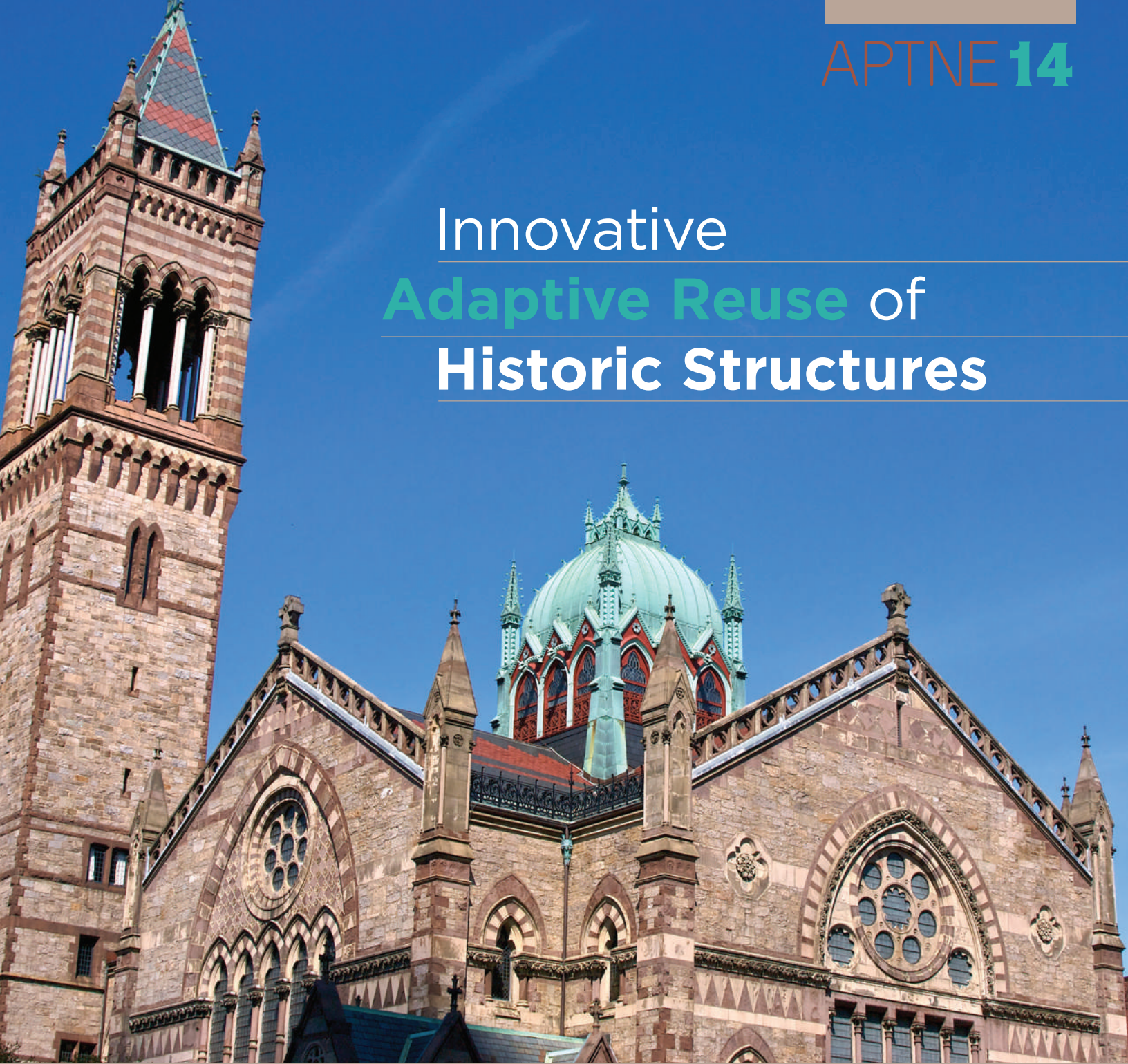


Innovative Adaptive Reuse of Historic Structures



2014

Annual Meeting and Symposium

February 7, 2014 • New Old South Church • Back Bay, Boston, MA

Association for Preservation Technology
Northeast Chapter

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 approximately 110 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.

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APTNE

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New York, NY 10101
www.aptnet.org



