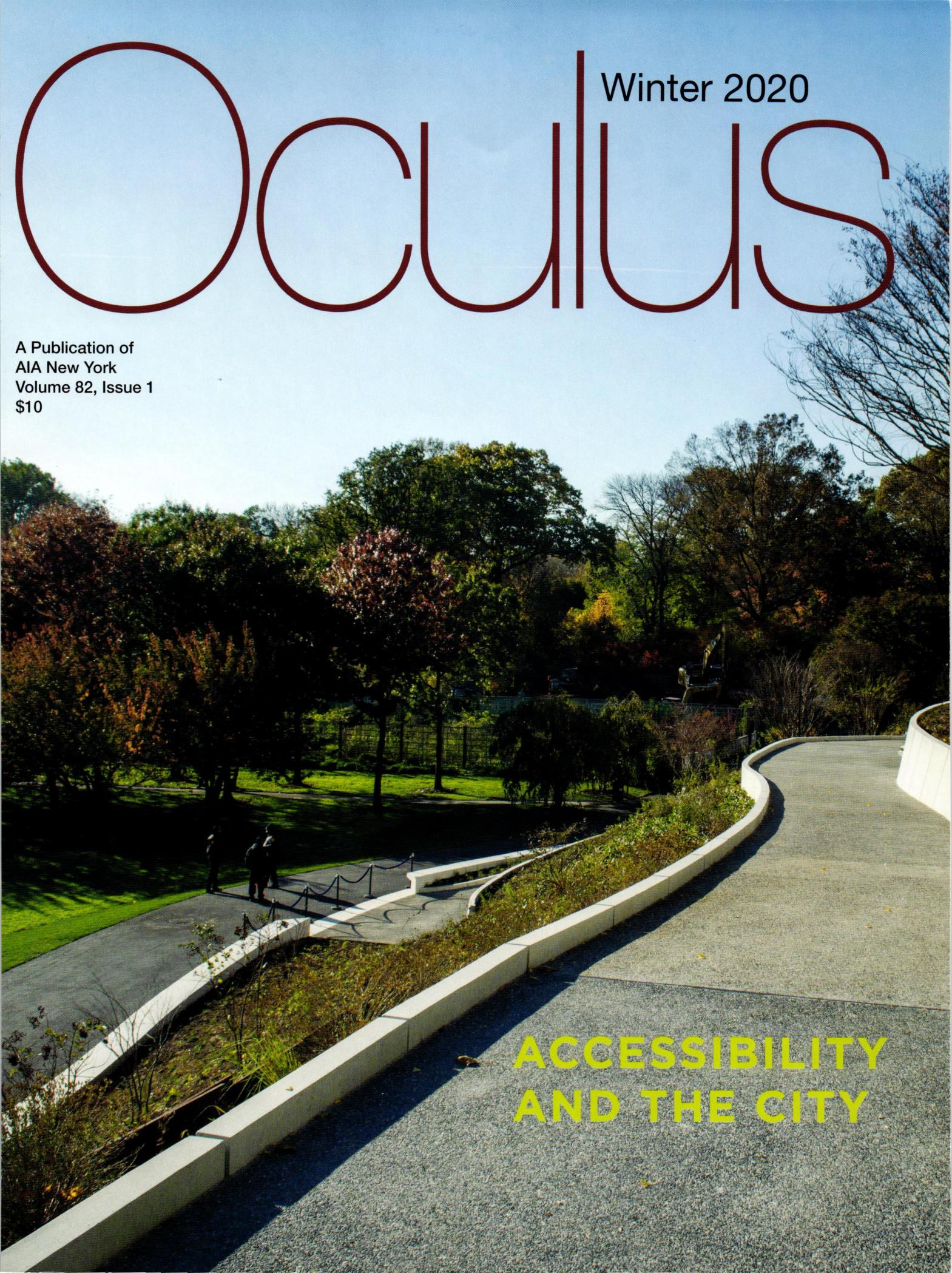


Winter 2020

Oculus

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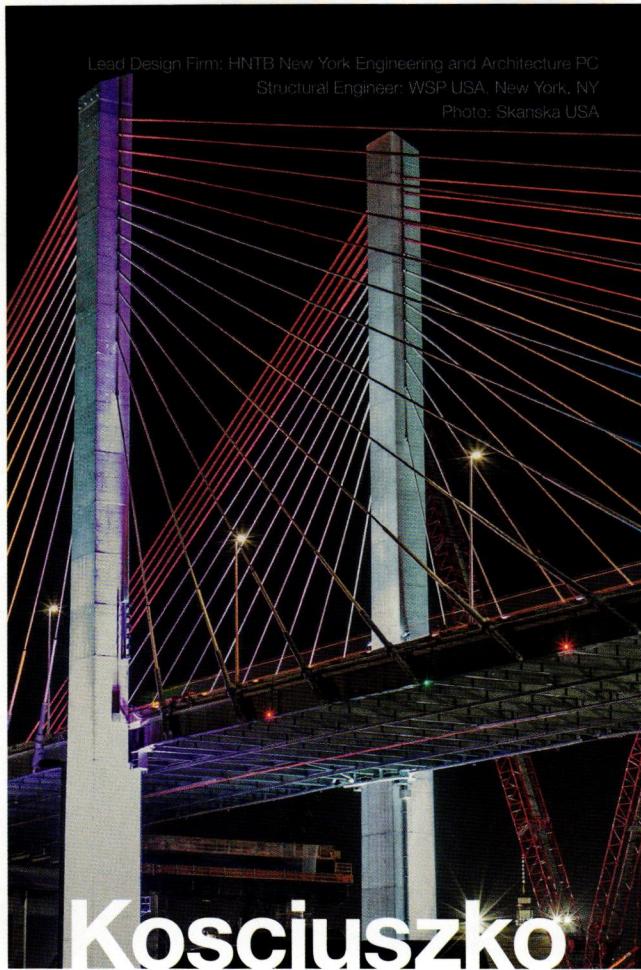
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Kosciuszko à Gogo

The design of urban infrastructure affects city life as much as the design of its buildings. That's why replacing the **Kosciuszko Bridge**—a notorious pinch point in traffic between Brooklyn and Queens—was a high priority for Governor Cuomo. With heavy lifting from **HNTB**, **WSP USA**, and **Skanska**, a striking cable-stayed span has risen where the outdated bridge once stood, ensuring New Yorkers may still have trouble saying its name, but they never have trouble getting home.

Read more about it in **Metals in Construction** online.



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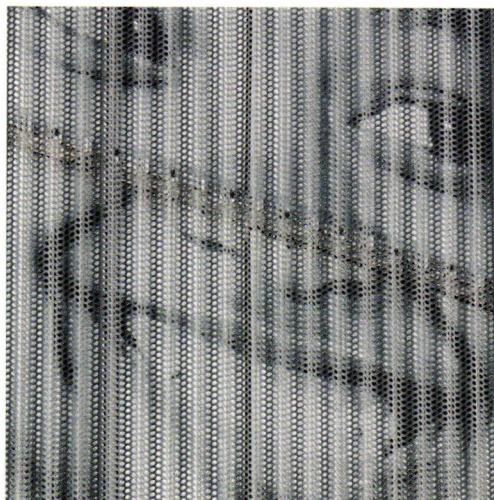
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Cover: The Robert W. Wilson Overlook, designed by WEISS/MANFREDI Architecture/Landscape/Urbanism, is a new immersive landscape formed from a previously undeveloped 1.25-acre portion of the Brooklyn Botanic Garden. It features an accessible design that allows visitors to wind slowly upward, taking in views of the garden's Cherry Esplanade and surrounding areas.
Cover photo credit: Michael Stewart/Courtesy of Brooklyn Botanic Garden

Above: A rendering by WXY from the New York Stock Exchange Report, an effort to make Lower Manhattan more secure and accessible. Courtesy of WXY

LETTER FROM THE PRESIDENT

CHARTING NYC 2020

As we begin a new year, it seems natural to think about the overarching themes and ongoing challenges of the past 12 months. The 2019 presidential theme, Building Community, has proven to be a strong motivator in so many arenas of our Chapter! As we think about how we operate as a professional community and (quite literally) build that network, it's clear that one of our largest challenges continues to be a lack of information about the profession and the opportunities it offers. This is true for young people looking into the field as well as for professionals navigating their own careers. One of the most successful new initiatives from the past year aimed at addressing awareness of the field for young people is "Discover Architecture!"—a joint effort between AIA New York and the Center for Architecture. This program gives high school students an opportunity to experience the environment of a professional architecture firm during their February school break. Started as part of the 2019 presidential theme, the program has proven so successful that it will continue as an ongoing initiative.

This effort is a strong example/case study of how AIANY is uniquely qualified to impact the issue of access to the profession. It also points to the "super power" of the AIANY and Center for Architecture relationship: one of our greatest strengths is our ability to merge public outreach with an extensive professional network and deep subject area expertise. In this way, we have both breadth and depth.

Next year we will continue to prioritize civic engagement, advocacy, and community—key issues in Hayes's presidency. AIANY's presidential theme as Kim takes the reins is Charting NYC 2020.

As we close the second decade of the 21st century, let's take the opportunity to pause, look back, and reflect. We are entering a decade defined by extremes, with accelerating ecological, economic, and political crises. We must face these crises on terms that we, as architects, can influence, and chart a path forward for the city. Together we will map the past in order to present a new course for the future. This means engaging pressing issues such as housing, climate change and resiliency, homelessness, infrastructure, accessibility, and economic disparity through the lens of our built environment.

We will achieve this through diverse programming over the course of 2020, including a major fall exhibition, developed in partnership with MIT's Civic Data Design Lab. For this exhibition, we will gather input and ideas for our research directly from members. We want to hear from you about the topics you believe are most pressing for the future of New York City. (You can reach Kim at kya@aiany.org.) We will use your input to identify a handful of issues to explore over the course of the year—issues that directly impact our built environment and the policies that define it—to spur public discourse about the future of the city. Our work will highlight our achievements in the built environment while exploring those areas where we must do better.

Charting NYC 2020 intends to channel this research into a clear policy platform that we will use in communication with future public officials. The 2020 Presidential election will be followed closely by historic local elections in 2021—for mayor, comptroller, all five borough presidents, and 35 City Council seats. In conjunction with our newly formed Political Action Fund, and rooted in our

Photo credit: Ana Slade



ongoing advocacy work, we will push for an agenda that brings our expertise as architects directly to the urban realm, to advocate for our future city.

The year 2020 will bring other historic milestones as well. A new census will take a snapshot of the American people, sharing with Congress a picture of who we are today. In the spring, we will mobilize around the 50th anniversary of Earth Day with a focus on climate action. We will celebrate the 30th anniversary of the Americans with Disabilities Act by exploring varied aspects of accessible design, as covered in this issue.

We have tremendous resources at AIANY, thanks to our community and our location in New York City. As a result, we believe we also have a tremendous responsibility to work with those resources to address the challenges of access and equity. We are perfectly positioned to have an enormous impact when we use our resources and don't shy away from the hard work at hand. Addressing our weaknesses while leveraging our strengths is a promising model for transformational change.

We look forward to seeing you at the Center in 2020!

Kim Yao, AIA
2020 AIANY President

Hayes Slade, AIA
2019 AIANY President

LETTER FROM THE EDITOR

ACCESSIBLE DESIGN FOR ALL

Editor's Note: Accessibility has dominated my thoughts as I've negotiated New York with a stroller over the last couple of months. During my maternity leave, I was pleased to put the Winter issue of Oculus, dedicated to accessibility in the urban environment, into the capable hands of guest editor Jennifer Krichels and contributing editor James Russell. Hope you enjoy their thoughtful work on the following pages, and I'll see you next quarter for our Spring Design Awards Issue! Molly Heintz

One of the first instincts I had when researching the idea of human-scale accessibility in New York was to look at the numbers. The city's publication on this topic, *AccessibleNYC: An Annual Report on the State of People with Disabilities Living in New York City*, estimates there are almost 1 million New Yorkers who have disclosed that they live with a disability, or about 11.2% of the city's population. If you apply that percentage to the estimate of more than 60 million visitors to New York each year, then we can add another 6.8 million visitors who also have disabilities.

Though these numbers should underscore the urgency of creating transit systems, streets, housing, and institutions that allow everyone to use them with ease, I realized that looking at statistics about disabled populations is not the right way to approach this topic. Instead, everyone, regardless of ability, should consider themselves in need of accessible design. Every one of us will age, and many

of us will find ourselves pushing a stroller, carrying three bags of groceries, or using crutches at some point in our lives—all conditions where elements like wide doorways, voice-activated systems, and easy wayfinding could make life better. As the writer Peter Slatin, who is blind, points out in his piece, "The Trouble with Accessibility," we can all benefit from a world in which accessible design is not an add-on, but a seamless integration of design and usability.

Many New Yorkers, architects or not, have already dedicated themselves to this task. In James Russell's interview with NYC transit accessibility advisor Alex Elegudin, who uses a wheelchair, we are reminded of how difficult it is for a codebook to capture the experience of disability. Though it's a daunting task, the MTA is slowly but surely upgrading its stations and systems based on customer needs and experiences, rather than on compliance with the Americans with Disabilities Act (ADA) alone. Residential and hospitality design present even more granular challenges, because living space is so personal. However, Fred Bernstein's piece, "The Comforts of Home," shows us that even older apartment buildings can be retrofitted to improve disabled residents' quality of life, and corporations like Marriott are conducting their own research into creating guest rooms that are customizable for each user. Technology certainly plays a role in some of these scenarios, but as we see in Bill Millard's exploration of

MoMA's expansion and in David Sokol's research into work by architects who are thinking about accessibility in new ways, designing inspiring spaces ultimately begins with thinking about inclusivity and dignity from the start.

On the 30th anniversary of the passage of the ADA, we applaud the practitioners who continue to work above and beyond regulations to create inspiring and open-to-all spaces in this city and beyond. ■



Jennifer Krichels
Winter Issue Guest Editor
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CONTRIBUTORS

Fred Bernstein ("The Comforts of Home") studied architecture at Princeton University and law at NYU, and writes about both subjects. He has contributed more than 400 articles, many on architecture, to the *New York Times*, and is a regular contributor to *Architectural Record* and *Architectural Digest*. In 2008 he won the Oculus Award, bestowed annually by the AIA/NY for excellence in architecture writing. His latest book is *Dirk Denison 10 Houses*, published in 2018 by Actar.

Sneha Mehta ("Beyond/At the Center") is a writer, researcher, and graphic designer. Her interests lie in combining visuals with research to create educational content for young children and in writing object-based cultural narratives. She is currently based in New York.

Bill Millard ("A MoMA That Invites Everybody In") is a New York City writer covering the built environment, health, and interdisciplinary ideas. A contributor to *Oculus*, *The Architect's Newspaper*, *Architect*, *Icon*, *Content*, *Annals of Emergency Medicine*, *Metals in Construction*, and other publications, he is also writing a book on density and sprawl.

James Russell, FAIA, ("Making the Subway Accessible") is an architecture critic, journalist, teacher, and consultant. He's the author of the book *The Agile City*, and has written for *Architectural Record*, Bloomberg News, *New York Times*, and other publications.

Peter Slatin ("The Trouble with Accessibility") is an accessibility consultant and writes on disabilities for Forbes.com. His article is adapted from a recent presentation at the 2019 Monterey Design Conference. He is a long-time writer on architecture and real estate, and the recipient of the 2007 Oculus Award for Excellence in Architectural Journalism.

David Sokol ("Gaining Access") is a writer and an editor whose most recent book, *Hudson Modern*, was published by the Monacelli Press in 2018. He has been a contributor to *Oculus* since 2001, and he writes regularly for *Cultured*, *Dwell*, and other publications.

Stanley Stark, FAIA, NCARB, LEED AP, ("In Print") has been associated with *Oculus* since 2003 as a writer and an illustrator. He currently has a position with the City of New York.

Stephen Zacks ("Accessibility by the Book") 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 non-profit Amplifier Inc., which develops art and design programs in underserved cities. He previously served as an editor at *Metropolis* magazine. ■

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BEYOND THE CENTER

ON VIEW

Design for Different Futures

Philadelphia Museum of Art

Through March 8, 2020

At the Philadelphia Museum of Art, a new exhibition invites visitors to step into speculative scenarios from the future. "Designs for Different Futures" features 80 works under 11 thematic sections, such as Resources, Foods, and Bodies, and explores how designers might reframe the uncertain future of our planet. Visitors will encounter forward-looking projects that blend technology and design with human experience, like a lab-grown steak made of human cells (Ouroboros by Andrew Pelling) and a co-parenting robot (Raising Robotic Natives by Stephen Bogner, Philipp Schmitt, and Jonas Voigt).

While many of the featured projects are purely speculative, the Bodies section features practical applications of accessible design. The PhoeniX Exoskeleton, designed by Berkeley professor Dr. Homayoon Kazerooni, is the world's lightest exoskeleton for people with mobility issues. This modular product weighs only 27 pounds and can be worn independently by the



Left: Installation view of Seated Design: Sleeves and Shirt, 2016, by Lucy Jones. Above: PhoeniX Exoskeleton, 2011-17, by Dr. Homayoon Kazerooni.

