

PROJECT: 450 Alaskan - Seattle, WA ARCHITECT: NBBJ CERTIFICATION TARGET: LEED® Gold SPECIFICATION: Entice® Thermal Entrance

NTICE ULTRA-NARROW STILE THERMAL ENTRANCE SYSTEM

450/ 450/ Alas Alas /Kan /Kan

THE LOOK YOU WANT, THE PERFORMANCE YOU NEED

A NEW GLASS ENTRANCE SYSTEM UNLIKE ANYTHING YOU'VE SEEN

U.S. Patent 9,074,413

SUPPORTS HANDLE HARDWARE, INCLUDING PANIC DEVICES, ON 1" INSULATING GLASS For the first time, all-glass aesthetics and full-frame thermal performance in one entrance system. Entice[®] meets stringent energy codes and looks great doing it, satisfying the most discerning designers, owners, and code officials.

- Ultra-Narrow 1-1/8" Vertical Stiles
- Thermally Broken with U-Factors as Low as 0.33
- NFRC Rated and Satisfies ASHRAE 90.1-2016 Air Infiltration Criteria

GG "Best in Category - Openings" — Architectural Record Product of the Year Awards

"Best Product for Retail" — Architectural Products Product Innovation Awards

"The cleanliness in lines is equaled by the sophistication of the hardware and performance."







Natural | Elegant | Luminous Live Your Life In Stone













ONICE BELLA ROSA





artisan mosaic semi-precious

New York 718.389.8360 ABCworldwidestone.com Long Island 516.997.9412 french flooring engineered-stone

exterior landscape stone

sandstone quartzite

marble granite

limestone travertine

AviProtek[®] E The Bird Safe Low-e Coated Acid-etched Glass Solution

"Nobody wants to be responsible for bird deaths."

AviProtek[®] E from Walker Glass combines the acid-etch visual markers on the number 1 surface with Solarban[®] high performance low-e coatings on position 2.

- Pattern: The acid-etched on the outside surface mutes the reflection creating contrast, which provides effective visual markers for birds for both direct and angled views.
- VLT: Acid-etched markers have no significant impact on the level of visible light transmission.
- SHGC: Optimal energy performance can be reached with Solarban 60 and 70XL high performance low-e coatings from Vitro on surface 2, providing SHGC between 0.30 & 0.27



AIA 2018 Walker 4325 **walkerglass.com**

AviProtek[®] E

Acid-etched glass on position 1:

Full Surfaces

AT'S O



Low-e coating on position 2:





Surface

treatments

can crack,

chip, flake, peel,

and break down over

protection as required in

2018 IBC

Understanding your risk.

Once a product proves successful in the marketplace, the imitators soon follow. Some appear to be "just as good" but can degrade over time. Some lack the inherent performance of the product being imitated. In either case, pay now or pay a lot more later.

For more than 100 years, the wood preserving industry has pressure impregnated wood with fire retardants to enhance fire performance. Pressure-impregnated, fire-retardant-treated wood (FRTW) does not support combustion and inhibits significant glowing after the firesource flames are removed. The fire-retardant treatment also limits flame spread across the surface of the treated materials.

FRTW can be used in lieu of steel and concrete in noncombustible types of construction. When properly installed, pressure-impregnated FRTW never needs additional inspection or service and is free of ongoing maintenance costs. FRTW does not require water or electricity to provide the passive protection to the wood. It always provides time, and they "are not safety, even during utility interruptions. an approved method of

Code matters.

Architects and builders across the this section." - 2303.2.2, United States have discovered the value and performance of buildings using FRTW. The International Building Code allows residential buildings using FRTW to be constructed up to 5 stories and 85 feet in height. The added increase in height over conventional wood construction is attributed to the additional safety that FRTW provides.

The International Building Code was recently clarified to prohibit "the use of paints, coating, stains or other surface treatments" as a means for impregnating wood products

performance of the treated wood materials, allowing only extremely durable and predictable treatment methods, such as pressure impregnation, to be employed.

with chemicals. This added criterion ensures the long-term

Some products are still being manufactured using surface treatment processes. These products may still be used as interior wall and ceiling finish where the code still permits their use. However, coated products are not recognized as FRTW and cannot be used in lieu of steel and concrete in noncombustible types of construction.

Know before you specify!

Products that fail to correctly meet the code's intended life-safety function can have tragic consequences. Designers and specifiers should understand the recent changes in the building

code related to FRTW and other critical building products. Nonspecific or incomplete specifications may open the job site to procurement and installation latitude. Clear specifications that include specific material standards are essential to ensure that the correct product is used.

When specifying FRTW for a project, avoid unintentionally compromising the product's fire performance. Be sure to include the revised testing and performance criteria provided at 2018 International Building Code, Section 2303.2, in the body of the specifications. Always insist that the product is listed and labeled by a

trusted and reliable third-party listing agency. Research and verify that contractor product

substitutions comply with code requirements and project specifications.

Your professional reputation is your most valuable asset. Protect your project from the imitators, and ensure the fire safety intended by the building code.

FIRE-RETARDANT-TREATED WOOD LISTED, LABELED & PRESSURE-IMPREGNATED



Learn About

Fire-Retardant-Treated Wood

From the Industry Leader

Visit us at the 2018 AIA Conference on Architecture (Expo Booth #874)





Registered Provider Program







BRAND NAMES YOU TRUST. CODE COMPLIANCE YOU EXPECT.

1-800-TEC-WOOD FRTW.COM



FISHER & PAYKEL

VISIT OUR EXPERIENCE CENTERS NEW YORK — TORONTO — LOS ANGELES — SHANGHAI — SYDNEY

fisherpaykel.com

TABLE OF CONTENTS

OCULUS SUMMER 2018 NEW YORK PAST, PRESENT, FUTURE

39

17 Letter from the President AIANY Past, Present, Future By Gerard F.X. "Guy" Geier II, FAIA, FIIDA, LEED AP and A. Eugene Kohn Chairman, FAIA, RIBA, JIA with Clifford Pearson.

26 Letter from the Editor The Long View By Molly Heintz

28 Contributors

- 33 At the Center Oculus Book Talk
- 86 In Print
 Greater Gotham
 By Mike Wallace
 Built
 By Roma Agrawal
 Reviews by Stanley
 Stark, FAIA
- 88 At the Center Events and Exhibitions
- 94 Letter from the Executive Director 15 Years at the Center By Benjamin Prosky, Assoc. AIA
- 96 Index to Advertisers Alphabetical View the Oculus archive online: aiany.org

FEATURES

Opener New York Past, Present, Future

40 Agenda for Change

"Consequence," the latest edition of AIANY's New Practices New York Awards, recognizes five ambitious young firms. By Julia van den Hout

Agency—Agency Tei Carpenter

P.R.O. Miriam Peterson + Nathan Rich

Mabu Matt Burgermaster

N H D M Nahyun Kim and David Moon

Only If Adam Snow Frampton and Karolina Czeczek

52 Radical Remix

Brave new approaches to preservation are using the past as a palette. By Sam Lubell

64 Waterfront Rising

In recent decades, New York's historically hardworking shoreline has transformed to redefine the city for the **21st century**. By Stephen Zacks

76 Origins of Green

Today New York City is a leader in sustainable building and practice, but the decades-old history of its pioneering role in green design often goes untold. By Laurie Kerr FAIA, LEED AP and Roger Platt

OP-EDS

48 Taking Stock

New York architecture leaders comment on where we've been, where we're going, and what makes them hopeful about the future.

60 Adapt and Flourish

The city will evolve, but its buildings must, too. By Justin Davidson

72 Not-So-Smart City

In the face of extreme weather, we're still dancing at the water's edge. By Karrie Jacobs

84 Sauve Qui Peut "Everyone for themselves!" is the dystopian destiny of an

unsustainable city. By Michael Sorkin

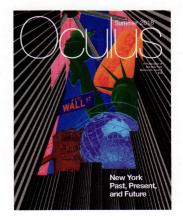
TIMELINES

By Margaret Arbanas and David Knowles

50 1990s

62 2000s

74 2010s



"New York Past, Present, Future" design by Pentagram: Natasha Jen /Javier Arizu.

Severud Associates



Award-Winning

Structural

Engineering

Since 1928







469 Seventh Avenue, Suite 900 New York, NY 10018 (212) 986-3700 info@severud.com

MANUFACTURER – OF – ARCHITECTURAL METAL

Hendrick

perforated metal products, profile bar & wedge wire grating

Rare Aesthetics

Environmentally Responsible Materials

Dynamic Performance & Energy Efficiency

Subdued Maintenance



www.hendrickarch.com 877.840.0881

Oculus

A Publication of the AIA New York Summer 2018 Vol. 80, No. 2

OCULUS STAFF

Editor-in-Chief Molly Heintz

Contributors Lisa Chamberlain; Lisa Delgado; John Morris Dixon, FAIA; Julia van den Hout; David Knowles; Jonathan Lerner; Deane Madsen, Assoc. AIA; Bill Millard; Linda G. Miller; Stanley Stark, FAIA; Richard Staub; Janet Adams Strong, Ph.D.; Claire Wilson

> Editorial Intern Cassandra Gerardo

> > Copy Editor Elena Serocki

Art Director Kaylee Webster

Art Consultant Pentagram, New York

Oculus Committee/Advisory Board Christopher Barley; Gerard F.X. Geier II, FAIA, FIIDA, LEED AP; Iva Kravitz, Assoc. AIA; Chris Leong, Assoc. AIA; Suzanne Howell Mecs, Hon. AIA NYS; Andrea Monfried; Chee Pearlman; James Petty, AIA; Benjamin Prosky, Assoc. AIA; Jacob Reidel, AIA; Camila Schaulsohn; Jessica Sheridan, AIA, LEED AP BD+C; Stephen Yablon, AIA; Jieun Yang, AIA

2018 BOARD OF DIRECTORS

President Gerard F. X. Geier II, FAIA, FIIDA, I FED AP First Vice President/President-Elect Haves Slade, AIA Vice President for Design Excellence Jennifer Sage, FAIA, LEED AP Vice President for Professional Development Andrea Lamberti, AIA, NCARB Vice President for Public Outreach Kim Yao, AIA Secretary Faith Rose, AIA Treasurer Kenneth A. Lewis, AIA Director for Educational Affairs Karen Fairbanks, AIA, LEED AP Director for Industry Affairs Marc Heiman Director for Legislative Affairs F. Eric Goshow, FAIA, LEED AP BD + C Director for Programs & Strategic Planning Illya Azaroff, AIA **Director for Publications** Andrea Monfried

Director for Sustainability Laurie D. Kerr, FAIA, LEED AP Associate Director Michael Szivos, Assoc. AIA Public Director Regina Myer Public Director for Development Affairs Paul A. Bello, PE Public Director for Educational Affairs Anthony Schuman Public Director for Professional Affairs Maxine Griffith, AICP Director for Student Affairs Yomna Abu Dabat Alternate Director for Design Excellence Heidi Kippenhan, AIA Alternate Director for Professional Development Scott Briggs, AIA Alternate Director for Public Outreach Dina Frank, AIA, IIDA Immediate Past President David Piscuskas, FAIA, LEED AP **Executive Director** Benjamin Prosky, Assoc. AIA

The Steel Institute of New York welcomes AIA members from across the country to the city where "the High Line effect" set off transformations of abandoned infrastructure into public spaces.



www.siny.org

USG ID Infinity Drain

SMARTER DESIGN MEETS PEACE OF MIND

USG Durock[™] Brand Infinity Drain[®] Shower System



Developed by USG and Infnity Drain, the USG Durock™ Brand Infinity Drain Shower System offers a completely waterproofed, linear drain shower system that's easier and faster to install than traditional shower construction.

Together, this integrated shower system pairs high performance USG Durock Brand Shower System components with decorative linear drains from Infnity Drain.

To learn more visit www.usgid.com

AIA NEW YORK

Center for Architecture 536 LaGuardia Place New York, NY 10012 212.683.0023 | info@aiany.org www.aiany.org

AIANY/CENTER FOR ARCHITECTURE STAFF AND SERVICES

Executive Director Benjamin Prosky, Assoc. AIA (ext. 129) bprosky@aiany.org Managing Director, AIANY Suzanne Mecs, Hon. AIA NYS (ext. 115) smecs@aiany.org Deputy Director Jesse Lazar (ext. 108) jlazar@aiany.org School Programs Coordinator Dustin Atlas (ext. 132) datlas@cfafoundation.org **Operations Coordinator** Chelsea Avery (ext. 113) cavery@aiany.org Accounting Manager Carol Bartold (ext. 128) cbartold@aiany.org Editor-In-Chief, Oculus Molly Heintz editor@aiany.org Membership Coordinator Joseph Corbin (ext. 118) jcorbin@aiany.org Program Manager Yvette Saatchi Perez (ext. 117) ysaatchiperez@aiany.org Director of Digital Content and Strategy Meghan Edwards (ext. 136) medwards@aiany.org **Director of Operations** James Fallarino (ext. 112) ifallarino@aiany.org Architectural Tours Coordinator Mary Fichtner (ext. 119) mfichtner@aiany.org Leadership and Engagement Coordinator Kavitha Mathew (ext. 111) kmathew@aiany.org

Manager, Foundation and Government Relations Elana Grossman (ext. 134) egrossman@aiany.org Facilities Manager José Guerrido (ext. 130) jguerrido@aiany.org Lead Design Educator Tim Hayduk (ext. 137) thayduk@ cfafoundation.org Director of Programs and Exhibitions Berit Hoff (ext. 138) bhoff@aiany.org Senior Archtober Manager and Exhibitions Manager Katie Mullen (ext. 120) kmullen@aiany.org **Development Associate** Victoria Pittl (ext. 125) vpittl@aiany.org Government Affairs Coordinator Adam Roberts (ext. 116) aroberts@aiany.org **Communications Director** Camila Schaulsohn (ext. 114) cschaulsohn@aiany.org Youth Programs Coordinator Mary Lib Schmidt (ext. 133) info@cfafoundation.org Technology Manager Philip Stevens (ext. 124) pstevens@aiany.org Director of Education Catherine Teegarden (ext. 135) cteegarden@cfafoundation.org Development Manager of **Special Events** Morgan Watson (ext. 110) mwatson@aiany.org Finance Director Henry Zachary (ext. 131) hzachary@aiany.org Program Committees Coordinator Kamaria Greenfield (ext. 139) kgreenfield@aiany.org

Oculus is a benefit of both AIA New York and Center for Architecture membership. For information on professional and public memberships, please call 212.358.6118.

Oculus is published by BNP Media II, LLC four times annually (spring, summer, fall, and winter) for AIA New York, 536 LaGuardia Place, New York, NY 10118. Printed in the U.S.A. All rights reserved. The contents of this publication may not be reproduced in whole or in part without the consent of BNP Media and AIA New York. BNP Media is not responsible for product claims and representations. Canada Post: Publications Mail Agreement #40612608. GST account: 131263923. Send returns (Canada) to IMEX Global Solutions, P.O. Box 25542, London, ON, N6C 6B2. Change of address: Send old address label along with new address, name, and phone number to info@aiany.org.

The Ornamental Metal Institute of New York welcomes AIA members from across the country to the city whose iconic skyline made it the birthplace of the word "skyscraper."

🖌 Ornamental Metal Institute of New York

www.ominy.org

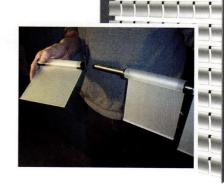
WIND-DRIVEN CLADDING

KINETICWALL[™] DYNAMIC FACADE SYSTEM

The KINETICWALL[™] system uses movable flappers arranged in easy to install, preassembled units. KINETICWALL[™] responds dynamically to changes in the wind, providing a dramatic visual representation of this natural phenomenon. Contact EXTECH to learn how we can custom design a KINETICWALL[™] system for your project.

This is JUST ONE of the custom wall systems that EXTECH can build for you, including our engineered wall, skylight and canopy systems that use cellular polycarbonate glazing, and our glass brick wall systems.

See a short video of KINETICWALL[™] in action at <u>www.extechinc.com/kineticwall</u>



WWW.EXTECHINC.COM 877.793.1140

TRANSLUCENT WALLS | TOP-HINGED WINDOWS CUSTOM FACADES | SKYLIGHTS | CANOPIES



The Runtal Family of Products

For Hydronic, Electric, and Steam Heating Systems

From baseboards to wall panels, to fancy curves and dramatic room dividers, Runtal creates the perfect welded steel radiator for every application. Runtal manufactures an almost unlimited selection of sizes, colors, and heat outputs that afford the architect and engineer choices. The inventor of the panel radiator in 1953 in Switzerland and operating a factory in Massachusetts for over 25 years to serve the US and Canadian markets, Runtal has had millions of installations worldwide in schools, government buildings, hospitals, corporate offices, libraries, museums and homes.

Hydronic Radiators

Electric Radiators

Steam Radiators

Imagine the possibilities, confident that the final design will be comfortable and stylish.

For more information or your nearest representative, please call **1-800-526-2621** or online at www.runtalnorthamerica.com.

> See Us at The National AIA at Booth 4545



FORM + FUNCTION.

The Dri-Design Metal Wall panels on the Nordstrom Toronto Eaton Centre feature the Inspire Finish in a Shadow Series panel with varying levels of gloss. This variation gives the individual cassettes distinguishing pattern when viewed both near and far. Utilizing a custom Dri-Design detail, Custom LED light bars were also incorporated into the façade. The detail allows the light bars to be hidden within the horizontal joints.



NORDSTROM

Come see us in New York City at the AIA Architecture Expo, June 21 – 22, 2018 booth # 1757

616.355.2970 | dri-design.com

- No sealants, gaskets or butyl tape means no streaking and no maintenance for owners.
- Not laminated or a composite material, so panels will never delaminate.
- At Dri-Design, we have a strict policy of recycling and creating products that the world can live with.
- Fully tested to exceed ASTM standards and the latest AAMA 508-07.
- Available in a variety of materials and colors.
- Non-combustible and NFPA-285 compliant. UL Listed.

Nordstrom Toronto Eaton Centre | Design Architect: Callison/RTKL Architect of Record: Queen's Quay Architects

LETTER FROM THE PRESIDENT

AIANY PAST, PRESENT, FUTURE

In 1988, A. Eugene "Gene" Kohn, cofounder of Kohn Pedersen Fox, served as AIANY president and helped organize the '88 AIA National Convention at the newly opened Jacob K. Javits Convention Center. This June, A'18, the latest edition of the national conference, returns to New York City after 30 years. To celebrate the occasion, current AIANY President Guy Geier invited Kohn to talk with him about the state of the profession—past, present, and future—in a conversation moderated by writer and editor Clifford Pearson.

Clifford Pearson: Going to the Javits Center in 1988 was a completely different experience than it will be today. How do those changes reflect what's happening in New York today?

Guy Geier: That's one of the things we've tried to take advantage of this year, with the conference being over there. We're right in the thick of everything that's happening at Hudson Yards. The High Line ends right at Javits. Some of the big tours will happen along the High Line. The subway's 7 line, which terminates across 11th Avenue from Javits, will allow people to get around town more easily. So there's so much more accessibility from Javits itself, and that will make a tremendous difference.

CP: Gene, back in '88 when you organized the convention, the theme was "Art in Architecture." What was the architectural community talking about back then? Gene Kohn: One of the top events I organized at the time was with Philip Johnson and I.M. Pei. This was 30 years ago, and they were competitive in a lot of things. And Philip, particularly, seemed to hold grudges or be more emotional about stuff. I had arranged a very special event for I.M. to be honored and to give a speech, and I got Philip to come. At first he wasn't going to come, but I begged him-I mean, really begged him. And I got him to sit right in the front row. He went up and congratulated I.M. and hugged him, and there was enormous applause over these two giants coming together. It was a special evening.

But it was part of what you expected to see at the convention. Many famous architects from all over would come to the events, and so it was an exciting time, at least at the convention. But '88 was not necessarily an exciting time architecturally, in terms of work. In fact, the late '80s and almost all of the '90s was one of the worst periods in New York for doing buildings. The lowest production of buildings was in the '90s, and the end of the '80s forecasted that. CP: I remember all these "seethrough" buildings in the early '90s. They were built in the late '80s.

The 1988 convention while it celebrated a lot of fine architects and accomplishments by the profession—was at the beginning of a downturn that was major." —Gene Kohn

GK: That's right, because in '88, around the time of the convention, the city made the decision to cut FAR [floor area ratio] on the west side of Midtown by three. The city was trying to avoid all these sites being developed at a 15 or 18 FAR, but it actually drove real estate developers to build before the rules changed. The developers, instead of looking at what the market was demanding at that time,



President Guy Geier (right) reflect on NYC in 1988 and speculate

on what the future holds for the architecture profession.



Photo credit: Molly Heintz





ABOVE: Designed by Massimo Vignelli and Michael Bierut, this 1988 poster, for the International Design Center welcomes the AIA Convention to NYC.

LEFT: I.M. Pei (left) and Philip Johnson (right) at AIANY's 1988 Jefferson Ball at MoMA.

decided they didn't want to let the FAR go. Which meant they had to design it and get it excavated and up to grade in six months. Not easy to do, but unfortunately, a lot of the developers decided they were not going to lose three FAR. So they started their projects, mostly on Sixth and Seventh Avenues.

