

Building on What We've Built

Richard Moe addresses preservation and sustainability.

On December 13, the National Building Museum presented National Trust President Richard Moe with its ninth Vincent Scully Prize, which recognizes exemplary practice, scholarship, or criticism in architecture, landscape architecture, urban design, or preservation. (Earlier recipients include the Prince of Wales, Witold Rybczynski, and Jane Jacobs.) At the ceremony, Moe delivered a talk on how preservation and "sustainable stewardship" can help fight climate change. Contributing editor Dwight Young spoke with Moe prior to the event.

DY: Congratulations on receiving the Scully Prize.

RM: I'm deeply honored. Vince Scully is an icon in our business, and he's somebody I've admired and respected for many, many years. To be in the company of the previous recipients means a lot to me—but I really see this prize as recognizing the National Trust and the preservation movement, and I'm simply the vehicle for that. I'm pleased to see that preservation is getting the recognition it deserves.

DY: Why did you choose sustainability as the subject for your speech?

RM: We've always regarded preservation as a sustainable activity because it's all about recycling resources. Even though it's not a new subject for us, we're giving it more emphasis now because of public concern about global warming, CO₂ emissions, and energy conservation. We believe preservation has a role to play in all these issues.

DY: Isn't this an unusual subject for preservation to tackle?

RM: It is a little unusual, but let me put it in context. Preservation has always sought to expand its audience by emphasizing different aspects of its work. It started 150 years



ago—people were interested in saving great cultural and historical landmarks like Mount Vernon, and we appealed to those interests. Later, the emphasis shifted to economic benefits, which we stressed in things like the Main Street program and the rehab tax credits. More recently, we've emphasized preservation's quality-of-life benefits by talking about the sense of stability and continuity that comes from preserving and enhancing well-built older neighborhoods. Now, following that same pattern, we're focusing on preservation's environmental benefits. Up to now, recognition of these benefits hasn't played a prominent role in the debate over global warming and energy conservation, and we think it should. It's all part of our effort to make preservation more relevant to more people—and to society as a whole.

DY: Someone has said that the greenest building is one that's already built. What does that mean?

RM: Any new building, no matter how much green technology it incorporates, represents a new impact on the environment. An older building represents a heavy prior investment of resources and energy. If you tear that building down, that investment is wasted—but if you keep the building in use, you're saving energy and conserving resources. That's what people mean when they call preservation the ultimate recycling.

DY: Isn't the lack of energy efficiency a big problem with old buildings?

RM: Not necessarily. Many of them incorporate features that we now recognize as environmentally friendly—like big, operable windows, shaded porches, and high ceilings. Also, most older buildings were built to last, which

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is the very essence of sustainability. There's a wide range of products on the market now that can help make buildings more energy efficient without compromising their historical character, and there's a large and growing number of rehab and reuse projects that offer good models of sustainable design and construction—like the visitors center at President Lincoln's Cottage.

DY: Is this what the National Trust's new sustainability initiative is all about?

RM: That's part of it. Our goal is to educate policy makers and the public about the importance of reusing existing buildings as part of our overall efforts to address climate change. We want to quantify the adverse environmental impacts that occur when sound older buildings are abandoned or demolished—and state those impacts in terms that are readily understandable.

DY: Can you give an example?

RM: Sure. The National Building Museum here in Washington, D.C., was built in the 1880s. It took energy to manufacture or extract the building materials and transport them to the construction site, plus more energy to erect the building. When you add it up, the total embodied energy in the National Building Museum is equivalent to nearly 1.2 million gallons of gasoline. If the average vehicle gets

about 21 miles to the gallon, there's enough embodied energy in that one building to drive a car more than 25 million miles. If the building were demolished, all that energy would be utterly wasted.

DY: That's sobering—but what are we going to do with such data?

RM: We'll work to develop and enact laws and policies that encourage reinvestment in existing buildings and communities; we want to expand the historic rehab tax credit, for example, and provide incentives for private homeowners to employ green technology in maintaining and rehabilitating their homes. Also, we'll launch a major effort to make the National Trust website the "go-to" resource for advice and information on employing green technology in the rehab of older structures. And we'll seek to build alliances with environmental and conservation groups and professionals in the building arts to educate them about tried-and-true preservation practices.

DY: Sounds like a big job.

RM: I believe it's one of the most important things we've ever done. We can't build our way out of our environmental problems, but we can—and must—make better, wiser use of what we've already built. Preservation is sustainable stewardship: That's the message here. □

Preaching and Practicing

From promoting policy to upgrading sites, the National Trust goes green in a big way.

