

# Deft illumination enhances the profile and function of classrooms at Columbia's new Warren Hall

By William Weathersby, Jr.

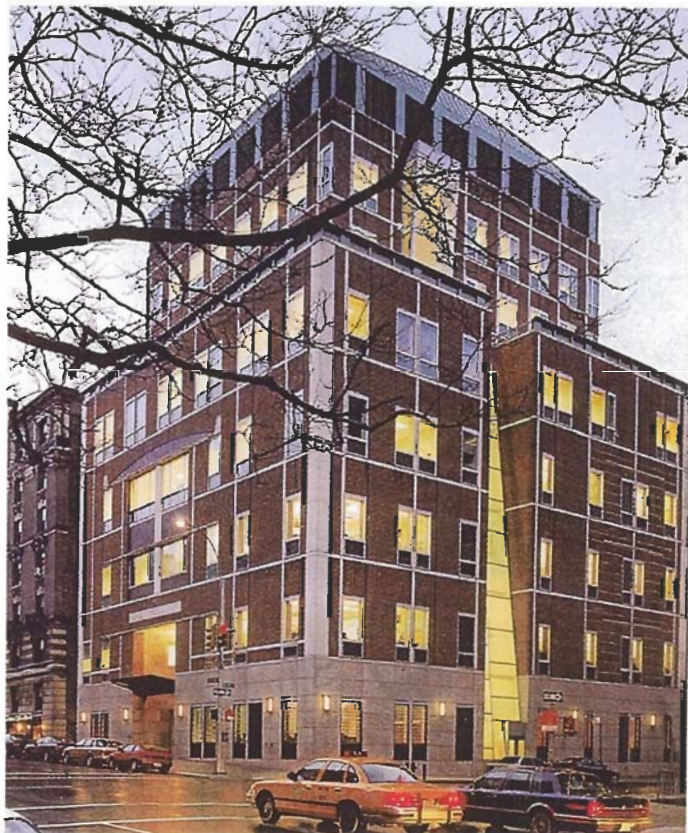
A new educational building on the campus of Columbia University, in New York City, serves a community of scholars, as well as future MBAs and attorneys. Designed by the Hillier Group, William and June Warren Hall is a classroom and student-services building that accommodates the graduate schools of both business and law. The eight-story structure also addresses the divergent particulars of its site. Located on the northeast corner of Amsterdam and 115th Streets, the building features the same materials and color palette—red brick, light pink granite and limestone—as the campus' Italian Renaissance-style buildings designed by McKim, Mead and White. The modern geometric pattern of the hall's facade references historic motifs found on older campus buildings across Amsterdam Avenue; it also identifies the new building as part of the university. The structure is scaled and detailed to be compatible with adjacent, dormitory and residential buildings.



A prismatic light guide makes a Warren Hall's glass-enclosed stairwell a nighttime beacon of light.

To support the various programs in the 85,000-square-foot facility and to polish its campus profile, Hillier commissioned lighting by David A. Mintz, Inc. "A major part of our mission was to create adaptable lighting that addresses the many technical and functional requirements of the classroom and lecture halls," says principal lighting designer David Mintz. "The lighting along the facade and within the public spaces also was designed to impart a professional image." Faculty members and students frequently interact with leaders in the corporate, governmental, and legal worlds at events such as lectures, receptions, and fund-raisers. The approach, therefore, was to imbue the center with the sort of upscale detailing and ambience that might be comparable to that of a major law firm or corporate headquarters.

A canted, glass-enclosed stairwell reinforces the corner-site presence and inscribes a dramatic slash of light vertically across one elevation at night. This building marker was created by installing prismatic light guides parallel to the sloping glass on one interior wall of the stairwell, starting at the ground-floor level and extending to the roofline. Three pieces of six-inch-diameter light guide were used, and each section is lighted from its midpoint to each end by a 400-watt metal-halide lamp. "The tubing is internally treated with material that both reflects and refracts light," says project lighting designer Ken Douglas. Because some light is emitted from the sides of the tubes at the same time that light is refracted up and down them, they are evenly illuminated along their