And they drove construction prices so high, because contractors had all these buildings they were trying to get done. When they were completed the buildings were empty. Every one of the developers lost the buildings to the insurance companies or the banks that were funding them. So it was a really unfortunate time for the city. We had all these empty buildings, which killed the '90s. CP: I started at *Record* in 1989, so I remember that period. We had our offices on the 41st floor at 1221 Avenue of the Americas, and we looked west and south. I could see a building by SOM, a building by KPF, and a building by Kevin Roche. And they were all 50-story buildings, and they were all...

GK: Empty.

CP: You could look right through them. They were the see-through buildings.

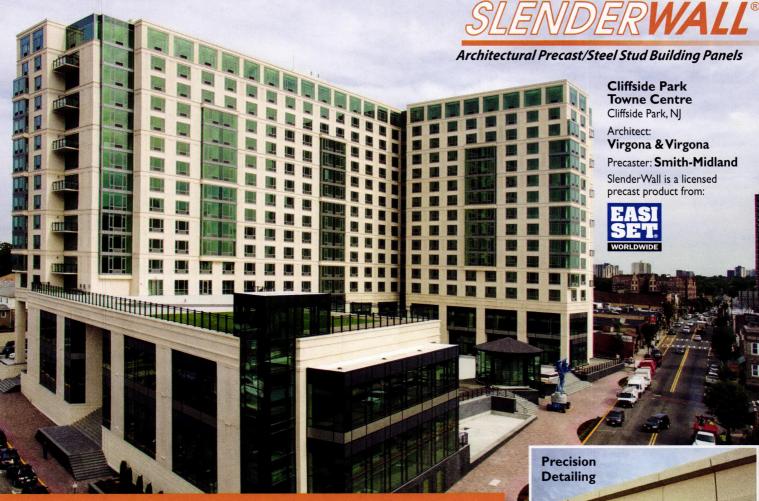
GK: It was an interesting time. So, the convention—while it celebrated a lot of fine architects and accom-

plishments by the profession, and while there were great parties and all—was at the beginning of a downturn that was major. And if you didn't go overseas, you were going to be in trouble, unless you did schools or some other kind of institutional buildings.

CP: Postmodernism was waning in '88, and people were starting to say, "Well, what comes next?"

GG: I'm guessing there was a little more discussion about stylistic and aesthetic issues than we're seeing today. Technology is a big driver of the conversation now: how we are delivering projects, building

You Demand Beauty, Strength & Economy. We Deliver.



To learn more take the new Continuing Education course and earn credits Lightweight Precast Building Envelopes Maximize Performance Search the title on: continuingeducation.bnpmedia.com

> 30 lbs. per sq. ft. composite panels, containing 2 inches of precast concrete, are significantly lighter than traditional systems, allowing for larger panels and lower structural and foundation costs

Virtually unlimited choices of Class "A" finishes, colors and textures

Molecularly-bound high-tech fiber and welded-wire reinforcement, wind-load tested to 226 mph

Optional H²Out pressureequalized in-the-joint rainscreen caulking system

SlenderWall.com

heavy-duty G90 galvanized steel stud framing equals fewer **Fire Code** on-site trades and faster Compliant construction schedules Insulation Energy Code & NFPA 285

compliant (hot box tested) factory-applied closed-cell foam continuous insulation meets all thermal and air barrier requirements

Ready for drywall, integrated

Stainless steel fasteners

Optional factory-installed windows

1.800.547.4045



HEALTHCARE · HOSPITALITY · INSTITUTIONAL · OFFICES · MIXED-USE · MULTI-FAMILY · SCHOOLS

SLENDERWALL® is a product of Easi-Set® Worldwide, a licensor of precast products, with 68 licensed producers in 42 states & 10 countries. Manufacturing licenses available for qualified precast producers. A subsidiary of publicly traded Smith-Midland, Delaware [SMID] OC©2018



innovative components for inspired designs

CAST CONNEX Universal Pin Connectors in The Whitney Museum of American Art

by Renzo Piano Building Workshop

See More of CAST CONNEX in New York in:

World Trade Centre Tower 3 by Rogers Stirk Harbour + Partners

30 Hudson Yards by Kohn Pederson Fox Associates

Ashe Stadium by Rossetti



Best in a brisket, not in a building.

OKE

Kingspan insulated panels featuring QuadCore™ Technology provide superior fire resistance and emit incredibly low smoke, even in the most stringent fire tests. In fact, they were the first closed-cell insulated panels to be FM 4882 certified, the FM Global insurance standard for smoke-sensitive environments. For maximum fire performance, without limiting your design freedom, specify Kingspan panels with QuadCore. **Visit kingspanpanels.com for more information**.





technology, construction technology, and all that technology enables us to do.

We're trying to figure out how architecture can help society, what we can do to improve the social condition, whether it's sustainability-which we've been talking about for a long time-or homelessness, or housing, or resiliency, or infrastructure. All of these issues have risen to a much higher level of consciousness within the profession. My theme for the year, Architect Activist, is all about trying to get more involvement by architects in these issues and leveraging what power we have—I think we have a lot more than we've sometimes recognizedto influence public policy and move the needle on these issues.

GK: One minor observation, and I'm not sure it's worth mentioning, but the dress of architects has changed dramatically in 2018. In fact, when I was in school—I'm a little older than you guys—my heroes were people like Mies van der Rohe, Le Corbusier, and Gropius, and they always wore a suit. Even Lou Kahn wore a bow tie and a rope belt—that's all he could afford, but he always had a sport coat.

GG: And over the years, the corporate environment has changed. The tech world has driven a lot of that. So now we are just mirrors of that. But, Gene, you and I are still sitting here with our ties and suits on, and I just went to an interview with a suit on. We do what we need to do to address the audience we're working with.

CP: Right, because it's about gaining their trust and confidence. If someone's going to say, "I'm going to give you \$350 million to build me a building," you want to establish a level of trust where they figure... **GK**: ...you look like you're going to build it.

CP: It's ironic that now there are a lot of architects with their offices around Wall Street, where 25 or 30 years ago, architects couldn't afford to have their offices there.

GG: Our office is currently on 19th Street, but we're moving to Downtown Brooklyn in three years.

GK [laughing]: Where is that? You're not joking? Well, that's interesting. That's good, though.

"We're trying to figure out how architecture can help society, what we can do to improve the social condition, whether it's sustainability, or homelessness, or housing, or resiliency, or infrastructure."—Guy Geier

CP: Looking towards the future, if AIA decides to pick New York again in 2048, what will New York be like then? What will be the critical issues facing architects?

GK: Well, I think 30 years from now, the economy notwithstanding, those things are impossible to predict. But I do think that environmental issues are going to be major, that they will continue to be a bigger and bigger factor in building and urban design.

And whatever happens with water—sea level change and those sorts of things—it's going to seriously impact the riverfront here and the neighborhoods inside. So how can we deal with that? We can help, I think, by the way we design our cities and buildings. We can help address the effects of climate change. We really have to get to another level and accept the fact that the change is going to happen, and there's only so much we can do about it. So it's really about resiliency and what we do to change our built environment to deal with what's going to happen.

CP: Do you think most buildings could be Net Zero in 30 years?

GG: I think a lot of them could be. Solar and wind and other renewable solutions will certainly be more and more important as time goes by. But you have to cut the use side as well—you can't just improve the supply side, you have to improve the utilization side. Buildings have to consume less, and the city needs to consume less.

Finding ways to reduce, whether it's through Net Zero, Passive House, or whatever it is that gets consumption reduced significantly, that's going to be the big push between now and 30 years from now. It's a long forecast, but it's going to continue to be a big effort that the industry—architects, engineers, builders, everybody—is going to have to deal with.

GK: Our goal is for quality of life. So how can we help? When you see crises in terms of race, religious, and poverty issues, how do you design cities that promote unity, cooperation, and a spirit of providing care for the poor and making sure people have at least a decent basic quality of life—not living on the sidewalk, not wanting for proper food—and dealing with issues of crime and all? Architects need to recognize that they can play a greater role in creating environments that are conducive to the quality of life we want. ■



TAKE RISKS WITH YOUR DESIGNS. NOT WITH YOUR AIR BARRIER.

VISIT US AT AIA BOOTH #2845

Get more control, confidence and performance with the Securock® ExoAir® 430 System. Learn more at usg.com/builtin



© 2018 USG Corporation and Tremco Incorporated. Printed in the USA. The trademarks USG, SECUROCK, the USG logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

The trademarks EXOAIR and TREMCO are trademarks of Tremco Incorporated.

See you at Booth #621!

ENTER TO WIN!*

Visit the Owens Corning booth and enter our daily prize drawing for a **LEGO® Architecture New York City Skyline** model and a chance to win a **MacBook Pro**®!

Architecture

Join us for social events!

Happy Hour

THURSDAY, JUNE 21 3:00 - 6:00 p.m.



Meet the experts and learn about our **SAFETY Act Designation**: 5:00-6:00pm

Coffee & Conversation THURSDAY, JUNE 21 & FRIDAY, JUNE 22

10:00 a.m. - 12:00 p.m.

Log on for new tools:

Owens Corning Building Science Center is tailored to equip you with the resources to give you peace of mind on your next project. **www.owenscorning.com/buildingscience**

Find out why 4 of the 5 tallest buildings in North America trust **Thermafiber**[®] insulation.

@OCInsulation



Owens Corning Insulating Systems

www.owenscorning.com

*Mulitple winners drawn; one entry per attendee per day. Participant does not need to be present at time of draws to win. The PINK PANTHER™ & © 1964-2018 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved. The color PINK is a registered trademark of Owens Corning. © 2018 Owens Corning. All Rights Reserved. © 2018 Thermafiber, Inc. All Rights Reserved. MacBook Pro[®] is a registered trademark of Apple Inc.

New York City LEGO® Architecture Skyline model is a registered trademark of LEGO Systems, Inc. This promotion has not been authorized, sponsored or otherwise approved by Apple Inc. or LEGO Systems, Inc.



NEW! FIRELINE™ 140 FIRE BARRIER SYSTEM

When disaster strikes, are you prepared? Our Fireline[™] Fire Barriers are not only expertly engineered to handle building movement even in seismic conditions, but are ready to protect in the unthinkable occurrence of a fire. Designed to block smoke, flames and heat from small joint openings to large joint openings, Fireline prevents fire from spreading, giving response teams more time to arrive and people more time to escape.

fortify

Your Building Against The Unexpected

With lives on the line, we obsess over safety to make sure your building is as structurally secure as the people within it.

Now that's protection from every perspective.™



A DIVISION OF INPRO®

inprocorp.com/fortify | 800.222.5556

LETTER FROM THE EDITOR

THE LONG VIEW



In December of 1988, Paul Goldberger, then the architecture critic at the *New York Times*, wrote a year-in-review article summarizing key moments of the preceding months. "It looked, at the beginning of 1988, as if the architectural event of the year was going to be something called Deconstructivism," wrote Goldberger, "that trendy style of sharp, angular architecture that was ballyhooed by no less an authority than the Museum of Modern Art as the thinking person's alternative to the increasingly decorative and clichéd style of post-Modernism."

Predicting that Deconstructivism would be a flash in the pan, Goldberger went on to write about what he identified as the real story of year: "There has been more interest than at any other time since the 1960s in thinking of architecture as something more than fashion translated into bricks and mortar-in thinking about it as a social tool as well. This may well be remembered as the year in which the quest to find ways architecture might make society a little better have come at last to the fore." He cited an affordable housing complex in Brooklyn designed by Cooper Robertson & Partners, a series of prototype buildings for homeless families designed for the city by SOM, and an adaptive reuse scheme for Mass MOCA, led by coarchitects Robert Venturi, Frank Gehry, and David Childs, which recycled 19thcentury mill buildings.

In late spring of '88, the AIA National Convention had descended on New York's flashy new crystal palace, the Javits Center, while plans brewed to replace the defunct Coliseum event hall at Columbus Circle with private developer towers. It was a busy year for sure, but not one that necessarily stands out as *the* year architects became social activists. However, as AIA National's annual convocation, A'18, returns to a refreshed Javits under the banner of "Blueprint for a Better City," we can look back over the intervening 30 years to see signs of progress and the role architects played in it.

This issue of Oculus is dedicated to that longer view. Adaptive reuse and preservation projects that allow old and new to coexist become evermore attractive challenges for the profession, writes Sam Lubell in "Radical Remix." The city's coastline, which, as Stephen Zacks points out ("Waterfront Rising"), was dedicated to the shipping business in the last centuries, is transformed and activated to knit neighborhoods and rivers back together, though often in the shadow of new towers. And sustainable building has become an expectation rather than an option, thanks to standards set 30 years ago by pioneering New York-based firms ("The Origins of Green," by Laurie Kerr and Roger Platt).

There's much to commend but miles yet to go. Op-ed pieces by critics Justin Davidson, Karrie Jacobs, and Michael Sorkin sound the alarm, pushing us to feel a little less sanguine about the next 30 years. You may agree or disagree with their provocations, but their common goal is to start a dialogue and not take for granted that we are inevitably on the right path. The profession's in-progress course correction with regard to gender equality is an example of a long overdue conversation that we hope will define the year 2018 when our colleagues of 2048 look back.

This hefty issue came to life thanks to a dream team of contributors and staff, with a special hat tip to editorial intern Cassandra Gerardo, who completed her MA thesis in Design Research at the School of Visual Arts while closing our summer edition. We're also thrilled to present a three-part timeline developed by Margo Arbanas and designed by David Knowles, as well as a striking cover designed by Natasha Jen's team at Pentagram.

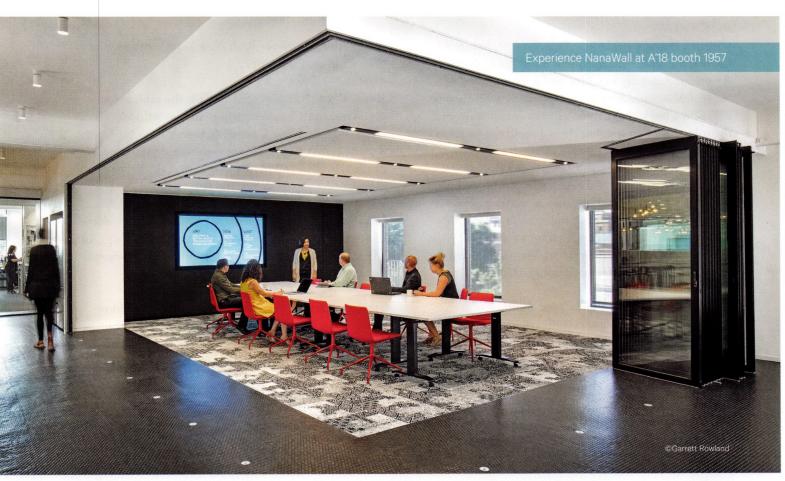
Finally, even if you're not from New York, we hope you'll continue to follow *Oculus* and celebrate with us this fall and winter as our magazine turns 80.

Cheers!

Volly Hein Molly Heintz

Editor-in-Chief editor@aiany.org

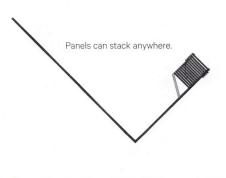
Create Aesthetic Adaptable Spaces



Gensler Morristown, Morristown NJ • Architect: Gensler • NanaWall HSW60 with open corner, no floor track, and swing door

NanaWall Single Track Systems

Design interior spaces that transform with ease. Individual panels allow for endless configurations with no floor track required.



📞 Collaborate with our Design Team on your plans.

Wind & Water Resistant

Energy

y Aighly ent Secure Easy Operation & Durable

Showrooms Nationwide Visit NanaWall.com 800 873 5673



CONTRIBUTORS

INTERVIEW

Clifford Pearson ("AIANY: Past, Present, Future") is the director of the University of Southern California's American Academy in China and a contributing editor at *Architectural Record*. He is working with Eugene Kohn on a book about Kohn's life in architecture and the role of KPF in shaping cities around the world.

FEATURES

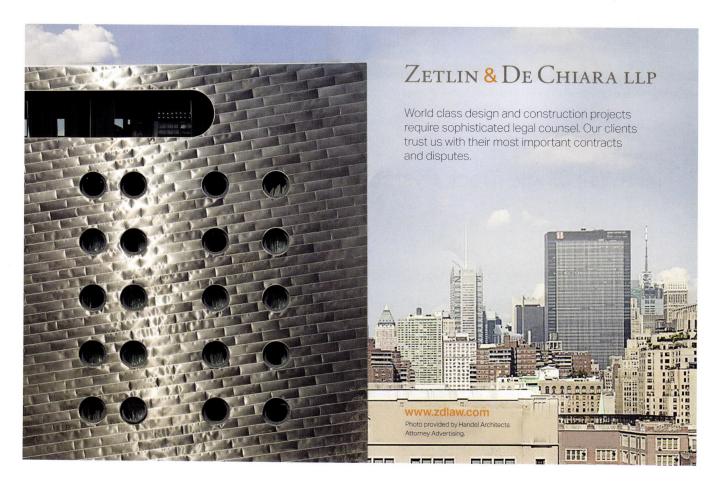
Laurie Kerr, FAIA, LEED AP ("Origins of Green"), is president of LK Policy Lab and a national leader and consultant in green building and urban sustainability policy. She served as deputy director of the NYC Mayor's Office of Sustainability under Michael Bloomberg, and previously was director of policy at Urban Green.

Sam Lubell ("Radical Remix") is co-author of *Never Built New York* (2016) and a staff writer at *Wired*. He has written seven books about architecture for The Monacelli Press, Rizzoli, Metropolis Books, and Phaidon. His exhibition, "Never Built New York," opened at the Queens Museum in 2017.

Roger Platt ("Origins of Green") is the senior vice president, strategic partnerships and growth, for the U.S. Green Building Council & Green Business Certification (USGBC). He is the immediate past-president of the USGBC, and before that served as its senior vice president for global policy and law.

Julia van den Hout ("Agents for Change") is founder of the editorial and curatorial office, Original Copy, and editor of *CLOG*, an annual publication that provides a platform for discussion of one topic at a time.

Stephen Zacks {"Waterfront Rising") is an architecture critic, urbanist, and curator based in New York City. He is founder and creative director of Flint Public Art Project, co-founder of Chance Ecologies and Nuit



Blanche New York, and president of the nonprofit Amplifier Inc., which develops art and design programs in underserved cities. He previously served as an editor at *Metropolis* magazine.

OP-EDS

Justin Davidson ("Adapt and Flourish") is the Pulitzer Prize-winning architecture and classical music critic for *New York* magazine. His is the author of *Magnetic City: A Walking Companion to New York* (2017).

Karrie Jacobs ("Not-So-Smart City") is a professional observer of the man-made landscape and writes about it for *Architect* magazine and *Curbed*. She's also a faculty member at the School of Visual Arts's MA program in design research, writing, and criticism.

Michael Sorkin ("Sauve Qui Peut/Everyone for Themselves!") is architecture critic for *The Nation*, contributing editor at *Architectural Record*, and author or editor of more than 20 books. He is the principal and founder of Michael Sorkin Studio, and his practice and work spans design, criticism, and pedagogy.

TIMELINE

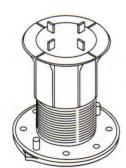
Margaret Arbanas is a writer and researcher fascinated by the contradictions and complexities of contemporary society and culture. Her stories harness the power of words and images to suggest and reveal the secret desires and hidden agendas that drive the current historical moment and its mythologies.

David Knowles is a graphic designer specializing in the fields of art, culture, and entertainment. His work includes collaborative publications with artists and writers, identities and branding, and exhibitions and public events. He is currently an MFA candidate at Yale School of Art.

With research and contributions from Lisa Chamberlain, Cassandra Gerardo, Lauren Palmer, Eric Schwartau, and Zach Sachs.

BOOK REVIEWS

In addition to reviewing books for *Oculus*, **Stanley Stark**, FAIA, NCARB, LEED AP, is science and technology principal at Francis Cauffman in New York City.







<section-header>

Extraordinary moments happen on ordinary days. Let's set the stage for the extraordinary to happen every day.



bulthaup New York 158 Wooster Street New York, NY 10012 Tel. +1 212 966 7183 newyork.bulthaup.com

bulthaup New York



THE POSSIBILITIES ARE **ENDLESS**.

Our team has been trusted for over 45 years to provide technical expertise and project support in the exploration of segmental paving product options.

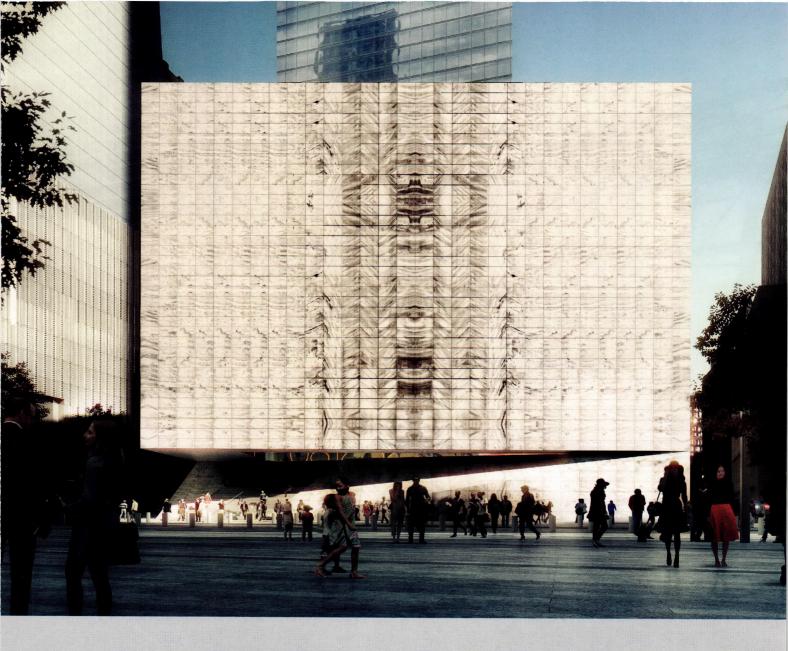
Optimizing color, finish, texture and size, we have what it takes to bring your vision to life.