BY KIM A. O'CONNELL

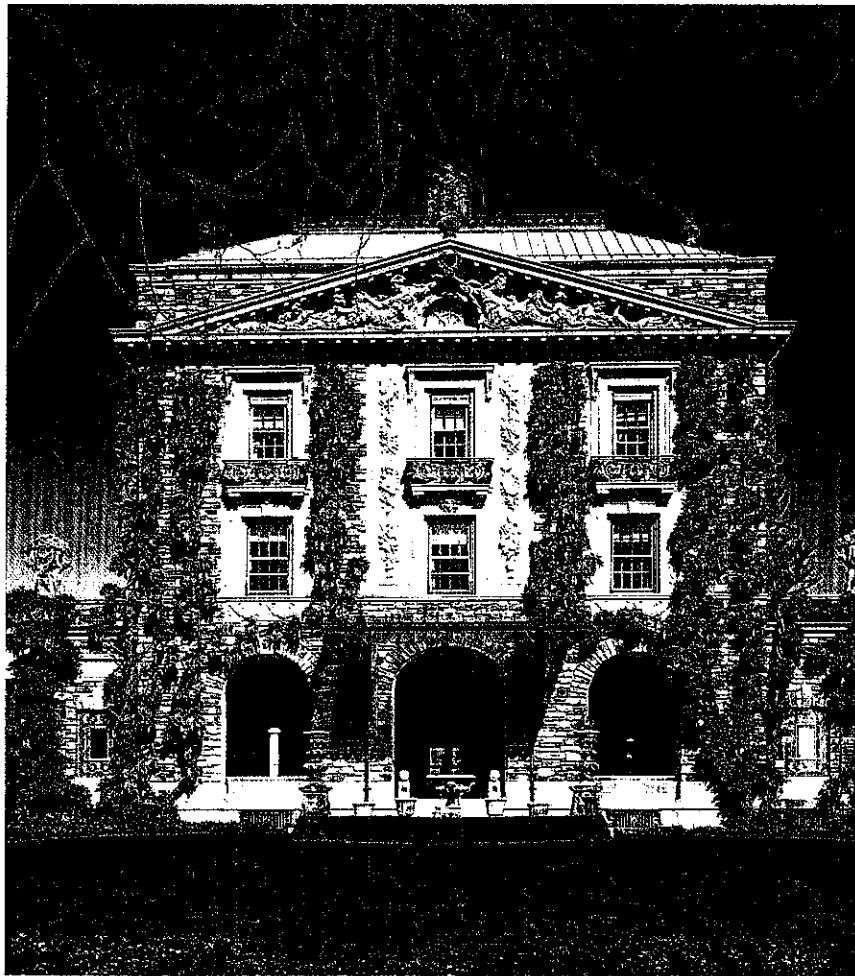
From its remarkable vantage in the Pocantico Hills above the Hudson River, the famous Rockefeller estate known as Kykuit seems too old and ornate, its classical revival walls too historic, to accommodate cutting-edge sustainable technology. Yet the National Trust historic site has taken several steps to reduce its environmental impacts, including purchasing all of its electricity from wind power, switching to fluorescent lights, and using nontoxic paints. Future plans for the site could greatly reduce energy usage and carbon emissions.

