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MISSION: REVIVAL

Tired and neglected historic buildings get new leases on life thanks to their visionary owners and architects.

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A BRIDGE GOES DIGITAL?

It's pixels for pedestrians in a competition-winning scheme for the bridge linking the U's East and West Bank campuses.

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NORTHWOODS RESORTS

Minnesota architects tell us all about their favorite lodges. Our new survey will inspire your next weekend getaway.

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History Renewed

An historic hangar transformed

COVER: AKERMAN HALL, PAGE 34



The historic home of the University of Minnesota's aerospace engineering and mechanics program gets a stellar renovation

TOP FLIGHT

By Camille LeFevre



JAMES LOCKWOOD



BEFORE The original driveway and door to the hangar have been replaced with a far more inviting entry.

The first time architect Greg Fenton, AIA, walked into the University of Minnesota's Akerman Hall, he was both amazed and dismayed. The airplane hangar for the school's Aerospace Engineering and Mechanics (AEM) department was astounding, its wide and deep two-story clear-span space bounded by a suspended U-shaped mezzanine. Who knew the 1949 building, designed by C.H. Johnston Architects and Engineers (the firm succeeding Clarence H. Johnston, who designed many of the buildings along nearby Northrop Mall), housed such a spectacular space, where aeronautics research was conducted with actual World War II aircraft?

But the hangar's condition was disconcerting. "It was completely underutilized," says Fenton, who led BWBR's renovation of the historic building. "Multiple modifications of the space over the last three

STEPHEN BERG, AIA



The new Akerman offers comfortable lounge space for AEM's more than 450 undergraduate and graduate students.

or four decades—including an ad-hoc exit corridor—hadn't retained the spirit of the hangar. Plus, the hangar was a mess with non-original, out-of-date labs and a woodshop."

Still, Fenton adds, "We quickly grasped that we could take the hangar back to its essence and transform it into a modern student workspace with light-industrial labs, grad-student study rooms, and collaboration space for the department and the university at large." One look at the "before" and "after" pictures confirms Fenton's contention that "the transformation both recalls the hangar's history and looks forward with new purpose."

Today, the hangar is a light-filled study lounge lined on three sides and two levels with collaborative spaces, workstations, and labs. In the light-industrial and state-of-the-art computer and model-building laboratories, students conduct research on the guidance, navigation, and control of indoor micro-air vehicles, as well as on smart materials and wind turbines. "It was important to us that the renovation focus on improving our students' educational experiences," says AEM department head Gary Balas.

"BWBR embraced our vision and helped us meet and exceed our expectations," Balas continues. "The main-floor collaborative space in the hangar is brilliant. It's constantly full of students working, interacting, studying, and hanging out, and the students are not all aerospace engineers, since Akerman Hall is home to 10 general purpose classrooms." The glass-and-steel mezzanine wall accentuates

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1949

AKERMAN HALL HANGAR RENOVATION

Location: Minneapolis, Minnesota

Client: University of Minnesota

Architect: BWBR bwbr.com

Principal-in-charge: Katherine Leonidas, AIA

Project lead designer: Stephen Berg, AIA

Preservation consultant: Hess Roise and Company

Energy design assistance: The Weidt Group twgi.com

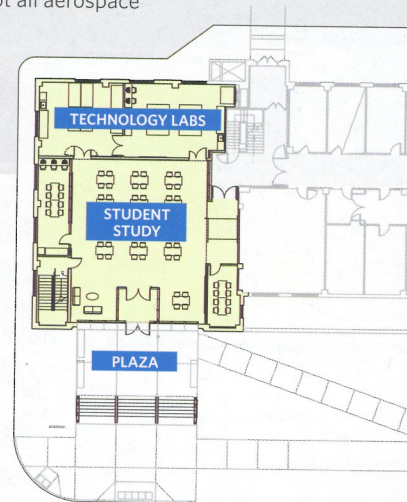
Mechanical engineer: Sebesta Blomberg

Construction manager: M.A. Mortenson Company

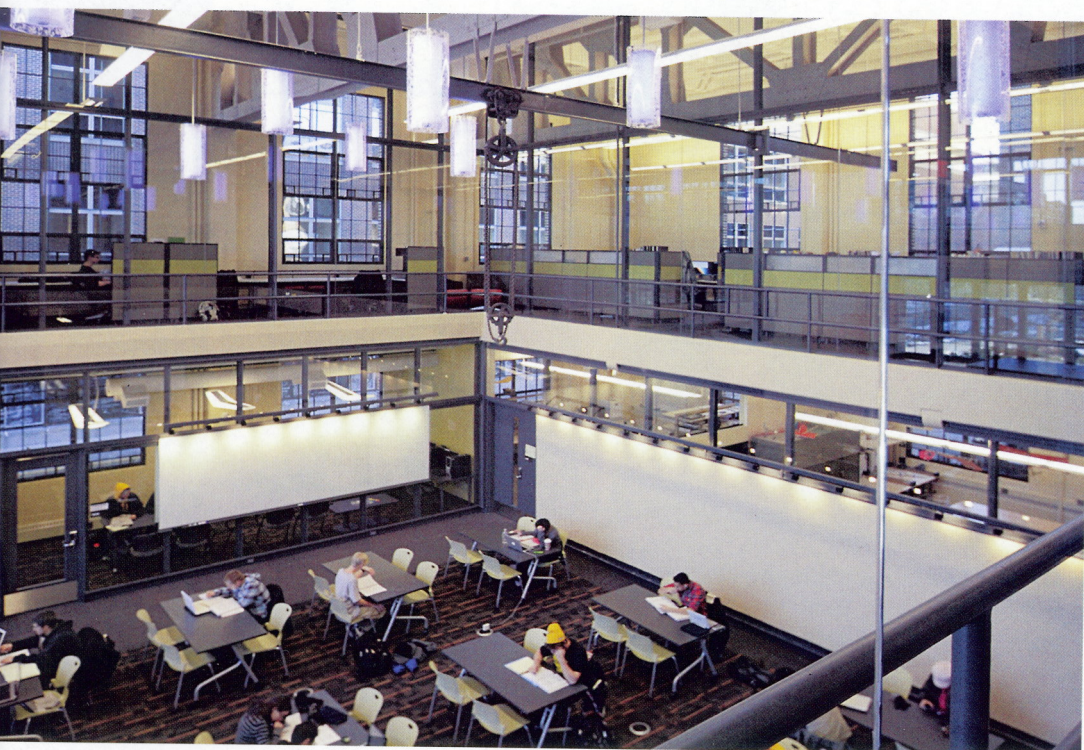
Size: 66,000 square feet (16,000 in the hangar)

