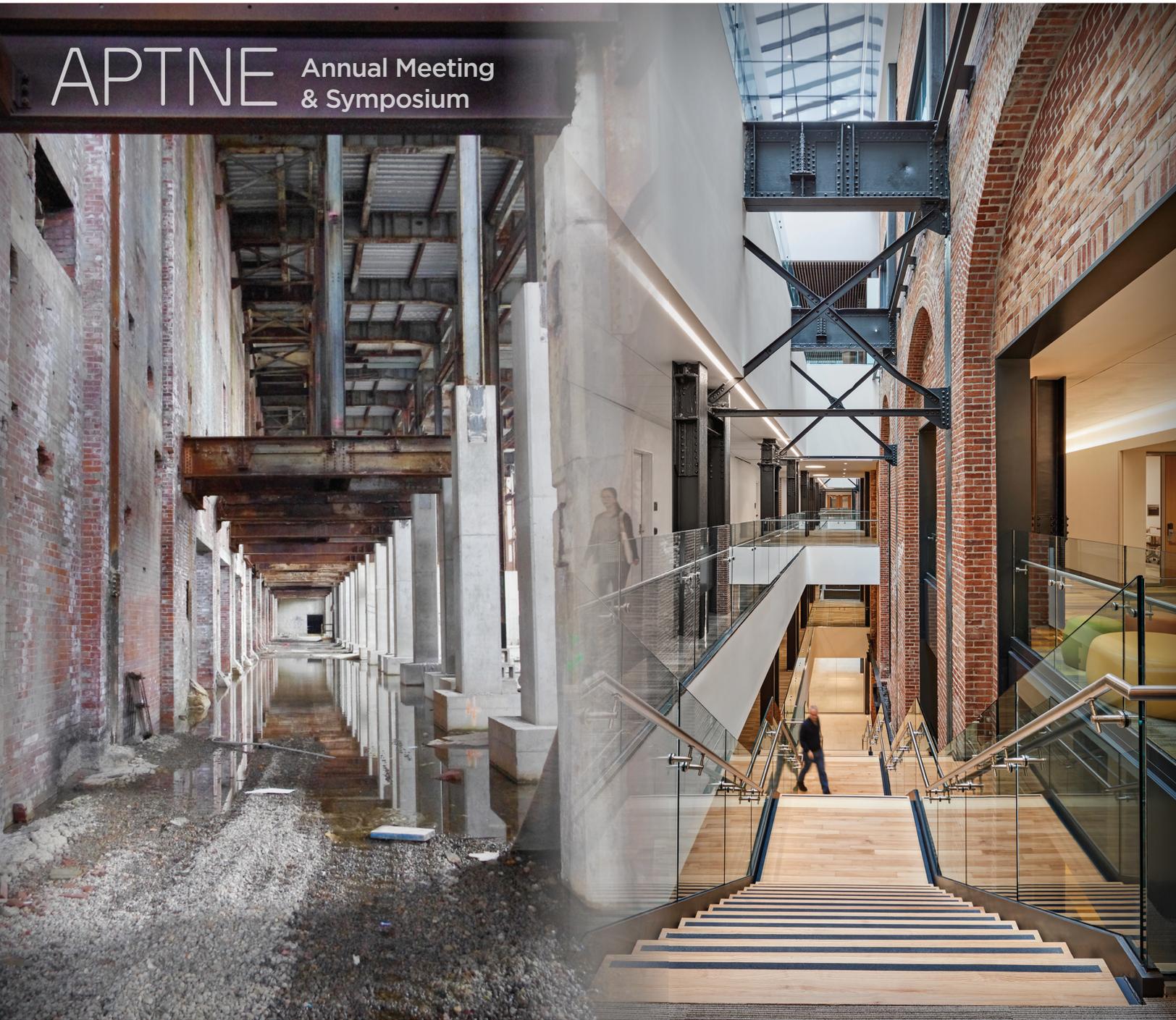




Vision:

New Uses for Old Buildings

APTNE Annual Meeting
& Symposium



February 28, 2020 | Graduate Providence, Providence, RI

Who We Are

Originally founded as the APT New York Chapter in the mid-1980s, the organization was restructured in 2003 as the **Association for Preservation Technology Northeast Chapter** (APTNE) encompassing New England, New York State, and northern New Jersey. At present, we have over 300 members.

APTNE is committed to this large geographic community with regional and local preservation events. We conduct workshops, co-sponsor events with local and statewide preservation organizations, and sponsor symposia including our annual meeting. We support preservation students by offering scholarships and outreach for student chapters. We invite you to learn more about our organization at www.aptnet.org.

We are at a crossroads in our history. In this time of limited future resources and climate change, a building reused or reinvented is often the most sustainable building option. The practice of adaptively reusing outdated structures extends far back to the past, including old Roman basilicas and temples recycled as early Christian churches. Now, as we move into the 21st Century, it becomes more critical to reuse existing buildings and to make them relevant for future generations. As stated by Carl Elefante, FAIA, FAPT, LEED AP in 2012, "The greenest building is the one already built". This year we gather to reflect on our shared experiences in adaptive reuse, both the lessons we learned and the milestones we reached, and to envision new and innovative opportunities for the renewal and revitalization of our historic structures.

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APTNE

P.O. Box 662

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New York, NY 10101

www.aptnet.org



Garrison Institute, Meditation Hall

Schedule of Events

Friday, February 28, 2020

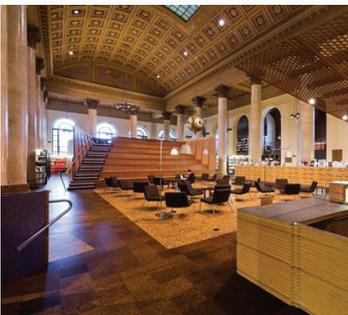
8:00 - 9:00	Registration & Breakfast	2:20 - 2:40	When Modern Devices Meet Historic Finishes: The Evaluation of Fire Alarm System Upgrades at the NYPL Michelle Dalhoff
9:00 - 9:15	Welcome Rebecca Buntrock, APTNE President	2:40 - 2:50	[Super] Structure: Bridging the Rural Digital Divide through Infrastructure Preservation and Design Innovation Anna Albrecht
9:15 - 9:45	Keynote Speaker Immortality Comes of Age: Adaptive Reuse in the Millennium Liliane Wong	2:50 - 3:00	Afternoon Q&A
9:45 - 10:15	Local Speaker Providence's Urban Renaissance: Triumphs and Struggles Rachel Robinson	3:00 - 3:20	Coffee and Refreshment Break
10:15 - 10:35	Coffee & Refreshment Break	3:20 - 3:40	The Adaptive Reuse of a Watch Hill Historic District Highlight Amy Jagaczewski
10:35 - 10:55	From Sacred to Secular: Adaptive Re-Use of Religious Structures Stephanie Hoagland	3:40 - 4:00	Extra! Extra! Read All About It! Once a Library - Now a Library! Luce Hillman and Marc Loranger
10:55 - 11:15	Transforming a Mid-Century Dormitory into a High-Performance Asset Amanda Sanders and Lori Ferriss	4:00 - 4:20	Toward A Pattern Language for Adaptive Reuse Stephen Tilly
11:15 - 11:35	Shoring Up: Resiliency at Boston's Historic Curley Community Center Kelly Haigh and Mary Upton	4:20 - 4:30	Final Q&A
11:35 - 11:55	Renewing Vitality in Downtown Elise Johnson-Schmidt	4:30 - 5:00	Chapter Highlights and Closing Remarks Rebecca Buntrock, APTNE President
11:55 - 12:05	Morning Q&A	5:00 - 7:00	Reception in Capital Ballroom
12:05 - 1:30	Lunch, Annual Board Meeting		
1:30 - 2:20	Power Transformation: How the Long-Vacant South Street Station Became an Education Hub for Rhode Island + Round Table Discussion (Moderated by Derek Trelstad) Pierson Booher, Nicholas Koulbanis, and Peining Lu		For tour information please see page 24

Immortality Comes of Age: Adaptive Reuse in the Millennium

Keynote Speaker

Liliane Wong

Adaptive reuse has been with us since time immemorial. As one of three possibilities for the life of a building – demolition, preservation, adaptive reuse – this practice was borne of economic necessity. Until recently, the reuse of existing structures was most often associated with renovation and refurbishment. As such, it has long been and still is viewed as a bread and butter staple of architectural practice, one that merits little recognition. There is no mention of adaptive reuse in the many histories of architecture. “Today, however, the practice of adaptive reuse is rich and varied and its importance includes not only the reuse of existing structures but also the reuse of materials, transformative interventions, continuation of cultural phenomena through built infrastructure, connections across the fabric of time and space, and preservation of memory – all of which result in densely woven narratives of the built environment with adaptive reuse as their tool.” Since the late 20th century, a cultural shift has taken place towards the practice of reuse. Sustainability is one of the drivers of this shift, culminating in AIA president Carl Elefante coining the phrase that, “the greenest building is one that is already built.” However, the wealth of recent reuse projects, from industrial structures to infrastructure and from jails to churches, indicates a new regard for extending the lives of buildings. Adaptive reuse has come into its own. Why and why now? ●



Fleet Library, Rhode Island School of Design

About the Keynote ...