PROJECT: The Foundry. Pittsburgh, PA
DESIGN: LaQuatra Bonci Associates
PRODUCT: Promenade[™] Plank Paver - Series[™], Il Campo^{*} and Smooth Premier Finish

Contact your Unilock Representative for samples, product information and to arrange a Lunch & Learn for your team.

UNILOCK DESIGNED TO CONNECT.

UNILOCK.COM 1-800-UNILOCK



The Ronald O. Perelman Performing Arts Center at the World Trade Center

Design Architect: REX Executive Architect: Davis Brody Bond



Sciame Construction, LLC | 14 Wall Street, New York, NY 10005 212.232.2200 | www.sciame.com

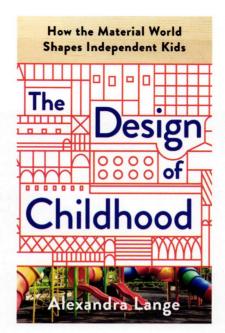
AT THE CENTER

OCULUS BOOK TALK

The Design of Childhood Alexandra Lange

Monday, June 25, 6—8pm Center for Architecture 536 LaGuardia Place

In her latest book, Alexandra Lange investigates the design of childhood at all scales, revealing how free play creates independent thinkers. In advance of her upcoming book talk, Oculus shares a preview.



The sound of hammering rings down the street. Walking past the supermarket and the indoor snowboarding facility, I hear the whip of trains on the Nambu Line every five minutes. Round a bend, past whatever the Tokyo equivalent of a bodega might be, I see the curving roofline of a concrete building, ornamented with black-and-white graffiti like an ancient frieze. There's a handpainted sign on the gate, and lines of bikes and strollers baking in the October Sunday morning sun. The building, a former concrete factory, is a showcase for the material's possibilities, with curving overhangs and open, California-style walkways. But the architecture I'm actually here to see is still in progress, a street of what will be tiny, open-air booths currently laid out on the dirt in chalk lines.

The people wielding tape measures, paintbrushes, and saws are kids, 30 of them, between the ages of five and 13. On an industrial edge of Kawasaki, a city that is part of the greater Tokyo metropolitan area, they are building their own high street. Two weeks from now the carpenters will become shopkeepers, selling wares of their own making from the shops they are now building. Pancakes, *pachinko*, hand-

continued on page 35





öko skin - neither painting nor staining

| sustainable glassfibre reinforced concrete | non-combustible (ASTM fire rating) and maintenance free | natural and durable material, authentic appearance | NEW - concealed fastening system

Distributed by Rieder North America 1-877-740-0303 (toll free) | usa@rieder.cc | www.rieder.cc



RIEDER

Photo credit: Courtesy F.A.T. Lab and Sy-Lab



Lange's book considers design for children at all scales, starting with blocks. This 2012 Free Universal Construction Kit by Golan Levin (F. A. T. Lab) and Shawn Sims (Sy-Lab) is made of FDM-printed thermoplastic and allows different building kits to work together.

woven bracelets, slime, bought and sold with actual money. Because the yen will be real, the playworkers at Kodomo Yume Park (which means "children's dream") had to ask parents' permission for the exercise—and request that they not contribute funds. Ordinarily, everything that happens at the 13-year-old park is decided by the children and the workers who run it, paid for by the education department of Kawasaki City. There are no waivers, and no dress code; babies were wandering barefoot near the fire pit, and boys were hammering in flip-flops and bike helmets.

PLAY FREELY AT YOUR OWN RISK reads a sign at Hanegi Park, Tokyo's oldest adventure playground, and all three elements-play, freedom, risk-are in ample evidence here at its younger cousin Yume. Beyond the open space where the village is taking shape, there is a more secluded area with a permanent fire pit, water slide, and hammock swing. A mesa of dirt, donated by a construction company that was excavating nearby, is now riddled with canyons and holes, the marks of shovels and buckets of water. When Kodomo Yume Park opened in July 2003, it was hot and humid, and the children spent most of their time huddled in its one air-conditioned space. After a week of that the playworkers had had enough and cut the power. "We told them the air conditioning was broken," says my guide, Hitoshi Shimamura, director of the organization Tokyo Play. "Then they started playing with water." At every adventure playground I visited, at some point a child poured a bucket of water down a trench, just to see where it would flow. As architect Richard Dattner says, "Sand and water will give you 80% of what a playground can do." Though accounts of junk playgrounds tend to focus on the fire and tools, for urban youth simply mucking about can be a pleasurable way of spending an afternoon. I was reminded of my own younger brother, who never found a stream or puddle too small to fall into. Had we had a Yume Park down the street, he would never have had to go looking for mud.

Excerpted from the "Playgrounds" chapter of The Design of Childhood (2018), with permission from Bloomsbury Press.

SIMONSWERK

TECTUS® the adjustable concealed door hinge.

The designers' choice for functionality, quality, and elegance for inspiring doors.



SIMONSWERK North America, Inc. 1171 Universal Boulevard Whitewater, WI 53190 262-472-9500 www.simonswerk-usa.com

IS POURED CONCRETE SLOWING DOWN YOUR PROJECT?

USG Structural Panel Concrete Subfloor Choose a faster, noncombustible alternative to poured concrete. Learn more about USG Structural Panels at usg.com/concretesubfloor



USG Structural Solutions

© 2018 USG Corporation and/or its affiliates. All rights reserved. The trademarks USG, the USG logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

П





Bring your vision to life with stunning texture, color and durability.

Siding Roofing Soffit, Fascia, Trim Rainware

- Designed to meet or exceed ASTM and UL standards including ASTM A653, UL 1897, UL 2218 and UL 790
- Our steel coils from American mills contain at least 25% recycled material
- Manufactured products are 100% recycleable

- Lifetime warranty includes hail and fade protection
- Easy to install
- Virtually maintenance-free
- Available nationwide and in Canada

Visit booth **4243** at the AIA Conference on Architecture 2018 to learn more about EDCO's durable steel exterior building products



Learn about steel roofing and siding through our continuing education programs with Hanley-Wood University. 1 HSW learning unit is available per course.





911 Memorial Fountains 250.000 SF Waterproof Flooring

Freedom Tower 850,000 SF Waterproof Flooring

Rutgers University 30,000 SF Epoxy Terrazzo Flooring

Hudson Yards 150,000 SF High Impact Epoxy Flooring Sara Gilmore Academy 4,050 SF Epoxy Terrazzo Flooring

DEX-O-TEX[®]

Los Angeles

3000 E. Harcourt St. Rancho Dominguez, CA 90221 Phone: (310) 886-9100 Fax: (310) 886-9119

New Jersey

140 Valley Roa Roselle Park, NJ 07204 Phone: (908) 245-2800 Fax: (908) 245-0659

dex-o-tex.com

Texas

128 Industrial Drive Cibolo, TX 78108 Phone: (310) 886-9100 Fax: (310) 886-9119



Visit our booth! AIA Conference on Architecture 2018

New York City (Steady) State, Terreform's ongoing research project, is a comprehensive investigation into urban self-sufficiency. Terreform is an independent, non-profit studio led by Michael Sorkin. See page 91 for further info.

NEW YORK PAST, PRESENT, FUTURE

Where will you be in June 2048?

This month, the annual AIA National Conference returns to New York City for the first time since 1988. We use the occasion to pause and reflect on how far we've come in the last 30 years, and to consider how far we need to go in the next 30.

This special feature section begins at human scale, talking with young practitioners and leaders in the field about our recent past and near future, and then zooms out to look at New York at a neighborhood scale, a city scale, and, finally, as a leader at global scale. Each feature focuses on a key aspect of the built environment in a rapidly transforming city, while its partner op-ed speculates on concerns that are likely to plague the city of the future. In between, a three-part interpretive timeline reminds us that planning, design, and building always happen amid layers of cultural complexity and unpredictable current events.

Lest we stop to rest on our laurels, architect and critic Michael Sorkin's concluding op-ed admonishes us that we are growing accustomed to the spectacle of natural and geopolitical catastrophes—and their attendant injustices. The year 2048 could be bleak indeed if smart collective action doesn't begin to make an impact now. What role will architects play in forging progress? FEATURE

Agency—Agency Tei Carpenter

MABU Matt Burgermaster

N H D M Nahyun Hwang + David Eugin Moon

> Only If Architecture

P.R.O. Peterson Rich Installation view of *New Practices New York*. On view at the Center for Architecture through July 7.

AGENDA FOR CHANGE

"Consequence," the latest edition of AIANY's New Practices New York Awards, recognizes five ambitious young firms.

BY JULIA VAN DEN HOUT

Every two years, AIANY celebrates a new group of architecture talent in New York. The New Practices New York awards set out not to reward impressive portfolios, but rather to spotlight the innovative models of practice behind the built work. The awards' focus is on intention, innovation, and-perhaps more than ever this year-the importance of a strong agenda. Under the theme of "Consequence," the New Practices New York awards program asked emerging firms to consider how they rely on their own voice and agency to shape their work. A competitive environment like New York can be a tough arena to navigate, especially for young designers looking to set out on their own. At a time when we find ourselves caught up in a tumultuous political, economic, and social environment, how can young designers constructively engage their city on a local level and look to actively define

strategies for what is to come? How can they begin to address some of the urban challenges we face today?

As the five winning firms demonstrate, sometimes these questions are best explored through self-initiated projects, research, and an effort to reach beyond disciplinary boundaries and established roles. And in all cases, challenging constraints and a theme of equitable design run through the firms' projects.

The winners were selected by a jury that included Beatrice Galilee, Daniel Brodsky associate curator of architecture and design at the Metropolitan Museum of Art; Dan Howarth, U.S. editor of *Dezeen*; Jeffrey Inaba, principal of Inaba Williams; Andrés Jaque, founder of Office for Political Innovation; Hilary Sample, principal and cofounder of MOS Architects; and Rosalyne Shieh, partner at Schaum/Shieh and 2016 New Practices award winner.



AGENCY-AGENCY

TEI CARPENTER

www.agency-agency.us

Founded in 2014 by Tei Carpenter, Agency—Agency recently completed a 20,000-square-foot headquarters for the non-profit Big Brothers Big Sisters mentoring organization in Houston, a project that exemplifies what Carpenter calls her interest in "near reality." A look at these current conditions, she says, "accepts the givens of the present—constraints, modest budgets, and low-cost materials—aiming to make equitable, open design projects."

While firmly rooted in today's reality, Agency—Agency also looks towards the future, citing science fiction writer Kim Stanley Robinson to describe an interest in a "distant reality," a speculative exploration of human impact on our world. This is evident in several of the firm's proposals, such as Testbed, an environmental marker system that hopes to deter our intrusion on the Waste Isolation Pilot Plant in New Mexico, and Pla-Kappa, a floating island in the North Pacific Subtropical Gyre made of accumulated organic matter and human-made waste that has been shaped through ocean currents. "My aim is to explore new aesthetics, materialities, and subjectivities within a geological time scale that addresses today's conditions of accumulation and its material histories and futures," explains Carpenter. "I like to work with hybrid forms of physical and digital representations to make distinctions slippery between object and landscape, natural and artificial, fiction and reality."

Currently, Agency—Agency is working on a guest house in New England, which will be part of "Water Futures," an upcoming exhibition at A/D/O in Greenpoint, Brooklyn.

"I like to work with hybrid forms of physical and digital representations to make distinctions slippery between object and landscape, natural and artificial, fiction and reality."—Tei Carpenter

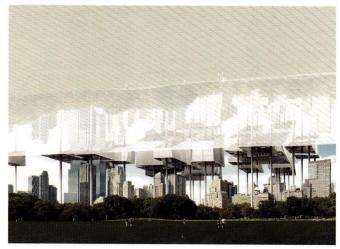




TOP: Agency– Agency's "Testbed Perspective in 7017." ABOVE: A cautionary tale of accumulation, Agency–Agency's floating island of Pla-Kappa shifts its shape slowly, constantly growing while consuming itself. LEFT: Agency–

Agency founder Tei Carpenter.





TOP LEFT: Upper level of Galerie Perrotin—now one of the largest art galleries on the Lower East Side of New York City. **TOP RIGHT:** P.R.O. co-founders Nathan Rich and Miriam Peterson. **ABOVE:** Speculative design of a site-less tower for "5x5" Exhibition.

"We explore the relationships between architecture, economics, and policy, giving form to nonformal concepts," —Miriam Peterson



P.R.O. MIRIAM PETERSON + NATHAN RICH

www.pro-arch.com

Principals Miriam Peterson and Nathan Rich bring unique backgrounds of economics and art to their practice, Peterson Rich Office (P.R.O.). "We explore the relationships between architecture, economics, and policy, giving form to nonformal concepts," says Miriam Peterson. "In our built work, we actively research the cultural and economic context for each project to create meaningful organizing principles that inform design decisions."

The firm's first project was the design of a ground-up art studio for painter Tula Telfair in Connecticut in 2013. The duo recently completed a 20,000-squarefoot New York home for Galerie Perrotin-a five-story gallery building with a penthouse apartment above that marks a seminal shift in the Lower East Side art scene towards higher end commercialism. P.R.O. simultaneously works on public projects, research, and city initiatives, however, and just completed work on two renovations for New York City public schools through the Mental Health by Design program. Driven by a strong belief in the need for architects to expand their role and engage in larger discussions about the future of the city, Peterson and Rich even pitch ideas directly to city agencies. As Nathan Rich explains, "New York City has a progressive mayor and administration, but they don't always recognize the value of design. We try to take advantage of this situation by proposing architectural ideas that manifest city policy. Some of these pitches have led to real work, others have helped us learn and expand our network."

Next to be completed are two 20,000-square-foot, multiunit, mixed-use buildings. "It's a scale that a small office like ours can handle, but has real opportunity for urban impact," says Rich.



MABU MATT BURGERMASTER

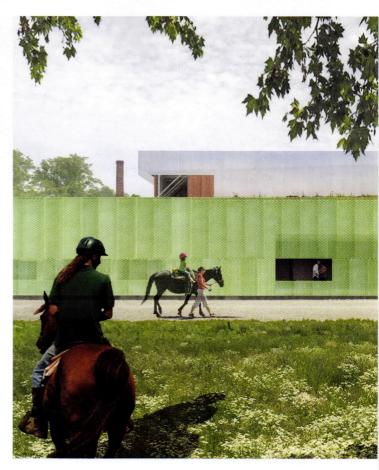
www.mabuoffice.com

For MABU, it is a look towards the old that projects a path for the new. The firm has worked on a number of adaptive reuse projects. "For many, renovation work is considered a marginal endeavor in comparison to the privileged status afforded to new construction," says Principal Matt Burgermaster. "But for us, it is an opportunity to engage in creative, critical practice."

Founded in 2008, the firm is currently working on the conversion of a 50,000-square-foot textile manufacturing building into an equestrian center in Rockleigh, New Jersey. Such projects enable MABU to explore how to go beyond a binary definition of old and new. "We choose to recognize old buildings as material and cultural resources, rather than as waste," Burgermaster explains. "We aim to understand their historical trajectories; the various ways they have acted as vessels for matter, energy, and information; and their potential as significant new public platforms."

While adaptive reuse projects may come with constraints, for MABU these are sought-after challenges that require a particular level of resourcefulness and invention. The firm describes its process as not merely traditionally architectural, but as incorporating practices borrowed from historic preservation, installation and performance art, and even water management. "To face the grand challenges of our lifetime, such as climate change and limited natural resources," says Burgermaster, "disciplinary boundaries need to be reconfigured in ways that both consolidate specific areas of expertise and seek shared, complementary fields of interest and knowledge."

"We choose to recognize old buildings as material and cultural resources, rather than as waste."—Matt Burgermaster





TOP LEFT: MABU founder Matt Burgermaster with colleague. **TOP RIGHT:** "Machine out to Pasture" converts of a 50,000-square-foot textile manufacturing factory into an equestrian center.

ABOVE:"Alterations to a Spy Base" is an exercise in experimental preservation, as it proposes a remapping of the buildings' (current) material, (future) use, and (historical) significance.



N H D M NAHYUN KIM AND DAVID MOON

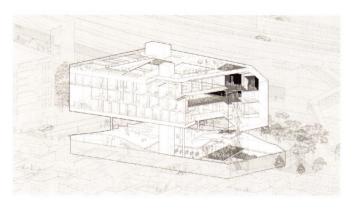
www.nhdm.net

Nahyun Kim and David Moon began their practice in 2010 with a commission for the library within the Nam June Paik Art Center in Yongin, outside of Seoul. The library was designed as a multifunctional machine that

promotes non-linear access to information. Since then, the firm has completed a further renovation of another 12,000 square feet of the art center's facilities, including a new entry floor and study space. In these projects, the firm explores architecture's connection to the public. As Moon and Kim say on their website, "In many of our projects, the public acts as a critical collaborator or instigator—some-

times as client, sometimes as occupant, and sometimes as unknowing beneficiary." Much of their recent work, both in New York and Seoul, centers around the public on a larger scale through explorations of contemporary urban challenges—the housing crisis, environmental uncertainty, and inequitable distribution of resources.

N H D M is currently working with Habitat for Humanity Korea and a local government agency in Seoul on a youth co-living prototype, combining a residential program with job training facilities and public spaces. As part of this

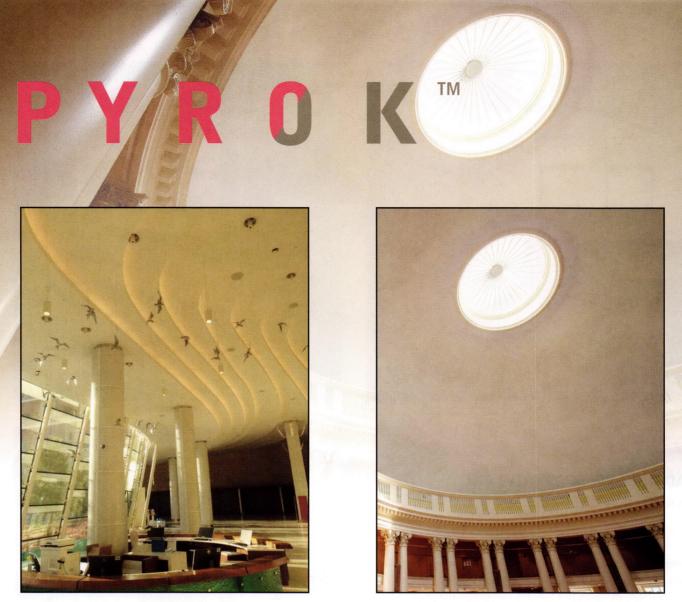




"In many of our projects, the public acts as a critical collaborator or instigator..."—Nahyun Kim and David Moon

effort, the firm also worked on a robust research project focusing on this under-supported demographic in Seoul. "We try to engage the realities of each project—the complexity of today's social, political, cultural, and environmental milieu—not as a set of constraints to comply with or a conflict to turn away from, but rather as subjects of investigation and a source of inspiration for experimentation," says Kim.

Other current work includes a private house in Los Angeles and a new museum of a private collector in Upper Manhattan.



Lucile Packard Children's Hospital, Palo Alto, CA

The Rotunda, University of Virginia, Charlottesville, VA.

The Pyrok StarSilent system is a smooth, seamless sound absorbing durable plaster system for walls and ceilings. This environmentally friendly system, with a high recycled content, allows designers to utilize a seamless gypsum board look with high sound absorbing qualities. Pyrok StarSilent can be curved, custom colored and can be painted a few times.



Please contact Pyrok Inc at



www.pyrok.com or www.starsilent.com



ONLY IF

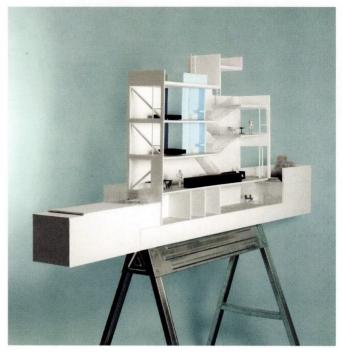
ADAM SNOW FRAMPTON AND KAROLINA CZECZEK

www.only-if.org

From a circular counter and seating area in Voyager Espresso to a strict black-and-white color palette in An Office for Three Companies, the work of Only If is guided by the power of simplicity and the potential of clean geometries. "Rather than imposing additional regimes of complexity, we believe the role of the designer is to envision simple gestures and forms that impose structure, coherence, and identity," explains Adam Snow Frampton, who leads the firm with Karolina Czeczek.

Founded in 2013, Only If has worked at a range of scales, from small-scale interiors to larger-scale urban research and speculative projects. In 2017, the firm contributed to the Fourth Regional Plan with a new vision for the Triboro Corridor, in collaboration with One Architecture. Recently it has also been working on the Narrow House, a design for a 100- by 13 ¹/₃foot vacant lot in Brooklyn that explores the potential of residential infill in otherwise overlooked slivers of land throughout New York City. "Our generation of architects is perhaps less focused on the exceptional and more focused on the everyday, hence housing as an interest and renewed territory for architectural experimentation," says Frampton.

