tensile strength metals and expanses of glass to create stunning yet sustainable and energy efficient buildings. Visit lineldesignaward.com.



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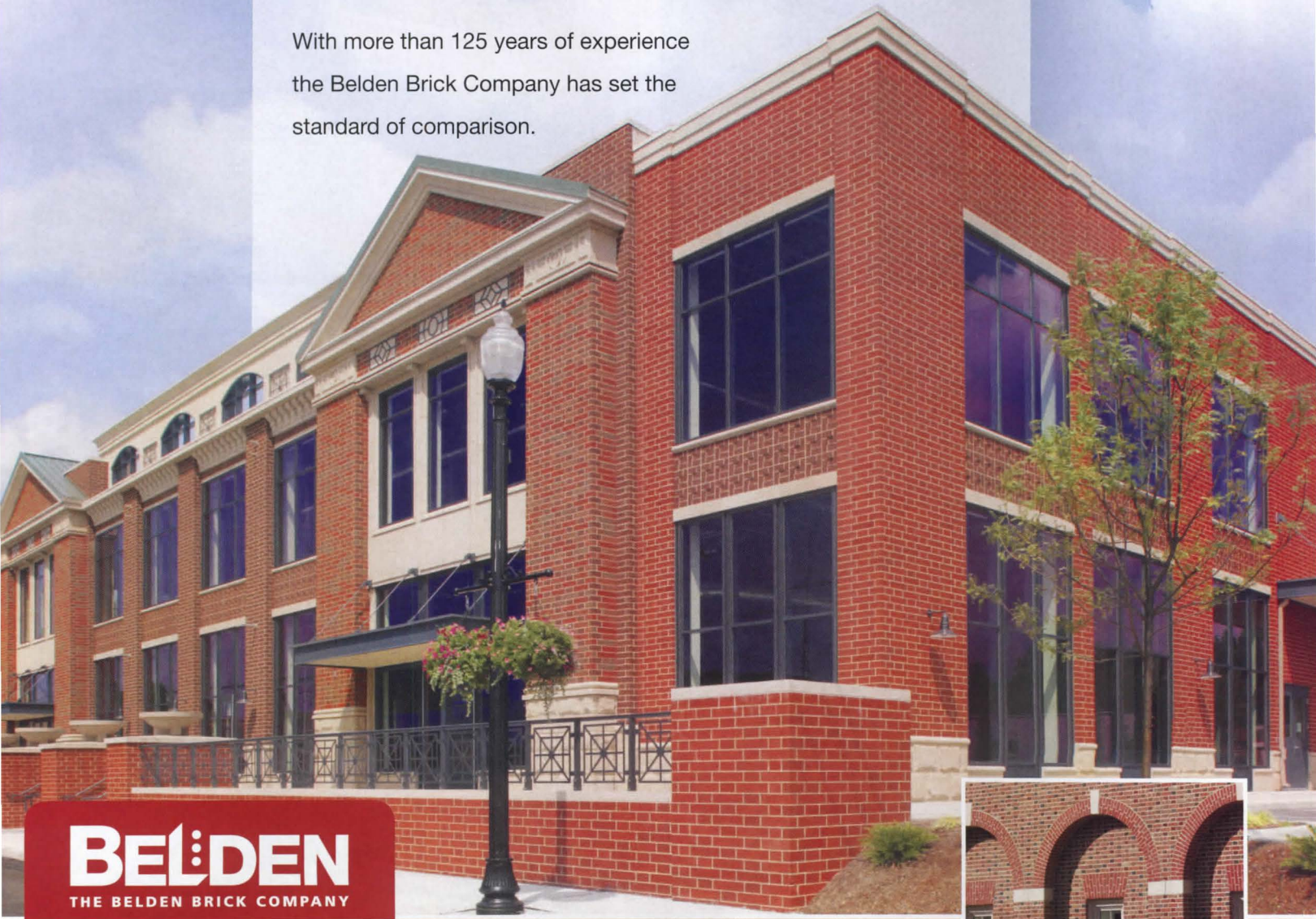
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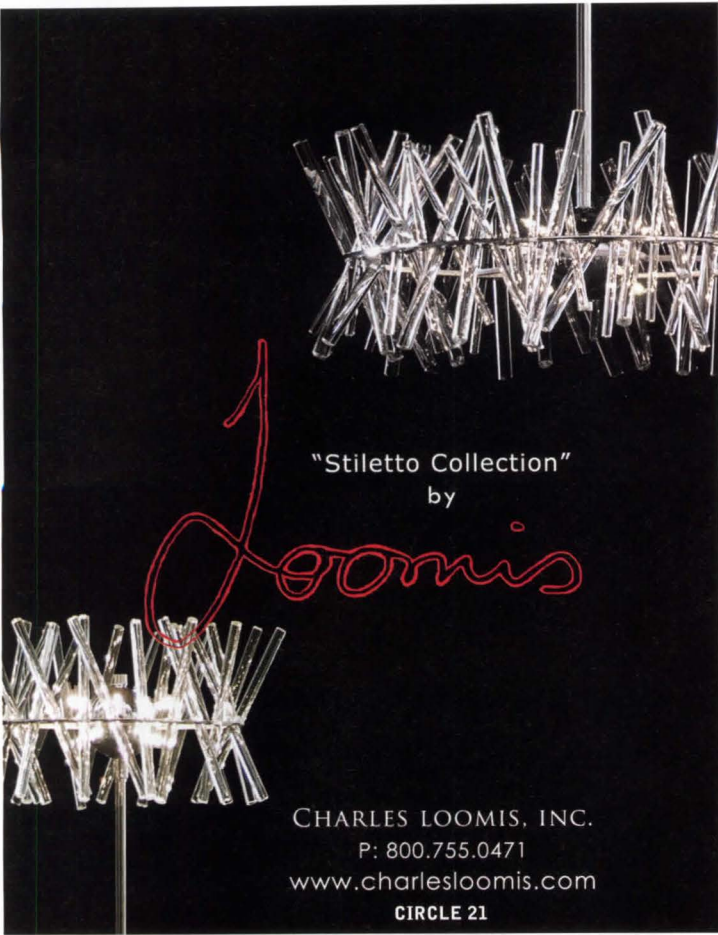