Liliane Wong received her BA in Mathematics from Vassar College and her MArch from the Harvard University Graduate School of Design. She is Professor and Chair of the Department of Interior Architecture at the Rhode Island School of Design that focuses on architectural interventions to existing structures. Her interest and teaching in this subject led her to co-found the Int|AR Journal on Design Interventions & Adaptive Reuse that promotes creative and academic explorations of sustainable environments through exemplary works of reuse. She is the author of *Adaptive Reuse_Extending the Lives of Buildings*, co-author of *Libraries – A Design Manual*. She was recognized by Design Intelligence for 2018-2019 and 2019-2020 as one of the top 25 most admired design educators in the US.



A long-time volunteer at soup kitchens, her teaching emphasizes the importance of public engagement in architecture and design. Other teaching and research areas include design as social activism, preservation and sea level rise, the mathematics of curved space, affordable modular housing and technical textiles.

A registered architect in Massachusetts, USA, she has practiced through her own firm, Mahon Wong Associates, as well as with the Boston firms of Perry Dean Rogers and FHCM. Key projects include the American Embassy in Jordan, Montclair Public Library, Hartford Public Library, and the design of the Kore Library Furnishings Line. ●



RISD INTAR Studios
(photo courtesy of intar.risd.edu)

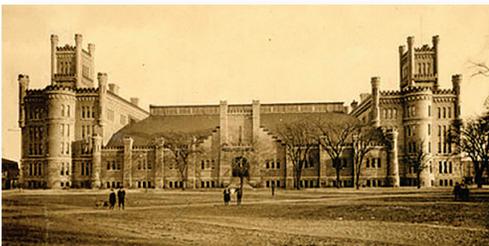
Repurposing White Elephants: Adaptive Reuse in Providence

Presented by
Rachel Robinson

In 1959, Providence architectural historian and preservationist Antoinette Downing led the groundbreaking report, *College Hill: A Demonstration Study of Historic Area Renewal*. Locally, the study led to the formation of the Historic District Commission and to the protection of College Hill through the establishment of the city's first local historic district. Nationally, the College Hill study elevated historic preservation as a tool for neighborhood revitalization in the age of urban renewal.

These efforts didn't immediately reach beyond College Hill and Providence's East Side, yet economic downturn preserved the city's downtown, outer neighborhoods, and industrial heritage sites by way of neglect. It would take several decades before the creative reuse of historic buildings ushered in Providence's urban renaissance and returned the city's preservation story to the national stage.

This talk, by Providence Preservation Society Director of Preservation Rachel Robinson, will highlight both adaptive reuse triumphs and buildings still struggling to find new use and new users in the 21st century. Projects include the nationally-recognized South Street Landing, PPS' 250-year-old Brick School House headquarters, the Cranston Street Armory, and the biggest challenge yet to come: the Art Deco Industrial Trust Building, commonly referred to as the Superman Building. Learn how the "Creative Capital" of Rhode Island is applying adaptive reuse to meet contemporary needs. ●



Cranston Street Armory
Credit: Providence Public Library

About the Presenter ...

Rachel Robinson is the director of preservation at the Providence Preservation Society. Former Executive Director of the Vieux Carré Commission Foundation and Felicity Redevelopment Inc., both in New Orleans, Robinson holds a master's degree in urban and environmental planning and certificate in historic preservation from the University of Virginia School of Architecture as well as a master's degree in historical and sustainable architecture from New York University-London. She serves on the board of the West Broadway Neighborhood Association and the New England Chapter Society of Architectural Historians, and is a member of the Providence Community Library Facilities Committee. ●



South Street Landing



Industrial Trust Building
Credit: Warren Jagger

From Sacred to Secular: Adaptive Re-Use of Religious Structures

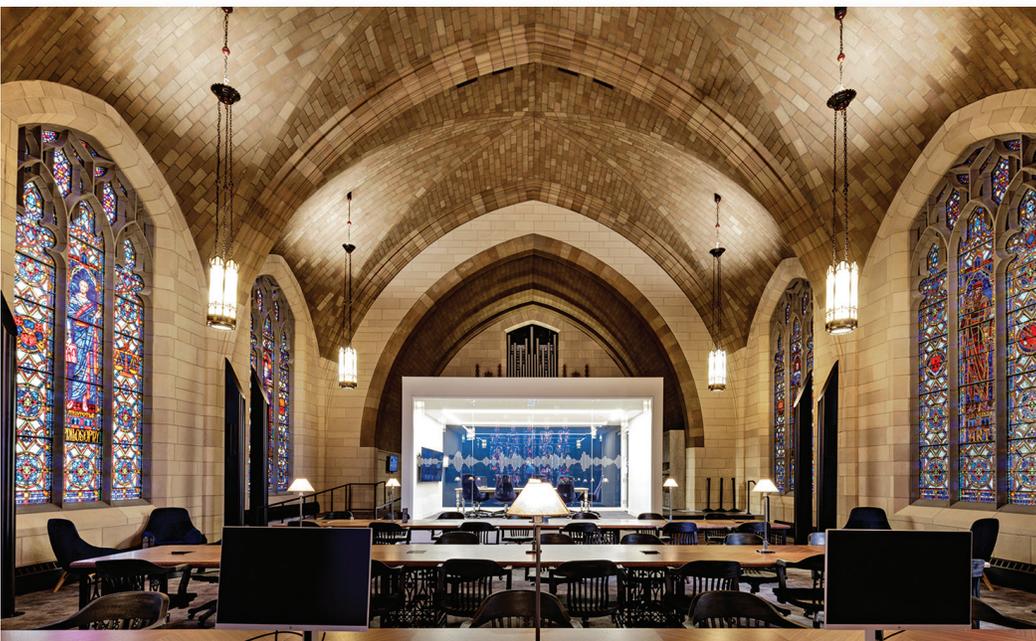
Presented by
Stephanie M. Hoagland

People around the world are becoming less religious, while others are abandoning organized religion yet retaining their spirituality. Shifting demographics in urban areas are leaving churches and cathedrals without the large congregations required to fill the pews. A number of churches in rural locations have been left vacant, open to the elements and vandals. These buildings are often beautifully constructed, historic structures which serve as landmarks for the neighborhood. They also often require substantial funds for maintenance and upkeep, which can be difficult to raise when the wealthy parishioners have died or moved away.

Although considered blasphemous by some, changes in use have allowed a number of these buildings to be preserved. It's not unusual to scroll through the Cheap Old Houses website and find an old neighborhood church converted into a luxurious home. Many larger cities have cathedrals large enough to have been

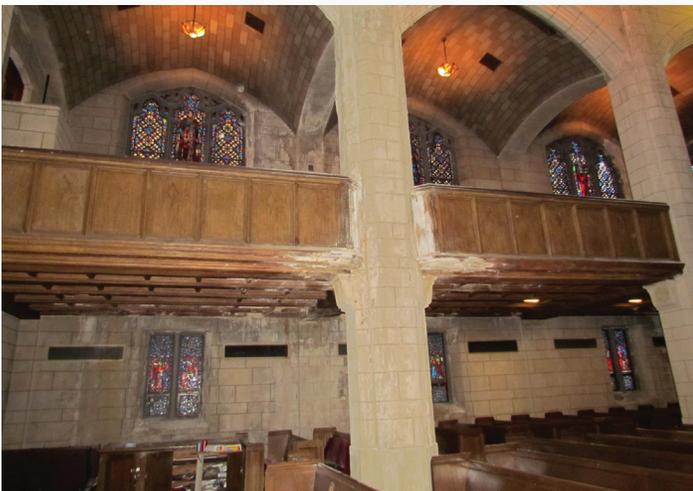
converted into a gym or spa. For the non-religious, there seems to be something poignant about the conversion of a 19th century church into a library and community center.

