



By Anita Blumenthal

# CARING FOR HISTORIC BUILDINGS

## Preserving a Heritage, Renovating for the Future

**APPA** member institutions are home to hundreds of buildings of historic and cultural value on the local, state, and national levels. But preserving this heritage is not a straightforward matter. It is filled with questions, such as how to understand what is truly valuable and how best to renovate these structures, not only for heritage preservation but also for safety and accessibility and for continued service to the evolving needs of the institution.

“We don’t preserve just to preserve,” declares Larry Zitzow, director of facilities management at the **University of North Dakota**, Grand Forks. “We preserve what has continued meaning, value, and purpose.”

“We are responsible for stewardship of buildings that are truly historic,” says Scott Bitikofer, director of facilities management at **Rollins College**, Winter Park, Florida, “but also we are responsible to provide continuous service to society and to make education affordable. We can’t be frivolous to preserve everything at all costs. We have to find a balance to serve multiple constituencies well. We can be sensitive to historic facilities without being chained to them. We need to find a balance between preserving the best of the old and not be so constrained we are precluded from successfully fulfilling our core mission.”

Nevertheless, as George Eckhardt, campus planner at **Colorado College**, Colorado Springs, says, “The significant historic buildings embody the traditions of the college, attract new students, and maintain emotional ties between alums and the institution—an important connection for the economic survival of a college or university.”

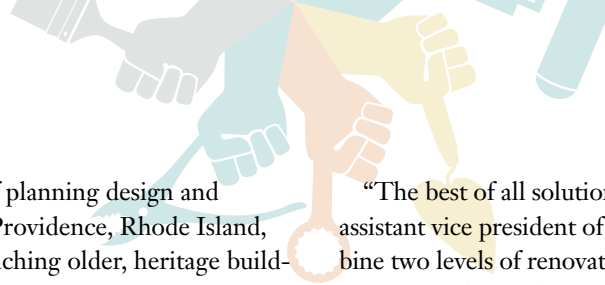
Definitions of “significant historic buildings” can vary from local to state to national levels. Also, there are official indica-

tors of historic/cultural importance for which campuses may apply. For information on the U.S. National Park Services’ National Register of Historic Places, see <http://www.cr.nps.gov/nr/>; for National Historic Landmarks, see <http://www.nps.gov/nhl/>. There are also State Preservation Offices, state historical societies—and local preservation groups that who don’t wait to be applied to but can be the most vocal groups the campus has to deal with.

Even within this article’s sampling of 11 campuses (all have some National Register designations; a few have National Historic Landmarks), there are very different approaches to preservation and renovation. For example, the **University of California, Berkeley** has somewhat streamlined its approach. “We treat [all] eligible buildings (over 50 years old) as if they were on the National Register,” says Emily Marthinsen, assistant vice chancellor, physical & environmental planning. “Using consulting preservation experts, we prepare Historic Structures Reports or assessments on all of these buildings when renovation is planned.”

Some institutions have master plans for heritage preservation and some do not. Bitikofer says that Rollins has no written policies on historic buildings “because there are such large and diverse considerations...it comes down to judgment, and any policy would become either too restrictive or irrelevant; every situation is unique. We have plenty of buildings we would never contemplate taking down.” On the other hand, Eckhardt says that, had Colorado College had a master plan in place a few decades ago, administrators or the board of trustees at the time might not have been able to unilaterally decide to demolish some fine old buildings in favor of new construction.





Stephen Maiorisi, vice president of planning design and construction at **Brown University**, Providence, Rhode Island, says that the common steps in approaching older, heritage buildings are 1) identify what in the building you want to preserve, 2) study the original drawings, and 3) assuming the structure is worth saving, determine how it will be preserved/renovated and how it will achieve the levels of safety, compliance, technology, energy efficiency, and other needs required by the institution.

#### REPURPOSING—A GOOD DEAL

For the past few years, economic conditions have favored repurposing old buildings. “Unlike ten years ago,” Zitzow says, “labor and materials have become so expensive that building new is more costly, so repurposing has become more attractive.”

