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SPRING 2012, VOL. 37, NO. 1, FREE

The Greenest Building is Already Built

DAAPHNE HOWLAND



The Portland Public Library's new facade reveals the original form of the 1979 building while expanding interior spaces and integrating energy efficient strategies. Led by Scott Simons Architects, the design responds to the new ways libraries serve the public.

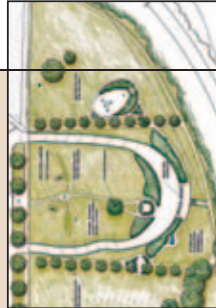
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Dear Members and Friends:

A FRIEND WHO IS AN ARCHITECT once told me that the main reason she gravitated to the profession is that she is good at problem solving. That talent – the ability to creatively and simultaneously address client goals, aesthetics, functionality, existing conditions, regulations, and budgets – is often what makes the difference between a lackluster solution and exciting architectural outcomes. This can be especially true in the adaptive use of an historic structure. Three very different buildings demonstrate the vision required to make the most of renovating and/or repurposing existing buildings: the Baxter Library (1888), the Portland Public Library (1979), and the Twitchell Champlin Building (1884-1924), also known as Cumberland Cold Storage.

When it was built, the Baxter Library was intended to be a community showcase with high ceilings, wood paneling and large reading rooms (some with fireplaces). Built on Congress Street before the advent of the automobile, the structure covers most of its site with three elements: the main building on Congress Street, a central link, and a large book storage wing at the back. The building's central stair and wide hallways, all on multiple levels, meant that a large portion of the square footage was given over to circulation and that universal access would be very challenging. Enter the architecture team: David Lloyd of Archetype, who guided the exterior work, life safety, and building core, and Scott Simons of Scott Simons Architects, who designed the interiors. They solved the access issue by locating an elevator in the former stack building, which became a three floor office space, and creating a mini-amphitheater in the central mezzanine space, which links the stack area to the Congress Street building. The contemporary interiors respect the historic architecture while providing modern office space for the VIA Agency, a marketing and advertising firm.

The Portland Public Library is an International Style building originally designed by Shepley Bulfinch Richardson & Abbott of Boston. Changes in how libraries function and a need to update and create a more welcoming interior led to the dramatic rethinking of the entrance and interior space, led by Scott Simons. The major forms of the Monument Square façade remain, while the space at the entrance is recaptured, opened up, and repurposed as a light-filled café, lobby area, and access point to the



galleries and meeting rooms, circulation desk, and library computers and stacks. Clever reinstallation of the public art, lower shelving, and skylights, distinctive lighting, and translucent panels enliven the space and solve a major challenge by clarifying where you are in the building and where to find things.

In the case of the Twitchell-Champlin Block, the building had served as a waterfront warehouse, which in recent years had been divided into multiple cubicles as part of a storage facility. Landmarks used to store its book inventory there, so we knew the blocked windows, dark halls, and maze-like configuration of the “before” picture. In 2010, Pierce Atwood sought proposals from owners and developers for a new 80,000 square foot headquarters building in the Portland area. At least five developers responded; some proposed new construction in South Portland and downtown, while others proposed adaptive reuse. Waterfront Maine, the owners of Twitchell-Champlin, invited Winton Scott Architects to develop a design proposal. Pierce Atwood loved it, and made the momentous decision to stay on the peninsula and rehabilitate the warehouse. The firm's experience with successful preservation tax credit projects at Gilman Place in Waterville and Healy Terrace in Lewiston led the developers to pursue historic preservation tax credits, which were critical to the financial model. The architects created an entrance that signals itself, yet remains mindful of the industrial character of the building, and added windows that work with the building's form and scale, while meeting preservation standards and achieving tenant-desired harbor views. This project too, required careful insertion of elevator cores and design of internal circulation. It takes advantage of the historic construction by exposing details of the timber structure, and brick surfaces while adding elements that assure functionality and flexibility for the tenants and sustainability for the building's operation.

With all three projects, the role of the architect as creative problem-solver was central to success. In addition, local contacts and connections that captured the strengths of talented individuals from the design, preservation, development, and construction fields made these projects exemplary. ■

HILARY BASSETT *Executive Director*

LANDMARKS IN THE NEWS



Safford House will use less energy thanks to a high-efficiency, state-of-the-art boiler, shown by Jason Le Shane of Wright-Ryan Construction.