This presentation will look at some of the innovative ideas for adaptive re-use as a way to bring these buildings back as vital parts of their neighborhoods. It will also review some of the unique challenges of converting a religious space into secular or commercial usage, such as what to do with stained glass windows and iconography which focus on religious themes. Examples will include both a general review and a case study of 15 James Street in Newark, New Jersey, formerly known as the Second Presbyterian Church, which was recently converted into the national headquarters for Audible.com. The 15 James Complex consisted of three buildings which had been constructed at different times, in different styles, using different materials. The Sanctuary was constructed in 1932 in the Late Gothic Revival style after the previous church had been destroyed by fire. Hunter Hall consisted of the remaining three bays of the 1888 Richardsonian Romanesque church.



National Headquarters for Audible.com (formerly the Second Presbyterian Church in Newark, NJ)

Clad in brownstone, it served as a conduit between the Sanctuary and the Community Center. The five-story Community Center was constructed in 1929 of red brick with cast stone trim. The Sanctuary at the time of Audible's purchase was in poor condition with extensive areas of water damage to the faux Caen-stone walls from a leaking roof. Improper previous roof repairs at the Community Center lead to unexpected and costly repair to avoid collapse. A lack of maintenance at Hunter Hall resulted in stained glass windows on the verge of failure and in dire need of restoration. Preservation Architects, Engineers, Architectural Conservators, artists, and tradesmen worked as a team to ensure that the restoration and adaptive re-use of the former church as an "innovation cathedral" were a success. ●



The Second Presbyterian Church in Newark, NJ



The Second Presbyterian Church in Newark, NJ

About the Presenter ...

Stephanie M. Hoagland is a Principal and Architectural Conservator with Jablonski Building Conservation Inc. where she's been employed since 2003. She has a Master of Science in Historic Preservation from Columbia University. Ms. Hoagland has worked on a variety of conservation projects throughout the United States and Canada including finishes investigations, conditions assessments, and hands-on conservation treatments. She is a Recognized Professional with the Association for Preservation Technology and a Fellow of the American Institute for Conservation. ●



Transforming a Mid-Century Dormitory into a High-Performance Asset

Presented by
Amanda Sanders and
Lori Ferriss

Many college campuses are faced with a large inventory of mid-century buildings that have reached a point requiring both physical and programmatic improvements to extend their useful life. These buildings were designed at a time when energy was cheap and passive environmental controls took a back seat to new mechanical solutions, which are now outdated, inefficient, and at the end of their service life. These buildings do, however, offer the benefits of sunk carbon costs in addition to heritage value, supported by strong existing communities, which must be balanced against the environmental and preservation impacts of renovation and energy retrofit. In addition, evolving codes and zoning regulations since original construction place new constraints on the site and impact reuse potential. When weighing these considerations, campuses are faced with the decision to pursue intensive

renovations or simply start over with demolition and new construction.

This case study will look at a comprehensive renewal of a student residence hall that upgraded both the physical fabric of the building and the programmatic organization to respond to current best practices. The 1970s Sert-Jackson building was of its time: the concrete frame is expressed on the exterior, infilled with deteriorating, nearly uninsulated masonry veneer exterior walls and single-glazed aluminum windows, while undersized, inefficient systems conditioned the space. Inside, however, the building was a thriving experiment on communal living. Student communities, based on cultural affinities, not only share communal space, but utilize full kitchens to cook for each other throughout the school year.

The presentation will discuss how programmatic upgrades were implemented to reflect the evolution of student life practices, carefully in keeping with core principles of its original design. The original design created an introverted living environment. Through student engagement, the design evolved



Arcade Before



Arcade After

to accommodate much needed flexibility, cross-pollination of ideas, and more extroverted living. The new spatial organization takes advantage of the existing fenestration and views as well as the building footprint to create harmony between the programmatic requirements and the existing building features.

The presentation will also describe the physical upgrades required for current performance requirements. Extremely tight floor to floor heights and a phased-occupied renovation required creative coordination to thread new systems through the building. Additionally, envelope improvements, including insulating the walls and installing high performance windows, had to be completed without significantly altering the building's appearance. New systems in conjunction with strategic envelope improvements have resulted in an energy savings of 54% over the baseline building and a greater than 60% savings from the existing building performance. The design team also quantified the carbon savings of reusing the existing concrete structure and envelope compared to demolition and new construction. The environmental costs of envelope and systems interventions were balanced against the operational efficiency of the building over time to evaluate the life cycle environmental impacts of the renovation.

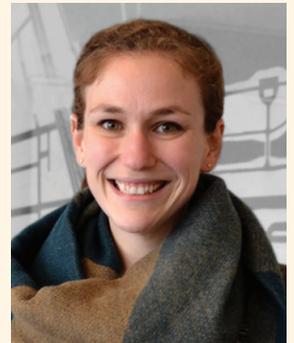
Successful reuse is about identifying what is successful about the existing building and original design principles, acknowledging existing constraints, and then creatively making strategic interventions to programmatically and physically upgrade the building. This presentation will illustrate how this process upgraded a tired, inefficient building into a residence that is loved by residents and efficient to operate for the future. ●

About the Presenters ...

Amanda Sanders is a senior associate in Goody Clancy's preservation practice. She is an exceptionally strong project manager and a gifted expert in adaptive reuse and restorations of historic buildings. An innovative and determined problem-solver, with the creativity to identify pragmatic, efficient solutions to the toughest construction and design challenges, her work focuses on weaving sustainable solutions into existing fabric to renew historic buildings for future generations. Amanda received her Bachelor of Architecture from the Iowa State University.



Lori Ferriss is an associate in Goody Clancy's preservation practice. She brings a multidisciplinary approach to her work with experience as an architect, structural engineer, and conservation consultant. Her expertise focuses on balancing cultural and environmental stewardship through the renewal of existing and historic buildings. As a leader in sustainable design technologies, she is a founding member and Co-Chair of the Zero Net Carbon Collaboration for Existing and Historic Buildings on behalf of the APTI Technical Committee on Sustainable Preservation. She received her Bachelor of Science and Master of Engineering from the Massachusetts Institute of Technology. ●



Shoring Up: Resiliency at Boston's Historic Curley Community Center

Presented by

Kelly Haigh and Mary Upton

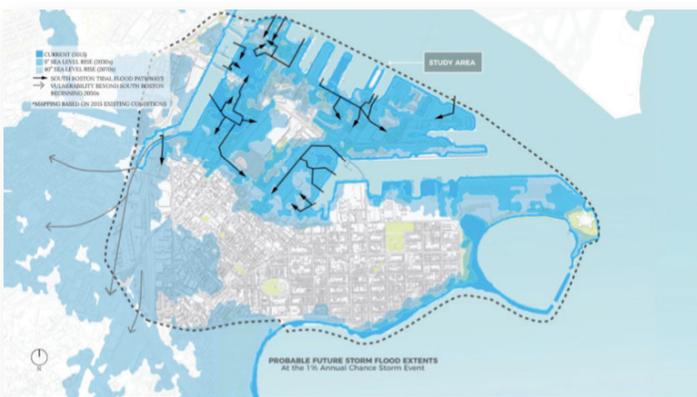
Boston is ranked 8th on the list of cities at the highest risk for flood damages worldwide due to its expansion by way of lower lying manmade landfill. Its Curley Community Center was built in 1931 as a public bathhouse on the edge of South Boston's shoreline. As a predominantly single-story brick and steel structure, it sprawls a quarter mile along Carson Beach. While the building is rich with history and well-loved by the community, its site and configuration offer unique challenges when considering the near and long term impacts of climate change. The building sits in a Flood Hazard District predicted to see a 21" rise in seawater level by the 2050's. The basement and crawl spaces consistently have standing water and are unusable. The beach itself is already experiencing erosion around walls that subdivide it.