Schedule of Events Friday, February 7, 2014

8:30 - 9:30	Registration	1:50 - 2:10	Daunting but Doable: Reusing Historic Asylums Priya Jain & Andrea Brue, AIA
9:30 - 9:45	Welcome by President of APTNE Chris Dabek	2:10 - 2:30	From Vichy to V-8: The Conversion of a Bottling Plant to an Automobile Museum Elisabeth Bakker Johnson, Assoc. AIA
9:45 - 10:15	Keynote Speaker Robert Silman, PE, ASCE Fellow	2:30 - 3:00	Coffee and Refreshment Break
10:15 - 10:35	The Ten Commandments: Origins and Use of the Secretary of the Interior's Standards for Rehabilitation Tod Bryant	3:00 - 3:20	A Role of Adaptive Reuse: Weaving Historic Structures into Urban Neighborhoods - Lessons from Post-Disaster, Japan Student Jiewon Song
10:35 - 11:00	Coffee and Refreshment Break	3:20 - 3:40	Rehabilitation Projects Stimulate Growth within a Shrinking City: A Study of Selected Projects in Midtown Detroit Jennifer Henriksen, AIA
11:00 - 11:20	Updating Historic Buildings through Changing Codes and Technologies Lori Ferriss & Michael Auren, PE	3:40 - 4:10	Open Discussion
11:20 - 11:40	Hidden Infrastructure: Significance meets Performance at the Park Avenue Armory Brigitte Cook, AIA & Debora Machado Barros	4:10 - 4:25	Closing Remarks Chris Dabek
11:40 - 12:00	Adaptive Restoration of the Broomell Vapor Heating System at the Wagner Free Institute of Science Gerard Rauth, PE	4:25 - 4:45	Annual Meeting - Chapter Highlights
12:00 - 1:30	Lunch	5:00 - 7:00	Reception Trinity Church
1:30 - 1:50	The Granite Building: Innovative Re-use of an Abandoned Landmark Matthew Tonello, PE	Saturday February 8 10:00 - Noon	
		Trinity Church Tour	

Innovative Adaptive Reuse of Historic Structures

Speaker Abstracts

Adaptive Reuse— The Wave Of The Future

Keynote Speaker **Robert Silman CV**

Robert Silman Associates, Structural Engineers

- Adaptive reuse will represent a huge amount of future work in both historic and non-historic buildings. I urge all preservationists to broaden their outlook to include “older buildings” not just historic buildings.
- The mandate for sustainable action in designing the built environment will fuel the cause of adaptive reuse. “The most sustainable building is the one that is already built.” *Carl Elefante*
- Refer to some of the papers that will be read later in the day:
 - **Building codes:** Are they too restrictive for maximum benefit of adaptive reuse?
 - **Secretary’s guidelines:** in many situations they are impossible to adhere to, particularly structural repairs and alterations where things like reversibility cannot be guaranteed (e.g. Wingspread and Guggenheim Museum)
 - **Hidden infrastructure:** or even exposed infrastructure (e.g. Park Avenue Armory Drill Hall main HVAC ducts)
 - **Moving buildings:** (e.g. Empire Theater and Hamilton Grange)
 - **Natural Disasters causing need for adaptive reuse:** Super Storm Sandy in NYC and Farnsworth House
- Is there a loss of Aura resulting from reuse, per Walter Benjamin?
- Opportunity in down-sized cities or downsized institutions (e.g. Detroit, surplus public schools) ■

KEYNOTE SPEAKER
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About the Keynote ...

Robert Silman is President Emeritus of the structural engineering firm that he founded in 1966. With offices in New York, Washington and Boston, the 130-person firm has worked on more than 17,000 projects, half of which are new construction with the remainder being alteration, renovation, adaptive reuse and historic preservation. In the latter discipline the firm plays a leading role among structural engineers in the USA.

He has lectured widely, contributed to many journal articles and books and has taught in graduate schools of architecture at Yale, Columbia and is currently at the Harvard Graduate School of Design.

He has been recognized with awards from the AIA NY Chapter, Association for Preservation Technology International, New York Landmarks Conservancy, International Association for Bridge and Structural Engineering, Historic Districts Council of NY, New York Concrete Industry Board and the Municipal Arts Society. ■

About the Presenter ...

Tod Bryant is a principal at Heritage Resources, a historic preservation consulting firm located in Norwalk, Connecticut. He holds a Master of Arts in Historic Preservation from Goucher College, where his thesis involved an analysis of the *Secretary of the Interior's Standards for Rehabilitation* as they apply to Historic Rehabilitation Tax Credits. He meets National Park Service Standard 36CFR61, Appendix A for Architectural Historian, Historian and Historic Preservationist and is certified as an Architectural Historian by the Connecticut State Historic Preservation Office.

Heritage Resources works with homeowners, organizations, community groups, government agencies and developers who want to protect historic buildings and neighborhoods. His work includes National and State Register of Historic Places nominations, historic structure reports, Historic Resource Inventories, Historic American Buildings Survey photography and documentation, as well as Historic Rehabilitation Tax Credit consulting. He is also a cofounder and current president of the Norwalk Preservation Trust and serves on the Board of Directors of the Norwalk Historical Society and Connecticut Preservation Action. ■

The Ten Commandments: Origins and Use of the Secretary of the Interior's Standards for Rehabilitation

PRESENTED BY Tod Bryant

It has been written that “Integrity is the heart of adaptive reuse.” *The Secretary of the Interior's Standards for Rehabilitation* (the *Standards*), are among the tools used to preserve integrity in historic buildings undergoing rehabilitation. Most of us use, and sometimes are required to use, the *Standards* in our work on historic buildings. They are the constant to which we most often refer when deciding on a treatment for an individual element or an entire building. The *Standards* are intended to be understood and applied in every region of the country and, their author, W. Morton Brown III, wrote, “... to be flexible statements of sound preservation policy around which thoughtful discussion could take place between owners, developers, and local state and national preservation review boards.” The *Standards* provide the bedrock of preservation philosophy that makes adaptive use and rehabilitation of historic buildings possible without the loss of significant features or spaces.