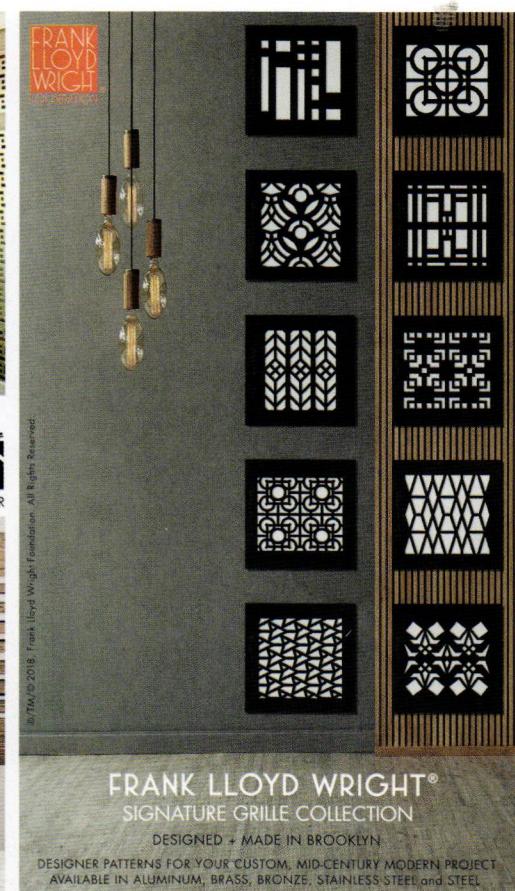
user. Fashion designer Lucy Jones combines functionality and style in Seated Design by reengineering garments that make it easier for wheelchair-bound people to maneuver. These projects prove that even in an unpredictable future, design can shape how humans will look, function, and feel. "Designs for Different Futures" is on view at the Philadelphia Museum of Art until March 2020, after which it will move to the Walker Art Center, Minneapolis, and then to the Art Institute of Chicago. **SM** ■



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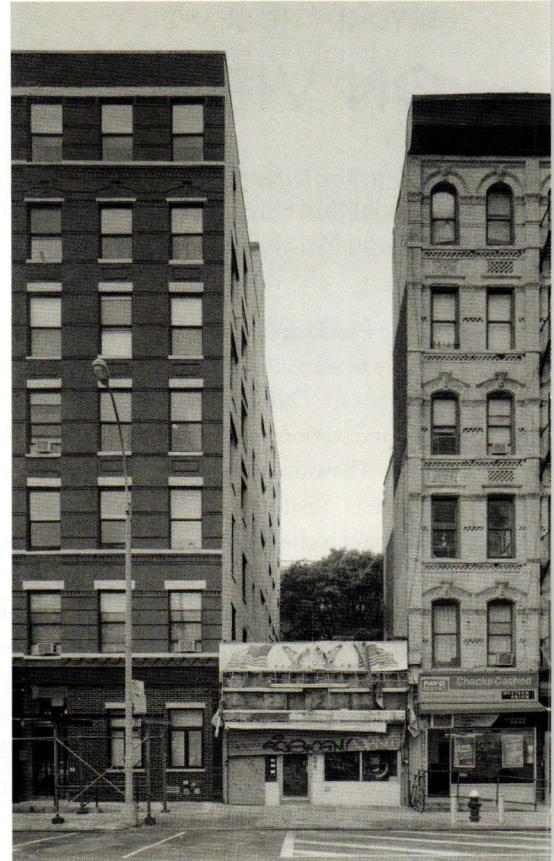
Through February 29, 2020

Even as New York's supertall buildings rise higher and higher into the sky, photographer Adam Friedberg brings his gaze, and lens, down to ground level. Since 2015, Friedberg has photographed the city's few remaining single-story buildings, primarily in the East Village and the Lower East Side, neighborhoods he has lived in for 25 years.

"In a part of the city that's never been chic or sleek, these low-riders blended in with their tenement neighbors, but now stand as outliers—oddballs even," he writes in his artist's statement, explaining why he felt compelled to document each remaining one before they disappear.

"Single-Story Project" features 54 images of relics of the city's working-class economy, like garages, pharmacies, and fast-food joints, and cultural centers like storefront churches. Friedberg shoots them in black and white and without people in the frame, maintaining focus on the unexpected pockets of sky and air these buildings carve out in an otherwise vertical landscape. His photographs capture the quiet erasure of these humble structures happening right before our eyes. The exhibition includes 54 prints from this series. **SM ■**

Clockwise from top: Some of the single-story buildings Friedberg has documented include 55 Pitt Street, a Rite Aid pharmacy, and 640 East 6th Street.



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Cairo Modern

March 26, 2020-July 11, 2020

The book *Cairo Since 1900: An Architectural Guide* (The American University in Cairo Press, 2019) is the first comprehensive survey of architecture in the Egyptian capital. It features 226 buildings in 17 geographic areas, built from 1900 to the present. An extraction of the book, "Cairo Modern," will showcase works by Egyptian modernists from the 1920s to the 1970s, encompassing half a century of rich architectural production that expands our present understanding of global modernism. The exhibition will introduce audiences to key architects from the



Architect Sayed Karim posing at his home office with a model of his unbuilt Hotel Nefertiti, circa 1960.

period, such as Sayed Karim (pictured), and present examples of their works, which were commissioned by the state and the city's burgeoning bourgeoisie. Modernism in Cairo reflected the aspira-

tions of the new classes that formed after Egypt's 1919 Revolution, who embraced the modernist house or apartment as the materialization of new notions of class, identity, and modernity. JK ■

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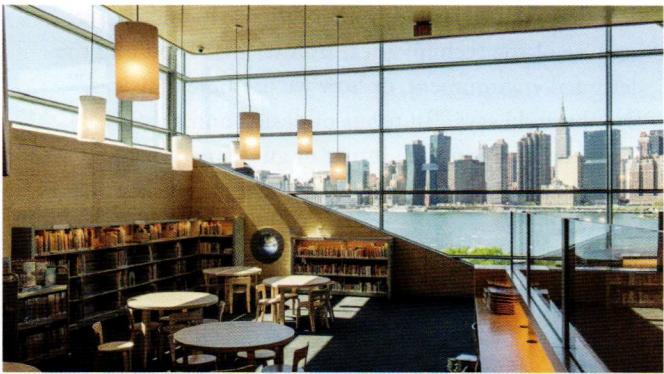
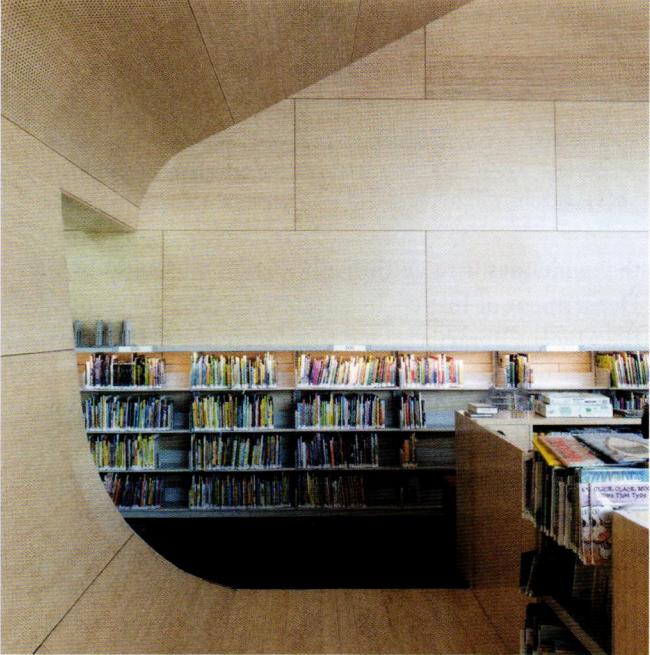
STREET LEVEL

ACCESSIBILITY BY THE BOOK: THE CASE OF HUNTERS POINT LIBRARY

BY STEPHEN ZACKS

The concept for the new Queens library in Hunters Point, designed by Steven Holl Architects, revolves around the desire to lift the building aboveground, projecting views from its site on the edge of the East River to capture Gantry State Plaza in the foreground and New York Harbor, Midtown Manhattan, the UN Building, and Louis Kahn's Four Freedoms Monument beyond. From the adjacent towers, comparable perspectives belong to renters and private condo owners. For a public building, views like these are vanishingly rare. The gesture was worth it: Multistory cutouts in the poured concrete façade trace the circulation inside, creating eye-catching parallax views, as visitors ascend the stairs to increasingly fulsome perspectives. But it also created a set of design problems, delays, and controversies.

From the beginning, the master plan of the Hunters Point South development—originally known as Queens West—called for a public building, the \$2 billion development's only one apart from Hunters Point Community Middle School. The New York City Department of Design and Construction, then under the direction of David Burney, FAIA, had short-listed Steven Holl Architects for a project through its design excellence program and assigned the library to Holl. That was in 2010, five years before the project was funded and approved. In the intervening years, thousands of housing units rose up in the district, along with LIC Landing, the outdoor pavilion designed by Weiss/Manfredi, and a generous landscape of public spaces immersed in and buffered against the tides, designed by Thomas Balsley and Weiss/Manfredi.



Clockwise from top: Microperforated bamboo clads much of the library's interior, adding acoustic and material warmth. A view of the East River from the children's book area. Sited on the Queens waterfront, Hunters Point Library is designed with multistory cutouts that trace circulation routes inside.

Residents clamored for the promised library. Nine years and \$41 million later, Hunters Point Library finally opened in late October 2019.

Among the controversies, the most unfortunate surrounds the question of the accessibility of four rows of shelves and desks in the atrium, just beyond the library's entrance. An elevator provides access to all the levels for mobility-challenged patrons, but two rows of shelves in the atrium can be reached only by stairs. Conceptually, Holl was reacting in the atrium design to OMA's Seattle Public Library, in which digital access had eclipsed the presence of books entirely. "He found the lack of visible books when you enter sort of disconcerting for a library," says Olaf Schmidt, associate in charge of the project. "He wanted to merge the digital with the analog or the book with the digital means of working."

At Hunters Point, the stacks of fiction in the atrium were aligned behind ascending tiers containing long rows of

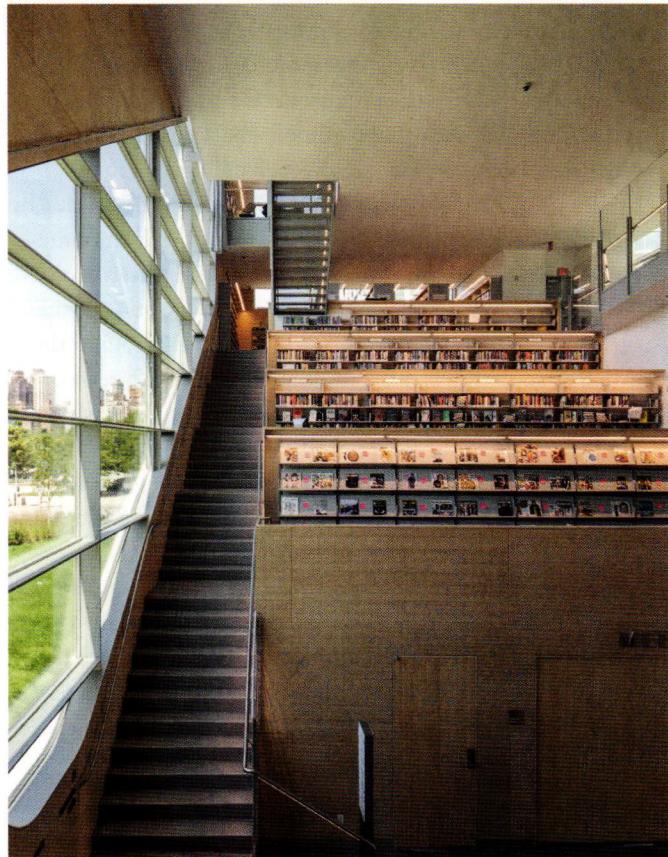
desks, maintaining the visual presence of the book volumes on bamboo shelves while accommodating the shifting digital workspace needs of patrons. Guests could plug in to the Internet at the workstations—back in 2010, WiFi was still uncommon, the architects laughingly remember—and still have shelves of books within arm's reach. "In terms of accessibility, the way we looked at it at the time was to treat it like the Americans with Disabilities Act (ADA) prescribes for assembly spaces, where you provide access at the top and the bottom," Schmidt says, "and then if there's something in the middle that you can't get to, the librarian would fetch it for you. That was the discussion at the time with the library as well."

Soon after the public opening, ADA advocates complained, arguing that it should have been designed so that all patrons could reach all the books without assistance. Steve Dombrowski, AIA, senior accessibility consultant at Endelman & Associates, takes a broader view of the question. As a consultant, he's typically hired by the client or the architect to provide commentary on projects and design phase reviews to make sure they comply with the intent of the guidelines.

The federally mandated requirement for public buildings is the 2010 Americans with Disabilities standards for accessible space. In addition, the City of New York has guidelines in its construction code, which is based on the International Building Code. Dombrowski points out that enforcement of these codes is only by litigation. "There's no federal entity that goes around and checks buildings to meet the requirements," he says. "It either comes from a complaint—in this case, a patron of the library could complain to the Department of Justice and say they don't have equal access, and the Department of Justice would come and investigate." Otherwise, the local jurisdiction is involved in enforcing its own code during permitting and construction. Most don't check for these issues, he says.

But according to Dombrowski, most libraries are inaccessible based on the 2010 ADA standard: The unobstructed reach range should be between 15 inches above the floor to 48 inches maximum height, so that a person in a wheelchair or using a walker would be able to reach. "The next time you're in a library, look at the shelving height and see where it lands," he says. "Chances are there's going to be a shelf below 15 inches and a shelf above 48 inches. So in a majority of libraries, there's an expectation that things beyond the reach height are going to require a librarian's assistance." Grocery and retail stores present the same set of accessibility challenges.

As in the case of Hunters Point, it's common for projects to propose alternative ways of meeting the standard. But Dombrowski says the only way a project can guarantee that an accommodation is meeting the intent of



Tiers containing study benches and stacks of fiction ascend from the atrium. Accessible only by stairs, the area may be off-limits to some patrons without librarian assistance.

the guidelines is to go through litigation brought by the Department of Justice. In response to the complaints, the Queens library decided to relocate the fiction section until it comes up with another alternative. The irony is that the effort to foreground the physical book may suffer.

A silver lining can possibly be found in the changing nature of the library. With texts increasingly available digitally, many libraries are incorporating tool lending, maker spaces, job application centers, lounging areas, and social spaces into their functions. At Hunters Point, the children's story time is apparently so well attended, it's creating another problem: a pileup of strollers.

"Libraries as a typology are particularly interesting because of the technological frontier that is pulling the designed environment, or how we use library spaces," Dombrowski says. "In terms of design and accessing spaces and meeting the intent of guidelines for accessibility, an objective for architects that is forever going to be a challenge is trying to provide an equal experience for all users." ■

Photo credit: © Steven Holl Architects

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ACCESSIBILITY AND THE CITY

Three decades since the passage of ADA, architects and disabled users are still pondering what true accessibility means, and how our cities are making strides toward improvement.

With this issue's features, we have set out to understand some of the conversations that today's architects are having on the subject of design for people of all abilities. Thirty years after the passage of ADA, many are asking how they can think beyond code requirements to create dignified design for all. How can an aging apartment building give new support to residents in wheelchairs? What if a museum opened itself up to visitors of all kinds? In New York and beyond, the profession is asking questions that point to a different way of thinking about access and mobility.

Jennifer Krichels ■

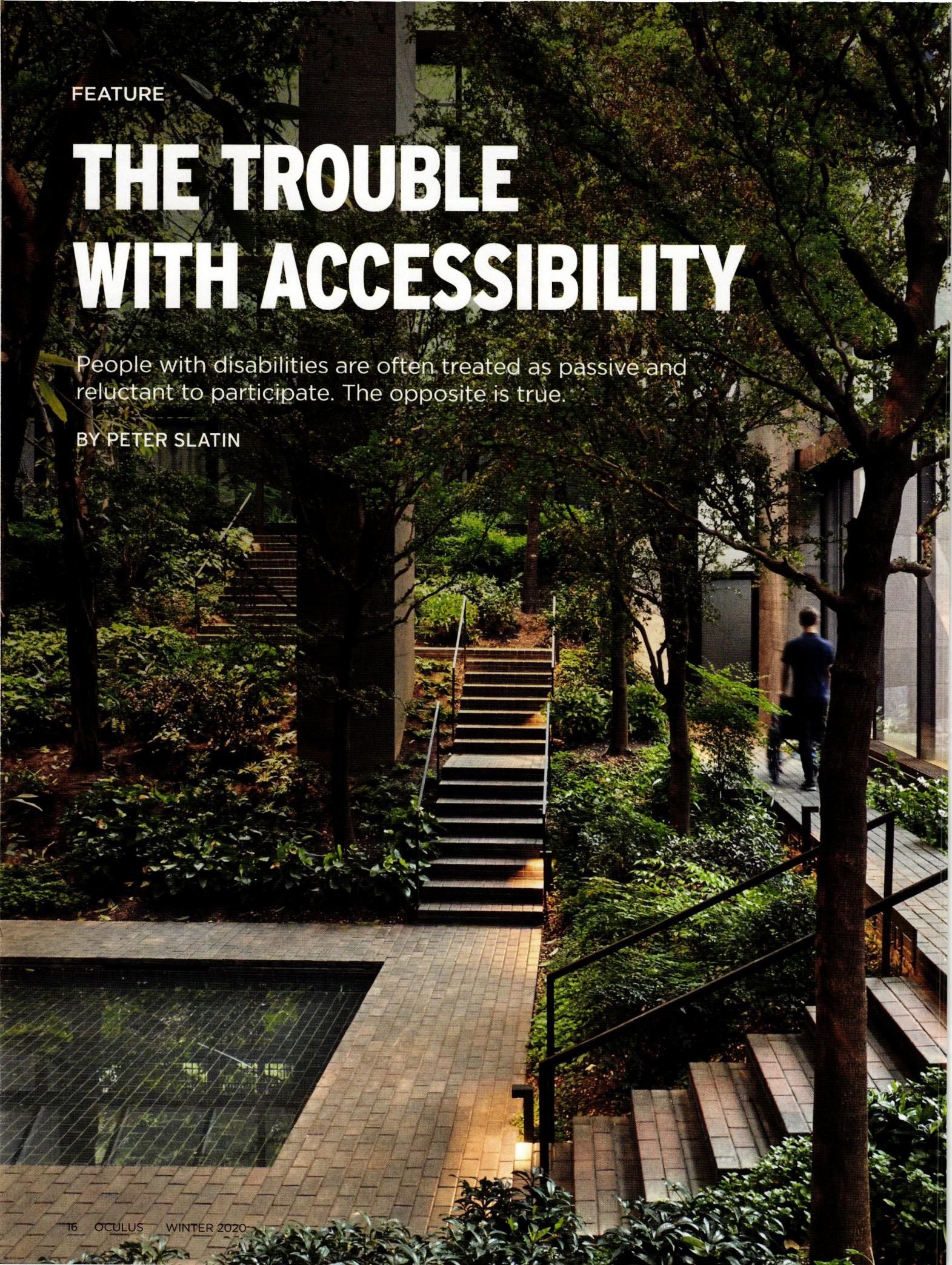
At Manhattan's Morningside Retirement & Health Services, Hollwich Kushner designed a handrail embedded in cabinetry, walls, and furniture to support physical stability for users as they navigate the facility.