The Curley Center operates at a threshold connecting Boston's heritage and its more resilient future. This case study will provide insights into how the design team balances this duality, and how public agencies are collaborating to develop sensitive and site-specific adaptation approaches.

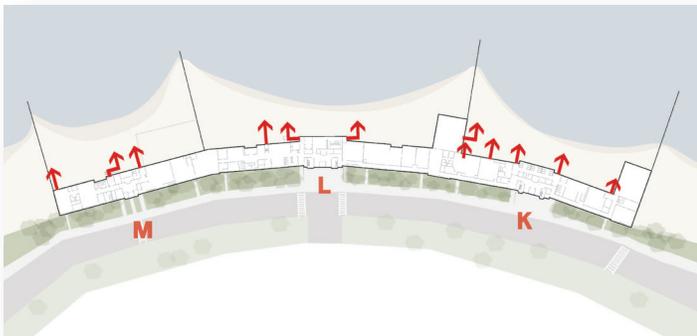
The original project scope was a modest interior renovation to a historic structure, with tired finishes and compromised building systems in need of modernization. However the conceptual design identified much greater aspirations for the structure: new uses, improved transparency, accessibility, safety, and equity, all of which were designed to support and enrich community. But underlying these lay questions of resiliency: how do we create a place for the community to gather at the beach, even as the beach is eroding by rising waters? How do we ensure this historic resource remains viable for future generations?



L Street Boathouse in Boston, MA



Probable Future Storm Flood Extents in Boston, MA



Beach Access at the Curley Center

These were questions no one person could answer. As the team considered many factors, it became clear that a collaborative charrette with all parties at the table would be the avenue for success: architects, engineers, city and state officials, users, and specialty consultants across varied disciplines assembled for a collaborative, one-day workshop to tackle difficult questions one by one. With nearly 40 participants, the team developed key parameters for constraints and target performance, which were refined into conceptual scope for estimating and prioritization.

The culminating report included a breadth of options for incorporating resilient design into the Curley Center, at large and small scales and with immediate and long term solutions. It provided a comprehensive framework for the City of Boston to assess and identify which interventions reflect the values and vision for the City, in clear and implementable goals. Beyond the study itself, this process proved the value of interdisciplinary and inter-agency collaboration for tackling the immense challenges of resiliency, especially on their most complex and beloved historic structures. ●

About the Presenters ...

Kelly Haigh, AIA, IIDA is an educator, architect, and partner at designLAB architects in Boston. She works with academic institutions designing learning environments, with a particular interest in arts and community-based design. She has also taught at numerous universities throughout New England and in her home state of Florida. She is the Leadership Co-Chair of the Boston Society of Architects' Women-In-Design Committee. In 2018, Kelly was awarded an AIA Young Architects Award, a national award which honors individuals who have made significant contributions to the profession early in their careers.



Mary Ann Upton, AIA is an architect and partner at designLAB architects in Boston, currently overseeing renovations to the Concord Museum and the transformation of the Providence Public Library. Mary Ann's practice focus is "critical stewardship" - projects which leverage historic context in a way that recognizes legacy yet is not self-conscious. She spoke at this year's National AIA Conference on the topic and the future of preservation and rehabilitation. Mary Ann earned her Bachelor of Architecture from Rice University. She brings a depth of experience to the studio from her time working in Memphis, Houston, and New York City. ●



Renewing Vitality in Downtown

Presented by
Elise Johnson-Schmidt

When the east-west highway across NYS was diverted, things looked grim for the future of Corning's downtown, which was well-known as the first downtown revitalization in America, and as the prototype for the National Trust's Main Street program. In 1996, Market Street Restoration Agency (MSRA) began advocating for developing upper floor housing, a relatively new concept at that time in the united states. After five years of effort to create an archetype for market rate housing on Market Street, the first project was completed in 2001. As part of this work, negotiations with the Dept of State's Regional Board of Review for Code Enforcement allowed the project to comply with the intent of the code. The CEO of Corning Incorporated, James R. Houghton, worked with MSRA to put on luncheons with the downtown's largest properties' owners to advocate for the importance of taking on such a project. This leant further credibility since the thought at the time was, "who would want to live downtown in Corning?"

This first project was completed in 2001, and an open house was held for the community at large to

visit the revitalized and repurposed building which went from being a dance hall in the 19th and early 20th century, to being vacant in the 1990's (like 75% of Corning's downtown). It was an instant hit when 500 people (population of ~11,000) visited the building and suddenly downtown Corning became the place for redevelopment. The State of New York funded MSRA to undertake a code study to look at the building code and to evaluate the costs for rehabbing a building that complied with code and how that code could be altered to encourage rehabilitation. The now 150+ market rate apartments (\$1.25-\$3/sf/mo) seldom have a vacancy, but most importantly, the businesses that have developed as a result of 225 new residents on Market Street, has proven its success for Corning.

The next step was to redevelop a particularly special 1920's school, three blocks from Market Street, for which MSRA found a developer to take on the project. Together they created 58 apartments, which were once again, the talk of the town, and instantly filled, in addition to the original library which they developed as 5 apartments. The 213 apartments created have utilized State and Federal Historic Preservation Tax Credits for most, and for each project undertaken by J-SA.



Market Street Apartments



Market Street Apartments

The vitality that this has garnered has resulted in people moving to Corning to retire or to begin their careers, and to be in a small community where the arts are revered, including a Civic Music Program that has been programming nationally known musical groups for 90 years; an arts organization that has been serving children and adults for over 50 years; has supported a regional orchestra that has been performing in Corning for well over 75 years; has a Smithsonian affiliate museum (the Rockwell Museum), and the world-famous Corning Museum of Glass. When the downtown was down on its heels in the 1990's, it looked like downtown was on the way to dying. Beautifully rehabilitated buildings, with currently less than 10% of the buildings having vacant upper floor space, has become a poster child for the revitalization of downtowns across NYS. A program funded by the Preservation League of NYS has allowed for revitalization by showing:

- how changes to the building code to allow for rehabilitation while preserving historic integrity encourage revitalization;
- how the NY State Historic Preservation Tax Credit (20%) in conjunction with the Federal Tax Credit (20%) helps to make a project work;
- how to analyze the financial aspects of a project to make sure that it will be successful.

This presentation will look at how adaptive reuse of these buildings have altered the vitality of downtowns and, hopefully, encourage others to do the same. ●

About the Presenter ...

Elise Johnson-Schmidt, AIA, a preservation architect from Corning, NY is a former member of the NYS Board for Historic Preservation and a founding board member of the NY Main Street Alliance. Elise was awarded the NYS Senate 2007 Woman of Distinction Award for her efforts in historic preservation. She has 35 years of experience in preservation architecture as both an architect and as former Executive Director of Market Street Restoration Agency, nationally acclaimed for its role in the downtown revitalization of Corning's Market Street since 1974.



Prior to her role at Market Street Restoration, Elise was involved in numerous restoration projects, including Grand Central Terminal & the NJ Statehouse. In addition, Elise worked for Ann Beha Associates in Boston, where she worked on Trinity Church, Harvard and numerous other architecturally significant landmarks. As State Historical Architect at the MHC, she served the public reviewing projects for SHPO for their compliance with NPS Standards.

In her experience serving the public, private & not-for-profit sectors, Elise believes that for preservation to be effective, it needs to balance idealism with realism & economic viability. Development of upper floor space in historic downtowns is a main focus of her practice, and was the impetus for the creation of market rate living space in Corning, which now has over 150 apartments on Market Street & boasts nearly a 100% occupancy rate.

Her firm is involved with this work statewide & was a co-recipient in 2012 for an award from the Preservation League of NYS for the redevelopment of upper floors on Market Street; 2014 Excellence Award from the NYS Historic Preservation Office; a 2016 Preservation League of NYS Project Award; a National Award from Preservation Action & the National Trust; and is a Jefferson Award recipient. ●

Power Transformation: How the Long-Vacant South Street Station Became an Education Hub for Rhode Island

Presented by

**Pierson Booher, Nicholas Koulbanis,
and Peining Lu**

When the South Street Station opened in 1912, its importance to Providence, Rhode Island, was clear. Located along the Providence River near the city's then-thriving Jewelry District, the redbrick Classical Revival power station was a symbol of Providence's transition into the 20th Century. From 1912-1925, the building experienced 11 development phases that substantially increased the size of the building to reflect the area's rapidly increasing energy needs. This expansion included the addition of large interiors with soaring ceilings to house massive equipment used by the Narragansett Electric Lighting Company to generate and deliver reliable electricity to the city of Providence. While the structure generally reads as a single phase of construction from the exterior, the building's seemingly continuous expansion is evident throughout; varied wall thicknesses, multiple fenestration types and countless masonry wall modifications presented both challenges and opportunities, from a design perspective.