On land bought by Frampton and Czeczek, the house is a self-initiated project that the partners hope will serve as a lowcost prototype. It will break ground later this year. "Architects must reclaim a role as public intellectuals to address larger social





TOP LEFT: Conference room in "An Office for Three Companies." **TOP RIGHT:** Narrow House prototype. **ABOVE:** Only If co-founders Adam Snow Frampton and Karolina Czeczek

and cultural questions," says Czeczek. "We are always asking ourselves how we can use our own disciplinary tools to address questions and impact the public, the city, and territories beyond our discipline. But we're going to keep looking at architecture and the city, drawing, and making buildings to get there." ■

"Architects must reclaim a role as public intellectuals to address larger social and cultural questions."—Karolina Czeczek

	Where architecture meets daylight
	ScreenLine® Integrated Blinds 3 integrated blind models available Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind Venetian bind
	6 blind control systems available manual knob control manual bottom control manual bottom control manual by sliding magnetic handle magnetic device or external motor magnetic device or external motor magnetic device or external motor magnetic device or external motor magnetic device
	48 color combinations 9 colors for venetian 9 colors for venetian 21 colors for pleated shading or black-out blinds 18 colors for roller blinds

ScreenLine

Intigral is proud to be the exclusive American manufacturer of the ScreenLine family of integrated blinds. ScreenLine allows you the ultimate in integrated blinds design and energy management. With three different shading options you can use ScreenLine venetian blinds to achieve your energy and daylighting goals or select one of our pleated or roller shade products to achieve maximum U-value and privacy. Take privacy and solar control to new levels with ScreenLine blackout shades. With six different control systems you have the option to operate each blind manually, or you can integrate your entire building with our motorized solutions. Whatever your project, ScreenLine has a shading solution and integration to meet you and your clients needs.

To learn more, go to www.intigral.com or find us at booth 2056 at the AIA Conference.

OP-ED



We asked leaders of the New York architecture community to think about where we've been, where we're going, and what makes them hopeful about the future. Compiled by Julia van den Hout and Molly Heintz.

"The series of natural and man-made disasters of the last 20 years, including 9/11, the 2003 blackout, and Hurricane Sandy, were a stark reminder of the fragility of the built environment and our social contract. We have become much more aware of the need for disaster planning, resiliency, and climate change preparedness and mitigation."

-Deborah Berke, FAIA, LEED AP, principal of Deborah Berke & Partners Architects and dean of the Yale School of Architecture

"Our ability to create new project sites within the constrained boundaries of the city's dense built environment is a hallmark of New York City over the past three decades; infrastructure has been reimagined into parks, development sites, and reclaimed urban amenities." —Kim Yao, AIA, principal of Architecture Research Office (ARO)

"Removing the stigma of 'public' and making it desirable and exciting in terms of both spaces, places, buildings, and the skyline." -Claire Weisz, FAIA, principal-incharge of WXY "New York's relationship with its waterfront, in all boroughs, has transformed a formerly derelict industrial headache into a prime urban amenity, opening up a newly regenerated city to recreation, fresh air, green space, and a view to the larger world. The world, consequently, values New York differently."

-Ricardo Scofidio, AIA, executive vice president and chief executive officer of the AIA

WHAT HAS BEEN THE MOST SIGNIFICANT CHANGE IN NEW YORK'S BUILT ENVIRONMENT IN THE LAST 30 YEARS?

"The city has realized that good design can exponentially improve the physical and mental well-being of New Yorkers and visitors alike. Designers now often have a seat at the table when it comes to big decisions about what happens to our public facilities and land." -David van der Leer, executive director of Van Alen Institute "Climate change. The city is blessed and challenged by being rimmed with 578 miles of coastline. Extreme climate events and associated flooding makes New York's extensive waterfront very vulnerable." –Marion Weiss, FAIA and Michael Manfredi, FAIA, principals of Weiss/Manfredi

"One of the most striking features of development over the past three decades is how it has come to embrace the city's more marginal locations. The net result is a gradually more horizontal city, with not just a handful of thriving centers, but many." -Eran Chen, founding principal of ODA New York

"We have become a city of glittery wealth, cleaner and safer than 30 years ago, but also much more divided in ways you can read in the skyline and in neighborhoods where new development is not widely regarded by residents as progress, but as a threat. I do think more and more gifted architects are thinking creatively about affordable housing and public projects like libraries." —Michael Kimmelman, architecture critic of the New York Times

"Over the past 30 years, the well-being of the individual in the built environment has become tantamount to good design. Translating this altruistic idea into physical space will continue to be a challenge, as words only do not make for a healthy work environment. If we are not diligent, the current model of overly flexible spaces for millennial workers will become a rouse for cost-cutting, quick turnaround solutions saturated in 'brand' that result in frenetic work environments with no escape." Jane Smith , FAIA, IIDA, partner at Spacesmith

"We need to think big and think long. Bloomberg pushed to finish the third water tunnel, a 50-yearold project and a fundamental piece of infrastructure for the next century. And you don't even see it! We can do that for transit and resiliency, and celebrate these projects." -Rob Rogers, FAIA, principal of ROGERS PART-NERS Architecture+Urban Designers

"While the relatively low crime rate today may be seen as a sign of progress, I would also counsel sobriety. If the new financial incentives for development of this last decade have proven anything, it is that social inequality is on the rise, something that invariably stands to destabilize the city as a diverse ecology." -Nader Tehrani, principal of NADAAA and dean of The Irwin S. Chanin School of Architecture at Cooper Union

"The amount of carbon emitted into the atmosphere needs to be significantly reduced, including that generated by building sector energy consumption. Mayor Bill de Blasio has delineated a path to significant carbon reduction by 2050, but more change is needed not only in New York City, but regionally, nationally, and globally." -Margaret Castillo, FAIA, LEED AP, chief architect of NYC Department of **Design and Construction**

"One can hope that architects will do more as initiators of projects, rather than being simply responders."

-Ricardo Scofidio, principal of Diller Scofidio + Renfro

"The livability of our city depends on diverse neighborhoods. We have to develop housing across the economic spectrum, while understanding that good jobs and support services are necessary." -Mark Gardner, AIA, principal of Jaklitsch/Gardner Architects

WHAT NEEDS TO **CHANGE IN THE NEXT 30 YEARS?**

"We need to take the rising water levels seriously and start to install more infrastructural changes-openable dams, areas that can flood, etc .- rather than thinking you change just the buildings. We need to transform garbage in biofuel (long overdue) and we need trains to all three airports (also long overdue)."

-Winka Dubbeldam, Assoc. AIA, founder of Archi-Tectonics

"The boundaries between architecture, planning, and landscape design need to be further blurred and cross-pollinated. But there needs also to be a reaction against the anti-form attitude of the most extreme school of participatory architecture, in which the architect abandons the role of guiding the physical development of the city. Research into smart materials seems to me one of the most urgent tasks for rethinking the very fabric of buildings." -Barry Bergdoll, Hon. AIANY, Meyer Schapiro

professor of art history at Columbia University

"Our most urgent needs over the next 30 years are not architectural. They involve planning and infrastructure. We live with one of the world's greatest urban infrastructures, the result of previous generations investing on our behalf. We are not doing the same for the generations that follow us, and our infrastructure, particularly our transit system, is crumbling."

-Paul Goldberger, Hon. AIA, contributing editor at Vanity Fair, and former architecture critic for the New Yorker and the New York Times.

"For New York to survive as a truly vibrant and diverse place, fair, just, and affordable housing and an excellent public school system must be in place. The public transportation system is a disgrace-especially the subway system-and requires a major overhaul. In addition, transportation to and from the airport needs to be smooth. fast, safe, and inexpensive. It is the worst transit system of any city in the world."

-Toshiko Mori, FAIA, principal of Toshiko Mori Architect

"There is a serious lack of public space, and infrastructure investment among different neighborhoods is unequal. I would like to see the unique characters of neighborhoods preserved and kept alive, while new investment is made organically." -Jing Liu, principal of SO-IL

"We need the policy and the will to enhance and increase public space. As more people are attracted to urban life, we must protect open space and not allow it to simply be created as a part of commercial development."

-Tod Williams, FAIA and Billie Tsien, principals of Tod Williams Billie Tsien, AIA Architects

"Notably, and not yet fully understood, New York has become both a technology center and a medical center, developments that were nascent 30 years ago but have bloomed since and hold great promise for the future health of our city."

-Robert A.M. Stern, founding partner of Robert A.M. Stern, FAIA Architects

"I am unfailingly impressed by the idealism and ambition of architecture students and young practitioners. There is an understanding of the social and cultural context in which architecture is made, and a renewed desire for our work to be considered in terms of its potential to improve people's lives." -Martin Cox, AIA, principal of Bade Stageberg Cox

"Grassroots progressive movements like Black Lives Matter, #MeToo, and March for Our Lives are inspiring and all ask tough questions that directly relate to the public realm. Who is it for? Where is justice? Who has a seat at the table? How do we ensure that the talent and potential that is out there is welcomed to this conversation? How do we want to live?" -Mark Yoes, FAIA, design principal of WXY

"Technology has enabled architects to more effectively communicate our design ideas through VR, AR and 3D printing." —Joseph Brancato, AIA, NCARB, vice chairman, Gensler



"I see a more robust discussion of the groups architecture as a profession has historically left out: women, minorities, people from less economically advantaged backgrounds. What remains to be seen is whether the architecture profession can make the fundamental changes required to make itself an attractive and sustainable choice to people from these groups." -Alexandra Lange, architecture critic at Curbed

"The design profession is now included in discussions and planning for affordable housing, aging in place, homeless housing, public transit, sustainable strategies, and, of course, resiliency-all of which have highlighted the renewed relevance of our role in the built environment." -Jennifer Sage, FAIA, LEED AP, principal of Sage and Coombe Architects

"I am hopeful that the crisis of the condition of the subways and the urgent need for the Gateway project will lead to much more sustained focus on transportation systems and public pressure-and governmental responsefor more investment and rational coordination. New York can't exist for long without a highly functional, high-capacity public transportation system; all other issues in how the city evolves come back to how we get around." -Rosalie Genevro, executive director of the Architectural League

V 1988 BASQUIAT DIES Artist Jean-Michel Basquiat dies of heroin overdose in his Great Jones Street studio. He is 27 years old.

New Have

▼ 1991 CROWN HEIGHTS RIOTS

An accident in which a car that belongs to the motorcade of Rabbi Menachem Mendel Schneerson, the leader of the Chabad Jewish religious movement,

kills seven-year-old Gavin Cato, child of Guyanese

immigrants, triggers a three-day riot that turns the

Heights against each other. One Orthodox Jewish

black and Orthodox Jewish residents of Crown

man is killed and several are injured.



have died of AIDS.

1988 AIDS MEMORIAL QUILT One thousand panels of the AIDS Quilt are displayed on the Great Lawn in Central Park. The NYC Board of Education votes to make condoms available in high schools. Religious conservatives object, and three years later free condoms are withdrawn.

1991 ACT UP

Act UP stages a "Day of Desperation" at Grand Central, protesting that President George H.W. Bush was spending billions on the Gulf War while saying there was no funding for AIDS programs. New AIDS cases in NYC: 9,072.

1989 TREND REVERSAL►

David Dinkins wins the race against Rudy Giuliani for the mayor of New York City. Under his watch, police department hiring increases by 25% and crime rates go down for three consecutive years, ending a 30-year upward spiral.



▲ 1991 LOW LIFE Luc Sante, a Belgian, writes a love letter to New York City's underbelly of the late 19th and early 20th centuries, celebrating the kind of life that will be increasingly pushed to the margins as the decade progreses.



A few years after Donald Trump buys the Plaza Hotel for

◀ 1992 HOME ALONE 2

\$407 million, the hotel accrues \$550 million of debt and files for bankruptcy protection. Trump is removed from the day-to-day operations of the hotel but still allowed to give directions to visitors, as he did so well in his cameo appearance in Home Alone 2.

An article in the New Republic refers to NYC

▼ 1988 "ROTTING APPLE" as a "Rotting Apple."

▼ 1988 TOMPKINS SQUARE NYC Parks Department imposes a 1am curfew on Tompkins Square Park in an attempt to remove the 150 homeless people that de facto live in the park. A violent clash between several hundred protesters and the police ensues. Conveniently, the park is closed for renovation in 1991





1992 POLICE RIOTS

BRING BACK

en thousand off-duty police officers gather around City Hall and block traffic on the Brooklyn Bridge for nearly an hour to protest Mayor Dinkins's support for a more independent civilian complaint review board. Rudy Giuliani shows up to support the policemen, giving a fiery speech as a warm-up to the 1993 elections

▼ 1995 SQUAT NO MORE

POOR

Using a tank-like armored vehicle, the police forcibly move into two squatter buildings on 13th Street under the pretext that the buildings are in danger of collapse. The officers, equipped with riot gear, face the squatters (and their sympathizers), who took over the buildings when the original owners defaulted on their taxes during the 1970s blight.

AW & ORDER

▲ 1989 MEAN STREETS

The rape and assault of Central Park jogger Trish Meili leaves her in a 12-day coma, prompting Donald Trump to publish a plea: "Bring back the death penalty, Bring back our police!" In 1990, a tourist, Brian Watkins, is murdered at a 53rd Street subway station. As if on cue, the first episode of Law & Order airs a few days later.



1988–2018 NEW YORK

New York City's decades-long experiment with one form of lawand-order behavioral regulation has reached completion. In 1994, newly elected Mayor Rudy Giuliani implemented a zerotolerance policy towards minor offenses as a way to prevent more serious crime. In the past few years under Mayor Bill de Blasio, the city has decriminalized

◀ 1994 STARBUCKS INVASION The first Starbucks in New York City opens on the corner of Broadway and 87th Street, just as sales of the iconic Anthora coffee cup reach a record 500 million annually. By 2015, that number will drop to 200 million.

▼ 1996 PUBLIC ENEMY No. 1 NYC crime rates plummet after newly elected Mayor Rudy Giuliani proclaims war on the ubiquitous Squeegee Men, another target in his broken windows theory of urban decay.

1996 ART OF THE DEAL►

During a helicopter ride from JFK President Bill Clinton makes an offer to Senator Daniel Patrick Moynihan that he can't refuse: Clinton will sell the recently vacated Governors Island for \$1 if the city promises to use the island as public space. Proposals for the island include a casino, five-star hotel, amusement park, and University of the Earth, by architect Michael Sorkin. In 2003, the island is officially transferred to the city.



<1996 "ONE GOOD APPLE" An article in Time magazine about the steep crime reduction in the previous years refers to NYC as "One Good Apple."

◀ 1993 WTC ATTACK

Six people are killed and more than 1,000 injured when a van explodes in WTC's garage with the intent to topple the towers. The attackers state that the attack was in response to America's support for Israel against Palestine



▼ 1993 STATEN ISLAND VOTES In a 1993 nonbinding referendum, 65% of Staten Islanders vote for secession from NYC. Rudy Giuliani runs his 1993 mayoral campaign on supporting the borough's demands to close the Fresh Kills Landfill and make the Staten Island Ferry free. The overwhelming majority of Staten Island votes for Giuliani, tilting the scale just enough to hand him victory over Dinkins, who loses by 2.9%.



.exclaims Harvey Fierstein in Independence Day, in which aliens destroy the Empire State Building with a beam of light. The film will join a growing consortium of films that imagine NYC under attack: The Siege, Deep Impact, Godzilla, and The Peacemaker. Perhaps the most ominous will be Armageddon, in which one of the WTC towers is set ablaze by a series of meteors.

▲ 1999 BIRD'S LAMENT

Louis Thomas Hardin, or Moondog, a prolific composer, musician, poet, and inventor who influenced Philip Glass and could often be seen dressed up as a Viking on Sixth Avenue, dies in Münster, Germany.

1998 HUDSON RIVER PARK After decade-long efforts, Governor George Pataki signs a law creating Hudson River Park Trust for the construction of the largest open space in the city since the completion of Central Park.



1999 RIGHT TO PARTY Since the mid-1990s, the corpse of the antiquated Cabaret Law is being happily reanimated by Giuliani, who uses it to clean up the drug-laden Manhattan party scene. The Arata Isozakidesigned Palladium becomes a victim of real-estate pressure, and the building is turned into NYU student dorms.



1.11.1.1110.

WON'T?

URGE

YE

marijuana possession, turnstile jumping, and dancing in bars, and stop-and-frisk tactics were ruled unconstitutional. No spike in violent crime ensued. Three timelines look at three decades of New York City's transformation from "One Rotting Apple" to perhaps an overripe one. Has the city finally come full circle? Will history repeat itself?

1995 SEX OUT OF THE CITY A new law prohibits an adult establishment in residential and other neighborhoods if more than 40% of its material or floor space is dedicated to adult materials, effectively putting an end to the Times. Square area as a hub of adult entertainment

1995 CON NYPD

and housing police agencies are consolidated

MetroCard

into the New York City Police Department (NYPD).

The New York City transit



1994 SWIPE ME

MetroCard-compatible turnstiles

open on Wall Street, three years

after the MTA approved the

magnetic card fare system.

SEXANPCIT

▲ 1998 MARCH OF THE STILLETOS A few years after the elimination of the 60-40 loophole, sex comes back to the city, if in a slightly more sanitized version. It is, however, secondary to the real star of the show-shopping.

1999 CENSATION >

▲ 1996 TOURISTS ARE COMING!

Thirty million tourists visit NYC in 1996.

Guiliani threatens to withdraw city funding to the Brooklyn Museum over the "Sensation" exhibition, featuring Chris Ofili's painting of the Virgin Mary decorated with elephant dung (which Donald Trump calls "degenerate"). A public outcry culminates in a rally of support for the museum. A federal court bars the government from using funding as a means to coerce speech.



©Margaret Arbanas



Brave new approaches to preservation are using the past as a palette.

BY SAM LUBELL

What's old is new. Or is it what's new is old? When it comes to adaptive reuse in New York, a city always looking backward and forward, it's somewhere in between. And the creative tension between past and present in this place, which has always been one of reuse's great innovation labs, is spurring a new variant of the typology. While still respecting and preserving the past, adaptive reuse is bolder, more imaginative, and less orthodox about history, and it's pushing us to essentially rethink what preservation means.

New York, of course, boasted one of the United States's first major examples of adaptive reuse: Giorgio Cavagl-

ieri's late 1960s conversion of Calvert Vaux and Frederick Clarke Withers's splendid Victorian-era Jefferson Market Courthouse into a branch of the New York Public Library. This was one of the early death knells for Modernism's dictates to tear down and start over, even when a building's original use was no longer viable. So many revolutionary icons of reuse came after, such as Donald Judd's SoHo apartment, a seminal 1970s adaptation of industrial stock into loft living; the Park Avenue Armory's transformation into a beloved cultural space in the mid-1980s; and the creation of the High Line, one of the world's earliest and most impactful conversions of industrial infrastructure into a park, opening to the public in 2009.

Reuse has continued to mushroom, and now makes up a hefty portion of the architectural work being carried out in this (by American standards, anyway) historysaturated city. Donald Albrecht, curator of "Authenticity and Innovation," AIANY's 2016 exhibition on the inventive adaptive reuse of non-landmarked structures in New York, admits to being "shocked" by how many examples he found, and in how many permutations. These included warehouses turned into movie theaters, movie theaters turned into schools, schools turned into housing, and, of course, factories turned into incubators and tech nirvanas for the likes of Google.

As designers, clients, and officials have grown more accustomed to such adaptations—often with quite successful results—and as pressure to draw tenants has ratcheted higher than ever (particularly with the infusion of new offices in places like the World Trade Center and Hudson Yards), we're seeing yet another evolution. Even when working with a landmarked building, architects are becoming more emboldened to insert their own visions—not minimizing or destroying history, but fusing it with the present into something new. With the help of deep research and advanced technology, they're developing audacious innovations in

Even when working with a landmarked building, architects are becoming more emboldened to insert their own visions.

technique, space, material, program, narrative, and form to help new buildings and developments stand out and better serve their users.

"Not everything is precious," notes Ruchika Modi, studio director of PAU (Practice for Architecture and Urbanism), which is working on the reuse into creative offices of one of the most publicized new examples of this shift, the Domino Sugar Factory, a 19th-century landmark on the Williamsburg waterfront. "It can still be acted upon and still be altered, and that's not being disrespectful."

PAU's approach, recently approved by New York's Landmarks Preservation Commission, inserts a new barrel-vaulted glass building inside the factory, set back from the original façade on all sides. The plan, says Modi, won't just provide the natural light, floor heights, and new technology that companies need, but will offer users a completely new interaction with history. Offices, set back from the façade, will take in several levels of original windows, while terraces will float between old



OPPOSITE: Reconstructed graffiti on N Architects's exterior for design incubator A/D/O. **ABOVE:** Jefferson Market Library, looking southwest from West 10th Street, under renovation circa 1965.

and new, open to the sky. The open ground floor will be filled with halls, shops, and eateries.

"You're being made aware of this history, this presence, in a whole new way," Modi points out. "There's nothing like this." It's certainly a leap from architects Beyer Blinder Belle's earlier reuse plan, a more conventional approach whose major intervention was a glass addition above. Modi stresses that her firm never intended to create this type of experience; it grew out of careful investigation of the building, which PAU found was composed of three separate buildings mashed together, often without any floorplates.

