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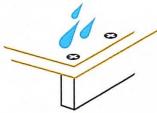
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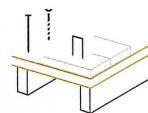
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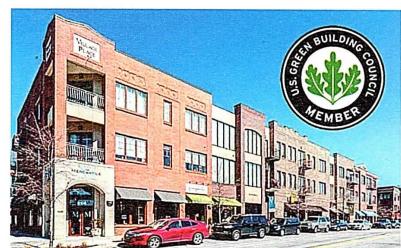
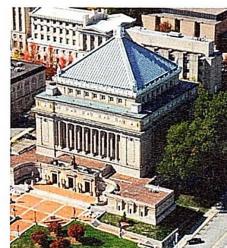


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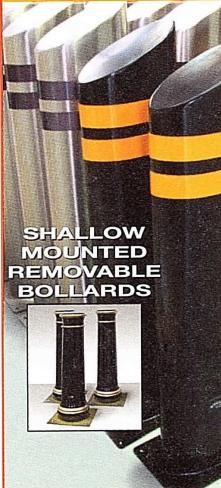


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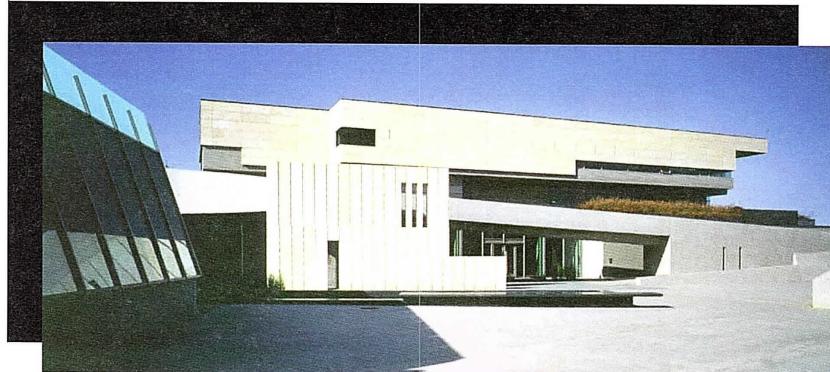
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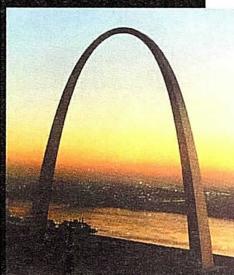


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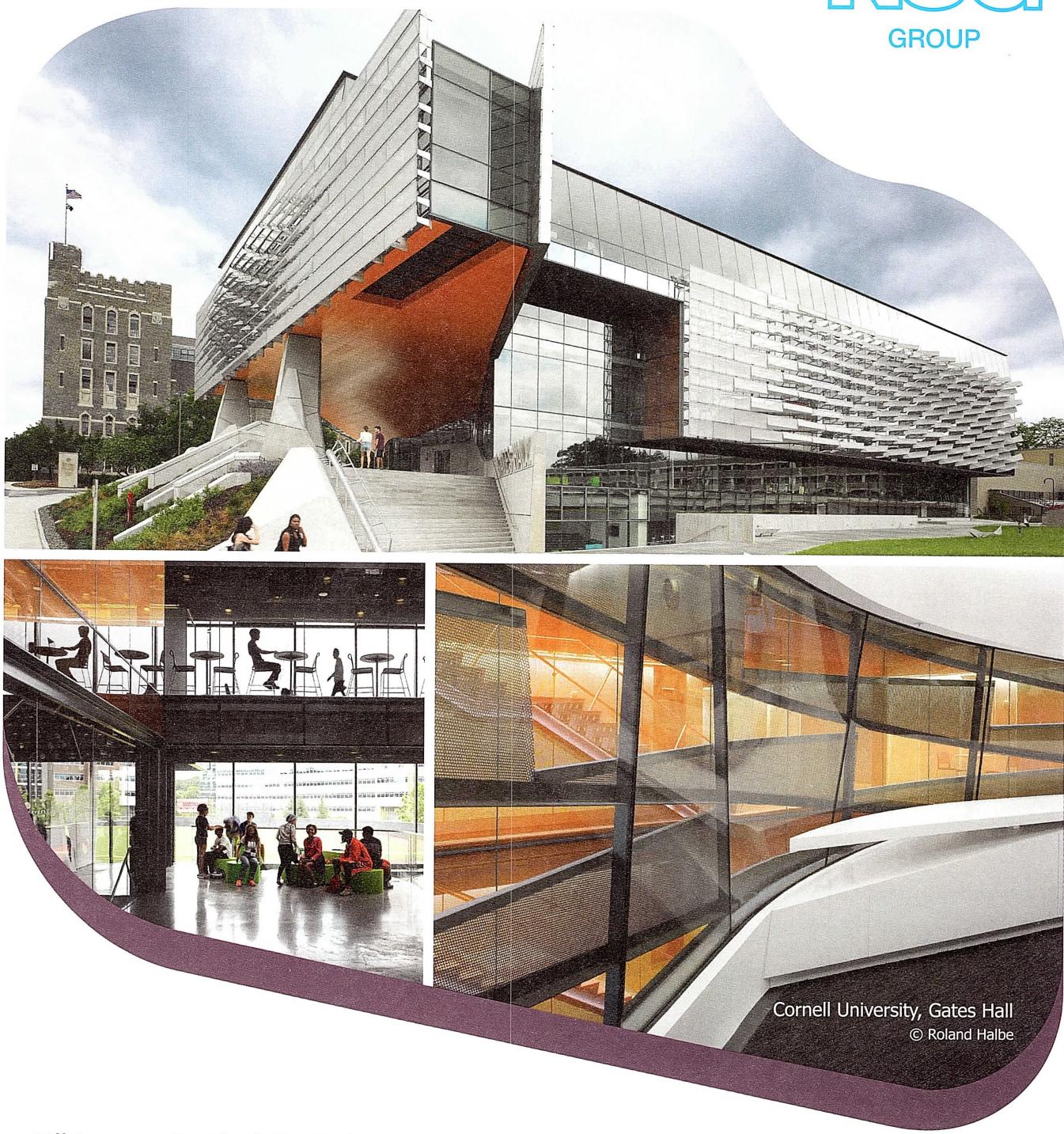
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# Table of Contents

- 13 **First Words**  
**Letter from the President**  
Housing, the Big House, the Little House, and the Housekeeper  
Tomas J. Rossant, AIA
- 15 **Letter from the Editor**  
No Cabins in the Sky  
By Kristen Richards, Hon. AIA,  
Hon. ASLA
- 16 **Center for Architecture**  
Center Highlights
- 18 **One Block Over**  
DoBro Rocks: Business and building are booming in now-thriving Downtown Brooklyn  
By Claire Wilson
- 44 **In Print**  
Architecture Beyond Criticism: Expert Judgment and Performance Evaluation Ed. by Wolfgang F.E. Preisser, Aaron T. Davis, Asraf M. Salama, and Andrea Hardy  
Modern Man: The Life of Le Corbusier, Architect of Tomorrow  
By Anthony Flint  
30 Years of Emerging Voices: Ideas, Form, Resonance Ed. by Anne Rieselbach  
The Architecture of Use: Aesthetics and Function in Architecture  
By Stephen Grabow and Kent Spreckelmeyer  
Local Architecture: Building Place, Craft, and Community  
By Brian MacKay-Lyons, ed. by Robert McCarter  
Reviews by Stanley Stark, FAIA
- 45 **118-Year Watch**  
Mills House No. 1: Palatial and Affordable: For philanthropist Darius Mills, Ernest Flagg created an innovative alternative to the flophouse  
By John Morris Dixon, FAIA
- 47 **Last Words**  
What We Build Tells Us  
Who We Are  
David Burney, FAIA
- FEATURES**
- 21 **Opener: Affordability: Many Paths to a Solution**  
By Marc Norman
- 22 **Housing for the 99%**  
To reverse the tide of soaring rents and neighborhood erosion, local architects, developers, officials, and non-profits are innovating on multiple fronts  
By Bill Millard
- 26 **Tower Power**  
City Point, a retail and residential complex, will be the beating heart of the Downtown Brooklyn development boom  
By Claire Wilson
- 29 **An Active Market for Passive**  
More and more NYC architects are embracing the benefits of the Passive House standards for multifamily dwellings  
By Jonathan Lerner
- 33 **Ahead of the Class**  
Cornell University's new Roosevelt Island building will be the first ever – and tallest – high-rise residence built to Passive House standards  
By Linda G. Miller
- 34 **It Takes a Village**  
A unique public-private venture looks to reinvent Newark  
By Janet Adams Strong
- 38 **Support System, Modular Style**  
A new supportive housing project brightens a South Bronx neighborhood  
By Linda G. Miller
- 39 **From Learning to Living**  
A crumbling old school building in Harlem is transformed into affordable housing and a community center  
By Linda G. Miller
- 40 **The DIY Approach to Housing**  
Building faster, cheaper, and with greater satisfaction: the advantages of being an architect-developer  
By Lisa Delgado
- 48 **Index to Advertisers**  
Alphabetical & Categorical Index
- View the Oculus archive online:**  
[naylornetwork.com/arc-nxt](http://naylornetwork.com/arc-nxt)

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## LETTER FROM THE PRESIDENT

# Housing, the Big House, the Little House, and the Housekeeper

The Center for Architecture and AIA New York Chapter are joined at the hip. Though they are two separate institutions with different missions and separate boards, they somehow must symbiotically nurture each other. There are times when AIANY's advocacy, the Center's curatorial objectives, the research of our committees, our editorial voice, and the political and social zeitgeist of the moment align to focus us all on a task. We are in one of those moments.

Mayor Bill de Blasio's goal to create an equitable and just city is noble, and his spotlight on affordable housing appropriate. AIANY fully supports his plan for delivering more housing to more people of limited means to keep this city diverse and vibrant. We commend the Department of City Planning's new zoning resolutions for residential districts, having worked with the department to make them less detrimental in contextual districts, and because the resolutions propose a departure from car culture, allow for more density, and compel architects to make buildings that are much more harmonious with existing urban fabrics. The revisions should bring us more housing, better buildings, and more business for our membership. That's our advocacy.

Because the mayor has championed housing, so should we. And thus you are holding in your hands the "Housing" issue of *Oculus*. Herein we present brilliant ideas, insights, and projects to expand the dialogue about how to provide housing that delivers dignity, safety, and high design to all. That's our editorial input.

In October, the Center for Architecture, in conjunction with the AIANY Housing Committee, will open the exhibition "Designing Affordability," which showcases new housing typologies and innovations in affordable domestic environments from around the world. It will open with a symposium on October 3, with New York City Planning Commission Chair Carl Weisbrod giving the keynote, followed by rigorous debate about the future of housing. These are our curatorial objectives.

It seems we are in a potent moment of alignment, synchronicity, and impact, utilizing the combined resources of AIANY and the Center for Architecture to raise consciousness and dis-

course to improve our social and physical city. Let's keep doing this – be a part of it.

As we zero in on housing, we are also focusing on our own "big house," the Center for Architecture on LaGuardia Place. A \$750,000 renovation is now complete. Designed by Andrew Berman Architect, the renovation included a new terrazzo floor throughout the galleries, a reworked Common Room with state-of-the-art AV/IT and acoustical performance, and improvements in other corners of the facility. That's better housing for our membership.

While the Center for Architecture was under construction, we were still able to engage membership and the public, as we have partnered with the Howard Hughes Corporation to take a temporary "pop-up" gallery in the Seaport Cultural District. Our "little house" at the seaport is being used for lectures and exhibitions, and as our home base for programs supporting an action-packed Archtober. In an adjacent space, the Center is working with the Guggenheim Museum Foundation to bring an innovative and interactive exhibit experience titled "Architecture Effects: Azone," opening October 23, as part of our mission to educate the public about the impact of architecture in their lives and as a cultural force.

This fall our search for a new executive director, responsible for the stewardship of the Center for Architecture and AIANY, will heat up. The selected candidate will be the "housekeeper" of our collective aspirations and ideals, and help to build membership, expand the Center for Architecture as a cultural institution, impact government policy and legislation, prepare us for the National AIA convention in NYC in 2018, and contemplate the delivery of a new and expanded Center for Architecture some time around 2025. As I have met with many candidates to discuss the position, I finish my pitch with a sincere proclamation that it may be the very best culture job in NYC. If you think you have what it takes to be the face of all architects to the city, apply at our search firm's website: [www.phillipsoppenheim.com](http://www.phillipsoppenheim.com).

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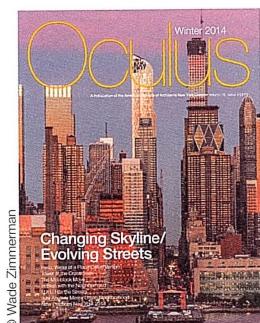
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## LETTER FROM THE EDITOR



Editor settling into her favorite parking space-sized SCADpad on the top floor of the Savannah College of Art and Design's Atlanta campus parking garage.



Winter 2014 Cover.

# No Cabins in the Sky

The cover photo for the Winter 2014 issue of *Oculus* ("Changing Skyline/Evolving Streets") by Wade Zimmerman is exquisite and, forgive the overused word, iconic. It portrays the skyline of a city with soaring aspirations of historic proportions. But the content of the issue focused on the human-scale aspirations, expectations, and realities at street level.

The subject of the issue you hold in your hands also takes on a concern of historic proportions: housing that supports a population needed for the city to grow economically, culturally, sustainably – and equitably.

New York City's affordable housing conundrum is nothing new. It has put decades – if not centuries – of mayoral administrations between many a rock and a hard place: between affordable housing nonprofits and implacable demand, between housing advocates and NIMBYs, and between or amongst borough politicians, the Real Estate Board of New York, building trade unions, and the mayor's office and city agencies.

In "Everything Housing," the Winter 2003 issue of *Oculus*, I crunched the numbers in the Department of Housing Preservation and Development's (HPD) 2003 New York City Housing and Vacancy Survey. In this issue, Bill Millard's lead feature crunches the numbers in the HPD's 2014 report. What I find most striking is how little has changed, such as the high percentage of people paying more than 50% of their income for rent. There is some good news coming out of Mayor Bill de Blasio's 10-year "Housing New York" plan announced in July, such as boosting HPD's capital budget to \$6.8 billion (a 165% hike, as reported by *Crain's New York*), streamlining some of HPD's Inclusionary Housing programs, and financing "the creation and preservation of 20,325 affordable apartments and homes during fiscal year 2015, enough housing for more than 50,000 New Yorkers." Unfortunately, when political and financial realities set in, promises sometimes become casualties. As reported in *Crain's* in early August, the de Blasio Administration "will let some residential developers double or even triple-dip into subsidy pools by using the same

group of affordable apartments to qualify for a variety of programs – a practice it initially pledged to eliminate." This doesn't bode well in light of an Independent Budget Office analysis and a *DNAInfo* investigation that found that three Billionaires' Row towers were granted thousands of extra square feet for a nominal amount of money, or a huge 421-a tax break to help subsidize the building of only 89 affordable units in Chelsea and the Bronx. (Taxpayers will foot the rest of the bill.) Of course, much may have changed by press time – politics and housing policies can move rather quickly.

Some aspects of housing are looking up, however, as highlighted in this issue. A towering project in Downtown Brooklyn combines market-rate and affordable housing with an abundance of retail that will add vibrancy to its once-gritty, now booming neighborhood. Once considered too stringent and expensive for multifamily housing, Passive House standards are going mainstream with multi-unit condos, affordable- and senior-housing projects, and the world's first high-rise Passive House residential tower. In Newark, Teachers Village is reinventing the city's beleaguered downtown. A prefab modular supportive housing project brightens a South Bronx neighborhood. A 1903 former elementary school in Harlem, once thought doomed, is reborn as affordable housing and a community center. And architects are finding the rewards far outweigh the risks of developing their own projects on a number of scales.