Over the years, the complex of historic buildings that made up the power plant became less critical to the task of providing Providence's electricity, and the plant was ultimately decommissioned in 1995. Efforts to turn the complex into a museum and a larger mixed-use

development stalled in 2009 and it morphed into exactly the wrong kind of symbol. The building—sitting there, partially demolished—was an eye sore on the attempted re-vitalization of Providence's Jewelry District, a visible statement of trying and failing.

The building sat until 2013, until Boston based developer's CV Properties began assembling a plan to rehabilitate the project with three significant Rhode Island institutions: Brown University, Rhode Island College (RIC) and the University of Rhode Island (URI).

The team understood that this might be the last chance for this building. In order for the project to be a success, the building was not only going to need to secure federal, state, and local tax credits, but also insert a substantial amount of square footage into the existing cavernous shell to meet tenant program requirements and create a financially feasible project. The nearly 60,000 square foot footprint would need to be transformed into more than 265,000 square feet of adapted shared space.

Throughout the programming and conceptual stage of the project, the team spent a substantial amount of time researching the history of the building and how to celebrate it, diagramming ways to fit the program within the historic shell to optimize the functionality and flexibility of each space. The team looked at each section of the building based off a number of criteria, which included: existing window opening locations; existing column grid spacing (which differed based



Looking North at the South Street Station from across the Providence River

APTNE 20



Before



After

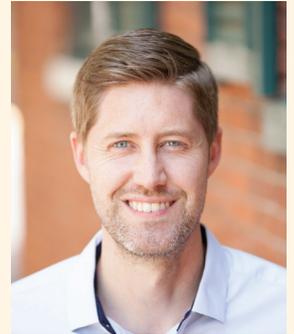
on location and era of the building); natural light conditions; ability to establish visual connections; and what floor-to-floor heights could be achieved, based off minimizing the visual impact of new floor levels on the historic exterior façade.

Through this effort, the team was able to strategically place program within the building to not only preserve and amplify the history of the building, but to create flexible 21st Century learning environments and spaces that foster collaboration between the schools sharing the building. In addition, large portions of the building were preserved in their full 70-foot-high volumetric presence and capture the true character of the structure. This includes the preservation of the 50-ton Morgan crane and reuse of one of the concrete dynamo blocks that held the turbines. Where volumes were closed off, an interior glass curtain wall provides views of the original roof trusses that extend the length of the building. New windows that match the original profiles and sight-lines help provide ample natural light and views of both the river and downtown.

Today, the site sends an entirely different message, this one about a future fueled by collaboration and innovation. The adaptive reuse of the Narragansett Electric/National Grid Power Station houses the Rhode Island Nursing Education Center—a shared state-of-the-art medical simulation and education facility for the University of Rhode Island and Rhode Island College – and administrative office space for Brown University, creating a unique public-private higher education partnership. ●

About the Presenters ...

Pierson Booher, AIA is a leader in DBVW's historic preservation practice and has served as Project Manager on several award-winning projects throughout the Northeast. During his career, he has been involved in the restoration and renovation of a number of iconic landmark buildings, helping guide the adaptation and preservation of existing buildings as a means of accommodating present and future uses.



Nick Koulbanis, Principal and Director of the Higher Education studio at SMMA. Over his 18-year career, he has specialized in the design of higher education, life science, healthcare, and commercial projects. Nick has developed a national reputation for the planning and design of highly complex and progressive projects for many leading institutions.



Prior to joining SMMA, Nick oversaw Tsoi Kobus Design's (TKD) Higher Education studio and led the design and programming of a number of projects across the country, such as the newly completed South Street Landing and Rhode Island Nursing Education Center.

Peining Lu is an Interior Designer at Tsoi Kobus Design with experience designing interior environments for educational, healthcare, proton therapy, research, and commercial projects. Peining is an idea generator and creative solution provider who brings a meticulous attention to detail and project execution. Peining employs a multi-disciplinary approach, combining her experience in architecture, fine art, and environmental graphics to deliver innovative design solutions. Peining holds a Master of Design in Interior Architecture with emphasis in adaptive reuse from the Rhode Island School of Design and a Bachelor of the Arts in Interior Design from the Glasgow School of Art. ●



When Modern Devices Meet Historic Finishes The Evaluation of Fire Alarm System Upgrades at the New York Public Library

Presented by
Michelle Dallhoff

Although modern technologies may provide upgrades for services and life-safety needs, their integration can create unique challenges in the preservation of decorative interior finishes and features in historic buildings. Unlike some other technological upgrades, fire alarm system components have strict limitations on placement, device colors, and coverage zones. Selecting the most appropriate device types and placement are important considerations not often evaluated when planning for infrastructure upgrades of historic properties. Fire alarm devices, in their short history, have come to be seen as matter-of-fact additions with little flexibility. If a conscious effort is made to evaluate planned interior modifications and needs, the following can be achieved;

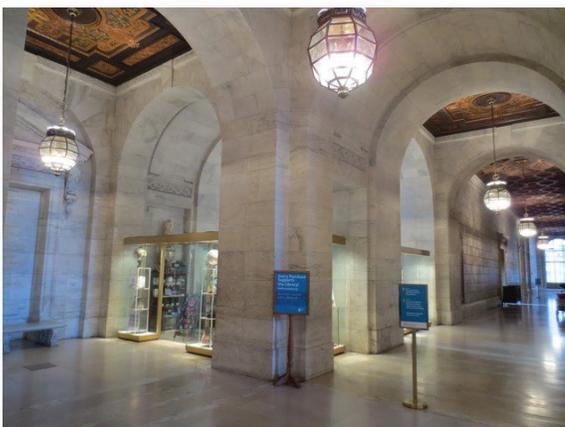
- Provide code specified system upgrades and additions
- Place devices that consider visual impact and existing rhythms
- Allow for long term restoration of existing finishes
- Provide creative modifications or additions to allow for minimal disruption of existing finishes



New York Public Library – Aerial View

Despite the necessity of these devices, there can be something architecturally limiting to the colors red, white, and black. Occasionally, just red. This is perhaps not what’s John Carrère and Thomas Hastings would have had in mind when selecting Danby marble, wood paneling, and gilded plaster ornament as part of the sumptuous interior of The New York Public Library.

Located on Fifth Avenue of New York City between 40th and 42nd Streets, the building is often referred to as the “main branch.” Designed by the architecture firm of Carrère and Hastings, the iconic marble Beaux-Arts style building first opened in May of 1911. Now known as the Stephen A. Schwarzman Building, the building serves as perennial landmark of New York City, a recognizable and beloved icon.



New York Public Library - Interior View



New York Public Library - Astor Hall

However, within the more than 600,000 square feet of interior space hidden beyond its marble exterior there are unique and ornately decorated rooms, finishes, and spatial configurations throughout.

In 2005, WJE Engineers & Architects, P.C. (WJE) was retained by The New York Public Library (NYPL) to assist in a five year campaign beginning with the investigation of exterior conditions, and preparation of repair documents, culminating in a three-year building wide restoration effort completed in 2011. Subsequently in 2014, NYPL turned to WJE to assist in investigation of the interior finishes throughout the Stephen A. Schwarzman Building.

As part of this effort, WJE produced a detailed interior finishes survey cataloging the existing finishes and conditions throughout the building. In both front of house spaces and behind the scenes, WJE staff documented existing finishes throughout the ceilings, walls, and floors along with built in furniture elements, original door and window features, grilles, and notable mechanical systems. Given the size of the building and the various space uses, finishes ranged for decorative plaster, to carved wood, to marble sometimes between three adjacent rooms.