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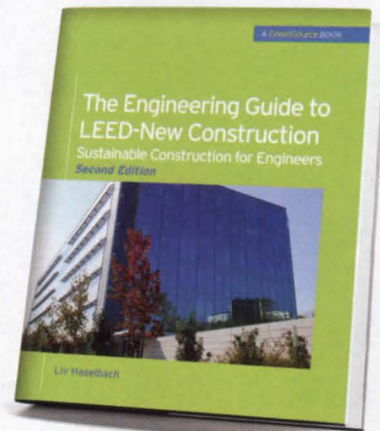
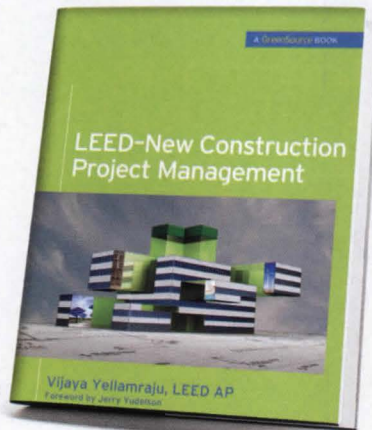
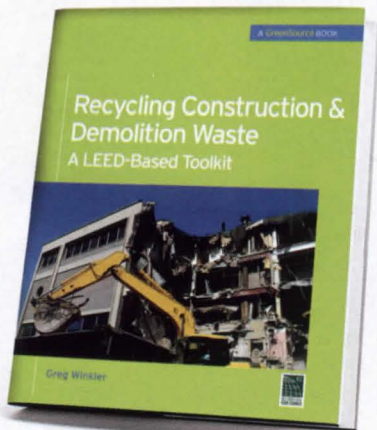
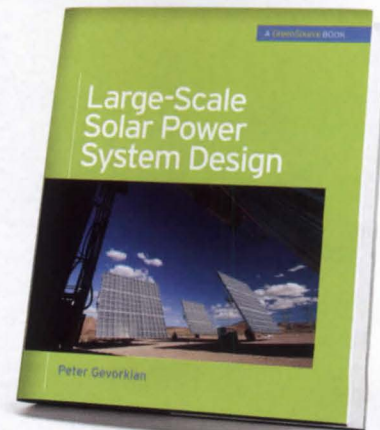
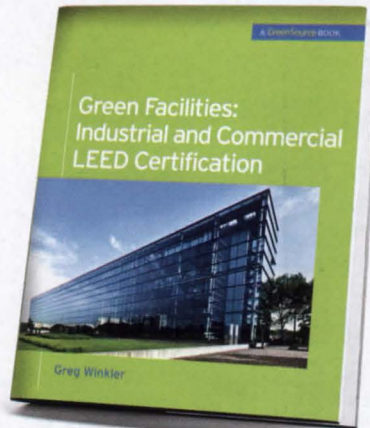
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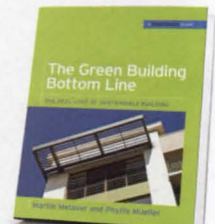
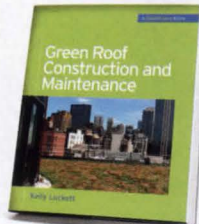
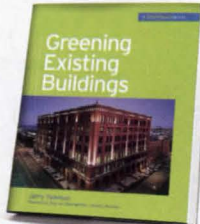
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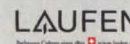
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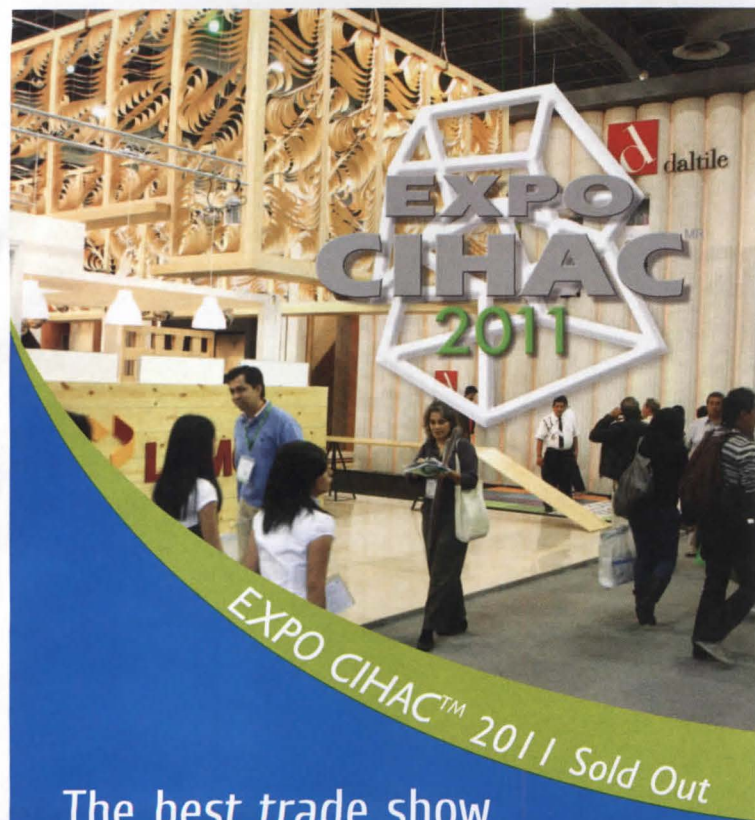