In 2008, when the economy plummeted, Brown looked at its existing stock, rather than build from scratch. Brown converted three projects from new buildings to renovations. They say the results were better than having new buildings, demonstrating that older buildings can have new life.

“The best of all solutions,” says Michael McCormick, Brown’s assistant vice president of facilities management, “is to combine two levels of renovation: match program needs to capital projects.” The need was for an archeology center, and there was a fundraising campaign to create one. That funding supplied the means to renew Rhode Island Hall (1849) as the site for the center, which McCormick says had been occupied for over a century with random sets of offices. During the renewal process, they uncovered a grand two-story space, with an arched ceiling and large skylight. When Menco Hall (1844) was renovated, they discovered a dome that became a centerpiece of the building.

Old armories and outgrown gymnasiums and libraries are prime structures for repurposing. At **Bowdoin College**, Brunswick, Maine, the Curtis Pool (1928) closed in 1986. Donald Borkowski, director of capital projects, explains that, in 2007, “the interior was gutted right down to structure and put together as a recital hall with world-class acoustics.” Even when buildings are not immediately repurposed, they are often being preserved for eventual use, rather than demolished.

#### RHODE ISLAND HALL AND MENCOFF HALL—BROWN UNIVERSITY



Rhode Island Hall Before.



Rhode Island Hall After.



Mencoff Hall Before.



Mencoff Hall After.

ALL PHOTOS COURTESY OF WARREN JAGGER.

## RECITAL HALL—BOWDOIN COLLEGE



1

Original Curtis Pool Exterior (1928)



2

Curtis Pool.



3

In 2007, the pool was repurposed to a Recital Hall.



4

Finished Recital Hall.

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BOWDOIN COLLEGE



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## AUTHENTIC, REPLICATED, OR MATCHING?

Exteriors age; they can crack, crumble, and suffer from poor previous repairs. How is an institution to approach such major jobs? At the **University of Wisconsin Madison**, the oldest building, North Hall (1851), “had been incorrectly repaired by masons with an improper mortar mix and a joint profile that was inconsistent with the original technique,” explains Historic and Cultural Resources Manager Daniel Einstein. The original

mortar had been lime putty, but repairs had used Portland cement (a faster curing cement that was not made in the U.S. until the 1870s). The 2011 renovation removed the cement mortar and used lime putty mortar, matching the texture and color of the original. Also, the masons salvaged replacement stones from a building that had used the same original quarry. The university received several awards for its careful attention to historically accurate craftsmanship and materials.

In renovating its chapel (1845-55), Bowdoin was able to locate—two miles down the road—the now-disused granite quarry that the original stone had come from. The lime mortar that bonded the granite façade stones to the inner core had failed, causing the façade to separate and pull away. “In the new construction,” says Borkowski, “we reinforced the inner core and mechanically fastened the façade stones to it with over 3,000 anchors.”

## FURMAN HALL—OREGON STATE UNIVERSITY



Historical Image of OSU's Furman Hall, 1902.



As the condition of the building deteriorated, a fence was erected to protect passersby from possibly unstable masonry.



The building was renewed with a facade of limestone that recreates the original look.

ALL PHOTOS USED WITH PERMISSION FROM OREGON STATE UNIVERSITY.

## HAMILTON HALL—MONTANA STATE UNIVERSITY



Hamilton Hall, MSU 2012, the renovated main entrance that again resembles the original main entrance, enhanced with code-required railing to the landings.



In 2009, the wood single-pane glass windows were replaced with replica double sash, multi-light dual pane windows, achieving energy improvement and historic preservation. The color of the trim was also researched and returned to its original dark color. This photo shows both the original and replacement windows.

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PHOTO BY GARY GRAMER, MSU.

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PHOTO BY VICTORIA DRUMMOND, MSU.

**Oregon State University**, Corvallis, took a different approach to “taking the skin off” of Furman Hall (1902), one of the oldest buildings on campus, says David Dodson, university land use planning manager. The façade had been sandstone, but the grain was such that water had penetrated for years. In fact, there was fencing around the building to keep people away because stones at the top threatened to topple. In renovating the building, he says, “we did not replace the huge 600 lb. stones. Instead, we put in a new structural wall and added a thin façade of limestone that replicated the original sandstone.”