This document proved to be a valuable reference, allowing for quick evaluation of historic fabric when interior modifications or upgrades were necessary to maintain the building's every day services. Armed with our interior finishes survey, WJE was called upon to assist in the evaluation of integration strategies for fire alarm system components. ●



New York Public Library - Astor Hall

About the Presenter ...

Michelle Dallhoff, RA is a Senior Associate at WJE Engineers & Architects P.C. in New York City. Her professional work involves investigation of distressed masonry facades, roof and window replacement, and facade condition surveys. She routinely conducts facade assessments and repair designs for historic masonry structures along with large residential and commercial towers. During her 15 years of experience at WJE, Michelle's projects include repair design, construction document development, bidding period services, and construction observation services. Michelle earned her bachelor's degree in Architecture at Northeastern University in Boston, and a Graduate Certificate in Heritage Preservation from Empire State University. Michelle is a Registered Architect in New York. ●



[Super] Structure: Bridging the Rural Digital Divide Through Infrastructural Preservation and Design Innovation

Presented by
Anna Albrecht

In 2016, the Human Rights Council at the United Nations declared internet access to be a basic human right. In rural West Virginia, 30% of residents do not have access to reliable broadband internet. This lack of access limits economic development and opportunities and contributes to the divide between rural and urban communities. That divide has resulted in, among many things, a dearth of innovative design in rural America.

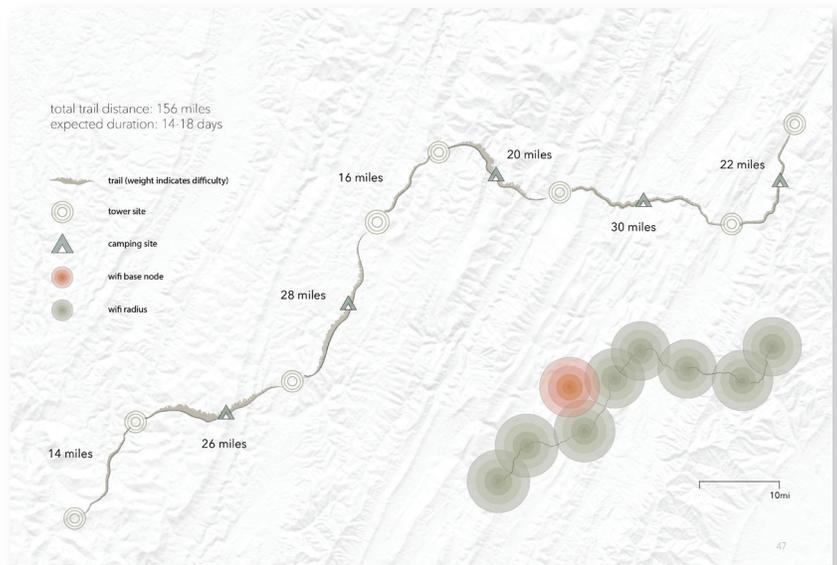
Often with technological and economic progress comes homogeneity, erasure, and environmental devastation; the latter has been endemic in the region since the Industrial Age. By reviving a network of fire lookout towers across the Allegheny Mountain range of central West Virginia as both wireless internet infrastructure and a route of trail shelters, the region will benefit from an improved level of global connection while preserving its unique relationship to the breathtaking landscape celebrated in the state slogan, “Wild and Wonderful.”

Now obsolete, these lookouts will once again serve the communities they steadfastly protected in their previous iteration. The dual program merges “white-space” wireless technology with a large-scale infrastructural undertaking, something with which this area is very familiar. Five of the eight towers were constructed by the Civilian Conservation Corps in the 1930s and 40s, as were most of the wilderness trails that surround them. Incidentally, [Super] structure’s wireless initiative (if given federal backing) would fall under a continuation of the Rural Electrification Act, another New Deal Era project that allowed the region to grow and thrive. Appalachia is in crisis — as manufacturing and extraction-based jobs disappear, and the opioid epidemic continues to spin out of control, West Virginians need infrastructure that will afford them the same access to information, telehealthcare, and economic opportunity as their fellow citizens.

As nodes generating the wifi field, the network of towers will benefit neighboring communities, mostly small unincorporated towns and remote settlements. This program alone effectively utilizes the elevation and placement of the towers, but ignores their unique spatial opportunities and their remarkable



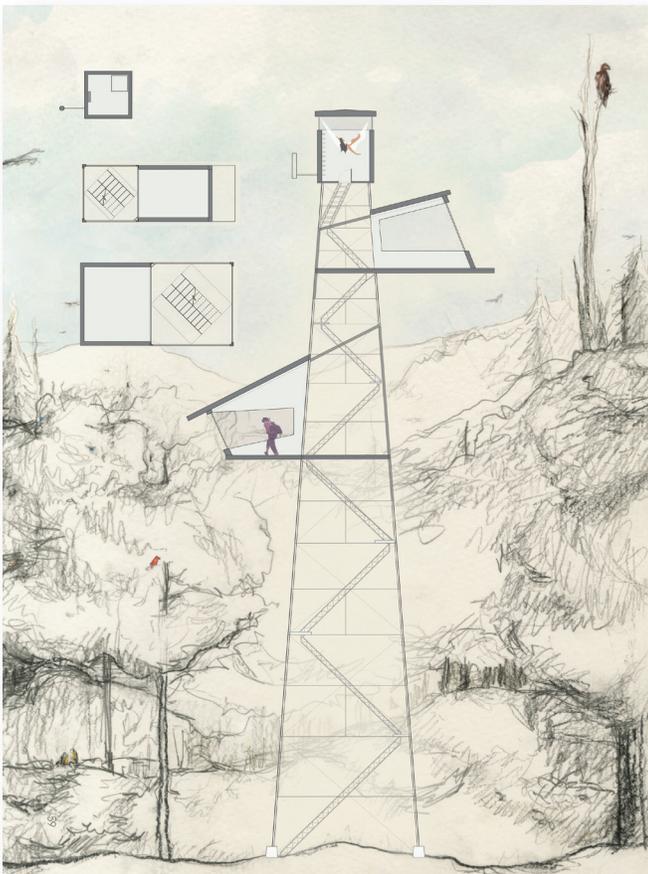
Lookout Tower



Proposed wifi coverage using tower locations

natural setting. As overnight shelters, the structures are activated and their otherworldly charms are fully realized. Connecting eight towers to each other via a 200-mile trail invites the intrepid trekker to move between these shelters-in-the-sky intentionally; the structures become both a refuge and a path of pilgrimage. The towers situate each visitor within their own personal journey: quiet spaces with a language born of the natural world, grounded by the surrounding palette of place. Those who encounter them will be locals, tourists, transient, perennial — all seeking to connect with and experience wildness.

The towers, and their preservation, embody the push and pull of progress and poetry. The network, both the tangible trail of towers and the intangible radio waves propagating between, re-frames this complex relationship within a balanced embrace of duality. [Super] structure asks whether we can hold both progress and poetry in harmony, highlighting the living tension between speeding up and slowing down. ●



Proposed renovated tower design

About the Presenter ...

Anna Albrecht is a practicing Interior Architect at Brawer & Hauptman Architects in Philadelphia. She graduated from RISD in June 2019 with a Masters of Design in Interior Studies [Adaptive Reuse] and has carried her passion for socially-conscious, class-aware design through to her



current work. She is currently working on a number of accessible, community-based healthcare projects in the Philadelphia area. She also holds a Bachelor of Arts from Oberlin College, with a dual degree in History and Fine Art Painting, and studied Painting and Printmaking at the Glasgow School of Art. Anna's practice lives at the intersection of theory, policy, and narrative, and rests on an abiding belief in the power of space. In 2018, she was the recipient of the RISD Graduate Research Grant Fellowship. Her subsequent graduate thesis work was featured in IntAR Journal vol, 10: IN BETWEEN [narrative environments]. She lives in Philadelphia, a few blocks from the Philadelphia Museum of Art (and the famous Rocky steps) with her cat and a jungle of houseplants. ●

Holdredge Garage: The Adaptive Reuse of a Watch Hill Historic District Highlight

Presented by
Amy Jagaczewski

The adaptive reuse of Holdredge Garage (c. 1885), now the Lanphear Livery, in Westerly, RI was supported by GNCB's structural engineering, geotechnical engineering, and historic preservation groups. As a prominent contributor to the Watch Hill Historic District, stabilization, and reuse of this long-neglected complex was a community priority. The project was made possible by the Rhode Island Historical Preservation and Heritage Commission which approved it for Rhode Island Historic Tax Credits 2013.