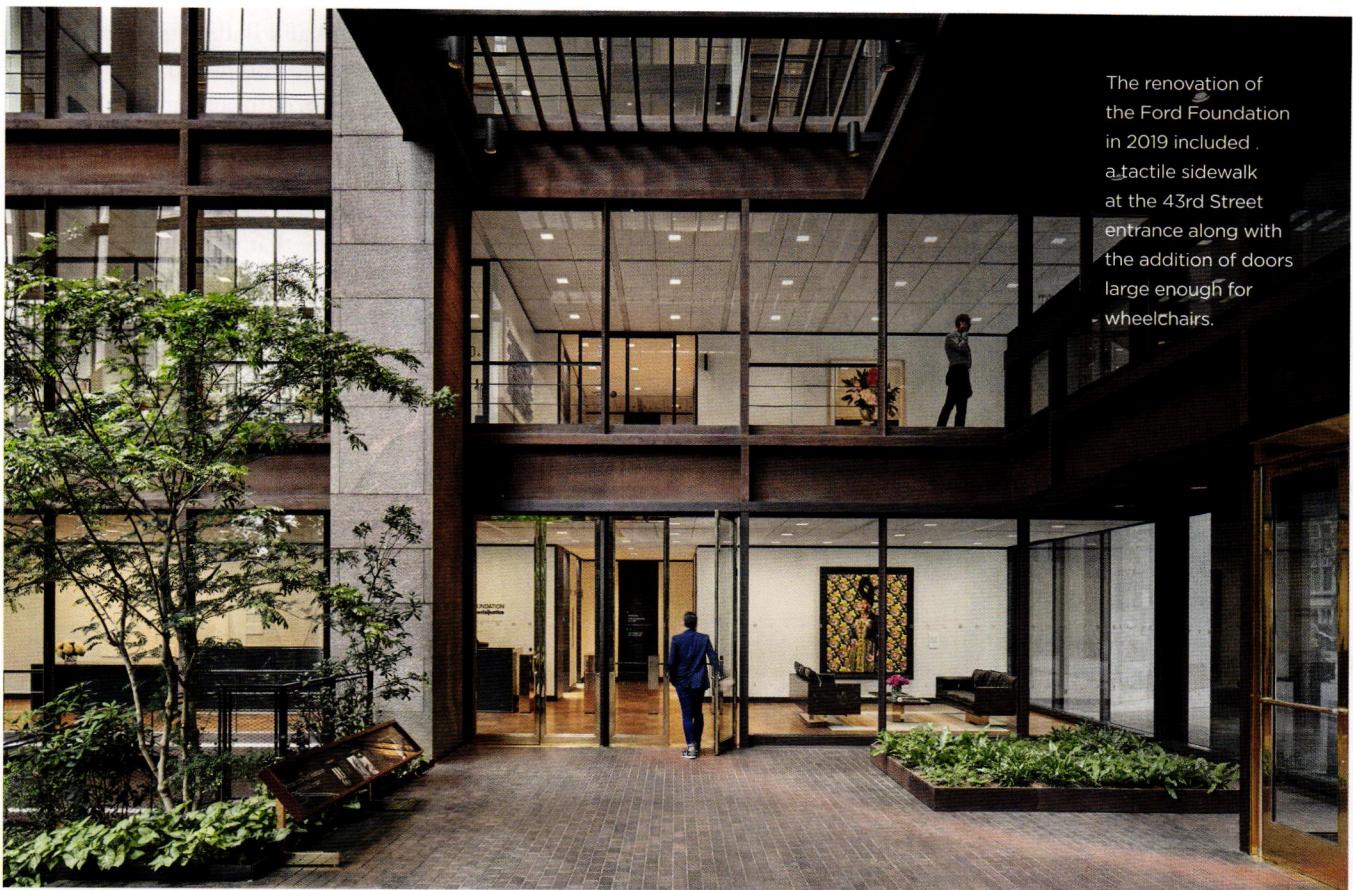
FEATURE

THE TROUBLE WITH ACCESSIBILITY

People with disabilities are often treated as passive and reluctant to participate. The opposite is true.

BY PETER SLATIN





There will come a time when the elements that create accessibility are like every other design element, woven into the fabric of the design.

The trouble with accessibility is that it's still troublesome. Even though the Americans with Disabilities Act (ADA) became law almost 30 years ago, architects—who are among both the foot soldiers and grand schemers on the road to equality of accessibility—still face considerable pushback from clients as well as internal uncertainty and annoyance about having to deal with the consequences of the law.

Although I have written extensively about architecture, design, and commercial real estate, I'm not and have never been an architect, and I'm not steeped in the daunting world of ADA regulations and design code. But as a person who happens to be blind, I experience

the kinds of design shortfalls every day—all day—that unwittingly keep me running in place, trying to reach the playing field, whether it's level or not. Grab bars, roll-in showers, doorways that actually admit wheelchairs are great—but is that really all it's about? Add-ons and put-ins help make a space accessible in the barest sense, but often seem to fracture rather than unify the space, making it less than the sum of its parts. Design that takes disability into account needs to feel seamless, not something added or altered because a code book says so.

What should accessible design feel like—and look like? Ideally, it shouldn't look or feel like anything other than a place, a space, a room, a hall, or whatever else it happens to be. There will come a time when the elements that create accessibility are like every other design element, woven into the fabric of the design from the outset. That time is at least a generation or two away, because that's how long it will take for the designer population to be composed of people who came of age well past the arrival of the ADA in the lexicon. Having been immersed in this language for their whole careers, they will think of it not as a burden or obstacle, but as a welcome design driver.

Today, architects and clients must be asked to consider what disability might feel like, but it should not be

necessary to ask someone to roll about in a wheelchair blindfolded to understand the transformative physical nature of disability. Architects are celebrated for their powerful intellects and imaginations, so the challenge, which is not simply one of empathy but of mindset, will enable them to develop integrated, foundational solutions to accessibility challenges.

In 2019, the Ford Foundation reopened after an extensive renovation with a new name: The Ford Foundation for Social Justice. The renovation of the 1960s landmark Kevin Roche–John Dinkeloo building had to embody that name change; social justice includes accessibility that goes beyond compliance. Thus, along with entrance doors now wide enough for wheelchairs, there is a tactile sidewalk just outside those doors on East 43rd Street. Along with a wheelchair lift into the celebrated interior garden, there is now a sensory garden.

Even some projects more than a decade old embody the mindset of true accessibility. A striking example of design thought that takes access as a starting point is

the Norwegian National Opera and Ballet, designed by the Norwegian firm Snøhetta and completed in 2008. The architects built a gentle ramp up, onto, and around the theater's roof. Yes, this project is in Oslo and has nothing to do with the ADA, but it is a blunt and beautiful statement not only about bringing people throughout the building, but also about ensuring that they experience its significant place on the Oslo harbor.

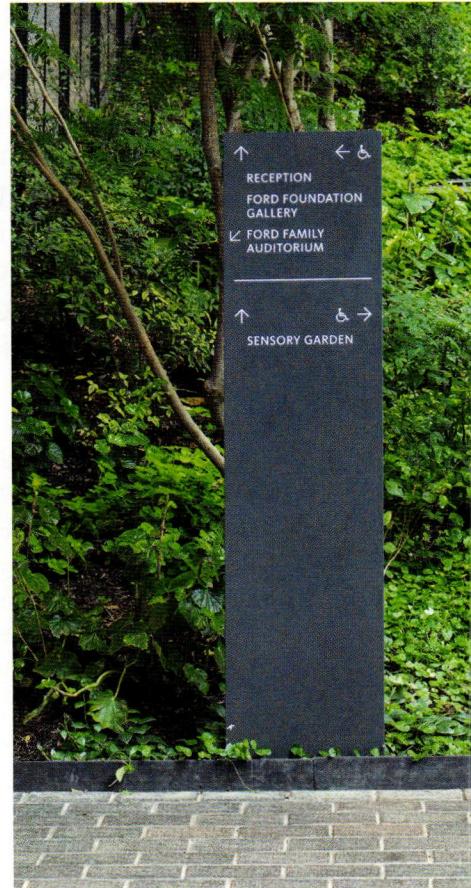
The 1990 passage of the ADA was the conclusion of a long, long period of exclusion and anonymity for people with disabilities. It also marks the beginning of what is hoped will be a trend toward full integration of a marginalized population.

The need to pay attention to accessibility requirements still comes as such a surprise to both architects and clients. Is it because, for an older generation of designers, there was no such need? One way to get ahead of this is by getting ahead of compliance, rather than by pointing towards it. This will allow designers to begin the reframing of accessible design as ... design. Having to

The need to pay attention to accessibility requirements still comes as such a surprise to both architects and clients.



SENSORY GARDEN
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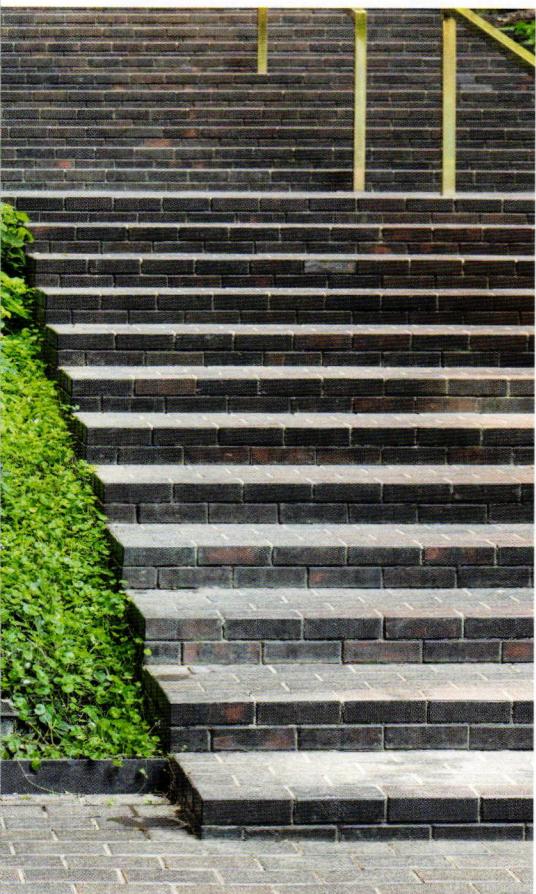


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SENSORY GARDEN

think about accessibility more than or differently from any other aspect of building design feels intrusive and overbearing—especially because it hints at something we'd rather not think about as touching our lives.

The concept of accessible design did not arrive as something integral to the historical evolution of architecture or interior design across the centuries. The drive to instill accessibility as a right comes with a unique set of requirements that goes well beyond removing signs designating who gets to enter which door. As such, it is an expression of our societal evolution, but the way it has appeared in building codes and practices resembles a skin graft gone wrong, rather than a successful mutation.

When designers approach a project—whether through material, plan, volume, light, structure, or even piece by piece—each element belongs to the others, each combination belongs to other combinations, and the whole belongs to the community of users and beyond. From the outset of project planning, every element is designed for the whole community, weaving in socially driven, overarching, or undergirding elements, from sustainability to innovation. Every element is for all users. A door is not designed for some users, but is for anybody to pass through. A texture is for all to experience, as are acoustic values, light values, scale, and substance.



A wheelchair lift makes the interior garden of the 1960s landmark Kevin Roche-John Dinkeloo building accessible, and a sensory garden features a collection of plant life that visitors can touch and smell.

Our modern concept of accessibility, though, has not been approached as something for every user. Instead, it was driven by the need to include a new user group of previously excluded people. This may have seemed the right way to approach accessibility in design; inclusion is a nice enough word, connoting magnanimity and beneficence as well as welcoming and tolerance. But that is the problem: The generosity of spirit that inclusion carries also informs us who is defining that inclusion.

This is a fundamental disconnect that persists between ideals and execution in the implementation of accessible design. But architecture isn't alone in viewing accessibility from this perspective, which is held across corporate America, academia, the arts, and pretty much everywhere else. Inclusion is the decision and act of those who are already on the inside. But most of those who are now being included have long considered themselves already there—whether or not anyone else has deigned to recognize their presence.

This change of status, therefore, is arbitrary. People with disabilities are often treated as passive victims incapable of exercising active choice and reluctant to participate. The opposite is true, of course. Design should assume an active participant—people who are working, raising families, living full lives. The architect can think in terms of enabling that active, participatory life. Yes, fitness-center bathrooms need grab bars, but dressing areas need to work, too—and, like so many other aspects of life, ADA does not yet speak to locker room accessibility. Exclusion and inclusion are passive states assigned to those designated to be either kept out or brought in. The active agent is not the newly welcomed but instead the welcoming committee, which sets the terms of inclusion (and will assign and enable a bouncer, should one be deemed necessary).

The ADA legislated the need to create design elements for a new class of users. In the well-meaning effort to quickly right what had been so wrong, architects were asked to—and began to—think about these users in a way that was as separate from the main project before them as the new user group had always been. In other words, ADA design guidelines presented not a person with disabilities, but rather a series of disabilities with people attached, almost as a disembodied or disassociated organism: a pair of cataract-shrouded eyes; a pair of spindly, wasted legs in an airport-style wheelchair; a malformed cranium; an ear pulled out of shape by a heavy hearing aid. These forms float through space, dragging their little person along behind, but designers are asked simply to think of these organisms and adapt their designs to suit.

Thus, terminology (or labels, if you will) has stumbled back and forth, from universal design to accessible



design to human-centered design. Each of these is equally useful yet also somehow rhetorical. Isn't design for everybody? Isn't design supposed to be accessible? Isn't design by definition human-centered? Yet these labels all highlight something that has been missing: Design that allows all to participate, to use, to feel welcomed and empowered. However circumscribed, design for people with disabilities has been undergoing its own disembodied evolution as architects and designers struggle not with integrating these precepts (and the people they are aimed at) into a project, but with putting them on top of or alongside it.

Most architects lack personal familiarity with the characteristics they are working to mitigate or even nullify. Pairing this reality with confusing ADA design requirements is a

The goal of ADA regulations should be to provide guidance rather than to hinder design thought, which is often what happens.

recipe for unwieldy and unsatisfactory solutions. At base, the conditions of disability that call for accessible solutions are as varied as the people living with these conditions. One size does not fit all, and may, in fact, fit nobody. It is possible to make valuable generalizations by using factors such as wheelchair width or height, but so much else—including how visual impairments are affected by different light levels



and intensities, or how the infinite range of frequencies can be magnified or distorted by an infinite variety of environmental conditions—is almost antithetical to the super-specific mandates of code governed by the ADA. That makes it confusing or even maddening to graft these strictures onto a design that might have to work so well without them. And that's why, for example, many so-called accessible hotel rooms are off-kilter from their surroundings; led sometimes by their clients, designers approach these spaces as something that needs to be dealt with to obtain a certificate of occupancy. The design thinking that has prevailed across other rooms and public spaces can get shunted aside in a push for compliance. Wheelchair users often complain that these rooms are less attractive and clunkier than other hotel areas. Imagine starting out by designing these rooms

Author Peter Slatin argues that the conditions of disability that call for accessible solutions are as varied as the people living with these conditions. Projects like the one pictured here, the Norwegian National Opera and Ballet, completed by Snøhetta in 2008, create a statement about using access as a starting point for design.

and allowing that framework to drive an entire property. In doing so, accessibility becomes much more of a benefit that can be spread throughout a building's ethos than something attended to simply to fill a regulatory mandate.

The goal of ADA regulations should be to provide guidance rather than to hinder design thought, which is often what happens. This is not anybody's fault; it is the unsurprising first step in ending a history of exclusion that is as long as the history of humanity itself. ■



FEATURE

ALEX ELEGUDIN'S DAUNTING TASK: MAKING THE SUBWAY ACCESSIBLE

JAMES S. RUSSELL, FAIA, SPEAKS WITH NYC TRANSIT ACCESSIBILITY ADVISOR
ALEX ELEGUDIN

Alex Elegudin accepted the position of senior advisor for system-wide accessibility at New York City Transit about a year and a half ago. His chief challenge is renovating more of the system's 493 stations so they will be accessible for people with mobility impairments. (Only about a fourth of the stations are now compliant.)

An engaging 35-year-old, Elegudin has been using a wheelchair since he recovered from a spinal-cord accident at age 19. He worked as a patent lawyer, but also became deeply involved with those whose disabilities can prove severely limiting, co-founding Wheeling Forward, a non-profit devoted to helping mobility-challenged people gain greater independence.