Some of us see the *Standards* as a useful tool, while others find them to be arbitrary and a needless annoyance. Regardless of any personal feelings about them, knowledge of the origins of *Secretary of the Interior's Standards for Rehabilitation* will help in using them. I researched the origins of the *Standards* as part on my thesis for a Master of Arts in Historic Preservation at Goucher College and discovered that they are the result of more than 150 years of thought and theory about the treatment of historic buildings that are being rehabilitated for new uses. Over time, the ideas of two nineteenth-century philosophical rivals, John Ruskin and Eugene Viollet-le-Duc, have become intertwined and they have been expanded and modified to produce this set of criteria that have proven effective in tens of thousands of projects in the Historic Rehabilitation Tax Credit program and other projects over the last thirty-five years. This presentation will explore those origins and it will trace the evolution of the *Standards* from books on architectural theory in the mid-nineteenth century to The Manifesto of the Society for the Protection of Ancient Buildings of 1877, one of the first documents that attempted to provide a general method of approaching historic buildings, though early and mid-twentieth century documents to the *Standards* themselves, which were first published in 1978. The spirit and ideas of both Ruskin and Viollet-le-Duc live on in the *Standards* as they did in the documents that preceded them and they continue to influence our work today. ■

Updating Historic Buildings through Changing Codes and Technologies

PRESENTED BY

Lori Ferriss and Michael Auren

In a climate of constantly evolving building technologies and codes, the field of preservation faces the constant challenge of updating historic buildings to meet modern standards for occupancy. As buildings are upgraded for any number of reasons including occupant comfort, efficient energy performance, and changing code requirements, it is imperative to be able to effectively adapt historic structures to meet these modern needs. Through three case studies, we will see how historic structures can be reused while meeting the seismic requirements of contemporary building codes and undergoing performance upgrades such as roof insulation.

In the first case study, we will look at an existing museum building, originally built in the 1930s, which is undergoing a large-scale renovation, restoration, and addition. This scope of work triggered a full seismic upgrade within the existing building. We will explore how a new lateral system was inserted to work in tandem with the historic fabric to bring the building up to current seismic codes. →



About the Presenters ...

Lori Ferriss and **Michael Auren** are structural engineers at Robert Silman Associates. Lori has an educational background in historic architecture and building technology, and focuses on structural engineering of existing and historic buildings. Michael Auren is the director of Silman's Boston office and has over 15 years of experience of working on renovations to existing and historic buildings. ■



While seismic upgrades can be a necessity, there are cases in which thoughtful design can allow a building to meet code without any structural upgrades. The second case study looks at a large academic building from the 1930s which is undergoing a gut renovation and double height rooftop addition. By removing the massive existing concrete roof structure and penthouse, and creating a lightweight addition, we were able to reduce the loads in the historic structure overall. Through early schematic planning and careful design and detailing, we avoided any of the triggers within the building code that would require a full seismic analysis of the existing structure or a physical upgrade, both of which could have been cost prohibitive to the project.

In many cases, buildings require upgrades not for seismic forces, but for comfort and efficiency. When historic buildings which have withstood New England winters for decades or centuries are insulated, they are suddenly required to carry snow loads that they have never seen in their lifetimes. In these cases, it is critical to understand both the historical and new loads carried by the structure, as well as the properties of the historic material and how it may have changed over time. We will look at a wood roof from the 1700s that was recently insulated for a change of building occupancy. This case study illustrates how the building was analyzed to account for the wood's historic properties and increased strength due to moisture reduction over time and presents a variety of reinforcement techniques that were used to allow the majority of the historic fabric to remain intact and showcased within the space. ■

Hidden Infrastructure: Significance meets Performance at the Park Avenue Armory

PRESENTED BY

Brigitte Cook and Debora Barros

Long-term survival of architectural landmarks requires viable, sustainable upgrades. It is the responsibility of the architect to ensure that new infrastructure does not disturb historic integrity.

The Park Avenue Armory is an exemplary case. The Seventh Regiment Armory building is one of the nation's most valuable heritage assets: it is a national and city landmark and is listed in the National Register of Historic Places. This preeminent structure is in the midst of massive change that avoids compromising the significant fabric.

From the outside the Armory appears similar to many others of its type. This is deceiving. The building was built in 1877-80 to serve as the headquarters of the Seventh Regiment. Members of the Seventh, known as the "Silk Stocking" Regiment, were well-heeled gentleman. With their private funding, a truly monumental building was conceived and constructed—from the ornate interior rooms designed by premier designers of the day, including Louis Comfort Tiffany, Stanford White and the Herter Brothers, to the 55,000 square foot Drill Hall, an engineering marvel of unobstructed space unmatched in New York to this day.

Through over a century of continuous use, the Armory's unique collection of well-crafted rooms—an exquisite study in American aestheticism—survived remarkably well-preserved. More recent years, however, have found the Armory as whole sorely underused and time-worn, in serious need of repairs and basic systems upgrades. ➔

About the Presenter ...

Brigitte Cook, AIA, LEED AP is a project architect at Platt Byard Dovell White Architects and an adjunct professor at Columbia University in the Graduate School of Architecture, Preservation and Planning. Her professional work involves development, design and construction administration of institutional projects in New York City, Baltimore and California. She was responsible for navigating and completing a series of projects at the Park Avenue Armory together with a large team of consultants, which at times has reached over 15 firms. In her work as a professor she teaches students the art of digital representation for buildings and investigates technology to communicate poignant arguments about architecture that are notoriously difficult to represent. She holds a Master of Architecture degree from Columbia University and a Master of Science in Historic Preservation, from Columbia University. Ms. Cook has a Bachelor of Science in Architecture from Clemson University and is a registered architect in New York State. ➔



About the Presenter ...