It's that type of discovery, resulting in unexpected forms of interaction with the past, that excites Jorge Otero-Pailos, principal and founder of Otero-Pailos Studio, and director of Historic Preservation at Columbia University's Graduate School of Architecture, Planning and Preservation (GSAPP), where he recently launched the school's new PhD program in Historic Preservation. "It takes time and a little bit of experimenting and risk taking," he explains. The key to this experimenting with history, he points out, is understanding it, not forcing an agenda or a preconceived program on it. "We're seeing contemporary expressions merging with existing structures," he adds. "I find that really interesting and important because architects can have a signature. It's very liberating."



A historic refinery at Domino Sugar Factory site on the Williamsburg waterfront is reimagined by PAU as an office building with public and retail space on the ground floor.

One of his favorite new examples is N Architects's A/D/O, a design incubator occupying a former warehouse in Greenpoint, Brooklyn. The firm's approach, he says, was to "remix" the building, piecing together old and new in unexpected ways. Instead of breaking the structure into rooms or creating large, undifferentiated spaces, both common reuse strategies, the team employed a combination of existing and new materials to form highly variable connections between equally variable spaces that bleed subtly into one another. They also removed a triangular piece of the building to create a new entrance porch, rebuilding the façade here with reconstituted graffiti, using a jumble of the warehouse's original bricks. The punctuation mark is a reflective "kaleidoscopic periscope" cut into the ceiling, which joins views of the Brooklyn and Manhattan skyline into a single view.

Work AC's Stealth Building, the conversion of one of SoHo's oldest cast-iron industrial buildings into a townhouse residence, is similarly inventive in its blend of old and new. To mask the bulk of its rooftop addition, the firm designed three metal-clad projections, drawing formally on the triangular pediment of the historic Carey Building next door. Open planned interiors, connected by glass-enclosed and floating stairways, open to terraces and balconies. The firm also collaborated with artist Michael Hansmeyer to create new GFRC-molded versions of the building's lost Corinthian column capitals. Hansmeyer created a digital script that allowed the classical floral elements of the Corinthian order to "grow" fractally, resulting in a digitally fabricated design that adheres to the old proportions, but is composed of clearly new forms.

"I think adaptive reuse and historic preservation are the frontiers of architecture right now," notes Amale Andraos, Work AC co-founder and dean of Columbia GSAPP. "We've been finding ways to combine old and new, and in the process to push the boundaries of new. A lot of it is, how do you move beyond the basic modernist language that has been the default when you work with old buildings? How do you have more fun?"

Such fusion of technology and history is also at the heart of ODA's 10 Jay Street, a conversion of a former sugar refinery on the DUMBO waterfront into offices. The brick building's new faceted glass and steel curtain wall was designed in Revit—"this type of complexity has to be designed in three dimensions from day one," notes ODA Principal Eran Chen—and prefabricated off-site. The building draws on the triangular steel trusses of the Manhattan Bridge next door, the branching trees in the park in front, the old factory's latticed wood trusses and piecemeal additions, and even the crystalline forms of sugar crystals.

"Context isn't just a matter of visual proportions or materiality," adds Chen. "It can also be the narrative, the story line of the neighborhood." Inside, the story of the building adds welcome diversity to office spaces, with each floor containing its own floor heights and its own combination of original elements, from vaulted brick ceilings to exposed iron columns.

Sometimes the boldest new part of an adaptive reuse is less woven into the project itself, but nonetheless contextual. Morris Adjmi Architects's 520 West 26th Street, a commercial office project next to the High Line in Chelsea, pulls together the past with the present through a contemporary steel-framed addition that floats over the original brick warehouse, which the firm is

"I think adaptive reuse and historic preservation are the frontiers of architecture right now."—Amale Andraos

also renovating. The Vierendeel truss structure, supported on each side by bulky cores, is a bridge-like form inspired by the area's industrial infrastructure. Adjmi has performed similar old and new mixes throughout the city, from a glass box insertion at the Wythe Hotel in Williamsburg to a torquing brick topping for Samsung at 837 Washington in the Meatpacking District.

New additions like this can provide designers breathing room to experiment with the old. Deborah Berke Partners's renovation of an East Village public school into the 122 Community Arts Center includes a rear addition, clad in a perforated steel scrim, whose circulation let the firm pull the vertical core out of the original structure, allowing it to unify what had been a jumbled hodgepodge of spaces. The addition also lightens the original façade without compromising its classical dimensions.

The key to these types of additions, notes Adjmi, is ensuring, via a sensitive approach, that both new and old get better through their interaction. "I think you will see more



TOP: The Warehouse at 520 West 20th Street by Morris Adjmi Architects, a commercial office building.

RIGHT: 122

Community Arts Center by Deborah Berke Partners transforms a fivestory historic school building to better house four arts groups and one community-service organization, near the High Line in Chelsea.



55



of this," he says. "The dynamics of need and use are starting to shape the way these types of buildings are seen." The other alternative, particularly if a building isn't landmarked, he adds, is often demolition.

"Buildings created 100 years ago are totally unprepared for the next 100 years; we're modernizing them for the next 100 years," says Brooks Slocum, studio manager

"Context isn't just a matter of visual proportions or materiality. It can also be the narrative, the story line of the neighborhood." —Eran Chen

at SGA Architects. For its reuse of the United Charities Building, a Beaux-Arts masterpiece in the Flatiron District, SGA scanned every floor and mapped the space into a point cloud model, allowing the firm to survey the space in Revit. This provided a much clearer depiction of the mess it had become and enabled the team to radically open spaces that had been cluttered and wasted. The firm built and extended an interpretation of the long-covered penthouse skylight, merging it with new mezzanines and workspaces, and convinced the clients to preserve the old assembly hall for a restaurant, rather than chopping it into banal retail spaces. "The building is breathing again," says Slocum. "It feels really wild having a building come back to life after all these years."

Younger workers and their tech and creative firms, equally uninspired by new developments with no local character or by increasingly familiar warehouses conversions, are especially drawn to this hybrid of old and new, evidenced not just by the projects noted here, but by Google's moves into Chelsea and (soon) Pier 57, Kickstarter's headquarters in Greenpoint, and so many more.

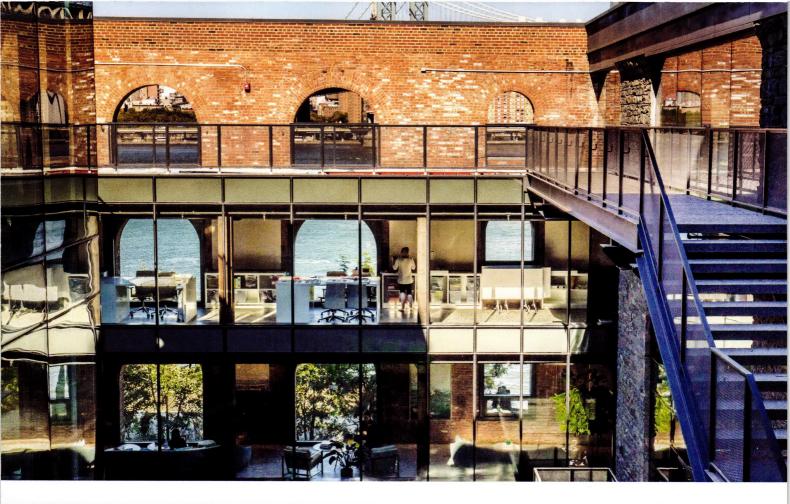


just As you IMAGINED

Where texture, warmth and color strike a perfect balance. A place where you've always belonged. Where life's richest moments are meant to take place.



eldoradostone.com





TOP: Studio V's Empire Stores creates new interior spaces inside a defunct coffee warehouse. **ABOVE:** Formerly known as the United Charities Building, 287 Park Avenue South is being redeveloped into modern offices with interiors designed by SGA.

The blurring boundary between old and new, however, is making some people nervous about the sanctity of history and the muddling of what story a building is telling. Simeon Bankoff, chair of the Historic Districts Council, is not against adaptive reuse, but he feels that inserting too much modernity into historic projects runs the risk of removing the historical presence of existing buildings, and confusing the public about what is old and what is new. "There are invasive strategies and there are less invasive strategies," he says. "Architecture is a public art. You have to think about who your audience is."

Bankoff says the situation has gotten worse under a planning commission pressured by the city to approve too much. "Under this current mayoral administration, with a very ambitious growth agenda," he notes, "all the agencies have been instructed to proceed with as minimal regulation as possible."

Andraos says the landmarks commission is no pushover, and thinks its challenges help drive her firm to develop its research. "When you're trying to present an alternate, you have to make a very strong case," she notes. "There should be a line between acceptable and unacceptable, but how you draw the line is up for negotiation, and you have to argue for it."The original plans for 10 Jay Street and Domino were turned down at first, and the architects of both those projects believe the rejection made the end results better.

Andraos posits that fusing old and new actually respects the past more than treating it in a precious, sacrosanct way. She calls it a real, deeper relationship with history, not a surface one.

"We're in a way taking it more seriously, as something that's alive rather than something you freeze and fetishize," she says. "It's alive and changing and evolving. We're allowing these structures to live today." ■

AISC introduces five new categories to give your designs MAXIMUM EXPOSURE. AESS 1.AESS 2.AESS 3.AESS 4.AESS C

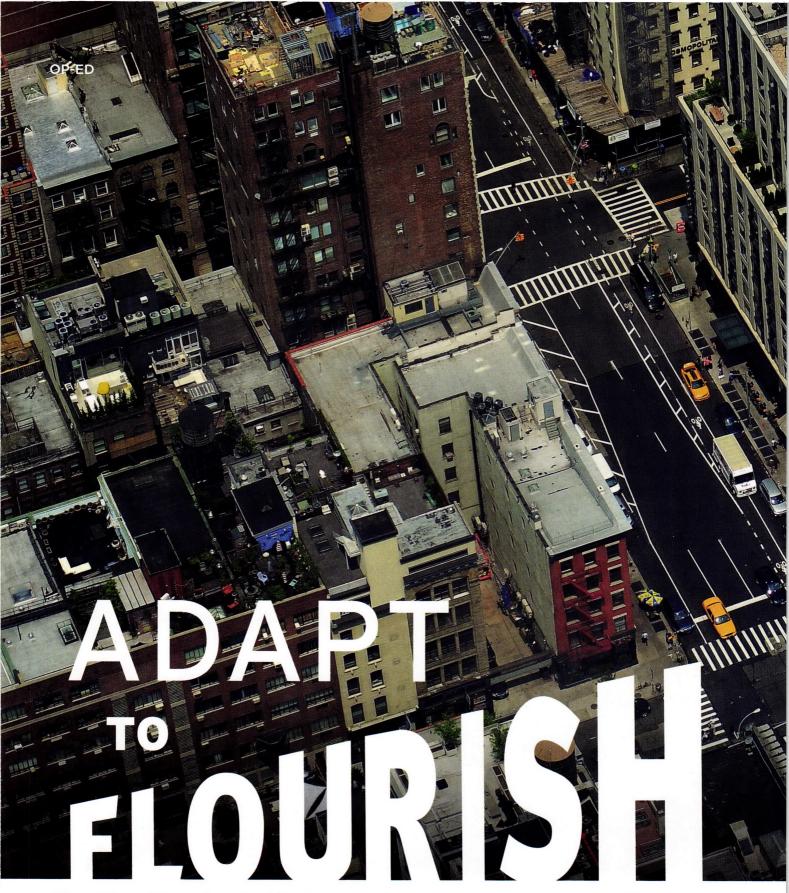
See an AESS Sample Specification, Cost Matrix, Shop Drawings and Sample Images at **www.aisc.org/aess**.

Learn more at the 2018 AIA Conference of Architecture Specifying Architecturally Exposed Structural Steel: The Next Generation for Success (EX302 1.0 LU/HSW)



Smarter. Stronger. Steel.

American Institute of Steel Construction \$12.670.2400 | www.aisc.org



The city will evolve, but its buildings must, too, writes Justin Davidson.

New York is constantly being recycled. A vet's office becomes a restaurant, which gives way to a bank. An abandoned rail line metamorphoses into a park, a warehouse into apartments, a church into a concert hall. An abandoned pier acquires a skate park. In a living organism, one generation of cells replaces another, but their functions remain the same. In a big, dense city, the opposite is true: its component parts endure only if their functions are free to change. When a space has outlived its usefulness, it must adapt or go.

New York's future depends on the usefulness of its relics. An ancient subway system must continue to serve as it always has (only better), or the city will degrade. But three other old urban dogs will have to learn new tricks: skyscrapers, stores, and streets. These elements are so basic and so pervasive that neighborhoods form and shift around them. And yet it's not clear that they can bend to the future's needs.

We have spent decades repurposing the architectural detritus of a time when America's economy was based on making, shipping, storing, and selling...stuff. Cheap, sturdy, and standardized, industrial buildings turned out to be perfectly suited to uses that would have flummoxed the workers who first occupied them. You could punch a hole in the wall to bring in new machinery, or stick on another structure when the company grew. Mills, sweatshops, and box plants shared qualities—high ceilings, abundant square footage, and plenty of daylight—that later made them splendid homes, restaurants, boutiques, theaters, and museums.

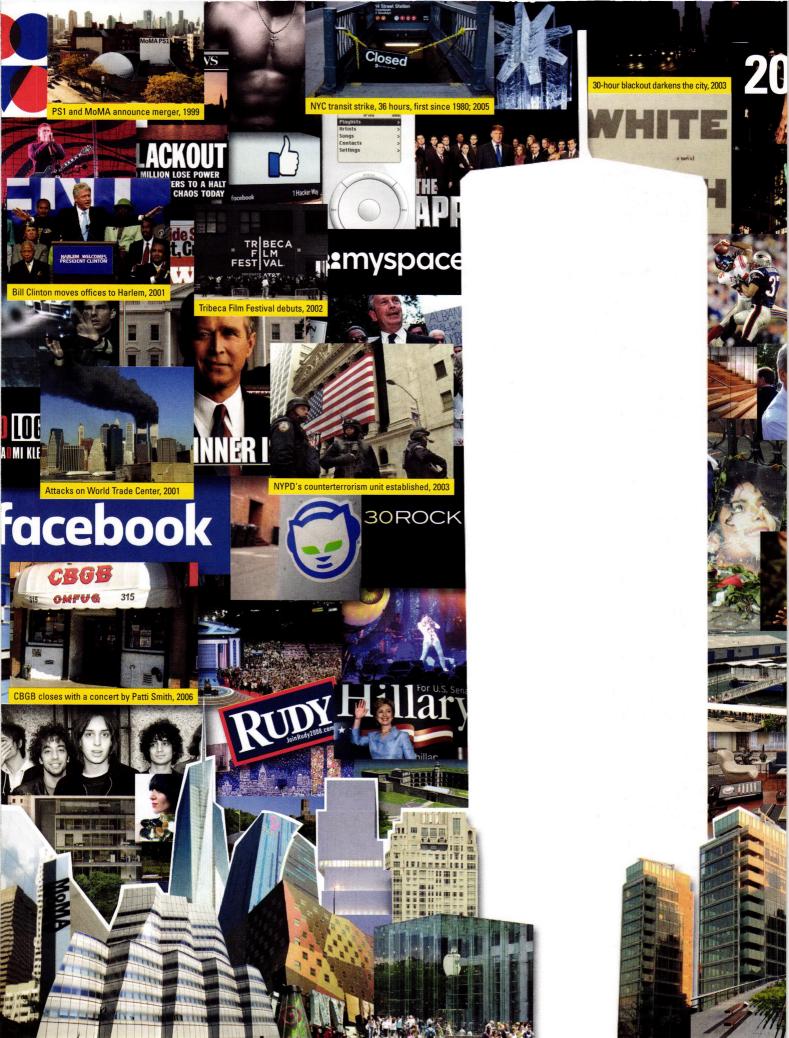
How will the architecture fare when the consulting firms, media conglomerates, real estate companies, and financial giants that have yet to move in eventually decide it's time to move on?

Today's monsters are more brittle. One day, perhaps soon, the new glass towers currently being polished to completion at Hudson Yards will be obsolete behemoths, their vast floors and expensive upkeep untenable in a work world that is sure to be transformed again in the next generation, just as it was in the last. How will the architecture fare when the consulting firms, media conglomerates, real estate companies, and financial giants that have yet to move in eventually decide it's time to move on? Will these towers be treated like the juggernauts of the 19th century, as raw material for a world we can't conceive? Or will they follow the fate of SOM's Union Carbide Building at 270 Park Avenue, which J.P. Morgan Chase plans to tear down and trade in for something in a bigger size?

The storefront is already going through that identity crisis. Online shopping, global brands, and foaming real estate prices are propagating an epidemic of dark shop windows. When rents subside, restaurants, bookstores, and quirky boutiques will fill a few of those vacancies—but not all. As retail stumbles, trembling, into a turbid future, first-floor New York will have to find new purposes. Otherwise, street life will die and with it, the rest of the city.

However indoor New York changes, on the skyline or the ground, the public realm outside will need a rejuvenating treatment, too. The 20th-century model for an urban thoroughfare—two each of sidewalks, parking lanes, and traffic lanes—already seems cumbersome, dated, and unacceptably dangerous. Why should massive steel containers, either motionless and empty or moving and nearly empty, monopolize so much shared land, pushing pedestrians up against the wall? Those crisscrossed strips of open space predate the automobile and will surely outlast it—but figuring out how will require a massive, collective effort.

New York can continue to battle its way through disaster, depression, attack, and rapacity. But for that to happen, the subway will have to improve, and the next generation must figure out how to recycle our legacy of skyscrapers, stores, and streets. Maybe drones will ferry tomatoes from 80th-floor hothouses to storefront urban farmers' markets, where customers can finger them for ripeness, then safely bike them home. It's just a thought.





John Street entrance to Brooklyn Bridge Park, designed by Michael Van Valkenburgh Associates.

WATER FROM THE SECOND

MINIMA

MIM

In recent decades, New York's historically hardworking shoreline has transformed to redefine the city for the 21st century.

BY STEPHEN ZACKS

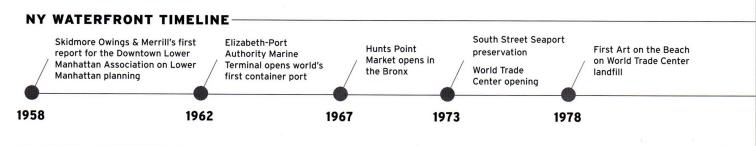
EATUR

If you'd told an attendee of the 1988 AIA Convention that, 30 years later, Manhattan's waterfront would be ringed by an almost continuous greenway, and rows of designer towers would be mounted along it like Corbusian wedding cakes, you'd have been met with pitying expressions of disbelief. Yet today, New York's shorelines, if not quite vibrant urbanistically, are increasingly lined with active and programmed parks, recreational facilities, and luxury towers. Moreover, at least the outline of a vision exists—and the start of implementation—for a resilient urban ecology for the next 100 years in the aftermath of Hur-

ricane Sandy. The shoreline is launched on an utterly opposite trajectory to the dire situation of the late '80s.

Photo credit: Photo by Elizabeth Felicella, courtesy of Michael Van Valkenburgh Associates.; Michael Van Valkenburgh Associates (opposite left); Vanni Archive (opposite right)

Often missed in our collective memory of New York's deindustrialization is the practically nuclear effect of containerization on waterfront land use: In the decades after the world's first container terminal opened in Elizabeth, New Jersey, in 1962, nearly every pier and upland warehousing facility and manufacturing trade along the water fell into ruin. Containerization reduced 97% of the cost of offloading goods from ships in various odd-sized boxes for delivery. Now it



could roll off tankers directly onto trucks and trains, requiring cleared space for stacking and loading containers instead of warehouses for storing and repackaging them, and intermodal connections to highways and rails to bypass the gas-fumed pile-up of frozen traffic in Lower Manhattan.

Often missed in our collective memory of New York's deindustrialization is the practically nuclear effect of containerization on waterfront land use.

Ten years later, passage of the Clean Water Act opened up a new opportunity for the city's relation to the river. Informal activities began to flourish in the 1970s, such as the performances and temporary sculptures organized by Alanna Heiss for the Brooklyn Bridge Event; Gordon Matta-Clark's *Day's End* sculptural intervention, cutting of a half-moon through the abandoned Navy Pier; and the Art on the Beach series organized by Creative Time on the World Trade Center landfill. By the 1980s, the best hope for reshaping the Hudson riverfront was the Westway project, which would have capped the West Side arterial highway with parks. But it was killed in 1985 by opponents of development, with nothing but a task force in place to find an alternative.

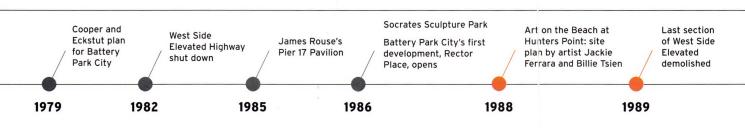
Nonetheless, the future city could have been predicted by the first projects on the reclaimed land of Battery Park City, led by Alex Cooper and Stanton Eckstut's proto-New Urbanism site plan. Its design was celebrated for introducing traditional streetscapes into the blank slate of the landfill, connecting it to Lower Manhattan's street grid, and implanting bucolic waterfront parks to give form to its commercial and housing developments. The project saved the Battery Park City Authority from near-default on its \$200 million in bonds and defined the assumptions that would be scripted into the next half-century of New York waterfront development. Starting with Cesar Pelli's World Financial Center (1985) and the Rector Place apartment complexes by Charles Moore, Gruzen Samton Steinglass, David Brody & Associates, and James Polshek, the new neighborhood lost its original mixed-income intentions and became a gated community catering to upperincome earners in the Financial District. Yet its profits ended up subsidizing public housing for decades.