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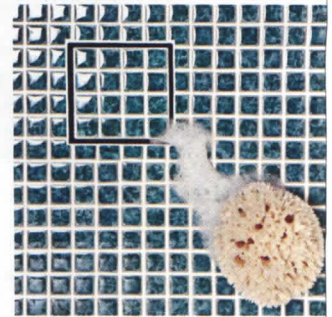
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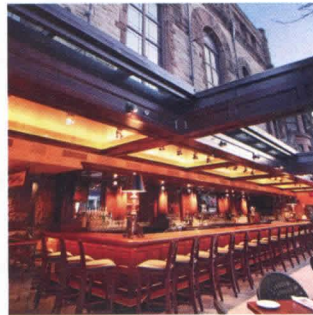
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Performance Data:

- Sustainable energy assessments, feasibility studies
- Plan, develop, implement energy efficiency projects
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Putnam Rolling Ladder Co., Inc.

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Performance Data:

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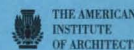
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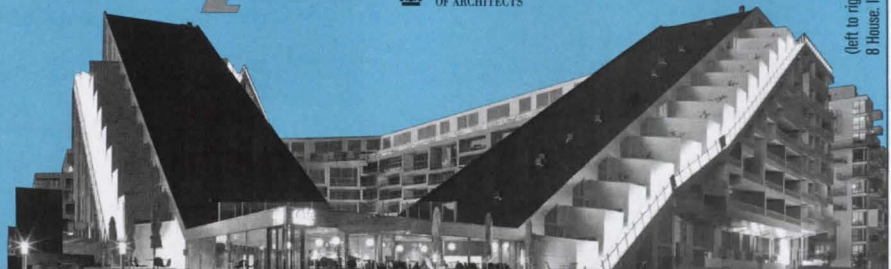
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(left to right) Levy House. Photo by Kevin Miyazaki.
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SNAPSHOT