In our regular departments, "One Block Over" takes a look at the business and building boom in Downtown Brooklyn, while "118-Year Watch" revisits a palatial and affordable alternative to a late 19th-century SRO that's still standing on Bleecker Street. And "In Print" suggests intriguing titles to add to your fall must-read list.

In the foreseeable future, housing affordability is going to remain a sticky wicket for every major urban center. But with every passing year, government agencies, planners, architects, and advocates are making inroads in finding solutions to unstick those wickets. Let's hope the momentum keeps building, figuratively and literally.

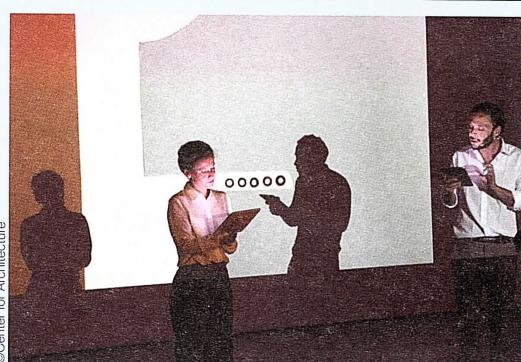
Kristen Richards, Hon. AIA, Hon. ASLA  
kristen@ArchNewsNow.com

# Center Highlights

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(above) NYC Department of Parks and Recreation Commissioner **Mitchell Silver**, FAICP, opened the program "Design and Equity: The Community Parks Initiative," organized by the Public Design Commission of the City of New York and the AIANY Public Architecture Committee. Also participating (l-r): **Anna Torriani**, AIA, and **Michael Plottel**, AIA, AIANY Public Architecture Committee; **John P. Williams**, ASLA, MKW + Associates; **Terri-Lee Burger**, RLA, Abel Bainson Butz; and **Signe Nielsen**, RLA, FASLA, Mathews Nielsen Landscape Architects.



(above) Anne Priol and Mica Smadja brought to life the letters between architect-designer Eileen Gray and architect-critic Jean Badovici in a performance of *E1027: Design for Living*. Directed by artist Elizabeth Lenard, the show was organized by

Center for Architecture with support from the Graham Foundation, Trustees of the Herman Liebmann Foundation Brooks Adams and Lisa Liebmann, and the French Ministry of Culture and Communications.



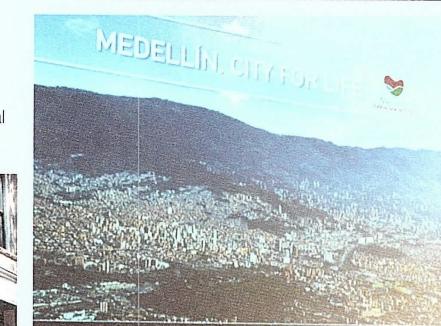
(right) The AIANY Housing Committee welcomed **Anibal Gaviria**, Mayor of Medellín, Colombia, who spoke about his city's radical transformation.

(left) The AIANY Oculus Committee invited (l-r) **Rosalie Genevro**, Executive Director, Architectural League of New York; **Ashley Schafer**, Associate Professor of Architecture, Knowlton School, Ohio State University; **Reed Kroloff**, Principal, jones|kroloff; and **Anne Rieselbach**, Program Director, Architectural League of New York, to discuss *30 Years of Emerging Voices*, a new book documenting the first three decades of the League's Emerging Voices program.

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(above) The Center for Architecture's summer renovation project involved replacing ground-level floors and up-



grading the conference room. The new and improved space welcomed the exhibition "Un/Fair Use" in early September.



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(left) At FitCity 10, **Mindy Fullilove, MD**, Columbia University Professor of Clinical Psychiatry and Sociomedical Sciences, and author of *Urban Alchemy*, spoke about how urban health problems are inextricable from residential segregation and economic disenfranchisement.



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(above) The AIANY Oculus Committee hosted **Andy Bernheimer, AIA, NCARB**, Partner, Bernheimer Architecture, and editor of *Timber in the City*, and contributor **Alan Organschi**, Partner, Gray Organschi Architecture, who presented groundbreaking work exploring the innovative use of mass timber technologies.

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(above) Bridges of all types were a hot topic at the Summer@theCenter's Bridges program. Key components of the workshop were visiting, drawing, and building bridges – with the added challenge of making a moveable bridge.

(right) Students in Summer@theCenter's Neighborhood Design program assembled a community of buildings and presented their designs to family and friends.



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(right) The Center's annual Architectural Design Studio, an intensive two-week program to prepare students for the rigors of studio culture and portfolio development, offers drawing, model-making, pin-ups, presentations, and visits to architectural offices and NYC cultural institutions.





(far left) The 42-story 66 Rockwell by Ismael Leyva Architects (left) is one of the new residential buildings towering over the landmarked 1929 Williamsburgh Savings Bank building (right), once Brooklyn's tallest.

(left) Flatbush Avenue Extension looking toward the Brooklyn Bridge, with Skidmore, Owings & Merrill's 38-story Toren residential tower (center).

(below) A portion of 14+9 Townhouses on State Street, designed by Marvel Architects.



## DoBro Rocks

Business and building are booming in now-thriving Downtown Brooklyn

BY CLAIRE WILSON

Downtown Brooklyn is having a moment. There is a building boom going on and, in what seems like a New York minute, the area has gone from feeling like a deserted, dangerous, and “daytime-only” destination to a vibrant urban-planning success story.

“It is what the city was aiming for: a dense, transit-oriented downtown,” says William Stein, FAIA, principal, Dattner Architects, which has designed the three-building Myrtle Avenue Development Master Plan. “It is a bit overwhelming, but it is a positive thing. Too much of a good thing? That may be, too.”

Historians and sociologists will decide that down the road, but right now there is no debating that the change has been astonishing. The civic center of what was known as “the borough of churches,” whose one skyscraper was the 37-story, 1875 Williamsburgh Savings Bank building, Downtown Brooklyn is now crammed with higher and higher towers, most of them residential.

If you’d used the bank as a compass when you ventured down there, good luck with that. It has been completely eclipsed by new construction and dwarfed in height by such buildings as the 58-story Ava DoBro, designed by SLCE Architects. That will likely be overshadowed by the not-yet-designed third City Point tower, which might rise to 60 stories. COOKFOX is the architect of Phases 1 and 2 of City Point but, as of press time, no architect has been named for Phase 3 [see pg. 26].

According to Alan Washington, director of real estate and planning for the Downtown Brooklyn Partnership, some 5,900 apartment units have been completed since 2004, when an ambitious Bloomberg-era rezoning took place. The recession around 2008 slowed construction markedly, but things have since picked up. Currently 5,100 units are under construction, with an additional 8,400 in the pipeline, of which 20% will be affordable, Washington says. It’s all in response to a population explosion that continues apace. In 2004 the area had only 5,700 residents; now it has 18,000.

The boundaries of the designated area take in Court Street, the Brooklyn and Manhattan Bridges, the BQE, Ashland Place, the BAM Cultural District, the Barclays Center, and Atlantic Avenue. A thriving visitor population supports 50 cultural and arts groups, 60,000 college students, and a boom in new hotels: the area will have 2,000 rooms in the next 18 months, Washington says.

Office construction could use a boost. The vacancy rate is a mere 3.3% – the lowest in the city. New businesses coming in at City Point are in retail and entertainment, such as Century 21, City Target, and the Alamo Drafthouse Cinema.

And there’s a Shake Shack. But one tony burger joint does not tip any neighborhood over the edge of gentrification. Though the vast swaths of parking lots are gone, much of the downtown remains kind of crummy. It’s going to take a while and, when it does, the historians and sociologists will have a field day.

According to Jonathan Marvel, FAIA, principal of Marvel Architects, the rezoning and resultant development are already a success. The architect of 14+9 Townhouses on State Street, he credits Bloomberg and his international view of the world for making it all happen. “He was looking at London and Hong Kong and, by contrast, New York looked provincial, a little frayed around the edges,” Marvel says. “He found a way to get New York to compete.”

Claire Wilson is a New York-based freelance writer.

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# Affordability: Many Paths to a Solution

BY MARC NORMAN

The Sugar Hill Apartments – a striking new tower in Harlem designed by Adjaye Associates, with SLCE Architects as architect-of-record – attracted 48,000 applicants last year for its 124 affordable units. This was not an anomaly. Housing organizations estimate that the 2,500 new apartments created last year through New York City affordable housing programs drew 1.5 million applications, a placement rate of only 3.2%. The number of applicants is unsurprising as the rent for a one-bedroom apartment rises to an average of \$3,000 per month. With the development of a typical apartment costing around \$300,000, the public financing that supports Sugar Hill and other developments is nowhere near adequate to solve the problem solely through building more housing units. This is especially true in a time where stagnating wages and escalating development costs will require increasing amounts of public subsidy.

So how do the millions of us not getting those coveted apartments survive the current housing crisis? Where do we live – and how? Typically, we design our own affordability. We drive until we qualify for a mortgage, whether that takes us to Yonkers or the Poconos. We move back in with parents after college, or into a garage, a basement, a van, or – in the most extreme circumstances – a shelter. News stories tell of immigrants sleeping in shifts in partitioned apartments, and families forgoing heat or food to keep a roof over their heads.

These survival tactics only go so far. In addition to the subsidies and incentives that create affordable units, New York and countless other cities need to develop an array of strategies that promote affordability. There isn't a single solution to the housing crisis. Instead, we must deploy multiple strategies in concert to create many paths to affordability; together, these approaches can bolster ecosystems for equitable housing provision.

This is the subject of "Designing Affordability," a new exhibition on view at the Center for Architecture from October 1 through January 2016. Using examples from across the U.S. and around the world, the exhibit shows more than 20 strategies employed by architects, designers, engineers, and planners to lower the cost of housing by changing the ways we design, build, finance, and maintain our dwellings.

We can start by reimagining public housing, an asset that New York City has in abundance. In Bordeaux, France, Paris-based Lacaton & Vassal is reskinning, daylighting, and reconfiguring large tower complexes in such a way that tenants remain in place, showing how rethinking public housing does not have to mean displacement or demolition. The Brooklyn Public Library and Brooklyn Bridge Park are leveraging public assets to support new housing as well as neighborhood amenities. nARCHITECTS is constructing modular micro units with ample public space for a new generation of renters on East 27th Street.

In Williamsburg, Brooklyn, the Esquire Building sold semi-raw spaces, allowing owners to build incrementally, as their finances allow. Innovative design in Haiti creates incremental developments allowing for income generation through home-based businesses or accessory units. Engineers at MIT are devising systems that create the functionality of 800 square feet in half the space, using sensors and actuators. Larry Sass of MIT's Digital Design Fabrication Group is 3-D printing building components.

In some cases it is how we live that is changing: this applies to co-housing in Portland, OR, and accessory dwelling units in the Bay Area that help us age in place. On Roosevelt Island, Handel Architects has designed the tallest residential building in the world that will meet rigorous Passive House standards [see pg. 29]. Studies show that buildings of this type can improve health and reduce utility costs by as much as 90%.

There are eight million stories in the naked city, and many of these are about how the rent is too damn high. Individuals and families will continue to pursue affordability tactics as we wait for that designated unit in the sky. In the meantime, we can call on planners and policymakers, developers and architects, engineers and builders to deploy and replicate strategies for designing affordability.

Marc Norman has more than 20 years of experience in affordable housing, having worked for non-profit and for-profit developers, lenders, and investors. Curator of "Designing Affordability" at the Center for Architecture, opening October 1, 2015, he recently completed a Loeb Fellowship at the Harvard Graduate School of Design.



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City Point, COOKFOX Architects, page 26

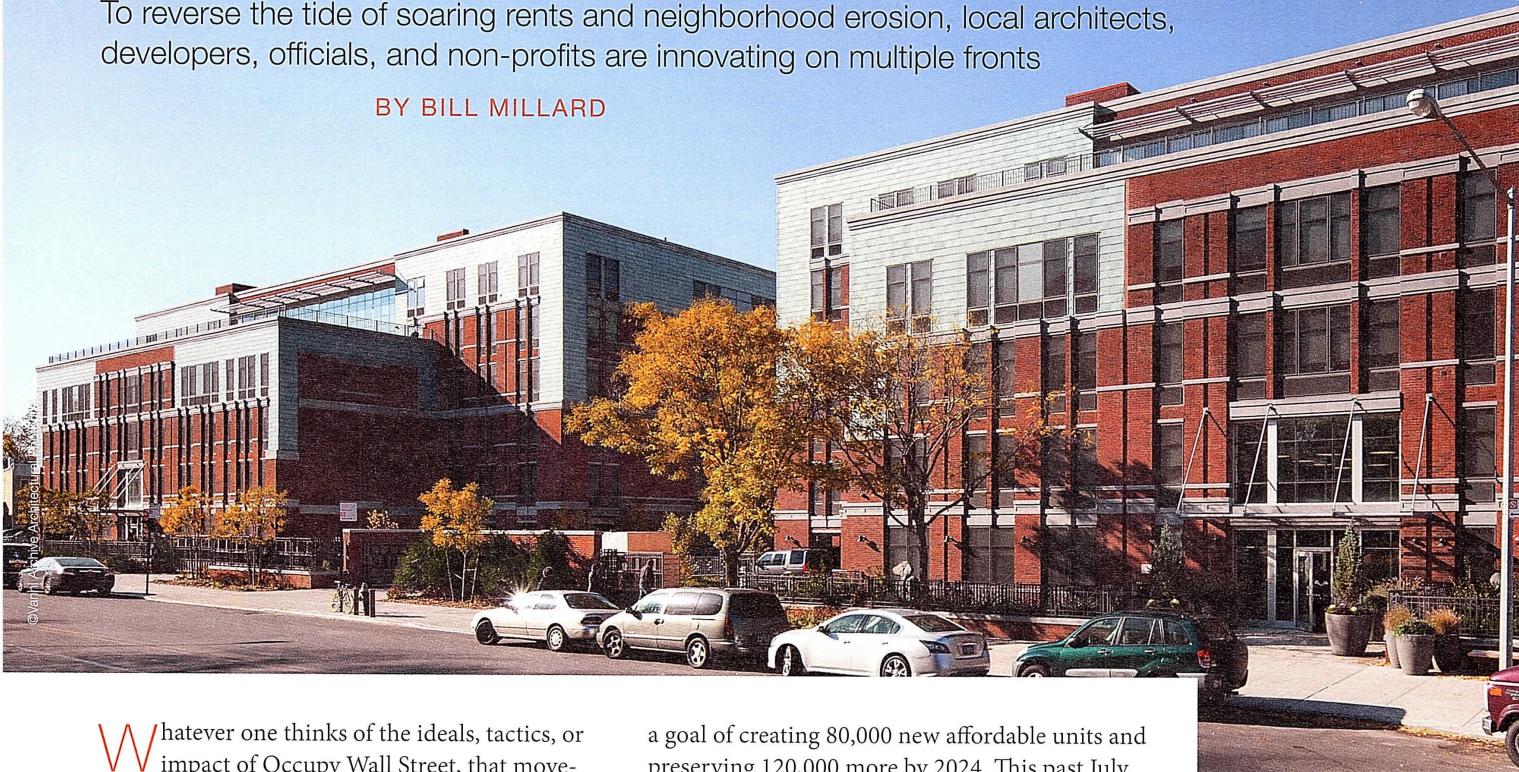
## What's Inside

- 22 Housing for the 99%
- 26 Tower Power
- 29 An Active Market for Passive
- 33 Ahead of the Class
- 34 It Takes a Village
- 38 Support System, Modular Style
- 39 From Learning to Living
- 40 The DIY Approach to Housing

# Housing for the 99%

To reverse the tide of soaring rents and neighborhood erosion, local architects, developers, officials, and non-profits are innovating on multiple fronts

BY BILL MILLARD



Whatever one thinks of the ideals, tactics, or impact of Occupy Wall Street, that movement chalked up at least one major achievement: introducing the meme “the 99%” into national discourse. Along with scholarly analyses by Thomas Piketty, Joseph Stiglitz, and Paul Krugman, the Occupiers helped highlight soaring inequality during an era that Piketty dubbed the “second Belle Époque” and Krugman, echoing Mark Twain, calls “a new Gilded Age.”