At **Montana State University**, Bozeman, an interior and exterior renovation of Mission Revival-style Hamilton Hall (1910) did not seek to replicate the original materials. “Materials do not match exactly,” explains Associate University Planner Victoria Drummond. “The new material should respect the original design. And although it is obviously new, it is related to the minds and hands of the original craftsmen,” she says. “The intention is to be respectful, show the connection, and be proud of the technologically enhanced materials we have now. For example, the original flooring in many of the early 1900s buildings is Italian terrazzo, which was created by a family of craftsmen 100 years ago. We don’t want to try and duplicate

it; instead we preserve it, show respect for it, but also highlight new resources.”

At **Colorado College**, new window systems in two old buildings being renovated will aim to look like the original windows but will use different materials and be far more energy efficient and require less maintenance over their life cycle. Eckhardt admits that this choice will mean that the State Historical Fund will not supply funding, as it has for other projects, but the college’s chief thrust is sustainability and reduced carbon footprint.

Some institutions search for authentic processes, materials, or components. Sometimes, contemporaneous materials are available. At **Rutgers University**, New Brunswick, New Jersey, Vice President, Facilities and Capital Planning Antonio Calcado says that he will look for original parts, such as an 1870s staircase, to incorporate into a building of that era. When original parts are not available, Rutgers attempts to craft them using the same materials and processes. To replace a fence dating from the mid-1800s, Rutgers tested the metals and found a firm that would cast the same metals the same way as in the original fence.

The **College of William & Mary**, Williamsburg, Virginia, with three colonial-era buildings, including the original Sir Christopher Wren Building (1695), has the advantage of



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The Sir Christopher Wren Building at the College of William & Mary in Virginia is the oldest college building in the United States and the oldest of the restored public buildings in Williamsburg. In the course of its history, the Wren Building has been gutted by fire three times—in 1705, 1859, and 1862. Each time the interior of the structure was rebuilt.



PHOTO COURTESY OF STEPHEN SALPUKAS/COLLEGE OF WILLIAM & MARY

Today, the Wren Building, now in its fourth century, continues to be used as an academic building, housing faculty offices on the third floor and classrooms throughout the building.

having Colonial Williamsburg at its doorstep. Louise Kale, executive director of the historic campus, explains that they receive expert advice from the Colonial Williamsburg Foundation (e.g., how to waterproof colonial foundations) and can contract with its craftspeople for repair work and for help in finding authentic materials. “Historic preservation,” she notes, “is not a cheap date.”

Sometimes new technology comes to the rescue. When Kirkpatrick Chapel (1872) at Rutgers was renovated in 1916, it received new stained glass windows, including three created by Louis Comfort Tiffany. Rutgers Architect Elizabeth Reeves says that restoring the windows in the past few years required a qualified preservation architect, a stained glass window consultant, and an expert artisan who could construct the same type of lead coming as the original, along with making many other re-

pairs, and for the Tiffany windows, install protective laminated glazing. Reeves says that the technology for some of these jobs involves a combination of chemistry, physics, and engineering. The National Park Service began publishing Technical Briefs for the treatment of historic materials in 1984.

#### REPLACEMENT HAS ITS REASONS

In some cases, the look of a building can be better preserved if materials are changed—a new material can look more authentic and be more durable than the original. One example is Pinehurst Cottage (1885-86), which is the oldest and the last original building at Rollins College, and which the Florida Trust for Historic Preservation has named one of the architectural treasures of the state. The problem is that the group of New Englanders who envisioned a college in Florida arrived

in 1885 with a New England mindset: They built in wood. Bitikofer explains that there is a responsibility to preserve Pinehurst Cottage despite the fact that, in the Florida climate, “wood rots, it gets termites, and it’s not good in hurricanes.” The architecture of the rest of the campus is in a more appropriate Spanish Mediterranean style.