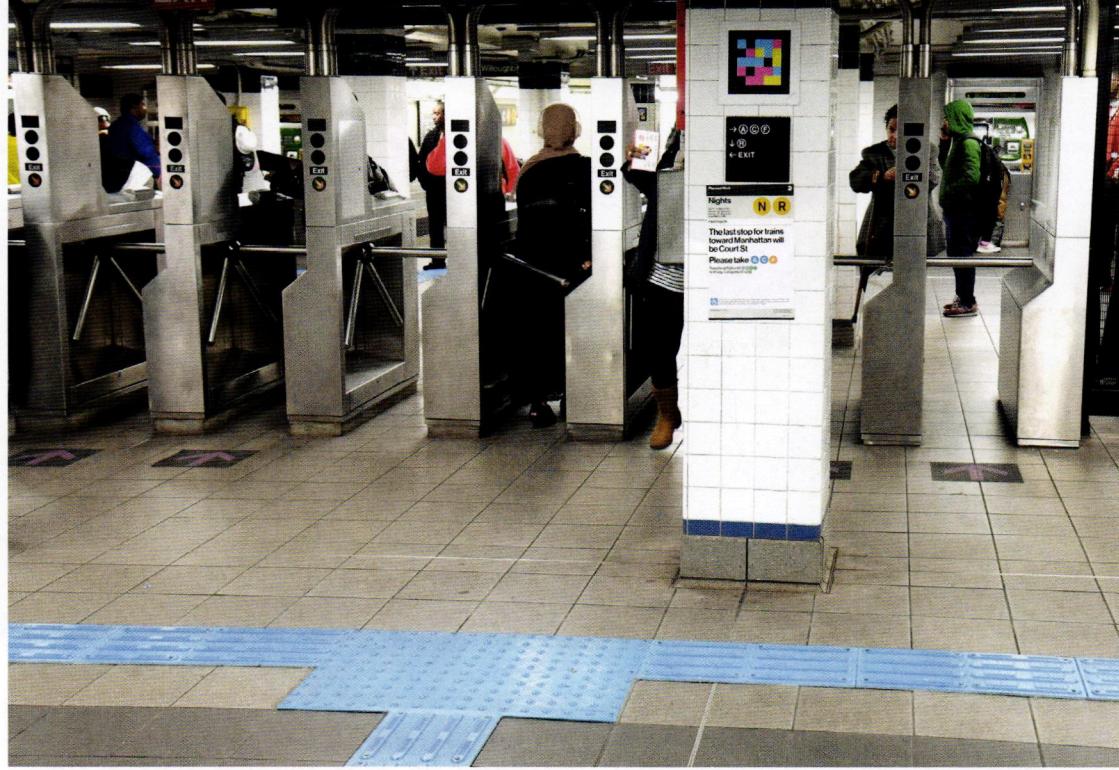
Elegudin came to New York's transit agency (a subsidiary of the Metropolitan Transit Authority) from the NYC Taxi and Limousine Commission (TLC), where he was the accessibility program manager. He spoke to James S. Russell, FAIA, at the Jay Street-MetroTech station in Brooklyn.

HOW DID YOU TRANSITION TO BECOMING AN ADVOCATE?

I had gotten to a good level as a patent attorney, but I found myself drawn more and more to the non-profit and advocacy world. Thousands of other lawyers could do my job, but not too many people were advocating for disability.

WHAT DID YOU BRING TO THE TRANSIT SYSTEM FROM YOUR WORK WITH WHEELING FORWARD AND THE TLC?

My work in the non-profit sector has given me a great connection to the disability community. Rather than be the one person representing disability, I see my role as making sure the disability community has a seat at the table. At the TLC, I learned how people navigate the city and what they need: how a wheelchair van ramp works best, what a hearing loop (which assists hearing-aid users) can do, and how drivers can best help their riders.



Gaining a better understanding of the needs of people with various forms of disability has been eye-opening. I've advocated on a lot of different issues, but transit is so important for so many people. Everything is about learning, understanding, and communicating with others.

HOW CAN ARCHITECTS GO BEYOND THE DRY LANGUAGE OF ADA GUIDELINES TO REALLY UNDERSTAND DISABILITY NEEDS?

I sometimes think what's actually needed is a guideline that is 10 times as big. In truth, it's very difficult for a codebook to fully capture the actual experience of disability. At New York City Transit, we're led to solutions by the needs and experiences of customers and an understanding of the physical realities of the system. We have to raise the bar.

It's pretty hard for architects to connect to a deeper utility in what they're working on without help from someone with first-person experience of disability, who can anticipate what works and what doesn't. That resource could



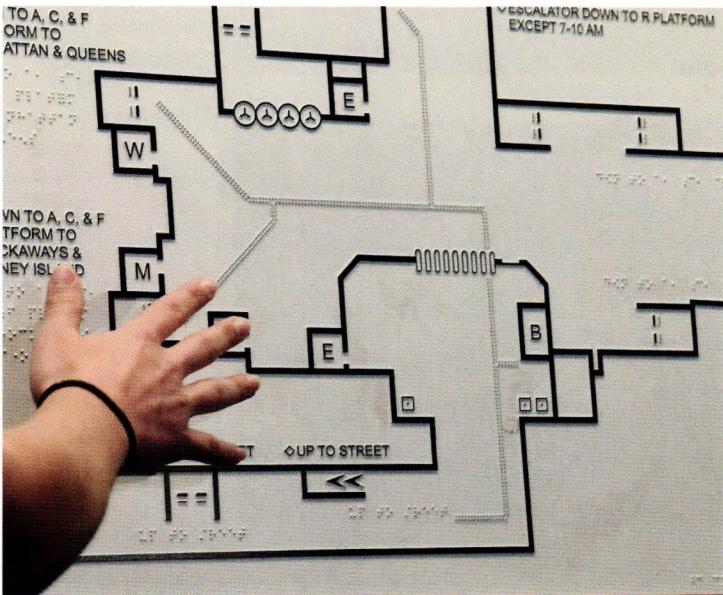
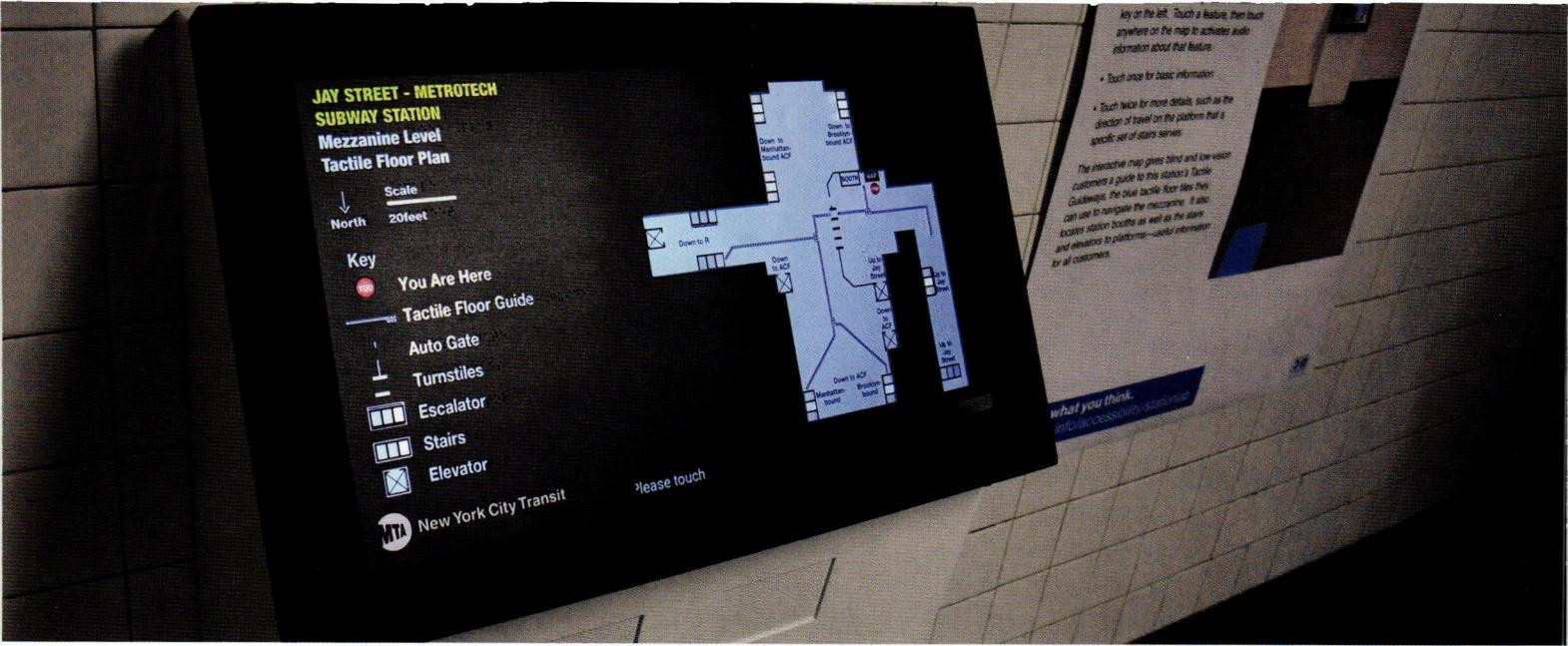
This page:
Working with Elegudin (below, left), the MTA temporarily refitted the Jay Street-MetroTech Station in Brooklyn to test new wayfinding elements, including tactile guideways for customers who are blind or low-vision. Facing page: A digital path that can work in concert with a smartphone app could aid wayfinding for subway riders with a variety of disabilities.

"In truth, it's very difficult for a codebook to fully capture the actual experience of disability."

be a person with a disability, or 10 people. It could be an organization.

WHAT INSIGHTS HAVE YOU GAINED PILOTING NEW ACCESSIBILITY SOLUTIONS ON THIS STATION?

We've been looking at tactile surfaces to guide blind users around the station. I'd thought of these simply as some kind of texture that helps the person detect the path, but they turned out to be so much more than bumps on the floor. We found that so many senses are involved. Cane users can detect different textures and sounds, and they use that feedback to know when to turn, for example.



The living lab tested dozens of new features, including digital signage and new braille and tactile maps.

Stations have all sorts of features—stairs, platform, gates—and you have to design so people will know where they are going at each transition. We try to run tactile paths near a wall so people can discover, by feel, directions in braille or raised lettering.

SOME ADVOCATES SAY PEOPLE WITH HEARING IMPAIRMENTS GET SHORT SHIFT IN DESIGN. WHAT ISSUES HAVE TO BE ADDRESSED IN THE TRANSIT SYSTEM FOR THIS POPULATION?

We're using more screens to display announcements and schedule information, but most service issues are announced, so we're trying to get more of that alert information on screens and delivered via the MYmta app.

THE NEXT CAPITAL PLAN CONTEMPLATES MAJOR DISABILITY UPGRADES FOR 70 STATIONS BY 2024. CRITICS REGARD THE \$5 BILLION ESTIMATE TO BE WAY OUT OF WHACK. IS MTA ADDRESSING PROCUREMENT ISSUES THAT INFLATE THESE COSTS?

Achieving 70 station upgrades in five years is a task monumentally larger than has ever been done before. We're using numerous exercises in value engineering and packaging projects differently to get this under control.

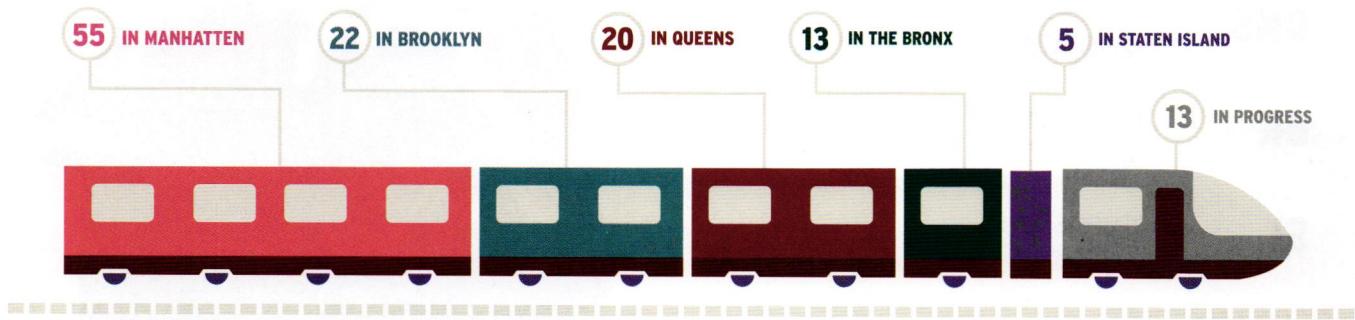
We're trying to reduce cost risks in some projects by minimizing the number of unknowns. You dig into the ground and discover utilities you didn't know about. You have to look for alternatives when the best place to put an elevator turns out to be the middle of a roadway. It's a whole subterranean world of its own. Everything is on the table.

TECHNOLOGY IS MAKING ACCESSIBILITY EASIER IN SOME WAYS. DOES TECH LET YOU AVOID SOME COSTLY REWORKING OF THE PHYSICAL STATIONS?

Technology is a great thing. Apps bring you departure information over the phone; these kinds of improvements help everyone. Some of the high-tech things we use aboveground, however, are much more difficult to use belowground.

Some low-tech means are also very powerful in this underground world. There is a lot more Internet service in the subway, but people need to be able to use the station even if they don't have that connectivity. We can combine tech and physical features. What works better for you: having to download a map on your phone, or just following a colorful line on the floor to your destination? ■

120 ACCESSIBLE SUBWAY STATIONS



\$5 BILLION TO BE INVESTED/70 STATIONS

Only 120 of the City's 493 subway stations have vertical access via a ramp or elevator; here's how they break down by borough. The MTA has pledged nearly \$5 billion to accessibility, including funding for elevators and ramps and features like tactile warning strips at the platform edge, braille signage, and AutoGates that allow customers with disabilities to use the system independently. For a list of accessible stations visit mta.info/accessibility.

MTA Pilots New Solutions in Accessible Station Lab

Working with Elegudin, the transit agency refitted the Jay Street-MetroTech Station in Brooklyn to test a number of physical alterations and mobile-phone apps that aid wayfinding for people with a variety of disabilities. It's a busy three-level station that serves four lines on two platform levels. The pilot station included braille and tactile floor plans that sight-impaired people could run their fingers over to get the lay of the station. One map spoke when the user's finger encountered fare gates, elevators, and other transitional points.

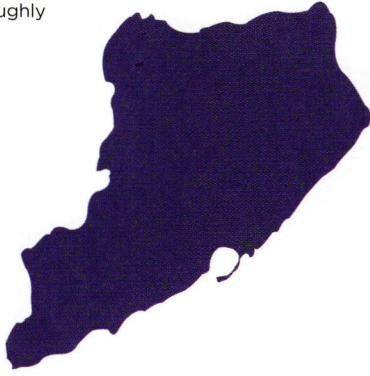
Three paths in paint or rubberlike strips applied to the floor aided wayfinding. Resilient strips with

bumps traced a tactile path for sight-impaired users to follow from the train platform to the street, using changes of texture to denote decision points, such as an intersection where paths to different platforms diverge. An additional graphic path guided mobility-impaired users to elevators and accessible fare gates.

This and other stations also compare the effectiveness of several mobile-phone apps to aid navigation, mainly for sight-impaired customers. These typically locate the customer's phone and guide them with spoken directions and easy-to-read graphics and maps. The pilot wrapped up at the end of 2019.

BX	Bronx 202,401
MN	Manhattan 180,554
QNS	Queens 230,476
BK	Brooklyn 282,142
SI	Staten Island 52,635

Almost 1 million New Yorkers say they are living with a disability, or roughly 11.2% of the city's population.



FEATURE

THE COMFORTS OF HOME

The research behind designing residences and hotels for those with disabilities.

BY FRED BERNSTEIN

For architects, housing the disabled poses myriad problems, which vary according to the type of housing. The challenge may be least daunting when designing for a specific resident whose disabilities are already known (as in the case of a single-family house), and most daunting when designing for a range of occupants whose disabilities will vary widely (as in the case of a hotel room).

Some products designed for the population at large have proven especially helpful to the disabled. Devices that interpret and carry out voice commands, such as Google Home, are a boon to people who can't reach or manipulate conventional switches and thermostats. For a person with a hearing impairment, slightly more esoteric systems will translate sounds—someone knocking at the door, a dog barking, an appliance

turning off—into visual alerts on smartphones, computers, or TV screens. And with the right hardware and software, a person can see who's at the door, then open it and close it with spoken commands.

For the sight-impaired, a smartphone with an app that translates print into speech can be particularly useful for getting around. Pointed at a sign, it can read the sign aloud. A phone pointed at a person may even be able to identify the person.

A HOTEL ROOM IN A BASEMENT INNOVATION LAB

But there is more to life than apps. Much of what the disabled need isn't technology but compassion and common sense, according to a number of architects and consultants.



Magnusson Architecture and Planning recently completed renovation of Selis Manor, an apartment building opened in 1980 for blind and visually impaired residents.

And not every effort to accommodate the disabled has to be a big one. “You can make a series of small changes that together have a huge overall impact,” says Alex Ahulwalia, the senior vice president of global operations for Marriott. Ahulwalia is responsible for the guest experience at some 7,000 hotels (marketed under 30 different brand names in over 100 countries). Last summer he oversaw a deep dive into making those hotels more accessible, an initiative that arose from, among other things, he says, “the desire to serve a market that may be underserved.”

The effort included building a mock-up of an accessible guest room in the basement of the company’s Bethesda, Maryland, headquarters, known as the Innovation Lab. Dubbed “Room for All,” the project involved the participation of Marriott’s global design department, as well as experts from operations, technology, customer service, and multicultural

affairs. The objective, Ahulwalia says, was to come up with ideas that are scalable and would work at every market segment, from the high-end Ritz-Carlton to the mid-market Sheraton to the more affordable Springhill Suites.

The project was not only “focused on meeting the legal requirements of the ADA,” he says, but also on enhancing the experiences of guests with a variety of disabilities, including mobility, hearing, vision, and sensory impairments.

Before constructing the model room, Ahulwalia worked with outside organizations, including Disability:IN, to identify customers with a range of issues. “We actually went to their homes to look at how

they used their living spaces and bath spaces,” says Ahulwalia. Later, the customers were invited to visit the mock-up room and provide feedback.

Among the issues the rooms addressed, Ahulwalia says, was the allocation of square footage—for instance, whether the bathroom should be bigger, relative to the bedroom. For mobility, thresholds were widened and some swinging doors were replaced with sliders. The Room for All team

Much of what the disabled need isn’t technology but compassion and common sense.



considered various bed heights and vanity heights, and the possibility of using reaching tools to make closets more accessible to people in wheelchairs and those of short stature. They took into account the accessibility of soap, towels, toilet tissue, and other necessities.

