

Sometimes sustainability is not about high-tech systems, solar panels, or wind turbines. It's about getting back to basics. For the renovation of Slocum Hall, home to the Syracuse University School of Architecture, Garrison Architects cleared away the clutter and, in the process, discovered a passive cooling system built right into the structure of the 1918 building. By bringing that system back to life as well as increasing daylighting and specifying non-toxic and/or recycled materials, James Garrison has made this update a model of no-frills green.

A Syracuse graduate, Garrison knew Slocum Hall well. Still, he didn't realize how forward-looking the original beaux arts building was until the renovation began. That's because Slocum had been divided and adapted over the decades to house a growing number of aspiring architects as well as students in the human-ecology college. Many interior details were lost; partitions were added; the central atrium was filled in. Time and again, immediate spatial needs demanded the sacrifice of airflow and natural light. "We became forgetful. Everything was hermetically sealed and mechanized in the 1950's. That was the way to do things then. Out with the old," architecture dean Mark Robbins says.

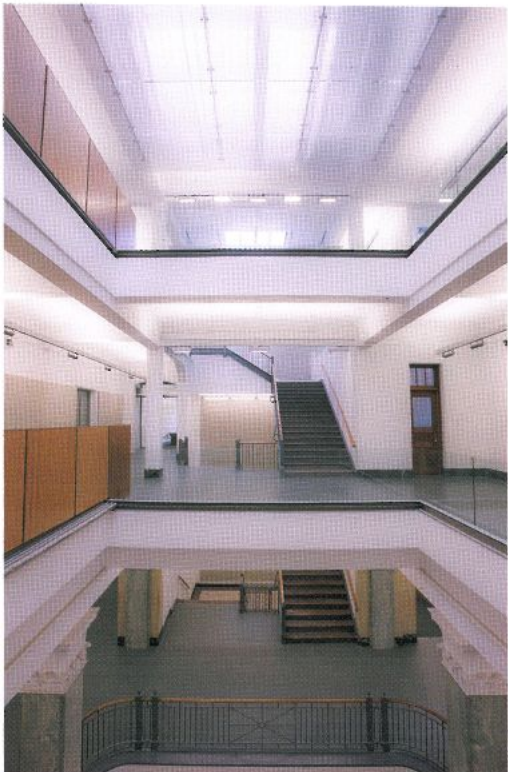
Underneath all those later layers hid the original climate-responsive atrium skylight, high ceilings, door transoms, and thick walls with ventilation cavities. ▶

Steel columns support Slocum Hall's auditorium, enclosed by bamboo plywood punched with CNC-milled holes.

*firm: garrison architects
site: syracuse, new york*

higher learning





"The building breathes," Garrison notes. Monitoring temperatures with thermostatic sensors, inside and out, he realized he could eliminate much of the air-conditioning by restoring the passive cooling system or "gravity ventilation."

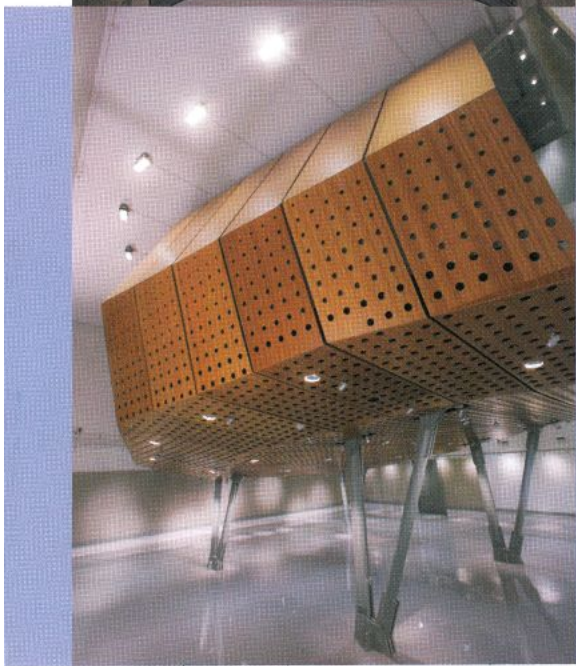
He reopened the transoms, unblocked the ventilation cavities, and replaced the manually operated awning windows of the skylight with electronically controlled louvers. "Those windows were cutting-edge technology in 1918," he says. "Things have a way of coming back around." He estimates that cooling requirements have been reduced by 75 percent, a savings of \$160,000 a year for the 110,000-square-foot, five-story building.

In addition to restoring and

displays and touring exhibitions. Flooring is sealed concrete, and bearing walls are built from concrete blocks with high levels of fly ash, a byproduct from coal-burning power plants, but the real showstopper here isn't just a green material.

Angling up from the floor, giant V-shape steel columns hold the centerpiece of the entire renovation 14 feet up in the air: An angular shell con-

***Clockwise from top:** The restored atrium has flooring of natural linoleum and a 1918 skylight retrofitted with electronically controlled louvers. The auditorium seats 135. Built-in benches around the atrium are also bamboo plywood, minus the punched holes. The sealed concrete floor of the gallery flows beneath the auditorium.*



updating ventilation and improving daylighting, Garrison made the atrium the center around which all activities radiate. On one side is a double-height gallery for student

structed from hole-punched bamboo plywood contains a new auditorium. Access is via the atrium's second floor.

Slocum Hall is one of a number of ambitious ecologically minded efforts initiated recently by Syracuse University, either alone or in tandem with nonprofits and businesses on and off the leafy campus. Though administrators had initially considered abandoning stubborn old Slocum, ➤



its optimal location between the art and engineering departments became a deciding factor in favor of the building. By investigating its inherent strengths, Garrison Architects demonstrated that a renovation can be a cost-effective, energy-efficient, and beautiful way to build. Garrison himself hopes that the project's sustainable features will serve as teaching tools for young architecture students.

—Alan G. Brake

From top: Steel-framed doors open the gallery to the atrium. Panels made of recycled paper serve as pinup surfaces in common areas.

FROM FRONT SMITH & FONG: PANELING (AUDITORIUM), KURT VERSEN COMPANY: RECESSED CEILING FIXTURES, SOLAMATRIX: GLASS FILM (ATRIUM), FORBO INTERNATIONAL: FLOORING, DUCHARM SEATING INTERNATIONAL: CHAIRS (AUDITORIUM), ELLIPTIPAR: CEILING FIXTURES (GALLERY), HOMASOTE COMPANY: PANELING (COMMON AREA). **THROUGHOUT** BENJAMIN MOORE & CO.: PAINT, CLINE BETTRIDGE BERNSTEIN LIGHTING DESIGN: LIGHTING CONSULTANT, CODE CONSULTANTS: CODE CONSULTANT, ARUP: SUSTAINABILITY CONSULTANT, ACOUSTICAL ENGINEER, KLEPPER, HAHN & HYATT: STRUCTURAL ENGINEER, JOSEPH R. LORING & ASSOCIATES: MEP, HAYNER HOYT CORPORATION: GENERAL CONTRACTOR.



ECO walk through

DAVID JOSEPH