

Oculus

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The double-height arcade and lobby of NYU's Center for Urban Science and Progress at 370 Jay Street, Brooklyn, will animate the streetscape.

1,087 Windows (and a Unique Focus) on the City

A repurposed 1950s icon in Downtown Brooklyn is an ideal base for NYU's scientific study of urban processes

BY JONATHAN LERNER

New York University is growing. Some people will rejoice that the new 500,000-square-foot facility is not in Greenwich Village. Better cause for celebration: it repurposes a significant mid-century building that for decades sat empty atop the busy Jay Street-MetroTech station in Downtown Brooklyn. Originally designed by William E. Haugaard and Andrew J. Thomas and opened in 1951, 370 Jay Street expressed a progressive postwar urbanism, as it centralized administration of the NYC Board of Transportation (now the Metropolitan Transit Authority).

The principal new occupant will be NYU's Center for Urban Science and Progress (CUSP). "CUSP's program is about using the tools of data science to understand the city," says Executive Director Michael Holland, Ph.D. Originally, subway riders punched buttons on a "Directomat" in the lobby to get route guidance. Now we use apps on smartphones. But upstairs, people will again be thinking about circulation, connection, and other vital processes of the metropolis.

The building's design was progressive for the time. The main block was 14 stories, roughly 350 by 80 feet, with a smaller six-story perpendicular wing. A third piece, in the corner of the two, consolidated core functions, leaving remarkably unobstructed floorplates. At street level, arcades at either end sheltered stairs down to the subway, and there were also a bank and restaurant. The building was clad in limestone pierced regularly on all sides by nearly 1,100 large, identical, flush-mounted operable windows.

In a 1953 *New Yorker* column about the modernization of chaotic Downtown Brooklyn, Lewis Mumford praised 370 Jay's "spacious monumentality," natural light and ventilation, and contribution of "composure and order" to the urban realm. "Nothing in either the mass or the detail," he wrote, "will look antiquated or comic fifty years from now." True, but maybe he couldn't imagine that 370 might come to feel boring; we've had lots of austere, repetitive, slablike structures in the 65 years since. (A fascinating historical exhibition, "The Secret Life of 370 Jay Street," is on view at the New York Transit Museum through May.)

Window treatments

The renovation, led by Mitchell|Giurgola Architects, will alter the exterior, though subtly. The limestone, in good shape, is five inches thick. Based on analysis by Constantine Kontokosta, a CUSP professor whose specialty is urban informatics, five versions of a replacement window were designed to be sensitive to solar orientation. On the long Jay Street façade, high up and toward the south, windows will be inset and have protruding sunshades. Toward the north, in diagonal bands determined by the decreasing intensity of sunlight hitting the wall, windows will be progressively less deep, with correspondingly shallower sunshades, until at the low northernmost corner they "fade to flush," says Mitchell|Giurgola Partner Carol Loewenson, FAIA, LEED AP. Visually, the variation should soften the building's rigid formalism. And with its thickness revealed, "you'll get the reading of the stone as a real material," she says.

Flexible, creative spaces

More striking from outside, however, will be the building's reactivation and reinvigorated connection with its surroundings. When fully operational, CUSP alone will house as many as 50 full-time senior researchers and more than 500 mas-



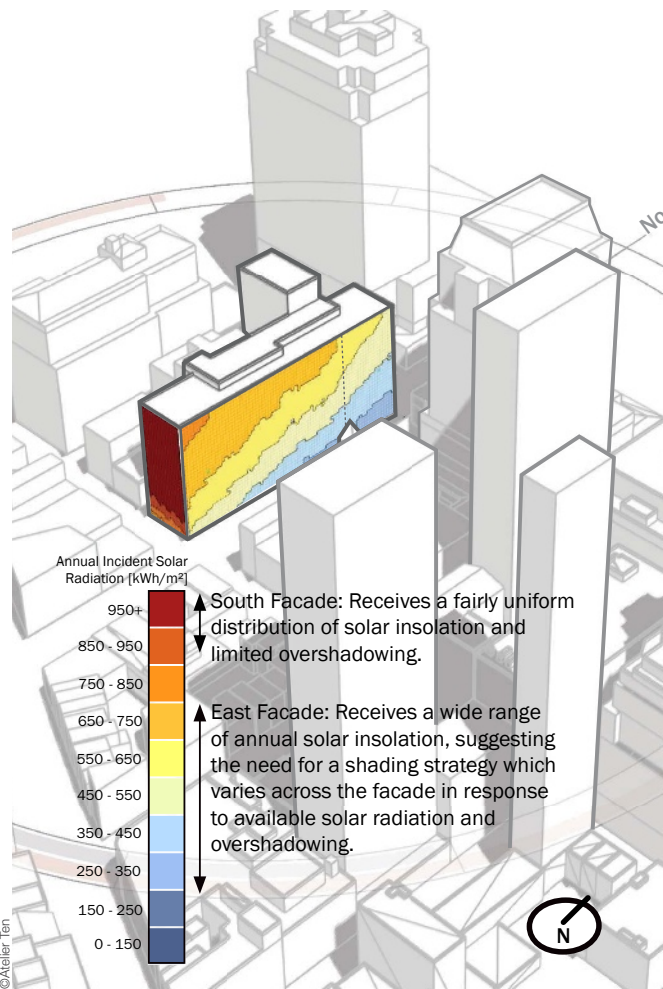
(above and right) Two façade heat studies indicate which windows will need exterior shading and which require no shading.