Though the towers of 57th Street’s “Billionaires’ Row” are eye-catching symbolic, a chief priority for New York’s majority is both humbler and more ambitious: finding ways to house the longtimers and newcomers striving to live here on middle-class and working-class incomes. Planned during a mayoralty overtly interested in welcoming billionaires, in the faith that the wealth would trickle down, the one-percent-of-one-percenter towers have yet to produce any such effect (in part because absentee owners of those *pieds-à-terre* pay negligible property taxes and no city income tax). With gentrification and displacement battering the city as hard as Superstorm Sandy, New York’s 99% look to old and new mechanisms to temper the forces that put stable residency at risk.

Mayor Bill de Blasio’s 10-year plan, “Housing New York: A Five-Borough, Ten-Year Plan,” sets

a goal of creating 80,000 new affordable units and preserving 120,000 more by 2024. This past July, the mayor announced that the city had financed 20,325 such apartments (8,500 new and 11,825 preserved) in fiscal year 2015, the most since 1989. Coupled with the Rent Guidelines Board’s (RGB) one-year freeze on stabilized rents (affecting about one million units and two million residents), these figures indicate that not all the momentum is unfavorable to tenants.

Resistance to housing inflation takes many forms: design innovations such as modular housing, micro-units, and co-housing concepts (in which some spaces, such as kitchens, are shared, within either a market or social-service supported housing). Creative approaches to financing can lower both costs and complexity. Public-sector, subsidized bulwarks, particularly the enormous if distressed stock of the New York City Housing Authority (NYCHA), cannot be left to decay.

Underscoring the new urgency of affordability, the Museum of the City of New York recently opened the exhibition “Affordable New York: A Housing Legacy,” exploring the century-long history of housing activism. This October, “Designing Affordability” opens at the Center for Architecture, documenting contemporary tactics and case studies. Though the vectors of cost, speed, and

Harden + Van Arnam Architects: CAMBA Gardens is a two-building, 209-unit affordable and supportive residence on the Kings County Hospital Center campus in Wingate, Brooklyn. Developed by CAMBA Housing Ventures in partnership with NYC Health and Hospitals Corporation, and built to LEED Platinum, Enterprise Green Communities, and NYSERDA standards.

regulation tend to relegate community-sensitive design to an economic “externality,” there is also a broad recognition that humanely designed affordable housing is one of the city’s indispensable forms of resilience.

### The permanent emergency

Discussions of best practices in New York’s residential sector invariably include the work of Mark E. Ginsberg, FAIA, partner at Curtis + Ginsberg Architects and president of the Citizens Housing and Planning Council (CHPC). Ginsberg has worked with agencies like NYCHA and the New York State Energy Research and Development Authority (NYSERDA), and with leading private firms like L+M Development Partners on award-winning, high-performing construction and rehabilitation. Long familiar with the economic and political complexities affecting the creation of housing stock, Ginsberg speaks frankly about the “need to build as much housing as we possibly can, both market-rate and affordable,” within the city’s far-from-rational structure of incentives and subsidies.

New York will always have an affordability problem, Ginsberg says, citing an economist friend who argues that a constant influx of new residents from all over the globe adds to the city’s traditional price pressures. Today, Ginsberg says, “Somewhere between 15% and 20% of the households in New York City can afford market-rate housing.” Construction costs, interest rates, limited available land, and zoning and building-code complexity (Ginsberg is a pioneer in mastering the details of energy codes) ensure that the unsubsidized market cannot serve the public’s needs. With the population at a historic high of as many as 8.5 million, price pressure may intensify. “A full buildout under current zoning,” he estimates, “is probably somewhere between 9.5 and 10 million” (slightly above the demographic predictions of PlaNYC). Half of the city’s two million renting households are already rent-burdened (60% of those paying more than 50% of income for rent). The vacancy rate is only 3.45%, a mere 1.8% for rents below \$800 (the legal benchmark defining a “housing emergency” is 5% vacancy). These dire figures come from the city’s 2014 Housing and Vacancy Survey.

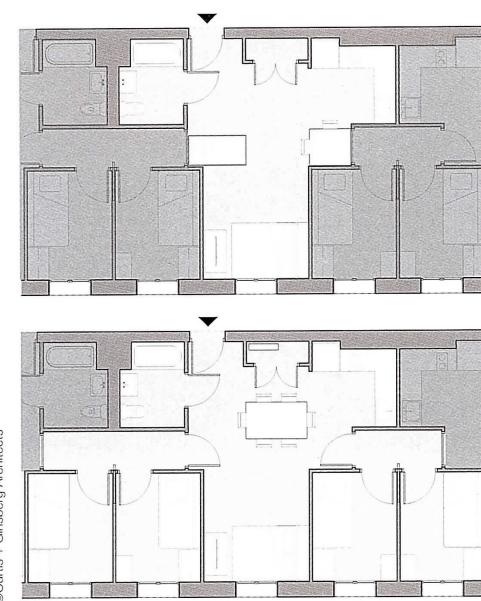
Zoning is another mechanism to increase housing supply. In a 2014 report Ginsberg wrote with CHPC colleagues Jerilyn Perine and Sarah Watson, “The Building Envelope Conundrum,” he describes contextual-district limits on building form as a greater constraint than floor-area allotments, especially as developers explore unorthodox-shaped sites. The mayor’s mandatory

inclusion of affordable housing has a better chance of succeeding, Ginsberg contends, if architects can “fit in all the floor area” permitted for a site and developers can realize economies through cross-subsidies. The Department of City Planning addressed these concerns in last February’s “Zoning for Quality and Affordability” proposal (under review at this writing). It encourages more construction by revising envelope controls, parking minimums, and other variables. While acknowledging preservationist resistance, Ginsberg says, “people seem to be against higher density until it’s built, at which point they like it.”

Developer Jonathan F.P. Rose, founder of the Jonathan Rose Companies and author of a forthcoming book, *The Well Tempered City*, sees the alphabet soup of subsidy programs of the Department of Housing Preservation and Development (HPD), the Housing Development Corporation (HDC), and the state’s Homes and Community Renewal (HCR) division as essential to serving the affordable housing market. “Some subsidies are direct, such as HPD, HDC, and HCR’s programs. Some are indirect, such as the 421-a tax incentives. All affordable housing requires the 421-a or 420-c tax abatement programs to make their numbers work.”

Rose worries that provisions in the New York State legislature’s recent renewal of the controversial 421-a program will greatly increase the subsidies needed to create affordable housing under the program. “Almost all deeply affordable and mixed-income housing is built with non-union labor. The new 421-a program may require all new affordable housing using these tax abatements to use prevailing-wage labor,” Rose says. “In San Francisco, which added prevailing-wage and other requirements to its affordable housing programs, it now costs over \$700,000 to produce an affordable housing unit. As a result, very few are built.” The legislature’s extension of 421-a depends on a negotiation over prevailing-wage rules by the Real Estate Board and the construction unions within six months – “an abdication of legislative responsibility,” according to Rose. “Let’s hope they act in the interests of the New Yorkers who will not be at their table when they meet to decide the fate of New York City’s affordable housing production.”

Ginsberg concurs, citing studies linking the prevailing-wage requirement with roughly a minimum 25% cost increase. “If this whole 421-a agreement requires prevailing wage,” he says, “it would be a disaster for the production



©Curtis + Ginsberg Architects

The mayor’s mandatory inclusion of affordable housing has a better chance of succeeding, Ginsberg contends, if architects can “fit in all the floor area” permitted for a site and developers can realize economies through cross-subsidies.

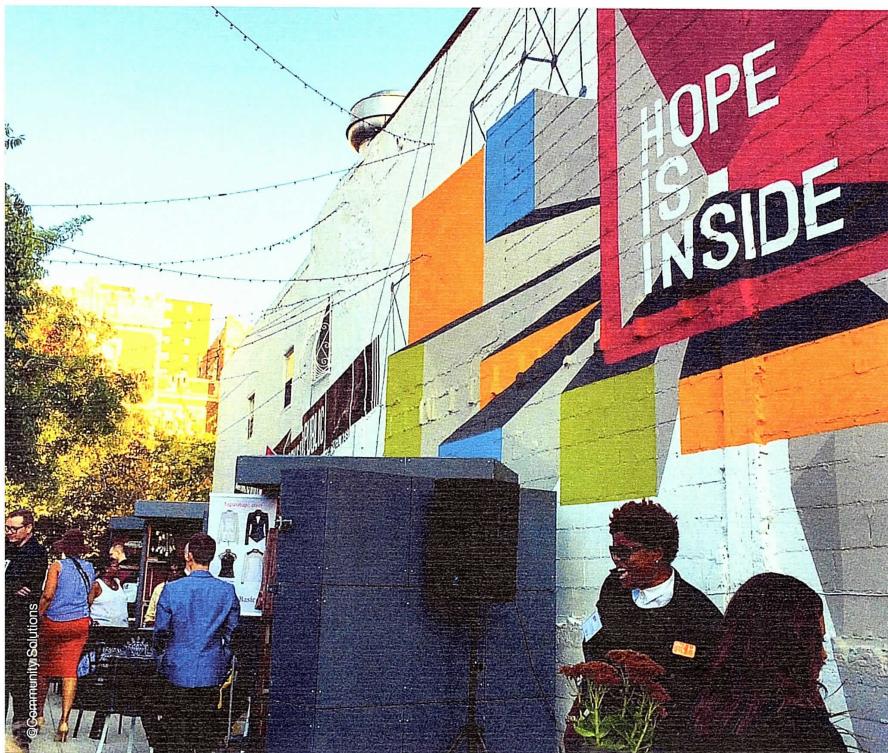
Curtis + Ginsberg Architects: Gateway Housing Study, commissioned by the Supportive Housing Network of New York, to develop an alternative to the current shelter model for homeless families. Flexible micro-units can be linked, allowing unit sizes to be tailored to family needs.

of affordable housing. That doesn't mean you can't provide a living wage." An increase of 25% cannot be passed on to tenants, so each unit ends up costing about 50% more in subsidy, Ginsberg says.

#### Amid the decay, some bright spots – chiefly green

Housing experts are expecting neither an outright end to rent regulation (close to a political impossibility) nor any growth in federal support for low-income housing. Instead, policies emphasize innovation in cost-efficient, energy-efficient design and construction; in funding mechanisms; and in keeping existing affordable units affordable.

"A redoubled focus on preservation of affordable housing is really where we need relentless attention," says Rosanne Haggerty, founder of the non-profits Community Solutions and Common Ground. "It's easy to focus on the production side, but there's much greater risk in the eroding affordability of existing units." NYCHA accounts for "a huge percentage of the city's remaining affordable housing stock," she notes (about 178,000 units, or 8% of the city's rentals, plus nearly 89,000 Section 8 leased apartments). She hails the agency's Next Generation Plan as an "impressively comprehensive" approach to its well-known budget and maintenance crisis. NextGen's most controversial step, leasing underused sites to private developers, strikes her as simply "the bright shiny thing." The harder and more compelling parts of the plan, Haggerty says, include retrofitting its properties. The NextGen plan indicates that NYCHA is thinking outside its familiar towers-in-parks model to incorporate advanced interior and exterior design ideas while reinvigorating its older tradition of community integration, stretching back to the New Deal-era First Houses, which were scaled to blend with adjacent tenements in the East Village.



In response to requests from Brownsville, Brooklyn, residents for more local food and retail options, Community Solutions worked with the NYC Economic Development Corporation and the Ocean Hill-Brownsville Neighborhood Improvement Association to develop MGB POPS, an open-air marketplace for local entrepreneurs designed by ORE Design + Technology, with mural and branding by Made in Brownsville.

NYCHA's chair and CEO Shola Olatoye came to the public sector from Enterprise Community Partners, the national non-profit that directs capital toward affordable construction and promulgates the Enterprise Green Communities criteria, which the city and 22 states have adopted as standards. Olatoye's experience, particularly with Enterprise's Sandy Recovery and Rebuilding Program, familiarized her with NYCHA's physical challenges (since so many of its properties occupy vulnerable coastal sites, adding new retrofit needs to a long list of deferred maintenance). Her successor as Enterprise's vice president and New York Market Leader, Judi Kende, identifies numerous encouraging local projects, built with and without Enterprise's involvement.

"Green is no longer considered a luxury for affordable housing," Kende comments. "It's considered a key component." She is enthusiastic about Bushwick's Knickerbocker Commons, a six-story building designed by Chris Benedict, RA, and systems designer Henry Gifford [see pg. 29]. It is a pioneering building that meets the Passive House energy-performance standards while keeping all 24 of its units affordable to residents earning less than 30%, 50%, or 60% of area median income (AMI). Enterprise's own success stories include CAMBA Gardens, developed on an underused portion of Kings County Hospital's East Flatbush campus as a combined affordable and supportive residence designed by Harden + Van Arnam Architects and built to LEED Platinum standards. "It is one of those projects that probably had 19 different capital sources...very layered, very complex." It blends support from federal Low Income Housing Tax Credits, NYSERDA, HPD, HCR, Medicaid, City Council, the Brooklyn Borough President's office, five private banks, and others. CAMBA Gardens is an example of Enterprise's resourcefulness in leveraging disparate funders, along with on-site social services to bring distressed populations, including homeless households and special-needs patients, into the kind of community that can turn lives around.

In affordable housing, design and sustainability often fall by the wayside, deemed too expensive. Via Verde, designed by Grimshaw Architects and Dattner Architects, "changed the process," Ginsberg says, "maybe not as much as I would like," but enough to give developers and officials a model of a healthy, energy-efficient community at affordable rents appealing to neighbors. "HPD's RFP process before Via Verde had no points for design or sustainability"; the latter now accounts for "typically 25% of their scoring system." Since



©Vannini Architectural Photography

Harden + Van Arnam Architects: CAMBA Gardens

freeze would be unsustainable, though a “one-year adjustment on this should not tip the scales in a way that leads to severe disrepair.”

A phrase often used by the Department of Disabilities, describing people not in wheelchairs as “temporarily able-bodied,” could easily apply to most citizens’ finances. Even someone with apparently stable employment at a reasonable salary might be a few economic convulsions away from rent-burdened status. In a sense, almost all of us are temporarily able-bodied in a financial sense; the safety net of public affordability mechanisms affects nearly every citizen.

“If we allow the city to drift into a place that is segregated by income and housing type,” Haggerty summarizes, “that’s not the New York that most of us have really cherished and want to preserve.” She encourages city officials to experiment with diverse building envelopes, apartment configurations, and occupancy options, pointing to an affordable building right in the shadow of Billionaires’ Row: the Dorothy Ross Friedman Residence (formerly the Aurora) at 57th Street and 10th Avenue, a 178-unit building operated by the Actors Fund. Along with 27 one-bedroom apartments, the Friedman offers shared supportive housing in two- to four-bedroom groups. Unrelated occupants earning below 60% AMI lease individual bedrooms and share public areas (living rooms, kitchens, bathrooms). The fund bought the building with tax credits when it was in foreclosure during the 1990s slump after failure as a condo project. “It requires attentive management to form room groups and deal with any mediation issues,” Haggerty notes, “but it is an elegant, efficient, dense use of a building” in a city with so many single-person households and such forbidding costs.

“We really do need to rethink how we design and build things here; it just shouldn’t be as expensive as it is,” Haggerty says. “There’s so much good research that neighborhoods with diverse building types and diverse character actually benefit everyone economically as well as socially.” She poses a question that no New Yorker should find alien: “Who needs to give up what in order for the greater good to be served?” ■

that turning point, he says, “the affordable housing in New York is probably on average much greener than the market-rate housing, particularly condos and co-ops, because the developer basically has no economic incentive to make a project green unless he can use it to sell the unit for more money.” Enterprise’s post-Sandy experience with recovery helpdesks, Kende says, has led to two Bronx-based pilot Preservation Helpdesks “connecting owners to experts in everything from green finance to other green benefits, through NYSERDA, through code enforcement folks, to tax relief – a whole host of both public and private incentives and financing products.”