Then they investigated materials. How does a low-pile carpet versus a thick-pile carpet affect guests in wheelchairs? A consistent flooring material may be best for maneuvering wheels, but changes in material can help guests who are blind know where they are in the room. Even changes in wallpaper texture can be a wayfinding tool.

The Room for All contained some high-tech features, including windows and window shades that follow voice commands, as well as voice-activated thermostats. Domestic “voice assistants” can be adapted to hotel use at relatively low cost. Other high-tech features, like doors that swing open at a touch or voice request, might be helpful to some guests but are expensive to buy, install, and maintain.

Making rooms accessible means not just adding features, but training employees to use and explain them. “Design and technology work together with customer service,” says Ahulwalia, who notes that his team is looking at “how employee training across the company can build more empathy and knowledge.”

“Our goal is that, whatever preference a guest has, it should be available to them.”

Some tech features are even designed to help guests long before check-in. Websites with audio and video components, Ahulwalia says, can provide better information at the start of the booking process to help customers find rooms that meet their needs and eliminate surprises on-site. “It’s also important to connect our guests to our hotels before they arrive to reduce anxiety,” he says. “Early communication can make a big difference.”

The goal isn’t to make every room fully accessible. “I don’t think all rooms can meet all needs,” he admits. Even simple things like shower grab bars, he says, “don’t need to be in every room around the world.” (The company has more than 1.3 million rooms.) Instead, he says, “our goal is that, whatever preference a guest has, it should be available to them.”

The project will lead to test rooms in several Marriott hotels as early as this year. “Only with a real market test can we see what resonates and what really makes a differ-

ence to our guests,” says Ahulwalia, adding that the rooms will be in hotels that represent the company’s demographic and stylistic range.

Hotel guests might not even know they’re in a room designed to accommodate disabilities.

AN APARTMENT THAT DOESN'T LOOK ACCESSIBLE, JUST MODERN

David Carmel isn’t the typical quadriplegic. Twenty years after a diving accident in Mexico left him paralyzed from the chest down—but with arm and limited hand function—he still uses a self-propelled wheelchair. Carmel says it helps him maintain upper-body strength and is lighter and more maneuverable than motorized chairs. “Yesterday I visited my daughters’ school,” he says. “There were a ton of steps, but a couple of guys were able to lift me. With a 200-pound power wheelchair, that couldn’t have happened.” In the last few years, Carmel, who is 46, has used a power-assist wheelchair that, like a power-assist bicycle, provides a little boost.

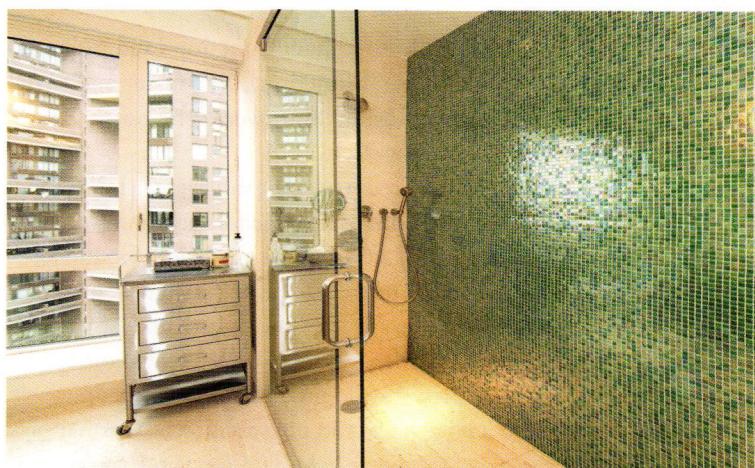
A biotech executive, Carmel lives with his wife and two children in an Upper Manhattan apartment that was modified for them by architect Garrick Jones of the Brooklyn firm Ten to One. (The name, according to the studio’s website, “refers to long odds.”) Jones also helped design Carmel’s previous home, a bachelor pad in Chelsea. The Upper Manhattan building is entered at grade level through motorized doors. That kind of universal design, Carmel says, “doesn’t just help people in wheelchairs or people with walkers; it helps people with grocery bags.” When he was living in Chelsea, he recalls, his building installed an automatic opener for the front door. “Someone said, ‘We’re wasting all this money for one person who’s

in a wheelchair.’ I said, ‘Just watch how many people benefit.’ I’m hoping that as the population ages, people will be more cognizant of the benefits of accessibility more broadly.”

The design of the Carmels’ light-filled apartment is more about graciousness and ease of movement than about specific accommodations. “We’ve tried to make it an apartment that is very accessible but doesn’t look it,” Carmel says. Adds Jones, “Working for David, I found that if you follow the minimum requirements, it isn’t comfortable. With legally permissible 32-inch openings between rooms, he would feel like he was just squeezing through.”

Instead, Jones enlarged most of the openings—one is now eight feet wide, which turns the dining and living rooms into a continuous (but subdivided) space. “I found it a great opportunity to take a very compartmentalized New York apartment and blow it open,” Jones says. “You can really create fun spaces, much larger social spaces, than you would otherwise have. It essentially became a flexible loft space. And it led to a minimalist, modern aesthetic.”

Where it was necessary to have doors that close, Jones opted for sliders and made them out of resin so that light would pass from one room to another. And there are no doorknobs; levers are much easier to operate. “I hope the doorknob goes the way of the dodo,” says Carmel, smiling. Throughout the apartment, there’s nothing on the floors that’s hard to get a wheelchair over. Window shades are remotely controlled. The family has a Google Home device, which was provided by the Christopher and Dana Reeve Foundation in partnership with Google. Carmel uses it to listen to music, check the weather, and perform Web searches. He explains



Facing page: Marriott’s Room for All concept, housed in the company’s Maryland Innovation Lab, explored ideas for accessible features that could be deployed across all markets. Above, left: Ten to One’s design for David Carmel’s apartment features resin sliding doors with slotted handles, allowing the client, who is a quadriplegic, to navigate more easily. Above, right: Carmel’s bathroom features an open, barrier-free shower and roll-under sink.



"No one can expect to be able-bodied forever. Even if your clients are 20-somethings, they might someday encounter issues."

that, for people with limited hand function (and probably people with full hand function), "It's faster and easier to just speak what you want." But overall, he notes, the apartment is "pretty low-tech."

There is a special bathroom with a cantilevered sink ("The ability to roll under the sink is a biggie for me") and a roll-in shower without any kind of threshold, or "saddle," to hinder a wheelchair. And the kitchen was custom designed, with work surfaces that are "easy to get underneath and easy to get around," Carmel says. There's an extra fridge that's convenient for him to use, and low-to-the-ground cabinets and drawers.

Asked what advice he would give architects, Carmel says, "No one can expect to be able-bodied forever. Even if your clients are 20-somethings, they might someday encounter issues. Why have narrow stairs and narrow doorways when you don't have to?" Instead, he says, architects should design spaces that are accessible to all people and "stand the test of

time." Jones says he finds Carmel's needs not a limitation, but an inspiration. And the kinds of things he did for the Carmels, he says, "I try to do for all my clients."

A MANHATTAN HAVEN FOR THE BLIND AND PHYSICALLY DISABLED

Magnusson Architecture and Planning, a 33-year-old Manhattan firm, was hired by the owners of Selis Manor, a 205-unit apartment building serving the blind and physically disabled. (According to the *New York Times*, the West 23rd Street building was financed by the U.S. Department of Housing and Urban Development and built by Irving M. Selis, a blind newsdealer. It opened in 1980, turning "a small slice of Manhattan into something of a haven for the blind and visually impaired.") Magnusson undertook a plan to upgrade the entire building for the first time in its history. Because the renovation was conducted two floors at a time, with residents remaining on the other floors, "we got a lot of real-time feedback," says Sara Bayer, AIA, the firm's director of sustainability and one of its experts on accessibility.

The feedback led to granular improvements. Where wooden living room floors met vinyl kitchen floors, Bayer provided wooden "transition strips." They were ADA compliant, but some wheelchair-bound residents (especially those

Facing page:
The kitchen
of Carmel's
apartment. Left:
The renovated
entryway to
the Selis Manor
building, which
also houses
Visions, an
organization that
provides services
for the blind and
visually impaired.
Below: Giving
Visions its own
entrance created
more space in the
residents' lobby.



in motorized chairs, which have small front wheels) found the strips too thick to easily roll over. The wooden strips were replaced with thinner strips of metal. Choices of materials, Bayer notes, are particularly important to the disabled.

So is circulation. The building houses Visions, an organization that provides services for the blind and visually impaired. Visions used to share the building's main entrance, leading to confusion and crowding in the residents' lobby. As part of the \$37 million renovation, Visions got its own entrance and elevator. The architect moved the laundry room from the basement to the ground floor, positioning washers and dryers so that their controls are easy to reach, and repurposed a rear courtyard as a place for residents to congregate. "All those things make people's lives much better," Bayer says.

The building's front doors open at the touch of a button. The lobby seating area and security desk are bright and modern. Along each hallway, destinations like the elevator bank are indicated with a change of wall color and floor texture.

"There are some nice moments," says Bayer, adding, "Without a big budget, you have to think about physical solutions, not a lot of bells and whistles." Bayer could be speaking for anyone who designs housing for the disabled, whether it's one room or, as in the case of Marriott, thousands of rooms around the world. ■



A wide-angle photograph of the interior of the Museum of Modern Art (MoMA). The space is modern and minimalist, featuring a long, curved white wall on the left with a digital screen displaying "Hello again." A series of black wooden benches are arranged along this wall. In the center, a large, open auditorium with tiered seating is visible, separated from the lobby by a glass partition. The ceiling is white with numerous small, recessed lights. To the right, there's a dark room with a long table and chairs, possibly a gift shop or a different part of the museum. The overall atmosphere is clean and spacious.

A MOMA THAT INVITES EVERYBODY IN

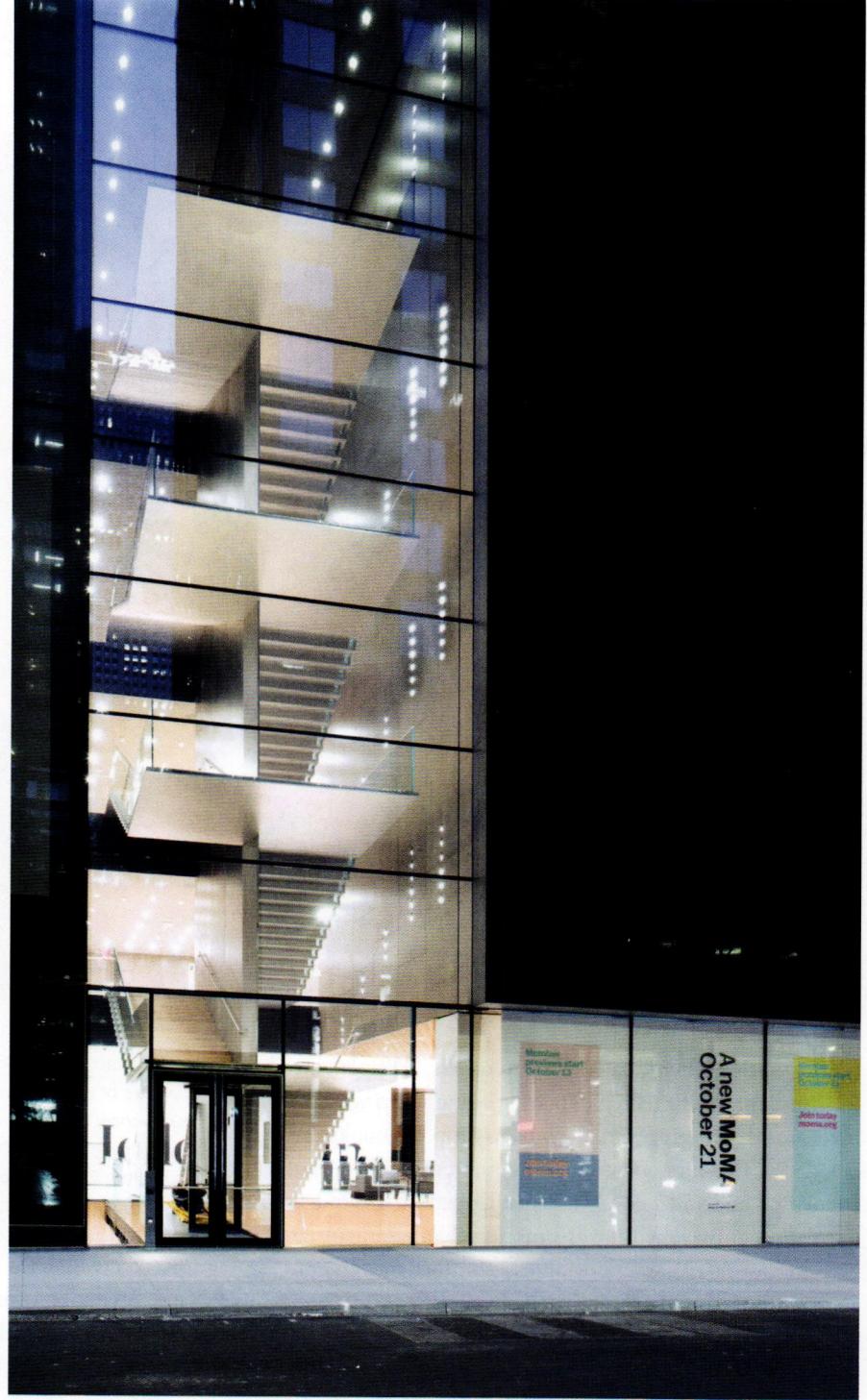
How DS+R reinvented one of the city's premier art institutions into a fine-tuned machine for viewing, listening, and thinking.

BY BILL MILLARD

If anyone is perversely waiting for Diller Scofidio + Renfro (DS+R) to stumble, after its remarkable string of prominent projects—the High Line, Lincoln Center, the Vagelos Education Center, and The Shed, just to name some local ones—they'll have to keep waiting. The firm's long-anticipated renovation of the Museum of Modern Art (MoMA), collaborating with Gensler, matches strategies to the museum's evolving program, enhancing the experience for a widening range of visitors and strengthening DS+R's position as the city's go-to firm for cultural infrastructure.

This is the fifth physical iteration of an institution that initially embodied modernism as an upstart movement, yet now represents its mainstream: alternately respected and resented,

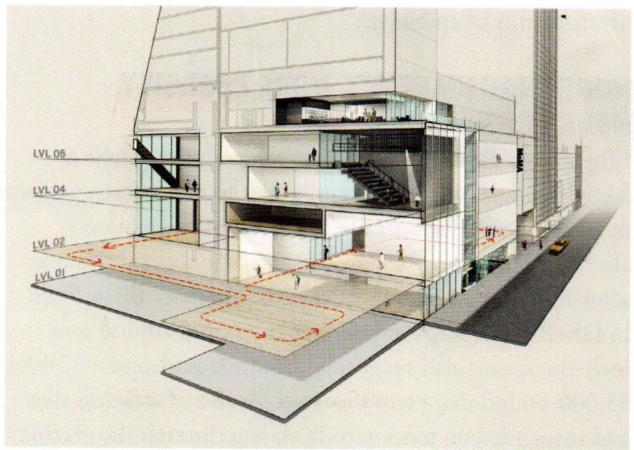
subjected to critiques of corporatization and hegemony. MoMA is both a pantheon and a commercial enterprise, and it must manage the implicit tension between the two. Rem Koolhaas landed a punchline in 1997 with "MoMA, Inc.," and when Banksy broadsided the entire contemporary art establishment with *Exit Through the Gift Shop* (2010), though he didn't single out MoMA for zingers, it was hard not to recall the gift shop/bookstore as a prominent path into or out of MoMA's 2004 building by Yoshio Taniguchi. With the MoMA Design Store right across 53rd Street, the commercial aspect of the whole campus is inescapable—yet the newly expanded flagship submerges the retail space below grade. Visitors now enter or exit above the gift shop. It's still visible but no longer central.



The ambition was “to bring art back to the city and back to the streets of New York.”

Facing page: The ticketing lobby along the ground-floor West Connector, westward view, with electronic ticketing kiosks and seating. The blackened steel is inspired by the Taniguchi-designed stainless-steel portals and marks the passage between old and new galleries, such as the David Geffen Wing, part of the new western expansion passing through the 53 West 53rd Street building designed by Ateliers Jean Nouvel. Top: The Blade Stair atrium as seen from West 53rd Street. Right: North/south section-perspective through the new gallery spaces, looking east along 53rd Street, with the Marie-Josée and Henry Kravis Studio in the foreground, levels four and five.

Image credits: Clockwise from top: Iwan Baan
Baan courtesy of Gensler; Iwan Baan





As DS+R partner Charles Renfro recalls, “We convinced the museum, after much haranguing—and them with much hand-wringing—to allow us to drop the bookstore one floor.” The old bookstacks, he says, were an obstacle to circulation and street-level visibility. Enhanced ground-floor circulation outweighed the assumption that basements are bad sites for retail. Assigning access, comfort, movement, and sightlines a higher priority than souvenir sales is typical of this project; as the curators sought sufficient space to display more of MoMA’s collection and diversify its exhibitions, DS+R and Gensler focused their interventions on the visitor’s experience, from the grand gestures to the invisible determinants of ambience.