A few years ago, Pinehurst was renovated and got new siding—yet again—using the correct cypress boards. “It already looks bad,” Bitikofer admits, adding that next time, they hope to replace it with a visually consistent cementitious board with a profile like clapboard. “You have to find the sweet spot between historical and pragmatic,” he says.

#### KIRKPATRICK CHAPEL—RUTGERS UNIVERSITY

Kirkpatrick Chapel (1872) at Rutgers received three stained glass windows by Louis Comfort Tiffany during its 1916 renovation.



PHOTOS USED WITH PERMISSION FROM RUTGERS UNIVERSITY.

## UNCOVERING THE AUTHENTIC

Renovating historic buildings and other structures can reveal everything from charming surprises to stunning treasures. At Brown's Manning Hall (1834), the tops of columns had been covered with monochromatic paint. The paint was removed to reveal brownstone capitals with subtle shadings. When Maiorisi's staff took down Van Wickle Gate (1901) to be restored, it was discovered not to be wrought iron as had been universally thought (and is still listed as such in Wikipedia), but black paint over bronze. It has been uncovered and restored.

"This is the sort of problem to address with training," McCormick says. "Incrementally incorrect decisions can degrade a campus over time. We want to prevent that."

The renovation and restoration of the Bowdoin College Chapel (1845-55) dealt with a multitude of cover-ups spanning many years. "At one time, there was an old heating coal furnace with a large floor register in the center of the chapel," Borkowski says. "About 150 years of soot came from that, so that you could hardly see the frescoes on the walls." And when the deep blue

ceiling was cleaned, it turned out to have gold stars, invisible for decades. "Some walls were covered with 9 x 9 ceiling tiles, supposedly for acoustics," he says, "and the stained glass windows had been covered with Plexiglas for energy conservation."

Dropped ceilings of acoustical tile (circa 1970 or earlier) were perhaps useful for economical lighting, energy savings, or noise reduction, but they covered up treasures of architecture in large buildings and small—and perhaps still do.

For decades, the reading room at Doe Memorial Library (1911) at the University of California, Berkeley had a dropped ceiling. They opened it up and uncovered a gilded, sculpted, 45-foot-high coffered elliptical barrel-vault ceiling. Berkeley's LeConte Hall (1925), "originally had a large open hall, big skylight, excellent ventilation, and natural light," says Marthinsen, "but it had been covered and become a warren of offices." Now it's an open grad student area, with the skylight uncovered. However, lest we wax too nostalgic about old buildings, she points out that, constructed originally as a physics building, LeConte Hall had no ladies' room because it was assumed that

### LEWIS HALL—MONTANA STATE UNIVERSITY



RENNIE LIBRARY, SPECIAL COLLECTIONS. PHOTO BY GARY GRAMER, MSU.

Lewis Hall, MSU, 2014 main entry with new green roof tiles that replaced the metal standing seam roofing installed mid-century, and the restored terra cotta medallions and decorative arch surrounding the main entry.



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Lewis Hall, MSU, 2013 during restoration of the terra cotta architectural elements.

### PINEHURST COTTAGE—ROLLINS COLLEGE



Pinehurst Cottage, early photo  
PHOTO COURTESY OF ROLLINS COLLEGE



Pinehurst Cottage Today. Last of the original 1885-86 wooden buildings.  
PHOTO COURTESY OF SCOTT COOK FOR ROLLINS COLLEGE



women did not study physics—a mistake corrected in the 1950s.

Assuming that acoustical tiles were installed for noise control, Colorado College was careful to preserve the goal as it changed the solution. When they opened up the ceilings at Cutler Hall (1880) and uncovered vaulting arches, they knew that the staff still needed viable offices. So they applied acoustic plaster to muffle sounds.

Studying old photographs has also brought some “Eureka” moments. At Bowdoin, a facilities worker rummaging around in a storeroom under a dining hall found a pendant lighting fixture. An old photograph showed it hanging in the portico at the main entrance of the art museum—now it is back in place.