Landmarks Installs New HVAC System at the Safford House

With a \$50,000 grant from the Efficiency Maine Trust, and generous grants from the Davis Family Foundation, the Fisher Foundation, individuals and trustees, Greater Portland Landmarks is installing a more energy efficient heating and cooling system at the Safford House. “The old boiler had exceeded its useful life, and was running at only 60% efficiency, and the air conditioning was either non-functional or in need of constant repair. With this new system, we can show that historic buildings can operate more sustainably,” said Landmarks executive director Hilary Bassett. Powered by natural gas, and incorporating variable refrigerant flow zoning technology, the new system will save energy and reduce operating costs. ■

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Daphne Howland, *Editor*

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Sharon Colgan, *Advertising Sales*

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93 High Street
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(207) 774-5561
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THE GREENEST BUILDING IS ALREADY BUILT

Preservation Makes Sense for Energy Efficiency

IN ITS 2010 REPORT, the city's Sustainable Portland Task Force recognized historic preservation as an important part of the city's sustainability goals, noting the energy savings that comes from building reuse and from alternatives to sprawl.

Now, the Portland city council and any policymakers who believe in retrofitting existing buildings as part of their sustainability plans have new ground to stand on. A report released in January from Seattle-based Preservation Green Lab (see below) collects an unprecedented amount of research and concludes that "building reuse almost always yields fewer environmental impacts than new construction when comparing buildings of similar size and functionality."

Katy Charette, executive director of the U.S. Green Building Council's Maine chapter, hailed the report for its comprehensive assessment.

"There's no better report at this time. Increasing energy efficiency is always a good thing, and the ability to create a net zero or a super-high-performing home may be easier when starting from nothing," she says. "But that's just energy in the home. When you take a bigger picture and do a lifetime assessment, when you're talking about carbon, as the report says, most retrofits are greener than new construction. There's no one size fits all, we have to take each building on a case by case basis. But when you have those two goals in mind -- energy efficiency and historic preservation -- they are compatible."

The environmental costs of new construction may last far longer than previously thought, according to the study, which found that while any new building could take from 10 to 80 years to overcome the initial carbon impact from construction, most take between 20 to 30 years.

Hilary Bassett, Executive Director of Greater Portland Landmarks, praised the report. "There has long been a need for a strong fact- and data-based study that explores the impact of demolition of existing structures and new construction compared to reuse of existing buildings, with an emphasis on building science," she says. "We commend the National Trust's Preservation Green Lab for this excellent report."

The advantages of density in a place like Portland are another avenue of savings not emphasized in the report. That, says local architect Nancy Barba, along with the energy efficiency potential of long-standing buildings, are important aspects of sustainability in preservation that are finally being recognized.

"There are so many things right about these buildings," Barba says of Portland's historic homes. "The neighborhoods are walkable. The thing is, the best buildings, ones that have survived and continue to thrive over a couple of hundred years, are often intrinsically sustainable."

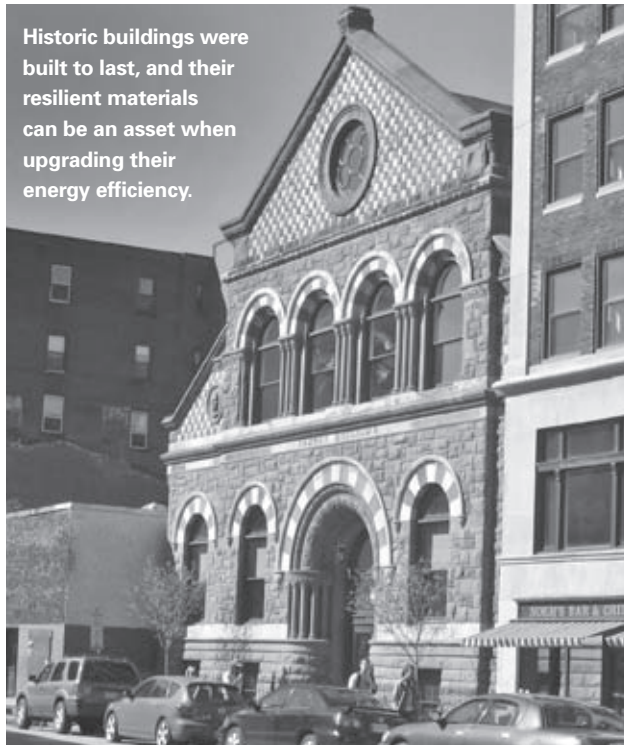
Historic Buildings: Challenges and Advantages

Taking stock of the energy efficiency potential of any building is always an exercise unique to that building.

"Every home is a balancing act," says Peter Taggart, owner of Taggart Construction, who has worked on renovations to many historic buildings, including making them energy efficient and healthy to live in. "There are so many different kinds of situations. I do believe old houses can be made to perform better and be efficient without compromising their historic character. It's important to look at the broader picture and get a holistic perspective, and to work out a master plan."