MORE TRANSPARENCY, MORE POROSITY, MORE FREEBIES

“The effort,” Renfro says, “was to reinvent the details of MoMA, which were always crisp, but to make them perform more technically by pushing the limits of these materials.” The most dramatic new features, one vertical and one semi-horizontal, are, respectively, the six-story Blade Stair in DS+R’s new western building, organized around a six-inch-thick steel slab suspended from the roof, and a 37-foot, 95,000-pound main entrance canopy, also of stainless steel and suspended on tension rods, slicing through the glazing

A westward second-floor installation view of Daylit Gallery 212, Sheela Gowda’s of *all people*, overlooking Projects Gallery, featuring *Projects 110: Michael Armitage*. Facing page, left: Installation view of *Fossil Psychics for Christa* (2019) by Kerstin Brätsch in the sixth-floor Carroll and Milton Petrie Terrace Café, with view to exterior above West 53rd Street. Facing page, right: Signage and microperforated panels on the sixth-floor Blade Stair near the café.

and “levitating over the street with a 26-foot cantilever.” Both adhere to a classic modernist aesthetic of clean lines and industrial precision.

The main entrance on 53rd is now double-height, mirroring the one on 54th. (“Taniguchi thought 54th Street might be the main entrance,” notes Gensler principal Madeline Burke-Vigeland, AIA, “but with the subway on 53rd Street, New Yorkers just don’t do that.”) After a brief compression/release sequence, one finds a lobby no longer clogged by ticketing queues; that function has been moved aside to a dedicated east-west corridor, aided by kiosks offering electronic ticketing in multiple languages. Furniture softens and domesticates this space, offering a living-room atmosphere for planning one’s itinerary before exploring the galleries or resting up to minimize “museum fatigue” later on.

The building opens itself to passersby, beckons them in, and presents visual interest in pre-ticketed space. The Sculpture Garden has been unticketed since 2015; “this

ground-floor accessibility,” Renfro says, is “an expansion of that ethos.” The ambition “to bring art back to the city and back to the streets of New York” entailed strategies to reduce the barrier between the have-tickets and the have-nots, including artworks visible in the lobby and along the 53rd Street façade, plus portals allowing views to the second-story atrium, a Daylit Gallery along the façade, and the garden. Street-level galleries, including a double-height Projects Gallery equipped for multimedia works, are free to the public and have two entrances in the west lobby. The Marie-Josée and Henry Kravis Studio, a double-height multipurpose black box on floors four and five accommodating the performing and time-based arts, faces 53rd through a curtain wall, increasing museum-street porosity.

Renfro describes a balancing act, respecting MoMA’s past and the predecessor building’s essential features—Taniguchi’s vast atrium remains “the heart of the building”—while integrating and recombining elements, in keeping with the curators’ choice to rehang the collection with genres mixed, disciplinary barriers dissolved, and selections periodically rotated. The architects studied the building’s evolution, from its 1939 design by Philip L. Goodwin and Edward Durell Stone through extensions by Philip Johnson (1964) and Cesar Pelli (1984), then Taniguchi’s renovation. Their material choices stress continuity with past conditions:

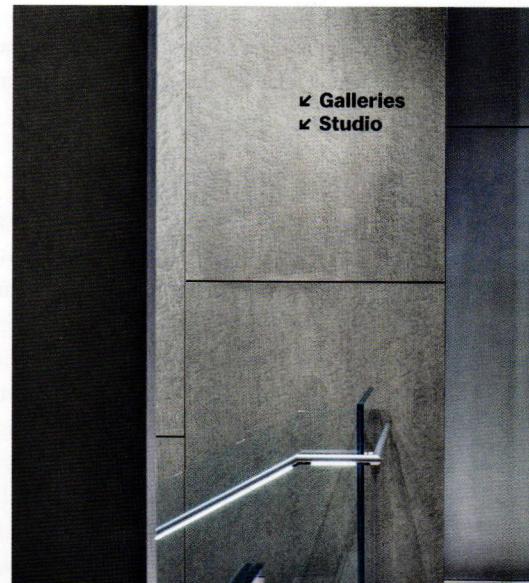
The new building deploys its subtleties purposefully, widening opportunities for more people to explore ideas.

a grayscale color palette; ample woodwork in public areas, including maple veneers in the entry with noise-dampening microperforations, and new white oak flooring, maintaining four-inch board widths in older galleries to contrast with eight-inch widths in the new west wing; a reinterpretation of a marble wall from the Goodwin/Stone building, now black and white rather than colored, as a recurrent ornamental motif; and a restored Bauhaus Stair linking the lowest three floors, paying elegant homage to Walter Gropius’s building in Dessau, Germany.

GET THY BEARINGS, INCLUDING DIAGONALLY

The main gallery floors two, four, and five each arrange galleries in loops (with occasional offshoots) through the Taniguchi building and the two new components, the Jerry Speyer and Katherine Farley Building (DS+R’s new segment framing the Blade Stair) and the David Geffen Wing of spaces inside the 53 West 53rd tower by Jean Nouvel. Fusing circulation with perception, the walkways and atrium offer frequent surprise openings and sightlines between floors. “We’re very interested,” Renfro says, in “diagonal connectivity between spaces and actually bringing a friction of the different kinds of activities that are happening here so the circulation space is in fact also the display space. We weren’t interested in making it the hallways or atrium and then galleries; we were actually interested in making everything become one.”

Since the main gallery floors organize collection elements chronologically, he notes, “in the new building, those operations happen diagonally from gallery to gallery, and from the studio space to the gallery,” so that “we essentially break down that chronological consistency and allow the museum to start to program up and down, so new affiliations can be made.” Visitors have diverse choices for circulation, and with more



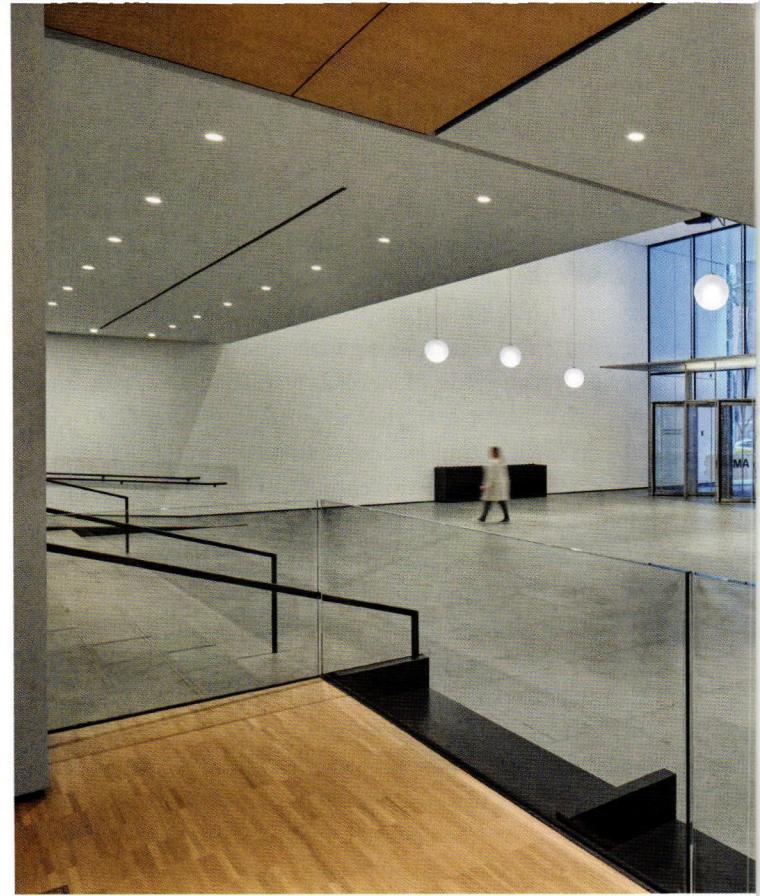


views onto major internal elements and the exterior, their sense of an implicit 3D grid can be stabler, aiding orientation in spaces that have long been easy to get lost in.

The curtain-walled Blade Stair, linking Taniguchi's building with the Farley Building laterally and connecting all gallery floors vertically, is an important new circulation path near a new core with two adjacent elevators, essentially a secondary atrium. Visible from both 53rd and a pocket plaza across the street, the Blade Stair is "the only part of MoMA that has space in front of it," Renfro notes, "and in our effort to relieve the pressure, but also to make it feel more intimate, we wanted to use that space as an extension of the museum experience." This stair, the Bauhaus Stair, and the new elevators all help relieve congestion in the older building, where the escalator stack and elevator east of the atrium have frequently been pinch points.

INVISIBLE SUBTLETIES

"One of the things that's most remarkable about the project," says Burke-Vigeland, "is what you don't see." A pair of large portals connecting the Farley Building to the Taniguchi to its east and the Geffen Wing to its west are painted black up to the ceiling, demarcating DS+R's space. These portals also conceal important components, the results of tight-knit teamwork among the architects, the Department of Buildings, Ateliers Jean Nouvel, and 53 West 53rd developer Hines. "Buried there are fire shutters and doors within doors and lots of mechanical items within those thick walls," Burke-Vigeland points out. "That



"The entire team did their best to address all needs in a way that was inclusive and not developed as an afterthought."

circulation path was so important to the success of this design that there's so many details in that, to get it right and get it seamless." (The DS+R/Gensler partnership, she notes, was one of several complex collegial ventures between the firms, closer than arrangements where a design architect hands drawings off to an architect of record; a Citrix platform gave both offices simultaneous access to the working model.)

Gensler's expertise in accessible design has meshed well with MoMA's commitment to reducing barriers and ensuring a dignified experience for all visitors, regardless of impairments. These efforts extend well beyond wheelchair access, addressing differences in hearing ability, vision, age, mobility, gender, intellectual and developmental disabilities, and other factors. Francesca Rosenberg, director of MoMA's Community, Access, and School Programs and member of its Accessibility Task Force (an outgrowth of its longstanding service to the disabled dating back to 1945, when it launched the War Veterans' Art Center), served on Gensler's 2018 inclusive-design roundtable, which advocated a systematic approach to removing both physical and



Far left: Inclusive bathroom sign. MoMA now includes men's, women's, and all-gender private facilities. Left: A ground-floor lobby view toward West 53rd Street. The renovation has expanded and opened up the main lobby into a light-filled, double-height space connecting West 53rd and 54th streets, creating multiple circulation routes with more areas for visitors to pause and reflect. Foreground: absolute black granite seating.

perceptual barriers. The renovation implements this philosophy through the more open wayfinding plan, clarified signage, contrasting surfaces to enhance visual perception,

an induction hearing-loop system, and accessible, height-adjustable furniture. Describing MoMA as “an enlightened client,” Burke-Vigeland notes that “whenever you’re dealing with a big public space and trying to address individuals of all needs, it’s not an easy thing. The entire team did their best to address it in a way that was inclusive and not developed as an afterthought.”

With performative works and multimedia moving into spaces previously hosting painting, sculpture, and design artifacts, the building’s acoustical properties become nearly as important as its sightlines and lighting. One space requiring special attention to sound is the Kravis Studio, configurable as a theater seating 105 on a raked platform, with a walkable suspended ceiling grid, solar shading, blackout curtains, variable-level acoustic drapery, and a cable-hung double curtain wall with an occupiable cavity, providing protection from street noise as well as daylight control. DS+R project architect Andrea Schelly compares the studio to “a Swiss watch,” a box-within-box space acoustically isolated on all six sides; “the floor is a floating slab with end frames on neoprene,” she says. “This is a dance floor with some resilience to it and deployable, tunable acoustical baffles.”

Acoustic engineers Cerami and Associates consulted not just on the studio, with its need for theater-quality sound clarity, but also on the Blade Stair, where microperforated maple lines the atrium and contributes to a calm atmosphere. “We did a lot of acoustical modeling,” says CEO Victoria Cerami, treating MoMA and DS+R personnel to 3D computer simulations of the spaces based on benchmark data representing vari-

able crowd spatial dispersions and internal or street noises. Cerami’s laboratory allows designers and other clients to experience a space’s distinct acoustical signature, much as a lookbook gives options for choosing visible features. Associate principal Matthew Schaeffler notes that there are “plenty of museums that we’ve done where little attention was put to something like a stair. It’s almost on the back plate; it’s not a design feature.” MoMA, in contrast, viewed acoustics as an essential aspect of visitors’ experience. The Blade Stair, Cerami says, is “beautiful, and we are invisible to that stair, but yet we’re very visible, because it’s so wonderful in the way it sounds. It’s a very magical experience on the stair, but I don’t know that anybody could actually pinpoint why.”

Much of what makes the new MoMA promising involves factors that are hard to pinpoint. Some are matters of nuance: Renfro reports that they changed all galleries’ lighting to 3000° Kelvin, a crisper color temperature. Others, like the immediately iconic steel plates, are more obvious. Many bear in mind the museum’s broadly democratic objective “to bring more of the collection to the public than had ever been shown, and to redress some of the issues of ‘white/male/European’ that had so dominated the way MoMA had been for 80 years,” he observes. “There are more people like more New Yorkers represented in the galleries: more women, more people of color, more outsider artists, artists that were not trained in art. Gone are the preachy art-historical wall texts, and now you find more circumstantial wall texts, which historicizes ideas and not trends and art movements.”

The new building deploys its subtleties purposefully, refraining from shouting at its visitors, widening opportunities for more people to explore ideas. People who have previously felt excluded from the museum, or from the art world in general, may find its new version both surprising and welcoming. So do insiders, Renfro finds, even world-weary ones. “I’ve heard back from some of my artist and art-history and critic friends that they finally feel like the museum has returned, and they want to go there again,” he says. “And that’s almost the best validation we could hope for.” ■

PROJECT CREDITS

Architect: Diller Scofidio + Renfro in collaboration with Gensler
Director, Real Estate Expansion, MoMA: Jean Savitsky
Construction Manager: Turner Construction Company
Retail Consultant: Lumsden Design
Lighting Designers: Tillotson Design Associates (public spaces), Renfro Design Group (gallery spaces)
MEP/FP/IT: Jaros Baum & Bolles
Structural Engineer: Severud Associates
Façade: Heintges Consulting Architects & Engineers P.C.
Sustainability: Atelier Ten
Security: DVS Security
Acoustics/Audiovisual: Cerami Associates



GAINING ACCESS

As more and more architecture firms establish best practices surrounding accessibility, new and on-the-board projects find innovative ways to support people of all abilities.

BY DAVID SOKOL

The Americans with Disabilities Act (ADA) has a letter and a spirit. ADA prohibits discrimination against people with physical or mental impairments, which, in the built environment, means removing barriers and fostering access. Yet the civil rights law rejects second-class citizenship equally overtly. It requires that accommodations for differently abled people are placed “in the most integrated setting appropriate to the needs of the individual”—that everybody experience a building in the same dignified, efficient, or poetic manner that its architect had intended.

On the eve of ADA’s 30th anniversary, one can’t help but reflect on both recent accessibility fumbles, such as the separate-but-not-equal pathways incorporated into Thomas Heatherwick’s *Vessel*, and impressive forward strides like “Designing

a Neurodiverse Workplace,” a report published by HOK. “Overall, things are moving in the right direction—they’re just not moving fast enough,” says Karen Braitmayer, winner of this year’s Whitney M. Young, Jr. Award for her leadership in accessible design. Detailing how progress in the field could play out, the Seattle-based Studio Pacifica founder explains that more design thinking needs to be applied to blindness, hearing loss, neurodivergence, and mental health, but that “architecture firms are starting to assemble best practices in some of these areas to support their clients, and I am hopeful they will continue to share their results and outcomes.”

In the spirit of accelerating change, *Oculus* presents recently completed and forthcoming projects located in and beyond New York that represent gold standards and new frontiers in inclusivity:

New York-based design studio Brandt:Hafner's concept for an intergenerational residence won the North Coast Community Homes #ZeroThreshold Design Competition in September 2019.

Deep Dive SEATTLE

Studio Pacifica consulted on this Graham Baba-designed bar, which opened last spring underneath the Amazon Spheres. The Seattle-based architect transformed a multistory basement space into a trendy speakeasy concept, which Braitmayer raves about. "It was Graham Baba's design wizardry that recommended a ramp to connect all levels, which playfully reveals smaller spaces as you move along it," she says. Major interior elements, such as a tufted velvet banquette, reflect the ramp's curving shape, and custom steel elements hide the mechanical systems crisscrossing what was originally leftover space.

Photo credit: © Haris Kenjar



Image credit: Courtesy of WXY

New York Stock Exchange Report **MANHATTAN**

Threaded with narrow and winding streets, paved in cobblestones, and sprouting myriad security measures, Lower Manhattan is an obstacle course for people of all abilities. The Downtown Alliance convened stakeholders, including New York design studio WXY, to devise mobility enhancements and other improvements to the neighborhood. The resulting report envisions curbless streets, multifunctional seating, lighting improvements, and gateway markers, as well as increased capacity for truck parking. Its aim is to distinguish foot traffic from vehicle pathways while diversifying the ways and speeds with which individuals can interact with pedestrian circulation.