### IS NEW TECH A BOON FOR OLD BUILDINGS?

Sometimes, modern technology is not easy to install in historic buildings. As UND’s Zitzow says, “The challenge is to get mechanicals into the building so that they do not deface the architecture.” But perhaps the higher the tech, the better for older

buildings. Bitikofer of Rollins points out that less structured cabling is needed to support wireless access (as it is replacing landlines), so “less clunky installation is needed.”

Colorado College is looking at variable refrigerant flow, a fluid system that takes heat from the sunny side to the shady side of the building in winter and vice versa in summer. “It’s a system that needs no ductwork,” Eckhardt says, “which is very helpful in the case of old buildings that have little room for ductwork. Only smaller ductwork would be needed for fresh air.”

### SAFETY AND COMPLIANCE

With historic buildings, issues of safety and compliance can be more complicated—with solutions more expensive or creative than elsewhere on campus. Sometimes, compliance can be done so finely that it becomes its own work of art. At Colorado College, the oak and metal railing of Cossitt Hall (1914) was beautiful but did not meet standards. So the college’s craftsmen placed the steel balustrades at the statutory distance apart and added an

### CUTLER HALL—COLORADO COLLEGE

Cutler Hall (1880), before, then with ceiling removed and vaulted ceiling revealed, then renovated.



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**Cossitt Hall Rotunda:** “The oak and steel guard railing around the Cossitt rotunda had to be 42 inches in height to meet code, so we added a similar oak hand rail above the original railing without disturbing the original,” explains Campus Planner George Eckhardt. “We also had to infill the vertical metal balusters to meet the 4-inch maximum spacing code, which was done without impacting the original metal balusters.”



“Likewise,” says Eckhardt, “the connected oak stair hand railing had to be 36 inches above the steps so a continuous hand railing was added above the original oak rail. The continuous connection does not exactly meet code, but maintaining the significant historic contour feature of the oak railing was an important detail.”



ALL PHOTOS THIS PAGE USED WITH PERMISSION FROM COLORADO COLLEGE

oak rail above the existing one.

Sometimes compliance is simple: At Rutgers, there was no way the third floor of an old building could have the statutory two means of egress. So that floor was simply closed to occupancy. Seismic safety is an issue in renovating buildings in many states. A dramatic example is Berkeley’s Hearst Memorial Mining Building (see page 42).

### ADA COMPLIANCE: THE ART OF THE RAMP, AND OTHER SOLUTIONS

“The question is,” says UW-Madison’s Einstein, “how do you provide ADA access in a way that minimizes the effect on the experience of a building? That is, to retain the character of the building so it can tell its original story? Thirty or 40 years ago, you might have poured a concrete ramp up to the front door.”

Today, there are subtler—and more expensive—approaches. For example, at Colorado College’s Cossitt Hall (1914), the ramp fits in seamlessly, made of the exact volcanic rhyolite stone of the building.

UW-Madison follows a different line of thinking. In the current discussions about a ramp for the Agricultural Dean’s



**Cossitt Hall Exterior:** The exterior photos show how well the new ADA access ramp blends in with the exterior stone walls, using the exact same volcanic ash rhyolite stone used in construction the building in 1914.



## NANCY NICHOLAS HALL—UNIVERSITY OF WISCONSIN



USED WITH PERMISSION FROM THE UNIVERSITY OF WISCONSIN — MADISON. PHOTO BY LOREN ZEMLICKA.

At University of Wisconsin-Madison's Nancy Nicholas Hall, a "hyphen" connects the old and new buildings and also creates space. The new building recognizes the design template and is respectful of the old building, but does not replicate it.

Residence (1897), Einstein says, "The ramp is to be located on the least public side of the building and will be compatible but distinctive, yet not distracting. It will speak the vernacular of the building but not be confused with the period of significance of the rest of the building,"

A number of campuses have created a new accessible side or back entrance in their older buildings by taking out a window,

raising the grade, and installing a door—a happy solution that might not be possible elsewhere.