PROJECT EMPTY SKY
 LOCATION JERSEY CITY, NEW JERSEY
 DESIGNER FREDERIC SCHWARTZ ARCHITECTS

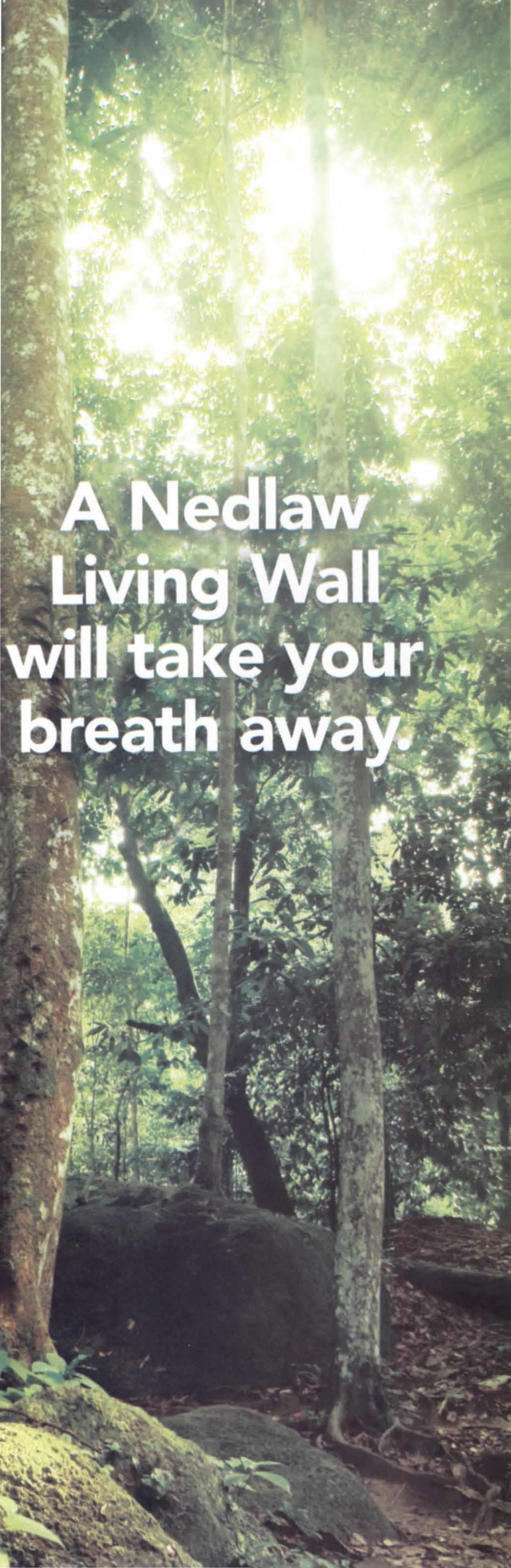
WHEN THE NATIONAL September 11 Memorial opens at Ground Zero on the 10th anniversary of the terrorist attacks, it will be joined by another commemorative effort, across the Hudson River, in Jersey City, New Jersey. Dubbed "Empty Sky," this monument by Frederic Schwartz Architects honors the 744 men and women who hailed from the state and lost their lives on 9/11. Two 210-foot-long, 30-foot-high stainless steel-clad slabs, separated by a 12-foot-wide path, bear the names of the deceased and frame a view of the gradually revitalizing WTC site across the water. Over time, the skyline in the distance will evolve, but this memorial will mark a period of loss and emptiness. *Asad Syrkett*

Empty Sky: New Jersey
 September 11th Memorial

On the morning of September 11, 2001, with the skies so clear that the Twin Towers across the river appeared to be within reach, the very moment of what our country would call freedom, tolerance, and the pursuit of happiness was attacked. This memorial is dedicated to New Jersey's innocent lives lost, those who were violently and senselessly murdered this day in the World Trade Center, The Pentagon, and in Shanksville, PA.

Empty Sky: New Jersey
 September 11th Memorial

Let this memorial reflect the legacies of those whose lives were lost, that their unfulfilled dreams and hopes may result in a better future for society. Their unique qualities and character traits enriched our lives immeasurably, and through this memorial their stories shall live on.



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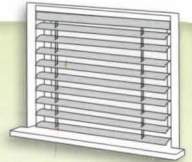
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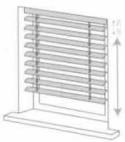
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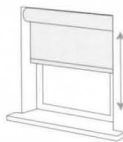


- 
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- 
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- 
Winter Nights: close blinds to keep heat in

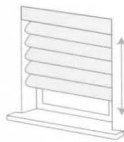
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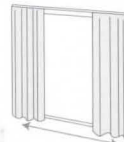
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