

# THE COOPER SQUARE HOTEL

## Hip to be Square



Left The glass, aluminum, and ceramic curtain wall designed by Carlos Zapata Studio accentuates the building's height with shifts of material and pattern.

**Cooper Square, the bowtie of streets at the throat of the Bowery, is transforming into an intersection of major contemporary architects.** Although developer Ian Schrager may not have been able to erect the bipedal building that Rem Koolhaas and Herzog & de Meuron conjured for him there, Charles Gwathmey finished the Astor Place apartments in 2005 and Thom Mayne is nearly done with a new Cooper Union academic center that is cloaked in rippling steel mesh. The most recently completed addition, The Cooper Square Hotel, captures the spirit of design experimentation in every detail, including a curtain wall that gives the building an outstanding presence among its neighbors.

The hotel's design, by Carlos Zapata Studio (CZS) and architect of record Perkins Eastman, expresses the dynamism of the address' polyglot urban fabric. The site includes an 1845 tenement, occupied by two immovable residents, which is now shored up in steel. The new glass-and-aluminum tower abutting it twists and bristles to a height of 21 stories, and a similarly skinned five-story structure on the site's north side mediates between the hotel and the smaller-scale buildings surrounding it. In another nod to context, the taller component sprouts a green, cantilevered nub that references the copper roofs of neighbors like St. George's Ukrainian Church.

In addition to evoking nearby landmarks or a particularly local kineticism, the design differentiates itself from the neighborhood by soaring up and away from it. "Our design approach is always the same; it's not about being sculptural just to be sculptural," says CZS principal and studio director Anthony Montalto. "It's about using light and shifts of material and plane to accentuate a certain directionality. Here, we wanted to accentuate verticality." The building's faceted surfaces slope back and pick up light, giving hotel patrons the impression that their temporary home contains many more than 21 floors and 145 units.

The architects deployed ceramic fritting in the panelized curtain wall to underscore this heightening effect. "Traditionally, frit has been used purely to block sun while maintaining your full

glass expression," Montalto says, "yet of late I think it's become a design element. Technology has improved to a level that you can do a lot of things with frit." The curtain wall comprises Saint Gobain's low-iron Diamont glass without low-e coating, and units are insulated 6 millimeters outboard and 6 millimeters inboard with a 12-millimeter gap between the heat-strengthened lites. Although the lites are butt-glazed, the interior fully expresses 2½-by-3½-inch anodized aluminum mullions. On much of this glazing, the white ceramic dots are applied to surface 2 to appear most dense at the top to and disappear toward the bottom. The pattern is positioned at the top of the window, to emphasize or deemphasize particular surfaces. Occasional accent patterns, which fade from left to right or right to left, further amplify the building's appearance of height.

CZS also envisioned the building's ornamental metals in that vein. Like the ceramic frit, white anodized aluminum panels, which are not part of the enclosure system, are die-cut in a similar pattern and attached to the panelized curtain wall. The top of each of these 20-gauge aluminum panels, which measures approximately ⅞ inch in thickness, features the largest, ¾-inch-diameter holes in the greatest density. Farther down the panel the circular incisions diminish in both number and, at ⅝-inch diameter, size.

Gundelfingen, Germany-based Josef Gartner, the 141-year-old manufacturer that today specializes in panelized curtain-wall systems, fabricated functional as well as decorative claddings and assembled the two before shipping the units to the United States. Bernhard Rudolf, Gartner's director of project management, says his is a job of orchestration. "I buy the glass from somebody else, I buy the insulation, I buy the metal sheets, I buy the extrusions. For me a curtain wall is more or less pieces supplied from elsewhere." In the case of The Cooper Square Hotel, sister company Pohl made the 5-foot-wide anodized aluminum panels in three different heights, creating them with a numeric-controlled punching machine.

Where perforated aluminum replaces glass panels, Gartner anchored and sealed hanging strips



Above Curtain wall panels were manufactured in the Josef Gartner factory before being mounted into concrete-slab anchor channels.



Facing A green cantilevered corner references the neighborhood's copper roofs.

**The Cooper Square Hotel captures the spirit of design experimentation... expressing the dynamism of the address' polygot urban fabric.**

to the galvanized and insulated portion of the curtain wall, and hung and locked the panels in the factory. The second skin is independent, Montalto says, and the 2-inch space between the face of the curtain wall and the face of each aluminum sheet "allows water and weather to pass behind and within" and lends dimensionality to the building's skin. Moreover, where glass and aluminum do overlap, the gradation of dots provides a transition between materials. "The metal is more transparent, per se, as it gets closer to the glass," Montalto notes. "It goes from something that's very metallic to not-so to glass." In order to install the entire composition into the largely cast-concrete hotel structure, ironworkers from Tower Installation mounted the panels in concrete-slab anchor channels, maintaining a smoke seal between the layers. Elsewhere in the build-

ing, the same panels finished in bronze do double-duty as a rain screen. The pattern even inspired details like the stainless-steel dots that stud the hotel entry's grand mahogany doors.

Montalto thinks The Cooper Square Hotel is part of a nascent design trend. "The basic building components, the treatment of flexibility of glass, the use of ceramic, the use of ornamental patterns, is only going to give architects more and more flexibility," he says. Rudolf seems unfazed. He admits that complicated geometries of a project like Cooper Square Hotel oblige Gartner to figure out curtain walls in CATIA instead of simpler AutoCAD. Even so, "architects always use new panels, new materials, because you are not expressing your image if you copy. And who will buy architecture when everything is the same?" ■

Previous page: © The Cooper Square Hotel; this spread: © Carlos Zapata Studio







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Above: © Carlos Zapata Studio; right: © The Cooper Square Hotel



**Facing** White anodized perforated aluminum panels, which are not part of the enclosure system, create a second building skin and add dimensionality to the structure.

**Above** Hanging strips were anchored and sealed in the galvanized and insulated portion of the curtain wall before perforated panels were hung and locked to the system in the factory. **Left** The 21-story tower is fused with a red brick tenement that could not be demolished.



**THE COOPER SQUARE HOTEL**

Location: **25 Cooper Square, New York, NY**  
 Owner: **A private group of investors, New York, NY**  
 Lead Developer: **Matthew Moss, New York, NY**  
 Design Architect: **Carlos Zapata Studio, New York, NY**  
 Architect of Record: **Perkins Eastman, New York, NY**  
 Structural Engineer: **Leslie E. Robertson Associates, New York, NY**  
 Mechanical Engineer: **Ambrosino Depinto & Schneider, New York, NY**  
 Construction Manager: **F.J. Sciamie Construction Co., Inc., New York, NY**  
 Curtain Wall Consultant: **Front Inc., New York, NY**  
 Structural Steel Fabricator and Erector: **Post Road Iron Works, Greenwich, CT**  
 Miscellaneous Iron Fabricator and Erector: **United Iron, Inc., Mt. Vernon, NY**  
 Architectural Metal Fabricators: **Gartner, Stamford, CT;**  
**General Glass, Secaucus, NJ**  
 Architectural Metal Erectors: **Tower Installation, Windsor, CT;**  
**General Glass, Secaucus, NJ**  
 Ornamental Metal Fabricator and Erector: **United Iron, Inc., Mt. Vernon, NY**  
 Curtain Wall Erector: **Tower Installation, LLC, Windsor, CT**

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