That is why Taggart and everyone interviewed for this article advised that building owners interested in compiling an energy-efficiency to-do list begin with an energy audit. These days, with energy audits in great demand, many new people have entered the business. When hiring an auditor, ask about his or her experience with older homes, with historic preservation if that applies, and ask for references. The best auditors will provide a checklist based on a comprehensive assessment of the house.

Historic buildings were built to last, and their resilient materials can be an asset when upgrading their energy efficiency.



Insulation and air sealing are two of the most important steps to take in improving a building's heating and cooling energy use, and they can be especially challenging in historic homes. An energy audit should take into account not just lowering fuel bills, but also where moisture collects in a building, Taggart says.

"Air sealing, getting windows and the whole building to be fairly airtight, we can get any existing buildings to do that in a way that is appropriate and not have a negative effect on air quality," says Fortunat Mueller, professional engineer at ReVision Energy. "The need for really professional advice is important."

While wall insulation can be difficult or impossible in an historic building because walls can't be broken into and because many types of insulation aren't reversible, attic insulation may be possible and is the most effective place for insulation, he says. Weatherization is often possible to seal leaks around windows and other spaces, Taggart adds.

Many older homes were built to "breathe," letting fresh air in easily at a time when coal was the fuel of choice, and to adjust to varying levels of moisture. "In the old days, they got wet and dried, got wet and dried," Taggart says. "People can't afford to allow that any more."

Lighting, mechanical systems, heating and cooling, and appliances are other more flexible places to invest in

energy efficiency in an older home, experts say. "There's no point in keeping a 'historic' refrigerator," says Taggart.

Old, sometimes beautiful radiators may be usable in a new high efficiency heating system. Steam systems are difficult to make efficient, but steam radiators may be able to be converted for hot water.

Existing siting is not something that can be changed, but many older buildings are already sited to take advantage of the sun's rays, Mueller says.

"For hundreds of years people understood that orienting the house to the sun made it more comfortable," he notes. "If you look at a lot of historic homes they often take advantage of the passive solar, though not in the kind of aggressive way we do now."

(For information on solar panel installations in historic homes, see Field Services, p.5).

Another advantage of many older buildings is the higher quality, more resilient materials they're made of, says Taggart. Wood from a century ago is more dense, stronger, and more resistant to insects and mold, he says.

Danuta Drozdowicz, a green building consultant, calls this the "resilience" of a building, and notes that it is the advantage of many historic structures.

"People are talking more about the ability of a building to be able to operate well, no matter how conditions change," she says. "What you're trying to do is make changes that do no harm, that are helpful, and will work for no matter who lives there. If you have an older home or an older unit, part of the reason you love it is that it has unique architectural features and you never want to let those go. The reason that older buildings are still with us is because we love them."

Gunnar Hubbard, an architect at Thornton Tomasetti/Fore Solutions, which focuses on sustainability, says the challenges of bringing meaningful energy efficiency to historic buildings need continued effort to accomplish both objectives of preservation and sustainability.

"There are some great buildings, with great bones, with great integrity and great history, nationally and locally," Hubbard says. "There's a great need to improve them, but that doesn't mean we should lower our standards. We may need to think more strategically about the approach. There may be times when the historic requirements could be relaxed. We shouldn't get too prescriptive without thinking about whole building solutions. It's hard to do a whole building analysis, but we can do that and many firms can do that. I think there's great technology now, and it will get better." ■

THE NATIONAL TRUST FOR HISTORIC PRESERVATION'S REPORT: The Greenest Building: Quantifying the Environmental Value of Building Reuse

By the Preservation Green Lab, supported by the Summit Foundation, can be downloaded at www.preservationnation.org. The following is quoted from the introductory web page to the report.

Using life cycle assessment, an internationally recognized approach to evaluating the potential environmental and human health impacts associated with products and services throughout their respective life cycles, this study compares the reuse of existing buildings to demolition and new construction. Six different building types are examined: single family; multifamily; commercial office; mixed-use (main street style); elementary school, and warehouses converted to multifamily and commercial buildings.

Notable study findings include:

- Building reuse typically yields fewer environmental impacts than new construction when comparing buildings of similar size, functionality and energy efficiency. This result was found to be true irrespective of climate – though differences in climate can affect the extent of savings
- The absolute carbon-related impact reductions can be substantial when these results are scaled across the building stock of a city.
- The study also explores how the reuse of an average

performing existing building would stack up against a new, efficient building; it's often assumed that a new, green building will rapidly compensate for any climate change impacts that occur during the construction process. The Greenest Building analysis finds that it can take 10 to 80 years for a new energy efficient building to compensate, through efficient operations, for the climate change impacts created by its construction. The study finds that the majority of building types in different climates will take between 20-30 years to overcome the initial carbon impacts from construction.