"The city had abused the river for so long, it was time," said Alex Cooper. "That was what was so startling about it: It was almost the first project that recognized the





LEFT: The Hudson River Park Trust commissioned Thomas Balsley (2000) and later Michael Van Valkenberg (2010) to design sections of Chelsea Cove. **ABOVE:** Waterfront around Hudson River Park Boathouse, Pier 95, designed by architect Richard Dattner & Partners (2007) with landscape design by Miceli Kulik Williams.





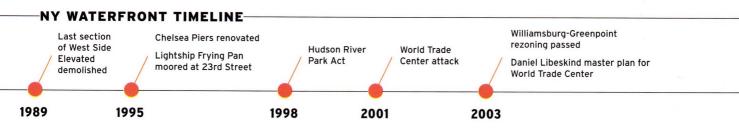
waterfront as so important. And that's why it was so financially successful. It wasn't the buildings, it wasn't the parking on the streets—it was the river. It was that crucial. But not many other projects opened themselves up so much to the river. In the last 10 years, it's become absolute convention."

On the East River, James Rouse's development of Pier 17 into a festival marketplace in 1985 recalls the desperate lack of access to capital for public projects of that time. South Street Seaport leveraged a decommissioned section of the fish market to pay for historic preservation of the district's 19th-century warehouses, creating a waterfront mall that served as an attraction for a while. On the Hudson, in 1995, Chelsea Piers converted piers 59 through 62 into a sports complex with a golf driving range, bowling alley, hockey rink, track, rock climbing gym, and event space. Its forbidding façade appealed to the big-box urbanism taking over the rest of the country, but destroyed the Warren & Wetmore arrival hall that once welcomed waterborne visitors in grand style. Little is left of these historic waterfront structures apart from the 1909 Battery Maritime Building, the only relic preserved from an era when ferries formed a vital transportation network, now a hub for ferries to Governors Island.

"Battery Park City was almost the first project that recognized the waterfront as so important. And that's why it was so financially successful."—Alex Cooper

The systematic contours of a new land use policy began to emerge as early as 1992, when Wilbur Woods, director of City Planning Commission's Waterfront and Open Space Division, led stakeholders in defining 22 stretches of natural and public areas, industrial zones, and redevelopment districts in the Comprehensive Waterfront Plan, which the state formalized in the 2002 Waterfront Revitalization Program. The plan gathered input from community boards, the Port Authority, the Army Corp of Engineers, the Parks Department, New York State Department of Conservation, unions, longshoremen, environmental groups, and the all-powerful real estate community to come up with a set of compromises.

"It was not a singular grand plan by a group of visionary designers," said Kevin Bone, who in 1999 published *The New York Waterfront: Evolution and Building Culture of the Port* and Harbor, examining the disappearing port infrastructure





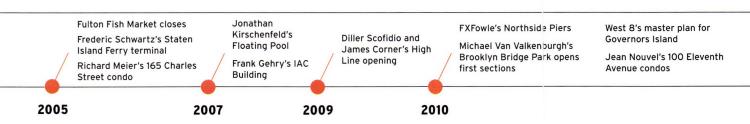


TOP: Current flood zones in Lower Manhattan and northern Brooklyn. **ABOVE:** Area of Greenpoint Landing master plan by Handel Architects. of the city. "It was hard-won public policy that was battled out in the trenches. It attempted to say that we can find a hybrid solution where some interests are addressed in some locations along the 500 miles of waterfront around New York City. So we could have a recreational waterfront, an ecological waterfront, a working waterfront, and development opportunities along the waterfront."

It wasn't until 1998 that New York State passed the Hudson River Park Act, dedicating \$120 million to a continuous pedestrian and bike path and park on top of the piers stretching from Battery Park City to Riverside Park. These features so quickly and seamlessly filled up with recreational activities that it's hard to remember when they were not there. Hudson River Park Trust subsequently commissioned Abel Bainnson Butz to design the first pier-to-park conversions in Greenwich Village (2003), followed by an uptown boathouse by Richard Dattner & Partners at Clinton Cove (2007); sections of Chelsea Cove by Thomas Balsley (2000), Michael Van Valkenberg (2010), and CR Studio (2010); and the redesign of Pier 66 by Miceli Kulik Williams and Richard Dattner (2007).

Hudson River Park and rezoning actions ushered in a Gold Coast effect, using a methodology that dominated the 2000s: The real estate industry tapped leading "starchitects" to design boutique condos, which had the effect of increasing profits almost limitlessly. Celebrities snapped up the first of these by Richard Meier, 15-story orthogonal glass towers at 173 and 176 Perry Street (2002) and 176 Charles Street (2005)—"a glorious future for waterfront development," proclaimed a New York Times real estate story-with high ceilings and open-plan interiors modeled after the loft-style spaces Bohemians made fashionable in the 1960s and '70s. It was the dawn of a new age of the modern high-rise condo. Frank Gehry's frosted confection of an IAC headquarters (2007) put a cherry on top of the era before the mortgagebacked securities crisis purportedly ushered in a new austerity. It didn't last long.

While overall housing construction in the city kept up a rabid pace, the relatively sleepy progress of shoreline development in the 2000s cannot be compared to the velocity of change set in motion by the opening of the High Line in 2009. With the city still in a slowdown, Ennead's 18-story Standard Hotel opened in 2009, the High Line running through its sculptural footings, and in 2010, Jean Nouvel's





A waterfront park planned for Greenpoint Landing, designed by James Corner Field Operations in Handel Architect's master plan.

23-story curving corner tower at 100 Eleventh Avenue rocketed the edge of Chelsea into a space race. Lagging indicators of the 2000s, they were reborn into the new formalism of the 2010s: Ever more defamiliarizing towers by BIG, Zaha Hadid, Neil Denari, Thomas Heatherwick, and SHoP populated the city's edge from Battery Park City to 57th Street. The Whitney Museum's 2015 move to a Renzo Piano building, shaped like a Parisian garret overviewing the park and the High Line, punctuated a soaring view of the Jersey

A glassy and glossy city rose along the East River in Williamsburg and Long Island City, employing an inclusionary zoning model.

skies with an epic entry plaza. New York City homelessness doubled during the same time period, according to the New York City Department of Homeless Services and Human Resource Administration.

Much of the initial zoning action involved parks and special waterfront districts in Williamsburg and Greenpoint, Long Island City, Dumbo, Stapleton on Staten Island, and the Far West Side of Manhattan, among others, created with the goal of remediating industrial sites, providing public access, and incentivizing housing development. By the

time the Bloomberg Administration released its Vision 2020 comprehensive waterfront zoning plan in 2011, the city had already acquired nearly 1,250 acres as parkland. A glassy and glossy city rose along the East River in Williamsburg and Long Island City, employing an inclusionary zoning model that required waterfront developments to allocate 20% to 30% of its units to affordable housing.

Did any of the builders and buyers notice that in 2012, storm surges during Hurricane Sandy had flooded all these areas, causing \$19 billion in damage—and were expected to only get worse in the coming decades? Yes, they did. "Looking back on it today, there's a challenge in that we've taken this place of opportunity that's now become a place to manage risk," said Robert Freudenberg, vice president of energy and environment at the Regional Plan Association. "Now we're facing a crisis at our waterfront in terms of how to manage it with climate change, sea level rising, and more intense and increasing storms."

More aggressive FEMA flood maps issued after Sandy would force thousands of properties to carry flood insurance, potentially costing vulnerable low-income homeowners in Brooklyn and Queens an additional \$3,000 each year. The city's own plan aims to limit FEMA's flood maps and use engineered solutions within the 100-year flood zone to preserve land values, which more than doubled from 2010 to 2014. Yet the waterfront parks did form a moderate buffer during the storm. "These parks are not just a place to have good recreational use-they are buffers against the threats we now face," said Freudenberg. "That foresight was very good by the city, and we're also beginning to see how we can reimagine these parks as places that both provide recreational amenities and absorb the water."

Even before the storm, the Waterfront Alliance convened a green engineering task force on waterfront design, which established the need for common design guidelines. "It's so complicated and hard to do anything there," said Kate Boicourt, Waterfront Alliance's program manager, "because you've got 10 different agencies, changing things like sea-level rise, and a lot of different jurisdictions from a regulatory perspective. Developers and designers find it really hard. When Sandy hit, there was a real need to jump into action."

Sandy served as the wake-up call that pushed the Waterfront Alliance and city agencies to create new guidelines that make waterfront parks and developments more resilient based





Make It Awesome! Make It Last!

Add color and extend the life of paved surfaces with StreetBond® Coatings. Unlike harder, unsightly coatings that crack and may accelerate asphalt damage, flexible and durable StreetBond® Coatings are designed to conform to the normal expansion and contraction of asphalt surfaces. How awesome is that?



©2016 GAF 12/16



Quality You Can Trust...From North America's Largest Roofing Manufacturer!"



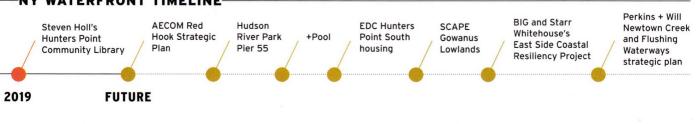
on higher flood level and sea-level rise estimates. In 2015, the Waterfront Alliance issued its comprehensive Waterfront Edge Design Guidelines to promote resilience, ecology, and ecology at the water's edge, expanded this year to serve as a LEED-like national design standard. In 2017, the Mayor's Office of Resilience and Recovery issued its Climate Resilience Design Guidelines. Part of the goal is to educate architects as well as the public about the issues and to improve the design process itself. Fortunately, there's more community involvement now than in the days when the Rockefellers could hire SOM to draw up designs for the World Trade Center and Battery Park City and push them through planning with no input from stakeholders. "We go out and communicate with our community partners about what is waterfront development, what are the options, and what is it going to look like," said Boicourt. "There's a lot more community control and influence on waterfront projects, and we want to make sure those decisions are informed and engaged."

New parks like Bushwick Inlet Park are beginning to anticipate a projected 15- to 75-inch, 100-year sea-level rise in their designs. In developments like Greenpoint Landing, Handel Architects and James Corner Field Operations raised the edge by three to five feet within the entire 11-building, 5,500-unit project along the East River and Newtown Creek. Along the East River, BIG and Starr Whitehouse's East Side Coastal Resiliency Project—initiated as a result of the Department of Housing and Urban Development's Rebuild by Design Hurricane Sandy Design Competition—would outfit 2.2 miles of the Lower Manhattan shoreline from the end of SHoP's East River Esplanade up to 25th Street with levees disguised as parks and bike paths to protect upland property from flooding. This combination of park and surge barrier has already been implemented in parks like Michael Van Valkenburgh's Brooklyn Bridge Park.

"There's a lot more community control and influence on waterfront projects." —Kate Boicourt

"One question we have looking forward: Now that we've put so many people and so much new development at the waterfront, what are we going to look back on in 30 years and say we did right or should have done differently?" said Freudenberg. "Building to high-resilience standards is no longer a luxury, it's a necessity."

NY WATERFRONT TIMELINE



gsky.com TAKING GREEN WALL ARCHITECTURE TO NEW HEIGHTS

Vertical By Design

We are an awardwinning leading provider of vertical Living Green Walls in North America, Europe, Australia & the Middle East.

design install maintain

- Shop Drawings
- Plant Design
- Plant Logistics
 Engineering Support
- Project Management
- Ongoing Service
- support
- Dealers
- Maintenance Providers
- Corporate Clients

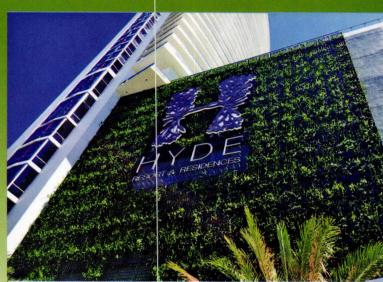


AIA BOOTH #324 LEVEL 3



VERSA WALL® - 4" Potted Plants

Interior



BASIC WALL® - Vine Screen System

Exterior



VERSA WALL[®] X - 1 Gal. Potted Plants

Exterior



PRO WALL® - Pre-Planted Panels

Exterior

info@gsky.com

NOTSO-SMARTCITY

In the face of extreme weather, we're still dancing at the water's edge, writes Karrie Jacobs.

A month or so after Hurricane Katrina, I visited the Gulf Coast of Mississippi, where a bucolic string of waterfront towns had been inundated by a monster storm surge—nearly 28 feet high at its worst— that tore casino barges from their moorings, leveled antebellum mansions, and wiped quaint business districts from the map. In the years that followed, I occasionally returned to the region and marveled at the way people rebuilt. In so-called "velocity zones," where FEMA base flood elevation regulations required new construction to be 10 to 20 feet above grade, otherwise ordinary single-family homes were suddenly jacked up like fire towers.

Later, after hurricanes Irene and Sandy hit closer to home, I started noticing similar houses along the Jersey Shore, everything from little beach cottages to massive Victorians hovering a story or two above the ground like PoMo spaceships.

Elevating one's waterfront home is a logical move and, in many locations, a mandatory one, but it's not very elegant. While boosting individual homes so they sit above incoming floodwater does offer families a modicum of protection, it isolates them from the street and from each other. The strategy also advances the fiction that the most vulnerable areas can continue to be inhabited if we are ingenious enough. Global warming, I should point out, is a by-product of human ingenuity; if we were even half as clever as we be-lieve ourselves to be, we would have already ceded the most vulnerable waterfronts to the forces of nature.

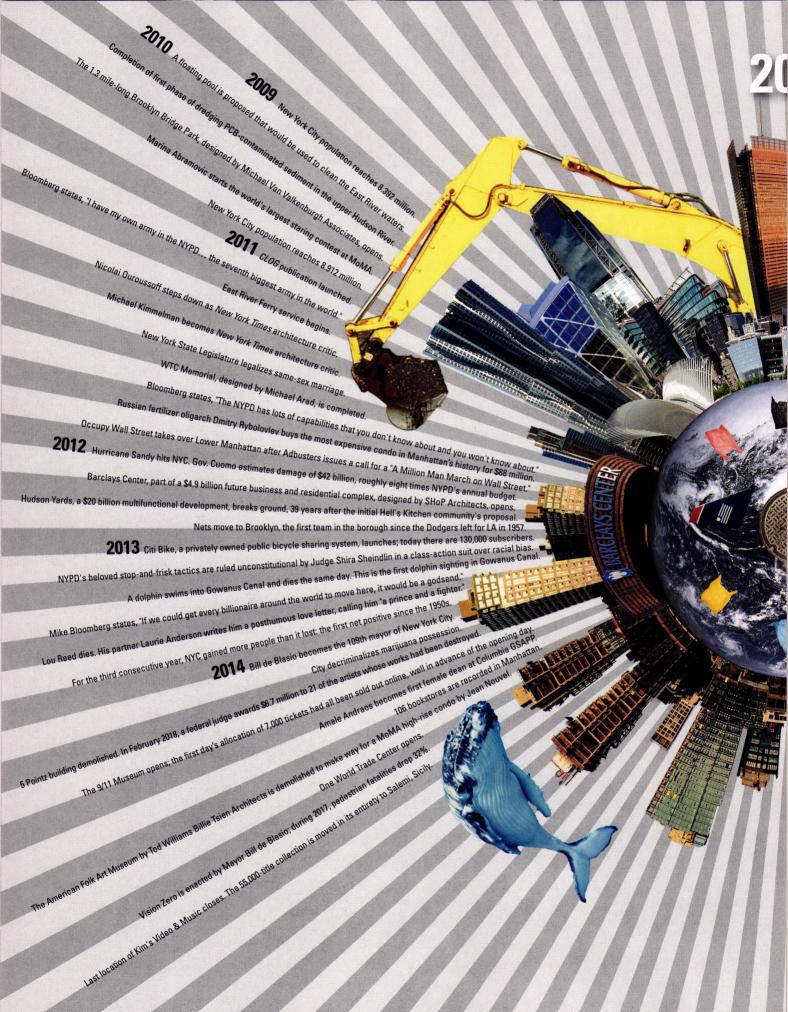
While the jacked-up houses of Waveland, Mississippi, and Long Beach, New Jersey, look absurd, the epicenter of ridiculousness is right here in New York City. We, too, have velocity zones, areas that must be evacuated in case of hurricanes. These expanses are known in local emergency parlance as Zones 1 and 2, and they're represented on maps as long bands of red-orange and orange that color almost all the city's waterfronts. If you check out the flood maps for 2050, those danger zones only grow larger and deeper. According to a document on flood risk put out by New York City's planning department, "sea levels are expected to increase 8 to 30 inches by the 2050s, and as much as 15 to 75 inches by the end of the century." Certain parts of the city, like Coney Island, the Rockaways, and areas adjacent to Jamaica Bay—Kennedy Airport, for example—seem fated to disappear altogether. Other waterfront areas will just flood with greater regularity.

If we were even as half as clever as we believe ourselves to be, we would have already ceded the most vulnerable waterfronts to the forces of nature.

Now, think of the spots where new development is proceeding apace: It's in Zones 1 and 2, the postindustrial waterfronts of Long Island City, Queens, and Brooklyn neighborhoods like Williamsburg, Greenpoint, DUMBO, and Red Hook. New glass boxes and towers are popping up along the banks of the Gowanus Canal in Brooklyn and the Harlem River in the Bronx.

So the high-rise buildings that are going up along the New York City waterfronts are the cosmopolitan answer to the Gulf Coast's houses on stilts, aeries that promise to keep their occupants safe and dry (even though occupants in both places will surely be forced to evacuate ahead of a storm). Some, like the recently completed American Copper Buildings, a pair of luxury rental towers near the East River in Manhattan, have prepped for the worst by installing emergency generators that will, in theory, crank out enough power to keep the elevators running, refrigerators working, and cell phones charged even if the nearest Con Ed substation is submerged. Others, like the buildings on the Domino site in Williamsburg, are separated from the water by unusually generous and wellcrafted strips of park, intended to slow and absorb floodwaters. All these new buildings must adhere to post-Sandy building codes that require mechanical systems to be housed above flood level. Regardless, a hurricane-driven storm surge can still cause enough structural damage to render a building uninhabitable temporarily or, perhaps, permanently.

We like to believe that our tall buildings are safe and strong, and that they will protect us from whatever comes. However, we've learned the hard way that this isn't always the case. From where we sit in 2018, as every spare strip of waterfront is developed, it's not hard to imagine a time—let's say 2050 when the water's edge is lined with glearning high-rises, all of them as disused and depopulated as the factories, warehouses, and wharfs they once replaced.



Os

2112 Halling attacts 2 million vertors, nearly were as were more the more thank of the completed. The White & Opens in its new Measure and building designed by Renzo Plano. Sivercup Studios announces its Bronk expansion. Christopher Swain swims in the Gowanus Canal soup of petrochemicals and sewage water. Donald Trump anneunces his presidential prover at trainip review. The Jinx premieres on HBO, delving into the murderous history of New York real estate heir Robert Durst. Christopher Swam Swims in une ouwerve werne trump Tower. Donald Trump announces his presidential bid at Trump Tower. The Democratic debate between Bernie and Hillary is held at the Brooklyn Navy Yard. The World Trade Center Oculus by Santiago Calatrava opens, costing \$4 billion.

Wallated of a sale prosses to set on the prost of the set of the s

Entries Constitution management of a start with a start of the start o

A humpback whale is spotted in the Hurlson, lingering for a week before returning into the ocean. In an attempt to woo the New York City voters, Hillary Clinton rides the subway but swipes MetroCard improperly.

Governors Island reopens as a park, concert venue, adult playground, and outdoor art space.

City decriminalizes turnstile iumping.

Gawker shutters after losing defamation lawsuit against Hulk Hogan. On being asked how does one ride a subway, Brooklyn-born Vermont Senator Bernie Sanders says, "You get a token and you get on."

hirty percent of all apartments from 49th to 70th Streets between F fth and Park are vacant at least 10 months a year.

On the 100th anniversary of NYC's zoning law, Planning Chief Carl Weisbrod ushers in the largest zoning overhaul since the '60s. The Salt Shed opens, attracting fashion and film shoots amid the rock salt.

Donald Trump wins the U.S. presidency.

AND Sections Actives of the and the and the active of the

A volian is eviced and the work of the source of the sourc

ATTOM Data names Brooklyn the "most unaffordable place to live in America." 2017 NYU opens its Brooklyn campus.

The Second Avenue subway opens, after beginning in 1972 and costing \$17 billion. Fearless Girl statue stands up to Wall Street's charging bull. The largest foreclosure in the city's history, a \$35.3M mortgage, is recorded at One57. American landscape architect and installation artist Vito Acconci dies. American innovane units After a 62-year run, the last is: ue of the Village Voice is printed. It continues to exist online.

Rockaway Boardwalk is complete, the largest post-Sandy resiliency project to date. There is an explosion in the tunnel at the Time Square subway station. A Vehicular terrorist attack in a Lower Manhattan bike lane kills eight and injures 13.