Debora Barros is a project architect at Platt Byard Dovell White Architects LLP, in New York City. She received a Bachelor of Architecture from University of Brasilia, Brazil (1998), a Master Degree in historic preservation from Columbia University (2005) and a certificate in conservation of archaeological sites from the University of Florence (2011). She has worked on new residential and commercial projects in Brazil and in the United States. As a heritage consultant in England, she developed conservation plans and fulfilled an advisory role for major redevelopment projects in the Manchester City Center and in London. Over the past 8 years, Debora worked on preservation and adaptive reuse projects including the renovation of the New-York Historical Society, the restoration of the Guggenheim Museum and the renovation and restoration of the Park Avenue Armory, in New York City. ■

The mantle was picked up by Park Avenue Armory, a newly-formed non-profit with an experimental idea to bring the historic spaces back to life as a state-of-the-art venue for the arts. Under their direction, Platt Byard Dovell White Architects (PBDW) joined the team as the Executive Architect with HdM as lead designers to lead the Armory's transformation and rehabilitation.

In addition to restoring the building envelope, our role as architects is to advise, coordinate and produce many details that make up a successful project. A critical, yet under-discussed, part of this role includes spending a seemingly disproportionate amount of time piecing together the puzzle of elements that the public will never even notice—from the organization and meetings to the cables and ductwork. What distinguishes this sophisticated infrastructure is its ability to be infinitely flexible without disturbing the historic fabric.

The Park Avenue Armory adaptive reuse project is unique in its combination of technical complexity, sheer size, historic significance and intact historic elements. The way the design team has interwoven modern interventions throughout the building is revolutionary. The project is a model for other projects, as the average size and number of infrastructure systems is increased because of regulations for energy efficiency, LEED requirements, and/or demand for new technology, lighting, acoustics and other controls. And, because the Armory is being completed in sequential phases of construction and continually adapting to new innovation, it is a thinktank where new solutions to the challenges can be introduced and assessed.

This presentation will reveal the invisible design of the vast network of systems hidden above, around and below the significant spaces of the Park Avenue Armory, which will enhance both the building's performance and significance. ■

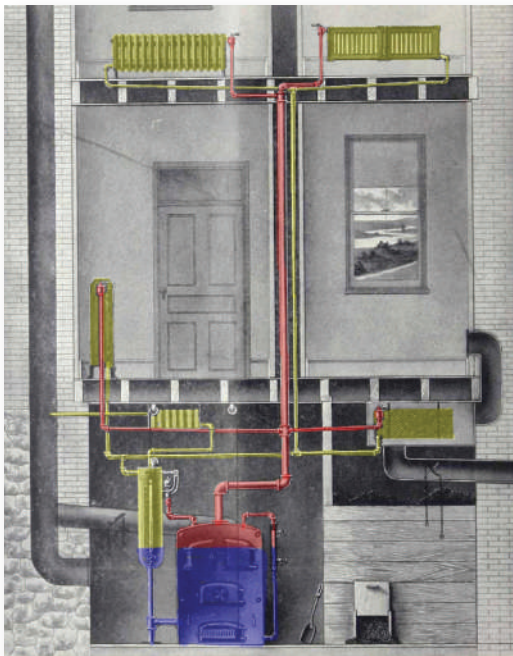


Adaptive Restoration of The Broomell Vapor Heating System at The Wagner Free Institute of Science

PRESENTED BY

Gerard J. Rauth, PE, LEED AP

During the restoration or adaptive reuse of historic buildings important architectural elements are identified with the goal of preserving them. Non-architectural elements such as heating systems are often considered “antiquated” rather than “historic” and are therefore removed with no understanding of their importance. However, many early building systems are important because they reflect the patented technology available during the building’s history. Unfortunately, the principles of operation of these early systems are not always understood and they have fallen into disrepair. Many building owners are not aware that with analysis and some modern adaptations, these early systems can often times be restored to satisfactory performance.



A popular heating system from the early 20th Century was the “vapor” system, which was designed to operate with very low pressure steam. The inventor of the first vapor system was Albert Broomell, who manufactured and sold his system components through the Vapor Heating Company. They can still be found operating today, although many are not functioning as designed because of inappropriate modifications.

This presentation will discuss the adaptive restoration of

the Broomell Vapor Heating System at the Wagner Free Institute of Science in Philadelphia, PA. The restoration was accomplished by first examining the principles of operation of the system through historic references, then designing measures that reversed many of the past incorrect modifications as well as designing modern components to improve performance and energy efficiency. ➔

About the Presenter ...

Gerard Rauth is a Principal at Landmark Facilities Group, Inc., a consulting engineering company specializing in the design of mechanical, electrical, plumbing and fire protection systems for historic buildings, museums, libraries and archives. He is a licensed professional engineer in numerous states and has over 25 years of experience as a consulting engineer.