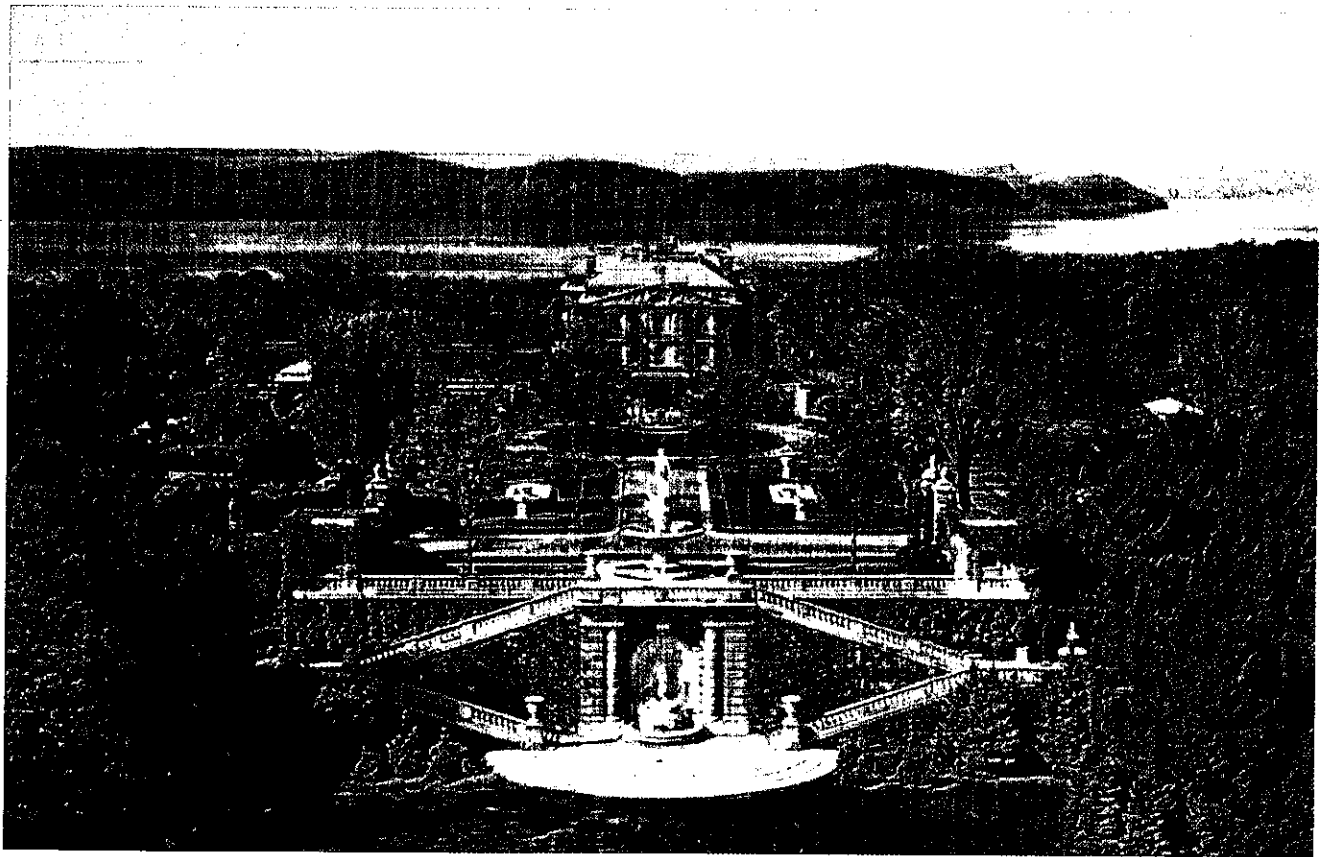
The work at Kykuit is just one part of the National Trust's far-reaching sustainability initiative, launched in 2006 to promote the environmental benefits of his-

toric preservation. The initiative specifically addresses the current boom in "green" building by emphasizing that sustainability is both intrinsic and achievable in existing structures. "Historic preservation is inherently a sustainable activity that should be widely embraced," says Trust President Richard Moe. "We now have an opportunity to make the case more clearly and more effectively, in the context of the national discussion on global warming and carbon emissions."

Last fall, scientists from the University of Arizona projected that rising seas could seriously encroach on our nation's coastlines within the next 150 years, inundating such landmarks as the Jamestown settlement and Cape Canaveral. Buildings remain a primary contributor to the accumulation of greenhouse gases that cause global warming. Studies by the U.S. Department of Energy have shown that buildings contribute up to 40 percent of carbon emissions, 30 percent of waste output, and 70 percent of electricity consumption. Yet most sustainable development is geared toward new buildings.

Through this initiative, the National Trust and its partners are advocating for the continued use and sustainable restoration of older buildings to conserve materials and energy and prevent the environmental, social, and economic impacts of demolition. The initiative concentrates on four areas: public policy, focusing on including preservation in new green legislation and building standards; research on sustainability topics, such as embodied energy; education and outreach; and finally, incorporation of more energy-efficient practices at both the Trust's headquarters and its 28 historic sites. "The prevailing perception is that green building is about new construction," says Emily Wadhams, the Trust's vice president for public policy.





Set amid terraced gardens along the Hudson River, the Trust's Kykuit has established goals for reducing energy consumption and emissions.

"But we can't build ourselves out of this crisis."

The alarm that awoke many Americans to the climate crisis can be attributed to a number of sources—Al Gore, or Hurricane Katrina, or perhaps the U.S. Green Building Council (USGBC). Since launching its Leadership in Energy and Environmental Design (LEED) program in 2000, the council has certified more than 1,000 sustainable buildings, and thousands more have been registered with the organization as a first step toward certification. The notion of sustainable design is now so commonplace that many localities have begun to offer tax breaks and other incentives to developers if they incorporate green practices into their work. More than 40,000 architects, contractors, and other consultants have taken the rigorous USGBC exam to become LEED "accredited professionals."

Until recently, however, all this occurred without thoughtful dialogue on how to apply LEED to historic build-

ings. To address the lack, the National Trust has partnered with the American Institute of Architects, the Association for Preservation Technology International, the National Park Service, the General Services Administration, and the National Conference of State Historic Preservation Officers to work with USGBC to ensure that the LEED system promotes preservation. The groups had been developing separate sustainability agendas, Wadhams says, when they recognized the gains of working together.