- The design of buildings matters. Those buildings that tend to use the fewest materials will have the most significant environmental savings – and in fact renovation projects that require many new materials can reduce or even negate the benefits of reuse. It's important to make sure buildings (whether new or existing) are designed to minimize material inputs – and to make sure designers have the tools needed to select materials with the best environmental profile. ■

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Panel Discussions Explore Greater Portland's Landscape

THE SERIES WILL immerse participants in historic and contemporary issues of the greater Portland landscape through case studies and rigorous discussion of specific sites and infrastructure and development projects, including new initiatives at Fort Williams Park, replacement of the Veterans and Martin's Point bridges, reconsideration of Franklin and Spring Street corridors, and development along Portland's waterfront.

"These programs are at the core of what Maine Historical Society and Greater Portland Landmarks are about: using history to help Mainers understand and engage important contemporary issues in their communities," says Maine Historical's Executive Director Richard D'Abate. "We're thrilled to be partnering on this initiative, both with Landmarks and with the presenters from the many projects represented."

Adds Greater Portland Landmarks' Executive Director Hilary Bassett, "Our goal here is to raise awareness about the complex issues that stakeholders face when we make major investments in buildings, new development, and infrastructure, and to consider how the decisions we make shape Portland."

Each program will include a moderator plus three speakers representing a variety of perspectives related to the topic, followed by discussion with the audience. All will take place at the Maine Historical Society, 489 Congress Street.

TUESDAY, MARCH 20, 7 PM

Downtown Corridors: Franklin and Spring Streets

MODERATOR: Alan Stearns, Executive Director, Royal River Conservation Trust; with Alex Jaegerman, Director of Planning, City of Portland; David Robinson, Executive Vice President, Greater Portland Landmarks; Markos Miller, Chair, Franklin Street Redesign Study

Efforts to modernize and streamline traffic flow through Portland in the 1960s and '70s disrupted neighborhoods, demolished buildings, and fundamentally altered the historic feel of parts of the city.

What are our options moving forward? Stakeholders will share ideas, discuss current initiatives, and consider what future development along Franklin and Spring Streets might look like.

TUESDAY, APRIL 24, 7 PM

Gateways to Portland: Rebuilding Veterans and Martin's Point Bridges

MODERATOR: Sally Oldham, Greater Portland Landmarks; with Joyce Taylor, Director, Project Development, Maine Department of Transportation; Patrick Costin, Martin's Point Bridge Advisory Committee; and Theo Holtwijk, Director of Long Range Planning, Town of Falmouth

Two of Portland's most important and heavily trafficked bridges – Veterans Memorial Bridge and the Martin's Point Bridge – are being rebuilt. These projects have mobilized diverse stakeholders and raise practical issues from cost to traffic efficiency, social issues like the impact on local neighbors, and conceptual issues such as the way bridge or roadway design heralds entry into a city.