A vehicular terrorist attack in a Lower Nicmaticus which is a solution of the New York City Cabaret Law a dancing bal originally enacted in 1926 during the Prohibition era is repealed. First phase of Cornell Tech Roosever status to the status of the Cornell Tech Roosever status to the status of the Cornel Sex and the Cornel Sex a

©Margaret Arbanas

FEATURE

ORIGINS of GREEN

Today New York City is a leader in sustainable building and practice, but the decades-old history of its pioneering role in green design often goes untold.

BY LAURIE KERR, FAIA, LEED AP, AND ROGER PLATT

Today we take for granted that dense urban living is less resource-intensive and therefore greener than its rural and suburban counterparts. Indeed, the average New Yorker is responsible for roughly one-third of the carbon emissions of the average American, according to the 2015 Inventory of New York City Greenhouse Gas Emissions. This is due largely to pervasive public transportation and small apartments with shared walls that insulate one another. Moreover, cities are beginning to supersede state and national governments as the creative cauldrons of effective, large-scale environmental policies. The innate greenness of cities is now so broadly accepted that it's hard to remember that not too long ago, everyone believed the exact opposite. Cities were decadent, polluted, and artificial, and the countryside was wholesome, clean, and natural, as exemplified in two comments by Frank Lloyd Wright: "To look at the crosssection of any plan of a big city is to look at something like the section of a fibrous tumor" and "Study nature, love nature, stay close to nature. It will never fail you."

This is the little-known story of how New York City architects and their enlightened clients, eventually supported by city and state officials, inverted that paradigm, brought the environment into the city, and scaled sustainability over the course of three decades.

Back in the 1970s, New York City was moving toward a crisis point that overtly exposed its highly toxic environment. Along with its economic and social woes, the city was an environmental catastrophe. Its air was filthy due to coal- and oil-burning furnaces, waste-burning incinerators, and vehicles without emissions controls, and its great harbor was fouled by the dumping of raw sewage nearby at sea. At that point, it would have been hard to imagine that cities—particularly traditional dense cities—had environmental benefits.

Back in the 1970s, New York City was moving toward a crisis point that overtly exposed its highly toxic environment.

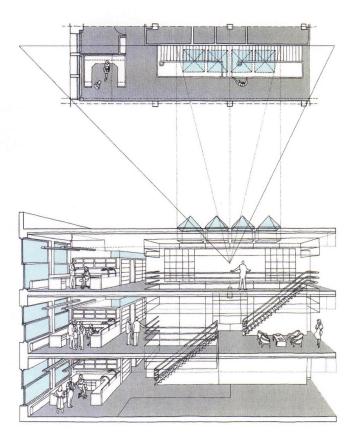
Many New Yorkers embraced the countercultural movements of the late '60s and '70s and looked outside urban areas for a greener alternative. In America's great transcendentalist tradition, they renounced city life, joined back-to-the-land communes, and cultivated rural self-reliance. Out of this individualistic, off-thegrid strain of the counterculture came many of the first experiments in green buildings, typically small passive solar houses, often based on vernacular models and constructed of natural materials. The era's bible, *The*



OPPOSITE: Roof detail of HOK's St. George Ferry Terminal, completed in 2005. **ABOVE:** Interior of the National Resources Defense Council's offices by Croxton Collaborative, completed in 1989.

CROXTON COLLABORATIVE NRDC HEADQUARTERS (1987-1989) 40 WEST 20TH STREET

In his 2014 book Explosion Green, David Gottfried, founder of the U.S. Green Building Council and a historian of the green building movement, concluded that the National Resources Defense Council (NRDC) project was "likely the first sustainably designed office space in the country, addressing light, air, energy, and occupant health and productivity." He points out that energy use in the office was "75% more efficient than the norm" and that "the level of fresh air supplied to the space was six times higher than required by the prevailing standard," creating "a slight breeze." Most importantly, a Con Edison study monitoring the performance of the space over the next 24 months demonstrated energy use had come in at .55 watts per square feet while producing staggering amounts of fresh air. These results were accomplished through the innovative layout, generous daylighting (possible in part by removing the existing dropped ceiling), and cutting-edge lighting design. In a New York Times article covering the project, architect Randy Croxton stressed the "off-the-shelf" nature of key components. "There is not one technological breakthrough here," he told the Times. "The individual pieces-like that lamp-anybody can buy. We didn't invent it. But that combination, that assembled performance of the system in place, is unique."



Section of NRDC offices showcasing daylighting strategy.

Whole Earth Catalog, featured low-energy houses made of rammed earth and straw bales—technologies that would have been decidedly out of place in a dense urban environment like, say, Times Square. Tinged with a rural utopianism, these early experiments seemed inapplicable and therefore irrelevant to the vast building stock of the nation's struggling cities.

Paradoxically, perhaps, the early 1960s also saw social activism that would help later generations rediscover the great strengths of cities. Jane Jacobs, the famous writer/ activist, stood her ground when mainstream planners were plotting to demolish huge swaths of dense traditional neighborhoods and replace them with hygienic "towers in the park." Her successful battles to save Lower Manhattan's neighborhoods, including stopping Robert Moses's plan for a four-lane highway through Washington Square Park, are rightly recognized as the turning point when people started to appreciate dense, disorderly cities again-at least enough to stop tearing them down. In line with this more progressive strain of urbanism came three small but revolutionary New York City architectural projects in the late '80s and early '90s demonstrating that cities, too, were part of the environment and green buildings could actually be a positive element for that environment.

THE '80S & EARLY '90S: FIRST GREEN STEPS

In New York, the '80s began with a short-lived boom of tax-driven downtown office building development focused on costs, prepackaged solutions, and glitz. Green architecture had not yet entered the city or become part of institutional agendas. This was the period before the United Nation's watershed Rio Sustainability Conference in 1992, AIA's Committee on the Environment (COTE), the U.S. Green Building Council (USGBC), and LEED. Imagine, then, the excitement with which architects Randy Croxton and William McDonough greeted their respective commissions in the mid- to late '80s for the design of the New York headquarters of three leading environmental organizations. All were to be green renovations that reused historic urban building stock rather than new glitz.

In the earliest of the three, the Environmental Defense Fund (EDF) offices required that William McDonough Architects design its space to strict air-quality requirements, an element of the commission that McDonough has credited with pushing him toward his lifelong investigation into healthy building materials and eventually leading to the "Cradle to Cradle" building materials rating system. Talking to the *New York Times* about the project after the fact in 1992, McDonough pointed out that the architecture team "avoided paints that have fungicides for shelf life" and "carpet glues with formaldehyde," instead tacking down the carpet.

With their design for the National Audubon Society's Varick Street headquarters, Croxton and Childs wrote the book on best practices in green architecture.

The progressive design philosophy applied to the EDF assignment (completed in 1986) was shared with developer David Gottfried, who, with lawyer Mike Italiano, was exploring the possibility of creating an organization that in 1993 became the USGBC. Notably, McDonough was among the handful of NYC-based architects to participate in the AIA's COTE, which had been founded three years earlier. COTE played a critical role in launching USGBC, including providing some of its early board members and offering technical input crucial to the creation of the LEED rating system, now used in over 170 countries.

Another NYC architect who was actually a founding member of COTE was Randy Croxton. His and Kirsten Childs's (Croxton Collaborative) design work for three floors of the Natural Resources Defense Council's (NRDC) Lower Manhattan offices is cited in Gottfried's 2014 history of the green building movement, Explosion Green, as monumentally influential (see box on page 77) in what later became LEED. The project, completed in 1988, addressed head-on the contemporaneous concern that "too much" energy efficiency could lead to "sick buildings" and insufficient fresh air. Their design accomplished ambitious energy-efficiency objectives while also ensuring the space had so much additional fresh air that Gottfried referred to a "gentle breeze" coming through the key spaces. Like McDonough's design principles, Croxton's lessons were codified into influential guidelines published in 1994 by the National Institute of Science and Technology. Just as importantly, perhaps, the design also generated mainstream media coverage, including both a New York Times feature article and a follow-up Times editorial celebrating the building's proven energy performance ("An Exemplary Office For Conservationists," by David Dunlap on April 4, 1989, and "The Editorial Notebook; A Light Diet for Office Light," by David C. Anderson on April 2, 1990).



Spiral Staircase in National Audubon Society's Varick Street headquarters; Croxton Colloborative published a book-length case study detailing the sustainable strategies behind the design in 1994.

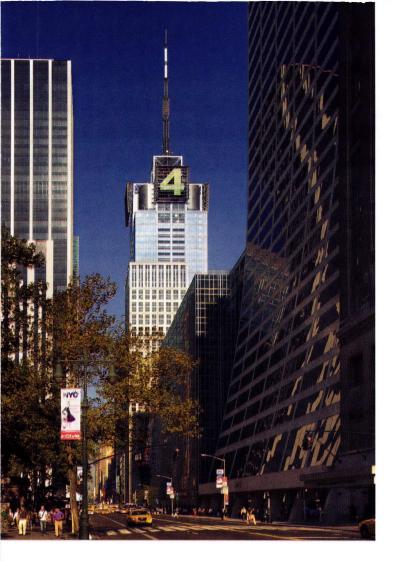
The third initial catalyst for green urban architecture also came from the Croxton Collaborative. With their design for the National Audubon Society's Varick Street headquarters, Croxton and Childs literally wrote the book on best practices in green architecture. The 1994 book-length case study titled Audubon House: Building the Environmentally Responsible Energy Efficient Office tells the detailed story of the \$14 million renovation and recycling of George B. Post's 1890 Romanesque gem. Most importantly from a policy standpoint, according to the AIA's 1994 Guide to Sustainable Design, the architects and Audubon demonstrated through detailed analysis that if "all buildings followed its example for water conservation, solid waste management, and support for mass transit, then the next sewer module, incinerator, landfill, or highway project could be avoided." As with earlier work, it also received substantial press attention, including a piece in the New York Times ("Beyond Organic Architecture: The Office as Oasis," July 26, 1992).

LATE '90S, EARLY 2000S: GREEN DREAM TEAM

In the late '90s, a dream team of incredibly well-positioned New York visionaries—developer Doug Durst, architect Fox & Fowle, and builder Dan Tishman, encouraged by environmental gadfly Ashok Gupta of the NRDC—made a startlingly gutsy move. They decided to take these nascent ideas to scale and create a green skyscraper right at 4 Times Square, the symbolic, gritty heart of the nation's largest city. This move nailed it: green building was now big, bold, and brashly urban, and it caught everyone's attention. (See box on page 80.)

While 4 Times Square was under construction, Hilary Brown, FAIA, of the Department of Design and Construction (DDC), the city's building agency, initiated the greening of municipal buildings by issuing the influential High Performance Building Guidelines (1999). Also taking lessons learned from 4 Times Square, Bob Fox guided a team of design luminaries in the development of green guidelines for New York State's Battery Park City, an entirely new neighborhood. These latter guidelines helped create a wave of iconic private sector green buildings, including the first LEED-certified residential highrise, the Solaire by César Pelli, completed in 2003. And pursuant to the DDC guidelines, a series of municipal projects were completed in the mid-2000s, including Staten Island's St. George Ferry Terminal—with its signature green roof—designed by HOK and completed in 2005, and the Queens Botanical Garden, designed by BKSK and completed in 2007.

Already in 2005, these public and privately commissioned designs had been so successful in demonstrating the benefits of green building that the city passed its first major green building ordinance, Local Law 86, which required most New York City government projects to meet LEED standards and reduce energy and water consumption. In just 15 years, sustainable design in New York City had leapt



from a handful of artisanal renovations to strict requirements that affected every single large municipal project.

Soon it would go citywide. By the 2000s, the city was growing rapidly and expecting a million *more* residents by 2030. How could they be accommodated while still maintaining quality of life in an already crowded city whose infrastructure shows signs of strain? Sustainable building design appeared to answer this question, and in 2006, under Mayor Michael Bloomberg, the city launched a major planning effort involving key players from many of the projects discussed above. The result, the widely emulated PlaNYC, had 10 overarching goals, including access to parks, clean air, and a 30% reduction in citywide carbon emissions by 2030.

A key insight behind PlaNYC was the extent to which buildings dominate New York's environmental footprint, with buildings being responsible for fully three-quarters of citywide carbon emissions. Consequently, PlaNYC included initiatives aimed at greening the city's building codes and regulations and phasing out dirty residual heating oil, which has resulted in the city having its cleanest air in well over a decade. PlaNYC's signature green building initiative, the Greener, Greater Buildings Plan, comprehensively addresses energy use in the large

FOX & FOWLE CONDE NAST BUILDING (1996-1999) 4 TIMES SQUARE

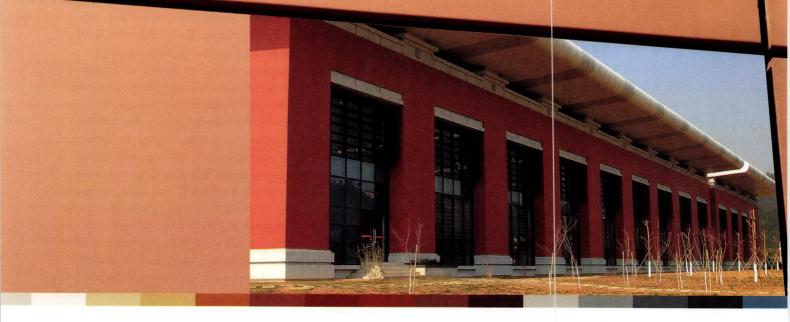
The former Condé Nast Building, now known as 4 Times Square, was recognized even as it was being designed as a pioneering green skyscraper. Gas-fired absorption chillers and a high-performing insulating and shading curtain wall dramatically limited the need to heat or cool the building during much of the year. At the same time, the air-delivery system with high-elevation outside air intakes provided 50% more fresh air than was required by New York City Building Code. Green features also include high-performance windows; separate disposal chutes for recyclable materials; occupancy sensors; variable speed drive pumps; photovoltaic panels embedded in the upper walls of the building and two 200 kW natural gas-powered phosphoric acid fuel cells that provide about 10% of the building's electricity; 100% outside air purge system; a floor-by-floor air-handling system; nontoxic and biodegradable materials; and sustainably harvested wood. The innovative rooftop structure known as "hat trusses" strengthen the building by tying together the vertical structural members, which reduces the tonnage of structural steel needed. As with the NRDC project, the client, the Durst Organization, was fearless in investing in a post-occupancy analysis of the building's performance so it could learn from mistakes as well as successes.



TOP: Fox & Fowle's 4 Times Square for Condé Nast, completed in 1999 for the Durst Organization, was a pioneering example of green building strategies. **ABOVE:** BKSK Architects's Queens Botanical Garden, completed in 2007.

Introducing Acme TC Cladding.

Terra Cotta. Tough Construction. Total Confidence.

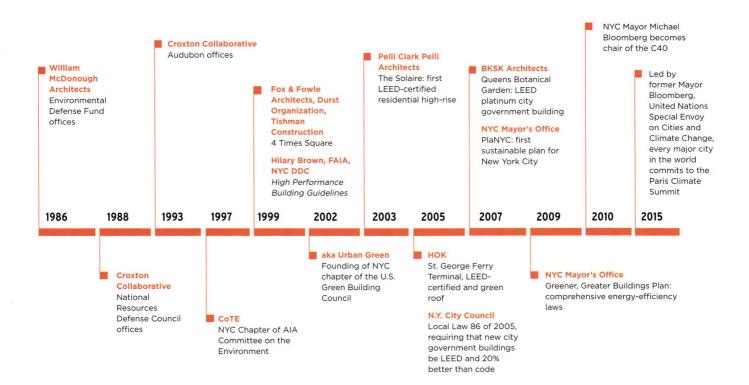


acmetccladding.com an Acme Brick product



Visit us at: AIA Conference on Architecture | June 21-23, 2018, Acme booth 1839 | Javits Center, NY

THIRTY SHORT YEARS FROM THE RENOVATION OF ONE OFFICE TO GREENING EVERY MAJOR CITY IN THE WORLD



The hardest part remains motivating private sector owners to exploit the carbon reductions inherent in most of their—still highly inefficient existing buildings.

buildings that comprise half the city's square footage by requiring benchmarking, audits, and submeters—providing building owners with the information they need to improve their buildings and manage them efficiently.

KEEPING THE MOMENTUM ALIVE

After PlaNYC was rolled out, Mayor Bloomberg began to play a leadership role in the nascent low-carbon city movement, most recently serving as the UN's Special Envoy for Cities and Climate Change. By the time of the watershed Paris climate summit in 2015, less than 30 years after the first green office renovation, New York City and its key design and policy precedents had been instrumental in scaling green building globally.

Continuing recognition of the importance of environmental objectives is not a problem in New York. Mayor Bill de Blasio has committed to achieving even deeper carbon reductions than his predecessors (80% carbon emissions reductions by 2050). However, performance on this commitment will take more than political will-it will take technical sophistication and innovation. The city has mandated that its own new buildings become laboratories of just this kind of innovation, and the New York State Energy Research Development Authority is launching a competition for hyperefficient new multifamily buildings, which should further broaden the knowledge base. The hardest part remains motivating private sector owners to exploit the carbon reductions inherent in most of their-still highly inefficient-existing buildings. Benchmarking and audit data collected pursuant to the PlaNYC mandates is helping to rationally prioritize action. But, disappointingly, it is not proving a significant source of motivation for owners of existing buildings to undertake retrofits they continue to deem costly or simply irrelevant to their basic business models.

In the end, however, New York's path toward deep carbon reductions will not just be top-down or regulatory in nature. Nor will it come just from improved technologies and education. We will need more pioneering clients and architects like those of 30 years ago, whose individual project blueprints ultimately became blueprints for a better city. ■

Nordic Copper

Visit us at AIA Conference Level 3, Booth 143

Discover Nordic Copper for Architecture

Hotel Bürgenstock, Switzerland Photo: Olaf Rohl Fotografie

Architectural Copper Surfaces and Alloys

Copper is a constantly evolving, natural and durable material with an indefinite design-life. It is fully recyclable, safe to use, non-combustible and requires no maintenance. Nordic Copper is an impressive portfolio of surfaces and alloys for architecture, including Nordic Brown pre-oxidised copper. The Nordic Blue, Nordic Green and Nordic Turquoise pre-patinated ranges share properties and colours based on the same brochantite mineralogy found in natural patinas. Alongside traditional Nordic Bronze and Nordic Brass alloys, the innovative Nordic Royal retains its rich golden colour over time. Nordic Copper offers limitless possibilities for innovative contemporary architectural and interior design. Discover Nordic Copper now.



m.krysiak@aurubis.com



SAUVE QUI PEUT

"Everyone for themselves!" is the dystopian destiny of an unsustainable city, warns Michael Sorkin. We do have a tooth for apocalypse. Disasters from AIDS to 9/11 to Sandy build a consciousness of both exceptionalism and solidarity: our sensibility as New Yorkers is forged in a righteous cycle of beleaguerment and resistance. It's not that we always expect the worst, but we do need regular doses of it to corroborate our sense of self. Here in the greatest city on Earth, these periodic nightmares certify our resilience, sense of tolerance, and understanding for those much worse off—including those just a few blocks away beyond the happy pale of gentrification. We revel in dysfunction—a deeply New Yorkish autoschadenfreude—and the decrepitude of the subway has long been an especially rich lode for our mutual gripes. A utility shared by almost all, it's a summary monument to political ineptitude and our fragile reliance on a technology largely mastered in the 19th century (and still maintained to that standard). The fact that a mile of subway construction here costs billions more than anyplace else in the world, combined with the spectacle of China building thousards of shiny lines of transit in the time it takes us to extend the No. 7 a single stop, makes the drama of our civic incompetence appear absurdist. Stymied.

If we've managed to deal with the psychical blows of our disasters with relative aplomb, we shouldn't deceive ourselves that we'll find the collective wherewithal to effectively respond to the global environmental peril harbingered by the dire but comparatively miniature crises we've confronted in recent decades—this ain't Damascus. But things are bad: hundreds of thousands live in public housing without heat and with decades-long inattention to a monstrous checklist of "deferred" maintenance. Buses move at a pace that would be laughable to a snail. We pile our waste in a fetid Alps *on the sidewalk*! Disguised behind that anodyne brand "affordability" are degrees of misery that mark a gap as profound as that between Dubai and Dharavi. Sure, those of us with Amex can Uber to Brooklyn to scarf artisanal, fair-trade, free-range, gluten-free microgreens (plucked mere minutes before from Prospect Park!) in breathtakingly original preparations by the chef-du-jour and plated with the artistry of Matisse. Too often, however, we content ourselves with thinking that the answer to depletion is always consumption.

Too often we content ourselves with thinking that the answer to depletion is always consumption.

Climate change and other forms of environmental degradation are an equalizing threat to all Earthlings, even if the air hereabouts is a little less immediately toxic than the lethal brew in Delhi or Beijing. But the crisis is radically global, the waters are rising everywhere, the weather is universally crazy (lately we seem to get all four seasons every week), the crops fail, the melanomas spread, and the refugees trek to the far corners of inhospitality. In The Donald's America, the true insanity of denial from the top is not simply an affront to rationality, but a choking of the funds, energy, and arguments imperatively required if we are not simply to protect ourselves temporarily from this anthropogenic horror show, but to bend the arc of change towards repair. As the seas threaten the city, Trump builds a dike in the desert.