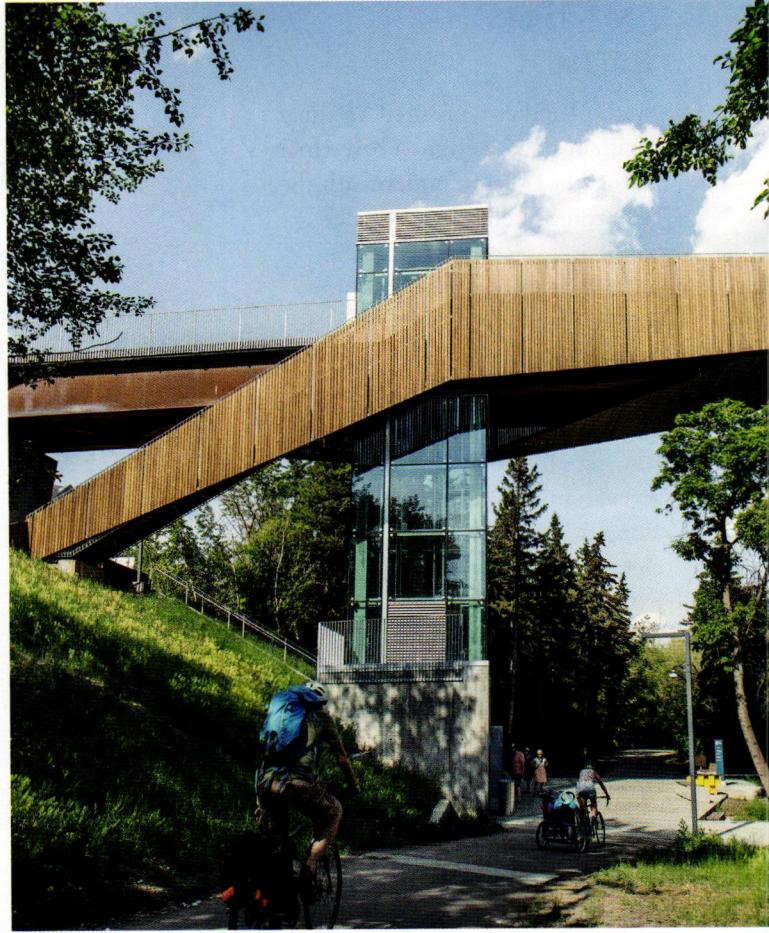
Photo credits: Ryan Handt



East Elmhurst Community Library **QUEENS**

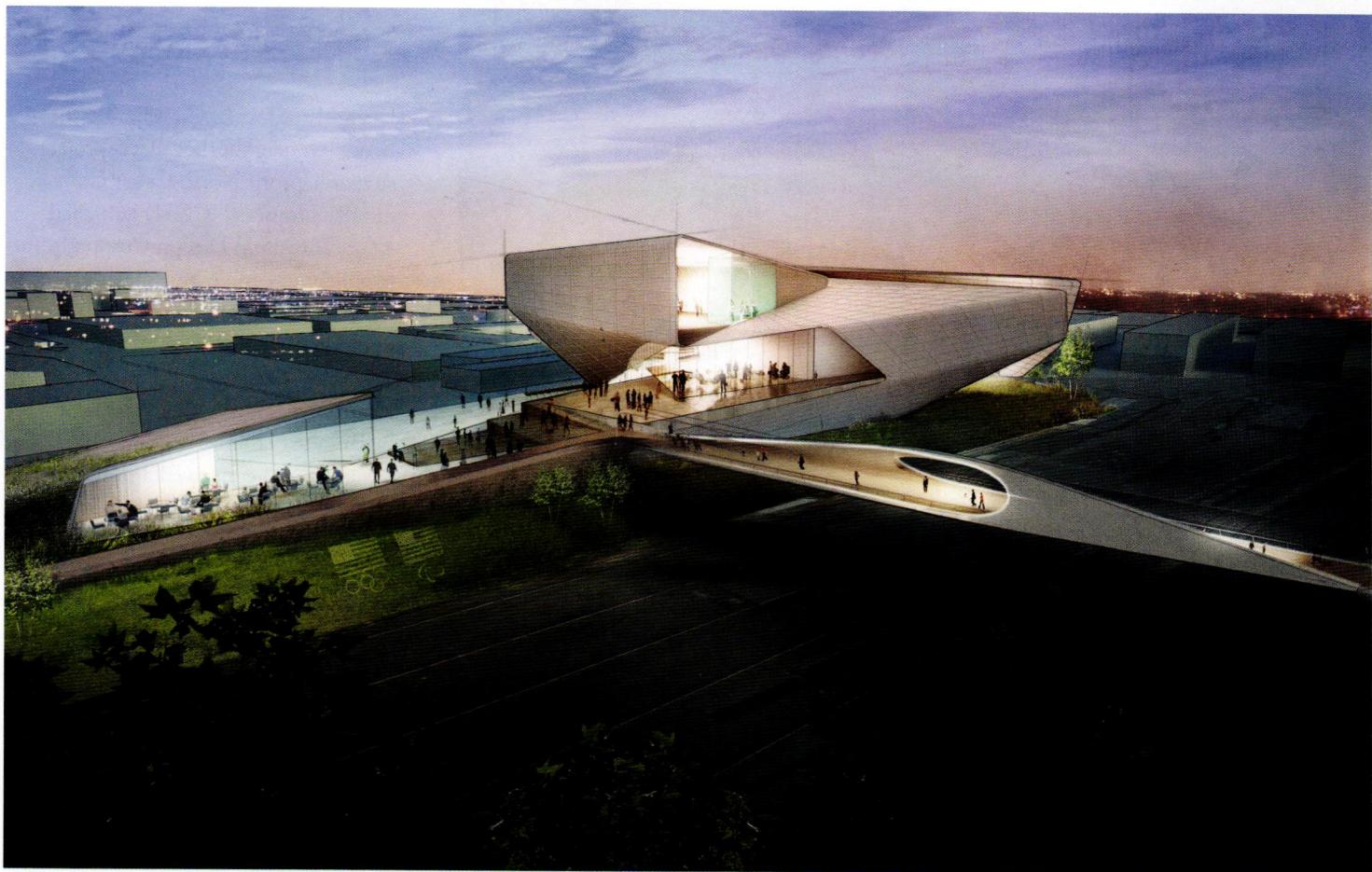
In June, Garrison Architects completed an addition to the East Elmhurst Community Library through the New York DDC's Design and Construction Excellence program. The local design team enclosed the public face of the original library, yielding a new glass-walled room along Astoria Boulevard. It also configured the expansion to form an interior courtyard in tandem with the 1972 building, which provides users with landscape views, extra circulation, and meeting space. The overall project accommodates the myriad constituencies and services of today's public library: program highlights include a 173-person meeting room, a food preparation area, and new restrooms.

Photo credit: Cooper and O'Hara



MRVA **EDMONTON, CANADA**

Downtown Edmonton perches dramatically above the North Saskatchewan River Valley, with 165 feet of cliffs and roadways separating it from the waterway. To improve residents' relationship with their river and surrounding parkland, city officials launched Mechanized River Valley Access (MRVA) and tapped Canada's DIALOG to lead the project. Respecting existing slopes meant divvying the journey into six parts, including trails, lookout, promenade, and glass elevator, and using a palette of Kebony wood and weathered steel to allow the project "to feel like it had always been part of the river valley," muses firm principal and landscape architect Jill Robertson. A key highlight is the 100 Street Funicular, serving wheelchair users and others, which runs parallel to a broad staircase sprinkled with seating platforms. Robertson says the multipart configuration fulfills MRVA's potential for placemaking. "This project is as much a narrative about our city and its river valley context as it is about accessibility," she says, "and it demonstrates that inclusive design can be functional as well as architectural."



United States Olympic and Paralympic Museum

COLORADO SPRINGS, COLORADO

When it opens next year, the United States Olympic and Paralympic Museum will have entrants ascend an atrium via elevator and then spiral down through galleries. As Diller Scofidio + Renfro partner Ben Gilmartin explains, "From the beginning, our design was organized around a continuous universal path through the museum galleries and spaces from top to bottom." Gilmartin adds that this ramp was broadened so that wheelchair users and pedestrian companions could explore exhibitions side by side. Galleries, nooks, and balconies that branch from the organizing element, furthermore, "are meant to offer spaces of rest for various types of visitors," he says, "from the person who needs visual calm to the elderly person who needs a little break from walking." RFID technology allows museumgoers to customize exhibition content to self-identified disabilities.

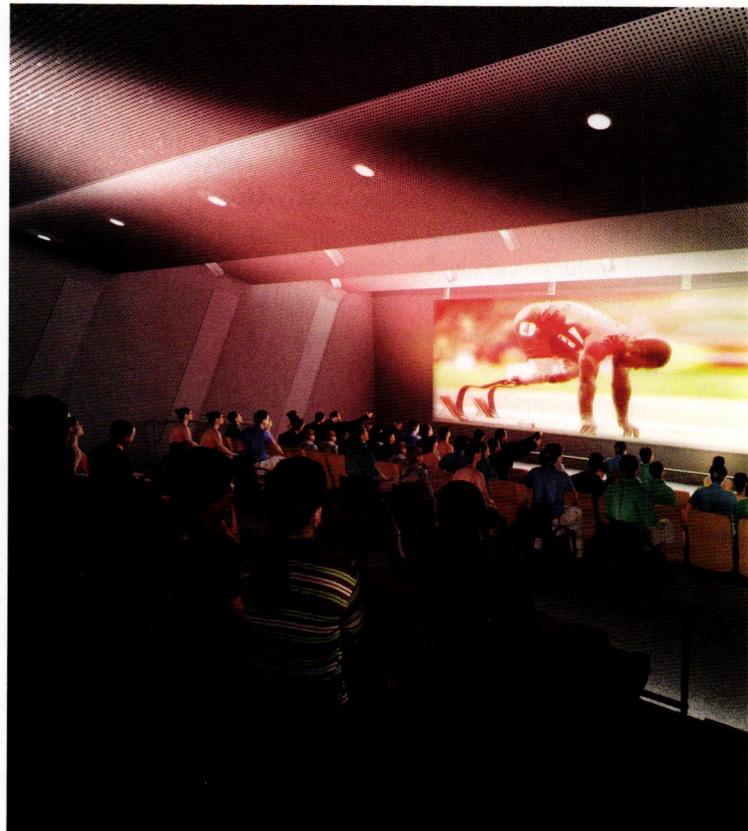


Photo credits: Courtesy of Diller Scofidio + Renfro

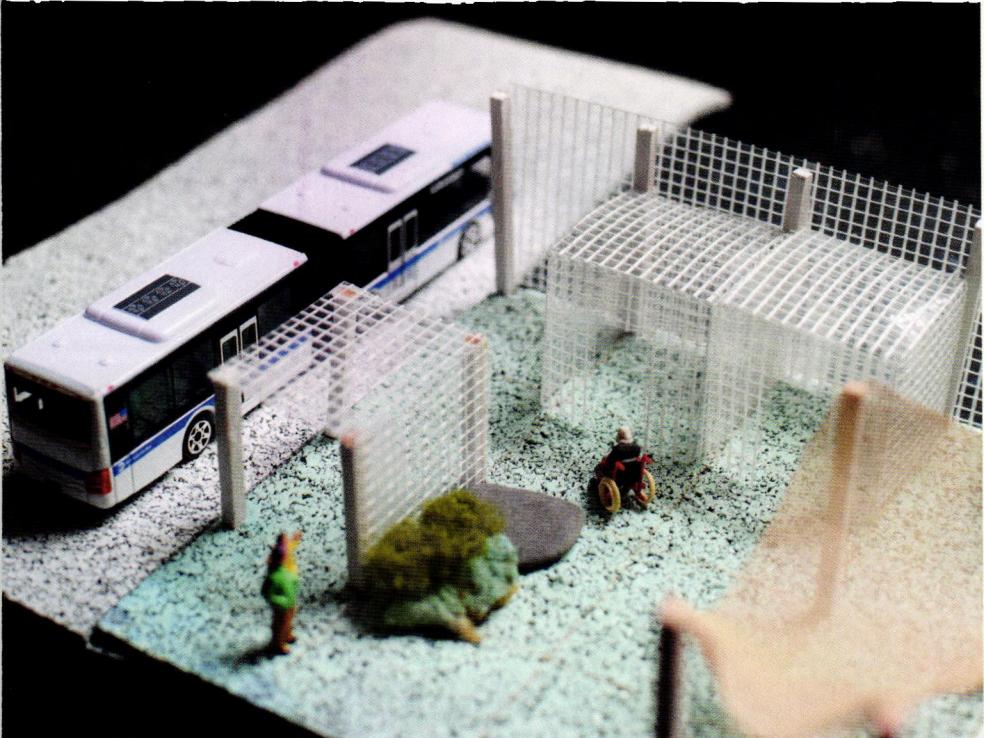


Photo credits: Courtesy of Brandt:Haferd

Side by Side **CLEVELAND**

Using three lots in Cleveland's Old Brooklyn neighborhood as a project site, non-profit North Coast Community Homes (NCCH) launched #ZeroThreshold Design Competition to solicit accessible housing concepts in which mobility and inclusivity, rather than be treated as afterthoughts, generate the parti. In September, NCCH awarded its grand prize to Side by Side by Brandt:Haferd. The New York-based design studio conceived an intergenerational residence in which two rowhouse volumes slip slightly past one another but are conjoined at a room-size elevator to encourage both communal activity and independence. The submission imagines a community garden and bus shelter in the third lot to combat aging-related social isolation and to improve local access to economic opportunity. Fundraising for construction is underway.



Boston City Hall Plaza **BOSTON**

Sasaki's design of Boston's City Hall Plaza, unveiled last June, is founded on several years of public engagement and master planning. One immediate project goal is to overcome the seven-acre site's stepped elevation: Phase 1 includes a gradually sloped promenade connecting Congress and Cambridge streets that is activated by a water feature, play area, and other "comfortable places to rest and socialize, no matter your age, ability or stamina," says Kate Tookey, Sasaki project manager and associate principal. "A variety of wayfinding cues, including traditional signage and pavement tone and texture patterns, guide people to destinations in a way that is intuitive and comfortable to many different sensory processing styles." The project also considers constituencies that the original ADA had not imagined, such as a play area with respites and enclosures that are comforting to those on the autism spectrum.



Photo credit: Courtesy of Sasaki



Gateway Arch Museum and Visitor Center ST. LOUIS

To expand and renovate the Gateway Arch Museum and Visitor Center, Cooper Robertson and James Carpenter Design Associates, with Trivers Associates, relied on the feedback of a Universal Design Group organized by St. Louis-based Starkloff Disability Institute co-founder David Newburger. In turn, the space links to the wider Jefferson National Expansion Memorial site via gently sloped paths and ramps. Museum exhibits feature tactile elements, audio descriptions, and computer simulations that take sensory limitations, mobility, and cognitive challenges into consideration.

Photo credit: Nic Lehoux

Image credit: Courtesy of sixfootstudio



Department for Education NORTHWEST LONDON

As part of a push by the British government to build hundreds of new free schools, London-based sixfootstudio has begun design of an 80-student primary school for children who have autism-spectrum conditions and learning difficulties. Studio partner Matthew Tabram explains that the facility's intricate footprint is informed by users' need to focus: a building to the south housing learning and therapy spaces is "adjacent to open parkland and away from the noise and pollution of the main roads," he says, "while a high-stimulus-level building to the north contains the main entrance, offices, staff social accommodations, the main hall, noisy therapy, and art and music spaces." Tabram adds that the project introduces new thinking about these schools' approach to the size and number of classroom and dining areas, and integrates nooks for autistic kids' self-determined withdrawal.

Morningside Retirement & Health Services **MANHATTAN**

Hollwich Kushner's redesign of Morningside Retirement & Health Services' (MRHS) community facility and offices at the Morningside Gardens co-op embody accessibility seen through an aging-in-place lens. Morningside Gardens is known as a Naturally Occurring Retirement Community, and the design team focused on mitigating the social anxiety and isolation that older residents can experience as a result of mobility limitations. The community space features multiple gathering spaces, clear sightlines, and flexible partitioning that accommodates different programming to foster interaction between residents and MRHS staff and visitors. A handrail embedded in all cabinetry, walls, and furniture; a deliberate approach to color contrast; seamless floors; and integrated grab rails simultaneously offer wayfinding cues and physical stability to users and inject the entire project with a singular identity.

Photo credit: Courtesy of © Michael Moran/OTTO



Robert W. Wilson Overlook **BROOKLYN**

At the Brooklyn Botanic Garden (BBG), the 1.25-acre overlook has traditionally provided a delightful bird's-eye view of the Cherry Esplanade—but no easy way to physically reach that sea of pinks. As part of the decade-long Garden for the Next Century campaign now coming to a close, BBG has just opened a new pathway designed by WEISS/MANFREDI Architecture/Landscape/Urbanism that traverses the overlook hillside in switchbacks supported by retaining walls. The route includes zones for people to gather around perfect views and tour guides, as well as crape myrtles, whose flowers form a late-summer echo of the springtime cherry blossoms.

Photo credit: Michael Stewart/Courtesy of Brooklyn Botanic Garden



ACCESSIBLE ARCHITECTURE GOES BEYOND THE PHYSICAL

BY WILL WONG, AIA, LEED AP

My daughter is growing out of her stroller now, but when I see other parents lifting strollers up and down the subway stairs daily, I remember what it felt like to be excluded from a comfortable experience of the built environment. Taking a stroller down the subway stairs means risking everyone's safety and inconveniencing passersby while sticking out like a sore thumb. Any born-and-raised New Yorker knows working subway elevators are very few and far between. If you do happen to find one, using it typically involves diverting your path and taking a strange, lonely route.

Now that my daughter is walking, we've rejoined the stair-climbing society. But my time as a stroller-dependent person in this city inspired deeper thought about how the built environment can create powerful feelings in us. Feelings of inclusion, acceptance, and normalcy and—conversely—of separation, segregation, and ostracization.

Through my many years at Spacesmith, I've been witness to and helped make architecture that I think of as genuinely accessible—welcoming all of humanity and creating an equal playing field for all its diverse user groups and occupants. To me and my colleagues, genuine accessibility doesn't just mean that a person who might be wheelchair-bound, blind, or deaf can navigate a place. It means he or she can navigate it with as much dignity, effortlessness, and feelings of belonging as everyone else. We like to create places that are as much for underrepresented individuals as they are for the general public.

Underrepresented populations don't include only the physically handicapped, but also people of foreign cultural backgrounds who may not understand our common languages or wayfinding systems. They also include emotionally and psychologically challenged individuals, and students with learning differences.

Universal design principles are a great resource and guide for me and my colleagues, who strive to realize functionally and socially inclusive spaces. They're integral to creating genuinely accessible and equitable architecture. At Spacesmith, we apply universal design to almost every typology—including retail spaces, classrooms, workplaces, and government agencies—because it yields such positive results for all user groups, based on the feedback we solicit. Recently we completed a handful of successful institutional buildings where these design principles served as foundation and part.

For the School of Visual Arts's new Design for Social Innovation Department in Manhattan, we were challenged by school leaders to examine the distinctions that create separations, and work to eliminate labels, silos, and boundaries. In response, we removed and transformed the physical and visual separations within the space. The exterior walls of one area become the interior walls of another, providing storage, a visual connection to natural light, or writing, thinking, and drawing surfaces.