ters, doctoral, and post-doc students, on floors 12 and 13. The building's ground floor, with its double-height ceiling, has spaces ample and flexible enough for several retail tenants. It will also feature an entry, through a wide, high garage door on the Willoughby Street side, to CUSP's Citizen Science space, where researchers can meet with volunteers willing to use simple tools, like apps, to collect data. Citizen Science is part of "an enormous trend within science and engineering to develop relatively simple tools" for the massive collection of data, Holland explains. It will also have meeting and work space on the second floor, primarily devoted to new classrooms for the NYU Tandon School of Engineering, based in adjacent MetroTech-area buildings.

The third floor will be a series of large, open workrooms with enclosed conference rooms of many sizes, where incubator projects can be housed. This will be flexible "space to develop some research ideas coming out from CUSP and Tandon, and to have these small companies start working away," says Marlon Aranda, NYU's project director for 370 Jay. "It's remarkably located in both time and space. In time, we're at the dawn of this wonderful 3D printing and rapid prototyping technology that's becoming so accessible," he explains, while geographically 370 Jay is at the apex of the "Brooklyn Tech Triangle." That's marketing speak for a real phenomenon – the gravitation of innovation-economy enterprises to an area encompassing DUMBO, the Brooklyn Navy Yard, and Downtown Brooklyn.

The placement of classrooms and incubator spaces on the second and third floors offers visibility and proximity to the street. A lobby with an exposed staircase to the classrooms will be entered from an arcade and visible through a new glass wall – a reveal of interior activity despite the security arrangements that necessarily share the same space. The occupants of floors 4 through 11 remain

- CLIENT: New York University; NYU Center for Urban Science + Progress
- ARCHITECT: Mitchell|Giurgola Architects
- DESIGN TEAM: Paul Broches, FAIA, LEED AP, Stephen Dietz, AIA, LEED AP, John Kurtz, AIA, LEED AP, Carol Loewenson, FAIA, LEED AP, Jillian Sheedy, AIA, Angela Kim Fisher, AIA, LEED AP, Catherine Hudak Vera, AIA, Andrea Kirk, AIA, Garrett Omoto, AIA, LEED GA, Xi Chen, LEED AP, Andrew Thomas
- WORKPLACE DESIGN: STUDIOS Architecture
- SUSTAINABILITY: Atelier Ten
- MEP ENGINEER: Bard, Rao + Athanas Consulting Engineering
- STRUCTURAL ENGINEER: Silman
- CIVIL ENGINEER: Langan Engineering & Environmental Services
- EXTERIOR WALL CONSULTANT: Heintges & Associates
- FAÇADE RESTORATION/ROOFING: Superstructures
- VERTICAL TRANSPORTATION: Van Deusen Associates
- LIGHTING DESIGN: Cline Bettridge Bernstein Lighting Design
- SPECIFICATIONS: Construction Specifications
- ZONING: Michael Kwartler & Associates
- AV/ACOUSTICS/SECURITY: Shen Milsom & Wilke
- CONSTRUCTION MANAGER: Skanska USA



undetermined, but will be other NYU units, bringing many more people to the building and neighborhood. And it's expected that many students and researchers will come and go at all hours.

Many characteristics of the building made it ideal for renovation. The unobstructed floorplates allow for the open-plan spaces favored today, but are easily reconfigurable for future needs. The long, narrow shape and abundant windows create an interior flooded with natural light. And, as Loewenson says, "it's so tightly woven into the urban fabric," with the subway station below, the street-level arcades, and the pedestrianized block of Myrtle Avenue, called Renaissance Plaza, on its north side. Pearl Street, on its west side, is also to be closed to traffic and integrated with pedestrian Willoughby Plaza nearby. The promise of 370 Jay is a vibrant urban hub – from which the workings of the city can be scrutinized. ■

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