Cost: \$9.8 million (\$4.6 for the hangar)

Completion date: October 2010



The renovation transformed the hangar from a crowded, underperforming space to an open learning environment.



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The hangar space, once used for hands-on aircraft study, now boasts flexible work and laboratory spaces on the first floor and mezzanine, open space for lectures and presentations, and dedicated research labs.

Top Flight

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the hangar's spaciousness, he adds. "Yet students whose offices are on the second floor have a quiet workspace with the best views on campus."

The architects also brought the building up to code. The team replaced aging fenestration with new high-performance, operable windows in an approved historical style (approval was necessary because the building is located in a National Historic Preservation District). BWBR also replaced a driveway and original folding hangar door with broad, welcoming steps below panelized windows that lead from the Scholars Walk into the building.

The renovation also added a highly efficient mechanical system with heat recovery and displacement ventilation, as well as daylighting controls and occupancy sensors. Akerman Hall now operates 30 percent more efficiently than Minnesota energy code mandates. "We needed to modernize the building in a way that maintained its historic character while creating the best value for the hangar space in terms of use and functionality," says Fenton.

Mission accomplished. "I'm so pleased we could return an historic engineering education building back to its full glory," says Balas, "and at the same time offer students new, efficient ways of utilizing our amazing hangar space." **AMN**

Butler Square

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million-square-foot behemoth was best described by critic Larry Millett as "a sternly poetic mass of wine-colored brick that conveys the commercial might of Minneapolis at the dawn of the twentieth century." Jones had spent his first year after graduating from MIT in the drafting rooms of H.H. Richardson, clearly acquiring a taste for massive masonry. His colleagues would come to revere him as not only a versatile architect but also a master of structural engineering in an era before those professions diverged.

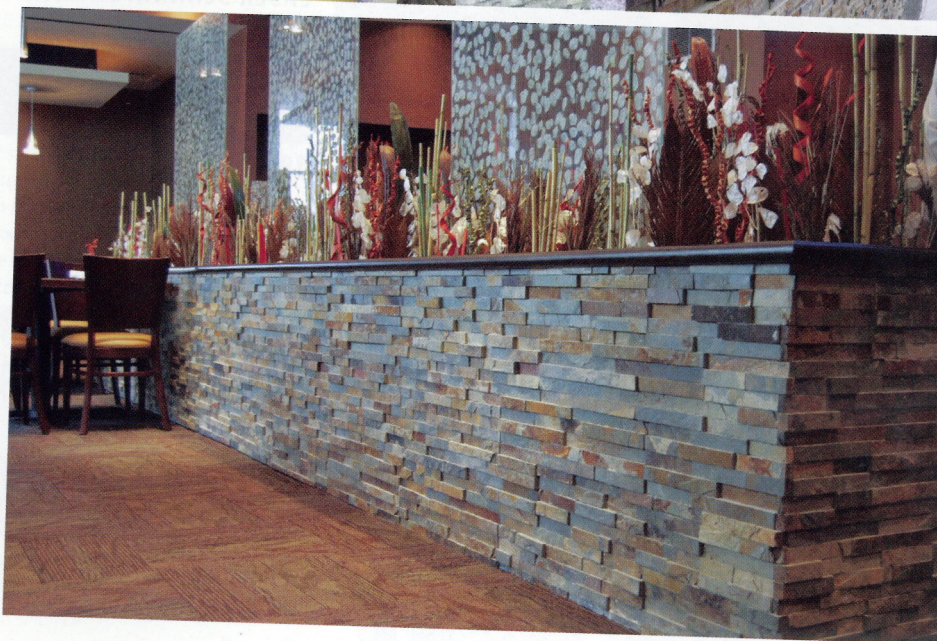
The building's own website claims that the timber for Butler's structural frame was Douglas fir supplied by Walker's own Minnesota sawmills. If the material was Minnesota-grown, it could not be Douglas fir, a species not native to the state. That glorious riot of columns, beams, purlins, and decking visible in the building's atria is almost certainly old-growth white pine, the bountiful commodity that drove Minnesota's logging economy to its zenith in 1905. On daily display, the soaring, sawn pine timber remains a double slice of Minnesota history. **AMN**

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