Enterprise is also active in the new HPD/HDC Green Preservation Program, combining the carrots of green-capital assistance (aiding small property owners in overcoming capital-cost barriers to upgrades that offer long-range utility savings) with the stick of code enforcement in neglected, violation-riddled buildings. Energy performance is turning out to be an area where owners’ long-term interests and the public interest can converge.

#### Beyond “us vs. them”

Only the naïve expect all interests to converge. The rent freeze has drawn unsurprising complaints from those to whom housing is primarily a mechanism for wealth to trickle up. Rent Stabilization Association President Joseph Strasburg was quoted in the *New York Times* saying that “landlords will now have to forgo repairing, maintaining, and preserving their apartments, which will trigger the deterioration of quality, affordable housing de Blasio pretends to care about.” Strasburg’s implicitly menacing tone is at odds with the Rent Guideline Board’s research, indicating that the landlords protest too much. Operating incomes after expenses rose in each of the last nine years, most recently by 3.4%, as operating costs rose only 0.5%. Kende allows that “you really do have to weigh affordability and rent increases against ensuring that landlords have sufficient funds to invest in the property,” and that a long-term

**Bill Millard** is a freelance writer and editor whose work has appeared in *Oculus*, *Architect*, *Icon*, *Content*, *The Architect’s Newspaper*, *LEAF Review*, *Architectural Record*, and other publications.

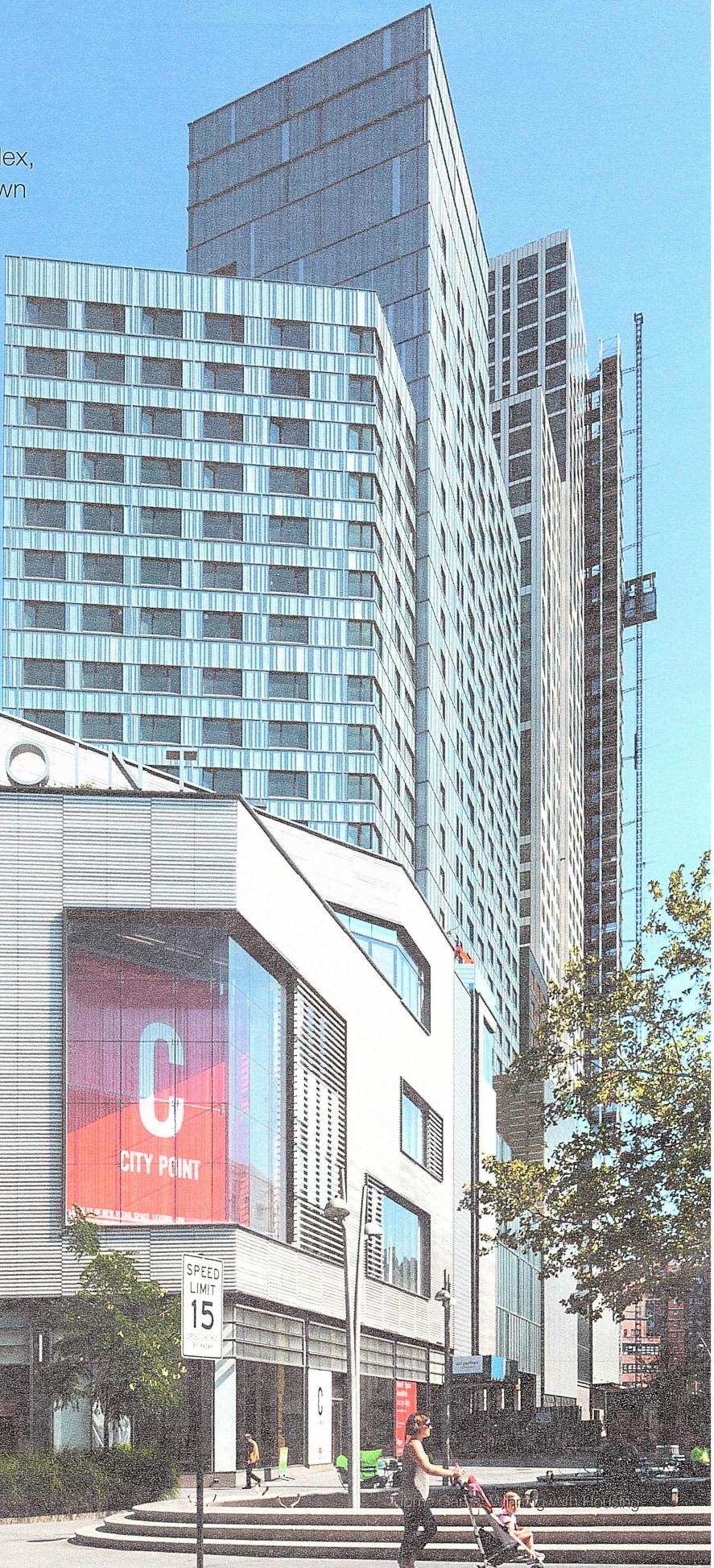
# Tower Power

City Point, a retail and residential complex, will be the beating heart of the Downtown Brooklyn development boom

BY CLAIRE WILSON

The pop-up DeKalb Market was wildly successful when it opened in 2011 in a heaving swath of Downtown Brooklyn that, until then, galloping gentrification had mysteriously circumvented. Shipping container architecture made it funky. Gritty surroundings gave it hipster appeal. Local customers of Fulton Mall found the food and flea offerings fresh and new, even if the idea was imported from tonier brownstone neighborhoods.

The spaghetti junction of a transit hub made it convenient to all comers.





©COOKFOX Architects

©COOK+FOX ARCHITECTS

Fast forward to 2015, and a new version of the DeKalb Market is being resurrected as part of City Point, a 1.8 million-square-foot retail and residential project smack on the once-fabled Brooklyn shopping mecca, Fulton Street.

Designed by COOKFOX Architects, the project includes Phase 1, the 675,000-square-foot, four-story retail center, and Phase 2, housing with market-rate and affordable towers. A third residential component may top out at 600 feet; its architect has not yet been announced. According to Rick Cook, FAIA, COOKFOX founder and principal, the site's location over a major transit hub and opposite the new Willoughby Park epitomizes the future of urban life. "This is more and more how people want to live and work in cities," Cook says. "Close to transportation but around nature."

Located in New York's third busiest retail district after Manhattan's 42nd and 34th Streets, the irregular parcel is bordered by the Flatbush Avenue Extension, DeKalb Avenue, Albee Square, and Willoughby, Fleet, and Gold Streets, and was the site of a failed shopping mall razed in 2007. The new complex is designed around an interior retail corridor called Prince Street Passage, named for a demapped street that begins at Albee Square and intersects the Great Hall, future home of the new DeKalb Market, which runs inside the building between Gold Street and Flatbush Avenue. Almost a metaphor for Cook's vision of the city of the



©COOKFOX Architects

(above, top) Aerial rendering of City Point shows the landscaped setbacks atop the retail podium that will be accessible to tower residents.

(above, bottom) Site plan

future, the Great Hall links subways on one side with a view of Willoughby Park through two high glass portals that let in natural light. The 60-foot portal on the Gold Street side will have an outdoor terrace that overlooks the new park. Inside will be an unusual 45- by 45-foot glass and papier mâché mural by Steven and William Ladd.

The container theme of the 2011 DeKalb Market shows up on the Gold Street exterior, where whimsical container-shaped glass windows with wood returns alternate with striated terra cotta panels in the same shape laid out in six vertical configurations. According to Mark Rusitzky, AIA,



©COOKFOX Architects



(left) The 19-story affordable housing tower (left) and the 30-story market-rate tower (right) appear to be two distinct buildings, but are actually sitting on top of the retail podium.

(above) Large windows in the four-story retail center overlooking Albee Square allow the mall and historic 1906 Dime Savings Bank to play off each other.

LEED AP, COOKFOX senior associate and City Point project director, the choice of terra cotta was inspired by the historic 1906 Dime Savings Bank and Offerman Building next door. The building fronts on Albee Square, and its scale allow mall and bank to play off each other while the windowed mall design draws the historic building inside. "We designed a large opening that is free of structure and mullions, so you can see through the building and see the bank and dome," he says.

The Rockwell Group designed the interior retail space. Walls are terra cotta, storefronts are glass and blackened steel, and doors flip up garage-style. "We were trying to choose materials that connected all the different aspects of the urban fabric of Brooklyn," says Catherine Yatrakis, LEED AP, Rockwell associate and project manager.

The Fleet Street side of the complex houses building services, residential bike storage, and entrances to nine below-grade loading docks. "This keeps trucks from idling in the street or blocking traffic, and it allows the most street-front real estate to be available to retail or public space," says Susie Teal, AIA, LEED AP, COOKFOX project architect.

Ventilation was a particular challenge COOKFOX met by concentrating louvers in a single area to provide maximum flexibility as retail tenants come and go. The firm also devised a new type of screen made of corrugated perforated zinc that conceals roughly 20,000 square feet of louvers but lets rainwater run off.

The 19-story mostly (not all) affordable housing tower, developed by BFC Partners, and the

30-story market rate tower, developed by The Brodsky Organization, were designed to look like two distinct buildings. Both appear to meet the ground instead of sitting on top of a retail building, and each has a main structure and landscaped setbacks. The market-rate tower has much more outdoor space, including an expansive green space atop the podium that overlooks the new park.

Materials further set the towers apart. The affordable tower is clad with lightweight gray zinc panels, featuring a standing seam system that adds texture. The addition of stainless-steel panels that won't weather in the same way will add character over the years. The market-rate tower has a much tighter curtain wall system made up of smaller terra cotta panels. On the Fleet Street side of the project, the two are further distinguished by a 60-foot gap building clad in treated black zinc, also with standing seam texture and bright yellow window trim.

Extell is the developer of the third tower, but further details were unavailable at press time. Parts of the first two phases of City Point, including the mall, are set to open early next year. Cook recalls that he wasn't sure he wanted to take on the project, even though half the people in his office (many of whom live in Brooklyn) said it was an important site. They turned out to be right. The takeaway? "Send young architects out," says Cook, "and all they see is the vibrancy." ■

Claire Wilson is a New York-based freelance writer.

**CLIENT:** Acadia Realty Trust; Washington Square Partners; The Brodsky Organization; BFC Partners

**DESIGN ARCHITECT:** COOKFOX Architects

**DESIGN TEAM:** Rick Cook, FAIA, Mark Rusitzky, AIA, LEED AP, Luca Baraldo, AIA, LEED AP Homes, Sylvie Blondeau, AIA, LEED GA, Bethany Borel, Dan Brammer, AIA, LEED AP, Mark Canfield, CarloMaria Ciampoli, Daniel Cohen, AIA, LEED AP, Scott Corey, Simone DeConno, AIA, LEED GA, Marcos Elgueta, Guido Elgueta, Simon Rearte, Daniel Rogers, AIA, LEED AP BD+C, Brandon Specketer, AIA, LEED AP, Quentin Stanton, Susie Teal, AIA, LEED AP, Heidi Theunissen, LEED AP, Udoiwod Udoiwod

**EXECUTIVE ARCHITECT:** SLCE Architects

**INTERIOR DESIGN (RETAIL):** Rockwell Group

**LANDSCAPE ARCHITECT:** Weintraub Diaz Landscape Architects

**STRUCTURAL ENGINEER:** DeSimone Consulting Engineers

**MEP ENGINEER:** Cosentini Engineers

**CONSTRUCTION MANAGERS:** ZDG Construction (retail); BFC Partners (Tower 1); Lend Lease (Tower 2)

# An Active Market for Passive

More and more NYC architects are embracing the benefits of the Passive House standard for multifamily dwellings

BY JONATHAN LERNER



Chris Benedict, R.A.: Detail of Knickerbocker Commons senior housing in Bushwick, Brooklyn.

Home Game: Winning with Housing

**K**nickerbocker Commons, a 24-unit affordable seniors' apartment building in Bushwick, Brooklyn, designed by Chris Benedict, RA, was the largest Passive House (PH) project in New York City when it was completed last year. Another PH structure now going forward, designed by Jack Esterson, AIA, of think! architecture and design, will be bigger. Called Hanac Corona Senior Residence, it will include 68 affordable apartments and a preschool. But Beach Green North (Curtis + Ginsberg Architects), under construction in Rockaway, is a still larger PH project, with 101 units. And Handel Architects' 350-apartment PH tower planned for the Cornell Tech campus on Roosevelt Island will dwarf even that [see pg. 33].

This is not a contest, of course. But size matters in a dense city. So does reigning in energy consumption, which New York State and City codes and conservation goals require. A growing cohort of designers and developers see PH as the way to achieve – and even surpass – those targets. Mayor Bill de Blasio's plan, "One City: Built to Last," for example, aims for a 35% carbon emissions reductions citywide by 2025, stating, "Overall, the city must cut energy use across all building sectors on average by at least 60% from 2005 levels." According to the advocacy group New York Passive House, "Designing to the Passive House standard reduces a building's energy demand for heating and cooling by 90%."

#### Better for energy and air quality

Originating two decades ago in Germany and first applied to single-family residences, PH is a building standard that radically reduces energy consumption while simultaneously improving indoor air quality. Compared to conventional construction, it requires a highly-insulated building envelope, usually less glazing, and rigorous air sealing, all to eliminate thermal transfer, and ventilation systems that capture energy while introducing and filtering fresh air. In the U.S., PH has also migrated from single-family to multifamily. Apartment buildings have advantages, with smaller exterior wall-to-living-area ratios. Row houses have only front and back exposures. Those conditions already lessen thermal leakage and make the standard that much easier to achieve.

With its abundant row-house fabric – and flush real estate market – "Brooklyn has the most projects by far in the country," says Ken Levenson, AIA, president of New York Passive House. When Levenson discovered the standard in 2008, he



© Teresa Arana

shifted the focus of his practice toward it, only to discover the difficulty of sourcing appropriate products. In 2011 he co-founded 475 High Performance Building Supply, which imports and distributes products that help meet PH standards, and educates design and construction professionals in the approach.

Passive House construction does require some materials and techniques that cost more than conventional construction, but these are compensated in several ways. Paul Castrucci, RA, designed, and with his partners Ray Sage and Wendy Brawer in the design/build development firm Further Incorporated, built R-951, a three-unit PH row house in Prospect Heights, Brooklyn, which has a 4KW solar array on the roof. Because of its extreme energy efficiency, the design team was allowed an extra 8% of floor area, about 350 square feet. "That in itself," he says, "pays for Passive House" extras, even as the units were kept to prices comparable to conventional new apartments in the neighborhood. Benedict, now working on her third PH apartment building, claims that the upfront costs can be a wash. "We put more money into the enclosure," she says. In turn, the lower HVAC demand allows small, highly efficient systems to be installed and elimination of things "like big expensive chimneys, boiler rooms, and insulation of piping systems." Esterson, on the other hand, says the incremental costs for bringing his Corona project to PH standard "is going to be huge." But for the client, a non-profit with no

(above) Chris Benedict, R.A.: Angled exterior insulation panels give the façade of Knickerbocker Commons a lively faceted surface and shade windows.

(right) think! architecture and design: Hanac Corona Senior Residence will include 68 affordable apartments and a preschool.

#### **Knickerbocker Commons, Brooklyn**

**OWNER:** Ridgewood Bushwick Senior Citizen's Council

**ARCHITECT:**

Chris Benedict, R.A.