At Bowdoin, where the art museum underwent a \$20 million renovation, the ADA problem was that the first floor was well above grade, approached by a sweeping staircase. Although the project architects proposed altering the staircase, the Maine Historic Preservation Commission said it could not alter the view of the building. The solution, Borkowski explains, "was to build a bronze and glass pavilion separated from the building but acting as the new entrance to it." The pavilion contains an elevator and stairs going down, depositing people at the lower level of museum; they can proceed to upper floors from there.

For the colonial buildings at William & Mary, Kale periodically requests variances. "Every step is a negotiation," she says, "with tension between design advocates for the colonial building and code compliance advocates. Tension usually results in compromises." However, Robert J. Avalle Jr., director of operations and maintenance, adds that the most recent renovation of one of the colonial buildings, the Brafferton (1723), was a huge leap in life safety, with sensitive smoke detection, treated floors, and their first sprinkler system.

## ADDING WITHOUT DETRACTING

One of the issues campuses face is how to build additions to historic buildings or new buildings adjacent to them. "Previously," Daniel Einstein says, "incompatible, insensitive build-

## EDUCATION BUILDING—UNIVERSITY OF NORTH DAKOTA



PHOTOS USED WITH PERMISSION FROM THE UNIVERSITY OF NORTH DAKOTA.

At the University of North Dakota, the renovated Education Building (1954) is joined seamlessly by the New Education Annex, built with the same materials and reflecting the signature architecture of the university. The project was the first higher education facility in the state to earn the LEED Silver designation. The older building is on the National Register of Historic Places.

## ART MUSEUM—BOWDOIN COLLEGE



**Creating Access:** When the Maine Historic Preservation Commission forbade alteration of the grand main stairway during renovation, Bowdoin built a separate bronze and glass pavilion with elevator and staircase going down to the museum's lower level.

## DOE MEMORIAL LIBRARY— UNIVERSITY OF CALIFORNIA, BERKELEY



This Classical Revival building was completed in 1911. The gilded, sculpted barrel vault ceiling of the library's reading room was long hidden by a dropped ceiling.

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ings were glommed onto the side of the historic one. In the last five or ten years, we have been doing a much better job of recognizing that there are appropriate ways to expand a building that respect the historic building while allowing us to meet our needs. The challenge for historic preservation," he says, "is creating new spaces with compatible contemporary design." One example of success is UW-Madison's Nancy Nicholas Hall (1913) whose recent renovation and addition was awarded both a LEED Gold designation and a local preservation awards for both rehabilitation and compatible design.

At UND, Larry Zitzow says, "We're one of very few schools that have been successful in preserving the gothic architecture with sandstone along the roof line and sandstone bands around windows and doors. We're working to protect that look. In newer buildings, we're using that same look—so the buildings look like they come from the same parents."

At Montana State University, the original front and most elegant entrance of Lewis Hall (1923) has been preserved, with the terra cotta arch and medallions restored in an award-winning program. But it is part of a complex of buildings, including research labs, which need to be connected to one another. Those connections are on other facades.

Admirable as the goals of historic preservation and modern compatibility may be, David Dodson of Oregon State raises a serious issue. Needs on campus vary, and new construction is sometimes needed within a historic district. When the prestigious Linus Pauling Institute wanted to relocate to OSU, Dodson explains, it already had the funding, and the university submitted a plan for Corvallis City approval. (Probably the institution's

most famous alumnus, Pauling graduated from OSU, then Oregon Agriculture College, in 1922.) "The Historic Preservation Commission denied the plan," Dodson says. "OSU had to make changes to the building, and it was finally accepted,

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just squeaking through City Council approval. This shows the vulnerability of the process,” he says, “and it’s a problem for the university’s long-term goals and research work.”

#### LOSING—OR NOT LOSING—HERITAGE BUILDINGS

Given the age of many historic buildings, deferred maintenance can hasten their demise. Brown’s McCormick says that, in order to avoid having historic buildings demolished due to deferred maintenance, they have a scoring system for maintenance that places a little more importance on historic buildings. At Bowdoin, Donald Borkowski says, “Even in a recession, we pulled back on capital projects but never cut major maintenance. In fact, we increased the amount of funding for deferred maintenance.”