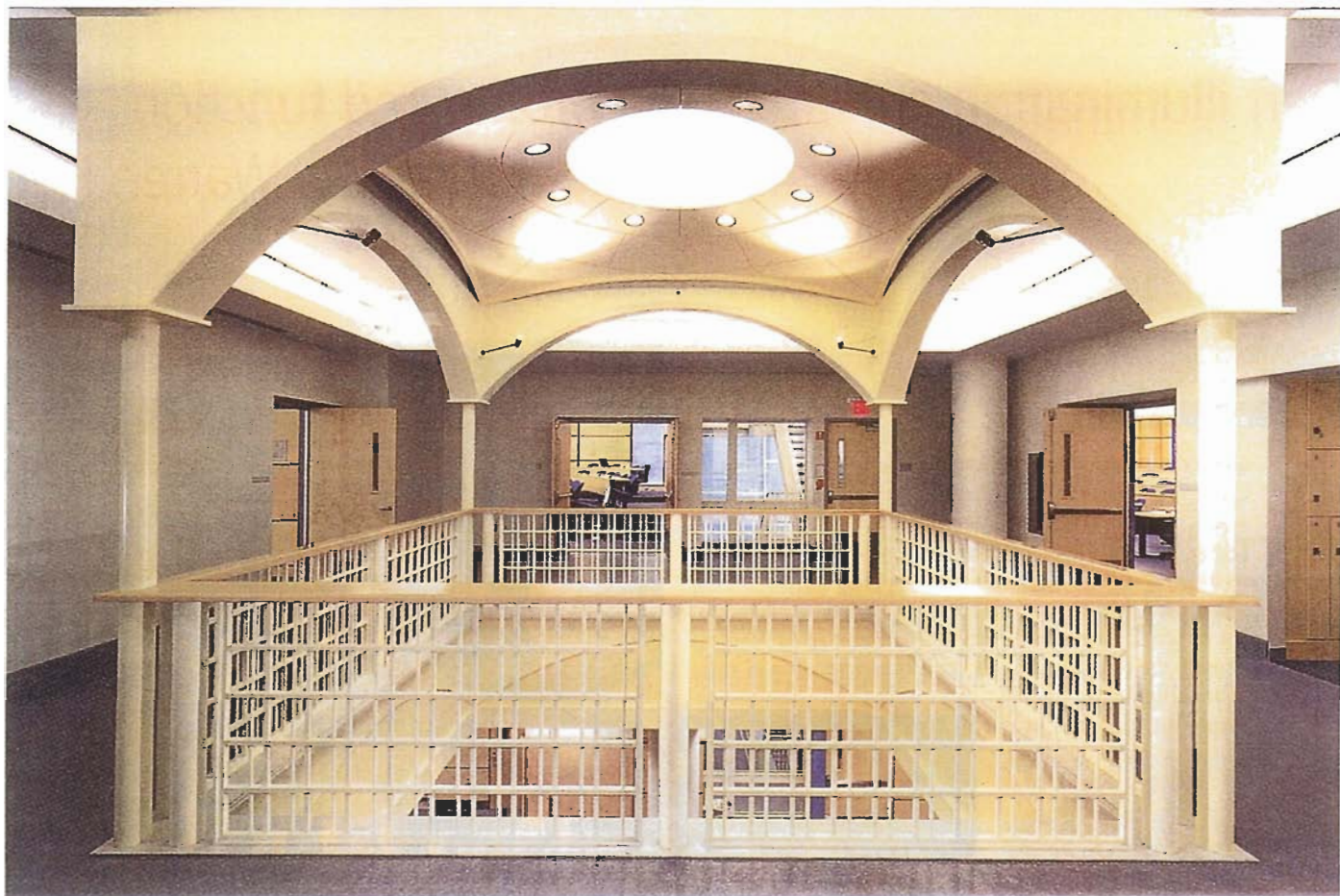
lengths. "The column of light also provides all of the necessary ambient light for circulation in the stairwell," says Mintz. "It's both a decorative and functional solution." The architects worked with Mintz and the manufacturer to modify an industrial version of the pipe, fitting it with handsome stainless-steel mounting hardware. Every floor of the building also features an interior window looking onto the stairwell, so the illuminated pipe functions as a light sculpture visible from public areas. The architect custom-designed wrought-iron cages to fit around standard weatherproof sconces mounted on the building. These complement wrought-iron grilles covering first-floor windows.

**Project:** William and June Warren Hall, Columbia University, New York City

**Architect:** The Hillier Group—Alan Chimacoff, AIA, director of design, principal-in-charge; Peter Hoggan, AIA, principal; Dan Cummings, Mac Rawley, Debbie Rockey, Peter Weingarten, design team

**Lighting designer:** David A. Mintz, Inc.—David A. Mintz, principal designer; Ken Douglas, project designer

**Consultants:** R.G. Vanderweil Engineers (mechanical/electrical); Robert Silman Associates (structural)



Five two-story atria organize circulation routes and public spaces in the complex (above). Each oculus is lit with MR16s and coved fluorescents. The main lobby also features acrylic-bowl pendants fitted with dimmable compact fluorescents. Direct/indirect dimmable compact fluorescents meet multiple requirements in audio-visually sophisticated classrooms.



The building is organized around five, two-story, stacked atria, surrounded by large classrooms, smaller administrative spaces, and offices. The canopy-shaped ceiling of each atrium features an oculus at its nadir. Concealed fluorescents within each oculus add the illusion of depth to their surfaces. Four MR16 fixtures, mounted on "peace pipe" brackets, are positioned to highlight the curve of each canopy. Incandescent PAR38 lamps provide ambient lighting for circulation.

The multipurpose lecture rooms, which accommodate on-site teaching and teleconferencing (sometimes simultaneously) and are connected with Columbia's computer network, require lighting that is both flexible and highly controlled. "The lighting had to be able to spotlight a speaker at the podium and also permit students to take notes while watching the projection screen or their laptops," Mintz says. "That requires multiple presets." An indirect system of dimmable compact fluorescents provides general room illumination. Separately dimmed and switched compact fluorescent downlights are carefully shielded to yield lower levels of illumination without creating glare on video or computer screens. Incandescents highlight the lecturer; their controlled distribution does not interfere with teleconferencing screens. ■



#### Sources

Recessed downlights, wall washers: *Indy Lighting*  
 Direct/indirect pendants, recessed linear wall washers: *Neoray Lighting*  
 Classroom step lights: *Bega Lighting*  
 Lobby chandeliers: *Winona*

#### Lighting

Low-voltage uplight in oculus: *Modular Lighting*  
 Exterior uplight: *Kim Lighting*

**WWW** For more information on the people and products involved in this project, go to **Projects at:** [www.architecturalrecord.com](http://www.architecturalrecord.com)