**DESIGN TEAM:** Chris Benedict, RA, Gabe Williams, Satpal Kaur Panesar, Teresa Arana, Gabe Williams

**MECHANICAL SYSTEM DESIGN:** Henry Gifford

**STRUCTURAL ENGINEER:** Angelos Georgeopoulos, PE

**PLUMBING, SPRINKLER, ELECTRICAL, FIRE ALARM ENGINEER:** Abraham Joselow, PE

**BLOWER DOOR TESTING:** Terry Brennan, Camroden Associates

**GENERAL CONTRACTOR:** Galaxy General Contracting Corporation



©think! architecture and design

intention of selling, the low long-term operating costs will "bring enormous savings."

#### **The retrofit challenge**

Passive House works for retrofits, lending itself especially to gut renovations. The first certified PH in the city was a redo and expansion of a Park Slope single-family brownstone by Julie Torres Moskovitz, AIA, completed in 2012. There, the brownstone façade itself is now sandwiched within 20 inches of insulation. Several dozen retrofits of similar townhouses have been done in the city since. Conversions of industrial or office buildings for residential use can also readily incorporate the techniques and achieve the certification. But existing large apartment buildings, which comprise such a big share of New York's housing stock, pose a difficult challenge. The first problem would be emptying them of occupants, for renovation. And imagine the migraine-inducing prospect of reaching unanimity among co-op or condo boards to undertake a retrofit, even if it were carried out apartment by apartment. A single owner who emptied a large building for renovation would forgo months or years of rent. "I'd love to see Lefrak City refaced," jokes Benedict, meaning in insulation – but given



that achieving PH certification would also require new windows and HVAC systems, it seems an unlikely prospect.

A number of contractors are gaining experience with PH techniques, but Benedict cautions that “the chance of getting a contractor who builds apartment-size buildings who’s done Passive House before is pretty slim, so there is training required.” But she says that “as long as architects aren’t going crazy with really super-complex forms,” constructing the required air tightness is fairly straightforward. Castrucci suggests that the logic of the approach can be almost self-explanatory when builders see it firsthand. The three units in his Prospect Heights project each have heat pump systems, but during this fiercely cold past winter, when the building envelope was complete and interior work was ongoing, only one heater was ever used, and then, only sometimes. The workers didn’t have the usual “kerosene blower polluting the air,” Castrucci says. “It’s more pleasant. They’re thinking, ‘Wow; it’s smarter, it’s cleaner, it’s warmer.’ It’s making them think twice as hard when they’re insulating. As you’re walking through, they’re asking, ‘Is this right? Do I need to tape this a little better?’ They’re seeing results.”



*(left and below)* Paul A. Castrucci, Architect: R-951 Residence is one of the first Passive House-certified and Net Zero-capable buildings in New York City. Large south-facing windows maximize winter solar heat gain, while operable perforated metal façade screens reduce summer overheating.

#### Hanac Corona Senior Residence

CLIENT: HANAC Inc.

ARCHITECT: think! architecture and design

DESIGN TEAM: Jack Esterson, AIA, Stan Fabiszak, RA, CSI, Brian Dobrolsky

LANDSCAPE ARCHITECT: Future Green Studio Corp.

STRUCTURAL ENGINEER: Cuono Engineering

MEP ENGINEER: WASA Studio

ENERGY CONSULTANT: Association for Energy Affordability

PASSIVE HOUSE PROJECT ADVISOR: Ken Levenson, AIA

#### R-951 Residence

DEVELOPER: Further Incorporated

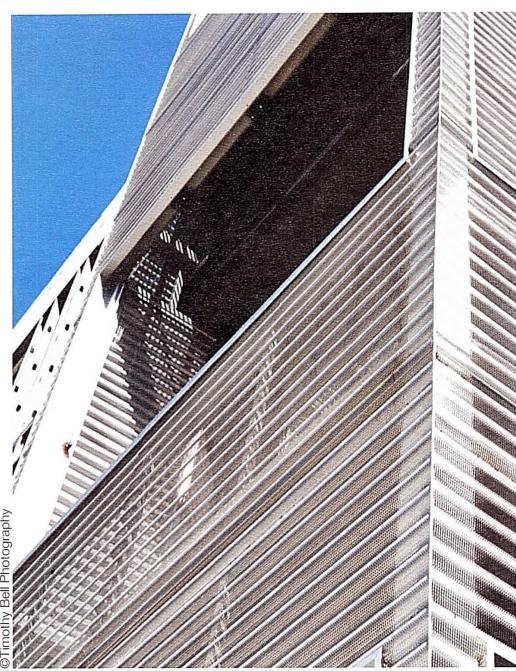
ARCHITECT:

Paul A. Castrucci, Architect  
DESIGN TEAM: Paul A. Castrucci, RA, Grayson Jordan, RA, Certified Passive House Designer

MECHANICAL DESIGN, BUILDING SCIENCE, PASSIVE HOUSE CONSULTANT: ZeroEnergy Design: Jordan Goldman, LEED AP, Certified Passive House Consultant

STRUCTURAL DESIGN: Gerard Santora, PE  
SPRINKLER & FIRE ALARM DESIGN: EP Engineering

SOLAR CONSULTANT: Aeon Solar  
CONSTRUCTION MANAGER: Further Incorporated



NAVA Companies: For 210 Pacific Street, a luxury condominium project in Boerum Hill, Passive House certification is used to both brand the building and reflect the company's ethos.

For energy efficiency PH is radical, but its implications for design can be more subtle. For example, there is often less glazing than in conventional buildings. But in Castrucci's row house, the northeast-facing rear wall of the unit that opens to the garden is entirely glazed; on the southwesterly front façade all the windows are quite large, but shaded by operable mesh sunscreens. Benedict sculpted exterior insulation at Knickerbocker Commons into angled panels that give the façade a lively faceted surface and simultaneously shade window openings. Esterson's building was to have floor-to-ceiling glass panels running continuously across its width at street level and on the fifth floor, looking onto a setback terrace, both having a southwestern orientation. That had to be modified. Now every third panel is a spandrel with opaque glass facing and insulation behind. "We've reduced the amount of transparent glass," he says, "but managed to save the design gesture, the integrity of that glass band."

#### Loved by some but not all

Aside from the improved energy performance, Passive House standards can produce buildings that are healthier, quieter, and potentially more durable. Architects and passionate environmentalists are increasingly aware of and interested in the approach. Acceptance by the broader public may take longer. People generally want what they consider fashionable. "Unfortunately, we're coming out of a time when floor-to-ceiling glass is *de rigueur*," Levenson observes.

For developers and residents of below-market-rate buildings, the long-term operating savings may be quickly grasped as a benefit. For the more affluent, that may prove less alluring. In marketing the luxury condominium project 210 Pacific Street in Boerum Hill, Brooklyn, developer NAVA Companies chose to emphasize its PH certification to both brand the building and reflect the company's ethos, according to founding partner and architect Stewart Osborne. The eight apartments were priced from \$3 to \$5 million. With six of them in contract, he and his realtors concluded that energy efficiency had not been a selling point. "Location and product were what mattered to this audience," he says.

Of course, attitudes can evolve with surprising speed. Even as the challenges of climate change and energy consumption are becoming more widely held concerns, new PH projects are being built and publicized. Levenson thinks it will make



a difference "that people can walk through and experience them and realize they're not alien spaceships," but familiar kinds of spaces that happen to be healthier, quieter, and more energy efficient. ■

**Jonathan Lerner's** articles have appeared in *Landscape Architecture*, *Metropolis*, *Pacific Standard*, *Modern*, and many other design and mainstream magazines. He also heads the consultancy UrbanistCommunications.com.

**210 Pacific Street, Boerum Hill, Brooklyn**

**DEVELOPER/ARCHITECT:**  
NAVA Companies

**DESIGN TEAM:** David Ruff, RA,  
Stewart Osborne

**ARCHITECT-OF-RECORD:**  
SBLM: David Nicholson, AIA,  
LEED AP, George Fanous,  
AIA, LEED AP

**STRUCTURAL ENGINEER:**  
Severud Associates

**MECHANICAL ENGINEER:**  
DNV Associates

**PASSIVE HOUSE CONSULTANT:**  
Sam McAfee

# Ahead of the Class

Cornell University's new Roosevelt Island building will be the tallest high-rise residential tower built to Passive House standards

BY LINDA G. MILLER

**W**ith its first residential building designed and constructed to Passive House (PH) standards, Cornell Tech, the applied sciences campus of Cornell University on Roosevelt Island, is practicing exactly what it preaches – innovation, performance, and sustainability.

The approximately 270,000-square-foot, 26-story building, designed by Handel Architects and currently under construction, is precedent-setting as the world's tallest residential building built to date to PH standards.

When completed in 2017, the project will contain approximately 356 rental apartments, from micro-units to three-bedroom suites, plus amenities that enhance social and intellectual connectivity. For the students, faculty, and staff who will inhabit the building, the outcome of abiding by this strict international building standard will be healthier, more comfortable living conditions at a fraction of the usual energy costs.

"This project will set a new bar for sustainable high-rise residential architecture, and we expect it to be a game-changer in reducing greenhouse gas emissions," says Blake Middleton, FAIA, LEED AP, partner at Handel Architects. "My prediction: within 10 years, Passive House will be the new normal in high-rise residential construction."

Building to PH standards optimizes operational energy demand through passive measures and components such as insulation, air-tightness, heat recovery, solar heat gains and shading, and incidental internal heat gains. Most PH projects in the New York area are new and retrofit small to mid-size residential projects but, despite its name, PH standards can be employed in any building typology, including schools, factories, and office buildings.

A visit to Vienna's 20-story Raiffeisenhaus Wien.2, the first and largest PH-certified office tower built to date, and the 194-unit Studentenwohnheim (dormitory) so impressed the developer David Kramer, principal at the Hudson Companies, that the design team was emboldened to double its efforts to deliver a PH design that would meet a very tight budget. Once they were able to satisfy that requirement, Cornell gave the green light for this paradigm of green design.

The narrow sides of the building face east/west, where solar heat gain is the greatest, thus reducing the cooling load, which in turn reduces the building's energy load. The façade, constructed of a prefabricated metal panel system, thermally insulates the structure. The southwest façade houses heating and cooling equipment. Here, the exterior opens to reveal a louver system that acts as the "gills" of the building, allowing the mechanical system to "breathe" on each floor.

Cornell Tech has taken a "best-in-class" approach to all building systems, and this building will achieve a minimum of LEED Silver and NYSERDA Energy Star certifications. Proving a 65% to 70% reduction in energy consumption will be a component PH certification. "To put it in context," says Project Architect Deborah Moelis, AIA, "adherence to the rigorous Passive House standards leads to a drastic reduction in overall energy use – comparable to only needing a hair dryer to heat an entire single-family home." ■

Linda G. Miller is a New York City-based freelance writer.



(top) Handel Architects' Passive House residential tower for the Cornell Tech Campus Center with future Executive Education Center in foreground.

(above, l-r) Bloomberg Center by Morphosis Architects; residential tower by Handel Architects; and The Bridge by Weiss/Manfredi.

OWNER: Cornell Tech;  
The Hudson Companies;  
Related Companies

ARCHITECT AND INTERIOR  
DESIGNER: Handel Architects

DESIGN TEAM: Gary Handel,  
FAIA, Blake Middleton, FAIA,  
LEED AP, Deborah Moelis,  
AIA, Ju Kim, Ryan Lobello,  
Erin Shnier

LANDSCAPE: James Corner  
Field Operations (landscape  
master plan); Future Green  
Design Corp. (rooftop  
landscape)

STRUCTURAL/MEP/LIGHTING:  
Buro Happold Engineering

ENERGY CONSULTANT  
(PASSIVE HOUSE, LEED):  
Steven Winter Associates

EXTERIOR WALL:  
Israel Berger & Associates,  
A Vidaris Company

CIVIL ENGINEER:  
Philip Habib & Associates

VERTICAL TRANSPORTATION:  
Van Deusen & Associates

CONSTRUCTION MANAGER:  
Monadnock Construction



## It Takes a Village

A unique public-private venture looks to reinvent Newark

BY JANET ADAMS STRONG

Newark is the largest city in New Jersey, just 20 minutes by train to Manhattan. A major Northeast transit hub, it also has one of the busiest airports in the country and the biggest container port on the East Coast. Downtown is headquarters to leading corporations, notably Prudential and Panasonic, and home to six colleges/universities, the state's largest museum, important research libraries, a symphony hall and new performing arts center, and an 18,000-seat arena. In its 1920s–1940s heyday, Newark was a bustling entertainment and commercial center, drawing shoppers to fashionable department stores. An extensive highway system facilitated regional access but destroyed neighborhoods and helped drain the post-war city to the suburbs. Ravaged in 1967 by riots, "white flight," debilitating unemployment, poverty, and crime, the once-vibrant city became a place to avoid. But that was then.

"Given Newark's incredible assets, I couldn't understand the devaluation of its central business district," explains Ron Beit, founder and CEO of RBH Group developers and the leading force behind Teachers Village. Beit discovered Newark in law school while managing a commercial building in the South

Ward. From the roof he could see the derelict city center, "a donut hole" of empty buildings and parking lots surrounded by still-viable institutions and businesses. He began acquiring land in 2005, touring downtown with billionaire-investor Nicholas Berggruen who, like Beit, immediately understood the potential and told him, "Buy all of it." At roughly \$20 per square foot (compared to \$400–600 per square foot in Manhattan), they ended up with 79 parcels – 15 million square feet of development capacity.

Richard Meier, FAIA, who had previously worked with Berggruen, master planned the full 23-acre area. Meier grew up in Maplewood, NJ, but was born in Newark. All his grandparents lived there, and Meier himself worked downtown in an architect's office while in high school. But before 2008, he had not visited Newark in decades. RBH's assemblage of so many contiguous properties gave rise to a grand plan that could reinvent downtown and invigorate the surrounding city for generations to come. Envisioned are low- and mid-rise residential, commercial, and mixed-use buildings, and a cluster of towers twice the height of the 35-story buildings that currently shape the skyline.





©Richard Meier & Partners

(opposite page) Aerial rendering puts Teachers Village in context of Newark's downtown.

(above) Rendering of Building 6, a 62-unit residential building on Halsey Street, currently under construction.

(right) Rooftop view along Halsey Street, with corner of Richard Meier & Partners' twin charter schools (left), KSS Architects' charter school (right), and Building 6, under construction (center).

#### "Clusters of like-minded people"

Beit recalls that, in figuring out Phase I, he became "fixated" on the diversity of housing typologies in great cities, on "horizontal – not vertical – development," and how urban centers benefit from "clusters of like-minded people." A three-mile radius study revealed that in addition to district and higher education facilities, Newark had more than 1,000 charter schools employing some 8,000 teachers. More than 80% departed Newark daily with their income, energy, interests, and civic values that stabilize and give life to a community. The idea of housing teachers in a village-scale project was a natural.

It was also revolutionary, redefining Newark's traditional central business district. Teachers Village is the first ground-up residential project in the urban core, a completely new iteration in the city. Unlike the Colonnade apartments that Mies van der Rohe designed 50 years earlier as part of slum clearance north of downtown (and which suffered



©Janet Adams Strong

from isolation), Teachers Village was conceived as a place to "live, learn, and work."

Meier has a lifetime of experience master-planning projects with high-profile sculptural buildings. Here it is just the opposite. To reduce monumentality, the six-building complex was dispersed over four city blocks, ranging in height from four to six stories and varied in size. The largest building (100,000 square feet) contains two charter schools bisected by a skylighted walkway, separately clad to appear as two smaller buildings. Similarly, a long city block was divided more manageably to create a new through street and facilitate school bus access. "Scale is very important for a residential feeling," says Meier.

Richard Meier & Partners designed three of the residential buildings plus the paired-school building, while Princeton-based KSS Architects, school specialists, was responsible for all school interiors, a second school building (inside and out), and one additional residential building.

#### Keeping the vision

Neighborhood integration was confounded by the fact that 91% of the site was surface parking. "We

had to recreate what we thought was appropriate and consistent with the city's larger development vision," explains Associate Partner and Project Manager Vivian Lee, AIA, LEED AP. "It was quite an involved process; we met many times with the historic preservation consultant, and Newark's planning and building department and landmarks commission. It took a community effort years to get to Phase I."

