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Bertram and Judith Kohl Building: A Musical Expansion

Like its rooftop garden's specially bred witch hazel, the new jazz studies and music theory building at Oberlin College blooms in surprising ways

By Matt Alderton

For more than 35 years, jazz music was heard but rarely seen in the verdant town of Oberlin, Ohio. Jazz students at the world-famous Oberlin Conservatory of Music had to practice in the basement of Hales Memorial Gymnasium from 1973, when the jazz studies department was founded, until spring 2010, when Oberlin College finally introduced a home for its jazz studies, music history, and music theory programs: the Bertram and Judith Kohl Building. Campus architect Steven Varelmann takes us inside.

PROJECT

Location Oberlin, OH
Size 37,000 ft²
Completed 2010
Program Classrooms, practice rooms, rehearsal spaces, recording studio, library, lounges, offices
Awards Award of Excellence, 2011 Cleveland Engineering Society; 2010 AIA Western Mountain Region Design Award

Jazz Discrimination

For a school like Oberlin—a private liberal arts college that has prided itself on diversity and inclusion since 1835, when it became the first college in the United States to regularly admit African American students—the Kohl Building is as symbolic as it is practical. It's designed to make jazz and classical music equal despite a long history of musical prejudice. "When the jazz program was started [in 1973], it wasn't part of the Conservatory of Music; it was an extracurricular activity," Varelmann explains. "It was almost like a second-class program. The Kohl Building was built to bring the jazz program out of the basement, so to speak."

Sustainable Tradition

In the same way that it builds on Oberlin's long history of equality, the LEED Gold Kohl Building continues the school's tradition of sustainability. In 2004, the college's board of trustees adopted a statement that formalized the school's commitment to environmental responsibility, and in 2006 it mandated all new construction and major renovations on campus to be designed and built to LEED Silver standards. As far back as 2000, the college was building things like the Adam Joseph Lewis Center, a net-zero building that predated LEED and was intended as a demonstration project, testing ground, educational venue, and catalyst for the emerging field of ecological design. "That building," Varelmann says, "has been named by the Department of Energy as one of 30 milestone buildings of the last century."

TEAM

Client Oberlin College
Architect Westlake Reed Leskosky
General Contractor Krill Construction
Landscape Architect GroundView
Acoustic Consultant Kirkegaard Acoustic Design
Civil Engineer KS Associates

On Tappan Square

When Oberlin College decided to add the Kohl Building, its architect, Cleveland-based Westlake Reed Leskosky, studied multiple sites on campus, including several existing buildings that were candidates for renovation. Ultimately, the school decided to construct a new building on a sliver of vacant land adjacent to the main Oberlin Conservatory of Music complex, designed in 1963 by Minoru Yamasaki, designer of New York City's Twin Towers.

"The site design was one of the most important elements of this building," Varelmann says, describing the building's location on Tappan Square, a large, park-like setting in the center of campus. "On three sides of the park are campus buildings," he says. "On one side is downtown Oberlin. So this park really anchors the whole community."

The Kohl Building was designed to create a north-south axis with Tappan Square. Instead of terminating at the facility's front door, a pedestrian walkway from the square leads past the building, under a bridge, which is a third-story "sky lounge" that connects the Kohl Building to the Yamasaki complex, and into an exterior staircase that climbs up the building's façade. The path ultimately leads to a third-floor roof garden that functionally extends the park below.

Rooftop Jams

The third-floor roof garden is one of the Kohl Building's most beloved spaces (No.1). It's also one of its most versatile. Planted primarily with low-maintenance grasses, flowering perennials, and woodland flowers, it offers benefits in the form of thermal insulation and storm-water mitigation. It also serves as acoustic insulation, blocking overhead noise to the delight of students who are rehearsing inside. What's more, the green roof doubles as a performance space. "The roof garden acts as a stage," Varelmann explains. "A lot of the jazz students will have impromptu practices and jams up there. They might gather at the top of the stairs, and students and other people from the community will sit on the stairs and listen to them play." GroundView landscaped the garden, in addition to an enclosed garden also on the third floor. The roof garden contains two specially bred witch hazel trees that bloom in January when the rest of Oberlin is blanketed in snow.

Material Menu

Just three core materials compose the Kohl Building's exterior: glass, wood, and metal (No.2). The low-E glass, part of a curtain wall fabricated by Tubelite, is acoustically rated and fritted to reduce sound and solar heat gain, respectively (No. 3). The wood siding is Brazilian ipé wood that was harvested exclusively from naturally sustainable forests. The rain-screen system, fabricated by Riverside Group, is made of custom-stained aluminum (No. 4), a material chosen not only because of its sustainable properties—it's abundant, easily recyclable, lightweight, and naturally resistant to corrosion—but also because Alcoa founder Charles Martin Hall, who discovered the aluminum extraction process, was an Oberlin graduate who donated a sizeable amount of money and land to the college.

GREEN

Certification LEED Gold
Site Former back lot, adjacent to existing conservatory
Materials Recycled-content aluminum and concrete, sustainably sourced ipé, gypsum board
Water Low-flow and sensor-activated plumbing fixtures
Mechanical Geothermal HVAC system, radiant heating/cooling, energy-recovery ventilator
Energy Daylighting, occupancy and daylight sensors, dimmable light switches, LED lighting
Landscape Green roof, low-maintenance vegetation, terrarium, reduced storm-water runoff

Artful Acoustics

The Kohl Building's interior is designed to reconcile two opposing challenges: acoustics and sustainability. "This is an acoustically designed building," Varelmann says. "Because of the high demand for no sound transmission, there are as many as eight layers of gypsum board [in the wall assemblies] for sound deadening." Because it's recyclable, the gypsum board, provided by Gypsum National, is inherently sustainable, as is the building's other dominant interior material: concrete.

According to Varelmann, the floors are black-stained concrete while many of the walls are 4- by 24-inch CMU block made with white cement and mortar, courtesy of Grand Blanc. "It's standard concrete block, but its [unique] dimensions and color elevate the material and make it art," Varelmann says. "Plus, it's durable. In a music building there are a lot of instruments being moved around, so walls get banged up. Concrete is a robust material that will last longer and require less maintenance over time."

Quieter Systems

Walls aren't the only place in the Kohl Building where acoustics and sustainability marry. It happens in the ceiling, too, in which is embedded a BEKA geothermal radiant heating-and-cooling system. The feature—the first BEKA system installed in the United States—includes radiant tubing embedded inside Knauf Drywall MP75 Projection Plaster. Powered by a Mammoth ground-source heat-pump system, it's more efficient and produces less mechanical noise than air-based HVAC. "And because ventilation is required, we're using an enthalpy wheel," Varelmann says, referring to the building's Munters Corp. energy-recovery ventilator. "It's basically a heat exchanger; it transfers either the heat or coolness of the air inside to air that's coming in from the outside, so you're not wasting air that's already been conditioned."

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