He has contributed to Historic Structure Reports through investigation and documentation of early heating, ventilating, electrical, plumbing and fire protection systems, and has provided guidance on the preservation of early systems when they are considered important to the history of the building. ■

The presentation will have two parts:

1. The principles of operation of the Broomell Vapor Heating System will be described by using a series of images from the original catalogs and patent applications.
2. The problems that were occurring with the Wagner's heating system and how they were caused by modifications that did not apply the vapor system principles of operation will be discussed, along with the corrective measures that were designed to improve the performance and efficiency of the system. Before and after photographs will be used to illustrate the discussion. ■

About the Presenter ...

Matthew Tonello, P.E. LEED

AP, is Area Manager of Consigli Construction Co., Inc.'s Portland, Maine office and the company's key manager for landmark restorations, specializing in renovation, addition and restoration work for academic, corporate and federal projects throughout New England.

Matt received his Bachelor of Science in Civil Engineering from University of Maine, his Masters of Science in Structural Engineering from University of Massachusetts-Lowell, and his Masters of Business Administration from Boston University Graduate School of Management.

A frequent speaker at industry conferences for the Association of Preservation Technologies on a variety of topics, Matt has also contributed his expertise in sustainable building solutions and historic restoration for *Environmental Design and Construction* magazine and *Traditional Building* magazine. ■

The Granite Building: Innovative Re-use of an Abandoned Landmark

PRESENTED BY Matthew Tonello

The Granite Building was constructed in the center of Milford, Massachusetts as the parochial school for St. Mary's of the Assumption Church in 1896. The colonial revival building was designed by local architect Robert Allen Cook and was constructed of locally quarried Milford Pink Granite. The building served as the parochial school for several decades and was eventually transferred to the Town of Milford to serve as the second middle school for the town. After suffering a destructive fire in 1985, the building was abandoned.

In 2002, the town hired a consulting firm to complete a feasibility study of the building and it was determined that the only cost effective solution to the eye sore (located in the center of town) would be demolition. Shortly after this report was issued, Preservation Massachusetts placed

"The Granite Building" on their list of the Most Endangered Historic Resources. Consigli Construction had been considering a new office space at this time and so they approached the Town of Milford with plans to relocate the entire Granite Building to another location (approximately one mile down the road) and was determined to reconstruct the most significant building elements for their new corporate offices; most notably the granite veneer. The proposal was approved by the Town of Milford and in January of 2005 the building relocation process was initiated. After a total of 16 months of removal →

and reconstruction, the Granite Building was reopened in June of 2006 as Consigli Construction's new corporate headquarters.

The Granite Building presentation will showcase the architectural and structural design considerations of relocating a historic structure along with the complexities associated with documenting, deconstructing, relocating, and reconstructing a suffering landmark. The team will detail:

- Building documentation techniques utilized to document building's 2,500 granite stones and original rafter and truss system; including laser scanning, surveying and cataloging critical building elements for reconstruction
- Challenges of recreating granite façade and historic roof construction while meeting modern building code and seismic requirements.
- Utilizing salvaged materials from the original building (such as the Monson Slate Roof) along with other salvaged buildings (such as the demolished BC High School's floor joists) to achieve a historically accurate interior.
- Mixing modern materials with historic elements; mixing wood floor and roof framing with a steel super frame
- Architectural and structural challenges of Integrating a new modern addition into the original building structure
- Melding historic with sustainable design by incorporating energy efficiency and renewable technologies—computer modeling was used to evaluate energy performance and cost impacts, as well as photometric analysis to calculate exterior and interior lighting levels.

This presentation will be informative for architects, engineers, subcontractors/trades, conservators, and owners who want to learn more about relocating and restoring a historic structure for adaptive reuse. Attendees will learn the details of documenting stone, using advanced technology, and melding historic construction with sustainable design. It will marry these details with everchanging building codes and community motivated projects by showing how demolition is not the only recourse—creativity, pride and a culture of preservation can benefit both a municipality and the private sector. ■



About the Presenters ...

Andrea Brue, AIA, LEED BD+C, an Associate at Goody Clancy with over 25 years of experience, specializes in the design and adaptive reuse of complex, multi-phased historic projects for both private and public-sector clients. Recent projects include a renovation project at the University of Virginia and the adaptive reuse of two historic state asylum complexes—St. Elizabeths campus for the Department of Homeland Security Headquarters in Washington DC as well as the Waterbury State Office Complex in Vermont. Her experience in adapting historic buildings for the twenty-first century has been driven by a respect for the past balanced with modern necessities.