It's easy to demonize the aggressive ignoramuses in D.C., but the city's own efforts are also coming up both misguided and short. Construction in flood zones is unabated and unadapted. The sewers are inextricably entangled. Percolating swales and other systems of soft management are wise in concept, but ornamental in extent: a few model blocks merely "good" signify intentions, not right-scaled solutions. The planning default of mindlessly adding density—promoted by profit-fixated absolutists masquerading as environmentalists—is likely to exacerbate our problems, not redress them. Even the biggest ticket item—that handsome U-shaped barrier around Lower Manhattan—is a fortress for the one percent, a palisade for Wall Street that is likely to intensify flooding in Brooklyn and inundate the city beyond the points where it stops on the Lower East Side and at the Tribeca border. It awaits the infusion of further funds from the feds to complete itself to the point it actually works—not likely a high priority for Environmental Protection Agency Chief Scott Pruitt. The thing will surely *look* good, but the unprotected masses can only dream of being left high and dry.

Forget NOAA. Where's Noah?

IN PRINT

REVIEWS

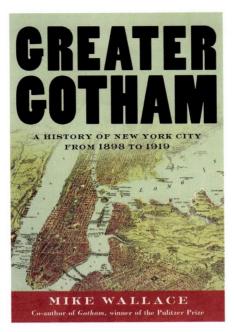
Greater Gotham: A History of New York City from 1898

to 1919, by Mike Wallace. Oxford University Press, 2017. 1,182 pp., \$45.

Much of the city New Yorkers are familiar with arrived very suddenly. The years from 1898 to 1919, following the end of World War I, was the period when New York catapulted from being the United States's national city to becoming the world's preeminent global city and the capital of modernity and the 20th century. *Greater Gotham* is the story of how this happened.

Greater Gotham is the sequel to historian Mike Wallace's *Gotham*, the Pulitzer Prize-winning tome published in 2000, which covered the 375 years from Verrazzano's sojourn in New York Harbor to the 1899 consolidation that officially joined the five boroughs and affirmed New York as our leading metropolis. This is where the current book picks up, with five interrelated themes propelling the narrative:

- The consolidation made New York the capital of business, finance, commerce, law, accounting, architecture, engineering, the arts, entertainment, popular culture, publishing, and political thought, as well as a primary voice in the nation's public agenda.
- New York's dramatic population growth (1.51 million in 1890 to 5.62 million in 1920), including the vast growth of its immigrant population (600,000 to 2.2 million), drove the city's vitality and physical expansion. Its growth also endowed



us with a tension between the corporate and financial elites and everyone else, a drumbeat of urban life ever since.

- Through visionary leadership, public largesse, and the public philanthropy of the very elites who were frequently vilified, the city began to take the shape and form we are familiar with today.
- The infrastructure systems that bound the city together, sustained it, and connected it to the rest of the country (transit, rail, bridges, roads, port facilities, water, sewerage, power) took modern form. This process continued through the 1920s and intermittently since then.
- New York's growth in power and preeminence was a response to the nation's foreign affairs, a phenomenon that has endured since the city's founding. During this period our imperial adventures and participation in WWI dramatically stimulated the city's growth.

The list of achievements during the 20-year period covered by *Greater Gotham* is staggering. Penn Station and Grand Central were built and became regional transit hubs. The first element of the vast 722-mile subway system, the IRT from City Hall to Grand Central to Times Square to 145th Street, went into operation. The new East River crossings—the Manhattan, Williamsburg, and Queensborough bridges—opened Queens, Brooklyn, and Nassau and Suffolk counties to major population expansions.

New York's zoning ordinance, imposing structured land-use controls, was enacted in 1916. The Woolworth Building, the Met Life Tower, the New York Times Building, and countless other commercial office buildings were built as Midtown and Downtown took on their modern vertical forms. Times Square and the Theater District solidified, with many theater additions, like the Lyceum, Shubert, Booth, and the New Amsterdam. Major Midtown department stores -Macy's, Lord & Taylor, Henri Bendel-emerged. Major new university campuses, such as City College and Columbia, sprung up on cheap land uptown. The Metropolitan Museum of Art, the Brooklyn Museum, and the Brooklvn Academy of Music created new institutional homes or expanded them. The beat goes on and on.

Wallace's story of New York's spring forward is wide-ranging and highly detailed. (The book is also long and heavy, weighing 5-plus pounds.) He has written a political, economic, social, and cultural history of the era when the modern city was formed. Settle in for a deeply engaging visit to our not-sodistant past.

Built: The Hidden Stories Behind Our Structures,

by Roma Agrawal. Bloomsbury, 2018. 300 pp., \$25.

Built is part primer on structural design and material science, part adventure story/case study exploring innovative structures, and part

empowerment tale for young women in engineering. Agrawal's roadmap starts with a discussion of forces (compression, tension, bending, wind) and how they operate on structures; continues to materials; and leads to foundations, elevators (every 72 hours the equivalent of the world's population travels in an elevator-who knew!), and the array of what the author regards as the hidden systems of structures.

The core of the book is made up of the extensive case studies where innovative approaches were employed to solve functional and structural problems. Many of the cases are interesting and informative (e.g., the Pantheon and Brunelleschi's Duomo found solutions to the challenges of the dome), but three are particularly engaging and revealing. One involved the work to arrest the differential settlement of the Central Cathedral of Mexico City, a city built on a filled-in lake.

The project is a both a lab, where soil mechanics and structural integrity are continuously monitored, and an active house of worship. Another case study, the Thames Tideway Tunnel-which supplemented, extended, and updated Joseph Bazalgatte's Victorian-era London sewer system-illuminates a complex, intertwined set of projects in a dense urban area, and showcases how infrastructure is directly related to public health. The third study focuses on bridge design, beginning with Emily Warren Roebling and her pivotal role in realizing the Brooklyn Bridge, and leading to stories of five other innovative bridges, including the Old London Bridge.

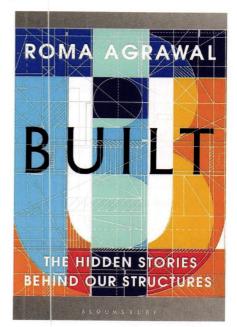
Editing could have been tighter, particularly related to tone. An occasional acknowledgment that architects are active collaborators with engineers might have added a note of realism to the presentation. Nevertheless, Agrawal's book is an

grassicpas.com

SSI & CO

interesting and frequently enlightening exploration of structural engineering we could all benefit from.

Stanley Stark, FALA, is the book critic for Oculus.



BE YOUR BUSI BEST

At Grassi & Co., we are much more than just your accounting firm: We are specialists specifically trained in a diverse range of industries to help your business succeed. Our client-centered approach towards positive business improvements will help you reach the next level of success. Grassi & Co. We are the company you keep.

488 Madison Avenue, 21st Floor New York, NY 10022 | 212.661.6166 JERICHO, NY I RONKONKOMA, NY I WHITE PLAINS, NY I PARK RIDGE, NJ

Innovating Air Flow Everywhere Only AAGM offers the authenvic patented* PLASTER J-BEAD FRAME®



Decorative Metal Grilles • Linear Bar Grilles Laser Cut Metal Panels

*Patent #9,765,988



aagrilles.com • sales@aagrilles.com • 516-488-0628

We are proud members of AIA New York State, AIA New York, AIA Long Island, AIA Chicago, and AIA California Council

AT THE CENTER

ON VIEW

Center for Architecture 536 LaGuardia Place

Designing Waste: Strategies for a Zero Waste City Through September 1

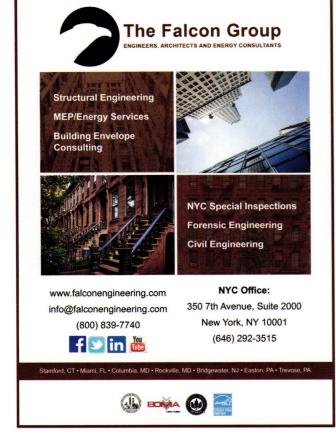
In 2017, the Center for Architecture launched *Zero Waste Design Guidelines*, an initiative that will help New York City achieve its goal of sending zero waste to landfills by 2030. The new exhibition "Designing for Waste," curated by Andrew Blum, picks up this thread and explores how architects, designers, and building professionals can contribute to the effort. It focuses on a particular segment of the waste stream: the brief period between when we discard something and when it rolls away on the back of a truck. This exhibition is supported by the Rockefeller Foundation.

Upcoming Exhibitions

A Call to Act(ivism): Echoing Whitney Young, 50 Years Later July 10-September 15, 2018

The Fourth Regional Plan July 26, 2018-October 31, 2018





AIA New York gratefully acknowledges the support of our A'18 sponsors:

Silver

ARUP



fxcollaborative

Gensler

GRAPHISOFT

hk

Sciame

Bronze

AKF Group, LLC Dattner Architects Ingram, Yuzek, Gainen, Carroll & Bertolotti, LLP Jaros Baum & Bolles JFK&M Consulting Group Kohn Pedersen Fox Associates MechoSystems Silman Skidmore, Owings and Merrill, LLP STUDIOS Architecture Syska Hennessy Group, Inc. Thornton Tomasetti Zetlin & De Chiara, LLP

Steel Ennead Architects Robert A.M. Stern Architects, LLP Studio Joseph

A'18 Lounge Sponsor



Community Service Day Sponsor

Publication Partner



YOU CALL ME RAIN

HYDROTECH







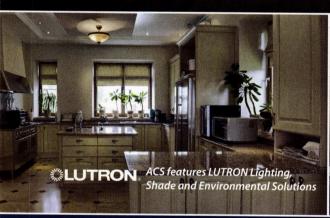




Smarter By Design

Making Technology Simple Since 1976

> Your perfect environment, video, music, lighting and shades all controlled seamlessly for any occasion through keypads, simple touch screens or tablets. An ACS system is designed and engineered like no other by the #1 company in the industry. Working with clients, designers, builders and architects, ACS designs systems that complement any décor.





NEW YORK

FLORIDA | C

CALIFORNIA



Call 800.382.2939 for a FREE consultation. VISIT OUR NEW NYC DESIGN CENTER IN THE DDC SHOWROOM

Making Technology Simple Since 1976.

134 Madison Avenue 31st St. New York, NY 10016 Call for Appointment: 212-260-4715



Audio/Video

Home Theater

1

eater | Light

Lighting Control | Motorized Shades |

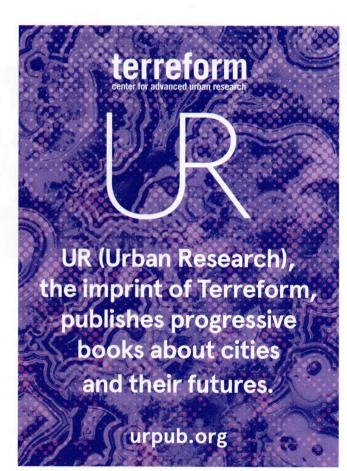
Home Networking

NEW YORK CITY (STEADY) STATE, TERREFORM'S

ongoing research project, is a comprehensive investigation into urban self-sufficiency. While centered on New York, it is intended to raise issues and propose solutions for cities around the world that seek to take radical measures to secure their respiration and autonomy and to achieve a more sustainably democratic pol-

ity, founded in the local. The first volume, Home Grown, is a design proposal and collection of essays that interrogates the limit and logic of self-sufficiency in the realm of urban food systems. terreform.info





Founded in 2005, Terreform is a nonprofit urban research and design center that operates as a "friend of the court," authoring alternatives that seek to raise expectations, enhance debate, and challenge conventional wisdom. In 2016, Terreform launched its publishing imprint, UR (Urban Research). UR is a medium for disseminating Terreform's work and a support structure for designers and researchers who share the project of a progressive and liberated urbanism. URpub.org HYDROTECH ROOFS LEVERAGE MY POTENTIAL

HUROTEC

ORDINARY ROOFS

WASTE ME





AT THE CENTER

OCULUS BOOK TALK

The New Landscape Declaration With Kate Orff, Gina Ford, Ken Smith, and Gayle Berens



Ken Smith, Gina Ford, Kate Orff, and Gayle Berens discuss *The New Landscape Declaration* during May's Oculus Book Talk. A CALL TO ACTION FOR THE TWENTY-FIRST CENTURY

On the 50th anniversary of landscape architect and planner Ian McHarg's 1966 "Declaration of Concern," the Landscape Architecture Foundation convened acclaimed practitioners to ask what the discipline should achieve in the future. These proposals and reflections were captured in The New Landscape Declaration: A Call to Action for the Twenty-First Century (Rare Bird Books, November 2017). On May 14, a distinguished group of landscape architects talked about the contributions that they and others made to the book in a panel discussion moderated by Gayle Berens, a senior advisor for the Urban Innovation Network. The speakers included Kate Orff, ASLA, founder and principal, SCAPE, 2017 MacArthur Fellow; Gina Ford, PLA, FASLA, principal and co-founder, Agency Landscape + Planning; and Ken Smith, ASLA, principal, Ken Smith Workshop. The event was organized by the Oculus Committee, with special thanks to committee member Iva Kravitz, Assoc. AIA.

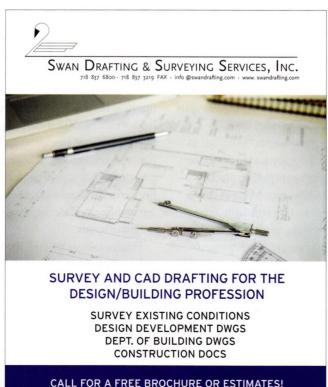






TIMELINE CREDITS

Images for editorial use are drawn from Wikimedia Commons and Creative Commons; additional credits include: Shake Shack/Beyond My Ken. The Strokes/Roger Woolman, The Interpol/ Derzsi Elekes Andor, Dave Chapelle/ Stilness, MGMT/Bertrand from Paris, France, Justin Davidson/GSAPPstudent. Additional sources include images from FB Media Gallery: Menlo Park Headquarters Sign courtesy of Facebook Media Gallery and following Flickr users: Yeah Yeah Yeahs Onstage/M@Ck, Yeah Yeah Yeahs Karen O/Sorrell Schneider, Taylor Swift Onstage/Makaiyla Willis, Napster Sticker/ Paul Sableman, Michael Jackson Shrine/ Jeremy Hunsing. In making the timelines, copyright holders could not be identified for a small number of images. In these cases, we have assumed that these images belong to the public domain. If you claim ownership of any of the images presented here and have not been properly identified. please notify Oculus, and we will formally acknowledge credit in a future edition of the magazine.



718-837-6800 X 203 WWW.SWANDRAFTING.COM • NR@SWANDRAFTING.COM "We are competitive so you can be profitable."

HUDROTECH HELPING YOU HARNESS THE

THE GARDEN ROOF® ASSEMBLY

POWER OF RAIN

INTRODUCED OVER 20 YEARS AGO, PROVIDING:

stormwater management solutions

reduce retain delay

extended roof longevity additional usable space full assembly warranty

Learn more today at hydrotechusa.com/power-of-rain



LAST WORD

15 YEARS AT THE CENTER

BENJAMIN PROSKY, ASSOC. AIA EXECUTIVE DIRECTOR AIA NEW YORK CHAPTER | CENTER FOR ARCHITECTURE

The year 2018 is a year of significant anniversaries at AIA New York. We are excited to host A'18, the AIA Conference on Architecture, returning to New York for the first time in 30 years. Another important milestone: our Center for Architecture celebrates its 15th year this fall.

The first Center opened by an AIA chapter, this bold move signified a serious commitment to public outreach. It created a space where not only architects could meet, but New Yorkers and visitors alike could gather to learn and talk about architecture. Though the first of its kind for the AIA, the Center builds on a legacy of other important architecturally focused venues. Many can still remember New York's Urban Center, with gallery and lecture spaces shared by a range of civic minded not-forprofits, and a wonderful bookstore that is missed dearly. Further afield, venues like the Canadian Center for Architecture in Montreal, the Royal Institute of British Architects's iconic Portland Place building in London, and the French Institute of Architects's original Left Bank home in Paris have provided important precedents for the various ways that architects and the general public can learn about the art of architecture, advocate for public policies, and inspire a collective belief that through design we can improve and protect our environments, built and natural.

So many visionary and dedicated people took a leap of faith to imagine the Center for Architecture and make it possible. I am indebted to AIANY's visionary past presidents, board, and Premises Taskforce members who rallied the funds, energy, and imagination to establish the Center; to my predecessor Rick Bell for his leadership in opening the place and making it relevant and successful for over a decade; and to Andrew Berman, FAIA, the architect who designed the Center, and whom we rely on to improve and refine it as our spatial needs evolve. I'm also indebted to the currently engaged and tireless boards of the Center for Architecture and AIANY, who boldly collaborated on a joint strategic plan last year, helping us imagine our next 15-plus years.

Looking forward, I am dedicated to continuing this legacy and making the Center the most compelling place to experience architecture. We will continue to pack our lecture hall with a range of public programs, work with leading researchers and curators to create relevant exhibits, and teach close to 10,000 children about the importance of design.

This summer we present the exhibit, "Designing Waste: Strategies for a Zero Waste City," the fruit of extensive study looking at how design can help achieve NYC's goal of sending zero waste to landfills by 2030 (see the guidelines at zerowastedesign.org). We are also pleased to present the city's Fourth Regional Plan through an exhibit and



programs, helping us envision innovative schemes for New York's metropolitan area. In the fall we will open the exhibit, "Close to the Edge: The Birth of Hip-Hop Architecture," looking at an emerging range of spaces, buildings, and environments that embody the creative energy evident in hip-hop's iconic cultural products, such as deejaying, emceeing, breakdancing, and graffiti. Another exhibit planned to raise our awareness of pressing diversity issues in architecture is "A Call to Act(ivism): Echoing Whitney Young, 50 Years Later."

During the summer and fall, our K–12 educational programs will invite children to the Center and visit schools throughout the five boroughs through our in-school residency program, Learning by Design. Via these programs, kids will learn about a range of architectural concepts, including the basic structural principles that support a dome, types of bridge design, and recognizing different architectural elements in historic neighborhoods.

Finally, join us this fall in Archtober for our monthlong festival of architecture, featuring Building-of-the-Day tours and a broad scope of events hosted by over 70 partners. As it was in October 2003 when the Center for Architecture opened its doors, we will be rolling out many activities for our community to help us celebrate our 15year anniversary!

See you at the Center! ■

ARCHITECTURAL R E C O R D Earn up to 7 AIA LU/HSW INNOVATIONCONFERENCE

NOVEMBER 1, 2018 | NYU LAW SCHOOL | NEW YORK, NEW YORK

CREATIVITY + DESIGN + TECHNOLOGY URBAN FUTURES: ARCHITECTURE AT EVERY SCALE

KEY CORPORATE SPONSOR



PRODUCT GALLERY SPONSORS



40 CENTRIA



SUPPORTING SPONSORS



🖌 Ornamental Metal Institute of New York

Steel Institute of New York

WWW.ARINNOVATIONCONFERENCE.COM

INDEX TO ADVERTISERS

ALPHABETICAL INDEX

ABC Stone Trading1	EDCO Products	Owe
Acme TC Cladding81	Eldorado Stone 57	Pyro
AISC 59	Extech/Exterior Technologies14	Ried
American Hydrotech, Inc 89, 91, 93	Fisher & Paykel6, 7	Runt
Architectural Grille	GSky Plant Systems, Inc	Scia
Artistry In Architectural Grilles 87	GAF Materials, LLC	Seve
Astec USACV3	Grassi & Co	Simo
Audio Command90	Hendrick Architectural Metals 10	Stee
Aurubis	Historical Arts & Casting	Swa
Bison	Hoover Treated Wood Products4, 5	The
Bulthaup	Infinity Drain12	Unilo
C. R. Laurence Co., IncCV2	Inpro	USG
CAST CONNEX	INTIGRAL, Inc	Wall
Crossfield Products Corp	Kingspan Insulated Panels	Zetli
Dahlstrom Roll Form	Municipal Testing Laboratory CV4	
Dri-Design16	NanaWall	
Easi-Set Worldwide19	Ornamental Metal Institute Of New York .13	

Owens Corning24
Pyrok Inc
Rieder North America34
Runtal North America15
Sciame 32
Severud Associates Engineers 9
Simonswerk
Steel Institute Of New York 11
Swan Drafting Services 93
The Falcon Group88
Unilock
USG23, 36
Walker Glass Company
Zetlin & De Chiara LLP 28

Publisher is not responsible for errors and omissions in advertiser index.

OCULUS ADVERTISING SALES

Alex Bachrach

Publisher BachrachA@bnpmedia.com 646-849-7110

Joe Sosnowski New England and Eastern PA

SosnowskiJ@bnpmedia.com 610-278-7829

Bruce Smith

Midwest IL, IN, IA, MN, MO, WI SmithB@bnpmedia.com 224-216-7836

Lisa Zurick

KY, MI, OH, OK, Western PA, TX and Eastern CAN ZurickL@bnpmedia.com 513-823-0248

Bill Madden

AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY and Western CAN bill@maddenandassociates.net 503-260-9679

Risa Serin

FL, KS, ND, NE, NY, SD and International SerinR@bnpmedia.com 646-849-7130

Wesley Loon

AL, AR, DC, GA, LA, MD, MS, NC, TN, SC, VA, WV LoonW@bnpmedia.com 859-414-3795