TUESDAY, MAY 15, 7 PM

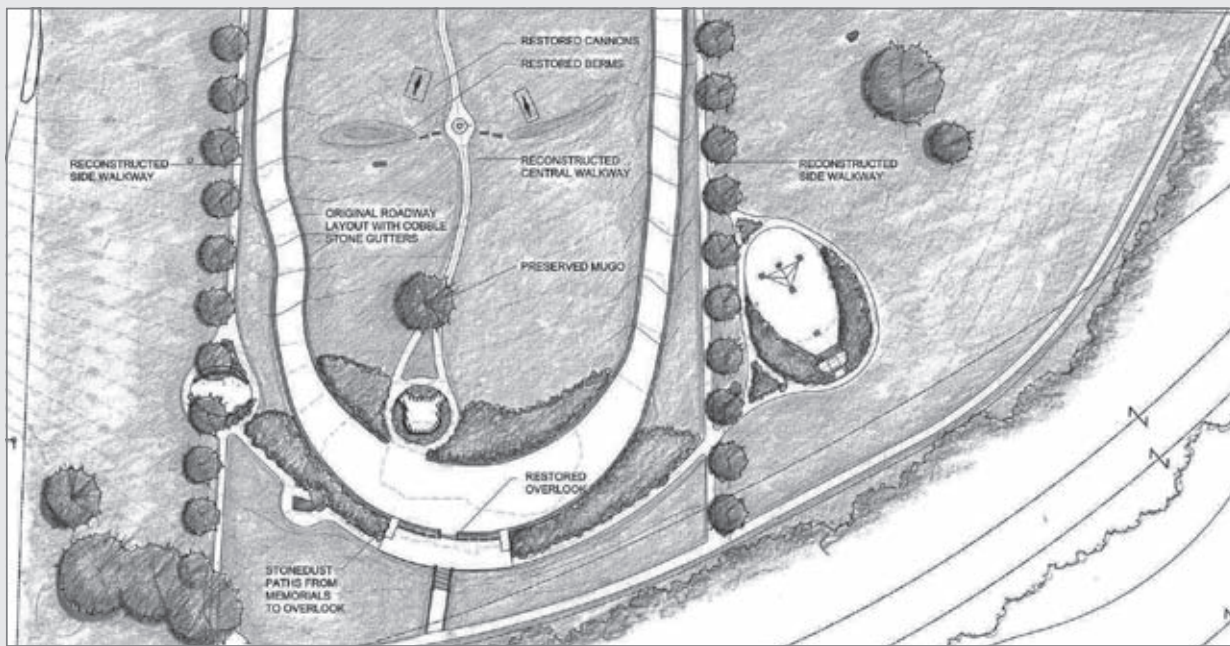
On the Waterfront: Heritage, Re-use, and Economic Development

MODERATOR: Michael Brennan, Mayor, City of Portland; with Anne Pringle, Community Leader

Development and use of the waterfront is an ongoing policy balancing act, and has significant implications for Portland's economic development, harborside landscape, identity, and heritage. Learn about the issues that the city, developers, business and property owners, fishermen and lobstermen, preservationists, and city residents face when they consider waterfront development.

Programs will explore how the approach to each of these projects reflects aesthetic principles, community values, economic realities, and the city's identity and heritage. ■

For more details please visit: www.portlandlandmarks.org



Fort Allen Park Restoration

FRIENDS OF THE Eastern Promenade is spearheading the restoration of historic Fort Allen Park back to its glory days in the early 1900s. The public is invited to view and comment on design plans for the Fort Allen Park Restoration Project at March and April meetings.

Fort Allen Park is listed on the National Register of Historic Places and recognized as a Historic Landscape by the City of Portland. The park contains the original earthen berm from Fort Allen, which was completed in 1814 to protect the entrance to Portland's harbor. The park's iconic bandstand, carriage drive, and overlook were built in the 1890s. In 1905, the renowned Olmsted Brothers landscape firm inspired a master plan for the Eastern Promenade, including Fort Allen Park.

"The intent of the project is to rehabilitate the park and restore its character by utilizing historic

landscape elements, while balancing current needs such as an ADA accessible overlook," says Diane Davison, President of Friends of the Eastern Promenade.

The final design must be approved by the Historic Preservation Board and the Planning Department. Details on the project, including the evolution of the plan, can be found at easternpromenade.org.

Fort Allen Park Public Presentation

Sponsored by Friends of the Eastern Promenade
7 pm, March 8, 2012
East End Community School, Portland

Historic Preservation Board

Final Fort Allen Park Restoration Public Hearing
7 pm, April 18, 2012
Room 209, Portland City Hall, 389 Congress Street

Solar Photo-Voltaic Installations on Historic Buildings

THROUGH RECENT ADVANCES in manufacturing technology, solar photo-voltaic (PV) systems can now generate electrical power reliably for 25-30 years. Equipment costs have fallen 70 percent since 2009 and are expected to fall further, and installation costs have remained flat or have declined slightly. The payback period on initial investment has shortened considerably from over 30 years to well under 15. Solar PV applications not only offer a supplemental energy source, but can lower building operating costs. Under certain conditions, solar PV can also generate additional operating income. Greater Portland Landmarks can provide guidance to building owners and developers of historic properties in determining if solar installations are feasible under historic preservation standards or for projects involving historic preservation tax credits.

INITIAL CONSIDERATIONS

Before undertaking any major energy-efficiency project, it is important to determine overall building performance. To optimize your future investment, you will need to calculate your average monthly energy usage in order to help properly size the capacity of a solar PV system. First, focus on your current energy expenditures and explore whether you can reduce energy use.

Identifying and prioritizing energy projects is best accomplished through an energy audit, which costs about \$450 - \$650 for the average home. When selecting an energy auditor, be certain that the individual is certified to practice in Maine and is qualified to work with historic buildings. Before considering solar applications,



This contemporary design by architect Richard Renner integrates solar panels into the rehabilitation of a former commercial building in Portland.