Instead of being prescriptive about how educational spaces should feel and be used, we designed it flexibly to allow students, faculty, and visitors to adapt their environments to their needs and desires. It's a live-and-let-live approach to design that has proven truly effective from both a functional standpoint and the more subtle perspective of creating a sense of empowerment among all users.

Another major guiding principle for us in creating accessible, inclusive architecture is what I would describe as designing to meet the "lowest common denominator," meaning that we find the most exceptional (and restrictive) standard, and stick to that in every instance throughout a project. Holding to those exceptional standards everywhere, not only as required, helps us create more equitable, inclusive, and forgiving architecture.

How? For example, although Americans with Disabilities Act (ADA) standards might require larger-size bathrooms or lower-height tables to accommodate wheelchair occupants, we design every project element to those standards so that a built-in seamlessness emerges in the experience of the place. The benefit is that wheelchair users won't feel singled out by having to sit at a special table or use a special bathroom, because all tables and bathrooms are open to them. This is how, working with Dattner Architects, we've created a welcoming ambience in all the public space interiors for residents at the new 10 Halletts Point in Astoria, Queens.

In some cases, however, it's necessary to create separate spaces to ensure inclusion. Recently, Spacesmith designed several new classrooms for Columbia University's Chandler Hall. To make classroom functions more inclusive, two smaller rooms were designed as dedicated testing areas for students with learning differences. This provides a quieter, calmer, and more intimate testing room for students with documented disabilities. The other larger classrooms, utilized for general classes and lecture halls, feature rows of fixed table systems with seats that rotate 180 degrees so students can easily collaborate. The largest lecture room, holding 125 students, provides better than ADA-accessible seating with improved ergonomics and adjustability and state-of-the-art audiovisual equipment.

At Spacesmith as at other firms, our institutional clients in particular are asking for collaborative group work environments that require mobile, adjustable furniture—but also private spaces for teams to huddle together. Our goal is to accommodate these needs in a socially sensitive way that ensures inclusion and equity. We will keep refining our design strategy to make architecture that is accepting of and functional for all.

William Wong, AIA, LEED AP, has more than 15 years of experience in design, construction, and project management. As a principal at Spacesmith, he is regarded as a leader in project management in the workplace, retail, academic, and non-profit sectors. Recent projects led by Wong include the academic renovation at Columbia University's Chandler Hall and the public and unit interiors at the mixed-use residential complex at 10 Halletts Point, Queens. ■

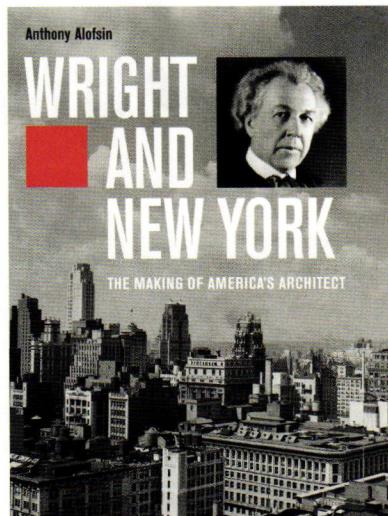
IN PRINT

REVIEW

Wright and New York: The Making of America's Architect, by Anthony Alofsin. Yale University Press, New Haven, 2019. 344 pp.

Alofsin's biography of Frank Lloyd Wright chronicles his long, tumultuous, productive second act from approximately 1907 to his death in 1959, starring New York City. New York played a pivotal role in propelling and sustaining Wright's career: the city helped resurrect him from the tragic fire at Taliesin and destruction of his family in 1914; it helped him develop relationships with the cultural elite; it established his career as a writer; and it elevated his reputation from a regional Midwest architect to America's Architect.

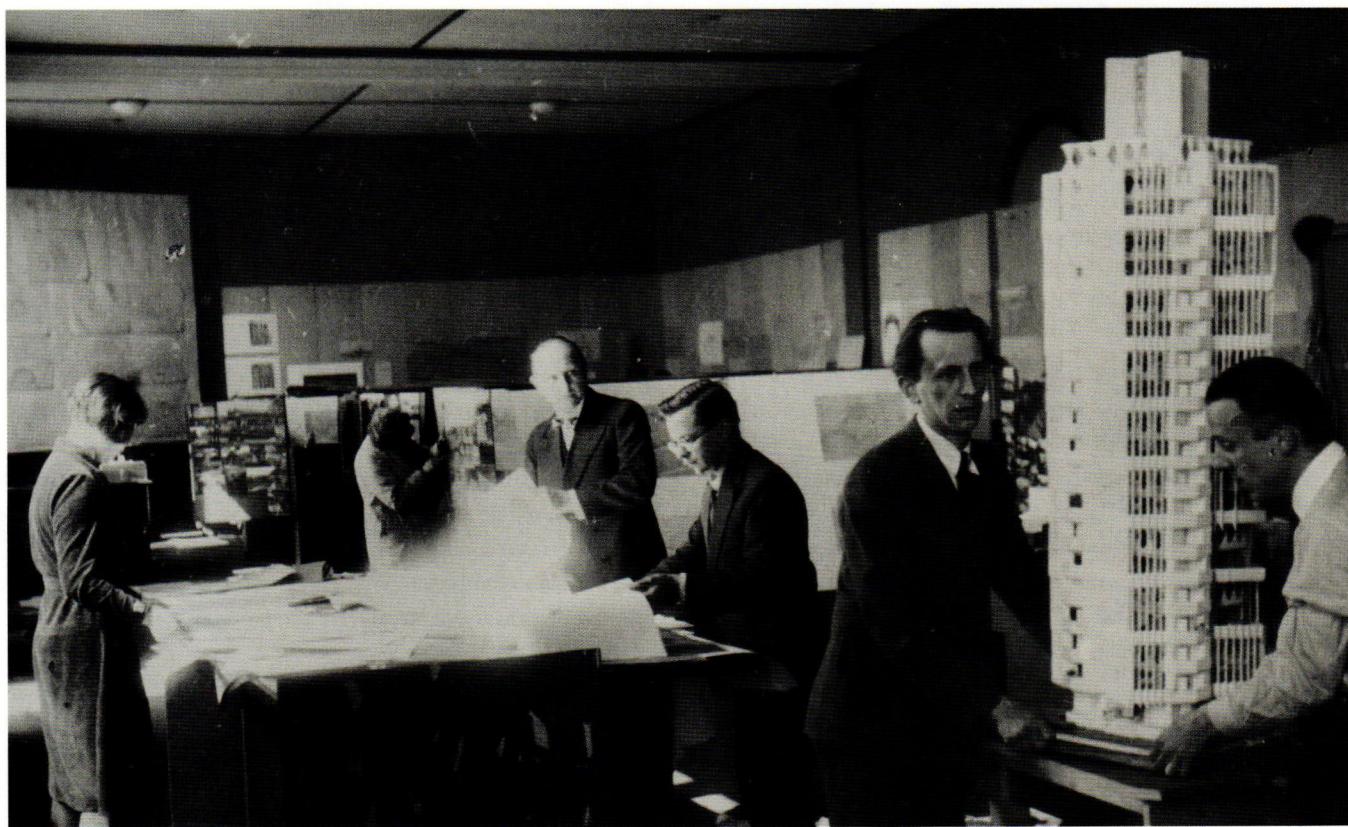
Wright's attitudes toward New York were mixed. He disliked the city's noise,



congestion, and architecture, yet he gloried in its culture, influence, money-making opportunities, and energy. His love-hate relationship with New York would endure, and it would help drive his career.

After the tragedy of 1914, commissions began to recede. Although Wright had many balls in the air, his life and

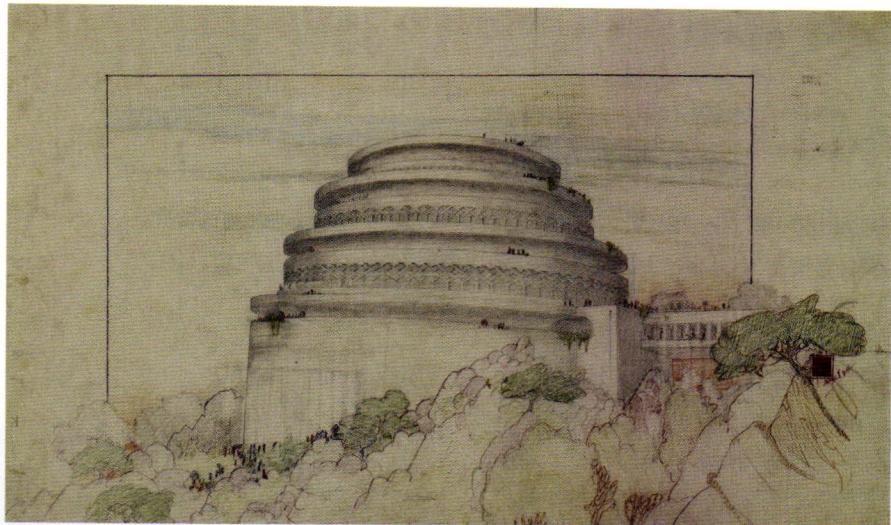
career became remarkably complicated in the '20s. The press was hostile due to his domestic situation with Mamah Borthwick Cheney; the Imperial Hotel in Tokyo inched toward completion; he began to market his drawings to provide additional income; he embarked on a new marriage to Miriam Noel, which ultimately failed but took a long time to disentangle from; he wedded Olgivanna Hinzenberg, a marriage that endured; he reestablished Taliesin; and he began designing the St. Mark's Tower, intended for New York but ultimately built in Bartlesville, Oklahoma, in 1958. Throughout this period and continuing into the 1930s and '40s, his relationship with New York writers, publishers, and future clients continued to grow. New York offered him sustenance and a platform for attention. His reputation began to ascend, even though the Depression killed off some of his major projects, including St. Mark's. But in the late '20s through the mid-1930s, Wright was also a paper architect.



Students from art school and assistants help with the installation of *The Architecture of Frank Lloyd Wright, 1893-1930*, Amsterdam, May 1931.

In 1932 MOMA held an exhibition of Wright's work, which reenergized his career ascent. By the mid-1930s his plans for Broadacre City, his answer to New York, were published. Fallingwater, SC Johnson, and the Usonian houses were all underway, as was his relentless pursuit of celebrity status. He appeared on the cover of *Time* in 1938, and had relationships with *Architectural Record* and *Architectural Forum*. Wright was firmly in control of his own myth.

Alofsin covers the events of Wright's life that led him to become a globally famous architect. While a lot of his grander planning visions never took hold, his career blossomed from a lull in the '20s to his phenomenal late period, which was the most productive of his long career. It was during this time that he designed the SC Johnson Administration and Research Buildings, Fallingwater, Beth Shalom Synagogue, Unitarian Meeting House, Taliesen West, the Guggenheim Museum, and hundreds of houses.



Automobile Objective for Gordon Strong, perspective drawing, 1925.

The irony is that America's most famous architect was not succeeded by a strong set of followers, except perhaps for Bruce Goff. And given his relationship with New York and its power centers, he left no enduring design projects except for the Guggenheim—but this one project was powerful.

This is the remarkable story about an extraordinary architect whose other greatest achievement may be how he sustained and elevated such a long and meaningful career.

Stanley Stark, FALA, NCARB, LEED AP, is the book critic for Oculus. ■

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LAST WORD

ACCESS 2020

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

In 2020, the Americans with Disabilities Act (ADA) celebrates its 30th anniversary. At AIA New York, we would like to challenge our community to think more inclusively and creatively about how our projects can embrace and celebrate accessibility and inclusivity.

Early in 2019, I was honored to be part of the project Accessibility is Beautiful, headed by the Cerebral Palsy Foundation and underwritten by Chubb. The project sought to recognize excellence in accessible residential design. Several projects were identified—from urban to suburban and seaside dwellings—which can be viewed in a series of videos on Chubb's website. Aside from discovering some wonderfully elegant, yet practical and accessible projects, I also met a fantastic group of people who experienced the world in very different ways and who helped me understand how accessible design must not be seen through the lens of compliance, but as a creative challenge and even as an opportunity.

To debut the Accessibility is Beautiful videos and publication to AIANY's audience, I worked with the Chapter's Interiors Committee to convene a panel at the Center for Architecture in June 2019. A headline lecture was given by Karen Braitmayer, the recipient of the 2019 AIA Whitney Young Jr. Award, which recognizes an architect or organization that embodies social responsibility and actively addresses a relevant issue, such as affordable housing, inclusiveness, or universal access. Karen, who uses a wheelchair, has



From left to right: Andrew Lee, Co-chair AIANY Interiors Committee; Cara McCarty, Director of Curatorial, Cooper Hewitt, Smithsonian Design Museum; Rachel Byrne, Vice President of Programs, The Cerebral Palsy Foundation; Xian Horn, Disability/Beauty Advocate and Educator; Benjamin Prosky, Assoc. AIA, Executive Director, AIA New York | Center for Architecture; Barbara Weinreich, Architect; Karen Braitmayer, FAIA, Founder and Managing Partner, Studio Pacifica.

devoted her Seattle-based practice to advising on accessible design. She also graciously accepted having her own home featured in one of the Accessibility is Beautiful videos. Although another architect designed her home, it is marvelous to see how she experiences the space both as a client and a designer.

I am also proud of the work members of our Chapter have done, such as the Design for Aging Committee's *Aging in Place Guidelines*, published a few years ago with the NYC Department for the Aging. And as we look to the future, the Center has committed to an exhibition on accessibility in 2021. Stay tuned for more!

With initiatives and focuses such as these, AIANY and the Center remain committed to advancing equality and inclusivity in the profession of archi-

ture and beyond. Also in 2020, the Chapter will seek to advance gender equity and diversity. After examining the gender parity of speakers at our events over the past year, the AIANY Board of Directors voted to set a goal that 45% to 55% of speakers at the Center be women in 2020. Furthermore, we will start tracking the gender and race of our speakers through an optional questionnaire on our speaker release form. Our team looks forward to working with our membership, program committees, and board to continue to find ways to make our profession more diverse and equitable, so we can better serve the communities we live and work in.

I look forward to seeing everyone at the Center! ■

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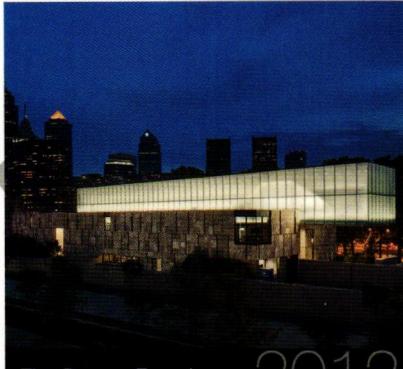
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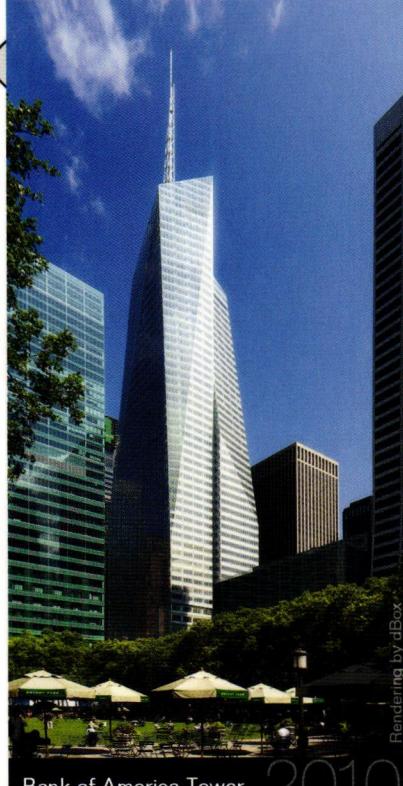
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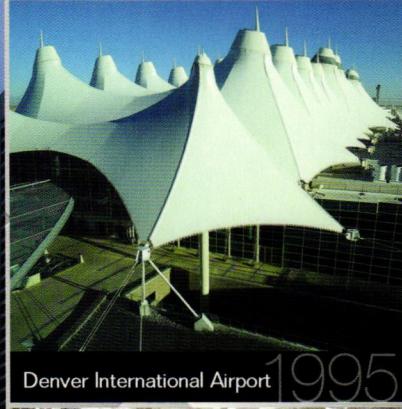
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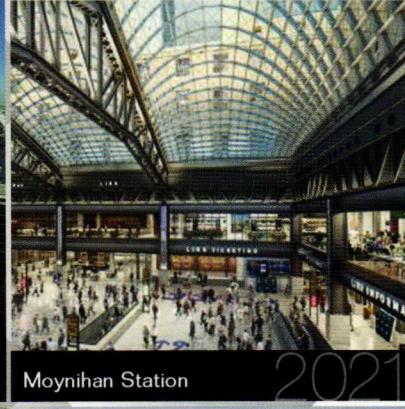
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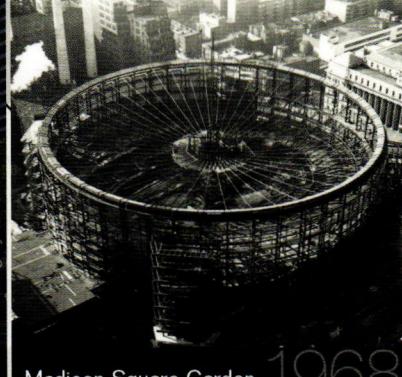
Bank of America Tower 2010
Rendering by dBox



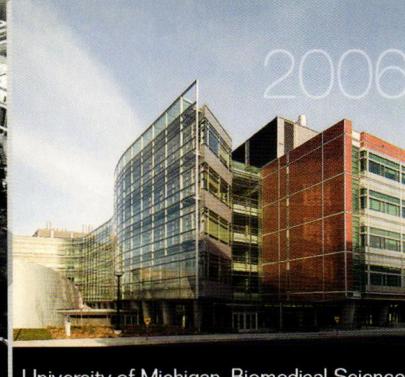
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