The site is located in the Four Corners Historic District, where the intersection of Broad and Market Streets was formerly one of the busiest in the country. A district elevation study yielded guidelines for height, proportion, and building materials: stucco, glass, aluminum frames, and one of Meier's rare uses of brick – an especially beautiful iron-spotted variety that glows at dusk, in a nod to Newark's legendary "Ironbound" district. By happy coincidence for Meier's characteristic white, turn-of-the-century Newark is a limestone and glazed terra cotta city, leading to white metal panels as the fifth basic material in Teachers Village's limited palette.

The project's tight \$150 million budget caused the architects to rethink design and detailing. "It was actually refreshing for us," says Design Principal Dukho Yeon, AIA. "The average cost was about \$185 per square foot – \$53 for façade – extremely low considering all the glazing and aluminum panels." Notably, the high-performing façades all exceed ASHRAE base requirements by 10%, as Teachers Village is targeted for LEED Neighborhood Development (LEED-ND) certification.

Despite the constraints, Teachers Village is beautifully constructed and designed with a skill and artfulness that bring real character to the street, exhibiting some of the sensuous refinements of Meier's higher-end projects without the big gestures. For the most part, the buildings are simple boxes, but contrasting materials, plays of solid and void, and the dialogue of open courtyards back and forth across the street make the buildings come alive. Window patterns, large and small, add almost musical rhythms to the composition, while a screened playground animates the roof with unexpected transparency and movement. In the paired-school building, great panes of translucent glass diffuse light deep inside the classrooms and into a third-floor gymnasium that will be shared with the community. Storefronts in residential and school buildings lighten the mass and provide a sense of security with near-continuous visual connection. Although two buildings are still under construction, varied retail and streets bustling with activity speak of a vital neighborhood – one that, just three years ago, lay abandoned.

**Teachers Village Workforce Housing: Buildings 1, 6, 7**  
**CLIENTS:** RBH Group, Ron Beit, President

**ARCHITECT:** Richard Meier & Partners  
**DESIGN TEAM:** Richard Meier, FAIA, Dukho Yeon, AIA, Vivian Lee, AIA, LEED AP, Ananth Sampathkumar, RA, Chris, Techan Abe, Jonathan Bell, Rémy Bertin, Joseph T. DeSense III, Gil Even-Tsur, Simone Ferracina, LEED AP, Adam Greene, Zheng Huang, Scott Johnson, Katie Kasabalis, Brandt Knapp, Aki Koike, Aung Kyaw, RA, Chris Layda, Dongkyu Lee, Ian Lotto, Diana Lui, AIA, LEED AP, Alexander Maymind, Marianna Mello, Hyung Sok Moon, Guillermo Murcia, Stefan Scheiber-Loeis, Hee-Joo Shi, AIA, LEED AP

**STRUCTURAL ENGINEER:** McLaren Engineering Group  
**MEP/CIVIL ENGINEER;** LIGHTING  
**ACOUSTIC CONSULTANT:** Arup  
**SURVEYOR:** Omland Engineering Associates

**LEED CONSULTANT:** Viridian Energy & Environmental  
**CODE CONSULTANT:** Code Consultants Professional Engineers

**CONSTRUCTION:** Union County Plate Glass  
**ACM SUBCONTRACTOR:** Metal Structures Inc.

**GLASS & CURTAIN WALL MANUFACTURER:** Oldcastle

**STUCCO PLASTER; EIFS:** Sto  
**PRECAST PAVERS:** Hanover Architectural Products

**ELEVATORS:** Kone  
**HARDWARE:** Assa Abloy  
**GENERAL CONTRACTOR:** Hollister Construction Services

*(left)* Building 1 was the first building completed, and includes 21 residential units, a rooftop terrace, and retail.



©Janet Adams Strong

**Project:** Teachers Village  
**Building 2, Charter Schools,**  
**230 Halsey Street**

**CLIENT:** RBH Group,  
Ron Beit, President

**ARCHITECT:**

Richard Meier & Partners

**DESIGN TEAM:** Richard Meier,  
FAIA, Dukho Yeon, AIA,  
Vivian Lee, AIA, LEED AP,  
Rémy Bertin, Techan Abe,  
Jonathan Bell, Adam Greene,  
Scott Johnson, Aki Koike,  
Aung Kyaw, RA, Chris Layda,  
Dongkyu Lee, Diana Lui, AIA,  
LEED AP, Hyung Sok Moon,  
Guillermo Murcia, Takumi  
Nakagawa, Adam Nicholson,  
Hee-Joo Shi, AIA, LEED AP,  
Chris Townsend, Michael  
Trudeau

**INTERIOR ARCHITECT:**

KSS Architects

**STRUCTURAL/MEP/CIVIL**  
**ENGINEER; FACADE/ACOUSTIC/**  
**LIGHTING CONSULTANT:** Arup

**SURVEYOR:** Omland  
Engineering Associates

**LEED CONSULTANT &**  
**COMMISSIONING:** Viridian  
Energy & Environmental

**CODE CONSULTANT:**

Code Consultants  
Professional Engineers

**CONSTRUCTION**

**SPECIFICATIONS:** Aaron Pine

**SIGNAGE:**

Piscatello Design Centre

**HISTORIC PRESERVATION**

**CONSULTANT:**

Zakalak Associates

**BRICK MANUFACTURER:**  
Endicott Clay Products

**GLASS MANUFACTURER:** PPG  
Advanced Glazings (Solera)

**CURTAIN WALL MANUFACTURER:**  
Kawneer

**CURTAIN WALL CONTRACTOR:**  
Josloff Glass Co.

**PRECAST STAIR:** Wausau Tile

**PRECAST PAVERS:** Hanover  
Architectural Products

**ELEVATORS:** Kone

**LIVING SCREEN:**

The Western Group

**GENERAL CONTRACTOR:**

Phelps Construction Group

*(top)* Contained in one structure, the two charter schools are separately clad to appear as two smaller buildings, one in brick (foreground), and the other in white panels (left). Atop the brick portion is a screened playground and an adjacent gymnasium with a translucent glass façade.

*(right)* Detail of iron-spotted brick on the charter school building, a nod to Newark's legendary "Ironbound" district.



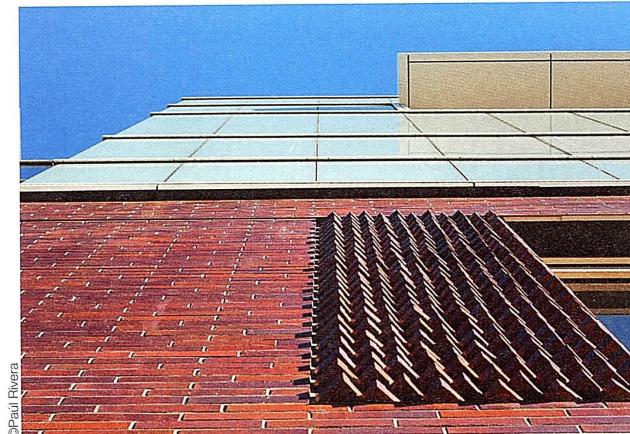
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The “workforce housing” includes 204 units market rated for an anticipated teacher occupancy of roughly 70%, ranging from \$850 for a 600-square-foot studio to \$2,500 for a three-bedroom. All the apartments feel large and sunny, with open kitchens, big bathrooms, and floor-to-ceiling windows that showcase future gardens and the city transforming outside. Multipurpose and fitness rooms, roof terraces, courtyards, and other common spaces invite residents to mingle.

**“Model for the nation”**

To make a difference, it was important for Teachers Village to be built whole (2012–2016). Joining the architects and developers in the project were investment banks, insurance companies, and individual investors working together, across party lines, with multiple city, state, and federal agencies. Beit recalls telephone conferences connecting 50 people. “Teachers Village is an example of how public and private can work together to achieve difficult but important projects,” says Beit. “We think it is a model not only for Newark, but for the nation.”

Community impact? Unlike *tabula rasa* urban renewal, not a single person was displaced by



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Teachers Village, and although Beit decided to forgo federal funding, he retained the 30% local workforce requirement. During a recent site visit with Ananth Sampathkumar, RA, project architect for the workforce housing, a veteran Newarker growled, “You’re changing the neighborhood!” and then added with a smile, “It’s really nice.” ■

Janet Adams Strong, Ph.D., is an architectural historian and author, and a principal of Strong and Partners communications.

# Support System, Modular Style

A new supportive housing project brightens a South Bronx neighborhood

BY LINDA G. MILLER

**A** colorful new supportive housing project is a beacon in a sea of mostly monochromatic brick and vinyl-sided buildings in the Morrisania section of the South Bronx. Designed by James McCullar Architecture, 3361 Third Avenue is a 37,102-square-foot, seven-story structure clad in metal panels of reflective silver, muted champagne, dove, and slate-gray. Bright red and blue metal accents outline expansive nine- by seven-foot windows. Nicknamed the “LEGO building” by locals because of its brightly colored modules, the LEED Gold project also features a rear yard and rooftop garden for use by the resident urban gardeners.

For some of the residents, who began moving into the 62 units in August, the approximately 300-square-foot studios could very well be the first place they can call their own. The residence is owned and operated by Services for the UnderServed (SUS), a non-profit agency that provides housing and support services for formerly homeless and other qualified residents. Knowing the needs and desires of the residents to form “community,” John Shuman, SUS’s director of design, collaborated with James McCullar, FAIA, and his team on the project’s design.

For the deep but narrow site, McCullar envisioned two residential pavilions connected by a lobby overlooking a communal courtyard. After a tour of Capsys, the Brooklyn Navy Yard-based fabricator of modular units, the client and design team were convinced that for efficiency and budgetary reasons, modular construction was the best way to go.

Since the site is below street level, the steel-framed modules could be supported on the lower-level concrete foundation walls at street level to form a rigid seismic superstructure. The sunken courtyard and landscaped rear yard bring light and the feeling of airiness to the social service offices and communal indoor spaces. By locating these spaces in the lower level, the allowable FAR (floor aspect ratio) could be allocated to residential units on the floors above.

While the foundations were being prepared, the 17- by 41-foot modules – the largest size that may be transported over city streets – were constructed in Brooklyn. They contain two micro-units separated by a corridor. All units came complete with standardized bathrooms, kitchenettes, and storage spaces pre-installed. They were stacked and welded together, typically seven per floor, and MEP risers were connected on site.

“This was my first experience designing a modular project,” says McCullar. “The integration of building systems and discipline required in modular design is very Miesian in its logic. Modules offer the opportunity to develop more expressive and cost-effective designs in combinations of a few standard-sized components.” ■

Linda G. Miller is a New York City-based freelance writer.



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Dubbed the “Lego Building,” red and blue window accents and a matrix of reflective and muted gray metal panels create vibrant facades.

**CLIENT:** A Joint Venture: Services for the UnderServed (SUS) (building owner); Strategic Development & Construction Group; BronxPro Group

**Sponsoring Agencies:** New York City Department of Housing, Preservation & Development; New York State Housing Finance Agency

**ARCHITECT:** James McCullar Architecture

**DESIGN TEAM:** James McCullar, FAIA, Kenneth Bamburak, Richard Schafer, Karen Miller

**INTERIOR DESIGN:** John Schuman, Services for the UnderServed (SUS)

**LANDSCAPE DESIGN:** Starr Whitehouse, Landscape Architects & Planners

**STRUCTURAL ENGINEER:** De Nardis Engineering

**MEP:** Abraham Joselow, PC

**LEED/SUSTAINABILITY &**

**ACCESSIBILITY:**

Steven Winter Associates

**SPECIFICATIONS:** William

Jacquette, AIA, CSI

**GEOTECHNICAL:**

Geo-Technology Associates

**ENVIRONMENTAL:** Hydro Tech Environmental Corp.; NYC Office of Environmental Remediation

**EXPEDITER:** RPO Inc.

**MODULAR CONSTRUCTION:** Capsys Corporation

**GENERAL CONTRACTOR:** Strategic Development & Construction Group

**CONSTRUCTION MANAGER:** C & S Construction and Consulting Group

# From Learning to Living

A crumbling old school building in Harlem is transformed into affordable housing and a community center

BY LINDA G. MILLER

The first time Joseph Coppola, AIA, a principal at Dattner Architects, saw P.S. 186, the five-story building at 521 West 145th Street was in dire straits. Originally constructed in 1903, the former elementary school designed by Charles B.J. Snyder in the Renaissance Revival style looked like it belonged in a Gothic novel, not in Harlem.

The building had been abandoned since 1975. Trees took root within its crumbling interior and branched out through empty window frames, letting in the elements. Decorative gates and railings were eroded, the cornice was completely gone, and graffiti further desecrated what was once called the architectural and academic pride of the Hamilton Heights community.

Nevertheless, Coppola could see the building's beauty hidden beneath the grime and envision its potential to provide the community with well-designed, much-needed affordable housing. "P.S. 186," says Coppola, "raised my curiosity and emboldened me to strive harder to save and incorporate the exterior and special interior elements. It was a unique opportunity to restore and adapt a historic structure and rare piece of architectural culture for future generations."

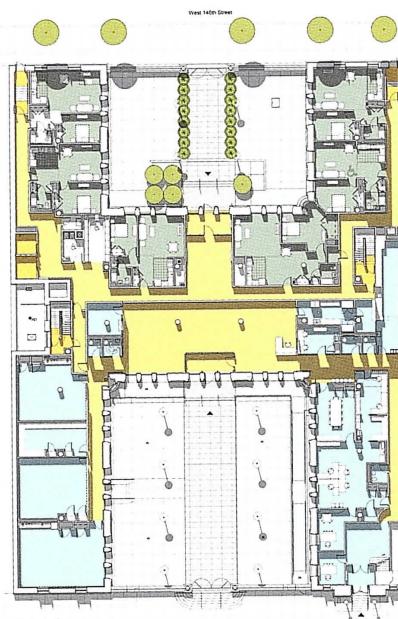
P.S. 186 is one of nearly 400 schools and additions that Snyder designed while superintendent of schools (1891–1923). Yet, despite the building's pedigree, it took the combined forces of district rezoning, the need for affordable housing, the public's outcry for the preservation and adaptive reuse of the building, and funding from city, state, and federal sources to convince the Boys & Girls Club of Harlem, which has owned the building since 1986, and its development partners to save instead of demolish the building.

Since June 2014, the school has been undergoing a \$48.6 million, historically faithful restoration and modernization process. The Residences at PS186 will begin a new life when it reopens in June 2016 with 100,520 square feet of residential space and an 11,300-square-foot new home for the Boys & Girls Club.

The terra cotta, limestone, and brick façade with arched openings, columns, and decorative cornices is being restored, as are the decorative gates, railings, and stone stairs in the two courtyards. Within the H-shaped building – a Snyder signature design element that maximizes natural light and ventilation – are 79 residential units ranging from studios to two-bedroom apartments, with the original 14-foot ceilings retained. New operable transoms



The south elevation on West 145th Street illustrates the children's courtyard entrance to the Boys & Girls Club (center), and the club administrators' Minerva entrance (right).



First-floor plan shows the building's H-shaped configuration, with the West 145th Street entrances to the Boys & Girls Club (bottom), and West 146th Street residential entrance (top).

and expansive energy-saving windows fill the new units with light and fresh air. Other elements, such as the "principal's platform" used for overseeing student gatherings, were preserved for posterity.

The original children's entrance in the south courtyard will be the kids' entry to the Boys & Girls Club. Club administrators will use the original Minerva entranceway on 145th Street (named for the terra cotta bust of the Roman goddess of wisdom set in a niche above the door), which will further visually anchor the club's key presence in the community.

P.S. 186 is the third school to be rehabilitated and adaptively reused for residential and community purposes. It is participating in the Enterprise Green Communities program to provide sustainable, environmentally friendly, and affordable homes, and is expected to be listed on the National Register of Historic Places. ■

Linda G. Miller is a New York City-based freelance writer.