The Garage was built and enlarged in several stages in the late 19th century as a livery stable and staff housing for the Watch Hill summer hotels and cottage resorts. In the early 20th century, the building was converted from a livery to automobile storage and repair. Prior to this project, the 11-building complex suffered from decades of abandonment.

GNCB encountered numerous challenges during this project including:

- The site's location within a flood plain;



Lanphear Livery (formerly Holdredge Garage)

- The long abandonment of the complex leading to deterioration in structural elements;
- Stabilizing the structure for hurricane-level wind forces;
- The change of use associated with adapting the barn-like structure for public use; and
- Maintaining the historic integrity of a prominently-located building contributing to the Watch Hill Historic District's historic designation



Holdredge Garage - Historic Photo



Holdredge Garage



Holdredge Garage during construction

During the presentation, we will discuss the various conditions encountered during GNCB's comprehensive condition assessment of the buildings and the site's soil characteristics. We will also discuss the analysis and design related to adapting the building's antique structural systems for public use. The site's flood zone designation and lack of foundations led to a significant design decision to elevate the building two feet, thus balancing the need to reduce flood risk with the requirement to minimize the impact on the district's streetscape. The presentation will conclude with a discussion of this major component of the project outlining the criteria that led to the selection of a new helical pile foundation, the construction challenges associated with elevating a structurally compromised complex of lightly-framed buildings, and the impact of climate change on the preservation and restoration of the site.

Lanphear Livery has been transformed into a commercial and residential building. The ground floor houses three retail units and an atrium. The upper floors provide apartment housing to be rented to Watch Hill's hotels' staff. One office space was created on the second floor for the Watch Hill Conservancy. This project's construction cost approximately \$6 million and provided Watch Hill with 21,000 square feet of reclaimed space. A long-abandoned complex is once again a significant contributor to the economic prosperity of Watch Hill. ●

About the Presenter ...

Amy Jagaczewski, P.E., manages GNCB's Historic Preservation and Restoration Group. She practices in New England and New York on a variety of historic properties constructed in the 17th, 18th, 19th, and 20th centuries. Her favorite projects are the most challenging ones, taking a building many would deem unsalvageable and bringing it back to life to once again serve its community. She often describes her job as "a professional crawler-around of dirty spaces" and likes to joke that her department's slogan is "huh, that's weird." Ms. Jagaczewski holds a B.S. in Civil Engineering from Northeastern University and an M.S. in Civil Engineering from the University of Connecticut. ●



Extra! Extra! Read All About It! Once a Library – Now a Library!

Presented by

Luce Hillman and Marc Loranger

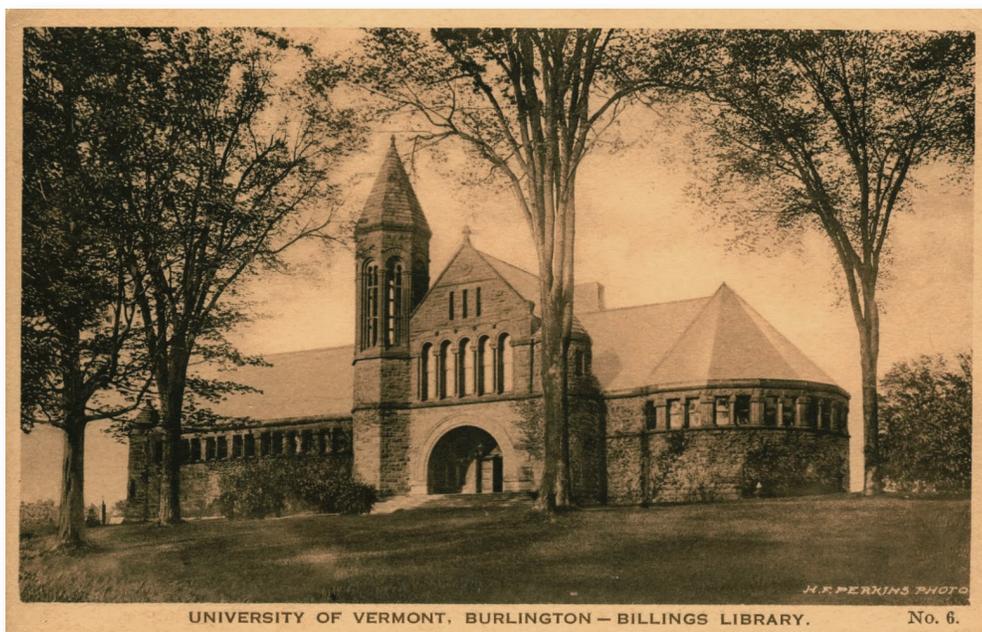
The purpose of this presentation is to describe the adaptive reuse of the University of Vermont's Billings Library. Once a library, it has been repurposed as a student center/dining hall, a general gathering place, and now has been returned to a library/special collections use. The use of this single building has evolved over time driven by the needs of the students and university. Its form can accommodate a multitude of functions, yet time has proven that its return to use as a library is perhaps best suited and as Richardson originally intended.

The University of Vermont's Billings Library, designed by HH Richardson, was constructed in 1883. The front steps and surrounding landscape were originally designed by Frederick Law Olmsted. In 1889, the library was extended to the north and to the east to accommodate more books and the Marsh lounge. As the years progressed, the need for a larger library became critical. With the construction of the new

Howe Library in 1961, Billings was then adapted for use as a student center. Again, the student center needs quickly outgrew this historic building footprint.

The building was closed between 1984 and 1986 while a large modern addition was constructed to link the Billings building with the Ira Allen Chapel, allowing for a large student dining facility, along with offices and meeting rooms for many student organizations and a large classroom auditorium that extended north of the Ira Allen Chapel. As the student population grew, the need for an updated student center became paramount.

In 2007, the Dudley Davis Student Center was constructed, moving the student center from the Billings Library to a much larger and more modern structure. Billings Library was used occasionally for gatherings, events and functions, while the dining area in the building continued to operate. However, with the construction of a new dorm and associated dining hall, the dining in Billings was decommissioned. The building sat without a primary use for approximately a decade.



Billings Library – Historic Photo

Innovative and creative ideas for building re-use to benefit the university, students and staff were explored and exhausted, until someone suggested, “what about a library?!” In 2017, the Billings Library was determined an appropriate home for the Holocaust Studies Literature and Special Collections previously stored at the Howe Library. The Richardson Romanesque building required interior and exterior renovations to meet museum-grade conditioning needs for the special collections.

Special considerations were given to areas used to protect the special collections, while maintaining the historic elements. Portions of below-grade interior walls and ceilings received retrofit insulation and vapor retarders in order to maintain the special collection temperature and humidity conditions.

To support the repurposing of Billings back into a library, mechanical, electrical, lighting, the vapor and thermal envelope, deferred masonry repairs, roofing, and window maintenance were addressed. The original wood window sashes throughout the building were removed, repaired, and reinstalled with new brass weather stripping. Deteriorated wood was replaced or repaired. New paints, stains, and exterior sealants were provided. Roof renovations included individual slate replacement, partial slate and flat-locked copper roof replacement, rejuvenation and replacement of the original built-in gutter design, stone repointing, and restoration and deconstruction and reconstruction of the stone spire. Site improvements included footing drains and foundation waterproofing at areas where water infiltration was persistent.

The project has proven to be a success. Students have returned to study in a relaxed and quiet atmosphere, events and meetings can be held in the Marsh lounge, and a new home was found for the Holocaust Studies Literature and Special Collections. Although Billings may have struggled to find its identity for nearly 60 years, the time proven design and recent updates will provide future generations the experience of the past. ●

About the Presenters ...

Luce Hillman graduated from The University of Vermont with a Civil Engineering degree and began her career as a consultant performing concrete, soil and material lab construction inspection, and testing services. She continued her career designing civil and structural engineering projects throughout New England, specializing in wood and masonry renovations of historic buildings that met code requirements while maintaining the historic fabric and integrity. As a Certified Educational Facilities Professional, and after 20 years in consulting, Luce changed career paths and transitioned to facility management duties at UVM in 2002. She currently oversees deferred maintenance renovation projects that include stone, wood, brick, and concrete structures, as well as utility systems upgrades. As Assistant Director, Luce also oversees a team of in-house professionals, as well as outsourced architects, engineers, and contractors.