Following a meeting last March with USGBC, the Trust and its partners have been developing preservation recommendations to inform future LEED rating systems. The criteria will likely include acknowledgment of the durability and long life cycle of existing buildings, as well as the social and economic capital to be gained in preserving community landmarks. "The retention of existing buildings conserves the materials and the energy embodied in their construction," says Rhonda Sincavage, a

Trust public policy associate. "And in thinking about what you're conserving, we also want you to think about the impacts that you're avoiding by not demolishing your building." The Trust is also tracking federal, state, and local measures that deal with preservation and green building.

Too often, municipalities miss the (old-growth) forest for the (sustainably harvested) trees. In Los Gatos, Calif., the city planning commission recently wrangled over a plan for an energy-guzzling, 9,000-square-foot house—complete with three-car garage—that would have been built with "green" technology and materials. In Boulder, Colo., a "sustainable" contractor renovated a historic house by replacing all the original windows with supposedly more energy-efficient ones. Other examples abound. Windows are, in fact, a particular source of contention between sustainability designers and preservationists. Contrary to popular belief, replacing old windows does not always improve energy effi-

ciency and also wastes the energy and resources that went into building them—and it requires the use of new materials for their replacements. “The vast majority of heat loss in homes is through the attic or uninsulated walls, not windows,” wrote preservation economist Donovan Rypkema in a paper he presented at the Trust’s 2005 annual conference. “Properly repaired historic windows have an R factor nearly indistinguishable from new, so-called ‘weatherized’ windows.”

Having the statistics to back up such assertions is the focus of the initiative’s research component. Last fall, the Trust

measures. President Lincoln’s Cottage in northwest Washington features a LEED-certified visitors center, the first Trust site to go for USGBC certification (see article on page 26). Kykuit, administered by the Rockefeller Brothers Fund on behalf of the Trust, will implement equipment upgrades and other plans to achieve its ambitious goal of a 25 percent energy reduction within five years and a 50 percent emissions reduction by 2023. Not far away, staff at Lyndhurst, the Gothic revival mansion once owned by a succession of New York tycoons, has just formed its own sustainability committee.

models for other American landmarks.

The Trust’s National Main Street Center, which encourages downtown revitalization, has also promoted sustainability in the past year, making it the theme of its 2007 conference in Seattle. This year’s conference, beginning in late March in Philadelphia, will hold more sessions on the topic. “It’s not just green technology, it’s not just sustainable design, but you also need sustainable organizations and sustainable businesses,” says Andrea Dono, assistant editor with the Main Street Center. “Preservationists like to say that historic preservation is recycling on the grandest

“We’re also trying to get the word out for people outside the preservation world.”

convened more than 30 academics and experts to discuss research priorities related to sustainable preservation. In addition, Patrice Frey, the Trust’s new director of sustainability research, has begun to quantify the value of preserving older buildings by gathering data on such topics as embodied energy and building life cycle analysis. She will also be studying the less-tangible cultural and social implications of preservation, which are more difficult to quantify in a credit-based rating system. Over the coming year, her findings will be posted on the National Trust’s website and blog and disseminated in a variety of other venues. “Our ultimate goal,” Frey says, “is to provide tools for preservationists to make the necessary calculations to see the environmental, social, and economic impacts of their work.”

Increasingly, the National Trust is also greening up its diverse portfolio of historic sites. At its Washington, D.C., headquarters—a former luxury apartment house built in 1915—the organization has begun conservation

“I’m really glad that we made the effort to do a LEED-certified building,” says Barbara Campagna, the Graham Gund Architect of the National Trust, who also happens to be a LEED accredited professional and the president of the Association for Preservation Technology. “That adds credibility to our working with other organizations and walking the talk as far as integrating LEED into historic buildings. At a lot of our sites, staff members have been asking me what they can do to increase sustainability.” In addition to being a primary liaison with USGBC, Campagna has been revising the Trust’s best practices manual for its historic sites to include a section on sustainability, which should be completed this summer. She also sends bulletins to Trust site managers with such recommendations as changing light bulbs to compact fluorescents, switching to renewable energy sources like wind and solar, and planting native vegetation. Once these practices are implemented, Campagna hopes the Trust sites will become sustainability

scale. And revitalization is finding new uses for old buildings. We’re giving Americans reasons to live in established communities.”

This message is reaching the larger design community and the general public as well. Sustainability was a focus of several sessions at the Trust’s annual conference in the Twin Cities last fall, and Trust President Moe gave a major speech on the subject in December at the National Building Museum in Washington (see article on page 6). Trust staff also will be writing articles and editorials and presenting at sustainable design conferences throughout the year. “I’ve been pleased to see that sustainability is something many people talk about now,” Campagna says. “But I don’t think it has filtered down to all of the preservation community yet. We’re also trying to get the word out for people outside the preservation world to realize that we’ve taken this initiative and we’re at the table. Our work is just beginning.”

Kim A. O’Connell is a writer in Arlington, Va.