When old buildings are demolished, the effect can be a civic wake-up call. In the 1950s, when Brown demolished some 18th and 19th century houses, the community responded, forming the Providence Historical Preservation Society, which has been robust ever since. Maiorisi says that, over the last decade, relations with the society have been good. “Even with buildings that do not have to go through an approval process, we consult with the society,” he says. “For example, in an ongoing painting program for our houses, we consult with them on colors.” Demolition is not often on Brown’s agenda. Recently, rather than demolish a fine old house that was blocking other



Original University of North Dakota Science Hall and the North Dakota Bookstore. The Science Hall was demolished in 1999 and the pillars were reused inside the bookstore in 2000.

PHOTOS USED WITH PERMISSION FROM THE UNIVERSITY OF NORTH DAKOTA.

#### Sliding to Safety

Seismic strengthening is in building renovations on many campuses, but few projects have been as dramatic as that of UC Berkeley’s Hearst Memorial Mining Building (1907), a gem of a Beaux Arts building that lies 800 feet west of the Hayward Fault. By 1997, it had become so seismically poor and generally rundown as to be nearly unusable. The \$90.6 million renovation and expansion including a seismic retrofit that cut the granite four-story building free from its foundations, lifted it up, and installed a base isolation system of 134 composite steel and rubber bearings. The 60-million-pound building was lowered onto the isolators, which allow it to move 28 inches in any horizontal direction in an earthquake. (The base isolation technology had been pioneered by Berkeley engineers.) Today, the original exterior and a number of original interior components—such as three dome skylights above herringbone-tiled vaulting—remain intact. The building is home to the Department of Materials Science and Engineering. (source: UC media relations)

[http://www.berkeley.edu/news/media/releases/2002/09/18\\_hearst.html](http://www.berkeley.edu/news/media/releases/2002/09/18_hearst.html)



UC Berkeley’s Hearst Memorial Mining Building, after renovation.

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university plans, they moved it to the edge of the campus at a cost of over \$5 million.

Sometimes, circumstances dictate demolition. At Rollins, a fine Addison Meisner-style dorm built in the 1930s had rooms surrounding a courtyard so that each room had window-door cross ventilation, a boon in the days before air conditioning. However, Scott Bitikofer explains that when air conditioning was installed in the 1970s, the students continued the tradition of open windows and doors. The high Florida humidity hit the cold air conditioning, and the condensation ran down the walls. Mold became a huge air quality problem and was one of the reasons the building was demolished.

Einstein recounts perhaps the most sadly ironic story of demolition. UW-Madison's old law classroom and library, a Richardsonian Romanesque building, was demolished in 1963, in part because it was not structurally adequate to accommodate the heavy books—the floor could not carry the load. Also, instructional methods had changed and required smaller classrooms. The building was eventually replaced with “a modest rectangular structure,” Einstein says. “Today, of course, the original building could have been adapted for other instructional and research uses, especially considering the advent of computer-based resources,” he says. Such as virtual law books.

Notable buildings that must be demolished have been documented, and sometimes, architectural components are saved. At North Dakota, Zitzow says that the Science Hall (1901) was taken down in 1999 because the structure was not acceptable for renovation. “But we saved the columns, pediments, and column caps of the front entrance, the only really outstanding components of the building,” he says. “We kept them in the yard until the university was building a new bookstore. Now those components are inside the bookstore as a major storefront.”

Interest in historic preservation at college and university campuses is greater than ever among students,

alumni, and the surrounding communities. “The more we do,” Brown’s Michael McCormick says, “the more the people can see the outcomes; and they want us to do more.”

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- Georgia Tech
  - 104 fiberglass showers
  - 121 tile floors
- Western Michigan Univ
  - 450 shower stalls
  - 390 vanities
- New Mexico State Univ
  - 9 comm. bathroom
- Michigan State Univ
  - 50 showers

\* View case study on our website!

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\* See case studies at:  
[MiracleMethod.com/collegehousing](http://MiracleMethod.com/collegehousing)

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