



May 21, 2016

Title: Preservation of Mid-Century Modern Building Materials

Venue: Central Lutheran Church  
1820 NE 21<sup>st</sup> Avenue  
Portland, Oregon

Date: Saturday, May 21, 2016

Format: Full-day Workshop – 10 to 3; 2 hours / lunch / 2 hours

Fee: \$50 plus (fee includes morning treats and lunch)  
\$20/ for students

Topics: History / Materials / Case Studies

### **WORKSHOP AT A GLANCE**

#### **Morning Session: 10:00am to 12:00pm**

- Tour of Central Lutheran Church
- History of Mid-century Modern Materials
- Plywood in the Mid-Century Modern Architecture
- Glue-Laminated Timber in the Western U.S.: Its Development, Failure Patterns, and Preservation Methods
- Means, Methods & Materials for Preserving / Restoring Mid Century Modern Concrete.
- Nondestructive Evaluation of Mid-Century Building

#### **Afternoon Session – 1:00 pm to 3:00 pm**

##### **Case Studies**

- Veteran Memorial Coliseum: The Challenges of a Mid-Century Modern Spectator and Events
- Case Studies: Interventions and Additions to Modern Seattle

##### **Panel Discussion**

- How important is it to retain original materials vs plan concepts? Moderated by Brian Rich, Principal, Richaven Sustainable Preservation
- How important is it to retain original materials vs plan concepts?

## SPEAKER BIOS AND SESSION DESCRIPTIONS

### **Morning Session: 10:00am to 12:00pm**

- **Tour of Central Lutheran Church – Hazel Larpenteur**
  - Bio: Long-time member and our resident expert on the building
  - Session: A tour of the major spaces within the church, primarily focusing on the main sanctuary.
  
- **History of Mid-century Modern Materials – Diana Painter, Oregon SHPO**
  - **Bio:** Diana J. Painter is the National Register Program Coordinator for the State of Oregon. Her former work includes historic preservation consulting throughout the western states with her firm Painter Preservation, positions as a public sector planner in the Pacific Northwest, and as an urban designer in private design firms in New York, Los Angeles, the Bay Area and Seattle. She holds a PhD in Architecture from the University of Sheffield and a MUP in Urban Planning and Certificate in Urban Design from the University of Washington. She has specialized in the history of the Modern Movement since her undergraduate days.
  - **Session Description:** The concepts behind modern building materials are as various as the styles and building types themselves. Some ideas, like structural honesty and truth to materials, grew out of concepts associated with the Arts and Crafts era and seen, for example, in the work of such New Deal programs as the Civilian Conservation Corps. Concepts in modern materials could taken to an extreme in the modern era, where the materials and structure or materials and expression were conceived as one, such as seen in Brutalism and New Formalism. Buildings in these styles can pose particular issues with respect to building repair. Other materials of the Modern era were conceived as temporary or with the ability to for substitution in the future, in part or in whole. Buildings representing these ideas about modern materials can pose special problems in application of the Secretary of Interior's Standards in rehabilitating historic properties. In this session we will talk about materials that came to the forefront in the modern era, the ideas about modernism that they represent, and some of the special problems they may pose as we attempt to preserve our modern architectural heritage.
  
- **Plywood in the Mid-Century Modern Architecture - Suzana Radivojevic, University of Oregon**
  - **Bio:** Dr. Suzana Radivojevic is a wood scientist with a private consulting practice in Eugene, Oregon. She specializes in research and training pertaining to the design, material characterization, and preservation of new and historic wood building materials. She has been teaching courses on architectural applications, pathology and conservation of wood in the Historic Preservation Program and in the Department of Architecture at the University of Oregon. She holds a Ph.D. from the University of Toronto, and a B.Sc.F.E. from the University of Belgrade in Serbia.