Priya Jain, LEED BD+C, Preservation Designer, Goody Clancy. Priya Jain's experience as a preservation planner, architectural designer and architectural historian includes over eight years work in all phases of the design and construction process including investigation, repairs, and redesign of a variety of historic buildings ranging in age and size. Recent work includes serving as Project Manager evaluating and designing the restoration needs of the House Chamber at the Massachusetts State House, serving as Project Designer for the West Wall Restoration at Trinity Church in Boston, and managing the on-going delicate restoration of exterior mosaics at the Tiffany designed Ayer Mansion—a project funded by Save America's Treasures Grant. She has presented her work at APTI, the BSA Historic Resources Committee and the Association for Historic Landscape Preservation (AHLPP). ■

Daunting but Doable: Reusing Historic Asylums

PRESENTED BY

Andrea Brue, AIA LEED BD+C and Priya Jain, LEED BD+C

Adapting defunct historic structures to modern uses is almost always a versatile challenge. However, when the historic structures in question are colossal, public-owned institutions with a difficult past, there is an emphasized need for innovative and resilient solutions. The American landscape is dotted with so-called 'insane-asylums' from the nineteenth century. Changes in our approach to mental health in the last forty years have led to mass abandonment of these facilities that once housed thousands of people. Built with durable materials, sustainable design principles and surrounded by scenic grounds, these institutions are looking for a new lease on life. In our work at Goody Clancy, we have worked on adapting three such facilities over the last five years—the Buffalo Psychiatric Hospital is being reused as a boutique hotel and convention center, while St. Elizabeths Hospital in Washington DC and the Vermont State Hospital are being reconfigured as state-of-the-art government office complexes.

Each project has its share of common and unique challenges that range from inflexible narrow building footprints, requirements for life safety and accessibility codes, preservation of historic fabric, tight public funding, enhanced security requirements and the need to protect vulnerable sites/buildings from natural disasters. Drawing upon our work on all three projects, and using the Vermont State Hospital in Waterbury as a case study, our presentation will provide a thorough account of the issues encountered and the solutions that were sought. ➔



These challenges fall roughly into the following four categories:

1. Reconfiguring an ‘asylum ward’:
 - a. Long narrow floor plans with small cells (patient rooms)—difficult for circulation, great for daylight/ views
 - b. Odd building shapes—opportunities for unique program uses
2. Building conditions:
 - a. Hazardous material abatement vs. retention of historic features
 - b. Flood-proofing site and buildings at the twice ravaged Waterbury campus (most recently in Tropical Storm Irene 2011)
 - c. Stability of structure and finish materials
3. Conversion to modern office space
 - a. Creating flexible open work space—efficiency of work area vs private work space
 - b. Floor to floor heights—creative solutions to upgrade MEP systems
 - c. Bringing up to code—energy, life safety, accessibility
4. Managing stakeholder expectations
 - a. Public agency client with budget and maintenance limitations,
 - b. Tenant agency and user group expectations,
 - c. State and Federal historic preservation requirements

Unfortunately, many similar nineteenth century hospitals have been demolished in the last decade or are on the brink of being lost. They are often seen as ‘white elephants’ in their community and deemed too difficult to reuse. We hope that sharing our lessons with the wider preservation community will further reuse of similar structures and large institutional projects in general. ■



About the Presenter ...

Elisabeth Bakker Johnson works as Assistant Architect at the NYS Office of General Services and previously served as Historic Site Restoration Coordinator with the NYS Office of Parks, Recreation, and Historic Preservation. She has a Masters of Architecture from SUNY Buffalo and a Masters of Science in Building Conservation from Rensselaer Polytechnic Institute. She has published several articles, some of which can be found in the *Encyclopedia of 20th-Century Architecture*, where she has five entries related to Dutch architecture. Elisabeth was most recently Vice-President of APTNE. ■

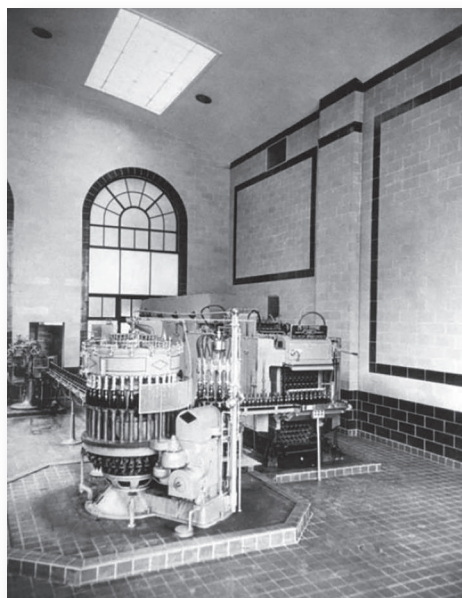
From Vichy to V-8: The Conversion of a Bottling Plant to an Automobile Museum

PRESENTED BY

Elisabeth Bakker Johnson

Saratoga Spa State Park (Spa Park) in Saratoga Springs, NY, is listed on the National Register of Historic Places and as a National Historic Landmark. The mineral springs of Saratoga were a primary factor in the nineteenth-century development of the city as an elegant Victorian-era resort center, which attracted tens of thousands of visits annually. The centuries-old affinity to “Take the Waters” or “Take the Cure” had earned Saratoga a celebrated reputation among the loyal. By the end of the century, however, the springs were so heavily exploited as a source for carbonic gas that the water table, the water quality, and ultimately the economy of Saratoga were threatened.

In 1909, the New York State legislature responded by establishing the State Reservation to conserve and develop the springs for public benefit. Twenty years later, under the administration of Governor Franklin Delano Roosevelt, the state embarked on the expansive building campaign designed to develop “a state health resort and spa for use by the public for balneological, therapeutic, and other similar healthful purposes.” Between 1931 and 1935, a major spa complex was constructed, among which included a Bottling Plant that bottled the valuable mineral water for distribution for more than half a century. →



With a shift of health practices away from “taking the cure”; New York State’s elimination of its annual appropriation to Saratoga Spa State Park in 1960, thereby requiring it to “pay its own way”; the loss of several members of the in-house medical and scientific team; and, finally, the emerging automobile age that created a societal movement toward new travel opportunities and away from those of the past, a downward spiral of underuse to disuse accelerated. Many buildings closed their doors and the Bottling Plant ceased operation in 1970, remaining vacant, slowly deteriorating for the next 30 years.