This solar installation on a barn in Gorham generates power for the owner's early 19th century farm. Landmarks can provide advice for homeowners considering solar photo-voltaic power in historic contexts.

you should consider thorough air-sealing, adding storm windows, and upgrading heating, ventilation and cooling equipment and controls. *The Energy Efficient Old House: A Workbook for Homeowners* (2011) published by Greater Portland Landmarks, is a useful resource. www.portlandlandmarks.org, as is the US Department of Energy's Energy Efficiency and Renewable Energy available at <http://www.energysavers.gov/>.

SITE EVALUATION

The next consideration is whether the site is suitable for a solar installation. For existing buildings you must evaluate where a solar array can be mounted, how the building is oriented to the sun, service access, and permitting. Typically, to produce one kilowatt-hour of electrical energy with current technology, between 64 and 88 square feet of collector space will be required, depending upon the panels. Site analysis should consider:

- Site latitude (43°40' for Portland, ME) and slope
- Elevation (relative to surrounding area, buildings and vegetation) and terrain characteristics
- Solar orientation (south is optimal)
- Shadows
- Tilt angle required (approximately 36° at Portland's latitude)
- "Full Sun Hours" available. For Portland, the average is 4.51 hours

Assuming favorable conditions, you can calculate the size and cost of the solar PV system based on roof surface area or site space available. As solar PV technology continues to improve, solar panel collection areas are likely to decrease.

In urban locations, because of the limitations of placement options on buildings, taller, flat-roofed buildings probably hold a competitive advantage for volume solar PV power production. If you own a flat-roofed historic commercial, industrial, or institutional building, there may be future income potential from solar installations. At least one commercial real estate company in the Portland area has already recognized the future of this market by optioning the purchase and/or lease of rooftops as sites for solar installations.

Ultimately, a study of the suitability of your site may show that solar is not the best alternative, and that another approach such as natural gas, geothermal or a high-efficiency heating system is better-suited, more cost-efficient, or has a shorter cost recovery period. ■



Christopher Closs

Preservation Services Advisor
(207) 809-9103

Providing historic preservation technical assistance, planning advice, guidance for community advocacy, field visits, and pre-assessment services

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Meet Ted Oldham

TED OLDHAM IS a volunteer for Greater Portland Landmarks and husband of recent board president Sally Oldham. He is an architect who provided Landmarks with advice on the renovation of our headquarters at Safford House. We spoke with Ted on a recent snowy day in a sun-filled room, sitting on Frank Gehry-designed chairs at his West End home. Ted's design credits include several elite hotels and residences throughout the world, most during his tenure at notable firm Skidmore, Owings and Merrill in Washington, DC. Ted and Sally moved to Portland seven years ago after several visits to their daughter and grandchildren. He sits on the city's historic preservation board and is in the midst of replicating Portland's 1924 tax assessment photographs documenting all tax-paying buildings.

Q: Why did you choose architecture?

A: I've always been interested in fixing things and building things. When I was with Skidmore, I traveled all over the world and had fabulous experiences. I liked designing hotels because they represent all aspects of human life. For every room there's an employee, particularly at a full service hotel. There is a lot of thought to the "back of house." There is a "Downton Abbey" aspect.

Q: Do you have a particular interest in historic buildings?

A: When we were first here we lived in the oldest house in the West End, the William Vaughan house from 1799. We had been living in a historic house in downtown Annapolis that we had fully renovated.

We haven't lived only in historic houses, others were older houses, we'll call them. Our house in McLean, Virginia, was built in 1941, from just the beginning of the war, right behind the CIA [Central Intelligence Agency]. It fit right in the natural topography, a very handsome little house. Unfortunately it was torn down. Which made us appreciate Annapolis and Portland for their sense of preservation. I had done a lot of preservation projects professionally, although I didn't concentrate on that.

Q: Wasn't it hard to leave that house?

A: That's what I do. It's not the product, it's the process. I don't have a problem just moving on. Change is good. That's how my life is, a variety of experiences.

Q: What do you keep?

A: A variety of things –well designed items. Sally and I started our lives in California in the 60s and we've traveled a lot over the years. We like comfortable, well designed items.

Q: You value both change and preservation?

A: We moved to Annapolis where tearing down can't happen. When I was at the University of Pennsylvania in 1965 they were still tearing down cities, urban renewal was still a hot button. When I graduated Penn in 1965 urban renewal had not petered out yet. Urban flight and suburbanization was well underway.