**CLIENTS:** Boys & Girls Club of Harlem (owner); Alembic Community Development; Monadnock Construction

**ARCHITECT:** Dattner Architects

**DESIGN TEAM:** Joseph Coppola, AIA, Joon Cho, AIA, Eric Perez

**STRUCTURAL ENGINEER:** DeNardis

**MEP:** Joselow

**SPECIFIER:** CSI

**EXPEDITOR:** JM Zoning

**HISTORICAL & ACoustical CONSULTANT:** AKRF

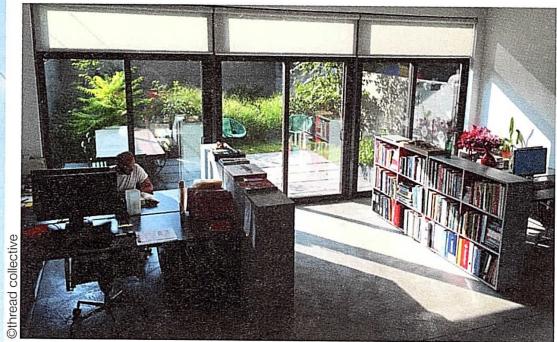
**LIGHTING:** Lumen Architecture

**SUSTAINABILITY CONSULTANT:** Stephen Winters Associates

**HARDWARE:** Hausrler



©thread collective



ect before, they decided to give it a try because they needed a new studio space to showcase their firm's ideas about green design. Mancuso and Maltby needed a new residential space for themselves, too. The project also includes two rental apartments, which helped make the project financially viable.

Completed in 2012, the four-story, 6,000-square-foot TroutHouse is an airy, light-filled space, thanks to expansive windows and a mostly open-plan design. A lush backyard with an abundance of trees, grasses, and other plants gives the building an inviting tree-house feel in the midst of the city. Exposed-concrete floors emit radiant heat, and reclaimed ipe (from the Coney Island boardwalk) used in the façade, interior, and roof deck is a sustainable and wallet-friendly flourish. Atop the building are a green roof and a 5.5-kilowatt solar array, which powers the duplex that contains the office space and Maltby and Mancuso's residence; last year, the solar canopy produced more energy than was consumed. The project's many green features garnered it LEED Gold and Energy Star certification.

The principals had picked up general knowledge about development from previous work with developers, and learned more by reading books and asking attorney friends and bankers. They found that assuming the roles of both architect and developer was a huge time-saver because it streamlined the design process. "Being both developer and architect makes the project go so much easier, so much faster," Mancuso remarks. Normally, "we design something and then go to the developer-client, and then the design changes because we have to tailor it to what they want. But since we were our own client, we designed this thing so fast."

Avoiding the costs of a separate developer is another plus. "You cut out the middleman – you 'buy wholesale,' in a way," says Sam Bargetz, a partner at Brooklyn-based architecture firm Loadingdock5. "It makes the project much more affordable." Bargetz banded together with a group of friends to collectively develop 152 Freeman Street (dubbed "Haus"), a four-story, seven-unit Passive House in

## The DIY Approach to Housing

Building faster, cheaper, and with greater satisfaction: the advantages of being an architect-developer

BY LISA DELGADO

**P**atience might be a virtue, but impatience has a power of its own. Too often, architects "sit in their office waiting for somebody to call them to do a development – and they wait a long time," says Peter Gluck, RA, principal and founder of Manhattan-based GLUCK+. Instead, he and a small but ever-rising number of other local architects have been taking a DIY approach with residential projects, developing their own designs. In doing so, they have gained greater control and efficiency in their work process, shed frustrating developer-client constraints, and created noteworthy new living spaces in New York City.

One example is TroutHouse, an ultra-sustainable three-unit residential-and-office space on Troutman Street in Brooklyn's Bushwick neighborhood. It was designed and developed by the three principals of thread collective, an architecture and landscape design firm. Though the principals – Elliott Maltby, Mark Mancuso, RA, and Gita Nandan, RA, LEED AP – had never developed a proj-

Greenpoint, Brooklyn, for themselves to live in. Currently under construction, the 6,625-square-foot condo building is slated for completion around March 2016.

Like TroutHouse, it features a green roof, as well as a backyard garden and balconies. Each unit's floor plan is simple: "a modern version of a good old railroad apartment," Bargetz says. Using exposed ICFs (insulated concrete forms) for structural walls and corrugated-steel roof decking for the ceilings lowered costs. By serving as developers and choosing a thrifty design, the eventual residents could finance the project themselves without taking out a bank loan.

Doing development might not appeal to everyone, however. "You have to have a stomach for risk," Maltby notes. Stepping into the role of developer also requires some self-education and a willingness to defy traditional notions about the role of an architect. "You need to be a businessman," says Jorge Mastropietro, AIA, principal of his eponymous Manhattan-based architecture firm. "They don't teach us that at school."

Mastropietro's firm takes an unusually holistic approach – embracing not only development and architecture, but also construction – as do a few other local firms, such as GLUCK+ and Alloy Development, whose president is Jared Della Valle, AIA, RA, LEED AP. They've found the combination to be a winning formula for smooth communication, tight quality control, and overall efficiency throughout the building-creation process. "Operational silos don't make any sense to us," Gluck says. Having the same people involved throughout development, design, and construction streamlines the process and raises red flags earlier, he explains, so that budget overruns, for example, can be avoided.

(opposite page, left) thread collective: The TroutHouse includes extensive use of reclaimed ipe (from the Coney Island boardwalk) in the façade, interior, and roof deck.

(opposite page, right) thread collective's first-floor studio space opens to a landscaped backyard.

#### TroutHouse, Bushwick, Brooklyn

**DEVELOPER:** thread 05  
**ARCHITECTURAL + INTERIOR DESIGN, LANDSCAPE & GREEN ROOF DESIGN, STRUCTURAL, MEP:** thread collective  
**Design Team:** Elliott Maltby, Mark Mancuso, RA, Gita Nandan, RA, LEED AP  
**LEED CONSULTANT:** Steven Winter Associates

#### 152 Freeman Street/Haus, Greenpoint, Brooklyn

**DEVELOPER:** Haus, LLC  
**ARCHITECT:** Loadingdock5 Architecture  
**DESIGN TEAM:** Werner Morath, RA, Sam Bargetz, Passive House Consultant  
**STRUCTURAL DESIGN:** Murray Engineering  
**MECHANICAL DESIGN:** M.E.P. Designs  
**VENTILATION AND AIRTIGHT PRODUCTS:** 475 High Performance Building Supply

The architect as developer can also avoid sacrificing architectural quality for cost. Budget constraints can be a spur to heighten creative thinking, instead of stifling it, says GLUCK+ Principal Charlie Kaplan, RA, LEED AP. One well-known example is The Stack, an apartment building that has won acclaim for its innovative use of off-site modular construction (see *Oculus*, Fall 2013, p. 34). Built at a cost of about \$220 per square foot, the project "cost less than what a typical developer would've spent on a crappy building," Kaplan says, "and yet architecturally, it's a really interesting building."

GLUCK+ served as co-developer, architect, and construction manager for the project, which was conceived as an experiment in how to cost-effectively create housing on small infill sites, which are typically difficult to develop. The use of modular units also meant "much less mess in the city, much less congestion," because of the uncommonly speedy on-site construction time, Gluck says. Completed in 2014 in Manhattan's Inwood neighborhood, the 37,710-square-foot building includes a mix of middle-income and affordable apartments.

Having a hand in development helps the firm create projects geared to addressing urban issues and housing needs, such as sustainable, affordable housing. "We're not waiting for somebody to ask us to solve problems" in cities, Gluck says. "We see the problems, and we try to solve them." He has a kindred spirit in Della Valle, an architect-developer whose firm recently launched a new entity, Alloy Community Development, devoted to researching and creating more affordable housing in NYC while minimizing the need for subsidies. Tackling the challenge is "incredibly appealing, and we feel it's part of our social responsibility as architects," Della Valle says.

Though learning to do development initially might seem intimidating, Mastropietro's advice for architects is "just try it. If architects were to get more involved in development, we would have a much better business – and better cities." Perhaps the real measure of success will be when greater numbers of developers see architect-developer successes, and start to embrace the skills and sensibilities of architects. "It's obvious that more architects will want to do development over time," Della Valle says. "Are developers going to realize that we can do it better than they can?" ■

Lisa Delgado is a freelance journalist who has written for e-Oculus, *The Architect's Newspaper*, *Architectural Record*, *Blueprint*, and *Wired*, among other publications.

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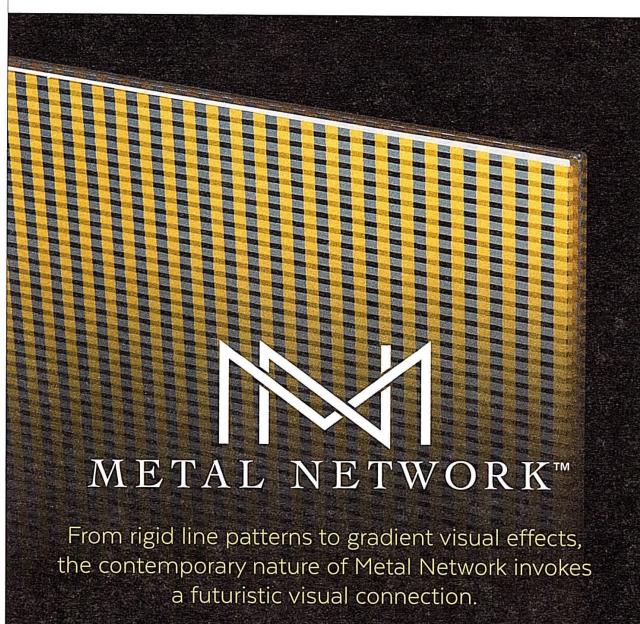
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# Raves + Reviews

REVIEWS BY STANLEY STARK, FAIA

## Architecture Beyond Criticism:

**Expert Judgment and Performance Evaluation**  
Ed. by Wolfgang F.E. Preisser, Aaron T. Davis, Asraf M. Salama, and Andrea Hardy

The rise of building data and increasing sophistication of commissioning and system performance analysis have become part of the project delivery process. Architectural criticism has not kept pace with these technological improvements, which have been changing the practice of architecture.

The book is structured to illuminate the history and evolution of both architectural criticism and building performance evaluation (BPE), and to create a dialogue between the two. It examines potential mechanisms to link criticism to performance evaluation in education, research, and practice across aesthetic, regulatory, sociocultural, contextual, and environmental quality issues.

Contributions from 30 experts from multiple disciplines – including architecture, planning, criticism, environmental management and regulation, and the social sciences – make this a rich and insightful discussion. This vital and necessary type of integration is evolving in how we conceptualize, create, and evaluate the built environment.

## Modern Man: The Life of Le Corbusier, Architect of Tomorrow

By Anthony Flint

Flint portrays Le Corbusier as the precursor of all that is new and modern, and frequently likens him to Steve Jobs in impact. His analogy is often overstretched, but Corbu, with his oversized talent and overstated rhetoric, did become a model for the 21st-century “starchitect.” There is too much incident to cover in this review, but the author raises four critical points about the man and the architect:

- As a planner and urban visionary, he was highly influential and widely copied – and generally with disastrous effect. While this was not necessarily his fault, the patterns he promoted for large-scale urban planning became the model that, post-war, was widely adopted and subsequently discredited and abandoned.
- As an architect, he made a deep and lasting impression on the architectural community with many of his buildings, but particularly his post-war projects (e.g., Unité d’habitation, Ronchamp).

- While he was always an opportunist, his deep involvement with the Vichy government during the wartime occupation of France left a large stain on his career.
- He became the model for the form-obsessed, attention-hungry, overcommitted global architect.

Le Corbusier’s life and career were complicated and wildly uneven. But his work is part of our professional DNA and serves as both an inspiration and a caution.

## Noted but Not Reviewed

### 30 Years of Emerging Voices: Ideas, Form, Resonance

Edited by Anne Rieselbach, with essays by Rieselbach, Billie Tsien, Reed Kroloff, Rosalie Genevro, and others

There are many familiar names, together with a rich and diverse body of work, in this portfolio of the winners of the Architectural League of New York’s Emerging Architect’s Award from 1982 to 2013.

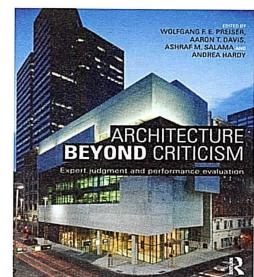
### The Architecture of Use: Aesthetics and Function in Architecture

By Stephen Grabow and Kent Spreckelmeyer  
A case for the centrality of use is made by 10 examples of modern 20th-century buildings where the primary use strongly influenced the spatial organization and architectural design.

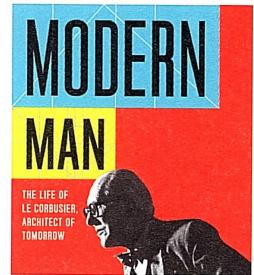
### Local Architecture: Building Place, Craft, and Community

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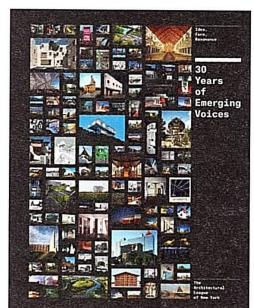
Stanley Stark, FAIA, served as chair of the Oculus Committee from 2005 to 2007.



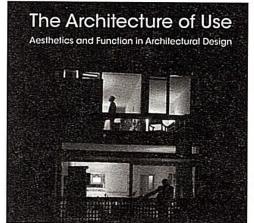
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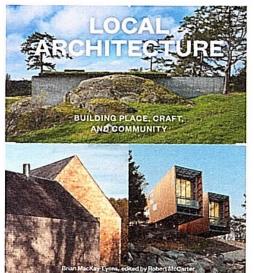
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New York: Princeton  
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# Mills House No. 1: Palatial and Affordable

For philanthropist Darius Mills, Ernest Flagg created an innovative alternative to the flophouse

BY JOHN MORRIS DIXON, FAIA

New York was growing spectacularly in the 1890s. During that decade, the population of Manhattan grew by 28%, from 1.44 million to 1.85 million (somewhat above its current head count). Not only were immigrants pouring in from abroad, but Americans were migrating from the countryside to the burgeoning cities. Many were single men seeking their fortune, and their housing options were limited. The Bowery had already become the district of single-man hostels, which offered minimal accommodations for as little as seven cents per night.

Providing respectable, well-maintained but affordable housing for single men became one of the missions of philanthropist Darius Ogden Mills, who would open three Mills Houses in the borough between 1897 and 1904. Mills House No. 1 was the largest and most architecturally ambitious. Occupying an entire blockfront at 160 Bleecker Street, the first Mills House was designed to accommodate 1,554 bachelors. Paying 20 cents per night, each man got a room about five by seven feet with a narrow bed, a chair, a clothes rack, and a window. This modest nightly rate bought them modern sanitary facilities on every floor and showers in the basement. At 15 cents per hot meal, ample menus included old-time standbys like boiled beef tongue and the now ubiquitous kale. To discourage loafing, residents were locked out between 9 a.m. and 5 p.m.

For this innovative residence, Mills commissioned Ernest Flagg, whose work was typically more adventurous than that of the period's other Beaux-Arts-educated architects. Among his best-known works were the exuberant 47-story Singer Building in New York (demolished 1968), the Corcoran Gallery in Washington, DC, and the central buildings at the Annapolis Naval Academy.

Flagg's boldness is exemplified in his design concept here: two almost perfectly cubic volumes – about 100 feet square and 10 stories high – connected by an entrance-stair-elevator link. In each block, rooms lined double-loaded corridors surrounding 50-foot-square glass-roofed courts (onto which many rooms faced). These courts were the facility's most striking amenities, where residents could relax, socialize, play cards, and smoke.

