

# Lightning Rod

by [Alec Appelbaum](https://www.metropolismag.com/author/alecappelbaum/) (<https://www.metropolismag.com/author/alecappelbaum/>)

When Skidmore, Owings & Merrill (SOM) designed JPMorgan Chase's headquarters, known at its 1960 debut as the Union Carbide building, it was part of a movement that had set out to change business districts forever. By pivoting buildings off the street grid, raising them on plazas, and replacing heavy masonry facades with sheer glass panels, architects were, explains Skyscraper Museum founder Carol Willis, attempting to remake the office district as "a complex of shapes." Today, architecture is in the midst of another revolution, and Modern towers—with their ultrathin skins—are in desperate need of retrofitting. The dispute between environmentalists and preservationists is whether these twentieth-century artifacts should be seen as building blocks of embedded energy, salvaged only to the extent practical, or if the integrity of the design is worth consideration.

That debate is currently heating up in New York, where JPMorgan Chase is overhauling its iconic midtown building ten floors at a time. "The original mechanical systems [of Modern buildings] were so bad in energy performance that just about anything is going to be a substantial improvement," says SOM partner Carl Galioto, who updated the Lever House in 2001 and is now working on the JPMorgan Chase project. If that's true, why not simply start over from scratch?



Laurie Kerr, an architect advising Mayor Michael Bloomberg on ways to green the city's buildings, questions the wisdom of updating a "broken model." But constructing state-of-the-art towers would only yield energy savings after incurring the costs of demolishing huge boxes whose open floor plates are still attractive to industries like banking and information technology. In fact, Galioto argues, Modern designs have some inherent advantages: with the addition of suitable landscaping, plazas can help counter the heat-island effect; flexible floor plans, the product of "brilliant ideas" about partitioning space, suit today's cubicle-driven workplace; and modified glass facades are great for daylighting. "Electrical lighting uses forty percent of a building's energy, so every architect's steady diet has got to shift to retrofitting Modern buildings," says Hillary Brown, who helped define the city's current green-building standards.

It is certainly possible, though expensive, to do a sensitive update. "We replaced wet sealant with gaskets, so air infiltration and heat loss are much lower," Galioto says of the Lever House, where the developer eschewed insulation to comply with the Landmark Commission's transparency requirement. "But where panels can be replaced with insulating glass, there can be enormous energy savings." Curtain-wall specialist R. A. Heintges & Associates is retrofitting Wallace K. Harrison's United Nations Secretariat building with chunkier insulat-

ed panels. "From a distance, you wouldn't know you'd lost that very thin silhouette," says a project architect who requested anonymity in order to speak without the client's permission.

Preservationists argue that changes like these jeopardize the glass-box clusters in places like Manhattan and Chicago—vibrant urban ecosystems every bit as fragile as quainter landmark districts. "The thinness, reflexivity, and transparency are all at risk," Docomomo's Nina Rappaport says. "We could see a destruction of the general atmosphere of Modernism."

JPMorgan Chase has disclosed certain plans: the building will now draw energy from steam or water, whichever is more plentiful in the pipes, and from regenerative braking in elevators. Facilities manager Manuel Patino insists that the signature glass skin will remain, but the bank has gagged SOM from describing potential alterations—modifications that some fear could compromise the building's legacy. "Remember, Union Carbide was one of the more remarkable expressions of corporate power," says architect Paul Byard, who teaches historic preservation at Columbia University. "All of its expression went into its highly successful effort to carry its size smoothly, as if it were the most natural thing in the world."

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