It was the wisdom of the day. It was a phase we had to go through. There was the introduction of the car. Fuel was exceedingly inexpensive. We are driven by our economy; we are capitalists at heart. It was fun to drive, it was the American thing to do then.

Q: And the cars – weren't they beautiful then?

A: That is a romantic view. It was just – that's what it was. We are of our times.

Q: So nostalgia is not your thing?

A: I certainly appreciate different moments in my life. But I'm happy to have a new computer, for example. I was early in our firm to learn CAD [computer-aided design] rather than drawing, although I love drawing.

I'm photographing the city and I won't use film.

Q: How did you get the job of photographing Portland?

A: I'm photographing every building in the city. In 1924 the city photographed every building for tax purposes, an effort in transparency to show people why buildings were taxed at different rates. Unfortunately no untaxed buildings, no churches, no government buildings were included. But it's a fabulous documentary of the city at the time.

I have the time, so I said I'd devote 1,000 hours, which is half a year, to photograph the city over four years. I've done 13,000 of the buildings and I have a long way to go. I do it by neighborhood because I need small victories. I have three or four neighborhoods left to do, plus the islands. There are 20,000 buildings. The city has been very helpful providing GIS [geographic information system].

Q: What is the significance of this project?

A: Personally I don't think they'll have much value until after 50 years. In the same way the 1924 one didn't start having value 'til 50 or 60 years later. Fifty years from now, we will be able to ask: What was Portland? What were our buildings? They do represent what we value, how we live.

The photography is the easy part. I allow a minute per building. I can't afford the time to go back and forth. Some days I've done 400 buildings, which is eight to 10 miles. If I do more than six or eight hours it gets tiring. I've walked the whole city, or I will have. I have a plan of each neighborhood. I chart out my path and I don't deviate.

I seldom will take a photograph of a building straight on because I want at least two sides. You're obviously intrigued by some buildings more than others, but some of the less architecturally interesting houses might have great halloween decorations. ■

The project Ted Oldham is replicating, the 1924 photographic documentation of every taxable building in Portland, is slowly being scanned by volunteers and can be accessed at www.mainmemory.net/search/ptr/. The site is searchable by address or other details. The documentation contains not only the digitized black and white photographs, but also information from tax forms of the time, including the property's use, the building's materials, and the assessed value of the time. More pages continue to be updated. Ted's current-day version of the project, which he hopes to finish photographing this spring, is not yet available to the public.



Ted Oldham

PRESERVATION UPDATES



A New Fence for the Western Cemetery

Stewards of the Western Cemetery have funded a new fence for the cemetery's Vaughan Street side that was recently installed by the city of Portland. The contemporary metal fence replaces a rusted chain link fence that has surrounded the cemetery for years. The Stewards are working to obtain more funding to complete the fence replacement.

For more information contact Anne Pringle at 774-0437.

First Parish Church to Restore its Steeple

The congregation at Portland's historic First Parish Church has hired Southgate Steeplejacks of Barre, Vermont, to restore the building's steeple. Built in 1825 in the Federal Style, First Parish is one of the most important landmarks in Portland. Stephen Jenks, president of the Church's board of Trustees, said that the steeple will be restored in two phases. First, new parts will be fabricated, and in the summer of 2012, the steeple will be removed for several months to complete the restoration. The Church is raising funds for the \$220,000 project, and is reaching out to the greater Portland community for support.

For more information contact Stephen Jenks at 772-7435.



Kotzschmar Organ to be Renovated on its 100th Anniversary

Friends of the Kotzschmar Organ are planning a complete restoration of the municipal organ, commencing immediately after its 100th anniversary celebration in August 2012. The Kotzschmar Organ was a gift to the City of Portland by publishing magnate Cyrus Curtis. Built by the Austin Organ Company of Hartford, Connecticut, it was the second largest organ in the world when it was installed in Portland City Hall Auditorium in 1912. The Friends are conducting a \$3 million fund drive to support the restoration, which will require the removal of the organ from Merrill Auditorium until 2014.

For more information, contact Kathleen Grammer at 553-4363 or kgrammer@foko.org.

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TED OLDHAM

Overhauling the heating system at the Lyman H. Nelson House (1896) meant replacing original steam radiators with similar-era hot water units.

A Real-Life Energy Efficient Old House

WHEN TED AND SALLY OLDHAM bought their John Calvin Stevens-designed home on Vaughan Street a few years ago, they decided to do a comprehensive overall of the heating, plumbing, and electrical system before moving in. Original drawings showed how the Colonial Revival Design took on some Arts and Crafts overtones. The drawings enabled them to make changes that restored elements, like windows and built-in shelves and drawers, according to the designers' intentions, while adding amenities like a master bathroom. But the energy-efficiency overhaul was a bit trickier, the Oldhams say. (Meet Ted in our Who We Are column, p.6).