To survive this desperate time, it became imperative for Saratoga Spa State Park to acquire new tenants and/or uses to fill the voids. One of these new uses, completed in 2002, was a five million dollar renovation of the long vacant Bottling Plant into the Saratoga Automobile Museum, which now attracts 50,000 annual visitors. The open floor plan that once housed the large bottling tanks was ideal for the display of up to 50 cars at any one time but the building’s second story presented an exhibit challenge and ultimately required a major automobile elevator addition. Also, conflicts between tenant requirements, site constraints and the need for public access necessitated the relocation of one of the celebrated mineral lines.

“... our educational focus is on the past, present and future social and economic impact of the automobile” states the Museum’s mission statement. As atonement for originally contributing to Spa Park’s demise, the automobile returns as an antidote that once again draws the public to the Spa.

The presentation will provide an analysis of the necessary adaptations for the building’s conversion; building, site, and political challenges during both design and construction; and a 12-year post-mortem of lessons learned on the successes and failures of the adaptive re-use. ■

About the Presenter ...

Jiewon Song is a cultural heritage specialist, currently pursuing her PhD at the University of Tokyo, Japan. Prior to moving to Tokyo, she earned her master's degrees in Cultural Heritage Studies from University College London, UK and Historic Preservation from Columbia University, USA. Since then, she has been working in cultural heritage consultancy in Japan, Korea, Mongolia, Morocco, Nepal, UK and USA. Her research interests involve adaptive reuse, cultural heritage conservation, urban regeneration and socio-cultural sustainability. ■

A Role of Adaptive Reuse: Weaving Historic Structures into Urban Neighborhoods—Lessons from Post-Disaster, Japan

PRESENTED BY
Jiewon Song, Student

Cities are subject to constant change and exposed to increasing economic and environmental challenges, such as ever more frequent global economic crises and natural disasters. These two factors seem to lead urban authorities more and more to demand tech-oriented economic development. In this way, they believe that cities can become more resilient and sustainable, and attract investors on a global stage.

Recently, the forum “Innovative City: designing life for future” was held in Tokyo. Public officers, developers as well as culture experts from major Asian cities tried to impress audiences with their ambitious ideas for urban regeneration. During the forum, the notion of ‘innovation’ was used synonymously with ‘arts’ and ‘technologies’. The vast majority presenters introduced state-led and large-scale projects, designed by star architects and developed with big corporations. Besides different geographical locations, one could hardly identify distinctive features among these technology-centered projects. The equally important social and cultural dimensions such as community cohesion and identity were completely absent from the debate. As Sharon Zukin (2009) argues, such tendency can lead urban regeneration to applying the same idea in many cities around the world, with homogenization of built environments being the result. Particularly the rapidly developing Asian cities are in danger of losing their uniqueness. ➔



Cities are complex composites of neighborhood districts, open spaces, monuments all connected by infrastructure. A side effect of globalization of media and the affordances of new technology is that urban regeneration strategies for cities and neighborhoods across the world are becoming more and more similar. Especially, in historic urban neighborhoods local authorities tend to valorize historic structures as a tool for promoting tourism to deliver economic-oriented regeneration. Such efforts can bring about the physical transformation of whole neighborhoods without engaging with the local communities. This separation between places and people creates neighborhoods that are no longer functioning as livable places. David Lowenthal (1985) maintains that we need to continuously build a connection between present and past because it is not something that is given. In the same way, we need to construct a relationship between place and people. When the relationship discontinues, neighborhoods can lose accumulated culture that is embedded in them; accordingly, neighborhoods can undergo identity crisis. Here, the adaptive reuse of historic structures can play a vital role as a catalyst to {re}build the connection to the past and the social structure of local communities.



Against this background, this research explores one urban neighborhood in the historic town of Sawara, near Tokyo, which was severely damaged by the Great East Japan Earthquake of March 11 2011. In Sawara, community members, external experts and local authorities are working together to identify and preserve the local identity through the adaptive reuse of historic structures. By doing so, they try to find ways of local development through small-scale interventions. Instead of utilizing adaptive reuse merely for economically centered tourism, the communities seeks for strategies that will benefit everyone: from residents and neighbors to tourists and visitors. Constructing a sense of place and continuity, and creating new social capital is a low-tech variant of urban innovation that is no less important for resilient cities, than those solutions currently discussed in many of the technology-centered 'smart city conferences'. This research contributes therefore to filling the holes in economy and technology oriented urban regeneration approaches and gives historic preservation an important role in building social resilience. ■

About the Presenter ...