On the exterior, Flagg gave the complex a palatial image, derived from its classical symmetry, its limestone and buff-brick cladding, and its grand scale within the Greenwich Village setting. This impression was reinforced by creative fenestration. The windows do not reveal the relentless modules of the cubicles inside, but are cleverly clustered, with those of each two floors paired around recessed spandrels, to simulate much larger openings.

The street level was designed to maintain the area's prevailing retail frontage. From 1958 to 1994, base spaces housed the famous Village Gate jazz club, its former performance space now occupied by Le Poisson Rouge cabaret. In 1996, Mills House No. 1 was converted to The Atrium condominium, its 189 units arrayed around the two skylighted courts.



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(above) Grand entryway to Mills House No. 1 at 160 Bleecker Street.



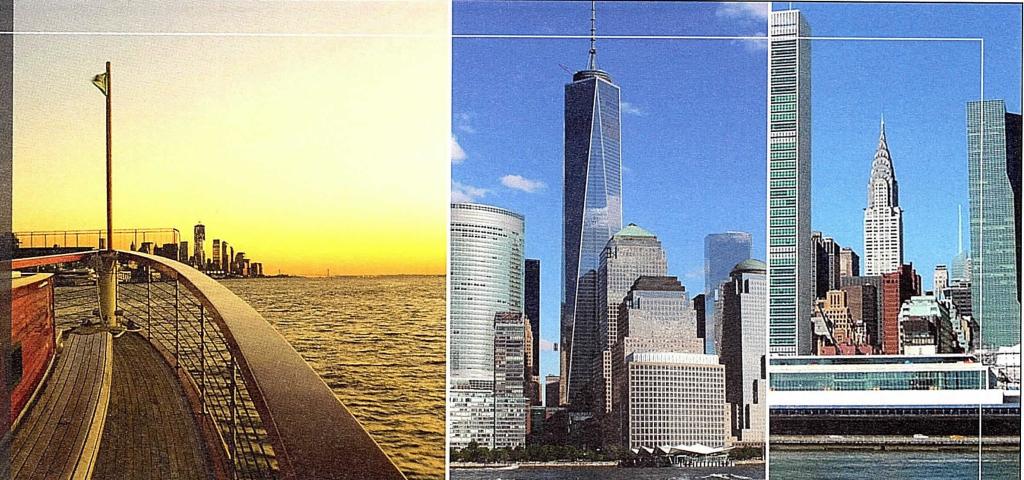
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(left) Mills House No. 1, designed to accommodate 1,554 single men, occupies an entire blockfront on Bleecker Street.

Many of Flagg's New York buildings have been designated landmarks. Among these are his two successive buildings for the publishing company Scribner's, his "Little Singer Building" at 561 Broadway, two firehouses, some Manhattan townhouses, plus several houses and a church on Staten Island. The city's Landmarks Preservation Commission considered designating Mills House No. 1 in 1967, but has not yet done so.

**John Morris Dixon, FAIA**, left the drafting board for journalism in 1960 and was editor of *Progressive Architecture* from 1972 to 1996. He continues to write for a number of publications, and he received AIANY's 2011 Stephen A. Kliment Oculus Award for Excellence in Journalism.

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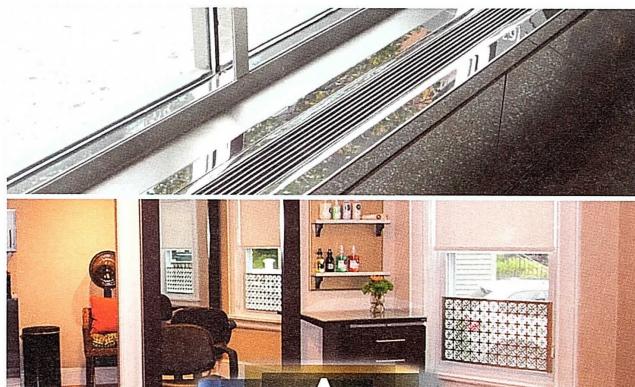
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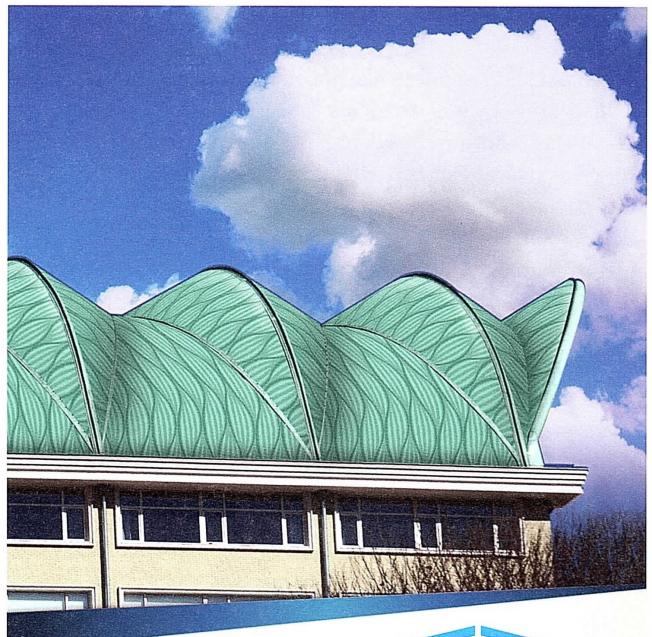
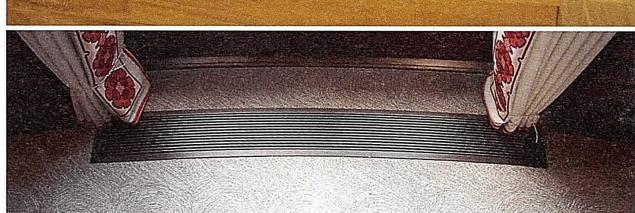
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## LETTER FROM THE INTERIM EXECUTIVE DIRECTOR

# What We Build Tells Us Who We Are

**H**ousing – the theme of this issue of *Oculus* – is a current hot topic. And I don't just mean the astonishing mushrooming on the New York City skyline of very tall apartment buildings. In the context of the affordable housing crisis we are now experiencing, these are troubling symbols of inequality.

As Martin Filler so aptly put it in the *New York Review of Books*, discussing the excellent exhibition “Sky High & the logic of luxury” at the Skyscraper Museum, “the smokestack-like protuberances that now disrupt the skyline of midtown Manhattan signify the steadily widening worldwide gap between the unimaginably rich and the unconscionably poor. Those of us who believe that architecture invariably (and often unintentionally) embodies the values of the society that creates it will look upon these etiolated oddities less with wonder over their cunning mechanics than with revulsion over the larger, darker machinations they more accurately represent.”

Paul Goldberger, in his book *Why Architecture Matters*, commented, “Architecture is surely our greatest physical symbol of the idea of community, our surest way to express in concrete form our belief in the notion of common ground. The way a community builds tells you, sometimes, all you need to know about its values.”

If we were to rate ourselves as a society by Goldberger's measure, we would surely not be doing too well. But what are architects to do? In housing policy, a society either has to pay people enough money to compete in the housing market, or subsidize the production of housing to make it affordable. Since we do neither, it is no surprise that we have a crisis. And the conspicuous consumption exemplified by the recent \$100 million sale of one apartment in Midtown just rubs salt in the wound.

Too often, the solution is cast as a design and construction problem. If the architects can just produce cheaper designs, and the builders can build more efficiently, then we will have affordable housing. But it's not so easy. Construction costs are only

one part of housing expenditures, and they can be driven down only so much before quality suffers and long-term maintenance costs rise. The city hopes that by upzoning land to allow more market-rate housing, we can persuade developers to build some “affordable” housing for “free.” We can cling to the disgraceful 421-a tax abatement program in the hope that it will work as an incentive. But upzoning has its own price to pay (which is a longer story), and, in the end, inventive design alone can't deliver housing that average people can afford.

In my view, we have to constantly remember Goldberger's observation of architecture as “our greatest physical symbol of the idea of community.” As designers, we must think holistically about the design of our community, beyond the \$100 million apartment to our vision of the entire city. We should design from a place-making perspective that considers all the elements of good neighborhoods. It is critical for us to collaborate with finance and policymakers and make our voices heard in the political process of how resources are allocated in our society.

The exhibition “Designing Affordability” that opens at the Center for Architecture this October showcases some fascinating examples of the ingenuity of designers and innovative policymakers in creating socially meaningful housing. With the current mayoral administration, we have strong potential partners in Commissioner Vicki Been and Deputy Commissioner Daniel Hernandez at NYC Housing Preservation & Development; Commissioner Mitch Silver, FAICP, at the Department of Parks & Recreation; and Chairman Carl Weisbrod at the New York City Planning Commission. At the Design Commission Awards last July, Deputy Mayor Alicia Glenn gave some very encouraging remarks about the city's commitment to design excellence. Over the coming months, the AIANY and the Center for Architecture will be working to establish that partnership and bring architecture to its rightful place as the physical symbol of the idea of community.

David Burney, FAIA

Interim Executive Director

AIA New York Chapter and Center for Architecture



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David Burney, FAIA

## Index to Advertisers

<b>ACCOUNTING</b>	
Grassi & Co. ....	48
<b>ACOUSTIC PRODUCTS</b>	
Tectum, Inc. ....	9
<b>ACOUSTICAL CONSULTANTS</b>	
Tectum, Inc. ....	9
<b>ARCHITECTURAL BAR GRILLES</b>	
Architectural Grille.....	14
Artistry in Architectural Grilles.....	46
<b>ARCHITECTURAL DOORS &amp; WINDOWS</b>	
Artistic Doors & Windows .....	9
<b>AS-BUILT LASER CAD/LASER SCANNING/REVIT MODELING</b>	
Lasertech Floorplans Ltd. ....	14
<b>ATTORNEYS</b>	
Law Offices C. Jaye Berger .....	20
Zetlin & De Chiara, LLP.....	42
<b>AUDIO VISUAL/ACOUSTICAL CONSULTING</b>	
Audio Command Systems ,Inc. ....	49
<b>BOLLARDS</b>	
Tymetal Corp. ....	9
<b>CLAIMS DISPUTE RESOLUTION</b>	
Zetlin & De Chiara, LLP.....	42
<b>CONSULTING ENGINEERS</b>	
The Falcon Group.....	14
<b>CONTINUING EDUCATION</b>	
Classic Harbor Line .....	46
Northeast Sustainable Energy Association/NESEA .....	9
Pratt Manhattan.....	14
<b>CORK FLOORING</b>	
American Cork Products Company ....	20
<b>CURTAIN WALL &amp; BUILDING ENCLOSURE SYSTEMS</b>	
The Falcon Group.....	14
<b>ENERGY MANAGEMENT</b>	
The Falcon Group.....	14
<b>ENGINEERING</b>	
Cosentini Associates .....	4
McLaren Engineering Group.....Inside Back Cover	
Schnackel Engineers .....	6
The Falcon Group.....	14
Wexler and Associates .....	49
WSP .....	20
<b>FAILURES/STRUCTURAL INSPECTION</b>	
Municipal Testing Laboratory Inc. .... Inside Front Cover	
<b>FLOORING</b>	
Huber Engineered Woods LLC .....	7
<b>GATES - PERIMETER SECURITY</b>	
Tymetal Corp. ....	9
<b>GENERAL CONTRACTORS</b>	
Scieme Construction, LLC.....	5
<b>GLASS</b>	
Pilkington North America .....	12
Pulp Studio, Inc. ....	42
<b>INSULATION</b>	
Pittsburgh Corning Corporation.....	20
<b>INSURANCE</b>	
Prosurance Redecker Group .....	50
<b>LAW FIRMS</b>	
Ingram, Yuzek, Gainen, Carroll & Bertolotti .....	50
Law Offices C. Jaye Berger .....	20
Zetlin & De Chiara, LLP.....	42
<b>MANUFACTURERS</b>	
KML Corp, Inc. ....	42
<b>MECHANICAL ENGINEERS</b>	
The Falcon Group.....	14
<b>METAL WALL PANELS</b>	
Hunter Panels.....Outside Back Cover	
<b>METALWORK</b>	
Polich Tallix .....	3
<b>NOISE CONTROL</b>	
Tectum, Inc. ....	9
<b>PAINT/WALLPAPER</b>	
The Sherwin-Williams Company .....	6
<b>PARTITIONS</b>	
ASI Global Partitions .....	43
<b>ROOFING SYSTEMS &amp; ACCESSORIES</b>	
Seaman Corporation .....	46
<b>STRUCTURAL ENGINEERING</b>	
Severud Associates Consulting Engineers P.C.....	10
The Falcon Group.....	14
Wexler and Associates .....	49
<b>TESTING &amp; INSPECTION SERVICES</b>	
Municipal Testing Laboratory Inc. .... Inside Front Cover	
<b>TESTING LABORATORIES</b>	
Municipal Testing Laboratory Inc. .... Inside Front Cover	
<b>WALL COVERINGS - ACOUSTICAL CORK</b>	
American Cork Products Company .....	20
<b>WINDOWS &amp; DOORS</b>	
Ventana USA .....	8
Zola Windows.....	8
<b>ALPHABETICAL INDEX</b>	
American Cork Products Company <a href="http://www.amcork.com">www.amcork.com</a> .....	20
Architectural Grille <a href="http://www.archgrille.com">www.archgrille.com</a> .....	14
Artistic Doors & Windows <a href="http://www.artisticdoorsandwindows.com">www.artisticdoorsandwindows.com</a> .....	9
Artistry in Architectural Grilles <a href="http://www.aagrilles.com">www.aagrilles.com</a> .....	46
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/AIA-NY37 .....	7
Hunter Panels	
www.hunterxci.com.....	OBC
Ingram, Yuzek, Gainen, Carroll &	
Bertolotti	
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KML Corp, Inc.	
www.KMLdesignerfinishes.com .....	42
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www.lt-fp.com .....	14
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www.mgmclaren.com.....	IBC
Municipal Testing Laboratory Inc.	
www.mtlab.net.....	IFC
Northeast Sustainable Energy	
Association/NESEA	
www.nesea.org/benyc.....	9
Pilkington North America	
www.pilkington.com/na .....	12
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www.foamglas.us .....	20
Polich Tallix	
www.polichtallix.com .....	3
Pratt Manhattan	
www.pratt.edu/scps .....	14
Prosurance Redeker Group	
www.ae-insurance.com.....	50
Pulp Studio, Inc.	
www.pulpstudio.com.....	42
Schnackel Engineers	
www.schnackel.com .....	6
Sciame Construction, LLC	
www.sciamc.com .....	5
Seaman Corporation	
www.fibertite.com/brite.....	46
Severud Associates Consulting	
Engineers P.C.	
www.severud.com.....	10
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www.tectum.com .....	9
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www.zolawindows.com .....	8

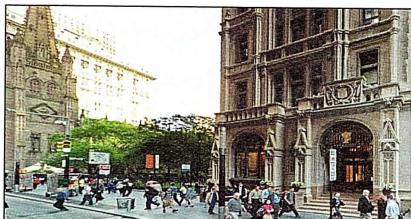
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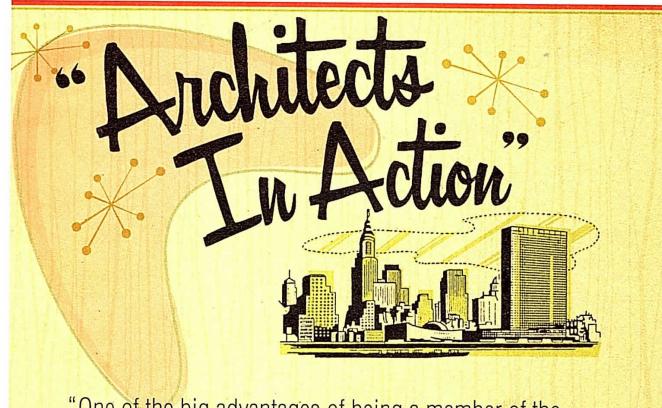
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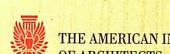
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