Marc Loranger, P.E., LEED AP, is Senior Project Manager, Associate, and Director of Gale Associates, Inc.'s Glastonbury, CT office. Studying at Wentworth Institute in Boston, Marc was enrolled in a variety of Architecture and Construction Management courses and graduated as a Civil Engineer. He immediately began working on building enclosure evaluation, design, and construction administration projects throughout the Greater Boston area, later relocating and spearheading the Gale operations in Connecticut. Since 1999, Marc has participated in and managed numerous historic renovations, forensic analysis, and building enclosure commissioning, design, and construction projects. ●



Toward A Pattern Language for Adaptive Reuse

Presented by
Stephen Tilly

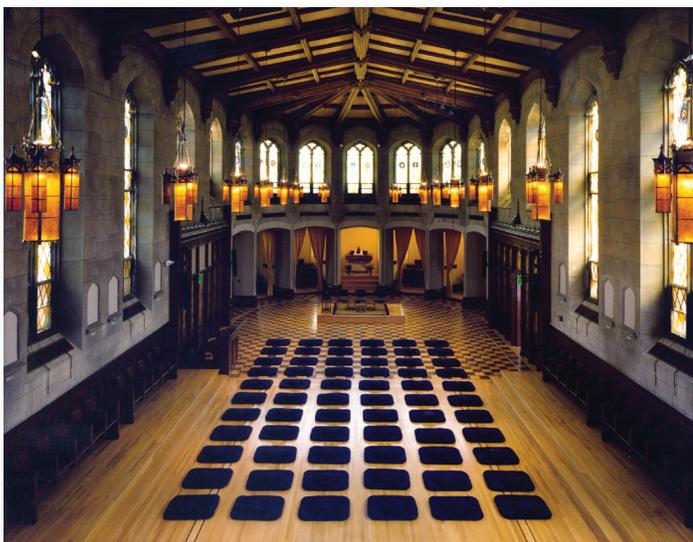
Building on the model created by Christopher Alexander and his colleagues who developed an illustrated encyclopedia of detailed patterns for the creation and modification of the built environment. The presentation will extract patterns relevant to building and site reuse from Alexander's work and will illustrate new patterns from completed projects.

Questions addressed will include:

- Are there repeated patterns that have proven successful for providing accessibility to adaptively reused old and historic buildings?
- Are there successful structural upgrade strategies that follow patterns that can be described?
- Are there patterns or rules of thumb that can lead us to adaptive reuse approaches with lower carbon footprints, in initial and recurring embodied carbon as well operating carbon?
- Are there patterns which we can apply to our investigations to help us select and enhance those existing features which most support the proposed uses and those which do not?
- Are there ways to recognize the features that may seem initially to be encumbrances but later become the salient and memorable symbols of a reuse project?
- Is there a common methodology for approaching a new adaptation, a sequence of questions to answer like those used in keying trees and plants?



Film Forum Extension, New York City



Garrison Institute, Meditation Hall



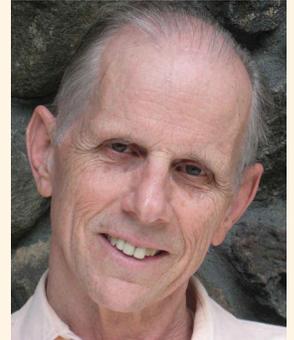
Garrison Institute, Meditation Hall



Burnham Circulation Desk

About the Presenter ...

Stephen Tilly, AIA, LEED AP, principal of the firm, graduated from M.I.T. with a Master of Architecture, following a BA (English Literature) from Grinnell College. After hands-on work as a general contractor, he did research, planning and urban design in Boston, Washington and New York. He became a



partner in Design Coalition, an adventurous design firm that helped pioneer New York's historic Soho district in the 1970s and 1980s. With Elizabeth Martin, Mr. Tilly founded a mission-based studio in Dobbs Ferry focused on delivering high end design, especially targeting socially useful projects. The work since reflects a broad range of interests including affordable housing, historic preservation, low-impact environmental design and community planning. Frequent pro bono and grant-funded projects have made him familiar with the dynamics of non-profits. He has served on local land use committees and boards and is the Chair of the Advisory Board of the National Trust for Historic Preservation's Lyndhurst Historic Site. For the National Trust for Historic Preservation and the Association for Preservation Technology, he has spoken and written on the essential connection between preservation and sustainability. ●

The presentation will draw on lessons learned and illustrations from years of adaptive reuse projects including the following conversions:

- A former prison butchery into Westchester County's homeless shelter and non-profit offices;
- A sprawling Capuchin monastery into a Buddhist retreat;
- A greenhouse factory into Irvington's public library and 22 units of affordable housing;
- A former movie theater into offices;
- A printing factory space into a four screen cinema;
- Two train stations into restaurants;
- A Norwegian children's home into a fertility clinic;
- A firehouse into a firefighting museum;
- A factory clubhouse into an environmental center.

Through recognition of patterns in the built environment and learning from our past experiences, we aim to identify important questions, propose tentative solutions, and suggest a framework for the development and refinement of useful patterns, through curated crowd-sourcing, and their possible incorporation into online tools. ●

Annual Symposium Tours

Saturday, February 29

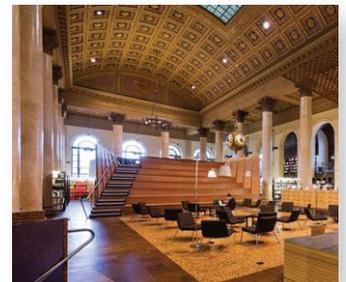
Pre-registration for tour is required as space is limited. Check with symposium registration for availability.

Tour 1: Fleet Library + RISD Architecture Studio

Time: 9:30 am – 12:00 am

Meeting Place: Outside the Fleet Library, 15 Westminster Street, Providence, RI

For the first part of the tour, Margot Nishimura, the Dean of Libraries at RISD, will lead a tour at the new location of RISD's Fleet Library. In 2006 Fleet relocated into the old bank hall of the former Hospital Trust Building (York & Sawyer 1917), as part of a significant adaptive reuse project. Then, the group will be led by APTNE 2020 Keynote Speaker Liliane Wong on a very short walk across the river to conduct a tour of the architectural studio spaces located on the main RISD campus.



Tour 2: South Street Landing

Times: 9:30 am – 10:30 am

Meeting Place: South Street Landing, 330 Eddy Street, Providence, RI

(Glass entry canopy on the north side of the building along Eddy Street)

As a follow-up to the presentation and round table of South Street Landing, Pierson Booher and the project team will be conducting a tour of the iconic site, which was originally the Narragansett Electric/National Grid Power Station. The nearly 60,000 SF footprint of power station has been transformed into 265,000 square foot of adapted shared space. This revamped site incorporates and celebrates the history of the building, optimizes functionality and flexibility, and fosters collaboration between the multiple schools that share the building. The building now houses the Rhode Island Nursing Education Center — a state-of-the-art medical simulation and education facility for the University of Rhode Island and Rhode Island College — and administrative office space for Brown University.



Tour 3: First Baptist Church in America + John Brown House Museum

Time: 9:30 am – 12:00 am

Meeting Place: First Baptist Church in America, 75 N Main Street, Providence RI

Tour Guides: (FBCiA) Dr. Joanne Schneider, (JBH) Docents

This tour will explore two of Providence's older buildings: the First Baptist Church in America and the John Brown House Museum. The Meeting House of the First Baptist Church in America was built in 1774 – 1775 and was one of the largest church structures built in colonial America, able to seat 1,200 people. Joseph Brown, architect of the meeting house, used the 1728 "A Book of Architecture" by James Gibbs. The 185 foot steeple was erected in 3 1/2 days. The John Brown House, was built in 1788, by merchant, patriot, politician, and slave trader John Brown. He and his family were some of the wealthiest and most influential people in the early days of the United States and are the namesake of Brown University. The tour of the historic mansion will discuss some of the most pressing issues of the day: slavery, the American Revolution, the China trade, and the role Rhode Island played in the history of our nation. There is a 0.4 mile walk between the two sites.



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