- **Session Description:** This workshop session will overview the early history and technological developments of plywood and will examine the applications of this novel architectural material by the architects in the Pacific Northwest prior to the 1960s. An emphasis will be placed on the discussion of the historic significance and conceptual approaches to preservation of these typical 20th century building materials. Practical methods and technologies for preservation of historic plywood will be discussed using examples from the existing mid-century buildings.
- **Glue-Laminated Timber in the Western U.S.: Its Development, Failure Patterns, and Preservation Methods, Rachelle Byarlay, University of Oregon**
  - **Bio:** Rachelle Byarlay's experience thus far has been focused around her interest in architecture, historic preservation, and building technology. She began her education completing a B.A. in Architectural Studies and History at the University of Washington in 2011. She later went on to the University of Oregon where she received her Masters of Architecture in 2015 and will complete her M.S. in Historic Preservation in June 2016 with a focus on preservation technology. It is through architecture and historic preservation that she seeks to contribute to the continued and responsible reuse of our existing buildings for stronger communities and a more sustainable future.
  - **Session Description:** Glue-laminated timber (glulam) is a structural building material manufactured by gluing layers of lumber to create one larger structural member. Glulam was introduced to the United States in the state of Wisconsin in 1934 from Germany and gained wider acceptance after World War II. Many extant glulam structures are now over 50 years-old and eligible for the National Register of Historic Places and their number will only continue to grow. As these resources age, the glulam can succumb to various forms of deterioration, however, the literature for its continued preservation is limited. This study investigates the history of glulam development and manufacturing, architectural applications, common deterioration patterns, and repair techniques. The objective of this study is to formulate a set of guidelines for glulam preservation that can be accessed by architects, preservationists, contractors, and building owners alike.
- **Means, Methods & Materials for Preserving / Restoring Mid Century Modern Concrete – John Lambert, President, Abstract Masonry Restoration, Inc.**
  - **Bio:** John Lambert, Founder of Abstract Masonry Restoration of Salt Lake City Utah and Boston Massachusetts, has successfully completed over 1600 masonry restoration projects throughout North America and abroad. His company celebrates over 28 years of preserving historic brick, stone, adobe, terra-cotta, stucco and concrete. John teaches the hands-on masonry restoration course at the Campbell Center for Historic Preservation Studies in Illinois - and has done so for 17 years. He frequently presents at state and national historic preservation conferences.

- His projects include Ralph Waldo Emerson’s Home, General Robert E. Lee’s Civil War Headquarters, Utah Governor’s Mansion Carriage House, St. Francis Cathedral Basilica in Santa Fe, New Mexico, multiple historic stone lighthouses lining the north west Pacific coast, a Whale Oil Merchant House on Nantucket Island, Mission San Juan Capistrano and Frank Lloyd Wright’s iconic masterpiece - Fallingwater.
- **Session Description:** Learn from the challenges and experiences while restoring cast-in-place concrete at Frank Lloyd Wright’s Fallingwater, and mid-century concrete buildings. The causes of historic concrete deterioration are explained. The means, methods, materials to properly protect, preserve and restore it are explored. The importance of a multi-disciplinary collaborate approach is emphasized.
- **Nondestructive Evaluation of Mid-Century Building Materials – Shan Wo, PE, Atkinson-Noland & Associates**
  - **Bio:** Ms. Wo is an engineer with Atkinson-Noland & Associates in Boulder, Colorado, a consulting firm specializing in evaluation and repair of masonry materials and structures, with projects around the world. Since joining the firm in 2003, she has worked on projects that involve the nondestructive evaluation of modern and historic structures, condition assessment of buildings, masonry repair and strengthening, construction administration, and laboratory research and testing.
  - **Session Description:** As built conditions are not always known in existing buildings and may be needed for repair, retrofit, or renovation. Information on structural framing, material properties, and architectural finishes can be investigated using nondestructive evaluation tools and techniques. Technologies to examine materials such as masonry, wood, metals, and concrete will be discussed in conjunction with representative case studies.