"The people doing the work had a notion to blow in insulation everywhere," says Landmarks past president Sally Oldham. "But as I talked about the historic value of the house, they decided to avoid the walls and instead insulate the attic." A delightful, many-windowed porch, apparently added to the house in 1924, was insulated above the ceiling and below the floor. On a sunny winter day the room requires no heat.

"That just goes to show that it's important to have someone do the work who is sensitive to these issues," Sally says. But you first have to say: "The fabric of this historic house is important to me."

As an architect, Ted had experience with LEED (which stands for Leadership in Energy and Environment Design and is the set of standards set by the U.S. Green Building Council.) For other advice, they conducted an energy audit. Ted said they followed much of the advice contained in Landmarks', *The Energy Efficient Old House: A Workbook for Homeowners*.

In addition to measures like insulation and interior storms for the windows, the Oldhams switched the original oil-burning furnace to a high-efficiency gas boiler, with individual zones for each room. That required replacing the original steam radiators with hot-water radiators. Some rooms required more radiators than before because hot-water radiators throw less heat, says Ted.

Through salvage dealers, they were able to find radiators that fit with the home's history. "They look like they belong," Sally says. ■

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2012 Architalx: Lecture Series

Architalx will present five thought-provoking lectures featuring leaders in architecture and design. The series takes place on Thursdays, March 29 through April 26. All lectures begin at 6 pm at the Portland Museum of Art, except the March 29 lecture, which will be at USM's Hannaford Hall in Portland. Tickets are available at www.architalx.org \$8 online, \$10 at the door.



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THURSDAY, MARCH 29

(Please note location: Hannaford Hall, USM campus)

Tim Ventimiglia: Senior Associate and Project Director at Ralph Appelbaum Associates (RAA), New York, NY, and Portland native

Tim leads projects for RAA, an award-winning international interpretive planning and exhibition design firm. Tim's work includes institutional planning and development, interpretive planning, architectural and interior design and exhibition design for major institutions, including the Corning Museum of Glass in New York, the Museum of World Religions in Taiwan, and the visitor center for Grand Teton National Park in Jackson Hole, Wyoming. Tim leads the design team for Voices of Design: 25 Years of Architalx, a special exhibition at the Portland Museum of Art which will celebrate Architalx's 25th anniversary in 2013.

THURSDAY, APRIL 5

Paul Endres: Principal, endrestudio, LLP, Emeryville, CA
Paul is an architect and structural engineer and principal of an integrated design firm in the San Francisco Bay Area. Known for his expressive details, Paul focuses on delivering uses of materials and connections for municipal and residential clients. He has contributed more than 1,000 buildings throughout his career. At the core of his work is a professional and academic impulse to diminish the borders that divide architecture from the allied disciplines.

THURSDAY, APRIL 12

Stuart Wood: Senior Designer, Heatherwick Studio, London, England

In 2001, Stuart joined London-based Heatherwick Studio, a highly creative firm recognized for its work in architecture, urban infrastructure, sculpture, furniture design, and strategic thinking. As a senior designer there, Stuart has worked on award-winning projects such as the Rolling Bridge at Paddington Basin and the UK Pavilion for the 2010 Shanghai Expo. He leads the studio's craft team, which is responsible for making models, experimental pieces and prototypes. He is the project leader for design and development of the New Bus for London, which is expected to debut in time for the 2012 London Olympics.

THURSDAY, APRIL 19

Mikyong Kim: Principal and Design Director, Mikyoung Kim Design, Boston, MA

Mikyong is an award-winning international landscape architect and artist whose work focuses on merging sculptural vision with the urban landscape. Projects have designs that meld site, sculpture and sustainable initiatives. Mikyoung's international practice ranges from sculptural commissions to large-scale urban master plans. Recent work includes the Abu Dhabi Media Center, The University of Chicago Laboratory School Campus, and the Dunkin Donuts Stadium Horizon Garden in Providence, Rhode Island.

THURSDAY, APRIL 26

Bradley Samuels: Founding Partner, Situ Studio, Brooklyn, NY, a self-described "research, design, and fabrication firm."

The firm was founded in 2005 in Brooklyn, NY, while its four partners were studying architecture at Cooper Union. A core commitment to material investigation as well as research and writing allows the studio to develop flexible and multifaceted strategies to solve spatial problems. This dual emphasis enables the studio's process to oscillate between the virtual and physical realms at all stages of a project's development.

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