Jennifer Henriksen, AIA, is an Associate and Project Architect at Quinn Evans Architects. She has worked for Quinn Evans for 15 years. Her recent projects involve spending a lot of time in Detroit investigating conditions inside and outside of historic structures. Jennifer's expertise is in creating technical documents that protect historic fabric and meet the client's objectives for long service life. Jennifer sits on the Historic District Commission for the City of Ypsilanti, Michigan, has presented numerous times at Michigan's State Historic Preservation Network conferences and is active in the Eastern Great Lakes Chapter of the Association of Preservation Technology.

As Project Architect, Jennifer Henriksen prepared the technical bid documents and observed construction of the urban rehabilitation projects presented in this session. She was the primary contact during construction and managed the communications with the client. ■

Rehabilitation Projects Stimulate Growth within a Shrinking City: A Study of Selected Projects in Midtown Detroit

PRESENTED BY
Jennifer Henriksen, AIA

Detroit is undergoing a focused resurgence in redevelopment of its vacant and under-used buildings and sites, particularly in the Midtown section of Detroit along the spine of Woodward Avenue. This convergence of activity is the result of inspired leadership and entrepreneurial spirit, an investment of funds sufficient to accomplish the work, and the insatiable demand of diverse people who want to be part of the rebirth of the City.

Vacant buildings and sites in Midtown Detroit can easily be identified as "opportunities" waiting to happen, where the right mix of people and money, and patient navigation through the Detroit municipal system, can successfully convert these sites into vital centers of new activity. It is happening, and this presentation will illustrate by example the results of this ongoing work.

Newberry Hall, listed on the National Register of Historic Places, was constructed in 1898 as a nurses' dormitory and sat vacant for nearly 20 years prior to redevelopment. The rehabilitation balanced the restoration of the building's original details with energy efficient building system upgrades including geothermal heating and cooling. The resulting 28 apartment units address the projected residential needs of the neighborhood. ➔



The 71 East Garfield Artist's Lofts is a formerly vacant and fire damaged building that is now an anchor of Midtown Detroit's developing arts neighborhood. The design provides the building's artist residents with flexible studio/office space and contemporary live/work lofts. This program is a reaction to the building's location between art galleries to the north and the Museum of Contemporary Art Detroit to the south.

Lastly, rehabilitation of the historic Garden Theater epitomizes the result of one project stimulating change and investment all around it. The desire to renovate the theater resulted in a multi-phase project addressing the entire block. This block on Woodward Avenue now includes new construction, rehabilitation of historic buildings, and infill with mixed uses including the theater, restaurants, residential, office, and mercantile.

Ongoing work is occurring in this Midtown area of Detroit as built projects stimulate new interest and generate events attracting people to the area. Historic districts have been created based on the untold and obscure stories of people who used to inhabit these urban neighborhoods. This area is becoming a desirable place to live, with many older buildings being converted into upscale apartments and condominiums. Businesses are investing in the area, bringing in new jobs and workers, and service-oriented businesses to support them. Entertainment venues and the arts have long been a staple of the area, with numerous art galleries, museums, and theaters in a dense proximity that continues to improve the ultimate value of a neighborhood, its walkability and pedestrian experience. ■



About the Presenter ...

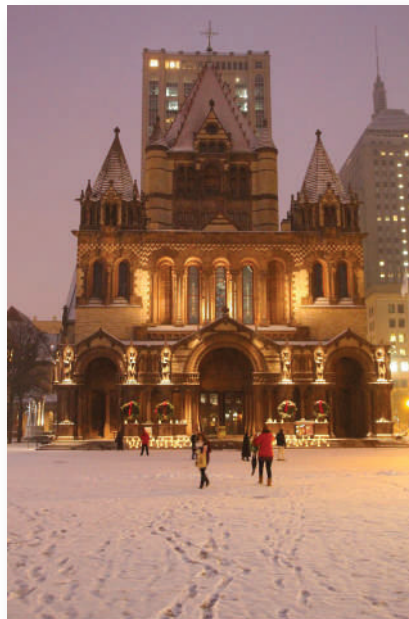
Jean Carroon, a Fellow in the American Institute of Architects, is a principal at Goody Clancy, a Boston based design and planning firm, where her innovative design solutions in a broad range of sectors—including educational, civic and cultural—have been recognized with four National Preservation Honor Awards. She led the partial renovation and expansion of H. H. Richardson's Trinity Church, which was completed in 2005 and lauded as “a symbol of all that historic preservation represents in the 21st century”, while creating a multi-purpose undercroft named the “Best New Space in Boston”.

Jean was the 2012 recipient of The Harley J. McKee Award. The award recognized her significant body of work as a preservation architect, and service as a pioneer in applying sustainable-design technologies to historic buildings. A former chair of the AIA Historic Resources Committee, she is the author of *Sustainable Preservation: Greening Existing Buildings* (John Wiley & Sons, 2010). ■

Trinity Church Tour: A National Historic Landmark

PRESENTED BY Jean Carroon

The two hour tour of Trinity Church, a National Historic Landmark designed by H. H. Richardson, will showcase the history, art and architecture of the building, including murals and stained glass windows by John La Farge. Jean will describe the planning and construction of the five year phased work which created 12,000 square feet of new space below the church, restored the interior and exterior of the tower and incorporated a new ground source heat pump system with 8,000 linear feet of geoechange in the heart of Copley Square. ■



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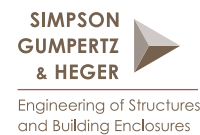
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