#### Afternoon Session – 1:00 pm to 3:00 pm

##### Case Studies

- **Veteran Memorial Coliseum: The Challenges of a Mid-Century Modern Spectator and Events Venue – Susan Hartnett, Spectator Facilities and Development Manager, Portland Office of Management and Finance**
  - **Bio:** Susan Hartnett has more than 25 years of experience in urban planning and development. Her career includes 20 years with City of Portland bureaus including planning, transportation, and water; she currently serves as the Spectator Facilities and Development Manager in the Office of Management and Finance. Susan has also worked for the City of Tigard and Oregon Heath & Science University. Susan earned her Bachelors of Science in Criminalistics from the University of Illinois and her Masters in Urban and Regional Planning from Portland State University and is an active member of the American Institute of Certified Planners.
  - **Session Description:** Did you know that many of the original Mid-Century Modern materials are still in service at the Veterans Memorial Coliseum? Learn what’s still

there and how these systems are – and are not – performing today. Hear about the challenges in maintaining them and the choices to be made for functional modernization of the building. The session will also touch on the recent study examining potential options for the building's future.

- **Interventions and Additions to Modern Seattle Landmarks – Susan Boyle, Principal, BOLA Architecture + Planning**
  - **Bio:** Susan Boyle, AIA, is a Seattle-based preservation architect and planner, and former member and chair of the Seattle Landmarks Preservation Board. Throughout her practice she has focused on civic projects as well as educational and community buildings, and has created opportunities for public involvement and exchange. In 1981 she and three recent University of Washington architecture school graduates co-founded the regional design journal, ARCADE, still published some 25 years later. Susan established Boyle Wagoner Architects with Bob Wagoner in 1983, and her current firm, BOLA Architecture + Planning, with Rhoda Lawrence in 2000.
  - **Session Description:** The presentation will evaluate additions to Seattle's Modern era public branch libraries. These buildings, all of which are designated local landmarks and one of which is a National Register property, were designed in the post-war decades as public library services were expanded to serve growing suburban areas. The buildings -- the 1954 Northeast Branch, designed by Paul Thiry; the 1964 Magnolia Branch, designed by Paul Hayden Kirk, and the 1965 Lake City Branch, designed by Jack Morse -- represent varied efforts by masterful northwest architects to fit the library program within specific landscaped sites and surrounding neighborhood contexts. Each building provided open reading rooms with ample daylight, distinct staff processing areas, public meeting and conference spaces, and outdoor reading areas. Original materials - steel and heavy timber framing, marblecrete panels, brick, and concrete -- were adeptly analyzed, extended and reinterpreted in recent additions, which were undertaken in the publically-funded "Libraries for All" capital campaign and completed in 2006-2008.

#### Panel Discussion

- **How important is it to retain original materials vs plan concepts? Moderated by Brian Rich, Principal, Richaven Sustainable Preservation**
  - **Bio:** Brian D. Rich, AIA, LEED BD+C, CCCA, PMP, is the Principal of Richaven PLLC, a Construction Manager at the University of Washington, and Instructor of ARCH 579 Technical Issues in Historic Preservation at the UW. Brian's thesis work at the UW focuses on future-proofing historic buildings. Brian is President of APT Northwest, past Chair of the King County Landmarks Commission and its Design Review Committee, and serves on the Washington State Heritage Barn Advisory Committee. Brian was recently selected as a member of the UW Husky 100, an honor celebrating UW students that are leaders both on- and off-campus.



- **Session Description:** In the current regulatory framework, the Secretary’s Standards require a focus on material conservation when applying one of the 4 Preservation Treatments to a designated historic building. These regulations are ingrained into the laws in thousands of independent jurisdictions across the country requiring monumental efforts to change anything. Preservationists focusing on Mid-Century Modern buildings argue that then intent of preserving a modern building is, often, less about materials than about the spaces and environments that they create and that many modern materials are experimental and not intended to be preserved. How then do we reconcile the need for guiding the design of interventions on Mid-Century Modern buildings with the current regulations? How can the current system be adjusted to accommodate new changes in approaches to preservation of cultural heritage?